

Warren A. Roberts

**STATE TAXATION
OF METALLIC
DEPOSITS**

HARVARD ECONOMIC STUDIES 77

\$4.50

STATE TAXATION OF METALLIC DEPOSITS

By WARREN A. ROBERTS

ALTHOUGH primarily a case study in public finance, this is the first book on mine taxation to give the background of the state laws, to analyze the reasons for the changes within various states, and to relate political and economic conditions to the differences in state mine-tax legislation. Mr. Roberts discusses some of the debated principles of mine taxation including the *ad valorem* tax, examines the aspects of mineral economics pertinent to the method of assessment and the weight of the tax, and shows the relation between the principles of taxation and the basic tenets of common law. He devotes a major portion of the study to the political history of certain mining states, particularly of Arizona, Minnesota, and Michigan. Most of this material is from original sources and has not been previously published.

Mr. Roberts, now on leave from Western Reserve University where he is associate professor of economics, has made a thorough study of mineral economics and mine taxation in the principal mining areas of the United States and has also acted as tax consultant to several state governments. He is at present a special assistant in the Department of State.

HARVARD UNIVERSITY PRESS
CAMBRIDGE 38, MASSACHUSETTS

HARVARD ECONOMIC STUDIES

1. The English Patents of Monopoly. By W. H. Price.
2. The Lodging House Problem in Boston. By Albert B. Wolfe.
3. The Stannaries: A Study of the English Tin Miner. By George R. Lewis.
4. Railroad Reorganization. By S. Daggett.
5. Wool-Growing and the Tariff. By C. W. Wright.
6. Public Ownership of Telephones on the Continent of Europe. By A. N. Holcombe.
7. The History of the British Post Office. By J. C. Hemmcon.
8. The Cotton Manufacturing Industry of the United States. By M. T. Copeland.
9. The History of the Grain Trade in France. By Abbott Payson Usher.
10. Corporate Promotions and Reorganizations. By A. S. Dewing.
11. The Anthracite Coal Combination in the United States. By Eliot Jones.
12. Some Aspects of the Tariff Question. By F. W. Taussig.
13. The Evolution of the English Corn Market from the Twelfth to the Eighteenth Century. By N. S. B. Gras.
14. Social Adaptation. By L. M. Bristol.
15. The Financial History of Boston, from May 1, 1822, to January 31, 1909. By C. P. Husc.
16. Essays in the Earlier History of American Corporations. By J. S. Davis. 2 vols.
17. The State Tax Commission. By H. L. Lutz.
18. The Early English Customs System. By N. S. B. Gras.
19. Trade and Navigation between Spain and the Indies in the Time of the Hapsburgs. By C. H. Haring.
20. The Italian Emigration of Our Times. By R. F. Foerster.
21. The Mesta. By Julius Klein.
22. Argentine International Trade under Inconvertible Paper Money: 1880-1900. By J. H. Williams.
23. The Organization of the Boot and Shoe Industry in Massachusetts before 1875. By Blanche E. Hazard.
24. Economic Motives. By Z. C. Dickinson.
25. Monetary Theory before Adam Smith. By Arthur E. Monroe.
26. Canada's Balance of International Indebtedness, 1900-1913. By Jacob Viner.
27. The History of the United States Post Office to the Year 1829. By W. E. Rich.
28. The Theory of International Prices. By James W. Angell.
29. Forests and Sea Power. By R. G. Albion.
30. Banking Theories in the United States before 1860. By Harry E. Miller.
31. Karl Marx's Interpretation of History. By Mandell Morton Bober.
32. Grain Growers' Cooperation in Western Canada. By Harald S. Patton.
33. The Assignats. By S. E. Harris.
34. Economic and Social History of an English Village. By N. S. B. Gras and E. C. Gras.
35. Direct Taxation in Austria. By John V. Van Sickle.
36. The Greenbacks and Resumption of Specie Payments, 1862-1879. By D. C. Barrett.
37. The Street Railway in Massachusetts. By Edward S. Mason.
38. The Theory of Monopolistic Competition. By Edward Chamberlin.
39. Interregional and International Trade. By Bertil Ohlin.
40. The French International Accounts, 1880-1913. By Harry D. White.
41. Twenty Years of Federal Reserve Policy. By S. E. Harris. 2 vols.
42. The Illinois Central Railroad and Its Colonization Work. By Paul W. Gates.
43. American Treasure and the Price Revolution in Spain, 1501-1650. By Earl J. Hamilton.
44. German Monetary Theory, 1905-1933. By Howard S. Ellis.
45. Wages in Eighteenth Century England. By Elizabeth W. Gilboy.
46. The Theory of Economic Development. By J. A. Schumpeter.
47. The Supply and Control of Money in the United States. By L. Currie.
48. British International Gold Movements and Banking Policy, 1881-1913. By W. E. Beach.
49. State Control of Local Finance in Massachusetts. By Royal S. Van de Woestyne.
50. Fluctuations in American Business, 1790-1860. By Walter B. Smith and Arthur H. Cole.
51. Money, Prices, and Wages in Valencia, Aragon, and Navarre, 1351-1500. By Earl J. Hamilton.
52. The Development of the Business Corporation in England, 1800-1867. By B. C. Hunt.
53. Exchange Depreciation. By S. E. Harris.
54. A Study of Fluid Milk Prices. By J. M. Cassels.
55. Location Theory and the Shoe and Leather Industries. By Edgar M. Hoover, Jr.
56. Federal Subsidies to the Provincial Governments in Canada. By J. A. Maxwell.
57. Studies in Massachusetts Town Finance. By Eugene E. Oakes.
58. Market Control in the Aluminum Industry. By Donald H. Wallace.
59. The New York Bond Market, 1920-1930. By Charles Cortez Abbott.
60. The Commercial Paper House in the United States. By Albert O. Gref.
61. The Middlesex Canal, 1793-1860. By Christopher Roberts.
62. Fascist Economic Policy. By W. G. Welk.
63. Monopoly and Competition in the English Coal Trade, 1550-1850. By Paul M. Sweezy.
64. English Theories of Central Banking Control, 1819-1858. By Elmer Wood.
65. Politics, Finance, and Consequences. By Charles Jesse Bullock.
66. German Financial Policies, 1932-1939. By Kenyon E. Poole.
67. Monopolistic Competition and General Equilibrium Theory. By Robert Triffin.
68. The Newsprint Paper Industry, An Economic Analysis. By John A. Guthrie.
69. Exchange Control in Central Europe. By Howard S. Ellis.
70. The American Carpet Manufacture. By A. H. Cole and H. F. Williamson.
71. The American Maritime Industries and Public Policy, 1789-1914. By John G. B. Hutchins.
72. The Creation of Purchasing Power. By David McCord Wright.
73. Economic Fluctuations in the United States. By Edwin Frickey.
74. Western Prices Before 1861. By Thomas Senior Berry.
75. The Early History of Deposit Banking in Mediterranean Europe. By Abbott Payson Usher.
76. The Structure of Soviet Wages. By Abram Bergson.

HARVARD ECONOMIC STUDIES

VOLUME LXXVII

THE STUDIES IN THIS SERIES ARE PUBLISHED BY THE DEPARTMENT OF
ECONOMICS OF HARVARD UNIVERSITY, WHICH, HOWEVER, ASSUMES
NO RESPONSIBILITY FOR THE VIEWS EXPRESSED

LONDON : HUMPHREY MILFORD

OXFORD UNIVERSITY PRESS

STATE TAXATION OF METALLIC DEPOSITS

BY

WARREN ALDRICH ROBERTS

ASSOCIATE PROFESSOR OF ECONOMICS
WESTERN RESERVE UNIVERSITY



CAMBRIDGE, MASSACHUSETTS
HARVARD UNIVERSITY PRESS

1944

COPYRIGHT, 1944
BY THE PRESIDENT AND FELLOWS OF HARVARD COLLEGE

PRINTED AT THE HARVARD UNIVERSITY PRINTING OFFICE
CAMBRIDGE, MASSACHUSETTS, U.S.A.

For

HAROLD HITCHINGS BURBANK

PREFACE

THIS is a case study and, as such, must deal with widely divergent topics: with the histories of the several states, with the theory of democratic government, with mineral economics, and with the specific problem of mine valuation. In a sense the result has, of necessity, been a series of separate studies, and few readers will find the various topics to be of uniform interest. In another sense, however, the study is tied together by two related threads of thought: by the technical theory of mine appraisal and taxation, and by the larger problem of political science. Even the state histories supplement each other. In no one state was there available in quotable form the information necessary to demonstrate the many facets of political pressure, but, taken together, the events in one state supplement those in another, and, unified by the general principles described in Part I, illustrate the basic relationship between political science and public finance. Because the problems of government have seemed to be the most important elements in this study, the choice of states has been influenced by the availability of material on pertinent political history, as well as by the existence of large ore deposits.

The source data used in a case study such as this do not gain value by arrangement in a bibliography, and none has been attempted.

Some of the material on the western states was collected several years ago, and a generous grant by the John Simon Guggenheim Memorial Foundation, in 1940, made it possible to examine the records in the mining states and to converse with those familiar with local affairs. The author is indebted, besides, to hundreds of individuals and a dozen historical libraries, and is warmly grateful to all those sympathetic persons who lent their memories and enthusiasm to this study. In particular he is indebted to Professor Donald G. Barnes, of West-

ern Reserve University, and to O. E. Kiessling, of the Bureau of Census, who read and criticized parts of the manuscript. He was assisted, too, by Julius Wendzel and Elliot Janney, who lent the stimulation of many an hour's discussion to the development of some of the principles in this book. The author extends his thanks, also, to Frank G. Pardee, without whose generous tutelage this undertaking would have been much more difficult.

He is especially appreciative of the patience of his wife and family during the progress of the manuscript.

Material for Chapter I was taken from a paper presented at the National Tax Conference, 1941, and is reproduced here by permission of the National Tax Association. Material for Chapter III was taken from an article published in the *Journal of Land & Public Utility Economics* (February 1939), pp. 21-29, and is used here by permission of the publisher.

The study was completed in 1941 and is intended to cover only material available at the end of that year.

WARREN ROBERTS

CLEVELAND, OHIO
JANUARY 10, 1944

CONTENTS

PART I

THE PRINCIPLES INVOLVED

I. THEORY OF AD VALOREM TAXATION	3
The nature of the debate. Basis of the property tax. Unique characteristics of mineral deposits. Methods of state taxation. Significance of the study of mine taxation.	
II. THE HOSKOLD FORMULA	15
The rate of discount and the rate of interest. The dispute between engineers. Conclusion of economic theory. The state attempts to understand engineering customs. The use of a "range life" in valuation. The interest rate an inadequate tool for the measurement of risks.	
III. THE ECONOMICS OF MINERAL DEPOSITS	27
The problem of definition. The economic basis of mine value. Debate between Marshall and Taussig. Distinction between depletion and diminishing returns. Limitations to speed of extraction. Some bases of economic rent of mines. Natural inclination toward overcapacity. Distinction between capital investment, capitalization of mine rent, and capitalization of earnings of management. The matter of state policy.	
IV. THE PROBLEM OF POLITICAL EQUILIBRIUM	42
The economist's reasons for interest in political forces. Some elements in political balance illustrated by variation in mine taxes between states. Application of the marginal analysis. Elements of political power. Limitations to gain from high taxation. Some characteristics of the equilibrium. The relation between uniformity, certainty, and simplicity.	

PART II

STATES WITH OTHER THAN THE AD VALOREM TAX

V. THE EARLY WESTERN PROSPECTORS	65
Debate over title to the deposits. Foundations of mine law. Congressional debate over disposal of mineral lands. Early state and territorial tax laws. California, Montana, Nevada, Idaho. Arizona. The Chinese tax in California. In Idaho. In Montana. The "countless villains" in California.	
VI. NEVADA	82
The property tax on deposits never self-imposed. Territorial taxation. Reasons for early statehood. Debate over mine taxation. Methods of taxation often a compromise between mining companies. Forbes vs. Gracey. Efforts to correct	

	administrative weaknesses of yield tax. Reform legislation of 1912. History of the yield of the tax.	
VII.	UTAH	101
	Early attitude of the territory toward mining. Administrative problems. Demand for full cash valuation. Increase in taxation during war boom. Collapse of the yield during the depression. Debate over the ad valorem tax. Occupation tax. Utah a leader in administrative methods.	
VIII.	IDAHO	115
	Relation of taxation to character of the population. Agrarian drive on the mines, Salisbury vs. Lane. The Shoshone County assessment. Net proceeds tax. Net profits tax of 1935.	
IX.	MONTANA	126
	Transition from placer to quartz mining. Constitutional convention of 1889. Attack on the Amalgamated Copper Company. Lewis Lorwin. Governor Joseph M. Dixon and the agrarian movement. The campaign of 1924.	
X.	LOUISIANA AND ARKANSAS	145
	Louisiana severance tax of 1922. Huey Pierce Long. Educational program in Arkansas. Bauxite tax. Reduction of the tax.	
XI.	SOUTH DAKOTA	151
	Homestake's good neighbor policy. Advantages and disadvantages of the character of the deposit. Increase in state taxes after 1935.	
XII.	COLORADO: TERRITORY AND EARLY STATEHOOD	156
	Outline of mine history. Constitution of 1876 and the Lake County tax. The campaign of 1882. Gross proceeds tax of 1887. Demand for full cash valuations. Revolt of the mining counties. General underassessment.	
XIII.	COLORADO: THE CASE OF CLIMAX MOLYBDENUM	169
	Prewar tax reform movement. Reduction of mine tax. The tax commission on the defensive. State vs. local control of mine assessments. Reassessment of Climax Molybdenum. Defense of the company. Political pressures after 1939.	

PART III

STATES WITH THE AD VALOREM TAX

XIV.	ARIZONA: THE EARLY TERRITORY	189
	Importance of Arizona in mine tax history. The law of 1875. Repeal in 1881. Politics in Tombstone. The beloved capitalist.	
XV.	ARIZONA: THE LAW OF 1907	207
	Growth of the Arizona mines. Increasing demand for heavier taxation. Revaluation of the Copper Queen, 1901. Terri-	

	torial assessment under Governor Kibbey, 1905. Passage of the Doran bill, 1907. Unpopularity of the law.	
XVI.	ARIZONA: THE CONSTITUTIONAL CON- VENTION	223
	The law of diminishing returns. The moral issue. The struggle to acquire statehood. Comparison with Montana. George W. P. Hunt and C. M. Zander. Political background of the convention. Liberal provisions in the constitution. Inadequacy of the constitution as a reform measure.	
XVII.	ARIZONA: THE STATE MINE TAX	237
	The tax and the commission. Assessment of 1912. Proposed substitutes for the ad valorem tax. Deadlock in the 1913 session. The compromise tax and commission bills. Debate in the National Tax Association. Establishment of the ad valorem tax.	
XVIII.	ARIZONA: CONSEQUENCES OF THE REVO- LUTION	259
	Methods of valuation. Attempt at full cash valuations. The commission proceeds under several advantages. The commission comes at last to farm and urban real estate. Small taxpayers refuse the increase. Effect of increased tax base on expenditures. Cumulative reduction in assessments after 1929. Futile session of 1937.	
XIX.	NEW MEXICO	275
	Encouragements to capital. Reforms of 1913, 1915, and the tax commission. Mine tax law of 1915 a compromise between mining companies. Assessments of 1919 and 1920. Special Revenue Commission of 1920. Finlay survey and valuation. Gradual reversion to prewar tax methods.	
XX.	ALABAMA	287
	The founding of Birmingham. Encouragement of capital. Change of sentiment during the war boom. Educational program of Governor Bibb Graves, tax of 1927. Administrative problems. Assessment by J. R. Pill. Reduction of privilege tax in 1935.	
XXI.	MICHIGAN: THE AD VALOREM TAX	296
	The uncertainty of special revenue measures. Reform movement of 1890. The general property tax placed on mines, 1891. Hazen S. Pingree. Effect of the ad valorem tax on mines. Personal attacks on the Governor. Administrative problems of valuation. Request for full cash valuations for all property.	
XXII.	MICHIGAN: ADMINISTRATION OF THE MINES TAX	312
	Finlay appraisal of 1911. Cleveland Cliffs Co. vs. Republic Township. Advantages of the tax program in Michigan. Interest rates of "6 and 6." Nuances of valuation in Michigan. The problem of mine depletion. Assessment on basis of community needs. The tax system not used for redistribution of income.	

XXIII.	MINNESOTA: EARLY HISTORY	323
	First developments of ore and encouragement of capital. Change of sentiment during the nineties. Inadequacies of the amendment of 1895. The attack on the mines after 1905. Effect of the House Committee hearings and "Hill Lease." Governor John A. Johnson. The tax commission a compromise measure. The session of 1909. Revaluations by the tax commission. Reasons for the classification law of 1913.	
XXIV.	MINNESOTA: VICTOR POWER	342
	The mine manager, a benevolent dictator. The rise of Victor Power an exception to the general rule. Mrs. Lizzie Hukari Liend. Hibbing election of 1913. Efforts to modify local politics by state legislation. Effects on village morale. Local expenditures in the mining region. Limited enjoyment of these expenditures. Decline of valuations during the depression.	
XXV.	MINNESOTA: THE OCCUPATION TAX	354
	Drive for state participation in mine taxation. The Non-partisan League. Occupation tax of 1921. <i>Minnesota vs. Oliver Iron Mining Company, et al.</i> , 1934. Relation of mine to farm rates of assessment.	
XXVI.	MINNESOTA: THE INTERIM COMMISSION	363
	Comparative tax burdens in cents per ton. Relative position of steel mill centers. Municipal expenditures on the range. The problem of technological unemployment. Legislation of 1941. The Taconite bill.	
XXVII.	CONCLUSION	376
	The function of the advisor in public finance. Economic and political equilibrium. Mines tax has taken only part of the economic rent. Heavier share of profits paid out by mines in Michigan and Minnesota. Little evidence of state policy, other than an attempt to redistribute income. The burden of proof.	
APPENDIX I		391
APPENDIX II		394

TABLES

1. Variation in the Taxation of Mineral Deposits	48
2. The Burden of Taxation on the Mines in Storey County .	90
3. Nevada Assessment (in thousands of dollars)	99
4. Gold, Silver, Copper, Lead, and Zinc Produced in Colorado, 1858-1925, by Years in Terms of Recovered Metals	158
5. Arizona Metal Production, Amount of Major Metals, 1858-1899	190
6. Production of Copper in Michigan, 1845-1938	297
7. Iron Ore Shipments from Michigan Mines, 1854-1938 .	298
8. Copper Valuations as of January 1st (From records in the Department of Conservation)	314
9. Minnesota Iron Ore Production	324
10. Limitations on Taxes (Except Special Assessments for Local Improvements on Property Specially Benefited Thereby)	374

CHARTS

1. Arizona: Net Property Valuations, 1903-1939 265
2. Total Taxes Levied on Minnesota Iron Ores 373
3. Distribution of Value at Lake Erie, 5-year Average, Michigan Iron Ores 382
4. Percentage Distribution of Value at Lake Erie, 5-year Average, Michigan Iron Ores 383
5. Distribution of Value at Lake Erie, 5-year Average, Minnesota Iron Ores 384
6. Percentage of Distribution of Value at Lake Erie, 5-year Average, Minnesota Iron Ores 385

PART I
THE PRINCIPLES INVOLVED

CHAPTER I

THEORY OF AD VALOREM TAXATION

THE most obvious characteristic of the debate on the subject of mine taxation is the clear-cut and continuous difference of opinion over the use of the property tax on mineral deposits. Almost without exception the important studies of mine taxation have endorsed this ad valorem method,¹ and with the same unanimity mining companies have opposed it. In most studies the attitude of the mining companies has been dismissed, directly or by inference, as merely an indication of the unwillingness of large corporations to bear their civic obligations, though on the face of it a confirmed repugnance on the part of any body of taxpayers to a given method of taxation deserves serious consideration. The history of all isolated mining communities indicates, moreover, that a democracy of miners would not, of its own volition, adopt this method of apportioning the costs of government.

The debate over the ad valorem tax is usually confused by the fact that the public must consider two issues at once — the height of the tax and the means of assessment; for of the various methods of mine assessment now in use, that of property valuation produces the highest tax base and therefore the most state revenue. In Michigan, Montana, Arizona, and New Mexico the demand for the ad valorem tax on mines was identical with the demand for higher mine taxes, and the natural inclination of a political body toward uniformity in revenue measures was used in the latter states to extract from the mining companies more revenue than they could have been compelled to pay

¹ *Report of the New Mexico Special Revenue Commission*, Santa Fe, New Mexico, November 23, 1920 (The Santa Fe, New Mexico, Publishing Corporation); Louis Levine, *The Taxation of Mines in Montana* (New York: Heubsch, 1919); L. E. Young, *Mine Taxation in the United States* (1917); "Report of the Committee on Taxation of Mines and Mineral Lands," C. M. Zander, chairman, *Proceedings National Tax Association*, 1913, p. 387.

under a special production tax. Upon the matter of the height of the tax this chapter will have a few observations, but most of the attention will be given to the technical question of the extent to which mineral deposits are identical with other forms of property and demand taxation in the same manner.²

It will be the thesis of this and the following chapter that the differences between mineral deposits and other forms of property are so fundamental as to lessen the significance of the principle of uniformity in the tax base. In Arizona, Michigan, and New Mexico the formal adoption of the ad valorem tax has been of considerable political value because, somewhat by coincidence, it placed upon the mining companies a tax only slightly higher than the balance of pressure groups would have demanded without such uniformity, and the uniformity itself gave additional satisfaction to the community. Yet, because of the economic differences in the tax base, the uniformity was more apparent than real. To maintain the thesis that there is no purely economic reason for insistence upon identical methods of assessment and taxation, for mining and non-mining property, ground will be shifted somewhat from the position which mine representatives have unsuccessfully tried to defend during the last fifty years of debate. The vulnerability of the conventional arguments against the use of the property tax on mineral deposits has been amply evident in the arguments presented by Zander, Haig, and Lorwin, described in the chapters dealing with Arizona, New Mexico and Montana, but there is more to the mines' case than appears in the debate. A restatement of the problem will serve, at the same time, as a vehicle for the depiction of some of the elements in mineral economics.

It should be borne in mind that the property tax is one of the endless compromises necessary to democratic government. Such a tax is acceptable because property in a rural community gives a rough measure both of benefit from government

² The matter of uniformity is discussed at length in Chapter IV. Deposits are taxed on their value in Michigan, Arizona, New Mexico, Kansas, Wisconsin, Alabama; on some legally defined stage of income in Nevada, Utah, Idaho, Montana, Colorado, Oklahoma. Minnesota uses both methods. See Chapter IV.

and ability to pay, and because the income therefrom fluctuates only moderately more than the value of the property, so that the tax, measured on that base, can normally be paid out of income. The sales value of a farm, moreover, can be determined with an acceptable degree of definiteness. In none of these respects are mineral deposits on a parallel with farm land. They do not bear the same relation either to the benefit from government or to the need of the community for revenue, and deposits are not subject to the same type of valuation.

The significance of the difficulties involved in mine appraisal lies in the political as well as in the engineering and narrowly economic field. While it is true that, as the committee of the National Tax Association suggested,³ mines could be assessed conservatively for purposes of taxation, neglecting the "possible" ores and discounting future profits heavily for adverse market conditions and the multifarious risks of mining operations, the fact is that in states dominated by non-mining elements, and where the values of mines are still relatively high, conservative assessments have been politically impracticable. The principal academic argument in favor of the ad valorem tax is the certainty which comes from a uniform code of law taxing all property in the same manner. But under the ad valorem tax the mines face a new uncertainty, in that their values are debatable and they therefore find little protection against arbitrary assessments. Added to the cost of court appeal is the fact that they must bear the burden of proving the assessment wilfully arbitrary, and the uncertainties connected with mining operations not only allow the courts a wider margin of doubt but make it difficult to demonstrate that the assessor was arbitrarily discriminatory rather than excusably confused. If, as in Arizona, the ad valorem tax is imposed upon the mines as a conclusion to an intense and bitter campaign, the proven strength of the non-mining groups will compel the assessing officers to avoid those careful and conservative valuations which mining engineers had maintained to be possible.

Whatever may have been their contributions to more exact

³ Below, Chapter XVII.

tax administration, tax commissions have quite often had their origin as weapons of an aggressive political pressure group. Such was the lusty inception of the tax commissions of Michigan, Minnesota, Arizona, New Mexico, Nevada, Colorado, Utah, and Montana. Further study of state histories would doubtless lengthen the list. These commissions were the product of political contests over the distribution of the tax burden between rural and corporate groups, and were established as an addition to or in lieu of the tax measures which the majority sought to place upon corporate capital or income therefrom. To a greater or less extent they owed their existence to a dissatisfied farm element, and in varying degrees, therefore, they have been political rather than administrative bodies. Arizona was long the outstanding example of the administrative weakness and political strength of an elective tax commission with a direct and unmistakable mandate from the agrarian bloc.

It is significant that of the states which profess to use the ad valorem method for assessing metallic deposits — Arizona, New Mexico, California, Kansas, Missouri, Alabama, Minnesota, Wisconsin, and Michigan — only the last two have customarily employed engineers to make the necessary appraisals. Most of those states have in some brief political or economic crisis called in an engineer, and occasionally have used the resulting valuations. New Mexico, for example, followed Finlay's valuations religiously long after they could have been accurate,⁴ but Arizona largely ignored them. Few states have followed a system of conscientious yearly revaluation.

The reasons for failure to hire qualified appraisers have been various. C. M. Zander, leader of the Granger Movement in Arizona, held that because a mining engineer must depend, in the long run, upon employment by mining companies, he cannot be impartial when employed by the state. There are many indications that such is, indeed, apt to be the case, though it can scarcely be charged that mining engineers are more likely to underassess mines than are county officers to undervalue the property within their province. In other states, where mine

⁴ Below, Chapter XIX.

owners are better represented and mines are assessed by debate with the tax commission, the final valuation may be so low that the mining companies would lose, rather than gain, if technical appraisers were employed by the state. It follows, as a general conclusion, therefore, that the group in power, whether mining or non-mining, only occasionally gains an advantage by employment of engineers for mine assessment.

An essential characteristic of a tax base is that it be definite, as a sale price is definite. The acceptability of the property tax in a rural community rests largely on the fact that the assessor can reason roughly from actual sales values of farms to the probable sales prices of other farms, and the property owner can check this reasoning without too much expense. The greater the proportion of farms sold, the more definite the assessment base, and there has been a rather continuous market for farms in this country. But it would be difficult to imagine a farm assessor estimating future costs and prices for farm products and calculating by formula the present worth of the anticipated future profit. The very formula would stagger him. The valuation given to a mine by an engineer is not a sales price and is not a definite and incontrovertible sum. In every purchase of a mine there is an additional matter of judgment — judgment of future prices of ore, of future costs of mining, and even judgment of the judgment of the engineer. Present worth, as calculated by the engineer, is the value of a mine only if it is bought at that figure, and it approaches true value only to the extent that it allows the relation of this mine to comparable mines recently sold. But in many areas mineral deposits lack uniformity in character, and in other areas sales are infrequent, in the iron mining districts even the sales of ore are few. The engineer's evidence in such a circumstance is still "the best evidence" of what the property might bring, but it does not have the certainty of a sales price.

The only honest and satisfactory method of mine assessment is by an engineer on some such permanent appointment, as in Michigan. The fact that in spite of the overwhelming technical difficulties in the way of lay assessment of mines and surface

improvements most other states leave mine valuation to those unfamiliar with mining, makes it clear that what pretends to be uniformity in revenue measures actually is not.

Another inherent peculiarity of an ore valuation as a tax base lies in the fact that the life of the deposit is limited in time. From the history of the subject we can draw three illustrations. In southeastern Kansas, where a portion of the "tri-state" zinc deposits lies just under the surface of the farm land, it is customary for companies to lease the right to mine from the farm owners, and to pay a sort of crop rental in a percentage of the value of the ore mined. But while the farmers obviously have a valuable property right in such deposits years before they are utilized, few farmers have the capital required to pay a tax on these anticipated net earnings, and it is not customary to assess them on the property value until the mines commence operation. The difficulty, of course, is not insurmountable. To give each of these deposits a "range life" and to tax them accordingly would drive them into the hands of the mining companies, under what would doubtless be a "buyer's market." But the precise outcome of such a tax program is difficult to forecast, and it is sufficient to point out that while a farm is assessed on the present worth of future income, it is expected that the tax itself will be paid out of present income. Where for long periods of time, before the operation of the property, there is no income, the system loses some of its merit.

Also illustrating the peculiarities of ore deposits as a property tax base is the fact that toward the end of the mining operation there is little of value left to tax. For many years, in the state of Michigan, some of the older mines have been operating with just sufficient income to pay the direct costs and the most necessary overhead expenses. By the calculations of mining engineers the "present worth" of these ore deposits to any buyer would be almost nil, and the equipment of such a mine has only scrap value. A reasonable approach to a situation of this sort is that taken by the mine owners who agree with the assessor that a certain requisite minimum of local and state taxes is a part of the cost of doing business, and who

thus assess themselves. But an equally scientific method would be to accept taxes as a part of cost, and, as is done in many western states, to use some combination of gross and net production as a tax base. The breakdown of the ad valorem system toward the end of the mining operation is inherent in the nature of mining property.

Finally, high per capita expenditures in the municipalities of the Mesabi Range show a tendency to remain high, regardless of the steady depletion of the deposits, and unless the state intervenes might eventually raise the marginal cost of ore and affect the competitive position of the Minnesota mines.

The disappearance of taxable value at the end of the life of the mine is directly related to the extremely high value earlier in its life, and to the high value of competition properties which operate profitably after this mine has become submarginal. If the deposit of this first mine had been inexhaustible, a larger plant could have been built, more ore would have been thrown upon the market in any one year, the price, if left to competition, would have fallen, and so would the net rent of the mine. The net rent of the mine during its heyday was higher because its life, and the life of competitive deposits, was limited.⁵

It follows that in an old country, where the bonanzas have been exhausted, and no more changes in transportation or market conditions take place, the price will be such as to keep the deep mines operating in competition with those which have poorer but more accessible ore. The mining industry, at such a period, will be much as Alfred Marshall described it, and will produce no net rent. But these Michigan copper and iron mines have too much new competition, and the price is not sufficiently high to allow profitable operation at their present depth. Their taxable value, therefore, is transferred to the younger mines. One of the most striking characteristics of the mining industry is the fact that while some mining communities, such as the copper-mining towns of Michigan, are in dire

⁵ This is not to say that the limited life of the deposit is the only factor bringing about a high valuation to the mines, for differences in location or cost of operation, combined with physical obstructions to rapid extraction, may produce a differential rent. Below, Chapter III.

poverty, others, such as those at the Utah Copper Company, are models of village organization. Inasmuch as the poverty of the one is due to the low costs of the other, and the prosperity of the other due to the high costs of the one, there is something to be said for the New Deal effort to bestow upon some of the older mining communities, in the form of relief, some of the revenue it collects from the more profitable mines, even though the problem of what should be done to adjust the population of a mining community is not solved in this fashion. Inasmuch, also, as the high value of any young deposit is due to a high price of ore, which, in turn, springs partially from the short life of this very mine,⁶ a state which undertakes to share in the early surplus may logically lend aid when the mine becomes a submarginal producer.

There can be no conclusion but that a property tax is less applicable to mining than to farming or urban property, because of the difficulty of administration and because of the failure of the value of a mineral deposit to form a reasonably stable and healthy tax base either before, during, or at the end of its period of exploitation.

A third disadvantage of the ad valorem tax lies in the character of ore deposits as property. It is not just that (as C. F. Kelley argued in Montana) the deposits are under the ground. The real difference is that most other taxable property is composed of used and useful capital, apportioned like the tools of labor with rough equality throughout the population. Where the tax is not on capital goods but on economic rent of land, as in large urban centers, the people upon whom the tax is spent are the very ones whose concentration in the vicinity caused the rise in rents. Thus, in most cases, a tax base consisting of invested capital or land is apportioned roughly according to the need for public services, and the use of that tax base allows the revenue system to fulfill its primary purpose — that of determining the scope of government activity.

The history of mine taxation emphasizes by contrast this characteristic of a revenue system, for minerals are apt to be

⁶ Below, Chapter III.

found in areas otherwise unpopulated, and, as a tax base for a relatively small community, there may thus be a store of wealth of fabulous proportions. The community will feel free to tax the capitalization of its net rent, a rent which springs not just from the pressure of population immediately adjacent to the mine, but from all direct and indirect consumers of ore. The case of Hibbing, Minnesota, suggests the possibility that a community might establish itself over such an ore body and exact sufficient taxes to support itself without productive economic activity. Only the competitive pressure of new immigrants, endeavoring in their turn to seize this opportunity, would tend to level individual incomes, and this would not be a healthy solution to the problem.

As protection against this and other dangers, a mining camp is therefore not usually a pure democracy, established and dominated by the employees. In most cases the mining company takes upon itself the duty of building the townsite, of policing the streets, of providing the public utilities and even, as in the case of the Nevada Consolidated, of guaranteeing an adequate supply of milk. Roads, bridges, and schools are recognized to be necessary adjuncts to the life of the town and the company expects to pay taxes necessary to support them. By various economic pressures upon the employees and upon the merchants who sell to the employees, as well as upon legislative bodies, the company attempts to avoid paying more. If it could not exert such pressure, the peculiarities of the ad valorem tax on mineral deposits would be even clearer, for in every mining locality the entire economic rent would be consumed by the states and municipalities within which these deposits lay.

If the tax were on the machinery and invested capital of the mines and the real property of the mining community, the result would be much more like that in a large city. The normal balance in government expenditure could be achieved equally well by including the mineral wealth in a nation-wide assessment district. But when the principle of taxation according to benefit is too completely discarded, the voters can no longer

balance the marginal gain from public expenditures with the marginal cost of their taxes. When a community reaches a condition like that in Hibbing, the machinery of democracy breaks down, because the power of the majority tends to grow cumulatively, rather than, as in most areas, to run against the law of increasing costs. Just as the state government prevents the Oliver Iron Mining Company from defending itself by force of arms from confiscation, so it may limit public expenditures by state statute. The political balance in the larger political body often modifies the policies of the smaller communities, as the state histories hereafter will indicate.

This is not an effort to establish the doctrine of taxation according to benefit, but only to say that one of the primary functions of a tax system is to determine the scope of governmental activity, and the tax can diverge so far from benefit as to fail in this function.

To this point this chapter has maintained the thesis that mines are materially different from other types of property and therefore can well be taxed on some basis other than the property tax. The differences, specifically, are three: the technical difficulty of appraisal, leading to political uncertainty; the peculiar problems brought about by the limitation in the life of the deposit; and the unique position of mineral deposits, as a type of property, within the system of political economy. The universal failure of states to enforce the *ad valorem* tax rests on these peculiarities of the metal deposits.

It will be pointed out in a later chapter that some of the difficulties found in the taxation of valuable metals disappear in the taxation of such deposits as coal, where much of the sale value depends on the capital investment. The shafts, machinery, and mills in and about the mine furnish a more conventional base than does the ore itself, for invested capital has always been taxed to aid in the support of the community around it. The rent of mines, on the other hand, springs from the impact of national demand upon a national scarcity of such deposits. The difficulties will shrink, however, to the extent that metals find a ready market and, still more, if the deposits

themselves are somewhat homogeneous and are frequently sold. The tendency in iron and copper, unfortunately, is away from this condition, for mines are sold with decreasing frequency and the growing integration of the industry lessens the sales of ore. In Birmingham, Alabama, for instance, where there have been only two engineering assessments of mineral deposits, sales of ore or deposits are becoming increasingly infrequent.

The exact methods used to tax mines in the United States will be discussed in the history which follows, but the conclusion both of history and of theory must be that the first criterion of assessment is certainty, and the most certain method in one type of deposit and political environment is less certain in another. The property tax has been used most frequently on iron and copper deposits⁷ as in Minnesota, Michigan, Wisconsin, Alabama, Arizona, and New Mexico. California has the ad valorem tax on the statute books but apparently does not apply it to deposits. Kansas falls in the same list, but, as already indicated, applies the tax quite arbitrarily against zinc mines. Other states, such as Montana, Idaho, Nevada, Utah, and Colorado, producing lead, copper, zinc, silver, gold, and other scarce metallics difficult to appraise, use some arbitrary derivative of gross or net income plus the value of surface improvements as the tax base.

Indeed, if it could be concluded unquestionably that mines should be taxed by the ad valorem system, a study of the problem would be far less significant to the student of public finance. The real significance of the story of mine taxation lies in the fact that within each of these states there are natural resources of high value, with an economic rent in the true Marshallian sense of the word, owned by non-residents with no direct participation in local government. Under the democratic system the tax must in such an instance correspond either to some principle of uniformity, as directed by the constitution or by public opinion, or to the direct pressure of political forces. Inasmuch as the principle of uniformity was in fact

⁷ As well as on non-metallic deposits.

of secondary importance, because the deposits were themselves an unusual form of property, there is here revealed a series of case studies in democratic government. The student of public finance may honor the best traditions of the historical school and turn to an examination of the reasons why tax laws are as they are. The conditions for such a study are nearly ideal, in that while the outcome in each case has depended on a struggle between pressure groups using widely different tools of representation, the character of the participants and the nature of the prize varies slightly from state to state. In each political arena there is a variation of the same picture of the efforts of a minority to protect its wealth from capture by a majority.

To understand the nature of this contest the observer should be conversant with two general fields: first, he should have some knowledge of the economics of mining, and a brief survey of some pertinent aspects of the subject will be given in Chapters II and III; and, secondly, he should have some working knowledge of the science of pressure group activity, as outlined in Chapter IV. The student of public finance is much in need of a method of approach to the field of causation in law, for his canons of taxation or "characteristics of a good tax system" are useful primarily as classifications of the motives and desires of the people. The desire for certainty conflicts with the desire for equity, and both of these, however they may be defined, with the desire for economy, so that the specific application of rules to any given problem must always be indeterminate. "Th' Supreme Court follows th' illiction returns," said Mr. Dooley,⁸ and so, to some considerable degree, must the student of public finance. The principles of taxation are only part of the general rules of common law, with their roots in the basic convictions of society.

⁸ Elmer Ellis, *Mr. Dooley's America* (New York: Alfred A. Knopf, 1941), p. 162.

CHAPTER II

THE HOSKOLD FORMULA

THE HOSKOLD FORMULA is a device used frequently as an aid to mine evaluation. A discussion of this formula serves two purposes. One is to introduce the reader to the type of computation involved in mine valuation. A second is to indicate the limits of usefulness of this formula in state mine tax appraisal. The term itself is far more widely used than understood, even by geologists entrusted with state valuation of deposits.¹ The layman is apt to accept the statement that mine values "are found by the Hoskold formula" and to conclude that there is in this calculation some inherently dependable method of discounting future hazards of business and mining, to produce a true present worth of a deposit. His endorsement of the ad valorem tax is based, to some extent, on this misconception.

The Hoskold formula is a purely mathematical contrivance, being composed of two interest formulas.² One rate, which we shall hereafter call the discount rate, is used to reduce expected future returns to a present worth, as in the calculations of the present value of a terminable annuity. The second rate, which shall hereafter be called the interest rate, has an equally limited application. The engineer assumes that enough

¹ Thus one such official during this study explained the height of the sinking-fund rate used in his state by the fact that the risks of mining were high. See also the testimony during the valuation proceedings of Climax Molybdenum, below, Chapter XIII.

² Where r = practicable safe rate on redemption of capital (discount rate) r' = speculative rate, n = years life, $R = i + r$ and A = annual payments; Present Value of a mine equals

$$\frac{A}{R^n - 1 - r}$$

C. H. Baxter and R. D. Parks, *Mine Examination and Valuation* (Houghton, Michigan: Michigan College of Mining and Technology, 1939), p. 126.

of the yearly income from mining will be accumulated in a sinking fund, during the life of the mine, to repay to the investor the original amount of capital. But the yearly deduction from income necessary to make this accumulation and repayment of the investment is lessened somewhat by the fact that the sinking fund itself can be assumed to bear interest. The Hoskold formula, therefore, does several things at once. It assumes a deduction from mine income sufficient to build a sinking fund, which, invested at a given rate of interest, will replace the original invested capital, and it reduces the remainder of the mine income to a present worth representing the value of the mine.

The arguments that arise from the use of this formula center around the interest and discount rates. If the sinking fund can be invested at a high rate of interest, the amount of money paid into the sinking fund can be less, and the value of the mine, therefore, is increased. If, on the other hand, future income from mining operations is to be discounted at a high rate of interest, the present worth of that future income will be low. For tax purposes, of course, the mine owner desires a low assessment, and therefore prefers a high discount rate for future profits and the assumption of a low return on the sinking fund.

The case of *Minnesota vs. Oliver Iron Mining Company, et al.*, of 1935, illustrates the nature and the seriousness of the contemporary dispute over interest rates in the valuation of mining property. Because this chapter will take a position slightly different from that of the principal witness in this case, Dr. C. K. Leith, his arguments will be quoted at some length. Dr. Leith, testifying for the defendants, had used rates of 8 per cent discount of future income, and 4 per cent interest on the sinking fund in the Hoskold formula,³ and explained to the court why 8 per cent as the discount rate was a practical minimum. For many properties, he said, the rate might better have been 10 per cent:

³ *Minnesota vs. Oliver Iron Mining Company, et al.*, vol. II, Testimony, pp. 181 ff.

A rate must be chosen which will bring capital into the business, which will correctly reflect the chances of return of the money and interest, the hazards of the business, a rate which will supplement, as it were, the other factors.

He stated that if the time factor, the costs, the selling price, and all physical conditions were definitely known, a relatively low rate might be chosen, but if there were elements of doubt in those factors, it was "customary to reflect the doubt by the use of a larger interest rate." This larger rate, of course, would give a lower present value to expected profits.

At the request of counsel, Dr. Leith described briefly the history of interest rates in the valuation of Lake Superior iron ores. The Michigan valuations had first been made with rates of 5 per cent discount on future income and 4 per cent interest on sinking fund, but the Tax Commission had later turned to rates of 6 and 6 per cent. Wisconsin had used rates ranging from 6 to 10 per cent for the discount of future mine profits. Whereas at one time commercial valuations had customarily been made with a discount rate of 6 per cent, he knew of no single valuation during the past ten years which had used less than 8 per cent. Before the first World War he had used 6 per cent, but thereafter he had used 8 per cent, and in several cases had found it necessary to use discount rates of 12, 15, and even 20 per cent. He was now of the opinion that 8 per cent had proved too low.

It has not correctly reflected, in my judgment, all of the difficulties which have come into the business . . . there was overconfidence in the stability of our assumed factors. We took it for granted that the iron ore business was the stable basis for an equally stable steel business . . . (but) we have found as we have gone along that we have overestimated production.

Along with irregular production, he pointed out, had come heavier carrying charges, unexpected costs for subsidence and rock slides, and therefore, lower net profits. Predictions of future costs and profits were still more difficult, for with the exhaustion of surface deposits unexpected interruptions in production were inevitable.

It is hard to put a figure on it for a particular property, but it is . . . a threat hanging over the district as a whole which should be reflected in a liberal interest rate. . . .

Dr. Leith turned to a consideration of the argument that the risks of mining should be recognized in future estimations of costs and profits rather than in the interest rate. He agreed that, whenever possible a correction for hazard should be made outside of the discount rate.

For instance, where there is danger of a certain shaft being destroyed by subsidence, we estimate that it is quite possible that that shaft may be gone in five years or ten years, and so we introduce specific correction.

In somewhat similar fashion the Michigan Tax Commission had assumed a larger deferment factor to compensate for the lower rate of interest. But there were many cases, said Dr. Leith, when the hazards of mining could be expressed only by a higher interest rate, when future difficulties, as in the lower Mesabi, were impossible to foresee and too general to be defined, and in the valuation of such iron ores he considered 8 per cent to be an absolute minimum.⁴

To substantiate this opinion George Oliver May, of Price, Waterhouse, and Company, testified, on the basis of many years of experience in the field, that an investor in mining stocks would demand at least 10 per cent.⁵ This same defense of a high discount rate was used by E. H. Comstock, dean of the University of Minnesota School of Mines, in the paper read before the National Tax Association in 1941. The discount rate should be high, he said, because the risk of mining, as indicated by the interest rate on the securities of mine owning companies, was high.

For the rate to be allowed on the sinking fund, Dr. Leith suggested 4 per cent, not so much because safe investments were available in 1935 which would yield that return, but rather because it was conventional and because the low return then available might eventually prove to be abnormal.

In rebuttal, and to show that the 8 per cent rate was too

⁴ *Minnesota vs. Oliver Iron Mining Company*, vol. II, Testimony, p. 185.

⁵ *Minnesota vs. Oliver Iron Mining Company*, vol. II, Testimony, pp. 799 ff.

high, the state called attention to the fact that while mining operations in Minnesota were less hazardous than those of Michigan, rates in the latter state had originally been 5 per cent discount and 4 per cent interest on sinking fund, and now were 6 per cent discount and 6 per cent interest. This latter formula was defended by Professor Charles H. Baxter, of the Michigan School of Mines, testifying on behalf of the Minnesota State Tax Commission.⁶ Professor Baxter admitted under cross-examination that the use of 6 per cent for calculation of the accruing value of the sinking fund should not mean that the investor should be forced to speculate in order to get his money back, or that he should be forced to go into another business to restore his principal, but pointed out that the use of the rate of 6 per cent discount and 6 per cent interest was the same as a straight 6 per cent discount of future profits, without consideration of the need for any sinking fund. This 6 per cent, he said, was "higher than the rate shown by the records of the Oliver Iron Mining Company and the United States Steel Company, or the average of eleven steel companies over a period of twelve years." He did not believe that the problem was to arrive at a rate which would attract new capital,⁷ for the free market for ore was small, and the business largely preempted by consumer interests. Capital for development must then come from the present owners, and he felt that so far as interest rates were concerned, no differentiation could be made between earnings from mills and earnings from iron ore.

Behind this conflict of expert testimony lies a general confusion in the scientific literature of the field. Hoskold himself originally used rates of 14 per cent to 25 per cent (usually about 20 per cent), with 3 per cent return on the sinking fund,⁸ but American engineers have considered that more of the risks of mine valuation should be considered in forecasting future profits, and fewer in the interest rate with which those profits

⁶ Minnesota *vs.* Oliver Iron Mining Company, III, 1774 ff.

⁷ Minnesota *vs.* Oliver Iron Mining Company, III, 1766 ff.

⁸ Baxter and Parks, p. 148.

are discounted to arrive at their present worth. The explanation has been that "most hazards are independent of time, whereas interest is a direct function of time."⁹ But, as indicated by Dr. Leith's testimony, the tendency is still to use a high interest rate to offset some of the general hazards not considered elsewhere,¹⁰ and the same reasoning used to defend discount rates of 8 per cent and 10 per cent in the valuation of Minnesota iron mines would justify rates of 20 per cent or more in a western silver or copper mine. On the question of the degree to which the engineer should lump his uncertainties in the discount rate, the treatises on mine valuation are not clear.¹¹ Baxter and Parks seem to question the practice. Marston and Agg state definitely that the mine appraiser should discount some hazards in the rate used, though they do not pretend that mines can be accurately valued. "It is recognized that it is impossible to determine the true value of a mineral deposit in advance of its complete exhaustion."¹² The most controversial economic questions involved in the use of the Hoskold formula appear to be the following:

- (1) To what extent should the risks of mining be reflected in the discount rate?
- (2) What should be the height of the interest allowed on the sinking fund?
- (3) In what manner can the risks of mining be best accounted for in mine valuation?

The first of these questions can be broken down, in its turn, into two others:

- (1) What discount rate would be dictated by pure economic theory?
- (2) To what extent may specific problems of mining engineering be said to modify this theory?

⁹ Baxter and Parks, p. 147.

¹⁰ C. K. Leith, *Mineral Valuations of the Future* (New York: A. I. M. E. Series, 1938), chs. ix, x. Note particularly: "Either the interest rate should be large enough to include these social and political hazards or some lump deduction should be made to cover them" (p. 97).

¹¹ Baxter and Parks, pp. 140 ff.; Anson Marston and T. R. Agg, *Engineering Valuation* (New York: McGraw Hill, 1936), p. 406.

¹² Marston and Agg, p. 402. Note the curious use of the term "value."

From the standpoint of pure economic theory the answer to the question of the rate of discount of future profits seems to be plain. The rate should be that allowed on the sinking fund — that is, it should be the going rate of interest. The question is one of the eagerness or the impatience with which the investor awaits his return, rather than of his doubt as to the probability of the return. Just as the interest rate to be allowed on the sinking fund should be one which reflects only the yield, at safe investment, of the accumulative principal, so the rate of discount reflects only the opportunity afforded the investor in mining stocks to withdraw his money and to reinvest it in a bond of minimum risk. The rate in both cases represents the time preference of the marginal investor. Eagerness for the return of the money can be measured only by the alternative yield of a riskless investment, because opportunity for a higher yield elsewhere must be accompanied by a corresponding need for care and diligence in administering the fund. If he is to make more than the pure interest rate, the investor must expect to earn the excess by ingenuity and application.

It may be, as Mr. May and Dean Comstock have noted, that the investor desires a high per cent return on the mining stocks he buys, but the successful stockholder's or bondholder's return should not be confused with the rate of discount of future income. The investor, as Keynes indicates, faces two types of risk: the risk facing the management in the operation of the business and sale of the product, and the moral risk arising because the investor must trust the management to pass on to him the profit which the business is able to make. Admittedly these combined risks are often high, but it should be remembered that risk-bearing is not necessarily a profitable occupation. The supply of risk-bearers seems to be large enough so that a high return to one of them is the reward only of good luck or good management, or both. In an investment of a given sort, the speculator might consider that the promise of a 10 per cent return would allow him a protective margin against the possibility of a loss of principle and interest, but of course it does not, for the excess is only payment for the cost of

watching so hazardous a venture. The investor who continuously makes 10 per cent on his mining stocks is being repaid for his shrewdness and care. The representative dollar in the mining industry can be assumed to earn no more than interest.

The error involved in the use of the discount rate to reflect risks may be illustrated in another way. To include an extra rate for the uncertainties of mining is to compound them over time. That is to say, to use an 8 per cent discount rate in the Hoskold formula would be to assume that the risks vary with, and are more than proportional to, the length of time taken to exploit the deposit. Actually, the result is not entirely beyond reason, for while it is quite true, as Baxter and Parks say, that "most risks are not a factor of time," many risks, as that of changing market conditions, do vary with time. But a mine with a risk so high that Hoskold would have used a 25 per cent discount rate would not lose a third of its present value merely because the management decided to mine it in ten years rather than in five. The extension of time would involve the market risks, but the mining risks would remain essentially the same.

The fact that in the valuation of deposits for purchase and sale, mining engineers actually do, as Dr. Leith testified, use a high discount rate has, however, an important implication. If it could be assumed that there is a general tradition among mining engineers that rates should be 8 per cent discount and 4 per cent interest, the question of reasonableness of these rates from the standpoint of economic theory becomes of secondary importance. The mines may demand merely that the tax assessment approximate as nearly as possible the sales price, and may defensibly claim that the price which a mining company would pay for the deposit would be determined in the orthodox fashion. But the scientific questionableness of these rates precludes, in and of itself, a general agreement upon their height. The wide difference of opinion between Dr. Leith and Dr. Baxter on this subject is illustrative of the general uncertainty in the field. The court and the tax commissioner, in endeavoring to find the sum which mining companies might pay for the mine, are compelled by these conditions to make

a guess as to the probable rates which the probable company engineer might use. Thus the methods of mine valuation will vary with the individual appraiser.

But the basic question of the extent to which accurate mine valuations and a satisfactory ad valorem mines tax are possible, compels further inquiry into the method ordinarily pursued by engineers in appraisal.

Let us consider an actual process of mine valuation as recounted to the present writer. The mine was of iron ore, with less hazard, probably, than if it had been silver or gold, but still with a certain amount of mining risk. The probable future income, therefore, was discounted by an amount sufficient, in the mind of the engineer, to equal a sort of insurance premium against these mining hazards.¹³ The economic risks of the market were handled in somewhat the same fashion. The engineer attempted to project past prices, as well as past costs, into the future and to determine a differential profit. This last figure he then discounted by the use of a so-called risk rate in the Hoskold formula. The total discount and "hazard" or "risk" rate was placed at 8 per cent.

The very fact that after the use of all available engineering data and the mathematical projection of past costs and prices into the future, the engineer arbitrarily reduced the resultant by the use of an 8 per cent or 10 per cent or even 20 per cent discount, indicates that much of the process of valuation is inherently a matter of judgment. It is probably true that estimates of future profits made during the first World War and the twenties were overly optimistic, as Dr. Leith testified, but it might be equally true that valuations arrived at by the process just described, during the early thirties, might with equal wisdom be arbitrarily revised upward, by the use of a discount rate of, say, 1 per cent.

This is not to imply that, by the use of a high discount rate,

¹³ Baxter and Parks have made the interesting suggestion that the engineer attempt to determine the "probability" of some possible cost. Thus if the cost of a rock slide might be \$100,000, the engineer might assume the "probability" of the accident to be one in ten, and deduct from the possible net income in any given year an amount of \$10,000.

mines are customarily undervalued, either for purchase or for taxation. The error involved in throwing upon a compound interest rate the uncertainties it was not intended to bear, is usually matched by other errors. State mine appraisers frequently admit that if the discount rate were lower they would include in their calculations less of the "probable" ore in the mine. The court in the Oliver Iron Mining Company case refused to grant the assumption requested by the companies, that the depression would cause a period of deferment of operations, though to a considerable extent such eventually proved to be the case. The so-called "Lake Erie" price of ore was unquestionably too high, and in Michigan the lower discount rate (6 per cent) is matched by the assumption of a lower ore price as well as an arbitrary reduction "for risk" of each year's projected future profits.

The problem in Alabama, where there is no such base price, emphasizes the inherent difficulties involved in the determination of probable sale value of a commodity not customarily offered for sale. The formulas used in the two valuations conducted in Alabama are given in detail in the chapter on that state, and the reader will note two peculiarities of that system. The first is that it merely furnishes a method by which one piece of ore property may be compared with another which, supposedly, has been recently sold. The question of valuation in this state goes back not to sales prices of mined ore but of blocks of ore in the ground. The second peculiarity is the fact that the method only indirectly, and very roughly, recognizes the problem of determining present worth. The system assumes a given rate of progression inward from the face of operations, and, of course, new openings at a distance from present operations would compel a revaluation of the ore around them.¹⁴

The use of a "range life" in the valuation of Minnesota ores deserves discussion in this connection. There are large numbers of properties, owned by many companies, in this state, and there is always the possibility that any one of them may

¹⁴ Below, Chapter XX.

be opened to compete with those in operation. It is always possible, also, that the rate of operation of any one mine may be changed. If the operation of any one mine is hastened, at the expense of another, the profits will be realized more quickly, and its relative present worth is raised. But the authorities cannot determine the probable time of opening of any given deposit or the probable speed of exploitation thereafter, and they fall back, therefore, on the assumption that the range itself should be given a life, and this life, in turn, should be allotted to the various properties potentially in competition with each other. It was assumed, for this purpose, that the rate of production of ore in Minnesota would follow a pre-determined pattern, and that each mine would contribute its yearly share to the total for the duration of the life of the range, calculated at thirty-eight years. While such an assumption tended to discriminate against companies with the largest holdings of ore, because it assumed a shorter life of their properties than would be the case, the difference would be of no practical significance. The assumption might favor concerns whose actual deposits had only a few years of life. Inherent in this method is another tendency to remove value from properties now operating, and therefore supporting cities, villages, and towns, and to add a fictitious value to non-operative properties. But at the present time local taxes on the range are limited not by the size of the mine valuation but by the per capita tax law. The use of a range life has been of material assistance in meeting the question of the rapidity of exhaustion of any particular deposit in any given field of production.

To the problem inherent in the use of the Hoskold formula — that of the determination of the rate of discount — economic theory might be of some assistance. Just as the conception of a range life is a useful tool, so might be the conception of a range risk, or of the risk involved in the mining of any given type of deposit. To the extent that the probability of loss in any given type of operation is roughly determinate, the mining company in that field should be allowed a yearly return in the

nature of premium, deductible from the profit figure brought to a present worth by the formula. This is not a risk rate, so much as a cost of meeting risks successfully. The method would be akin to the system used in Michigan. While it recognizes the probability of occasional mishaps and disappointments in mining operations, it does not compound the probabilities over time. On the side of market risks, on the other hand, it does not make the dialectic error of attempting to modify the best possible estimate of the engineer. The theory that a forecaster should decide, say, upon a 12¢ price for copper as being the most probable, and then should arbitrarily modify this best judgment by formula, is alien to the field of economics. Any such adjustment is a matter of the personal equation of the engineer rather than of the Hoskold formula. The fact that the engineer has found it advisable to throw into a discount rate, not scientifically intended for the purpose, his general uncertainties as to the future, and the related fact that the layman and the courts then become overly preoccupied with the Hoskold formula, as if it, in itself, unlocked the economic and engineering imponderables, indicates the basic uncertainty inherent in the ad valorem taxation of mines.

The importance of the element of personal judgment, in such valuations, will continue to leave the mining companies, the tax commissions, and the courts much less certain concerning the assessments than in the case of property, the value of which can be related to sales or to building costs. The degree of uncertainty will vary, moreover, with the nature of the deposit.

Inasmuch as the ad valorem tax was generally imposed upon the mines without their consent, the states should, logically, bear much of this uncertainty themselves.

CHAPTER III

THE ECONOMICS OF MINERAL DEPOSITS

WHEN J. R. FINLAY was called to Michigan, in 1911, to appraise the mines of that state for purposes of taxation, he encountered an unexpected difficulty in the matter of definition. What, exactly, was a mine? None of the owners of beds of salt, limestone, gypsum, marl, or brick considered themselves to be mine owners,¹ and referred to a state supreme court decision to the effect that salt production from a deposit was in reality a manufacturing, rather than a mining operation. This decision, however, had been based only on the fact that Michigan, by a uniform course of conduct, had always treated salt producers as if they were manufacturers,² and Finlay felt that to support his intention not to appraise these properties, he should draw some logical economic distinction between mines and mere deposits of raw material:

The mining business may properly be distinguished on the ground that an essential preliminary is the discovery of a deposit in the crust of the earth that is inherently valuable. A sufficient quantity of rich gold ore in the remotest desert is valuable as soon as it is discovered. The *discovery* is valuable. . . . With minerals less valuable and more common — less valuable because they are more common — the commercial circumstances of discovery play relatively a more important part. . . . An iron mine in the middle of the Sahara would have no value at all even if a railroad ran across it. . . . When we come to still more common minerals, such as limestone, salt, gypsum, and brick clay we find that they are so enormously abundant that the discovery of them excites no comment whatever. . . . The utilization of such minerals, therefore, is wholly a commercial question, and I am disposed to draw a line between mines and other industries on the simple ground of whether the mineral rights on which they are based have value or not.³

¹ *Report of Appraisal of Mining Properties of Michigan* (1911), p. 76.

² *Atty Gen'l. ex rel. Ruggles v. Buckley & Douglass Lumber Co.*, 164 Michigan Reports (1911).

³ *Report of Mining Properties of Michigan* (1911), p. 13.

Mr. Finlay had pointed out in the course of his preliminary remarks that the plants connected with mines had no value in themselves. They could not be moved, their scrap value was doubtful, and it was the deposit which gave a value to the plant. Professor Charles W. Cook, of the University of Michigan, employed to investigate salt, cement, and limestone deposits, found that none of these deposits gave an additional value to the land, that the supply was far in excess of the possible demand, and that it was the plant which gave the value to the deposits.⁴

The distinction between these types of deposits is of some importance as a practical determinant of methods of mine taxation. Special tax laws are usually applied only to the most valuable minerals, as witness, for instance, the Colorado law of 1901 which not only specifically included gold, silver, lead, copper and other valuable or precious metals, but specifically excluded coal, iron, asphalt quarries, or lands valuable because they contained other metals, minerals, or earths.⁵ The latter were taxed as other property on their market value, while the former were taxed on their net income. The wisdom which lay in this distinction will be discussed at the end of this chapter. Our immediate purpose will be to examine the economic basis of the value of mines and thus to approach indirectly the problem that interested the Michigan commission.

The value of a mine, like that of a farm or of a building, is the present worth of its future income. In a sense the income corresponds to that from a building, because both are limited in life and from both the owner hopes not only for a return of interest on his investment but also of the investment itself. In another sense the return is like that to a farm, for, in the cultivation of both, the physical aspects of operation limit the volume of production and thus give a differential return to the inframarginal producer.

Upon this subject there has long been some disagreement among economists. Two of the leaders in the discussion were

⁴ *Report of Mining Properties of Michigan*, pp. 14, 78.

⁵ Below, Chapter XII.

Frank William Taussig and Alfred Marshall, the former asserting that diminishing returns were illustrated in mining by the tendency of costs to rise with increasing depth of operation, and the latter refusing to admit the existence of diminishing returns in mining in any form.⁶ They apparently agreed that the owner of the better mines received a rent, but neither recognized the relation between such rent and the law of diminishing returns in mining. Texts in economics, generally, have followed the lead of Professor Taussig.

The confusion appears to have arisen from failure to differentiate between diminishing returns and depletion. An examination of this subject will tend to indicate, also, the difference between the rent of mines and the profits to the mine owner for his ability as an entrepreneur.

The return to a mining enterprise may arise from several sources. There is a differential return springing from a limitation of the rate of output of ore owing to the physical characteristics of mining as an extractive industry, so that the better mines are unable to supply the market demand and the price of metal rises sufficiently to give a high profit to these better mines. To the extent that this differential return is not needed to stimulate prospecting, it is a pure economic rent of mines, but to the extent that there exists the possibility of the discovery of new deposits, the return must be treated as the profit of successful venturing. A mine may also receive a quasi-rent during a period of unusual and unexpected demand, as in preparation for war, when the desire for more output pushes against inadequate capital improvements, as in mills, smelters, hoists, cars, and the like, so that the price rises, giving a temporarily increased profit to all producers. In the third place, a mine owner may receive a profit as a result of limited competition, as in the case of a monopoly or oligopoly among mineral producers. Finally, an unusually able management will receive a differential return which is a pure profit of enterprise, due neither to rent, quasi-rent, nor limited competi-

⁶ F. W. Taussig, *Principles of Economics* (1921), I, 184; Alfred Marshall, *Principles of Economics* (8th ed.), p. 169.

tion. One of the problems facing a mine assessor is to distinguish between the income due to ownership of the mine from that which is due to management alone. To the extent that the profit to a mine is more than would accrue to marginal management, it should not be capitalized in the valuation of the deposit.

The first of these returns, the rent of mines, can be understood more readily after a distinction is made between the effects of depletion and of diminishing returns. Depletion takes place over a period of time; diminishing returns are a possibility at any one time. Depletion with lower depth will bring rising costs, just as the exhaustion of good farm land will compel the use of land which is poorer and farther from the market. But at any one time the farmer or the miner must consider whether the physical environment in which he works will not so hinder any effort to increase daily output that rising costs will bring about diminishing returns to the additional applications of labor and capital.

To illustrate the effect of depletion, let us assume underground mining of long narrow veins of ore. The extension of operations will, after a time, exhaust the ore lying near the hoist, and will increase the length of haulage horizontally and the weight of the load in hoisting. The drums and cables in the hoist must be stronger, adding to the overhead, while direct costs rise by such items as the increasing time necessary to take labor to the mining surface. Problems of ventilation grow with depth of operations. All these increased costs can be charged to depletion.

At any one time, on the other hand, the mine owner must decide whether or not profits can be increased by speeding the rate of output. He has much to gain by rapid exploitation of deposits,⁷ for the factor of time preference gives a higher present worth to immediate profits. There are, however, two general types of limitation to the speed of extraction. There are, first, the problems arising from physical conditions surrounding the operation. Even if the mine might be considered,

⁷ Herbert Hoover, *Principles of Mining* (1909), ch. xv.

from any practical point of view, to be inexhaustible, the increased production would necessitate faster or larger trains, more shafts, or faster handling at the same shafts, more working faces, and, perhaps, a slight increase in number of men for each working face. The investment in drills and equipment per ton would probably increase, and the overhead would rise.

But in the second place, mines are not inexhaustible, and the mill and other heavy improvements must often be limited, not only by the probable output of the mine, as indicated above, but also by the size of the developed ore body. Herbert Hoover, in his now classic discussion of the reasons for haste in the exploitation of the mine and the limits to such haste, concluded that "equipment, and therefore output, should not be expanded beyond the redemption by way of saving from fixed charges of the visible or certain life of the mine."⁸ The economist would say that output should be expanded only to the point at which the rising marginal costs, including both direct expense and overhead, become equal to marginal revenue. Wherever, as with gold, the price is not visibly influenced by the output of the mine, that price, when multiplied by units of output, will itself represent marginal revenue. The same would be true in the case of single small mines of any other product, the output of which does not visibly lower the price in the market.

One of the reasons why the mining engineer hesitates to utilize the conceptions of marginal revenue and marginal cost is that he is necessarily preoccupied with the uncertainties of mining, which make the actual determination of this balance between marginal revenue and marginal cost, in any given mining operation, a somewhat fanciful speculation. In most cases he prefers to invest cautiously, and to expand his plant as the ore is developed, but this may result in a less efficient patchwork plant. Inasmuch as the uncertainty over the quantity and quality of the ore is due to the physical characteristics of the mine, it is conceivable that this, also, might be added to those conditions which at times increase the rent of mines. It appears to be true in many cases that even to hasten the

⁸ Hoover, p. 157.

development of an ore body causes an increase in the total development expense, and this limit on speed of development work will not only make more difficult the exact calculation of the proper size of a plant, but in some cases may directly slow down the flow of metal to the market.

There is a fourth limitation to the volume of output frequently found in large mining operations, which is only indirectly related to the physical characteristics of the mines. The small number of metallic mines has produced a condition of oligopoly, which, in turn, will necessarily result in controlled production. The potential physical restrictions to volume of output may sometimes actually become effective, for much as a large porphyry copper mine might like to double its output, in the face of war demands, it will be restricted by the limitation of trackage space or the failure of larger steam shovels to handle ore in proportion to the size of the investment. But in general the operator of large open-pit mines is more interested in the decline of marginal revenue, under increased operation, than in the rise of marginal costs. Frequently, when mine, mill, and fabricating plants are integrated, as with U. S. Steel or Republic Steel, the interest in market price shifts from the sale of ore to the sale of the fabricated product, but the principle is the same. The output is geared to the market rather than to costs, and the return to the mine owner may be higher than the true rent of mines and the pure profits of enterprise.⁹

It should be added that of the three factors—physical limitation to production, size of the ore body, and declining marginal revenue—only one is likely to be effective in any given mine at any one time. An engineer with experience in large iron ore deposits will tend to emphasize the danger of driving down prices, rather than any phase of diminishing

⁹ For engineering discussions of these principles see H. C. Hoover, "The Economic Ratio of Treatment Capacity to Ore Reserves," in *The Economics of Mining*, edited by T. A. Rickard (1907), p. 173; *Engineering and Mining Journal*, March 24 and August 18, 1904; H. C. Hoover, *The Principles of Mining*, ch. i; T. J. Hoover, *The Economics of Mining* (Stanford University Press, 1933), p. 162; J. R. Finlay, *The Cost of Mining* (3rd ed., New York, 1920), pp. 32; 60.

returns.¹⁰ A gold mining engineer will tend to emphasize charges for interest or amortization, rather than danger of flooding the market.¹¹ To classify mines in another manner, the most frequent check upon the operation of large mines, especially those operated by steam shovel, is the fear of effect upon market price, while that on small mines is the desire to avoid high amortization expense.

To return for a moment to the disagreement between Taussig and Alfred Marshall, it is clear that the law of diminishing returns does operate in mining, but it should not be confused with depletion. At any one time, as has been demonstrated, the company must speculate on the profitability of the use of more or less capital to increase or decrease the rate of exploitation of the deposit. The final decision may depend upon the state of the market or the size of the deposit, for if the price is high it may pay to enlarge the facilities for removal of ore from the mine, and, if the deposit is large, a large mill may be profitable. Over a period of time, on the other hand, the mining company will find it necessary to add each day to the capital used to exploit the deposit, for as a result of the previous day's operation the available ore is farther from the mouth of the mine. Thus, as time passes, the tunnels or stopes must be lengthened to maintain any speed of production. The point of diminishing returns changes as does the face of the ore body, for not only is the ore different in character but it lies farther within the bowels of the earth. Much the same problem arises in the cultivation of tobacco land, when the exhaustion of one plot leads to cultivation of another lying farther from the market. While the price of tobacco might rise, it does not follow that the return to the landlord must do likewise, for the point of diminishing returns has risen with the price. Unless the price rises even faster than costs, there is no reason to expect that he will push the application of capital farther beyond the new point of diminishing returns than he formerly pushed it beyond the old.

¹⁰ Finlay, pp. 31-45.

¹¹ H. C. Hoover, *Principles of Mining*, p. 157.

In general this last condition will not be brought about by the depletion itself. Rather, the contrary is to be expected, for as the price rises to encourage exploitation of the retreating ore, new mines,¹² formerly submarginal, will come into production, and the price will rise less rapidly than costs in the older mines. Even if the mines were inexhaustible, therefore, continuous production would tend to lessen the amount of differential rents, so that in an older country all mines tend to operate at about the same costs, and any attempt to speed the output of ore will either run into the law of diminishing returns, or will lower market price to an unprofitable degree.

Marshall's famous observation that a mine is akin to nature's reservoir, to be emptied rapidly or slowly as desired,¹³ does not hold for most mines, or even for those as old as the Rand, for there is always the active or potential influence of the law of diminishing returns. But it is undoubtedly true that in the coal and iron mines found in England, as well as in the larger copper mines in a region such as Keweenaw County, Michigan, the effective factor in determining the size of the investment and the volume of output is not the physical characteristics of the mine, but the condition of the market. If all the mines of a given metal had been discovered at once, and if transportation and market conditions had been constant, the procedure of development would be in this fashion: as the best mines were gradually depleted, other mines, once submarginal, would come into profitable production. Assuming no change in technology, the price would not fall, but the share of production carried by the older mines would decrease and the tendency of the price to rise would be curbed, depending largely upon the number of and the costs of the submarginal mines. Eventually the exten-

¹² Assuming technique of production and demand to remain constant.

¹³ "The more nearly a reservoir is exhausted the greater is the labor of pumping from it; but if one man could pump it out in ten days, ten men could pump it out in one day; and when once empty it would yield no more. So the mines that are being opened this year might just as easily have been opened many years ago; if the plans have been properly laid in advance, and the requisite specialized capital and skill got ready for the work, ten years' supply of coal might have been raised in one year without any increased difficulty; and when a vein had once given up its treasure, it could produce no more," Marshall, p. 167.

sion in the area of production, throughout the once higher cost mines, coupled with the rising costs of the older mines, would bring about a condition in which no mine operated beyond the point of diminishing returns, and the assessed value would be only the value of the capital improvement.

The subject is related to problems of mineral conservation and taxation. If all copper mines had been discovered together, if transportation and technology changes had not altered the relative values of deposits, and if the costs of all copper mines rose together as they were depleted, such costs would be reflected in market price and there would be no limit to depth of operation except exhaustion of the deposit. But when the new competition arises from discovery of new processes for utilization of low grade ores, or from the development of transportation to the sites of new mines, the price will stay too low to allow continued operation of the old mines, and the problem arises of keeping those mines open or of sealing them in such a way as to leave them available for future operation in case of emergency. The result is to give the effect of chronic depression to the community with a certainty neither of employment nor unemployment, and the labor reserve becomes a stagnant pool. What the government policy should be in such cases is as yet undecided, but it raises some practical problems of public finance.

While on this aspect of the theory of mineral economics, it might be added that unless curbed by government control or by oligopoly, there is a tendency for the mining of common minerals to incline toward overcapacity. Assuming again the existence of many mines of varying richness and the exploitation of deposits in the order of their quality, the rising costs of the older mines will bring continuous new competition, without regard to the productive capacity of the old mines, so that with no change in market demand the old mine is forced to contract operations. If the overhead is of consequence the mine will thereafter be operated at a loss, or, in other words, that part of the investment which is still unamortized may never be returned. To avoid this newer competition the older mine must

early drop its price with little regard to interest or to investment; or, in other words, an unavoidable element in mine valuation is the existence of potential competition, and the investment must be amortized earlier on that account.

Of greater social consequence is the fact that the new mines draw their labor elsewhere than from the old, and the labor reserve thus becomes too high. To a certain extent this is the case with coal mines, and without the advantages of oligopoly it would tend to be the case, also, with iron mines. With copper the opening of large deposits in the west and the advance of technology have obscured this tendency toward overproduction, because the cheaper product of the new mines has allowed the price of copper to remain at an unprecedentedly low permanent level. Yet it is submitted here that the nation has some interest in the struggle to keep open the Michigan mines, for in the very long run those ores may again be a valuable part of the copper reserves.

Returning, now, to the problem of valuation presented by the Michigan Report of 1911, the difference between the copper mines in that state and the non-metallic deposits lies in the fact that the latter are marginal and the former inframarginal. This is the basis also, for the classification of deposits in Colorado. Operation of the non-metallic deposits will pay interest on and redeem the capital invested in plant and equipment. The value of the plant and the deposit of a gypsum manufacturer, supposing the gypsum to have been of no value in itself, was the value of the plant, but after the plant had been built its value was indeterminately intermingled with the value of the deposit. This plant had no more scrap value than that built on a copper mine, and a removal of the deposit would have meant a loss of most of the investment. After the mill is built the gypsum acquires value in its location. The same thing is true of a mill built in connection with a copper mine, and to say that the mill is dependent upon the value of the deposit is to ignore the fact that the mine becomes more valuable after the mill is built.

In the assessment of a coal mine or any deposit the supply

of which is plentiful, the appraiser has the alternative of capitalizing future income from operation of the deposit, neglecting the value of the investment, or of determining the value of the deposit as it might have been sold without the investment, and adding the value of the improvement. The latter is the correct method of appraisal, for the former is apt to include in the valuation of plant and deposit the capitalization of the expected future profits of entrepreneurship, and to this extent the ad valorem tax becomes an additional, and unconstitutional, tax on net incomes.

This problem of the intermingling of true profits of enterprise with the rent of the mine is more obvious in a marginal mine because most of the return is the profit to the operator, but it arises, also, in the assessment of the more valuable metallica. Occasionally the assessor may find that an iron mine, for instance, is making a large profit not because of the qualities of the deposit but because of superior management. In such instance the assessor might, in recognition of the source of this difference in profit, refuse to raise the valuation of the mine. From a practical point of view this differentiation remains one of the nuances of engineering appraisal, and the assessor who attempts it faces the difficulty of explaining his work to the less efficient operators of less profitable mines, but legally the efficient operator is entitled to relief from any ad valorem tax based upon the capitalization of this superior efficiency.

The policy of differentiating between metallica and non-metallica in the tax programs of some Rocky Mountain states springs from a recognition of the fact that the net rent of an inframarginal mine has many disadvantages as a tax base. Non-metallica are often marginal, or nearly so, and a tax upon them is not strikingly different from a tax on the value of the plant and machinery. A silver or lead mine, on the other hand, may have a value of many millions of dollars, and even among mining men, as in the early days of Nevada, the difficulties of valuation and the fact that the need for government service was not in proportion to relative mine value made the tradi-

tional ad valorem tax base unacceptable. The owners of the better mines found it difficult to believe that they should relieve so many of their fellow citizens of the duty of paying taxes. The problems arising in the imposition of the property tax on valuable metallics has been discussed in the preceding chapter.

The foregoing material is intended to give a general picture of the basic laws of mineral economics, as a preparation for more concrete discussions of the effect of taxation upon mining operations and of the applicability of various forms of tax to them. Of these concrete problems, one of the most perplexing and yet one of the most practical involves the danger of discouragement to mine prospecting and investment by heavy taxation of profitable mines. The problem is difficult because in it are presented both a question of fact and a question of policy, neither of which is subject to easy generalization. The question of fact is this: to what extent has prospecting so changed in technique that neither its subsidization nor the confiscation of the return imputable to mine ownership would materially alter the known supply of metal? To state the question in another manner, to what extent can the return attributable to the mine (apart from the wages, or the profits, of mine management) be considered a true economic rent? The question of policy is this: to what extent can a democratic community enter upon a cold-blooded program of confiscatory taxation, merely on the thesis that such taxation will not be directly shifted to the general public? In a sense this is the same issue as that posed by the single taxers, though, as shall be demonstrated, mines are in one sense more vulnerable and in another less vulnerable to political attack than is urban real estate.

Upon the geological question of the extent to which there are as yet undiscovered ore reserves this book will not attempt to present a conclusion. The answer must obviously vary with the kind of ore and the field of production. Most iron ore bodies are known and established, and the same thing is probably true of copper. Daniel C. Jackling has pointed out that all of the larger disseminated copper deposits worked today have

been known for generations.¹⁴ The Climax Molybdenum deposit, containing a large portion of the world's known supply, was found early in the century.¹⁵ The largest producers of silver, lead, and zinc are now relatively old mines. These generalizations should not be carried too far, however, for the United Verde Extension Copper mine was found only after the expenditure of large sums of money,¹⁶ and occasionally, as in northern Idaho, there have been new developments of lead, silver, and zinc. The Department of Conservation in Michigan has been able to find small, new, iron ore bodies.

The likelihood of important new ore discoveries must thus be a matter of some doubt, but in most states it would be folly to assume that prospecting is at an end, and either by express tax exemption or by more lenient administration, all mining states deal gently with small mines.

The extent to which the relief of small operators can be used to offset confiscatory taxation of large mines is, in light of the type of mining and the probability of new discoveries, a question that each state must answer for itself. The willingness of the Lake states to assess mines on their value as property and, in the case of Minnesota, to levy upon them an additional license tax, lies partly in the related facts of the ease of the original discovery of the iron and copper and the unlikelihood of the existence of important additional ore bodies.

But a well-established mine is extremely vulnerable to political attack. There is the difficulty, in the first place, of convincing the public that the period of prospecting is not over, and that a heavy tax upon the extremely profitable mines will discourage those who are still looking for or are developing new deposits. To protect itself on this score the legislature or the tax administrators in most mining states have attempted to draw a plain distinction between well established mines and all others. The degree to which this distinction will be effective will depend upon geologic and economic factors in the states

¹⁴ T. A. Rickard, *Interviews with Mining Engineers* (1922).

¹⁵ *Fortune Magazine*, October 1936, p. 107.

¹⁶ T. A. Rickard, *History of American Mining* (New York: McGraw-Hill, 1932), ch. xvi.

concerned. Mines are vulnerable, in the second place, because the life of a deposit is necessarily limited, and to postpone the opening of a new one may not be a great social loss. In this respect, of course, mine taxation differs from farm or urban taxation.

Still another factor impedes the shifting of a tax upon mining operations. Mines are scattered and few in number, and since the investment is relatively fixed and specialized, the closing of a mine results in a considerable depreciation of equipment and even a loss of minable ore. Because there is so little salvage value, the owner frequently must continue to operate a mine with little return aside from that necessary to cover direct costs, and the value of having held his organization together.

To this unavoidable conclusion that society holds something of a whip hand over mining companies, there are a few important qualifications. Society does not live by bread alone, and regardless of immediate economic consequences the general ideals of justice cannot be arbitrarily applied without some demoralization.

From the standpoint of economic theory there is a second danger from arbitrary taxation, in that it may cause the operator to neglect the lower grades of ore in order to hasten his operations and shorten the taxable life of the mine. If the net rent of a mine were small, as in an older mine, and the costs of government remained a high fixed charge, such might, indeed, be the consequences. Any important tonnage tax or gross income tax can be assumed to raise the grade of minable ore to some extent, and economic theory alone will support the Homestake Mining Company in its contention that the bullion tax of 1937 will, to a greater or lesser extent, shorten the life of the mine.¹⁷

A third reason for moderation in a mine tax program is the danger of disruption in the political process. From the standpoint of those who believe that the true test of national welfare

¹⁷ *Homestake, A South Dakota Enterprise* (The Homestake Mining Company, Lead, South Dakota, June 1, 1939), p. 29.

is the vigor and morale of the people, this consideration overshadows all others, for a function of a tax program is to determine the scope of government and, in so doing, to direct the energies of the people. When the average citizen pays no appreciable taxes, as in some of the towns of the Mesabi Range in Minnesota, the democratic system breaks down, the political influence of the taxpayers is inconsequential, and the electorate votes itself a large number of civic sinecures. The condition in Minnesota¹⁸ is an extreme illustration, but it would be true elsewhere if the owners of the deposits did not take care to prohibit settlement upon the surface land over those deposits. Butte, Montana, adjoins, but for the most part is not over and cannot tax, "The Richest Hill in the World."

To summarize: state policy with regard to mine taxation will depend to some extent on the nature of the deposit. The value of a truly marginal mine is only the value of the improvements thereon, and there is no problem of mine appraisal. In a new continent, however, some metallics are inframarginal in nature, in that an effort to speed the extraction of ore encounters the law of diminishing returns and rising marginal costs, which in turn limits the flow of metal on the market and gives a differential return to the better mines. The differential return to an inframarginal mine may be considered a pure rent to the extent that it is not needed to encourage further prospecting. Other mines may enjoy a taxable surplus over the profits of enterprise because of an oligopoly position. From the purely economic point of view, mineral deposits are more vulnerable to high taxation than is other property. An arbitrary and discriminatory local tax policy, on the other hand, not only may result in the gutting of ore deposits, but also has met a rising cost of political control. By this is meant not only the political pressure outlined in the following chapter, but also the political demoralization, the cynicism, the friction between local and state political centers, to be more fully described in the history of state taxation.

¹⁸ Below, Chapter XXVI.

CHAPTER IV

THE PROBLEM OF POLITICAL EQUILIBRIUM

BECAUSE much of the income from metal mines has formed a unique sort of economic rent, to which broad, general, and uniform rules of taxation cannot be applied, there has resulted a complete heterogeneity in methods of treatment. The law in each state is therefore a study in political equilibrium. Even in the states professing to use the property tax¹ no two use exactly the same method, and between the extremes the difference is vast. The ordinary leveling effect of example and precept has been of small consequence, and even when, for a short while, imported economists or engineers have threatened to bring some consistency to the pattern, time and political pressures have almost blotted out the memory of their visit, and the state has returned to its native culture. To so insistent a condition there must be some undiscovered logic.

There are several reasons why the economist cannot ignore the field of causation in public finance. Where there is a fundamental cleavage between interests in any state the problems of orderly government are more important than questions of economics. Without a realization of the fact that the principles he espouses spring originally from the basic rules of government, the student of public finance may not understand the continuous readaptation of the revenue system to the social, political, and economic evolution. In a sense it can be said that he does deal with causation when he discusses the principles and studies the effects of constitutional limitations, but that his view has often been limited.

The fact that the economist has already developed a vocabulary and a discipline necessary to deal with problems of equilibrium is still another reason for his attention to the

¹ Minnesota, Michigan, Wisconsin, Arizona, New Mexico, Alabama, Kansas, Missouri.

subject. Also, many of the non-economic forces and goals are inseparable from the economic, and the laws of equilibrium are universal. In the dark and misty hinterland of the social sciences the laws of price are at one with the basic rules of population pressure and of political balance. The multitude of equilibria are interdependent and the laws of price only the more simple and obvious examples. So universal are the elements in pressure politics that the history of public finance in Arizona is cognate with the problems involved in the establishment of a world order.

When Leroy-Beaulieu objected to the graduated income tax on the ground that without uniformity in rates the tax had no certainty,² he betrayed a distrust of the public will common to most students, and an unwillingness to accept the fact that the real basis for certainty is the equilibrium of pressure groups. The advice of Bentham to the judiciary can be read with profit by economists:

Should there be a judge who, enlightened by genius, stimulated by zeal to the honest work of reformation, sick of the caprice, the delays, the prejudices, the ignorance, the malice, the fickleness, the suspicious ingratitude of popular assemblies, should seek with his sole hand to expunge the effusions of traditional imbecility, and write down in their room the dictates of pure and native justice, let him but reflect that partial amendment is bought at the expense of universal certainty; that partial good thus purchased is universal evil; and that amendment from the judgment seat is confusion.¹

The revenue laws in each of these states held in equilibrium some unusually hostile political forces, not only balancing the community desire for equity with its desire for uniformity, but arbitrating between pressure groups of widely differing conceptions of equity. The farmer thought that the large returns to the owners of mineral deposits should be shared by all residents of the state; or believed, alternately, that these mines, regardless of their need for government services, should be taxed in the same manner as other investments. To neither of

¹ Paul Leroy-Beaulieu, *Traité de la Science des Finances* (1912), I, 184 ff.

² Quoted by W. S. Holdsworth, "Blackstone's Treatment of Equity," *Harvard Law Review*, 43 (1929), 21 (from Everett Edition of Bentham, 1928, p. 214).

these basic theories did the mining interests agree. The outcome of such differences depended upon the pressures that might be exerted by the economic groups concerned, and these groups varied in strength both between states and over any period of time in the same state. The early western placer-mining communities displayed a general repugnance to any sort of tax. Wherever, after the decline of placer mining, the mines maintained some political importance, as in Nevada, Montana, or Colorado, the tax tended to be laid upon surface improvements and some combination of gross and net income rather than upon the value of the mineral deposit. Where the pressure upon them was greater, as in Arizona, New Mexico, California, and Michigan, the ad valorem tax was applied to the mineral deposit, and by law the mine was assessed, like other property, upon its market value. But for a long while the tax in Arizona, as actually administered, was higher than that on other real estate, and in Minnesota the mines not only appear to have been assessed higher than their true value⁴ but, besides paying a special license-tax on output, were taxed on a higher ratio of their assessment than other property.

The influence of pressure groups on methods of administration is everywhere in evidence. "Evolution in law, as in other cosmic facts," said John Henry Wigmore, "is always the result of a *conflict of forces*."⁵ In Michigan, Minnesota, Montana, Arizona, and Utah, centralized administration was the result of an agrarian drive upon the large corporations, of which the mines were usually the principal targets, and the tax commission itself appeared to be a weapon of rural majorities. Centralized administration did not necessarily mean more careful administration, but often it meant only that the errors should not be against the interests of the dominant political group. In Arizona the tax commission was made an elected, rather than an appointive body, even, perhaps, at some loss in efficiency, because of the belief that if it were appointed, the majority candidate for governor might be attacked and

⁴ Below, Chapters XXIII, XXVI.

⁵ John Henry Wigmore, *Problems of Law* (1920), p. 17 (italics his).

beaten on false issues, and control over mine assessments might thus indirectly fall into other hands. In the figure of speech often used by C. M. Zander, chairman of the tax commission, the mines were "assessed from the platform." Never, until a recent shift in political power, did the state make an engineering valuation except in self-defense during litigation. A similar condition appears to have existed in Minnesota.⁶

In a sense the movement toward centralized control of assessments was primarily the result of a change in the area and population of the political arena. Local mine assessments by locally elected officials have never, apparently, been as high as the actual value of the property and have often been extremely low, for the local assessor represents the balance of power in his community. So, of course, does a tax commission, and when the expansion of the political arena has sufficiently altered the balance of power, and whenever the stakes have been sufficiently high, the result has been to overvalue the mine.⁷

A generalized explanation of the difference in the treatment accorded these mines must be made with some care. The low tax on the early placer mines appears to have been a triumph of majority rule,⁸ and the continued use of moderate methods of assessment in the central and northern Rocky Mountain states was due in part to the influence of the important number of people still interested in small mining operations. But in some of these states, as well as in Minnesota, Michigan, and Kansas, there operate relatively large companies owned by non-residents, and on these the burden of the method of

⁶ Above, Chapter III. As another illustration of the thesis that administrative methods are the product of political conflict note the report of the Idaho State Auditor for 1901-02, presenting his conclusions as a member of the State Board of Equalization: "The law under which railroads are valued and assessed by the State Board of Equalization is not for the best interests of the state. . . . We must remember that the railroads exert great influence in political conventions, and that members of the State Board of Equalization, with this fact constantly before them, may be unduly influenced, unless they are very firm men."

⁷ For illustrations, see the description of the contest over the Climax Molybdenum tax in 1941 (below, Chapter XIII) as well as the histories of Arizona, Minnesota, and Michigan.

⁸ Below, Chapter V.

assessment varied directly with, and more than in proportion to, the value of the deposits. The mines in Kansas are assessed rather loosely; those in Minnesota have not only been assessed upon more than their full value, but pay additional state taxes.

Table 1 can be used to illustrate, but not to prove, the point in mind. In general, but not always, the method of taxing the mines has been burdensome when the total mineral product, or the relation of mineral to farm product, was high. This is obviously true in Minnesota and Arizona, and, together with the nature of the deposit, helps to explain the property tax in Michigan and New Mexico. The smallness of the ratio in Kansas, plus the fact that the deposits are held by farm owners before being leased and exploited by the mining company, helps to explain why there, as in Alabama and Colorado, the administration is local, and, usually, sympathetic to the mine owners. The gradual depletion of resources in Arizona and New Mexico was accompanied by a lessening of popular demand for high assessments.⁹ South Dakota's relatively burdensome tax appears to have grown partially from an effort of the state to take away from Homestake part of the gain resulting from devaluation of the dollar. The tax in Idaho and Michigan was probably affected by the geographic isolation of the mining area as well as by the type of operation.

The tendency of assessments upon mining property to rise more than in proportion to the value of the deposits is a phenomena of some significance. It can be explained by the rough statement that the agricultural group would not find it profitable to make the political effort necessary to place a heavy tax on a small mine, or even on one or two large ones. A group of mines such as in Michigan, Minnesota, or Arizona, on the other hand, might repay in tax yield an intense and expensive agrarian drive. Such a statement, of course, raises additional questions concerning the way in which such a drive is organized and led, the extent to which it is apt to be successful, and, particularly, whether a political pressure group acts as if it made a computation of the probable costs of and returns

⁹ For support of these generalizations see corresponding chapters to follow.

from political activity. If two political groups, such as those of the mining and farming interests, disagree on the proper height of state expenditures, what is the basis of the judgment of each? A description of the character of the campaigns over mine taxation will be postponed to the second part of this book, but a few generalizations on the theory of political science will be made here.

The entire history of state taxation of mines suggests the use of the marginal analysis in an explanation of revenue measures. The mining companies' demand schedule for government services might be described as relatively inelastic. The early struggles of mine owners to protect their property from confiscation by Congress, by Union troops, Confederate troops, Indians, and occasionally by strikers,¹⁰ suggests that for the fundamental services of government, and for admittance to a society which respects private property, a company might be willing to pay, if necessary, all of its economic rent,¹¹ but for additional government activity the mine was less eager.¹² For the primary governmental services, mine owners might be taxed on the basis of marginal sacrifice; but after they had built their first roads the value of additional state highways rapidly became questionable. To a homesteader, on the other hand, the protection of property was only one of the important political functions. For the education of his children, for bridges and roads, and for the protection of life, he needed the advantages of a coöperative political organization, and his

¹⁰ Below, Chapter XXI.

¹¹ Adam Smith was thinking of basic government services when he concluded: "The subjects of every state ought to contribute towards the support of the government as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state." This would be true of the most elemental need, such as protection of life. *Wealth of Nations*, book V, ch. i, Part I, "Of Taxes."

¹² In illustration of the attitude of the early miners, note the following extract from the By-Laws of December 10, 1860, of the Union Mining District in Clear Creek County, Colorado, Tenth U. S. Census, XIV, 373. "No lawyer shall be permitted to practice law in any court in the district under penalty of not more than fifty nor less than twenty lashes and be forever banished from the district." Quoted by William E. Colby, December 14, 1850; *California Law Review*, 4:439. The large mining companies had little more basic need for government than the early prospectors, for the owners were residents of, and paid taxes in, other states.

TABLE 1
VARIATION IN THE TAXATION OF MINERAL DEPOSITS

States	Agric. product ^a	Mineral product ^b	Total product	% Mineral	Ore tax base
Alabama					
1925	\$325,514	\$ 14,134	\$339,648	4.1	Property tax, local administration, limited tax rates; plus three cents a ton on iron ore.
1926	290,269	13,846	304,115	4.6	
Arizona					
1925	55,335	113,138	168,473	67.2	Property tax, state administration.
1926	52,676	113,536	166,212	68.3	
Colorado					
1925	213,230	20,851	234,081	8.9	One quarter of gross or net, whichever higher. Local administration.
1926	199,766	20,883	221,649	9.4	
Idaho					
1925	174,822	30,662	205,484	14.9	Net proceeds, local administration, plus an additional 3% on net profits for state enacted in 1935.
1926	146,944	32,969	179,913	18.3	
Kansas					
1925	539,415	22,017	561,432	3.9	Property tax, local administration.
1926	565,451	23,500	588,951	3.9	
Michigan					
1925	437,788	63,055	500,843	12.5	Property tax, state administration.
1926	406,138	68,552	474,690	16.8	
Minnesota					
1925	679,395	96,083	775,478	12.3	Classified property tax, state administration, plus 6% of defined stage of income.
1926	680,679	103,715	784,394	13.2	

TABLE 1 (CONTINUED)

Montana						Net proceeds, plus graduated tax on gross output, ranging from $\frac{1}{4}$ of 1% to 1%. State administration.
1925	177,237	61,054	238,291	25.6		
1926	178,926	59,412	238,338	24.9		
New Mexico						Property tax, state administration.
1925	56,669	13,875	70,544	19.7		
1926	65,559	14,481	80,040	18.1		
Oklahoma						$\frac{1}{2}$ of 1% on gross production raised in 1935 to $\frac{3}{4}$ of 1%.
1925	417,863	56,982	474,845	12.0		
1926	328,987	52,037	381,024	13.6		
South Dakota						6% on the value of the gold content, less a flat exemption of \$100,000.
1925	347,260	6,056	353,316	1.7		
1926	291,290	5,829	297,119	2.0		
Utah						Two times "net proceeds," plus 1% of the "gross receipts" for state purposes.
1925	89,445	83,062	171,948	48.1		
1926	76,796	83,074	159,870	52.0		
Wisconsin						Property tax, state administration.
1925	633,402	5,668	639,070	.9		
1926	642,485	7,450	649,935	1.1		

^a Compiled by U. S. Department of Agriculture, the *World Almanac*, 1930, p. 324.

^b Compiled by U. S. Department of Commerce, Bureau of Mines, Mineral Resources, 1926, Part I, Summary, pp. A97, A98, A100, A103, A105, A108, A109, A110, A112, A115, A118, A121, A124. Including only iron, copper, gold, lead, silver and zinc.
All values are given in thousands of dollars.

demand for such services was considerably more elastic. If the population had been formed entirely of either type of individual the extension of those functions could have been made without friction as incomes rose, for the marginal services demanded would in each case have approximated in value an alternative private purchase. But because these mining states were not formed of one homogeneous group, the problem became more complex.

Let us assume two groups of property owners, one composed of a dominant majority of voters, and the other wealthy, small in numbers, and non-resident. Here is an extreme diversity of interests and of political status, for the latter group is without direct vote and has no direct benefit from most government services. The relation between marginal public and private expenditure which might exist with a more homogeneous political body is now impossible, and the budget will balance more complex factors. The dominant group now spends its own dollars and some of those of the minority¹³ as well. The cost of its own tax dollar we can assume to be the alternative opportunity of private expenditure, as before, and its demand schedule for government service we can assume to remain unchanged; but the cost of acquiring dollars from the minority, for expenditure upon functions of primary advantage to the majority, raises questions peculiar to government. It is the peculiarity of a tax, in other words, that it has no particular legal relationship to the benefit of the taxpayer as an individual. The economists explain that it is for the "general" benefit, and the courts¹⁴ give no protection against taxation without benefit.

¹³ It is not always true, of course, even in the United States, that the majority is politically dominant and the minority politically subordinate, but for convenience in exposition such a condition is here assumed to be true. The politically subordinate group can be defined roughly as that whose representative members pay tax dollars of potentially higher marginal utility as private purchasing power than as public purchasing power. To the politically dominant group the marginal utility of private and public expenditures appears to be approximately equal, but there has been a gain in total utility by reason of the fact that it has drawn in taxes more from the subordinate group than it has had to spend in the political process of expropriation.

¹⁴ T. M. Cooley, *A Treatise on The Law of Taxation* (New York: Whittlesey House, 1934), par. 260 ff.

Thus the student of the science of government must consider the conditions that determine the height of a tax which one group might be compelled to pay for government services it does not enjoy. To get at the essence of the problem, let us further assume that the tax is truly upon this minority and has no economic repercussions upon the majority. To the majority the unit cost per dollar of revenue secured in this fashion consists primarily of the trouble of electing and holding in line adequate political representation and the difficulty of securing accurate information. Payments are in the nature of social prestige, political position, salary, and all the other perquisites of office; and, while the effectiveness of the payments will depend somewhat upon the availability of aggressive leadership, all of these means of payment, particularly the non-pecuniary ones, rise with the importance of the contest, and representation appears when it is needed.¹⁵ The politically contributory group may substitute for its lack of numbers social prestige or condemnation, information or propaganda, organization, more effective leadership, or even more direct pecuniary pressure.¹⁶ These weapons will be exercised with increasing vigor as the tax appears to be destined for purposes progressively less useful to the payer, until the marginal cost of defeating the tax bill may equal the probable saving in tax dollars. This generalization is subject to many elaborations in theory and action. Thus during a year like 1921 or 1935 the taxpayer may well feel that the period is critical enough to warrant a considerable expenditure of defensive political effort, for any tax, once installed, will be difficult to remove.

To prepare the reader for the charges of corruption and bribery that have marked the course of legislation on mine taxation and are quoted at times in the history to follow, some reference should be made to contemporary observations on the use of money in politics. Herring has remarked that "its use

¹⁵ C. M. Zander in Arizona, Victor Power in Minnesota, Joe Dixon in Montana, Senator Doran in Michigan, etc.

¹⁶ For some discussion of these forces see Bertrand Russell, *Power* (New York: W. W. Norton, 1936), ch. iii; Charles Edward Merriam, *Political Power* (New York: McGraw-Hill, 1934), particularly chs. x, xliii.

may be condemned because it falls short of a more rational and idealistic appeal, but it may also be condoned as a method short of violence for securing acquiescence among men."¹⁷ The question is, of course, debatable. Whether or not violence would be the alternative to present methods of representation is a matter of opportunity costs, and it is possible that the steady rise in the standard of living might produce a condition in which a wealthy minority would lose more by violence than by a gradual surrender of a considerable portion of its political power. In a democratic state the extent of the loss of power on the part of the majority will be limited by decreasing gain and increasing cost of political activity.

At the time of the formation of any federation, such as the United States of America in 1787, or of a future world government, the power granted each participant must be roughly equivalent to its potentiality as a trouble-maker. But as the federation matures and population becomes more mobile, and representation is by classes rather than by geographic areas, the military potential of the various groups becomes considerably less threatening, and the opportunity cost of violence is infinitely more than the chance of gain for all parties concerned. The new cosmic equilibria are now complete in themselves, resting on the alternative choices before each class for the peaceful employment of its respective talents in political, social, or economic activity. The alternative of violence is generally so unattractive as to be ineffective as a political force within a nation. Even the original constitution, formed to balance military power, must now balance political pressure.

In any case, it is the point of view of this study that the use of wealth is not so much a matter to be condoned as to be understood as an inherent part of any equilibrium in which men's interests are at stake.

The student of public finance should understand that under this equilibrium a tax upon wealth, inheritance, or unusual earning power may fall short of the point at which it would be

¹⁷ E. Pendleton Herring, *The Politics of Democracy* (New York: W. W. Norton, 1940), p. 336.

shifted, in a direct pecuniary sense, to the rest of society. The limit to the height of the profits tax, like the limit to the height of the sales tax, may be economic only in the sense that the political groups are motivated by economic considerations.

If this is true, what is to decide the limits to which one group may, by the use of the weapons above listed, exploit another through domination of the revenue policy of a state? The question searches the whole of the science of government, and to it such a study as this can hope to give only a partial and tentative answer. The answer will need to be couched in what is now economic terminology, for the problem is one of determining the forces behind an equilibrium. If we assume that the money taken from a minority must be spent for services which, like education or roads, are used primarily by the majority, the equilibrium will be reached somewhat in the following fashion. At certain levels of expenditure the majority will find it as easy to exact dollars from the minority as to earn tax dollars, and with the aid of this additional fund the majority can afford higher total public expenditures. Government services will expand beyond those that would be available to the majority alone, and yet not so far that the marginal cost to the majority, either of his own tax dollar or the one he secures from the minority, is as high as it would have been without the aid of the minority.¹⁸

By definition it follows that if the machinery of government allowed, the majority would prefer to use most of the minority tax dollars as a direct supplement to private income rather than to extend the services of government. The demand schedule for government service on the part of this group may be assumed to remain constant, and the point at which, normally, it would prefer dollars for private expenditure to public service of like cost may be the same as before. If it were convenient under our plan of government, therefore, the members of the dominant group would prefer to divert the tax dollars of the contributing element to their own pockets.

¹⁸ For illustration see the study of the cost of education in Arizona, below, Chapter XXVII.

This phenomenon has nowhere been more in evidence than in the Mesabi Range in Minnesota,¹⁹ where, in an effort to take full advantage of the fact that the mines pay over 90 per cent of the local tax, the number and salary of employees in some municipalities has been strikingly over-extended. Yet, even in such circumstance, the amount of satisfaction derived from this supplementary source of individual income is distinctly limited by the fact that the supply of labor above the market price is very elastic, and whether the job is appointive or elective, any return considerably above the normal will bring increasing competition for the job. It is this fact as much as any other which confines public expenditure to services for general benefit.

This barest possible framework in political science is repeatedly illustrated by the history of mine taxation. Each session of the legislature was an example in simultaneous equations, for every adjustment in expenditures demanded a new distribution of the tax, which in turn necessitated a new adjustment in expenditures. A rapid expansion of the tax base, coincident to a higher valuation of mines, as in Arizona after 1912, appears to have led to an expansion of government services in almost, but not quite, the same proportion.²⁰ The mine owners in the more important mining states have paid a higher assessment in relation to the value of their property than have non-miners, but the rate on net income has not necessarily been high,²¹ and political equilibrium has been reached before the weight of the tax threatened material injury to the mining prospects of the state.

If the point of equilibrium is reached before there is a significant shifting of the tax, the fact is of some consequence to the economic planner. It may help to explain, for instance, the tendency for the profile of income distribution to remain unchanged for long periods of time, it may act to frustrate any proposal to end a period of secular business stagnation by a redistribution of income, and it may operate to make a successful war economy difficult in a democratic state. The history of

¹⁹ Below, Chapters XXIV, XXVI.

²⁰ Below, Chapter XVIII.

²¹ Below, Chapter XXVII.

mine taxation indicates that the democratic process will allow a considerable net rent, in the larger use of the term, to those favored by economic or political advantage. The marginal cost of redistributing the less accessible portion of this rent is more than the benefit to the potential recipients.

The struggle over mine taxation has always been discontinuous, with sessions of excitement followed by long periods of relative quiet. As Morris Cohen suggests, the contest itself is very like war. "We fight without compromise and without doubt, and if anyone suggests that the other side might have some rights that we ought at least to investigate, we regard him as an enemy or perhaps a paid agent of the other side."²² Ethical principles become confused. The majority is convinced that the majority should rule and fears that it does not, while the minority fears that the majority does rule and believes that it should not. Like war, the contest itself is inherently unproductive, in an economic sense, and if the same issues arose to be settled year after year, we should be reduced to the dark ages. Fortunately, however, the boundary lines established by fair and open clash of forces can be marked upon the statute books, and both sides can retire to their business, leaving the scene to the tentative shouts of a few sentinels on the left.

To summarize to this point: the primary task, in such a study as this, is to analyze the differences in state policy. Those differences have been marked, primarily, by the tendency of the base of assessments to rise more than in proportion to the relative value within the state of this type of property. The condition can be explained only in terms of pressure-group economics, and suggests the use of the marginal analysis to explain the extent to which such an attempt might be successful. The purpose is not to develop, at this place, a theory of political economics, but to indicate the inferences that may be drawn from the particular state histories at hand. In general this experience confirms the thesis that while the pressure upon any one group will vary with its wealth, the defenses accorded wealth, in a democratic state, enable it to limit the amount of

²² Morris Cohen, "Absolutism in Legal Thought," *Pennsylvania Law Review*, 84:712.

confiscation. In actual practice the tax on the property of non-resident mine owners has usually stopped short of that level at which it would be shifted to the community in the way of loss of its mineral resources.

Let us turn now from political science to an immediate problem in the art of government. The history of mine taxation illustrates one of the most important bases of certainty or stability in the legal system, and against any background of political conflict the value of such stability is unusually apparent. From 1912 to 1920, when mine taxation was a subject of widespread and bitter dispute, the more important of the published studies on the subject unanimously endorsed the ad valorem tax upon mineral deposits.²³ The arguments were largely negative in character. The authors found that, contrary to the protestations of mine owners and operators, deposits of most common minerals could be appraised as property, and there appeared to be no logical reason, therefore, to remove them from under the same property tax that was applied to neighboring real estate. Neglecting differences in benefit from government service, these studies recommended uniform application of the ad valorem system. They inferred, as does the common law, that the state should tax property lying in a given political subdivision at a uniform rate, and under a uniform method of valuation, as if the benefit were the same. Inasmuch as the whole struggle over mine taxation has risen from this difference in benefit from government services, and a resulting difference in attitude toward state policies of taxation and expenditure, this theory of uniformity in revenue systems lies at the heart of the question of mine taxation. The basis for the need of uniformity has been little understood by the economists since Adam Smith, and the subject is important enough to repay a brief review.

Debate on the need for uniformity in legislative matters reaches back into the beginning of constitutional history, for

²³ Report of the New Mexico Special Revenue Commission (1920); Levine, *The Taxation of Mines in Montana*; Young, *Mine Taxation in the United States*; Report of the Committee on Taxation of Mines and Mineral Lands, *Proceedings of the National Tax Association*, 1913, p. 387.

the development of democratic as opposed to autocratic rule was chiefly characterized by the recognition of the rights of individuals to protection from arbitrary and discriminatory actions of their rulers, whether those rulers were monarchical or parliamentary.

Of the economists, Adam Smith, in his first two canons of taxation, came the nearest to an expression of the legal traditions of his day and country. He expressed the popular hope for equity, but recognized even more clearly the necessity that a tax be certain and not arbitrary. A very great degree of inequity appeared to be not so great an evil as a very small degree of uncertainty.²⁴ Uncertainty, we have since learned, may come from many conditions: from failure to administer laws impartially, from erratic legislation, from doubt as to legislative intent or court interpretation, and from the rapidity of social change disrupting the continuity of the law. In the England of his day the emphasis was upon administrative impartiality and clarity in the law, but in America, as in England a hundred years before, there was a demand not only for procedural certainty but also for uniformity in the substantive content of the law.²⁵ When Justice Coke had maintained that above the king was God and the Law, he meant, in the phrase of the Magna Charta, the law of the land, and into this phrase he had read the common law, protecting all men by the universality of its rules.²⁶

²⁴ "The tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought to be clear and plain to the contributor, and to every other person. Where it is otherwise, every person subject to the tax is put more or less in the power of the tax gatherer, who can either aggravate the tax upon any obnoxious contributor, or extort, some present or prerequisite to himself. The uncertainty of taxation encourages the insolence and favours of the corruption of an order of men who are naturally unpopular, even where they are neither insolent nor corrupt. The uncertainty of what each individual ought to pay is, in taxation, a matter of so great importance, that a very considerable degree of inequality, it appears, I believe, from the experience of all nations, is not near so great an evil as a very small degree of uncertainty." Adam Smith, *Wealth of Nations*, book V, ch. ii.

²⁵ Rodney L. Mott, *Due Process of Law* (Indianapolis: Bobbs Merrill, 1926), chs. iv, vi, vii, viii.

²⁶ Mott, ch. iv; Hastings Lyon and Herman Block, *Edward Coke, Oracle of the Law* (Boston: Houghton Mifflin Co., 1929), p. 179.

The theory of judicial supremacy faded somewhat in England during the eighteenth century, but in America the writings of Coke as the jurist and John Locke as the lay philosopher²⁷ dominated legal opinion. Fear of arbitrary taxation and extraordinary arrests underlay the North Carolina Petition of Liberties, the Declaration of Independence, and the fifth amendment to the Federal Constitution.²⁸ During the maturing process thereafter the same question repeatedly appeared before the courts, as witness Webster's successful plea in the Dartmouth College Case.²⁹ Even before the Civil War, 80 per cent of the states had the equivalent of a due process clause in their constitutions and the essence of due process is that men be assured that the law under which they are governed has stability over time and is applied generally to all citizens. This is the relation between the law as represented by the fifth and fourteenth amendments and the accepted principles of public finance. "The individual," said Cardozo, "cannot be singled out from among his fellows and made the victim of the shafts of malice. . . ."³⁰ Neither can this discrimination be practiced by legislative bodies, as Locke and many others have pointed out. "What is personal and arbitrary in mandate and restraint does not gain rationality and coherence because it takes the form of statute. The legislature does not speak with finality as to the measure of its power. The final word is for the courts."³¹ Uniformity, in brief, can be sacrificed only to a relatively constant social policy.³²

²⁷ "Freedom of men under government is to have a standing rule to live by, common to every one of that society and made by the legislative power erected in it." *Treatise on Civil Government*, book 2, sec. 21, quoted by Benjamin Cardozo in *The Paradoxes of Legal Science* (Columbia University Press, 1928), p. 97.

²⁸ Mott, chs. iv, vi, vii, viii; Lucius Pope McGehee, *Due Process of Law Under the Federal Constitution* (1906), pp. 5, 17, 215.

²⁹ "By the law of the land is most clearly intended the general law; a law, which hears before it condemns; which proceeds upon inquiry and renders judgment only after trial. The meaning is, that every citizen shall hold his life, liberty, property, and immunity under the protection of the general rule which governs society." (Mott, p. 202.)

³⁰ Cardozo, p. 97.

³¹ Frederic R. Condert, *Certainty and Justice* (1913), p. 99.

³² We have already observed that Leroy-Beaulieu's objection to the progres-

The word "certain" is too inclusive to indicate this characteristic of the tax system. The word "simplicity" is too weak and passive and appears to represent the point of view of the administrator only. Consider, for instance, the dissenting opinion of Justice Hughes in the Oliver Iron Mining Case:

If the ore bodies should be assessed upon net profits discounted to present value, all other real property in the state should be assessed upon the same basis. Otherwise, uniformity, which is an essential of taxation would be destroyed.²³

An attempt to assess all property upon the present value of future net profits would not be considered by the casual observer as a move in the direction of simplicity, even though it might produce a more uniform method of taxation. In many instances, on the other hand, a move in the direction of uniformity is also a move toward administrative simplicity, as witness the following extract from a report of the Minnesota State Tax Commission:

The classification referred to previously bears in mind that while it is important in classifying ore deposits of the magnitude of those in Minnesota, to give individual consideration to them, it is very essential also that some uniformity in classification be followed. There must necessarily be a fine distinction between the elements on which individual distinction can be given, and those where uniform rules should be applied.²⁴

The value of uniformity is obvious. Because political activity must be fed by economic activity, individuals cannot each go personally to the seat of government for representation. Uni-

sive income tax was based on the fact that the rates were purely arbitrary, bearing no definite relation to each other or to the cost or value of government service to individuals so classified. Those in the upper brackets appeared to have no protection against confiscation. (*Traité de la Science des Finances*, I, 184 ff.) That even under dictatorship progressive taxation must be accompanied by some rules of uniformity is indicated by Dobriner's conclusions on the results of Germany's attempt to tax persons with small incomes. "... any routine procedure which collects direct taxes from people with small incomes must strictly apply acknowledged principles of equity. Even of greater importance is it to safeguard each member of his social group with a like burden, than to arrange a fair distribution between rich and poor. . . ." Herman George Dubriner, "An outline of Germany's Experience in Taxing Persons with Small Incomes," *The Bulletin of the National Tax Association*, December 1939.

²³ *Minnesota vs. Oliver Iron Mining Company*, I, 334.

²⁴ Sixteenth Biennial Report, Minnesota Tax Commission, p. 32.

formity of law binds them together in a common destiny and a common strength. Uniformity in tax base narrows debate to the relatively simple matter of expenditures. Note for instance the relative quiet which descended upon the Arizona legislature after the session of 1915 placed all real estate, mining and non-mining, under the property tax. Witness also the tendency in states using special measures to change them frequently.

But the other side of the argument is stated by Bentham in the paragraph quoted at the beginning of this chapter. It cannot be denied that the certainty finally achieved in Arizona was based only partially on the theoretical uniformity in application of the property tax, and was due even more to the fact that the ad valorem tax held in equilibrium forces within the state which were not destined to change materially thereafter. For the advisor in public finance the question is as Bentham left it — to what extent must certainty and uniformity rest on the outcome of political pressure, and to what extent can it be imposed from the judgment seat?

Haig's treatment of the problem in New Mexico⁸⁵ might well be the classic example of the fact that when political and economic conditions in a state are unsettled, a degree of immediate certainty can be given to the law by an insistence upon procedural and substantive uniformity in the revenue system. If that uniformity is found, eventually, to run counter to the policy of the state, equilibrium will be found in another direction, but unless the advice of the tax expert and the balance of forces in the community are too far apart, this immediate certainty may be of material political value.

To summarize this chapter: to understand the variegated pattern presented by the history of mine taxation, it is necessary to have in mind a few of the basic principles of political science, for this is in reality a case study in government. The clear-cut divisions of interest between the non-resident mine owner and the farming element has presented to these states a formidable exercise in self-government, and while the solutions have varied with economic and political conditions, they have

⁸⁵ Below, Chapter XIX.

taken a pattern which seems to submit to the marginal analysis. The advisers in public finance who have been called upon to recommend, on the basis of theory, the solution to the mine tax problem have generally endorsed the ad valorem tax. This form of taxation has been considered and criticized in Chapter I, but the real issue lies in the field of law and government rather than economics. There is truly a valid reason for treating all property uniformly, and a recommendation to that effect utilizes one of the basic drives in popular government; but certainty, as Bentham suggested, is basically dependent upon equilibrium between pressure groups. The principle of uniformity, therefore, is most useful to the adviser in public finance during a period of change, when such uniformity is not too much at variance with the natural equilibrium point between pressure groups. The states which once adopt a uniform tax law will modify it thereafter by methods of administration, as in New Mexico or Arizona, or by new tax laws, as in Minnesota.

PART II

STATES WITH OTHER THAN THE AD VALOREM TAX

CHAPTER V

THE EARLY WESTERN PROSPECTORS

THE STRUGGLE over the taxation of mines has been only a part of the contest over the wealth within them. From the earliest discoveries of important metal deposits in the United States there has always been a difference of opinion over the extent to which it was necessary, for the healthy development of those resources, to give title to successful prospectors, and only after many years of debate did Congress decide to open mineral lands, like other parts of the public domain, to common access. Except that now it was couched in terms of tax burdens to be borne by the industry, the states containing these deposits faced the same question. Basically the problem had to do with the economic rent of mines, though this is not to suggest that the final decision, either as to private ownership or as to the height of the tax, has been made purely on economic grounds.

As this chapter will indicate, the pattern of the struggle was confused during the earlier years of western gold and silver mining. Soon after the opening of the California gold rush, President Polk recommended that the government either reserve the mineral lands or sell them in small tracts at a minimum fixed price,¹ and the Senate Public Lands Committee reported a bill providing for the sale of such tracts at \$1.50 per acre. But there was a strong sentiment favoring the exploitation of mineral resources by sale to the highest bidder, or otherwise, to help defray the expenses of the Civil War.² Even as late as 1864 a resolution was introduced into the House pointing out that inasmuch as the United States had succeeded to the sovereignty of the region containing the mines of Colorado and

¹E. M. Mack, *History of Nevada* (Glendale, California: The Arthur H. Clark Co., 1936), p. 423.

²R. W. Raymond, *Mines and Mining West of the Rocky Mountains* (1871), p. 422. Mack, p. 254.

Arizona, the individuals and companies occupying mines therein were there only by sufferance and had no right to continue to induce the investment of capital by innocent parties.³ At least three resolutions were introduced proposing that the federal government announce its intention to retain possession of its mineral lands.⁴

To quiet their titles, therefore, the miners were forced to work in two directions. On the one hand each mining camp established its own rules for the location of claims and for the determination of ownership of lode mines.⁵ In the preparation of these rough codes the men drew on the experience of those who had worked in other camps, or who were familiar with the laws of the European continent,⁶ but even with this rough foundation the growth of mineral law was slow and beset with continuous litigation and even bloodshed. In most early territories the lack of surveyed lines made it necessary to confine locations to statements placed in containers under piles of rock, and proof of ownership rested on sworn statements of witnesses to the effect that they had seen a location at a certain place and time. Sites of valuable lode claims, in particular, were scenes of continuous difficulty. Mack, writing of Nevada, notes that at one time the Ophir mine was a party to thirty-seven suits; the Yellow-Jacket, to thirty-two; the Savage, to twenty-nine; and the Gould and Curry, to twenty.⁷ One of the reasons for the demand for higher mine taxation in Leadville, Colorado, was the heavy expense incident to the determination of titles in California Gulch.⁸ Stakes were high and judges' salaries low, and in Nevada there were frequent charges of judicial corruption. Led by William M. Stewart, a mass meeting of several thousand people in Virginia City, in 1864, demanded and secured the resignation of a number of judges.⁹

³ 38th Congress, first session, pt. 2, p. 1860, April 27, 1864.

⁴ Sylvester Mowry, *Arizona and Sonora* (3rd ed., 1864), p. 212.

⁵ W. E. Colby, *California Law Review*, 4 (1916), 37.

⁶ Mack, p. 428.

⁷ Mack, p. 248.

⁸ Below, Chapter XII, p. 5.

⁹ Mack, pp. 257 ff. For illustration of an early codification of laws defining

On the other hand, whatever the miners might do to determine mine ownership among themselves did not alter the fact that so far as Congress was concerned they were trespassers, and they were therefore forced to contend for property rights in a national arena, the center of which seemed far away. The proposal that the federal government retain title to or in some other manner exploit these resources met with indignation and resentment from the entire West. In Idaho, said Bancroft, the Union party was thrown out of power in the territorial elections of 1864, largely because of the threat of federal taxation.¹⁰ In Colorado the message of Governor Sam H. Albert to the legislature of 1865 urged, in a manner that would have drawn the applause of Adam Smith, that the experience of all nations had indicated the advantage of private exploitation of natural resources.

The Seigniorage Act now pending before Congress proposes a system of tenantry and rental. All experience and all reason point to a system of absolute ownership as the only wise and correct policy. . . . Occupants make permanent improvements as owners, not as tenants. . . . It is the better policy for the general government. Revenues is the end desired. The wealth of a nation consists in the wealth of its citizens. . . .

Let Congress pass a revenue law taxing the gross proceeds of our mine 5 per cent, and they will drive our mines from the country. . . .

Let Congress pass the Seigniorage Act, establishing a system of tenantry, and crown our mountains with rent collectors, and the system will fail as years ago it failed as applied to our lead mines.

But let the General Government provide for the survey of our mining districts; let her give at moderate compensation, these mines in fee simple to the discoverer and prospector, under pre-emption and discovery laws, guarding against fraud and monopoly; let her leave the development and operation to the energy and enlightened self-interest of the owner, and this territory will pour into her coffers largely more revenue than under any system of tenantry.¹¹

The Idaho legislature petitioned Congress both against a mine tax and against the proposal to sell the mines containing precious metals, giving as their objection the danger that such

the organization and authority of mining districts, see Statutes of the State of Nevada, 1866, p. 141.

¹⁰ Hubert H. Bancroft, *History of the Pacific States* (San Francisco, 1882-90): vol. XXVI, *Washington, Idaho, and Montana*, p. 268.

¹¹ *The Mines Register*, Central City, Colorado, January 12, 1865.

a program would seriously discourage initiative and interfere with the development of mining, and urging that it ignored the sacrifices made to develop the mines and to defend them from the Indians. Such a proposal, said the legislature, overlooked the great uncertainty attending mining operations in general and controverted "the clause of the Federal Constitution . . . which declares that all taxes shall be uniform, as the proceeds of all mines are subject to the direct and income taxes prescribed by the Revenue laws of the United States, like all property and justly should not be doubly taxed."¹²

From Arizona Lieutenant Sylvester Mowry went east as the "delegate elect" of his community, to present to Congress the petition of 500 residents of Arizona, "better known as the Gadsden Purchase," begging for the organization of a new territory. Since annexation, said the petition, the federal government had inadequately replaced the protection withdrawn by Mexico, and the mine owners had neither title to their mines nor help in their troubles with the Apaches.¹³ As the movement for federal retention of these mineral lands grew in Washington, Lieutenant Mowry, himself a mine owner, carried on a vigorous and active campaign against it and told the readers of the *New York Herald* that a fair tax would be paid "readily and honestly" but that an onerous one would impede the opening of mines and thus "kill the goose with the golden egg."¹⁴ This warning, together with a suggestion that the mine owners of Arizona would fight for their claims and revolt if such a law were passed, he published in a pamphlet on Arizona and Sonora

¹² Quoted in the *Idaho World*, January 7, 1866.

¹³ The document resolved: "That many of your petitioners have expended their time and means in opening and prospecting rich mines of Copper and Silver, and have been driven from them by the Indians — losing their all and also many valuable lives.

"That the territory is immensely rich in minerals, especially Silver and Copper; and, as your petitioners most firmly believe, the development of these mines will make a change in the currency of the world, only equaled by that caused by the gold mines of California.

"That a great part of the Territory, between the Rio Grande and Tucson, is susceptible of cultivation and will support a large agricultural population. . . ." Sylvester Mowry, *Memoir of the Proposed Territory of Arizona* (1857).

¹⁴ Mowry, *Arizona and Sonora*, p. 212.

which went through three editions.¹⁵ But as the Civil War swept over Arizona, Mowry lost most of his constituents, and the raids of Union and Confederate forces combined with Indian depredations to discourage mining in southern Arizona for several years.¹⁶

Within Congress the opposition to government exploitation was led by senators Conness of California and William Stewart of Nevada.¹⁷ In the owners of the Comstock Lode Mr. Stewart had constituents of wealth and influence, including the Bank of California, and the uncertainty of title to so valuable a deposit had grown to be a problem of momentous importance. Indeed, one of the more important reasons for Nevada's successful petition for statehood in 1864 had been the desire to increase the pressure for federal recognition of mining titles.¹⁸ Upon its organization on December 21, 1864, the legislature asked by resolution that Congress defer action on the question of the disposal of mining property until the arrival of Stewart, their first senator.

To the bill providing for a District Court of Nevada, these two men secured an amendment to the effect that the customs and regulations of miners be regarded as law and be enforced by the courts of the United States, and that no title to mineral land be affected by the fact that paramount title to such lands still lay in the United States. The amendment provided that each case should be adjusted by the law of possession, thus establishing the principle of possessory rights, later to affect the entire problem of state taxation of mineral lands.¹⁹

¹⁵ Mowry, *Arizona and Sonora*, p. 212.

¹⁶ *The Territory of Arizona*, printed by act of legislature (1874), makes the following reference to mining in Pima County, southern Arizona. After stating that considerable investment had been made in the county after the Gadsden Purchase with fair prospect of success, it continues, "About this time the Great Rebellion broke out, and the Confederate forces took possession and confiscated or destroyed all property known to belong to Union men; then the Union forces retook the country and confiscated or destroyed all property known to belong to those in sympathy with the Rebellion, and the Indians and marauding bands took what was left irrespective of creed or parties" (p. 20). Until 1872, said this pamphlet, there had been no attempt to revive mining in Pima County. See also Mowry, *Arizona and Sonora*, ch. xi.

¹⁷ Colby, *California Law Review*, 4 (1916), 439.

¹⁸ Mack, p. 254.

¹⁹ Mack, p. 430.

In 1866 a bill framed by the secretary of the treasury for regulation and occupation of mineral lands provided that lands should be surveyed and sold to the highest bidders,²⁰ but Stewart was able to substitute his own, passed July 26, 1866, opening all mineral lands to exploitation by citizens of the United States. Federal patents were to be granted to those who had expended \$1,000 in improvements and labor, according to the rule of each mining district.²¹

Aside from protection of property rights, however, the early miners felt no great need for government, and attempts to tax them met with little success. With few exceptions the various attempts to place a tax on placer mining in the West were fruitless, and even the individual operators of small lode mines appear usually to have escaped taxes either on the value of their mines or on the production. On this the evidence is not complete, for laws were capriciously enforced and records of early tax collections are meager, but in general the only successful mine taxes were those levied upon the larger companies.

Governor Burnett, in his annual message to the California legislature of 1851, three years after the first important gold discoveries, pointed out that while six grazing counties with a population of 6,367 paid \$41,705.26 in taxes, and the agricultural counties with a population of 79,778 paid \$246,247.71 in taxes, the twelve mining counties with a population of 119,917 paid only \$21,253.66. The poll tax in mining counties was 93 per cent delinquent.²² By 1861 the mining counties of that state still held control of the legislature, and the same problem still existed. The commercial and agricultural counties, with a combined voting population of 58,933 paid \$444,915.95 in state taxes, while the mining counties with a voting population of 60,797 paid only \$168,425.26.²³ But a comparison of these fig-

²⁰ Mack, p. 430, and Raymond, p. 422.

²¹ Session Laws, 39, Session I, ch. 262, p. 251 (1866). It had earlier enacted among many war license taxes one of \$10 upon all miners whose "receipts" should exceed \$1,000. Session Laws, 38, Session II, 78 (1865).

²² W. C. Fankhauser, "A Financial History of California," University of California Publications in Economics, 3 (1913), 184 ff.

²³ Fankhauser, pp. 184 ff.

ures on voting population indicates a continuous gain by the non-mining areas, and in 1864 the legal exemption of mines from the property tax was discontinued.²⁴

In various forms the same conditions held true in other mining communities. In 1870 miners formed 40 per cent of the "occupied" population of Montana, 30 per cent in Nevada, and 60 per cent in Idaho,²⁵ but as a general rule the taxes they paid were small. During most of the placer mining era in Gold Canyon, in what is now Nevada, the territory was a part of Utah, which had no laws relative to mines or mine taxation.²⁶ The Territory of Idaho wrote into its first revenue code a tax of 1 per cent "upon all net proceeds or receipts of all mines; mining claims and mining interests . . .," but, according to the leading organ of the mining element, the law was unenforced and unenforceable.²⁷ From that part of the territory which included what is now Montana the tax collector in 1864 reported the collection of any sort of tax to be difficult.

Virginia City, Idaho Territory
August 3rd, 1864

B. F. Lambkin
Territorial Auditor
Lewiston, Idaho

Dear Sir:

Enclosed find simply a report of the amount of money received by the County Treasurer of Madison County. We have a rebellion here and can do nothing with the revenue law of the Territory. Our merchants have held indignation meetings and all refuse to pay the license, and about nine tenths refuse to pay the poll tax. The laws are very odious and unpopular with the people, and what makes it worse is the fact we are separated from you and are soon to be organized as Montana Territory. The Governor is already here and another drawback is, we have no published copy of the law, and we cannot show authority for collecting taxes. We have nothing but an old bill introduced into the House or Council but is not a certified copy of the law. . . .

Yours truly,
R. M. HAGAMAN²⁸

²⁴ California Statutes, 1863-64, p. 471.

²⁵ Table XXX, Ninth Census, Population and Social Statistics.

²⁶ Mack, p. 198.

²⁷ *Idaho World*, April 22, 1863.

²⁸ Report of the Territorial Auditor of Idaho Territory, December 1, 1864, p. 8.

The first legislature of the Territory of Montana, meeting in December, 1864, repealed the Idaho mine tax of 1 per cent on the net proceeds and substituted a measure which appears to have placed the property tax on net proceeds.²⁹ In 1866 Montana readopted the tax of \$1 on every \$100 of net proceeds,³⁰ but in 1869 exempted mines and mining claims, except for machinery and surface improvements,³¹ and the United States patent cost of \$5 an acre.

The Territory of Arizona was organized during the gold flurry of 1863 and 1864, and the excitement in Yavapai County apparently influenced the location of the territorial capital at Prescott.³² In recognition of the fact that one of the reasons for organization of the territory was the need for Indian protection, Governor John M. Goodwin, first territorial governor, suggested to the first legislative session at Prescott, September 26, 1864,³³ that all dividend-paying mines might be taxed without obstructing the development of the country, and that a license tax could be required from foreign miners. He further recommended that a large proportion of the money realized from taxing the mines be set apart as "a fund for raising, arming, and supporting in the field companies of citizens, organized as rangers, to operate against the hostile Apaches, until the last one is subdued." The Howell Code³⁴ adopted by this legislature levied a tax of 5 per cent on the net proceeds of the operations of associations, partnerships, or individuals engaged in mining, with an additional tax of 50¢ on each one hundred dollars in value of its real estate, such tax to be in lieu of other tax on

²⁹ Montana Session Laws, 1864, pp. 428, 532.

³⁰ Montana Session Laws, Third Session, p. 28.

³¹ Montana Session Laws, Fifth Session, pp. 42, 55.

³² Bancroft, *Works* (San Francisco, 1882-90), XVII, *Arizona and New Mexico*, pp. 580, 586. For descriptions of placer mining during the sixties see Mowry, *Arizona and Sonora*; R. C. McCormick, *Arizona, Its Resources and Prospects* (reprint of letter to the *New York Tribune* of June 26, 1865, describing the known mineral wealth of four Arizona counties); Mack (pseudonym) in the *Evening Post*, New York, December 30, 1865 (weekly edition), with descriptions of placer mines in Arizona (Bancroft Library).

³³ Frank C. Lockwood, *Pioneer Days in Arizona* (New York: Macmillan, 1932), p. 152.

³⁴ Drawn by Justice William T. Howell, Judge of the First Judicial District. Lockwood, p. 261.

machinery, implements, real estate, or fixtures. Sixty per cent of the proceeds were to be paid into the territory treasury for the employment of soldiers to protect mining property from Indian raids.³⁵ The law was repealed two years later.³⁶

But while these early prospectors were opposed to taxes upon mining as such, they did find an important source of revenue in the Chinese, who were adept placer miners and usually moved into a gold field soon after the cream of the deposits had been skimmed by the whites.³⁷ The first tax upon them was apparently only a part of a general confiscatory law directed at miners who were not natives of the United States or who had not become citizens under the treaty of Guadalupe Hidalgo. This foreign miners' license of 1850³⁸ levied \$20 a month for the privilege of mining in California, with the alleged purpose of better maintaining government in the mining counties, and it was intended to remain in force until the governor should, by proclamation, announce the passage of a law by Congress whereby the United States government assumed the duty of regulating the mining of precious metals in the state. The governor was directed to appoint one collector of the license for each mining county and one for the county of San Francisco.³⁹

The act was received with great indignation by the large foreign population, and the Spanish-Americans of southern California, some of whom hailed from Sonora, Mexico, and some of whom were old residents of the state, openly resented this attempt to expel them from the mines.⁴⁰ The courts refused to interfere. In *People ex. Rel. the Attorney General v. Naglee*⁴¹ the supreme court held that the charge was a fee, which the foreigner need pay only if he chose to engage in mining operations. "It is a license fee, and not a tax; and unless the

³⁵ Howell Code, pp. 409, 241.

³⁶ Compiled Laws of Arizona, 1864-1871, p. 487.

³⁷ Bancroft, *History of the Pacific States*: vol. XXVI, Washington, Idaho, and Montana, p. 427.

³⁸ Statutes of California, 1849-50, p. 144.

³⁹ Fankhauser, pp. 101 ff.

⁴⁰ Bancroft, *Works*: vol. XXIII, *History of California*, VI, 604. Josiah Royce, *California* (1886), pp. 356-368.

⁴¹ 1 Calif. 232, 253 (1850).

statute be constitutional, we see not how any license law can be constitutional." ⁴²

In a mass meeting in Stockton on March 6, 1851, the act was called a scheme to depress the southern mines; ⁴³ for it had resulted in loss of business and had aroused the opposition of the merchants. In spite of widespread evasion the act produced a revenue of over \$33,000 during the time it was in force. In 1851 the law was repealed, and a year later a new license tax was adopted which fixed the fee at \$3 a month. ⁴⁴

The original law, incidentally, well represented popular sentiment among a large group of miners in southern California, where there had been some effort to expel Mexican and South American miners by mob violence. In July, 1852, Spanish-American and French owners of expensive and valuable claims in Mariposa were violently dispossessed, and there were resolutions ordering foreign miners from other claims. ⁴⁵

Prejudices were not so strong in the North, but in the spring of 1852, resolutions passed by miners' meetings at Bidwell's Bar, at Foster's Bar, at the Rough and Ready, and elsewhere, attempted to exclude foreigners from nearby workings. The miners at Bidwell's Bar expressed their indignation against "all merchants and shipping agents engaged in transporting a countless number of villains from all parts of the world to California." ⁴⁶

In any case the license of \$3 a month was found to be more practical and perhaps a narrowing of objective. ⁴⁷ Chinese translations of the act of 1853 were ordered circulated throughout the mining counties. The sheriff was charged with the administration of the law and was allowed 10 per cent for his trouble, the remainder being apportioned equally between the county and the state. The yield was \$53,121.01 for 1853. A

⁴² At p. 253, quoted by Fankhauser, p. 136, fn. 19.

⁴³ Royce, meeting reported by the *San Francisco Alta*.

⁴⁴ Fankhauser, pp. 151, 159.

⁴⁵ Royce, quoting *San Francisco Alta* of July 13, 1852, and E. Auger, in *Voyage en Californie* (1857), describing an affair in which some of his countrymen were robbed of their mines.

⁴⁶ Royce, quoting *San Francisco Alta*, May 31 and June 15, 1852.

⁴⁷ Statutes of California, p. 84.

year later the legislature raised the license to \$4 and granted the sheriff 15 per cent for collection, except that in counties where the board of supervisors or the county judges considered this fee inadequate, it might be raised not to exceed 25 per cent.⁴⁸ Receipts under this law were \$100,557.92 in 1854 and \$123,323.25 in 1855. With minor changes the license remained the same thereafter,⁴⁹ with collections as follows:⁵⁰

1856.....	\$185,759.35	1863.....	\$186,945.81
1857.....	138,604.64	1864.....	174,575.48
1858.....	129,967.91	1865.....	123,067.75
1859.....	119,871.67	1866.....	112,961.90
1860.....	117,056.47	1867.....	79,650.93
1861.....	160,778.84	1868.....	60,443.05
1862.....	139,729.22	1869.....	14,194.59
	1872.....		\$325.92

In 1868, the decreasing yield of the tax and the large debts of the mining counties caused the entire tax to be diverted to local purposes, 10 per cent to the school fund and 90 per cent into the general fund.

The foreign miners' license came to grief in the courts only once, and that for an effort to extend it arbitrarily to include all foreigners, whether miners or not, if they were resident of a mining district. The law of 1861⁵¹ provided that all foreigners who resided in a mining district and who had not taken the necessary steps to become citizens, or who were ineligible to become citizens, should be considered miners within the scope of the tax, and those who refused to pay were to be reported to the road overseer for work on the highways. The law was contested by one Ah Pong, who refused to do either and who thereupon was sentenced to twenty days in the county jail. The law was held by the state supreme court⁵² to be

⁴⁸ Statutes of California, 1853, p. 62.

⁴⁹ Statutes of California, 1855, p. 16; 1856, p. 141; 1857, p. 60; 1858, p. 302; 1861, p. 419.

⁵⁰ Fankhauser, p. 199.

⁵¹ Statutes of California, p. 419.

⁵² 19 Calif. 106 (1861).

unconstitutional to the extent that it provided that residence in a mining district subjected a foreigner to payment of the tax.

Fankhauser observes that because of the high tax and the anti-Chinese sentiment in California many of them left the state for the newly discovered placer mines in Idaho and Montana.⁵³ If this was their reason, they were doomed to some disappointment, for the Idaho law of 1865, following by a year or so the gold rush to this territory, must have reminded them of the state they had left:

No person not being a citizen of the United States, or who shall not have declared his intentions to become such, shall be allowed to take gold from the mines of this territory or hold a mining claim therein, unless he shall have a license therefor. . . .⁵⁴

The license was \$4 a month, as in California, with 10 per cent going to the collector and the remainder apportioned equally between the territory and the county. Mere residence in a mining district was proof that a foreigner was a miner, unless he were directly engaged in some other lawful business. To make the law particularly clear the Idaho act provided further that

all Mongolians, whether male or female and of whatever occupation, shall be considered foreigners, and shall pay a license tax of four dollars for each and every month they reside in this territory.

Any company or person hiring foreigners, or interested in them as partners, or in any other way connected with foreigners in working or possessing mining grounds was held liable for the amount of the license.

The Idaho miners found the California precedent admirably suited to their condition and temperament. A correspondent wrote from Owyhee County, Idaho, to the *Idaho World*, in 1865, "Our camp is likely to be taken, subdued, and occupied by the celestials. A large gang lately arrived, and hundreds more are on their way here."⁵⁵ The editor of the *Idaho World* undoubtedly expressed the sentiment of many of his readers when he suggested that only force would stop the invasion, and

⁵³ Fankhauser, p. 200.

⁵⁴ Laws of the Territory of Idaho, Second Session, p. 406.

⁵⁵ *Idaho World*, May 6, 1865.

in 1870, out of a total population of 14,999 in the territory of Idaho, the Chinese numbered 4,274.⁵⁶ The peak of the gold rush to Idaho had been passed several years before, and in five Idaho counties the Chinese nearly equaled the whites or were in majority.⁵⁷ In Shoshone County there were 468 Chinese and 252 whites.⁵⁸ By 1880 the total population of the territory had risen to 32,610, and the number of Chinese had fallen to 3,379, but in Boise County, containing the most important gold fields, the ratio of Chinese to whites was still 1,225 to 1,970.⁵⁹

The session of 1866 was still more blunt than that of 1865:

No Chinaman, Malayan, or other person of the Mongolian race, shall be allowed to take gold from the mines of this territory, or hold or work a mining claim therein, unless he shall have a license therefor, as hereinafter provided.⁶⁰

The license under this act was raised from \$4 to \$5 a month, the collector to receive 20 per cent, the territorial government 30 per cent, and the county the remainder. Provision was made that mining grounds, improvements, tools, and machinery might be sold to pay the tax, upon an hour's verbal notice, and the tax gatherer was directed to pursue any delinquents who fled to another county. The fact that over 20 per cent of the population by the census of 1879 was neither native born nor Chinese⁶¹ may indicate the reason for clear application of the law to members of the Mongolian race.⁶²

⁵⁶ Ninth Census, I, 23.

⁵⁷ Ninth Census, I, 23.

⁵⁸

	White	Chinese
Ada	2569	....
Alturas	369	413
Boise	2057	1754
Idaho	415	425
Lemhi	864	120
NexPerce	837	747
Oneida	1921	....
Owyhee	1334	368
Shoshone	252	468

Ninth Census, I, 23.

⁵⁹ Tenth Census, I, 387.

⁶⁰ Laws of the Territory of Idaho, Third Session, p. 174.

⁶¹ Ninth Census, I, 307.

⁶² The next session carried the idea still farther. For "Mongolian miners" the tax remained the same, but for every Mongolian keeper of a gambling house,

Administration of the law was relatively easy. It was said that the Chinese came into the office of the tax collector in droves of fifties and hundreds to pay over their tax,⁶³ and the belief was expressed that the office of tax collector in Boise County was worth \$23,000 a year.⁶⁴ The governor complained that in certain counties of the territory some of the officials received compensation greater than the combined salaries of the governor and all the judges.⁶⁵ But the following comptroller's report for 1870 throws some doubt on the authenticity of the governor's information; for the territorial government's share of this tax appears to have been less than \$3,500:

Property tax	\$25,724.30	1.00
Licenses on business.....	5,054.53	20% of total
Poll Tax	5,373.81	2.00
Foreign miners	3,473.22	30% " "
Gambling and Bawdy House		
Licenses	191.44	20% " "

Foreign miners' licenses for 1866 had been about 25 per cent more.⁶⁶

The Chinese attacked the Idaho law in court on two counts. George Dyson, a Chinese not engaged in mining, paid his mine tax under protest, and in the case of *George Dyson v. James L. Crutcher*, in the district court,⁶⁷ maintained successfully that the law could not tax as miners those who were not, actually, in that occupation. This part of the law resembled the portion of the California code which had been declared unconstitutional by the California court in *ex parte Ah Pong*.⁶⁸ But the success of this suit apparently had little immediate effect upon the

brothel, or bawdy house, the license was to be fifty dollars a month. But this latter proved to be unsatisfactorily high, and the next legislature lowered the license on foreign gambling houses to twenty-five dollars and on bawdy houses to ten dollars. (Laws and Resolutions, Fourth Session, p. 124, Fifth Session, pp. 57, 58.)

⁶³ *Idaho Statesman*, Nov. 30, 1869.

⁶⁴ *Idaho World*, Oct. 17, 1874; *Idaho Statesman*, May 21, 1870.

⁶⁵ Governor Bunn's Message, House Journal, Twelfth Session, p. 11.

⁶⁶ Comptroller's Report, 1866.

⁶⁷ *Idaho World*, March 24, 1866.

⁶⁸ 19 Calif. 106.

customs of the territory, for the *Idaho Statesman* of May 17, 1866, reported that in spite of the decision rendered two months before, effort was still being made to collect the "Miners' License" from washerwomen, children, and other persons not engaged in mining.

By 1869, the Chinese were reported to have hired able lawyers to contest the legality of the entire tax under the Burlingame treaty.⁶⁹ Their first effort was the case of *Ah Bow v. Frank Britten*, in the second judicial district, but although Chief Justice Noggle denounced the law in a long opinion (which the *Idaho World* called a stump speech), he ended by pronouncing the case out of his jurisdiction.⁷⁰

But help came suddenly from another direction. The tax had received unfavorable comment in the East, and was regarded in many quarters as an "unqualified outrage."⁷¹ Congress by act of 1870 disapproved and annulled so much of the Idaho revenue law

as provided for a special license, or tax, to be collected of or paid by Chinamen, or persons of the Mongolian race, who may be engaged in mining . . . and so much of all other laws of said territory as discriminates between persons of said race and other persons, in regard to taxation.⁷²

By 1873, few of the placer claims could be worked profitably by the whites. For every profitable claim owned by white men there appear to have been five or six which returned profits to the Chinese, and a few camps were exclusively worked and owned by them.⁷³ Nearly half of the production of precious metal in Idaho came from the quartz mines of Owyhee, Alturas, and Boise counties.

Western Montana, also, gave considerable attention to the taxation of Chinese. The Montana legislature of 1869 spent a

⁶⁹ *Idaho Statesman*, July 20, 1869.

⁷⁰ *Idaho World*, Sept. 2, 1869.

⁷¹ *Idaho Statesman*, Dec. 7, 1869, quoting the *Atlantic Monthly*.

⁷² Session Laws, 16, Session II, p. 366.

⁷³ R. W. Raymond, *Statistics of Mines and Mining in the States and Territories West of the Rocky Mountains* (1874). Quoted in C. W. Henderson, *History and Influence of Mining in the West, in Ore Deposits of the Western States* (A. I. M. E.), pp. 740-741.

full day debating a bill to license foreign miners,⁷⁴ but compromised on a license of \$15 a month on Chinese launderers.⁷⁵ The tax was not as arbitrary as it appears, for auctioneers paid \$20 a month, butchers \$7 a month, and boarding houses and restaurants \$15 a quarter,⁷⁶ but at the next session Governor James M. Ashley, federal appointee, recommended repeal of the Chinese laundry tax on the ground that it was oppressive, unequal, and unjust and took fully a quarter of the gross earnings of the business,⁷⁷ and he delivered an address on the general injustice of such discriminatory acts against the Chinese. Other opponents of the measure denounced it as being Republican rather than Democratic in principle⁷⁸ and pointed out the lack of logic in contending, on the one hand, that Mongolians should be kept out of the country, and, on the other hand, proposing to levy a tax of \$4 a month for protection. Nevertheless, a tax on Chinese miners of \$4 a month is reported to have passed the legislature,⁷⁹ though it failed to appear on the statute books, owing, probably, to the attitude of the federal government. The session of 1871-72 again gave the matter grave consideration. The reporter from Virginia City, territorial capital, to the *Helena Daily Herald*,⁸⁰ found no dissenting vote in the legislature on the point that the Chinese were an "abominable nuisance in the Territory," but that there was no agreement on means for abating the nuisance.

The Chinamen come to Montana with the paramount object of placer mining, and, as a rule purchase and work ground for themselves. The result reached at even this early date is alarming, in that they now own and work quite one-third of the placers of the Territory, the products of which the citizens of Montana scarcely see a dollar, and is forcing men to seek employment beyond our borders of thousands of that class of citizens who are needed for our continued prosperity, leaving us today with a bona fide citizen population depleted nearly one-half within three years. Once here, we find them hired in the kitchen, on the ranch, in laundries,

⁷⁴ *Helena Weekly Herald*, Jan. 5, 1869.

⁷⁵ Fifth Session, 1868-1869.

⁷⁶ Fifth Session.

⁷⁷ Governor's message, December 11, 1869.

⁷⁸ *Helena Weekly Herald*, Dec. 29, 1869.

⁷⁹ *Helena Weekly Herald*, Dec. 29, 1869.

⁸⁰ December 12, 1871.

mines, and in fact, crowding out laborers of other nationalities from vocations by working for prices at which white men cannot live. . . .

Of course, any law enacted to the effect that Chinamen shall not hold, acquire, etc., would be declared by Congress null; but a law which will prohibit all aliens from enjoying the possessory rights of our placer mines would accomplish the desired aim without any detriment to the interests of our people from other nations except China, and would not, it is presumed, conflict with either the Constitution or that so-called reciprocity (but one-sided) Burlingame treaty.⁸¹

Two bills to this purpose were introduced, and their failure to pass aroused the deep indignation of much of the territory.⁸²

While in Idaho and Montana the attempts to tax the Chinese were thus curbed by the federal government, the father of and the model for the anti-Chinese legislation remained for many years lusty and unabashed upon the statute books. Standing, perhaps, as permanent testimony to California's indignation at the transportation of "a countless number of villains from all parts of the world to California," this law was never expressly repealed by the legislature nor disapproved by the courts, and only with the help of a code commissioner did it finally pass from sight.⁸³

⁸¹ *Helena Daily Herald*, December 12, 1871.

⁸² *Helena Daily Herald*, December 21, 30, 1871; January 11, 1872.

⁸³ See Code Commissioner's annotation to Deering's General Laws of 1923, Act 4327, p. 1620. See also Index to the Laws of California, 1850-1907, and Code Commissioner's notes of 1905 and 1907 prepared by John F. Davis, Commissioner for the Revision and Reform of the law, printed by Supt. of State Printing, 1908, pp. 945 ff.

CHAPTER VI

NEVADA

NEVADA'S EXPERIENCE with mine taxation has been of unusual interest to other mining states. The fact that miners, even as between themselves in a county or state dominated by the mining industry, demanded a tax on income rather than on property is sufficient to raise a serious question as to the suitability of ad valorem taxation of mineral deposits. Basic to the democratic system is the theory of self-government; and if, because of the technical problems of assessment, or because of the relative strength of mine pressure groups, a mining community forms a distinct and unique policy with regard to taxation, it is of material significance to those interested in the art or in the science of public finance. The rural property tax, it should be remembered, was self-imposed. Any revenue system, of course, has weaknesses peculiar to itself, and the history of this state, as well as that of Idaho, Montana, Colorado, and Utah, demonstrates an insurmountable technical difficulty in the enforcement of a tax on net income. An estimate of the true net and gross income can be determined only with an exorbitant expenditure of money, and the state is left, therefore, to find a compromise between the evil of statutory definition of mine costs and income, and the evil of administrative discretion. The chief characteristic of this method of taxation is that the errors tend to be in favor of the more crafty taxpayers.

In no mining territory was there a continuity of policy in the matter of mine taxation, and the fact that Nevada most closely approximated such a condition is due to two related factors, the early discovery of the Comstock Lode and the early formation of a state government, the one forming a productive base for mine taxation and the other the necessity for revenue.

Mines in Utah paid no taxes except upon surface improvements until after the admission of that state into the union,¹ so that during the seven years from 1850 to 1857 there was no revenue law directly applicable to the placer mining operations in Gold Canyon, in what is now Nevada.² But the Comstock opened in 1859, and upon the organization of Nevada Territory two years later Governor Nye suggested a tax on gross ore production.³ Activity in Storey County accelerated rapidly and the Nevada population of 6,857 in 1860 was thought to have tripled in three years.⁴ This first session of the Nevada Territorial Legislature, therefore, enacted a tax of \$1 upon each \$100 of value of mineral production as well as upon all other property.⁵ In 1864 the last territorial legislature removed the special net proceeds tax from the mines and substituted the property tax.⁶

The demand for statehood came very early in this small territory. The step was acceptable to President Lincoln and his advisors because they desired an additional state to insure passage of the Thirteenth Amendment,⁷ and they welcomed, also, the rapid expansion of silver production as a means of strengthening the credit of the North during the Civil War.⁸ But Colorado had turned down the suggestion of statehood,⁹ and the action of Nevada must be explained in part by the fact that the early discovery of the Comstock Lode and the rapid growth of several mines in Storey County brought quickly to the attention of these pioneers in quartz mining the need of congressional protection of capital invested in mining enterprises. Even by 1870 the population of the state of Nevada was only 38,959,¹⁰ and when, in 1864, the state was formed,

¹ Below, Chapter VII.

² Mack, *History of Nevada*, p. 198.

³ Mack, p. 230.

⁴ Mack, p. 249.

⁵ Laws of the Territory of Nevada, pp. 152, 1861.

⁶ Third session, 1864, Laws, p. 38.

⁷ Mack, pp. 247 ff.

⁸ George Rothwell Brown, *Reminiscences of William M. Stewart* (1908), ch. xviii.

⁹ Mack, pp. 247 ff.

¹⁰ Census of 1870, Population, p. 48.

Nevada was forced to impose new taxes on its only important industry.

The first constitutional convention, in 1863, witnessed a bitter debate over the problem of taxation. That money could be raised by a property tax and by licenses, after the system in California, was obvious, but the mining companies objected strenuously to the proposal to place such a tax upon mineral deposits as had been levied by the last territorial legislature.¹¹ As presented in the constitutional convention the proposal read as follows:

The legislature shall provide by law for a uniform and equal rate of assessment and taxation and shall prescribe such regulations as shall secure a just valuation for taxation of all property, both real and personal including mines, and mining property;¹²

The ensuing contest is important in the history of mine taxation because here was one of the first public discussions of the applicability of the general property tax to lode mines. The opposition of the mining press was based on the thesis that mines, unlike other types of property, were uninsurable, that federal revenue laws had exempted them from taxation, that there was no practical method of valuing a mine, and that no country in Europe subjected mines to the ad valorem tax.¹³ To the charge that farmers had a right to equal treatment with mines, in the matter of taxation, the newspapers replied that miners could not be compared to those who live at home in ease. William M. Stewart, the leading personality in the territory and a representative of the most important mining county, objected that the provision would impose a burden upon miners heavier than they could bear, and would mean the taxation of shafts, drifts, and tunnels whether they were productive or not. He proposed an amendment to the effect that unproductive mining claims should not be subject to taxation and that productive claims should be taxed only upon their net proceeds.

When the convention adopted the original provision by vote

¹¹ Third session laws of the Territory of Nevada, 1864, p. 38.

¹² Mack, pp. 251 ff.

¹³ *Virginia Evening Bulletin*, published Virginia, N. T., November 17, 18, 24, 27, 1863.

of twenty-one to ten, Stewart, following a promise made during the convention, and spurred no doubt also by his status as legal adviser to the Comstock, led the campaign against the adoption of the constitution and defeated it on the strength of the mine tax proposal and certain local jealousies over state offices.¹⁴ During the campaign the opinion was expressed that statehood would be worth less than its cost — that even a population of thirty thousand would find it difficult to raise half a million dollars annually.¹⁵ The argument was not without logic. The financial condition of the territory and of the state soon to be formed was undoubtedly precarious. Scrip issued by municipalities fell below a third of face value, and even by 1871 the half million dollar bonded debt of Nevada paid 15 per cent interest, while an additional \$150,000 of floating debt paid more.¹⁶

The proceedings of Nevada's second and final constitutional convention in 1864 reflected the prevailing confusion on the subject of mine taxation. Besides the disagreement over the desirability of ad valorem taxation, there was a genuine uncertainty over the extent to which the Enabling Act allowed the assessment of mineral lands. Mining men were solidly against the principle of taxing mines as such, on the ground that to do so would be to tax the hopes and aspirations, rather than the wealth, of individuals.¹⁷ To an impressive degree, the rapid fluctuation of mine values bore them out. In the principal mining district there had grown up a market in "feet" and "inches" of the better known mines, even before the opening of the San Francisco Stock and Exchange Board in 1862,¹⁸ and while these quotations would have furnished an easy method of valuation, they too often reflected mere speculative frenzy. Delegates from Storey County pointed out that the Gould and Curry, worth six thousand dollars a foot at the time of the previous year's assessment, was now worth only fifteen hundred,

¹⁴ Mack, p. 252.

¹⁵ *Virginia Evening Bulletin*, Dec. 24, 1863; Jan. 4, 5, 1864.

¹⁶ *Daily State Register* (Carson City), Jan. 4, 1871.

¹⁷ Proceedings of the Constitutional Convention, p. 325.

¹⁸ T. A. Rickard, *A History of American Mining*, p. 228.

and a half dozen other mines had depreciated in value as rapidly.¹⁹ Owners of other sorts of property retorted that city lots fluctuated in value with the mines around them and that such fluctuations could be taken account of in assessment. To the proposal that mines should be taxed on net income, the farm representatives asked that for the sake of uniformity all property be so taxed.

In view of these opposing points of view, it is somewhat surprising to find that the Storey County representatives early in the convention proposed a rule of uniformity, allowing the legislature to prescribe such regulations as might secure a just valuation for taxation of all property, real and personal. That a provision so similar to the ad valorem tax recently defeated by the mining element should be suggested by that same group is interesting enough, but it is even more startling to find it opposed by the farmers. The explanation is that both acted in the belief that the phrase in the Enabling Act providing "... that no taxes shall be imposed by said State, on lands or property therein, belonging to or which may hereafter be purchased by the United States," would prevent assessment of possessory rights in mines. For another two years the status of western mining claims was to remain seriously in doubt, and this uncertainty on the part of the Nevada Constitutional Convention merely reflected a feeling of insecurity prevalent throughout the Rocky Mountains. The federal government, as has been explained, had never declared these mineral regions open to patent; most of them had not been surveyed, and, except for a gradual growth of mining law accepted by the mining district themselves, there was no guarantee of title to the deposits.

The uncertainty in the minds of the delegates was in no way lessened by the fact that the temper of the voters had already proved somewhat irascible.²⁰ The Comstock Lode, now four years old, might be susceptible to ready taxation by any of

¹⁹ Official report of the Debates and Proceedings in the Constitutional Convention of the State of Nevada, July 4, 1864, pp. 224 ff.

²⁰ Official report, statements of Fitch, p. 226; Chapin, p. 229; Delong, p. 320; Collins, p. 344.

several methods, but the mass of small mining claims provided a different problem. Storey County, small though it was, included a large part of Nevada's population and wealth. Of a total territorial population of 6,857 in 1860, 2,345 lived in Virginia City,²¹ and of 5,673 employed in Nevada, 2,905 were miners. The total valuation of Storey County in 1863 was fourteen million dollars, out of a state valuation of about twenty-five million. The three agricultural counties of Ormsby, Washoe, and Douglas had valuations totaling about two and a third million. Out of several days of argument came a compromise provision stating, with curious irony, that the legislature should provide the means to "secure a just valuation for taxation of all property, . . . excepting mines and mining claims, the proceeds of which alone shall be taxed."²²

The first state legislature placed a tax of \$2.75 on all except mining property, and a tax of \$1.00 a hundred on net proceeds of mines.²³ Net proceeds of mines were defined by providing that \$20 a ton should be deducted from the value of all ores, and that 75 per cent of the remainder should bear the net proceeds tax.

To a large extent it is true, as Bancroft suggests, that this and other lode-mine taxes were products of compromises between mining companies rather than between mining and farming elements. The richer deposits of the older mines were soon worked out, and effort was made, therefore, to draft the law in such a way as to exempt low grade ores from taxation.²⁴ Judge S. H. Wright, of the Second District Court, considered the law to be unconstitutional and secured a like opinion from the court, not as to the exemption of \$20 per ton of ore, for the legislature had a right to define net proceeds, but as to the limitation of the tax base to 75 per cent of the remainder.²⁵ Before the state won its suit the legislature changed the law to

²¹ U. S. Census of 1860, Population, p. 564.

²² Compiled Laws of Nevada, 1861-1873, I, cxxvi.

²³ Statutes of the State of Nevada, 1864-65, first session, pp. 271, 306.

²⁴ Bancroft, *History of the Pacific States*: vol. XX, *The History of Nevada, Colorado, and Wyoming*, pp. 194 ff.

²⁵ *State vs. Estabrook*, 3 Nevada 173.

allow deduction of \$18 per ton for the treatment of ordinary ores and \$40 for those worked by the Freiberg or roasting process, the remainder to bear the property tax rate of \$1.25.²⁶ There were those in the state who still considered the tax to be too low, and who pointed out that the Bank of America interests in the Comstock Lode were evading the cost of construction of the Virginia and Truckee Railroad, for the building of which the counties of Ormsby and Storey had lent their credit and were even then levying taxes of 1 per cent and $\frac{1}{2}$ per cent on property within their respective areas.²⁷

With the sudden rise of the Bonanza companies — the California and Consolidated Virginia — with ore valued at between \$80 and \$95 a ton, tax rates were again the object of a protracted contest. These two new companies upset the political and economic balance in the state. Governor H. G. Blasdel, representing a constituency not entirely mining, had asked in 1871 that because the mine tax law had not operated uniformly, ores be valued as of the mouth of the mine by deducting from the gross yield the actual cost of transportation and reduction.²⁸ The legislature, loath to leave the determination of net proceeds to administrative officers, provided instead that net proceeds be determined by deducting from the gross the actual cost of mining, smelting, and transportation, and established maximum permitted deductions as follows:

- Ore valued at less than \$12 was allowed deductions not to exceed 90% of gross
- Ore valued at \$12 to \$30 was allowed deductions not to exceed 80% of gross
- Ore valued at \$30 to \$100 was allowed deductions not to exceed 60% of gross
- Ore valued at over \$100 was allowed deductions not to exceed 50% of gross²⁹

²⁶ Statutes of the State of Nevada, Special Session, 1867, pp. 159, 160.

²⁷ Statutes of the State of Nevada, 1869, pp. 49, 43; Bancroft, *Nevada, Colorado, and Wyoming*, pp. 194 ff.

²⁸ *Daily State Register* (Carson City), Jan. 4, 1871.

²⁹ Session Laws, 1871, ch. xxxv.

The law was arranged in such a way as to place most of the larger companies in the second bracket, but the Consolidated Virginia and California mines, with production suddenly running over a million dollars a month, found themselves in the third bracket. These companies made a strong effort to change the law, and the dispute not only took a prominent place in the elections of 1876 but also found its way into the Supreme Court of the United States.

The taxes were in litigation during the campaign of 1876. The municipalities were already much in need of the revenues in dispute, but both political parties and many candidates were pledged against any reduction of the bullion tax. The contest attracted wide attention.⁸⁰

Some idea of the effect of the mine tax during the period is indicated by the nature of the arguments presented. The *Territorial Enterprise*, mining organ, quoted the report of State Controller W. W. Hobart to show that during the four years 1871 to 1874 mines bore a large share of the cost of government:

	1871-72	1873-74
Mining tax	\$132,653	\$299,013
Property tax	199,033	211,225 ⁸¹

It was unjust, said this paper, to compel Storey County to bear one-third to one-half the state tax burden, and still more unjust to exact the amount from eight or ten Comstock mining companies.⁸² The Abstract Statement from the Quarterly Assessment Roll of the Proceeds of the mines of Storey County, for the quarter ending December 30, 1876 (Table 2), indicates the type of mine upon which this tax impinged and the reason for the discontent of the two so-called "bonanza" mines with it.

The kinds of pressure which these two mines could bring upon the legislature to change the classification were few in number. Primarily they centered around the need of the communities for the revenue under litigation and the cost of such

⁸⁰ Bancroft, *History of the Pacific States*: vol. XX, *Nevada, Colorado, and Wyoming*, pp. 194 ff.; *Territorial Enterprise*, Feb. 22, 1877.

⁸¹ *Territorial Enterprise*, Jan. 28, 31, 1875.

⁸² *Territorial Enterprise*, Jan. 31, 1875; Feb. 13, 1877.

TABLE 2
THE BURDEN OF TAXATION ON THE MINES IN STOREY COUNTY

Mine	Tons extracted		Value gross yield	Cost of extraction	Cost of transportation	Actual cost of reduction or sale	Total cost	Amount deducted by law	Net yield or value on which taxes levied	Total amount of tax
Belcher	20,374	\$16	341,350.78	\$341,350.78	.....	\$ 225,114	461,108	80%	\$ 68,270.15	\$ 1,672.63
California	44,755	83	3,725,124.16	.....	.....	1,424,214	1,424,214	.....	2,300,909.81	44,867.74
Con. Virginia	30,168	95	2,897,699.25	.....	.....	929,746	929,747	.....	1,967,952.58	38,375.08
Crown Point	2,505	11	29,623.08	.....	.....	57,228	57,228	90%	2,962.31	72.57
Chollar-Potosi ...	10,160	19	197,991.78	126,528.40	\$111,760	258,890	238,288	80%	39,584.35	771.89
Justice	22,512	26	600,904.03	247,632.00	11,256	.....	517,778	80%	120,192.80	2,944.72
Ophir	17,346	24	422,478.40	173,562.00	208,273	.....	381,835	80%	84,495.68	.....
Total									\$4,584,367.68	\$90,352.30 ^a

^a *Territorial Enterprise*, Feb. 11, 1877, also gives taxes paid by tailing works in Storey and Lyon County totaling about \$1,000. The failure to list percentages under heading "amount deducted by law" for the Consolidated Virginia and California is explainable by the fact that the matter was still in court, but by law it should have been 60 per cent.

litigation,³³ and a company representative said with complete frankness to the assembly: "I am authorized by the trustees of those companies to say that if justice is done them by the passage of this bill, taxes now due will be paid at once. There will be no further attempt at litigation, and all future taxes will be paid as they become due." With such payment, he pointed out, the state tax could be reduced the following year from 90¢ to 75¢. The legislature acceded to the request, and passed a bill which could have reduced the tax nearly one-third,³⁴ but to the indignation and disappointment of the mines, the bill was vetoed by Governor Bradley. Particularly indignant were these mines at the governor's phrase, "It does not become the dignity of a State to be dictated to by a couple of non-resident corporations."³⁵ Said the *Territorial Enterprise*, at the beginning of a wrathful editorial on the subject of intersectional jealousy, "Yesterday was one of the saddest days ever seen in Virginia City."³⁶

In May another attempt at compromise was made. The firms offered to pay all the taxes due under the law, together with costs, on the condition that if the decision of the United States Supreme Court were against them, the District Court of Storey County would issue a stay of execution for two years for so much of the judgment as included penalties for delinquency. The offer was accepted and payment of \$290,275.72 was made a day or two before the decision of the Supreme Court in favor of the state became known in Nevada.³⁷ The legislature, following its original understanding, passed an act releasing the firm from payment of penalties, but the attorney general of Nevada tested the constitutionality of the measure, and the court ordered payment of \$77,578.22 in penalties due the state and county.

³³ Storey County appropriated \$7,000 to carry the case to the Supreme Court (*Territorial Enterprise*, report of minutes of Board of County Commissioners, Oct. 6, 1876).

³⁴ Bancroft, *History of the Pacific States*: vol. XX, *History of Nevada, Colorado, and Wyoming*, pp. 194 ff.

³⁵ *Territorial Enterprise*, March 7, 1876.

³⁶ March 2, 1876.

³⁷ Message of Governor L. R. Bradley, retiring, 1879.

The Supreme Court of the United States was somewhat caustic in its dismissal of the case of the "bonanza" mines. It took note of the fact that the case had been submitted in the very last day of the term with the notation that it involved questions of vast importance to the mining industry, and the court appeared to consider that such request was designed to delay decision. "In view of its importance," said the court, "we should postpone the decision until next term if the questions presented were either doubtful or difficult of solution. We think a very few words — all we can give to the subject at this late date — will show that it is neither."³⁸

The decision itself is of interest to those who follow the development of mining law. The ore, said the court, becomes personal property the moment it becomes detached from the soil, and belongs to the man whose labor, capital, and skill have discovered and developed the mine and extracted the mineral product. The fact that it may have been taken from ground to which fundamental title rested with the federal government in no way placed upon it any lien, claim, or title of the United States, and it was, therefore, rightfully subject to taxation by the State as any other personal property might be.

To another contention of the mining companies the court saw more show of reason. It was true that the law made the tax a lien on the mines or mining claims from which the ores were extracted. But this lien, said the court, was on the possessory right of the individual owner and did not involve the United States government:

such right as the mining laws allow and as Congress concedes to develop and work the mines is property in the miner, and property of great value. That it is so, is shown most clearly by the conduct of the mining corporation in whose interest this suit is brought, which, for the purpose of evading this tax, permits its investment in this mine, said to be worth from fifty to a hundred millions of dollars, to rest on this claim, this mere possessory right, when it could, at a ridiculously small sum compared to the value of the mine, obtain the government's claim to the entire land, soil, mineral and all. These claims are the subject of bargain and sale, and constitute very largely the wealth of the Pacific Coast States.

³⁸ *Forbes vs. Gracey*, 94 U. S. Reports 762.

Indeed, it is difficult to see how a mining company, from the very region which had spent so much energy in gaining judicial recognition of property rights in possessory titles, could have expected any other decision.

This passage of arms between the two large companies and the somewhat arbitrary mine tax law was undoubtedly one of the high points of interest in the history of mine taxation in Nevada. The peak of net proceeds assessment was \$24,167,000, reached in 1876, total mine valuation for that year being \$53,732,000, and from that date onward little effort was made to increase the tax in any material respect. Mine assessments, which had been only \$20,000,000 ten years before, were destined to decline gradually to a low of \$23,500,000 twenty years later.³⁹ In 1881 some additional effort was made to increase the deductions allowed by law,⁴⁰ and in 1885 the law was passed which, with few modifications, is still in force today. This law abandoned all efforts to make arbitrary classifications of mines for the purpose of limiting deductions, and merely provided that from the gross there might be deducted the costs of extracting ores from the mines (or the cost of saving tailings), the cost of transportation to place of reduction or sale, and the cost of reduction or sale, the remainder to be taxable as net proceeds. This law was destined to be used as a model by several other states producing precious metals.⁴¹

In 1906 an effort was made by a constitutional amendment to correct an actual or imagined tendency of mining companies to hold promising claims without development. This amendment provided that each patented claim should be assessed at not less than \$500 except when \$100 in labor or capital had been invested during the year. In 1927 the somewhat general provisions of the law of 1885 were elaborated by a specific provision that as part of their costs the mines might deduct the expense of maintenance and repairs to machinery, equipment, mills, smelters, reductions works, and transportation

³⁹ From records in the office of Tax Commission.

⁴⁰ *The Daily News*, Jan. 21, 1881.

⁴¹ Statutes of the State of Nevada, 1885, p. 49.

facilities directly connected with the mine. Fire and industrial insurance were also deductible, as well as the cost of development work in or about the mine during the tax period and depreciation at rates of not less than 6 per cent or more than 10 per cent, to be determined by the tax commission.⁴²

Criticism of the administration of the net proceeds law has been continuous throughout the history of Nevada and occasionally has come to the surface in public reports. The state controller in 1900 called attention to the fact that the net proceeds tax had been evaded by the process of reporting exorbitant charges for milling. Whenever both mine and mill were owned by the same individual the mill could be leased to the mine at a high fee and net proceeds reduced in this fashion.⁴³ The initial report of the Nevada State Tax Commission, in 1914, observed that the separate milling company was a time-honored institution which had come down as a legacy from the Comstock, but that neither state nor county officers had been able to cope with it.⁴⁴ In 1905, due to widespread distrust of local administration, the legislature created the office of State License and Bullion Tax Agent, with responsibility for enforcing the law providing for the taxation of the net proceeds of mines,⁴⁵ but this new administrative body could not adequately check the many hundreds of mines in Nevada.

In 1912 the state license and bullion tax agent reported numerous instances of tax avoidance. Investigation had disclosed the fact that one of the largest and most profitable companies was illegally deducting from profits the expense of diamond drilling in virgin territory. An out-of-state corporation insisted that its mining operation in Nevada was profitless, and because of the doubtful legal power of the agent to examine records in another state, Nevada had been forced to depend on threats of suit to bring a grudging admission of quarterly net proceeds of \$50,000. Several other companies had corrected

⁴² Report of the Nevada Tax Commission, 1927, p. 100.

⁴³ Report of the state controller, 1900.

⁴⁴ Report of the Nevada Tax Commission, 1913-14.

⁴⁵ Statutes of the State of Nevada, 1905, p. 226.

their reports to indicate profits rather than losses, on no other pressure than vigorous letters from the agent.

The agent had neither the time nor the funds to examine the accounts and plant of every mine, and he was of the opinion that an improvement in administration was vitally necessary. "Evidence of laxness is again becoming apparent, and more drastic action may be necessary in the near future." One particularly glaring error was found to rest on inaccurate accounting and ignorance of the law. On a summer trip through the State the agent stumbled upon a twenty-stamp mill of which he had no previous knowledge. In casual conversation the superintendent of the mill professed to be making a good profit, but the county assessor expressed himself as unaware of the mill's existence. The bullion tax agent in this report recommended a state tax commission.⁴⁶

The wave of tax reform then sweeping the western states found ready reception, therefore, in Nevada. Added to the proven looseness of tax administration was the fact that in the four years 1909-12 the state had accumulated a deficit of \$481,769.75.⁴⁷ Governor Oddie submitted tax commission bills both to the regular session of 1911 and to the special session of 1912, but neither was passed. Senator Newlands then suggested that the Reno Commercial Club take the initiative in sponsoring tax and administration reform, and this club in turn asked Governor Oddie, Lieutenant Governor Ross, and senators Newlands and Massey to appoint a committee of citizens to investigate and report on matters pertaining to economy and taxation.

Driven primarily by the specter of a mounting state debt, the Citizens' Economy and Taxation Committee not only recommended some steps towards economy but, for a better administration of the tax on the large corporations, urged the creation of a state tax commission. In spite of opposition from an important body of taxpayers, this committee succeeded in forcing the bill through the legislature. The commission was

⁴⁶ State License and Bullion Tax Agent, report of 1912, pp. 8, 38.

⁴⁷ Report of Nevada Tax Commission, 1913-14.

directly charged with the restriction of deductions from gross proceeds for each mine to those which should be "just, proper, and reasonable, and not introduced to deprive or defraud the State."⁴⁸

In August, 1913, the tax commission and the Nevada Mine Operator's Association held a conference on the subject of allowable deductions. Here the mine owners contended that until all property was assessed at its full cash value, as provided by law, the mines were entitled to some relief from a tax against their full net proceeds. To effect such equalization it was proposed by the mine operators that for 1913 the mines would abolish their milling and transportation divisions and report actual "net proceeds" from all operations, but that a flat charge of \$3 per ton should be allowed in addition to the legal deductions from gross yield, the flat charge to be reduced to \$2 in 1914 and \$1 for 1915 and thereafter. This proposal the tax commission rejected on the grounds that the flat charge would allow many companies to escape taxation of net proceeds entirely. Instead, the commission proposed more careful definition of deductible charges, including actual costs of transportation and of reduction if the companies owned their own facilities, and actual payments if they did not. As part of these costs the commission consented to recognize depreciation. A further flat deduction of 40 per cent from net taxable yield was allowed by the commission, apparently in recognition of the 60 per cent valuation of other property in the state for that year. All of these deductions were contingent on the abolition of the so-called secondary milling and transportation companies. The result of this revision of methods of assessment was to increase the per cent of gross production assessed as net in 1913.

But the compromise with mining companies over the ratio of assessment was unsatisfactory, and the tax commission in 1914 made an effort to raise the general level of all property valuations nearer to that demanded by law. For many years there had been an insistent demand for higher valuations in Nevada,

⁴⁸ Young, *Mine Taxation*, p. 58.

and one of the tax commission's duties was to enforce the legal requirement of true assessment.⁴⁹

Early in 1914, therefore, the tax commission was able to notify the mining companies that assessed valuations had by then been raised to 80 per cent of full cash valuation and to offer the choice of two alternatives; the mines might be taxed on an assessment of 80 per cent of net proceeds with some allowance for depreciation as in 1913, or on 60 per cent without such allowance. The announcement brought a protest from the mining companies that depreciation was one of the costs of doing business, and to this the tax commission was inclined partially to agree, until a ruling from the attorney general declared depreciation not to have been included in the deductions authorized by statute. The mine operators, therefore, were content to elect assessment on 60 per cent of net proceeds

⁴⁹ The State Controller in 1900 put the case for full-cash-valuation as well as did any other public officer in the West: "If anyone has even been indicted for perjury for making a false return of property in this state, it has escaped the recollection of the writer. In a case of that kind the defendant would only have to call for a 'jury of his peers' and his attorney would have but to remind the jury that the time had come when 'we tax dodgers should stand together.'" Competitive undervaluation, he thought, gave Nevada "a black eye abroad which it does not deserve, and results in a constant increase of the tax rate, which is now sufficiently large to frighten away any outside capital seeking investment." He then reproduced the following letter:

3 Fullwoods Rents, High Hilborn, W. C.
London, April 25, 1900

S. P. Davis, Esq., Carson, Nevada.

Dear Sir:

I have submitted your exhaustive report of the conditions on which a sugar beet enterprise could be started near Lovelock, in Humboldt County, Nevada.

The percentage of sugar in the Nevada beets and the low price of land offered are very alluring to capital, and I have conferred with several parties here who would be glad to invest in such an enterprise but for the prohibitive rate of taxation in your state. The information is always asked for, and I am bound to give them the facts.

The rate, averaging in your State \$3.80 on the hundred, is quite sufficient to deter any conservative business man from investing.

I may also say that the copper proposition submitted by you was very favorably considered until the question of your State Tax came to be discussed. After that it was simply impossible to do any business.

Very sincerely yours,

F. R. CALDWELL

There were few business men in the state, said the Controller, who could not recall similar instances. "With full cash value assessment and a lowering of the tax rate, this menace to capital is removed."

without depreciation.⁵⁰ This failure of the law specifically to allow depreciation as a cost of operation has since been clarified by statute, as described in a foregoing paragraph. As is generally necessary with such a mine tax base, depletion must be ignored.

The large amount of work done on the older mines in the state by lessee's and sub-lessee's led to an amendment in 1937⁵¹ allowing operators to deduct royalties from the tax base. While it is generally considered in the state that these individual lessees, operating partly with their own capital, in the old drifts of the larger mines, may make something less than wages on the average, they do occasionally strike a profitable pocket of ore. In any case the state is willing to recognize and encourage in this manner the continuation of operations in old and marginal mines.

Aside from continuous trouble with administrative definition of taxable net proceeds there have been few new developments in mine taxation in the state. Administration is aided by the constitutional provision of 1906, stating that each patented mine be assessed at not less than \$500 except when \$100 in labor actually has been performed on such patented mine during the year.⁵² In practice most mines in the state are checked only to see that labor to the value of \$100 has been performed on them, for the great bulk of the mines can be valued for tax purposes only with difficulty. Net proceeds, of course, are taxable without regard to the amount of labor expended during the year, and the administering officer, in an attempt to confirm the reported gross and net proceeds, spends a considerable portion of his time at the location or the offices of the profitable mines.

The reported net proceeds of mines and total property assessments for Nevada from 1865 to 1939 are set forth in Table 3.

⁵⁰ Report of the Nevada Tax Commission, 1913-14.

⁵¹ Statutes of the State of Nevada, 1937, p. 140.

⁵² Article X, Constitution of the State of Nevada.

TABLE 3
NEVADA ASSESSMENT
(in thousands of dollars)

Year	Net proceeds of mines	Total assessment
1865	3,287	21,985
1866	2,208	19,858
1867	7,042	26,244
1868	6,534	25,368
1869	4,253	30,440
1870	5,901	25,609
1871	7,856	28,757
1872	7,814	30,693
1873	14,209	41,076
1874	13,870	40,500
1875	17,004	46,243
1876	24,167	53,732
1877	24,033	53,055
1878	23,046	51,071
1879	7,268	36,560
1880	4,497	32,095
1881	2,542	30,910
1882	1,741	29,110
1883	1,643	29,402
1884	1,454	28,051
1885	939	27,403
1886	554	26,303
1887	1,557	27,997
1888	2,109	28,848
1889	1,285	27,915
1890	687	25,350
1891	763	30,570
1892	222	31,318
1893	158	26,336
1894	181	23,810
1895	168	23,723
1896	352	23,458
1897	449	23,497
1898	330	23,517
1899	126	23,693
1900	106	24,287
1901	294	28,391
1902	507	29,831
1903	454	33,162
1904	926	37,196
1905	1,596	43,240
1906	2,378	46,843
1907	902	71,986
1908	3,154	77,010
1909	5,785	79,610
1910	8,874	87,429
1911	9,823	95,170

100 STATE TAXATION OF METALLIC DEPOSITS

TABLE 3 (continued)
NEVADA ASSESSMENT
(in thousands of dollars)

Year	Net proceeds of mines	Total assessment
1912	8,733	101,087
1913	4,416	112,210
1914	3,681	136,605
1915	7,400	151,139
1916	14,861	174,471
1917	15,635	183,060
1918	9,091	197,993
1919	5,805	198,044
1920	4,577	213,421
1921	1,862	203,423
1922	2,801	198,636
1923	3,865	213,421
1924	3,154	201,292
1925	3,679	199,319
1926	3,835	202,987
1927	4,580	203,071
1928	7,046	205,186
1929	12,046	216,937
1930	5,856	207,851
1931	499	206,991
1932	773	199,024
1933	706	191,397
1934	777	188,053
1935	1,457	184,531
1936	6,552	190,594
1937	9,335	193,870
1938	6,895	192,675
1939	4,516	190,190

CHAPTER VII

UTAH

THE MINERAL RESOURCES of Utah may have been developed somewhat more slowly than those of other western states, for it was the belief of Brigham Young that the mining of gold and silver was unproductive. Other types of mining he tended to encourage, but he advised his followers against prospecting, either in Utah or in California, and adhered to the philosophy that "real capital consisted in knowledge and physical strength."¹

But in Utah, as in Arizona, the officers and men of the federal army found time to look about the country, and to make a few efforts at prospecting and promotion. After the battle of Bear River, January 29, 1863, against the Snake and Bannock Indians, Brigadier General Patrick Edward Connor found his troops discontented with idleness, and arranged that a certain number might be furloughed for the purpose of prospecting. He apparently aided in the formation of a code of miners' laws and attempted to afford the men every facility for travel. Connor incorporated the Jordan Mining Company, interested California friends and built the first two smelting furnaces in the territory. Another early promoter was Eli B. Kelsey, who severed his relations with the Mormon church, and in the belief that the hour had come to develop the mineral resources of Utah went East "in the old missionary style" to lecture upon the territory and to interest Eastern capital.²

Yet in its memorial to the Congress of the United States, in 1872, seeking admittance to the Union of the State of Deseret, the constitutional convention spoke earnestly of the vast deposits of inexhaustible mineral wealth within the borders of the

¹ Susan Young Gates, *The Life Story of Brigham Young* (London: Jarrolds Ltd., 1930), p. 169; Clarissa Young Spencer, *One Who Was Valiant* (Caldwell, Idaho: The Caxton Printers, 1940), p. 253.

² *Tullidge's Quarterly Magazine*, 1 (1880), 178.

territory, and estimated that 20,000 men, with over \$15,000,000 in capital, were actively prospecting and mining in the area.³ In this constitution the article on taxation provided for a uniform property tax, except that only the proceeds of mines and mining claims were to be taxed. Ten years later, accompanying the fourth unsuccessful petition for admittance to the union, was a constitution which followed that of Colorado, in that it exempted mines for a period of ten years from the date of adoption of the constitution, except that the net proceeds and surface improvements thereof were to be taxed.⁴

The tendency to become less anxious concerning the inducement of investment in mining as the mining became more profitable was undoubtedly a general characteristic of the West, but it is nowhere more obvious than in this series of constitutional conventions in Utah. By 1895 mining was considered to be the chief single industry of the state, and the encouragement offered was commensurably less.⁵

The section on mine taxation submitted to, and adopted by, the final convention in 1895 was copied from Montana, and differed from that of Nevada primarily in the fact that the tax was to be paid on a year's net proceeds rather than on the quarterly basis. It provided that the surface land should be taxed on the price paid the United States, plus the surface improvements and the net annual proceeds.⁶ To this apparently mild proposal the mining men offered considerable objection, pleading that the tax on the surface value would discourage the impoverished prospector. Those who supported the measure did so on the ground that while the cost of the patent (from \$2.50 to \$5.00 on placer mines to \$20 on coal land) was not the measure of the value of the mine, it was presumably not more than the value to the man who had filed upon the land. While

³ Constitution of the State of Deseret and Memorial to Congress adopted in Convention March 2, 1872. Ratified by the people March 18, 1872. Printed in Salt Lake. Page 4.

⁴ Constitution of the State of Utah, adopted by convention April 27, 1882, and ratified by the people May 22, 1882, article X of the Constitution, p. 40 of the memorial.

⁵ Proceedings of the Constitutional Convention of Utah, 1895, p. 1075.

⁶ Article XIII, sec. 4.

it was admitted that mining was "the very life of the Territory, always had been, and always will be, so long as it exists," the industry had been particularly favored by the exemption in the past.

The only thing which has ever been taxed yet in Utah is the improvement upon mines; not even the net products have been taxed. None of the surface ground has been taxed, and with the great benefit which mining has given us, yet at the same time we all know that some men have amassed great wealth from the products of mines and yet have paid nothing whatever toward the support of the Territory . . . now we have come to the point where it is necessary to raise some revenue. It is burdensome enough upon the poor farmer, the shopkeeper, and the man who is engaged in the various avocations of life in this Territory, to have to pay taxes to support the government.⁷

It was estimated that an assessment of \$5 an acre on an ordinary mining claim of 1500 feet by 600 feet, taxed at the rate of 12 mills, would pay a tax of about \$1.35.⁸

The valuation of net proceeds of mines in 1898 was \$1,343,715, but under an energetic board of equalization, the total for 1900 was raised by over a million dollars.⁹ The board reported difficulty in the application of the net proceeds tax to coal lands, alleging that coal was turned over to coke departments at cost, so that the net profits were to be found only in the coke, and the board asked that coke be defined as one of the products from which coal mining companies received "Net Proceeds."¹⁰ But in 1905 the Supreme Court of Utah declared that the assessment of the net proceeds of mines by the state board of equalization, as directed by sections 2589 and 2584 of the code, was unconstitutional, and in 1907, on the suggestion of Governor John C. Cutler, the legislature offered an amendment to the voters which, when adopted a year later, provided that "the net annual proceeds of all mines and mining claims" should be assessed by the state board of equalization.¹¹

The board appeared not to be gratified by the renewed re-

⁷ Proceedings of the Constitutional Convention, p. 1075.

⁸ Proceedings of the Constitutional Convention, p. 1079.

⁹ Report of State Board of Equalization, 1900, p. 5.

¹⁰ Report of State Board of Equalization, 1902, p. 9.

¹¹ Article XIII, sec. 4.

sponsibility. In 1906 it had asked, not for constitutional power to continue the assessment of mines, but that the unconstitutional sections of the law giving that power be repealed by the legislature,¹² and it continued to find the problems of administration to be onerous. In 1910 it urged that the net proceeds law be amended, and listed the technical difficulties inherent in it:

- (1) The law did not provide for the determination of the net proceeds of companies held under private ownership, unincorporated, or of those mines worked under lease.
- (2) The net proceeds earned in the first quarter of one year were not called upon to pay taxes until the last quarter of the next year, and in the mining business such an interval was long enough to allow the mining company either to go out of business or to reinvest its profits.
- (3) The law failed to define the deductions permitted in ascertaining net proceeds, including taxes and insurance, and provided no method for reaching companies selling at cost to associate companies.
- (4) Finally, the appropriation was too limited to allow employment of the help necessary to make the required investigations. The board suggested that the state employ a bullion commissioner, as in Nevada.

Governor Spry, in his message of the following year, urged a program of tax reform, and the legislature, finding the problems complex and difficult, provided for the appointment of a Board of Commissioners on Revenue and Taxation, to study the problem and to draft bills for the legislature.¹³ The same session, following the recommendations of the state board of equalization, proposed several constitutional amendments to be voted upon at the November election of 1911. One of them proposed that "the net annual proceeds of all such precious metal mines and mining claims shall be taxed as provided by law," with the intention that as an accompaniment to other reforms the legis-

¹² Report, 1905 and 1906, p. 8.

¹³ Proceedings of the National Tax Association, 1914, p. 110.

lature should raise the base of taxation of metal mines.¹⁴ None of the amendments carried, and the commission and legislature had too little time during the ensuing session to agree upon the reforms that could be had under the constitution.¹⁵ The commission urged, however, that in the opinion of tax experts all property should be assessed at its full cash value, both because it led to more equitable assessments, and because the resulting lower rate of taxation was "desirable from any point of view."¹⁶ Surveys had convinced the commission that owing to competitive underassessment and lack of central supervision assessment ratios for section property varied from 18 per cent in Grand County to 56 per cent in Kane County. As a preliminary to a change in such ratios the commission urged that total levies for all purposes should be limited to 15 mills, with a right of the taxpayers to vote additional levies when desired. To substantiate the recommendation the commission referred to the paper read by T. C. Townsend at the National Tax Conference in Milwaukee in 1910 emphasizing the more equitable assessments which, in Kansas, had followed full cash valuations and maximum levies.

The commission hesitated to give full support to such a plan for Utah because of the lack of constitutional power resting in the board of equalization to adjust property within counties, and because the mines with relatively fixed assessments would pay a smaller share of taxes if other valuations were raised. While the commission was not prepared to say that a better method than a net proceeds tax could be devised, it was willing to point to the incongruity of the fact that a mine under the Utah system paid only once on its entire value, when the ore was brought to the surface, while a horse or cow paid taxes on its present worth every year of its life. The findings of this commission came too late for any material change in the revenue

¹⁴ *Utah Educational Review*, September-October, 1918.

¹⁵ Governor Spry laid the defeat of the amendments to the "misrepresentation and self-interest on the part of certain individuals and corporate interests who saw in the adoption of the amendments a certainty that they would be brought to bear an equal burden of the taxation of the state." (Message of 1913.)

¹⁶ Final Report of the Board of Commissioners on Revenue and Taxation for the State of Utah, 1913, p. 14.

laws, and the state board of equalization had to be content for a few years with a small amount of relief given through court interpretation of laws already on the books.¹⁷

The legislature in 1915 made such adjustments of the revenue law as it thought might compel the assessors and boards of equalization to bring the assessment of property to full cash value,¹⁸ and to accompany this reform it presented to the voters a constitutional amendment authorizing an increase of the mine tax base to three times the net proceeds, plus the surface improvements and \$5 an acre for the surface land. But while the state board of equalization did succeed in raising assessment ratios of other classes of property from 20 to 40 per cent of actual value to somewhere near true value,¹⁹ the proposed amendment on mine taxation was defeated — according to the state board of equalization “by the expenditure of a large sum of money and by gross and malicious misrepresentation of the amendment by the mining companies, and by reason of the very general feeling of aversion to making a change in the Constitution.”²⁰ The board called the attention of the legislature to the fact that in many states the mines were assessed, like other property, upon their actual value, a procedure which in Utah would increase the valuation of deposits much more than three times.

With the coming of the war boom the mining industry again became an attractive target, and by 1918 the demand for high mine taxes was too strong to be successfully opposed. The *Utah Educational Review*, issued just preceding the November elections, carried the arguments for a new proposed constitutional amendment, which would allow the legislature to fix at its discretion the multiple of net proceeds upon which the mines should be taxed.²¹ The amendment had been endorsed in principle, said this publication, by three legislatures and by the Republican party platform of 1911.

¹⁷ Report of the State Board of Equalization, 1913-14.

¹⁸ Report of the State Board of Equalization, 1915-16, p. 72.

¹⁹ Report of the State Board of Equalization, 1915-16, p. 72.

²⁰ Report of the State Board of Equalization, 1915-16, p. 72.

²¹ *Utah Educational Review*, September-October, 1918.

With the backing of such groups as the education association, the amendment was carried and was put into effect by the 1919 session of the legislature. Metalliferous mines, thereafter, were taxed upon thrice the net proceeds, plus improvements and the price paid the United States for the surface land.²² Taxes thereon rose from \$32,039,239 in 1918 to \$57,527,962 the following year, though the subsequent depression reduced the tax to \$28,123,847 in 1920.

Much of the problem of mine taxation in Utah, incidentally, has to do with non-metallic deposits, the assessment of which, after 1919, fell entirely into the hands of the state board of equalization and the newly formed state tax commission. Such deposits, after 1919, were made taxable on their present worth.²³ During three field studies spent in the survey of coal outcrop, the board separated the coal into eleven classes, according to access to railroad transportation, ranging from a ton value of \$0.04 for land then operated on the railroad in forty-acre tracts, to \$0.0007 per ton for coal requiring forty to fifty miles of railroad. The board also surveyed the Gilsonite, Elaterite, Phosphate, Cement, Sulphur, Stone Quarries, Alunite, Potash, Salt, Gypsum, Clay, and Oil Shale. It later added asphalt and related bitumens, cement rock, sand and gravel, silica, phosphate rock, fuller's earth and natural gas.²⁴ With regard to stone quarries the board remarked that the profit lay in the manufacture rather than in the quarry. This field survey appears to have been one of very few made in the twenties. As in most other states, this postwar decade witnessed little serious change in the method of mine taxation.

The collapse of the metalliferous mine tax during the depression was something of a disappointment to those who were accustomed to the elasticity of revenue under the property tax. In Wasatch County the per cent of the total tax paid by mining companies dropped from about 30 per cent in 1930 to less than 5 per cent in 1931, largely because of suspension of production

²² 5864, sec. 1, ch. 114, Laws of Utah, 1919.

²³ Report of the State Board of Equalization, 1921-22, pp. 10 ff. This report contains a good description of the coal deposits of Utah.

²⁴ Third Biennial Report, State Tax Commission, p. 14.

by Park Utah and other companies.²⁵ The drop in Juab County, containing the Tintic Standard, was more gradual, decreasing from 26.86 per cent in 1927 to 6.68 per cent in 1931.²⁶ But in Carbon County, where the assessment of coal lands was on the ad valorem basis, neither the mine taxes nor the per cent of total county taxes varied appreciably during those five years.²⁷ The "three-times-net" dropped from approximately ninety-seven million dollars in 1929 to less than one and a half million in 1933,²⁸ and the state saw its mine tax reduced from about 14 per cent of the total in 1930 to 5.56 per cent two years later.²⁹

To the governmental units this discrepancy between the yield of the net proceeds base and the yield of the property base appeared to be an indication of weakness on the part of the

* WASATCH COUNTY		
	<i>Mine taxes charged</i>	<i>Per cent of total</i>
1927	\$103,692.26	40.01
1928	109,488.64	40.85
1929	85,218.83	34.15
1930	67,449.48	29.43
1931	7,886.41	4.86
1932	6,583.09	4.51

(From First Biennial Report of the State Tax Commission of Utah, 1931-1932, p. 230.)

** JUAB COUNTY		
	<i>Mine taxes charged</i>	<i>Per cent of total</i>
1927	\$108,139.54	26.86
1928	71,142.08	18.93
1929	40,240.92	11.92
1930	28,294.87	8.68
1931	19,352.63	6.68
1932	18,101.66	6.67

** CARBON COUNTY		
	<i>Mine taxes charged</i>	<i>Per cent of total</i>
1927	\$331,267.41	45.63
1928	320,541.10	44.10
1929	342,493.50	43.90
1930	363,694.27	44.18
1931	368,528.38	44.77
1932	350,110.21	44.85

²⁵ Report of State of Utah Investigating Committee, 1936, p. 90.

²⁶ First Biennial Report of the State Tax Commission, 1931-32, p. 204.

former, and several efforts were made to strengthen it. The state tax commission, established in 1931, recommended in its second, third, and fourth reports³⁰ that the net proceeds be averaged over several years, and in 1935 a bill to this effect was passed by the senate.³¹

The year 1935 witnessed an intense political drive upon the mining companies, for nine bills in the senate and one in the house were aimed at revision of the mine tax law, but amidst the confusion of bills and arguments there was no clear-cut line of battle. A not inconsiderable group of property owners urged the adoption of the Arizona system of ad valorem taxation of mineral deposits, and the fact that the constitutional provision of 1930³² automatically allowed a change in the method of mine taxation after January 1, 1935, seemed to the agricultural element to suggest an increase in the general mine tax burden. The *Deseret News* of January 30, 1935, called for higher taxation of depleting resources, and charged that the Hearst interests had taken money out of Park City to erect buildings for the University of California at Berkeley.³³ Governor Blood's recommendation at this session was rather mild, constituting little more than a suggestion that if net income continued to be used as the tax base, it be averaged over a period of years.³⁴

Typical of the answer to the demand for ad valorem taxation was the testimony of Paul F. Hunt, of Park-Utah Consolidated Mines Company, at the legislative hearing during that session.³⁵ He warned the state against following the precedent set by a state which had been experimenting with mine taxation (Arizona), and which had gradually increased the rates until they were the highest in the world. The decline in mine valuations in Arizona he attributed to this "confiscatory" method of taxation. "This is a picture of a great industry being slowly bled to death by excessive and confiscatory taxation. The mine owners

³⁰ Second Biennial Report, State Tax Commission, 1933-1934, p. 24; Third Biennial Report, 1935-1936, p. 23; Fourth Biennial Report, 1937-1938, p. 12.

³¹ Third Biennial Report, p. 24.

³² Article XIII, sec. 4.

³³ The *Deseret News*, Jan. 30, 1935.

³⁴ The *Salt Lake Tribune*, Jan. 16, 1935.

³⁵ At Newhouse Hotel, *Salt Lake Tribune*, February 14, 1935.

have lost enormously, the State of Arizona has lost revenue and the people of Arizona have lost in distributable income many, many times what the mine stockholders have lost." ³⁶ The charge that the Arizona tax had grievously injured the mining industry of the state was made repeatedly in this and other sessions.

A. G. MacKenzie, representing the taxpayers association, testified that mines were responsible for half of the originating freight in Utah and consumed half of the power produced in the state. A quarter of the dividends paid by the mines and over three quarters of total mine expenditures were made, he said, within the state of Utah. ³⁷

The most popular arguments against the ad valorem method are expressed by the reports of the state tax commission, in its numerous discussions of the subject. There is, in the first place, a general feeling that some of the mines in Utah, particularly those producing silver, would be difficult to assess. In the existence of a wide variety of mining, of course, the problem does differ in degree from that in Arizona. ³⁸

The tax commission has also expressed the opinion that the value of ore in place could not be determined by any known scientific or engineering method. The use of some multiple of the net proceeds, on the other hand, had the advantage, in Utah, of many years of experience, and the commission hoped that with some additional adjustments most of the difficulties might be corrected. There is the further argument that while the increase from one-times-net proceeds to three-times-net proceeds had been made with the view to increasing mine valuations to correspond to the increase of other assessments under the effort to acquire full cash valuation, the ratio of assessments of other property had not reached such a ratio but had in fact steadily declined throughout the twenties. The State Tax Commission had not only recognized the existence of lower valuations but had openly and admittedly sought to secure equalization at some ratio of "true value" less than "full cash value." ³⁹

³⁶ The actual results of the Arizona tax will be discussed in the final chapter.

³⁷ The *Deseret News*, Feb. 15, 1935.

³⁸ Second Biennial Report, p. 20.

³⁹ First Annual Report, p. 14.

Finally, many observers saw that to tax the value of a mine would make some communities wealthy at the expense of the stockholders, without materially benefiting the rest of the state. The legislature, looking at the enormous reserves of the Utah Copper Company, desired not to increase the total income to the school district and county which contained this deposit, for these localities were already in a better position than the rest of state, but to take more of the rent of the mine into state coffers.

By 1937 this last conception of the mine tax problem materialized in the form of a mine occupation tax.⁴⁰ The base of the property tax was reduced from three-times-net to two-times-net, and as a substitute for the part of the base thus reduced there was enacted a tax of 1 per cent of the gross receipts, with an annual exemption of \$20,000, less cost of transportation, the usual charge for milling, smelting, or reduction (if the mine also did custom milling), or (if the mill was run exclusively for the mine), less actual cost of assaying, sampling, refining, and transportation. The proceeds were turned into the state general fund.

A study by the tax commission has indicated that while the occupation tax has diverted revenue to state uses, the burden upon the individual mines of the state in 1938 was little different from that which they would have had under the old basis. Some of the smaller mines paid two or three thousand dollars more under the occupation tax than they would otherwise have paid, but the three largest taxpayers paid slightly less under the new provisions, and the mine revenue in 1938 was about half of one per cent less than it would otherwise have been.⁴¹

The state tax commission, since its organization in 1931, has probably given more attention to the administration of the net proceeds tax than has any similar body in those states using this form of revenue.

In an effort to improve administration Utah accompanied the tax commission act with a revision of the mine tax law, attempting to define explicitly those deductions which a company might make from the gross proceeds realized during the

⁴⁰ Laws of Utah, chapter 101, 1937, sections 1, 3.

⁴¹ Fourth Biennial Report, p. 123.

preceding calendar year from sale or conversion of ore into money or its equivalent. These taxable gross proceeds might rise from mining activity on the part of owner, lessee, or contractor working upon or operating the property, including all dumps or tailings. Allowable deductions included money spent for tools, and wage and salary payments to all employees within the state, except corporate officers, including prevailing wages to the lessee. Improvements made during the preceding year, including even reduction works and mills operated in connection with the mine, were deductible, as well as cost of transportation of ore to reduction works or market, cost of sampling, assaying, reducing, smelting the ore, and cost of extraction of the metal therefrom. The mine might also deduct state and local taxes, and compensation insurance or payments on account of accident to employees.

The mine tax law of Utah is unique in its attempt to describe the deductions not allowable. The salaries of corporate officers, of those employees who live in other states, legal expenses, federal taxes paid on operations outside the state, the cost of boarding houses, bunk houses, mess houses, dwellings, or other improvements from which revenue might be directly or indirectly derived were all specifically ruled non-deductible.⁴²

But even this revision left several problems. In the first place, a small but profitable mine, anticipating rapid depletion, might elect to become delinquent, in the knowledge that by the time the county was allowed to sell the property free of redemption the mine would be exhausted.⁴³ To eliminate this possibility the tax commission recommended that the law be amended to allow collection of tax with penalty and interest by suit or otherwise immediately after delinquency; but while the bill passed the legislature in 1935 it was never engrossed.⁴⁴

A second defect lay in the opportunity afforded an integrated industry to transfer costs from other operations to the mine and to reduce net proceeds. Inasmuch as the law allowed

⁴² Revised Statutes of 1931, 80-5-56-64.

⁴³ Second Biennial Report, 1933-34, p. 23.

⁴⁴ Second Biennial Report, 1933-34, p. 23.

deduction of transportation, sampling, assaying, milling and smelting costs, ownership of any or all of these facilities by the mine operator would allow reduction of net proceeds. To rectify this condition the commission suggested valuation of the ore at the mouth of the mine, and the deduction of only reasonable costs (not exceeding actual costs) of transportation, smelting, refining, etc.⁴⁵

One of the greatest sources of difficulty was the problem presented by a mine owned by the United States Smelting and Refining Company, which not only smelted ores from its own mine but "custom ores" as well. The mill was built ten or fifteen miles from any mine, and at that time no deduction was claimed for the cost of the investment on the theory that the reduction works were not "in connection with the mines," as required under statute for deductible investments. The company maintained, moreover, that while by the use of arbitrary averages and after much labor it might be possible to report "probable costs" of operation per ton, no method existed for the determination of actual costs. Moreover, the company did not consider it fair to determine "gross proceeds" from the income from sale of the refined product, and the old board of equalization had established the custom of assuming a "sale" at the portal of the mine to the milling division of the company.

In 1936 the company filed returns showing an assessed valuation of \$2,600,000, while the tax commission set up a valuation of \$5,600,000. The commission preferred not to go to court, fearing that the precedent set by the board of equalization might be interpreted by the court as "contemporaneous construction of an administrative board," and a compromise was made on the figure of \$4,100,000.⁴⁶ To reduce such difficulties in the future the state tax commission suggested an amendment to the law providing that where ore transference was inter-company, the burden of proof of the fairness of price should be upon the mining company.

A difference of opinion between the commission and the Utah

⁴⁵ Second Biennial Report, 1933-34, p. 23.

⁴⁶ Third Biennial Report of State Tax Commission, p. 15.

Copper Company resulted in a court decision which made it necessary for the commission to appraise the metal produced but not sold in any given year, and to limit the tax to the metal sold.⁴⁷

The tax commission employed part-time geologists after 1919, particularly for the valuation of non-metallic deposits, and in 1934 began a serious attempt to collect data on the actual production of metal in the state. In 1936 the sub-committee on Homestead Exemption, of the investigating committee of Utah Governmental Units, published a comparison of the reported gross proceeds of mines and the gross value of metals compiled by the U. S. Geological Society.⁴⁸ In the case of the Utah Copper Company these two totals were identical, for this company marked its own refined copper, and reported the amount both to the state tax commission and to the Bureau of Mines. But between the value reported to the Bureau of Mines and that reported to the state tax commission by all other metalliferous mines there was a discrepancy for the period 1919-1934 of 26.8 per cent. The committee was of the opinion that the two reports should coincide, and urged a more careful definition of gross and net proceeds, particularly as it applied to integrated companies. The state tax commission did not agree that the reports for tax purposes should always equal those made to the Bureau of Mines, but the facts brought out by this committee were used as the basis of a request for a mine valuation engineer, who was added to the staff in 1936.

⁴⁷ Third Biennial Report, p. 23; Fourth Annual Report, p. 12.

⁴⁸ Report of the sub-committee on Homestead Exemption, of the Investigating Committee of Utah Governmental Units, 1936, p. 97.

CHAPTER VIII

IDAHO

IDAHO continued to be a steady producer of metal even after the gold rush of the sixties, and there were occasional demands that the industry pay heavier taxes. The *Idaho World* maintained in rebuttal that the farmer could not be compared to the miner, because he made no large investments and took no particular risks.¹ From the large investments made by the miner — reaching at times several hundred thousand dollars before any realized return — the entire community benefited. The cities of Butte and Helena and the many mining towns of Idaho, said the editorial, were brought into existence only by mining investments. In spite of disagreement from several quarters,² these and similar arguments were used to help stave off any tax upon mines as working property until long after the close of the territorial period.

When the state constitutional convention met in 1888, the law still provided that "mining claims" should be untaxed, except upon the value of surface improvements.³ This condition of almost complete exemption had been of long standing, but during the previous twenty years a change had taken place in the character of the territory. In 1870 miners outnumbered those engaged in agriculture by a ratio of five to one.⁴ The ratio in 1890 was one to two.⁵ While an influential portion of the pioneers of the sixties appear to have hailed from Missouri and the South,⁶ the majority of the settlers of the eighties and nineties carried into the state the political traditions of Iowa and the Northeast. It is a striking illustration of this shift in

¹ *Idaho World*, May 17, 1884.

² *Idaho Statesman*, Jan. 22, 1887.

³ Revised Statutes of 1887, sec. 1401, from 1865 Second Session, p. 336.

⁴ Census of 1870, I, 671.

⁵ Eleventh census, Population, II, 550.

⁶ Bancroft, *History of the Pacific States: vol. XX, Nevada, Colorado, and Wyoming*, p. 268.

the source of population that the political temper of the state of Idaho was almost the reverse of the territory. Before the constitutional convention only one delegate was Republican and he was elected before the gold rush, while of the senators and representatives sent to Congress during the next forty years only one was Democratic.⁷

Even the delegates from mining counties were uncertain as to the best course to pursue. Some felt that the question was too delicate to be allowed to become the football of the legislature, and Ainslie of Boise County⁸ proposed that to give the greatest possible security to eastern capital, the state should tax net proceeds and exempt mines and mining claims from all other taxation, as in Colorado, for ten years. The delegates from Shoshone County, the location of the most important mines, opposed any form of mines tax. One of them read from Cooley's *Treatise on the Law of Taxation* to prove clearly the impropriety of double taxation. He then confounded the supporters of the foregoing proposal by pointing out that after net proceeds were taxed they would be deposited in a bank and, for the second time, would be taxed as cash.⁹ His colleague elaborated on this theme:

You have a mine whose value consists entirely — because there is no power of recreation or reproduction in the mines as there is in the farm or any other property — the value of the mine consists entirely of the value of the ore that is in its walls. You go then upon the theory of my friend from Boise and tax the mine or provide that the legislature may tax it to the full extent of its value which it has because of the ore in it. Then you take the ore out of it and destroy the value of the property and then you propose to tax the ore besides — double taxation. Then on top of all that tax the improvement . . . and you have treble taxation. Then go and tax all the improvements which result directly from the labor of the material men and laboring men, and which are paid for and which are taxed in the way of houses and farms and everything of that kind and you have quadruple taxation.¹⁰

The proposal to tax net proceeds of mines, while other business paid on its capital value, met opposition from agriculture. Some of the counties in the state, because of the exemption of mines

⁷ *Biographical Directory of the American Congress* (Washington, D. C., 1928).

⁸ Proceedings of the Constitutional Convention, p. 1657.

⁹ Under Sec. 1429, R. S. of 1887.

¹⁰ Proceedings, p. 1746.

from taxation, had found themselves unable to provide adequate schools, in spite of large capital investments within their borders. It was pointed out that in actual practice even the surface improvements were assessed far below true value, so that while one smelter in Ketchum had cost \$3,000,000, the total valuation of all smelters in the state, as returned by the county assessors, was only \$32,000.¹¹

Out of the argument there appeared to emerge the general conclusion that mines should be taxed upon their surface improvements and net profits,¹² but because, perhaps, of the influence of agriculture in Idaho, the convention did not, as in Montana, adopt a constitutional provision to that effect.

The first session of the state legislature (1891) witnessed an effort to place unpatented mines under the property tax. Section 2 of HB 85 of that year provided that the exemption of unpatented mining claims should be extended only to those not producing mineral during the year in excess of \$5,000 in value,¹³ but the proposal was voted down in the house by the narrow margin of thirteen to twelve.¹⁴ Said the *Idaho Statesman*, "The onslaught of the grangers upon the miners has been defeated, and the prospector may rejoice."

Again in 1893 the question was brought to the front when the house committee of the whole recommended that mines be taxed on a base of one half of the yearly gross production of each mine producing over \$3,000, such base to be placed under the general property tax. The proposal finally met defeat under the charge that it would close every mine in the state.

In 1897 the attack was led by Governor Frank Steunenberg, who remarked in his message to the legislature:

¹¹ Proceedings, p. 1755.

¹² Proceedings, p. 1762.

¹³ *Idaho Statesman*, March 3, 1891. Against this proposal the following arguments were advanced: mining claims are not property, but only possessory rights, and should not be taxed as property; taxation should not be based on what a mine yields because of the difficulty of forecasting continued productivity; comparison between mines and farming land is impossible — there can be no justice in the assessment of a hope, a purely imaginative value; the proposed tax was an income tax and there was no reason why the mining business should be singled out for the imposition of such a tax; finally, the mining industry of Idaho would be crushed out if the attempt were successful.

¹⁴ *Idaho Statesman*, March 10, 1891.

Exclusive of Idaho, and possibly Utah, every mining State in the West derives a considerable portion of its assessed valuation and subsequent revenue from the taxation of mines. Just why this class of property should be exempt from taxation and escape bearing a just portion of the burden of government is not apparent.

He urged the adoption of the Colorado system, whereby a certain percentage of the gross output of the preceding year in excess of \$1,000 should be the base upon which the property tax should be levied. Such a law would, he declared, add materially to the assessed valuation of the state; it would assist in equalizing the burden of taxes, and place a "just tribute" on wealth which when once produced, largely left the state. The charge that such a tax would "drive capital out of the country" seemed to him to be unimpressive. He had not noticed any "marked influx of mining capital from these States to ours on account of our present exemption."¹⁵

A bill embodying his suggestion was introduced into the house and supported by the following arguments: (1) that Idaho was the only great mining state to exempt mines, (2) that the taxable property in the state would thereby be increased, (3) that this proposal was to tax productive mines, and that not to tax them would be to discriminate between industries in the state, (4) that mines were not bearing their just share of the cost of government. The Shoshone County delegates, in support of the bill, reported that in the preceding eleven years the mines of their county had produced \$55,000,000 worth of mine products, at a cost to the state of \$50,000.¹⁶ It was charged, too, that in Alturas County even the mills had been exempted from taxation. Against these arguments were opposed the following objections: (1) that mines were taxed fairly already, inasmuch as improvements are always taxed, (2) that under the bill proposed, a mine might be compelled to pay taxes even though its costs of operation exceeded its output, (3) that the bill would prevent sales of mines now pending, (4) that such a law had

¹⁵ Governor's Message to the Legislature, p. 8.

¹⁶ This was a reference to the expenditures made to preserve law and order — especially during the strikes of 1899. Brosnan, *History of the State of Idaho*, (New York: Scribner's, 1926), p. 194.

depopulated the state of Nevada and was ruining the mining interests of Arizona, (5) that the taxation of gross output would tax unfairly the mines which had invested capital under the assumption that no extra tax would be laid, (6) that there would be danger of ruining the small mines in the hope of catching large ones. The arguments presented on both sides are interesting because they plainly indicate that the issues were not such as might be settled by debate. The bill was modified in the house and defeated in the senate, and the mine exemption left as before.¹⁷

Again in 1901 the issue took a prominent place. Three mine tax measures were introduced to this session. One, by Senator Moore of Latah County, proposed to levy the property tax rate on the gross output of mines, after subtracting the sum of \$1,000 from that output. Another, by Representative Mandell of Blaine County, proposed that in view of the difficulty of assessing patented mining claims the county assessors should assess all patented quartz mining claims at the rate of \$5 per acre and all patented placer mining claims at the rate of \$2.50 per acre, and should assess surface improvements as formerly.¹⁸ The third bill was in the nature of a compromise. It proposed to assess all ore, tailings, and mineral-bearing material at its full value after the cost of extraction and transportation had been deducted. This bill also fixed an assessment of \$5 an acre for nonproducing patented quartz mines and \$2.50 an acre for placer mines. Deductions were not to include salaries of the president or officers not actually engaged in the working of the mine or personally superintending the management thereof.¹⁹ This compromise bill, however, went the way of all others of that year.²⁰

¹⁷ *Idaho Statesman*, Feb. 28, March 2, 1897.

¹⁸ Senate Journal, 1901, p. 25.

¹⁹ *Idaho Statesman*, Feb. 8, 28, 1901.

²⁰ One of the sidelights was the biennial report of State Auditor Bartlett Sinclair, which estimated the annual output of mines in Idaho at about \$8,000,000 and suggested taxation of the net proceeds of mines. Another is a letter, published in the *Statesman* of Jan. 17, from W. H. Watt, Hailey miner and banker, to Representative Mandell. Mr. Watt stated that there were a hundred non-producing mines to every producing mine, and that producing mines should not

During the process of debate in the legislature State Auditor Jones sent a communication to the *Idaho Mining Journal*, showing that most mine improvements escaped taxation. He pointed out that in two of the leading mining counties, Blaine and Lemhi, the abstracts of assessment showed no mining improvements taxed, while Custer, another leading mining county, had taxed only one item — ore worth \$1500. In 1900, he said, the total assessed valuation of mining improvements was only \$1,533,406.²¹

The impasse was indirectly brought to an end by the case of *Salisbury vs. Lane*,²² which had arisen in 1900 over the interpretation of the statute which said:

the following property is exempt from taxation: . . . Seventh. Mining claims, but machinery, property and improvement upon or appurtenant to mining claims shall not be so exempt.²³

The court held (C. J. Huston, J. Quarles, J. Sullivan dissenting) that it had been the purpose of the revenue act to tax all except government property, and that the term "mining claims" should be interpreted to mean only claims not patented. The title to patented claims resided in private hands, and there could be no just reason for exempting such property from taxation.

Governor Hunt in his message of 1901 called the attention of the legislature to the new court ruling, and pointed out that immediate action should be taken to place both mines and mining claims upon an equitable basis of taxation, for the taxa-

be taxed over \$5 an acre. The taxation of the output of mines was tried in Nevada, he said, and although it succeeded in building up a big school fund, it was a class tax, instituted by the cattle and sheep men, and had destroyed the mining industry and had resulted in a big decline of the population. Moreover, said Mr. Watt, the legislature should be careful not to discriminate against the patented mines in favor of the unpatented. He was in favor of taxing net profits, providing other industries are so taxed. On the whole, he thought it would be the best thing to make it plain "for some time to come" that all mines, except for improvements and machinery, would be exempt from taxation. A mining claim that is producing, said he, has more machinery and improvements on it than the average property holder pays taxes upon. Moreover, taxes in mining counties were high, and to tax claims would drive out capital.

²¹ *Idaho Statesman*, Feb. 3, 4, 1901.

²² 7 Idaho 370.

²³ Subdivision 7, Sec. 1401, Revised Statutes of 1887.

tion of patented mines alone would be unwise discrimination. Custom had treated mines and mining claims as exempt from taxation (except the surface improvements), but while the construction placed upon the act by the supreme court would make patented mines taxable, possessory rights were still exempt and of more value than the patented. Neither or both should be taxed, he said, but it should be kept in mind that a mine was a speculative investment until it became producing. The legislature responded by exempting mining claims only when "not patented," and by stipulating that under the term "real estate" should be included "All mines, minerals and quarries in and under the lands and all rights and privileges appertaining thereto."²⁴

This law of 1901 obviously allowed the taxation of patented mines as property, and under it the assessor of Shoshone County sent (in 1901) to the several large mining companies of his county a request for an estimation of the value of those mines. The mines obliged by a valuation at the figure of \$5 an acre. The assessor, believing the mines to be worth, as property, a great deal more, levied a general assessment of \$500,000 apiece on the large mines.²⁵ The mines objected and took the matter before the county board of equalization, which unanimously refused to lower the assessment. The mine owners seem to have made a compromise offer of between \$25,000 and \$40,000 in taxes, but the offer was declined. The mines thereupon refused to pay the first tax levied, and defended their action on the grounds that the assessment was arbitrary and unequitable, and that the law under which it was made was unconstitutional.²⁶ The assessment was eventually held by a local court to be not a true assessment, and invalid.

It is nevertheless noteworthy that just as the Board of Equalization of Cochise County, in Arizona, forced the mines to sue in the legislature for a special tax, by its local assessment of 1901, so this Shoshone County assessor forced the Idaho law

²⁴ General Laws, 1901, pp. 234, 235.

²⁵ Through a clerical error he seems to have assessed the Hercules mine at \$50,000. *Idaho Statesman*, Jan. 4, 1903 (defense of mine owners).

²⁶ *Idaho Statesman*, Jan. 4 and Jan. 30, 1903.

of 1903. Even the mining companies now wanted a special mines tax. Both parties made a platform pledge to secure taxation of mines,²⁷ with net output as a measure of value, and the governor, pointing to the conflict and uncertainty existing in mining counties,²⁸ asked the legislature for some definite action.²⁹

The net proceeds tax was not put through without opposition. A mass meeting of business men and farmers in Shoshone County, principal mining center, petitioned the legislature, January 20, not to change the mine tax law until the mines at Shoshone paid their taxes. They favored the ad valorem taxation of mines, and, in opposing the use of the net proceeds base, protested against the enactment of any plan that would enable mine managers and expert accountants "to figure down to nothing immense taxable mines that should be reached and can be reached under the present law."³⁰ Farm representatives in general opposed the bill as inequitable, but Shoshone County, with most of Idaho's richest mines, lay in the distant north, accessible only by a circuitous route through Oregon and Washington, and the direct benefit to the southern Idaho farmer from high taxation of the deposits would have been small. At the end of a quiet but grim campaign the bill was passed, and in spite of some effort to keep away the governor's signature³¹ it became a law.

The new law was much like that of Nevada. "Net annual proceeds" was defined to mean the amount of money received from the mining of metals, after a deduction of:

²⁷ *Idaho Statesman*, Jan. 31, 1903.

²⁸ Governor's Message, 1903, p. 24.

²⁹ Mine Inspector Martin H. Jacobs emphasized in his biennial report the need of revision of the mine tax statute, on the grounds that assessors were not able to decide upon a fair cash value for mining property, and that an attempt to do so would inevitably result in litigation and delay. He pointed out that the mines of the state had produced, in 1902, gold to the value of \$2,467,223.21; silver to the value of \$6,784,113.62; and lead to the value of \$4,172,805. He suggested that mines be taxed on all improvements, and that all patented mineral lands be taxed at fair cash value. In addition to this, he suggested a tax on the net proceeds of all producing mineral lands, patented or unpatented; such net proceeds to be carefully defined to exclude salaries of general offices or office expenses except at the mines themselves. *Idaho Statesman*, Jan. 7, 1903.

³⁰ *Idaho Statesman*, Jan. 20, 1903.

³¹ *Idaho Statesman*, Feb. 14, 1903.

- (1) actual expenditure of money and labor in extracting the metal and transporting the same to the mill, concentrator, and reduction works; in the reduction thereof, and the conversion of the same into money.
- (2) all money expended for necessary labor, machinery and supplies needed and used in the mining operations.
- (3) all money expended in necessary improvements in or about mining claims.
- (4) money expended in reducing ores, or for the construction of the mills and reduction works used and operated in connection with the mine or mining claim, for the transportation of the ore and for extracting the metals and minerals therefrom; "but the money invested in the mine, or improvements made during any year except the year immediately preceding such statement, must not be included therein."⁸²

The law met with some dissatisfaction in the rural parts of the state and Governor Gooding felt it advisable during the next session, to say:

Next to agriculture, the mining industry is the largest in our state, bringing in a revenue each year of more than \$21,000,000. In all legislation affecting this industry I would advise care and caution in your deliberations.

Most of the complaint since that day, however, has been on the ground of principle and has not represented any determined body of voters. Though occasionally it reached the stage of legislative bills,⁸³ the issue did not again become of practical importance until 1914.

The prewar reform movement in Idaho took the form of demand for true valuations and for a tax commission. Both projects ran into considerable difficulty, and the short life of the tax commission has been laid to the fact that in its first and only report⁸⁴ it expressed the belief that mines were not bearing a proportionate share of the tax burden. It suggested that as

⁸² General Laws, 1903, p. 4.

⁸³ As in HB 51, 1912 (*Idaho Statesman*, Jan. 30, 1912); SB 28, 1925 (*Idaho Statesman*, Jan. 21, 1925).

⁸⁴ First Biennial Report, Idaho State Tax Commission, 1914, p. 46.

property in the state seemed to be assessed at about 65 per cent of actual value, the basis for assessment of mines might well be about twice the net annual proceeds, in addition to the valuation of the ground, improvements, and machinery customarily assessed.

The commission received little support even from the farm population. Net profits of mines, as reported to the state board of equalization, have varied from \$2,709,236.00 in 1911 to \$13,178,362 in 1918. In 1929 they were approximately \$7,000,000, all from Shoshone County. Total state valuation was about \$485,000,000.³⁵

But 1935 was a black political year for many mines in the western states, and those in Idaho did not come out unscathed. Governor C. Ben Ross, elected first in the fall of 1930, based much of his political program on the proposal to reduce the general property tax, and under his long regime the legislature adopted taxes on the production of electric power, on chain stores, and on sale of beer and liquor. It increased the inheritance tax rates, added a contractors license, and enacted a mines license tax. The sales tax was submitted to referendum and defeated.

The fact that the mines were forced to submit to heavier taxation as a part of this larger program merely bears out the observation made in several other places that the relatively lighter tax on the Idaho mines came not so much from their opposition to the tax as to the nature of the drive upon them. The drive increased in intensity, not only because, during a depression, the value of a tax dollar to the farmer was higher and the opportunity cost of political activity lower, but because the total yield of this group of supplementary revenues promised to be worth the effort required to hold the agricultural representatives in line. Whether the program could have been accepted if all these supplementary revenues had been proposed at once is another question, for the combined forces of these taxpayers might have formed a stubborn opposition, but the experience in Minnesota and Arizona would appear to indicate

* Abstract of Assessment books, State Board of Equalization.

that numbers will dominate a legislature if the prize is sufficiently high.

There had been a feeble but persistent demand for many years that mines be taxed upon some multiple of net proceeds, as in other western states, but the fact that they were all in Shoshone County, already one of the richest in the state, made the proposal politically impractical. The law of 1935³⁶ solved this dilemma by levying a tax of 3 per cent upon net profits, defined as the gross income less actual costs of extraction of ore from the mine, costs of reduction, costs of improvements in and about the mines or mills during any given year, but not including salary of superintendence or expenses outside the state. The new law covered all types of deposits, including coal. The reports were to be made to the commissioner of law enforcement and the money was turned over to the state treasurer to be placed to the credit of the public school fund. Failure to pay the tax or to make accurate reports subjected the mine to a penalty of three times the tax.³⁶

³⁶ Idaho Session Laws, 1935, ch. lxxv, p. 182.

CHAPTER IX

MONTANA

THE FIRST LEGISLATURE of the Territory of Montana, meeting in December, 1864, repealed the Idaho mine tax of 1 per cent on net proceeds and enacted in its place a measure which appears to have placed the net proceeds under the property tax.¹ In 1866 Montana readopted the tax of \$1 on every \$100 of net proceeds,² but in 1869 exempted mines and mining claims except for machinery and surface improvements. Thereafter all except the underground workings and ore bodies fell under the property tax.

The reform of 1879 was due to the activities of assessors in at least two counties, Deer Lodge and Beaverhead, who decided that the daily output of ore constituted personal property and who made such frequent assessments thereon as to turn the law into a tax on net proceeds.³ In this interpretation they were upheld by the State Supreme Court in 1877, and the miners were thereupon driven to the legislature for relief.⁴

The early law, they said, had been passed during the days of the placer mines and before quartz mining had become an industry.⁵ Quartz mining was the most hazardous of human

¹ First territorial session laws, pp. 428, 532.

² Third session, p. 28.

³ The *Helena Daily Herald*, Feb. 1, 1897; Jan. 27, 1879; Feb. 10, 1879.

⁴ Hope Mining Company vs. Kennon, 3 Montana 35.

⁵ The reports of the several auditors of the Territory and State of Montana show the following gross receipts reported by placer mines and quartz mills:

Year	Placer	Quartz
1874	\$1,864,007	\$ 796,170
1875	1,264,870	677,469
1876	1,254,820	392,860
1877	955,730	473,001
1878	822,055	909,948
1879	279,663	191,901
1880	655,054	3,036,476
1881	438,438	1,796,583
1882	637,911	1,916,645
1883	419,686	1,022,904

enterprises, and needed encouragement, and there was no more sense in the taxation of both mines and proceeds than of cows and daily milk production.⁶ Above all, the miners asked that the tax be clarified, for the assessment of net proceeds as personal property had been entirely unexpected, and the intent of the legislature was still in doubt. The resulting mine revenue law of 1879, which laid the foundation for mine taxation for many years thereafter, provided for the assessment of surface land at the price paid the federal government (usually \$5 an acre), of machinery and surface improvements, and of the net profit determined by formula. From the gross yield the mine was allowed deductions for actual expenditure of money and labor in extraction, reduction, and conversion into bullion.⁷

Of all the incidents in the history of mine taxation in Montana, probably the most important was the constitutional convention of 1889, for the restriction on mine taxation written into this state constitution acted as a bulwark of defense for many years thereafter, and helps to explain the fact that, as observed in Chapter IV, Montana is one of the few important copper producing states without an ad valorem tax on deposits. From the standpoint of the miners the convention came at a favorable period in the history of Montana. Economic conditions had undergone no radical change for a decade and the dominant industries were still mining and cattle raising, with the former predominating. Whereas in Idaho the farmers outnumbered the miners two to one, the miners in Montana still

Year	Placer	Quartz	Bullion in reduction furnaces
1884	457,655	3,864,848	\$ 3,430,305
1885	553,967	5,607,648	12,106,615
1886	449,585	9,969,041	13,319,693
1887	520,962	4,348,110	15,864,519
1888	440,111	20,293,171	15,864,519
1889	285,451	24,012,000	21,328,725
1890	139,505	23,934,196	23,382,558
1891	174,667	30,260,729	30,124,165
1892	256,825	19,270,957	20,899,478

(The variation from normal trend in 1879 was due to change to the fiscal year.)

⁶ *The Helena Daily Herald*, Jan. 27, Feb. 1, 1879.

⁷ Compiled Statutes, 1887, V, 1108. Revised Statutes, 1879, ch. liii, sec. 1047.

held a numerical superiority.⁸ William A. Clark, the leading miner in the territory, and for many years thereafter one of the most respected men in Montana, was chosen chairman of the convention, after caucus by the Democratic delegates.⁹ The committee on finances reported substantially the same section on mine taxation that was finally adopted, limiting mine taxation to surface valuation and net proceeds. Although opposition to the measure lacked any important strength, the arguments are interesting. Delegates from Custer County¹⁰ asked that the mines be assessed, like other property, upon their real value — a method held impossible by delegates from Deer Lodge.

Even the world-famed mines, such as the Granite Mountain and the Anaconda, and mines of that class, which perhaps those gentlemen imagine can be assessed upon a proper valuation, I desire to say that I believe it to be a fact that there are no two assessors in this Territory, each one basing a judgment upon his knowledge of those mines, that can come within a million dollars of each other as to what they are worth.¹¹

To an alternative suggestion that because the provision for special taxes was not properly the function of a State Constitution the entire section should be omitted, Clark argued that to leave the matter to the legislature would endanger "the greatest industry we have in the State of Montana." It was not that the mining men were averse to paying their share of taxes:

I will venture to say that there is no class of men engaged in any industry in this Rocky Mountain Country that has a higher regard for integrity or is more disposed to make a fair and equitable return of their property than are the men engaged in the mining industry. They do not propose to evade any of the duties of citizenship; they never have put themselves in an attitude of attempting to evade any of the responsibilities of citizenship in this Territory; but they do contend that the only way to reach a fair and equitable assessment of their values is to base it upon the net proceeds of their mines, in addition to whatever improvements may be found upon the

⁸ Eleventh census, Population, II, 550.

OCCUPATIONS, MALE

	<i>Idaho</i>	<i>Montana</i>
Mining	5,200	10,502
Agriculture (including farm labor and cattle men)	11,314	8,839

⁹ *The Daily Independence*, Helena, July 5, 1889.

¹⁰ Proceedings of the Montana Constitutional Convention, pp. 381-382.

¹¹ Pages 470 ff.

surface thereof, and, as has been said by the gentlemen from Deer Lodge, Mr. Toole, there is no method known to metallurgy, mineralogy or geology, whereby, considering all the uncertain circumstances that attend this industry, a fair and equitable value can be placed upon the property they call a mine. Today it may seem to be a bonanza . . . but how many are there here . . . on the floor of this convention . . . who have had in their experience the beautiful hopes of today frustrated by the stroke of the pick tomorrow?

Both he and J. R. Toole pleaded for the small mine owners who were often led to value their mines at tens of thousands of dollars, when nine times out of ten they were not worth fifty cents.

The constitution, adopted in the November election, provided that mines and mining claims should be taxed at the price paid the United States therefor, unless the surface was used for other than mining purposes, that improvements should be taxed at their value, and that the "annual net proceeds of all mines and mining claims" should be taxed as provided by law.¹²

The constitutional provision was given effect by Section 3 of the laws of 1891, providing that annual net proceeds should be taxed as other personal property. As actually administered the mines were allowed to deduct from the gross yield of each mine:

- (1) All moneys expended for necessary labor, machinery, and supplies needed and used in the mining operations and developments.
- (2) Actual costs of improvements, repairs, and betterments necessary in and about the working of the mine.
- (3) Actual cost of repairs and replacements of the milling and reduction works used in connection with the mine.
- (4) All money expended for transporting the ores, mineral products, or deposits from the mine to the mill, or to reduction works, or to the place of sale, and for extraction.
- (5) Actual cost of marketing the product and converting the same into money.
- (6) Depreciation in the sum of 6 per cent of the assessed

¹² Constitution of the State of Montana, art. XII, sec. 3.

valuation of the milling and reduction works used in connection with the mine for the calendar year covered by the statement.¹³

The average value of patented mining claims was \$6.34 per acre of land, while mineral reservations averaged 51¢ in value per acre, by the price paid the federal government.¹⁴

As in Michigan the early evidences of discontent had more to do with railroad taxation than with the taxation of mines,¹⁵ but in 1912 Joseph M. Dixon, United States senator and, in that year, chairman of the National Committee of the Progressive Party, took a forthright stand against the copper companies. In his keynote speech to the state convention of his party he referred to the Amalgamated Copper Company in these words:

These gentlemen are paying on the basis of about one-eighteenth of their real valuation. . . . They should be paying about one-half of the taxes of the state, on our present total assessment. Then your taxes could be reduced to just one-third of what they are now.¹⁶

The Progressive Party incorporated this plank in the platform:

We declare ourselves as being unalterably in favor of a complete reform of taxation laws and methods in Montana, to the end that there shall be a fair and equitable assessment of all classes of property. We believe that under present conditions railroads, the Amalgamated Copper Company, and other corporations are avoiding the payment of their just proportion of the taxes. . . .¹⁷

The basis of discontent is easily apparent. Where once the base of the mine tax consisted of numbers of small mines, scattered about the state, there had now grown up on "the richest hill in the world" one of the richest mines in the world, owned by a "corporation." The demand for additional mine taxes became strong enough to compel recognition by the other political parties. The Democratic party contented itself with a

¹³ Sec. 2500, Rev. Code 1917, Montana State Board of Equalization, 1926, pp. 40 ff.

¹⁴ Sec. 2500, Rev. Code 1917, Montana State Board of Equalization, p. 60.

¹⁵ Levine, *Taxation of Mines in Montana*.

¹⁶ Levine, p. 8.

¹⁷ Levine, p. 9.

general indictment of the inequalities of the tax system and upon election in 1912 established a state tax commissioner, an office which was abolished during the depression months of 1914.¹⁸

Again, in 1916, the problem of taxation dominated state politics. The Republican platform made an outright demand for a license tax upon net profits of mines, and the Democrats asked for a "non-partisan commission to make a study of present methods of taxation and to draft such constitutional and statutory amendments as may be adequate to equalize taxation." Following this last suggestion both the house and the senate appointed tax investigation committees, which built their separate reports about the same set of figures on total assessments for various types of industry in the state — the estimated gross proceeds for the year 1916 and the proportion of total taxes paid by each.¹⁹ The essence of the matter appeared to be that the farming industry, with an estimated gross production of \$80,154,190, paid 32.14 per cent of the taxes, while the mines, with an estimated gross production of \$141,500,000, paid only 8.79 per cent of the taxes. The house committee, however, emphasized the fact that the figures on gross proceeds were merely approximates, and although it concluded that there existed some inequality in matters of taxation, it called for further study and a report to the next session of the legislature. The senate committee, after a more exhaustive treatment of the problem, came out with the conclusion that the mining companies and the hydroelectric companies, among others, were not being taxed in proportion to their value and income.

The sessions of this fifteenth legislature were conducted amid considerable excitement. A representative of the farmers in the eastern part of the state introduced a bill to impose a tax of 6 per cent on the net proceeds of mines. The newspapers of the state rallied wholeheartedly to their respective constituents, and the mine organs took the position which they were destined

¹⁸ Levine, p. 10.

¹⁹ Report submitted by the Tax Investigation Committee of the House to the Fifteenth Legislative Assembly, pp. 4 ff.; Report of the Tax Investigation Committee of the Senate, Fifteenth Legislative Assembly, pp. 4, 23, 26.

to hold thereafter — that the mines, far from avoiding their just taxes, were paying “an extraordinary tax . . . not levied against any other industry in Montana,” namely, the tax on net proceeds.²⁰

Hinting that the mines might awake to the unfairness of this tax, the *Butte Miner* warned the people that there was a “limit to the good nature and patience” of the miner. Owners, operators, leasers, and prospectors in the state organized to defeat this threat to their interests, and by circular letters and telegrams to commercial bodies, rotary clubs, mining men, and others “in related industries” over the state invited the formation of local branches to “assist in the protest to the legislature against the imposition of the proposed special license tax.” In Butte and other cities mass meetings were addressed by speakers sent by the mining interests. C. F. Kelley, vice-president of the Anaconda Copper Mining Company, and other mining men appeared before the joint session of the tax investigating committees of the house and senate to present their case.²¹ It was during these hearings that C. F. Kelley gave the argument that uniformity in taxation demanded that the mines, like the farms, be taxed on the value of surface property only:

For the demagogue who, unable to aspire to a coveted position of leadership by the qualities that endure and are constructive, seeks to take advantage of the passing sentiment of an hour, and with a total disregard of possible consequences, fans into a frenzied flame the spark of passion which he has ignited, I have only that unspeakable contempt which he so richly deserves, and which without fail is ever the ultimate reward for political perfidity. . . .

Now I submit as a fundamental proposition that when you have taxed the surface of a mining claim at its full value for the purpose for which it is used, or is capable of being used, and when you have taxed the improvements that have been made upon that surface, you have gone so far in the matter of taxation as the law reaches any other class of property in this state. The law does not impose upon the net proceeds of crops raised on farm lands. You do not pay so much per bushel of oats, per sack of potatoes, or per ton of hay. . . .²²

The legislature compromised on an annual corporation license fee of 1 per cent upon the total net income received by

²⁰ Levine, pp. 11 ff.

²¹ Levine, pp. 11 ff.

²² *The Anaconda Standard*, Jan. 19, 1917.

corporations from all sources within the state of Montana over and above the sum of ten thousand dollars.²³ The leader of the Republican minority opposed the measure as being far less than adequate. He called on the legislature to save the mining interests from their own cupidity, lest an agrarian revolt at the next election confiscate their property. "We know that the mine representatives say that the mines are paying their share, but an overwhelming majority of the people of Montana know that the mines do not pay their just share. . . ." ²⁴

In recognition of the fact that an important body of voters still considered the revenue system to be in need of revision, this session created a temporary Tax and License Commission to make an interim investigation of the problem and report to the board of equalization in 1919.²⁵ The commission held hearings during the fall and winter of 1917-1918 and sent a delegate to the convention of the National Tax Association in Georgia, who listened without apparent enthusiasm to the eloquent report by C. M. Zander on the system as it operated in Arizona. The Montana interim commission completely avoided the mine tax question, except to propose that a permanent state tax commission be created and that the tax system should legalize the classified assessment rates which at that time were in fact being used in the state. The mining element thus called attention to the fact that all property was underassessed.

This commission found that in spite of the legal requirement of full cash valuation, the only property so assessed appeared to be the net proceeds of mines, and moneys belonging to widows, orphans, and executors of estates which were revealed by court records. Land appeared to be assessed at about 30 per cent of its full value; cattle at 45 per cent, sheep at 40 per cent, horses and mules at 52 per cent, hogs at 18 per cent, bank stock at 65 per cent, and other forms of property at varying

²³ Though express companies were required to pay a license fee of 2½ per cent of gross receipts and private car companies 5 per cent. (Report of the Tax and License Commission to the State Board of Equalization, 1918, p. 33.)

²⁴ Levine, p. 13.

²⁵ Report of the Tax and License Commission to the State Board of Equalization, 1917-1918.

rates. In the face of the law and the instructions from the attorney general, said the commission, "the assessors meet every year, resolve themselves into a sort of legislative assembly and proceed to fix the values at which different species of property shall be assessed. . . ." The commission recommended a permanent state tax commission and a classified property tax, at the following rates:

- (1) Net proceeds of mines to be taxed at 100 per cent of true value.
- (2) Household goods and furniture, agriculture implements, automobiles, trucks at 20 per cent of value.
- (3) Livestock, poultry and agricultural products, stocks and furniture of merchants at $33\frac{1}{3}$ per cent of value.
- (4) Land, town and city lots with improvements, manufacturing and mining machinery, 30 per cent of value.
- (5) Money and credits at 7 per cent of value.
- (6) Bank stocks and capital employed therein at 40 per cent of value.
- (7) All other property at 40 per cent of value.²⁶

To endorse its position the commission quoted numerous authorities on the widespread breakdown of the general property tax. The classified property tax, with rates as recommended by this commission, was adopted by the legislature of 1919.²⁷ Thus the Montana classified property tax, as well as that of Minnesota, was a direct growth of the debate over mine taxation.

The legislature, the tax and license commission, and the two major parties indicated in 1919 that political pressures were now apparently deadlocked. The state legislature had avoided direct action by appointing the commission. Both the Democrats and Republicans had urged a more equitable distribution of the tax burden, and each had called attention to the tax and license commission, suggesting that in the final report of this body would come the answer to the problem. But the tax and license commission had refused to take the responsibility so

²⁶ Report of the Tax and License Commission, p. 21.

²⁷ Revised Codes of 1921, ch. 159, sec. 1999, 2000.

willingly thrust upon it, and had recommended only the legalization of the system then actually in operation.

Into this static political situation there was suddenly projected a well-written monograph entitled *The Taxation of Mines in Montana* by Louis Levine, Ph.D. (now Lewis Lorwin), professor of economics, State University of Montana, a booklet of 141 pages, published by B. W. Heubsch, New York. There exists some difference of opinion as to the real effect of this study upon the development of mine tax laws in Montana, but the book was done the honor of a second printing, and the Levine case has been immortalized in academic legend. Indeed, though the incident is now over twenty years old, memory of it is still tender enough to make difficult the way of a student of mine taxation in the company offices and even among the "public" records of Butte, Montana.

In this brochure Dr. Lorwin first endeavored to disprove the assertion that the constitutional provision regarding mine taxation had added to the tax burden of this industry an element not borne by any other. He quoted the dedicatory speech of Colonel W. F. Sanders, given at the completion of the state capitol, in which the constitutional convention was charged with having made the mistake of incorporating a desirable temporary encouragement of the mining industry into a constitutional tax measure. He quoted court decisions to show that the net proceeds tax was in lieu of other taxes on mineral deposits. He used Young's figures to show a smaller per cent of surplus paid in taxes by Montana copper mines than in Michigan and Arizona in 1909, and used Zander's figures in Arizona for the following comparisons:

	<i>Montana</i>	<i>Arizona</i>
Gross proceeds from mines	\$146,500,000	\$ 82,036,342
Net proceeds reported	28,605,355	41,845,604
Assessed valuation of mining	43,710,854	171,888,616
Assessment per \$100 of gross proceeds	29.8	209.5
Assessment per \$100 of net proceeds	152.8	410.8

In 1916, by these figures, the mines of Arizona, he said, were assessed about three times as heavily as the mines in Montana.

By numerous illustrative income statements he concluded that "net proceeds" roughly equaled the accounting definition of net income from operation less deduction for depreciation and development charges. He estimated the book value of the Anaconda Copper Mining Company and concluded that on the percentage of its holdings in Montana the company had been assessed at approximately 23.9 per cent.

By reference to a comprehensive bibliography on mine valuation he showed that through proper amortization allowance, engineers and accountants could arrive at the approximate value of a mine, in spite of the fact that it was a depleting asset; and he quoted mining engineers to the effect that mining, when properly carried on, was no more speculative than other business. As a "punch-line" he drew from a report of a committee of the American Institute of Mining Engineers which in its attack on the federal provision for computing excess profits had maintained vigorously that "the present worth of a mine of known earning capacity, with developed tonnage, can be ascertained."²⁸ C. F. Kelley, he pointed out, had been on this committee.

Dr. Lorwin gave a succinct summary of the progress that had been made in the valuation of ore deposits in the Great Lakes region and in Arizona, and cited the conclusions of L. E. Young and of the committee on the taxation of mines of the National Tax Association favoring the use of the ad valorem method. He suggested that the constitution of Montana be amended to allow this method of taxation, or, failing this, that the mines be taxed on some multiple of net proceeds, a step which appeared possible under the constitution as it then stood.

In spite of the fact that it went a long way to clarify some of the debated issues in the state, the study met with a chilling response from the university. Chancellor Elliot, who had originally underwritten an investigation of state income sources and had provided the time and expense necessary for Dr. Lorwin's work, decided when it was completed that it should not be published, giving as his reason one frequently heard in matters

²⁸ Levine, p. 130.

of this sort. "From every standpoint of sound public policy it is untimely and inappropriate for the university, as an agency of the state, through any of its representatives, to introduce itself into discussion of the tax problem. Any such intrusion is bound to be misunderstood by the public and by members of the Legislature."²⁹ The book appeared shortly thereafter, and on February 7, somewhat less than a month after Chancellor Elliot's statement, Dr. Lorwin was suspended "for insubordination and unprofessional conduct prejudicial to the welfare of the university."³⁰

The most complete study of this case is that made by Professor F. S. Deibler at the request of the American Association of University Professors, and published in its *Bulletin* of May, 1919.³¹ This report noted that there had been a definite understanding that if, for reasons of diplomacy, the university preferred not to publish the bulletin on mine taxation, it could be published privately. The prevailing practice in all standard non-denominational educational institutions was to allow a man to obtain credit for his work, and the principle should not have been abrogated at the direction of the governor of Montana.

The basic disagreement between the A. A. U. P. report and Chancellor Elliot lay over what the latter called "the all-important question as to whether the Chancellor's policy of insisting that University men shall not mix in legislative political controversies is a sound one." The report called attention to the opinion of President Lowell of Harvard that there was no middle ground in such a case as this: "Either the university assumes full responsibility for permitting its professors to express certain opinions, in public, or it assumes no responsibility whatever, and leaves them to be dealt with like other citizens by the public authorities, according to the laws of the land." To carry the chancellor's policy to its logical conclusion would prohibit any expression of opinion by faculty members on any controversial issue, local or national. The chancellor's con-

²⁹ Robert George Raymer, *Montana* (Chicago: The Lewis Publishing Company, 1930), I, 537 ff.

³⁰ *The Anaconda Standard*, February 8, 1919.

³¹ Volume V, number 5, pp. 13-25.

tention that the statement on the title page that Dr. Lorwin was a professor of economics in the Montana State University made the university responsible for the publication, was no more true than that a statement to the effect that an author was a member of the New York Bar made a publication that of the New York Bar Association.

For a time thereafter the matter was a *cause célèbre*. To many of the established citizens of Montana this new intrusion was distasteful, regardless of the weight of the argument on the point at issue. An effort was made to indict the economics department of the university before the committee of education of the Montana legislature, for teaching coöperation, socialism, and the wrong doctrines concerning the origins and character of the World War.³² Robert George Raymer, in his history of Montana, takes the economically indefensible point that the mines were already paying an extra tax,³³ and suggests that the drive upon the mines was socialistic. But on the other side the *New Republic* and the *Nation*³⁴ discussed the case at some length and with considerable display of sympathy for Lorwin, and the farming sections in the state were not slow to go to the defense of their new champion. Lorwin carried on some correspondence with Zander, in Arizona, who told him to go out in the state and carry the issue to the people.³⁵ Joseph M. Dixon, editor of the *Daily Missoulian* and friend of Lorwin was particularly direct in his criticism of the governor and the board of education. Lorwin's suspension rapidly became "political dynamite" and two months later the state board of education reinstated Professor Lorwin on a permanent appointment, issuing the pay warrants temporarily withheld.³⁶ His career in Montana was ended shortly, however, when Ralph Pulitzer

³² Letter from Lewis Lorwin, Economic Advisor to the International Labor Office, Geneva, Switzerland, March 3, 1936.

³³ "The feeling against any increase in the general property tax was strong, yet, strangely enough, there was nothing said about a possible income tax for everybody, — the copper miners had been paying such a tax since the earliest times." Raymer, I, 537 ff.

³⁴ *New Republic*, March 8, 1919; the *Nation*, May 3, 1919, Sept. 19, 1923.

³⁵ Interview with C. M. Zander, November 1936.

³⁶ Raymer, I, 537 ff.

asked him if he would not rather teach economics to the 200,000 readers of the *New York World*, as a special editorial writer, than to a small classroom, and Lorwin was launched upon a new career.

Partly because of his influence, the demand for higher mine taxes increased from the farming sections. The Montana Equity Society kept the topic alive in the pages of the *Montana Equity News*, and during the annual convention at Great Falls, February 1918, devoted a day to the matter. Carl W. Riddick, later representative to Congress from eastern Montana, chided the farming element for allowing the mining interests to run the state house and the legislature.³⁷ The Nonpartisan League moved into the state political arena with a platform asking for the exemption of farm improvements from taxation and "equal taxation of railroads, mines, telegraph, telephone, electric light and power companies, and all public utility corporations."

In the campaign of 1920 the mines faced a difficult choice. From every direction they felt the agrarian onslaught. The Nonpartisan League, which had already interested itself in the problem of mine taxation in Minnesota, backed Burton K. Wheeler for governor of Montana. The opposing candidate was Joseph M. Dixon, who, many years earlier, had expressed the conviction that the mines should pay higher taxes. Of the two men the conservatives picked Dixon as perhaps the least undesirable, and aided his election.

In his message to the legislature in 1921 Governor Dixon gave considerable attention to the mine tax question. He admitted, to begin with, that the contribution of the mining companies to the public treasury was considerable, but he thought it to be still insufficient.³⁸ The corporation license tax was a heavier burden on mines than on other types of business because it took no account of the fact that part of the net income was a return of capital. He admitted that while the net proceeds of mines were assessed at 100 per cent of value, other classes of

³⁷ Levine, p. 14.

³⁸ Anaconda alone had averaged more than a million dollars a year in property taxes from 1916 to 1920, and in the three-year period from 1917 to 1919 the 1 per cent corporation license tax had averaged nearly \$200,000 more.

property were assessed at rates varying from 20 per cent to 40 per cent. But he was still of the opinion that the method of taxing metalliferous mines should be adjusted. In the first place the return from the net proceeds tax fluctuated widely, swinging from \$1,208,013 in 1917 to \$108,629 for 1920. In the second place he did not believe that the metalliferous mining industry bore its rightful burden of government. The neighboring state of Utah levied on three times the net proceeds, and in order to guard against wide fluctuations in revenue used as the tax base a five-year average production. He believed it would be feasible to enact a license tax for the sole benefit of the state government, and to equalize the returns over a five year period.

In addition to the new tax on mines Governor Dixon asked for an inheritance tax, an income tax, a 3 per cent gross returns tax on oil production, a coal tonnage tax of 10¢ per ton, and a higher automobile license and gasoline tax. Finally, he demanded a state tax commission to aid in the administration of the law and to advise the state in its effort to work out a coordinated tax program. With his message he submitted nine pages of charts showing the increase in the burden of the ad valorem tax since 1870.

Most of these recommendations the legislature followed. It enacted a gasoline license tax, a coal license, a cement license, an inheritance tax, an oil production license, and a metalliferous mines license of 1½ per cent of net proceeds.³⁹ The assessment of net proceeds under the old property tax law was taken out of the hands of the county assessors and placed with the state board of equalization. Because of the increased duties which these new measures imposed upon the old ex officio board the legislature also submitted a constitutional amendment providing for a state board of equalization to consist of three members to be appointed by the Governor and approved by the senate. This measure, too, carried by a substantial majority.⁴⁰

³⁹ First Biennial Report of the Montana State Board of Equalization, 1924, pp. 3, 32 ff.

⁴⁰ First Biennial Report, p. 3.

The 1921 metalliferous mines tax was not as productive as its supporters had wished. The net proceeds upon which it was levied were calculated in the same manner as net proceeds under the property tax, but the two together yielded to the state only \$82,102.28 for the year ending June 30, 1924.⁴¹ In that same year the corporation license tax enacted in 1917 (1 per cent on net profits) yielded \$205,163.29, of which the mining, milling, and smelting corporations paid only \$47,535.15.⁴² In 1924, therefore, Governor Dixon again demanded higher mine taxes, trusting this time not to the legislature but to direct referendum to the voters.

The campaign of 1924 was a well-fought affair. John E. Erickson, opposing Dixon, ran on a strict economy platform. Governor Dixon presented an initiative measure, to be voted upon in the same election, substituting for the metalliferous mines license tax of 1½ per cent a tax on the gross output of every mine producing metal over the value of \$100,000. Over this minimum the first \$150,000 or portion thereof was to pay ¼ of 1 per cent; the next \$150,000 or portion thereof, ½ of 1 per cent; the next \$100,000 or portion thereof ¾ of 1 per cent; and all over \$500,000, 1 per cent. This was Governor Dixon's platform, and the mines attacked both the increases in expenditures under his regime and the referendum itself.

Governor Dixon was aided in his campaign by the fact that Clark's Elm Orlu and the Anaconda Copper Mining Company, during the depression of 1921 and 1922, had paid minimum net proceeds taxes of \$1.00 apiece, the actual checks for which he waved from the platform during the campaign. His backers sent out data to show farm owners how they would benefit if they were taxed on net proceeds rather than on value of property. The Anaconda Copper Mining Company was said to have bought the Daly-Davis mine for approximately \$3,000,000, and the Dixon forces made much of the fact that two weeks after the sale the yearly assessment on the property was allegedly \$141,665. Clark was accused of charging himself so much for

⁴¹ First Biennial Report, p. 25.

⁴² First Biennial Report, p. 29.

milling his ore that his mine showed little net income, and his Elm Orlu was compared with the United Verde Extension in Arizona in an attempt to show that his taxes were one-ninth to one-third as high.⁴³

Anaconda, pointing to the large taxes paid during a period in which it had suffered a loss, called attention to the fact that, in spite of the increasing variety of taxes under Dixon's regime, the tax burden on property had grown heavier.⁴⁴ Even this new proposal to increase Anaconda taxes by half a million dollars would, said Anaconda, save the owner of the average 320 acre Montana farm only 98 cents.⁴⁵ The *Anaconda Standard* pleaded with the electorate not to adopt the petty, selfish principle of "unloading on the other fellow regardless of justice or fair play." The continuous threat against the mining interests, said the miners, seemed to show a persistent determination to drive out of Montana the two things most needed — men and money.⁴⁶

D. M. Kelly, lawyer for Anaconda, bore the brunt of its speaking campaign, and his general thesis was a reiteration of the sentiment that Anaconda was willing to pay on the same basis as did other property, but no more. He explained that mines could not be assessed as other property, for the reason that it was impossible to determine the value of a mining claim and, more importantly, because a mine produces but one crop of ore. The mines of Butte, he said, had been operating for forty years, and if the ore in the ground were assessed every year for that period of time, the entire value would have been taken out in taxes before the ore was mined. It is an interesting commentary on the influence of academic analysis in such a state that Lorwin had presumably disposed of this argument in his book in 1919.

To develop the thesis that the value of a mine is the value of its net product, Kelly argued that if a mine made ten thousand

⁴³ *Anaconda Standard*, Oct. 27, 1924.

⁴⁴ *Anaconda Standard*, Oct. 10, 12, 1924.

⁴⁵ *Anaconda Standard*, Oct. 12, 1924.

⁴⁶ *Anaconda Standard*, Oct. 15, 1924.

dollars it might pay a total tax on this sum of six or seven hundred dollars, while a farmer with a farm or a building assessed at the same figure would pay only a hundred and fifty dollars. The same sum of ten thousand dollars in a bank, in cash or in solvent credits, would pay under the classified property tax only about thirty-five dollars. These extremely vulnerable arguments he gave at public addresses throughout the state.⁴⁷

The large mining companies also took up the defense of the smaller mines, charging that the proposed measure would hamper their ability to obtain funds for sorely needed development work.⁴⁸ In answer to this charge the chairman of the state board of equalization, J. W. Walker, pointed to the exemption of \$100,000 of net proceeds for each mine.⁴⁹

The outcome of the campaign was a surprise to both camps. Governor Dixon had expected to stand or fall with the proposed initiative measure, and his opponents had felt that the best way to defeat the metalliferous mines tax was to defeat Dixon. But the taxpayers, with some show of financial discrimination, elected Erickson, who had run on an economy platform, and adopted the initiative measure which promised to transfer more of the tax burden to the mining companies.

One of the arguments against the measure had been its vagueness. The tax base was to be the gross value of the product, or the market value of merchantable ores, without deduction for cost of mining, smelting, or treatment, the said value to be "based upon the average quotations of the price of such metals" in the city of New York, as evidenced by some established authority or market reports. During the campaign Anaconda had pointed out that this would produce an inflated estimate of gross proceeds, because the New York value was far more than the Montana value. The state board of equalization considered this to be a weakness in the law, and in practice made a deduction from the New York price to arrive at the

⁴⁷ *Anaconda Standard*, Oct. 16, 31, 1924.

⁴⁸ *Anaconda Standard*, Oct. 16, 31, 1924.

⁴⁹ *Anaconda Standard*, Oct. 27, 1924.

value in Montana. The principal objection to this arrangement was that the state board appeared to use an arbitrary differential, favoring the copper mines over producers of other metal. In the case of *State vs. State Board of Equalization*,⁵⁰ the board was found to have recognized a differential of 3¢ per ounce on silver, of 2½¢ a pound on lead, and 1¢ a pound on zinc.

With the arbitrary deduction a majority of the state supreme court found no fault. The record did not disclose the factors employed by the board, said the court, when, after public hearings, it determined this difference, but there was no indication that the board failed to exercise its honest judgment. So long as the Montana value was "based upon" the published New York price, the court allowed the board a considerable latitude for administrative discretion.

To this decision the dissenting opinion protested vigorously that by the uncontroverted statement of one of the members of the state board the greater allowance for copper was in recognition of refining costs, there being no great difference in freight charges, commission or insurance, between copper, zinc, or lead. "How deduction of refining costs can be allowed in the face of the express declaration of the act that no deduction shall be made for cost of smelting, reduction, or treatment or otherwise is beyond our comprehension."

The mines today are deep and costs of production are thought to be relatively high. It is not anticipated that the mines will again be forced to withstand a strong agricultural drive. Political conditions bear a strong resemblance to the stable atmosphere characteristic of an old mining community.

⁵⁰ 93 Montana 19 (1932).

CHAPTER X

LOUISIANA AND ARKANSAS

By constitutional amendment adopted November, 1902, the machinery and other property employed in mining operation was exempted from parochial and municipal taxation for ten years, from January 1, 1900, and though the mines, theoretically, were under the property tax, they were not taxed on their mineral content. By 1910 the legislature changed its point of view and attempted to create a conservation fund from taxes levied upon all businesses extracting resources from the soil, but the act was declared unconstitutional.¹ Several efforts were made thereafter to amend the constitution to allow a severance tax. The amendment adopted in 1910 proved somewhat inadequate, as it was interpreted to allow the taxation of the business of severing natural products from the soil, but to exempt the owner of the land or the royalty holder.² The proposed amendment of 1912 failed to carry,³ but the constitution of 1913 allowed a severance tax, provided that it be graduated or fixed according to the quantity or value of the product at the place where it is severed.⁴

In 1922 the state of Louisiana enacted a tax of 3 per cent on oil and gas production and 2 per cent of the gross market value of all other products, two-thirds to go into the state severance tax fund and one-third to the local parish for schools.

The movement during the twenties to better the educational standards of some of the southern states took on additional drama in Louisiana with the rise of Huey Pierce Long. Governor Long in 1928 gave increased severance taxes first order of importance in his financial program, depending upon this revenue to underwrite his proposal for free textbooks and

¹ Young, *Mine Taxation*, p. 49.

² *State vs. Stiles*, 68 Southern 947 (1915); Young, *Mine Taxation*, p. 49.

³ Young, *Mine Taxation*, p. 49.

⁴ Article 229.

increased state support of public schools. In the house, in spite of the fact that the bill was never in danger of failure and finally passed by the overwhelming majority of eighty to fourteen, the speaker surrendered his chair and took the floor to make clear to the public the political issues involved. "By the aid of Huey P. Long," he said, "the children will get free textbooks and the oil men will be prevented from gypping the state out of its rightful taxes."⁵ Before the senate finance committee T. H. Harris, the state superintendent of education, as the first witness in favor of the bill, estimated that not more than half a million dollars would be needed the first year for textbooks and from \$350,000 to \$500,000 for replacements thereafter, leaving of the estimated total yield of two million dollars over a million and a half a year for the general school fund.⁶ Opponents called the bill "ruinous to the Louisiana oil industry," but Governor Long appeared in person before the committee to attack the Standard Oil Company and to make his demand for free textbooks and a better school system. The bill passed the senate by a vote of twenty-five to fourteen,⁷ and while it was directed principally at oil production, it placed rates of 5¢ a ton on coal, lignite and ores, and levied specific rates on fifteen other products.⁸

Throughout the twenties the state of Arkansas made a vigorous attempt to improve the position of its educational system. Funds for an educational survey were raised by public subscription under the auspices of the Forward Education Movement and the Arkansas Educational Association, and with the coöperation with the United States Commissioner of Education.⁹ The Honorary Education Commission made its report in 1922.¹⁰ In response to the public interest aroused by this report, a conference on education and tax reform was held in the state capital.

⁵ *Times-Picayune*, June 14, 1928.

⁶ *Times-Picayune*, June 20, 1928.

⁷ *Times-Picayune*, June 29, 1928.

⁸ Louisiana General Statutes, 1928, No. 531.

⁹ *Arkansas Democrat*, Jan. 27, 1924, p. 15.

¹⁰ *Journal of the Arkansas Educational Association*, October 1922.

But the financial problem was difficult. Taxes upon property seemed already to be onerous, and the governor expressed the hope that sufficient additional sources might be found to allow state support of education and, at the same time, to make it possible to relieve property entirely of the state tax. In his message to the legislature in 1923¹¹ the governor expressed the opinion that "a true test of the progress and civilization of our people is the amount of money spent for education," and he called attention to the fact that after fifty years the state had less than one and one half million dollars in the permanent school fund and nearly 100,000 adult illiterates. The average school term was only 131 days, equipment and buildings were inadequate, and state educational rank in the nation was forty-sixth. Total state assessments were decreasing rather than increasing, so that constitutional limits to tax rates placed a strict limit upon property taxes. The governor felt that in any case property was not a true measure of ability to pay. "With all the fortunes made in our state in oil development in the last few years the taxable property is thirty-eight million dollars less." Most sources of wealth in Arkansas, he concluded, lay outside the scope of the property tax.

The Democratic platform had called for the elimination of the state property tax and a substitution of inheritances taxes, corporate franchises, and other supplementary revenues, and the governor suggested the use of severance and privilege taxes.¹² Both the *Arkansas Democrat* and the *Arkansas Gazette* backed the demand for better schools.¹³

The two original proposals for a severance tax on bauxite carried rates of 50¢ and \$1.00 a ton.¹⁴ The bauxite producers expressed a preference for a tax of perhaps 5.3¢ to 18¢, or 2 per cent of the market value, which varied at that time from \$2.65 to \$9.00 a ton. While most other taxes were placed upon a per cent of value of output, the fact that bauxite was sold by

¹¹ *Arkansas Democrat*, Jan. 10, 1923.

¹² *Arkansas Democrat*, Jan. 10, 1923.

¹³ See *Arkansas Democrat*, Jan. 11, 1923; *Arkansas Gazette*, March 24, 1924.

¹⁴ *Arkansas Democrat*, Feb. 4, 1923.

the American Bauxite Company to the American Aluminum Company raised doubts as to the ability of the administration to determine its actual value. The bill as finally passed was a compromise measure, providing for a 25¢ tonnage tax on bauxite, 1¢ on coal and 7¢ a thousand feet on timber, and a 2½ per cent tax on all other products mined, cut or otherwise severed from the soil or water of Arkansas for commercial purposes.¹⁵ Any person so severing products was required to obtain a license each month, after an application to the commission, in which the probable future output was estimated and the tax thereon placed as a lien on the output.

For several reasons the financial program as laid down by the session of 1923 proved unsatisfactory. The yield was insufficient to allow the elimination of the state property tax rate, as proposed by the administration, and the gross income tax passed in 1923, to be effective April 1st, 1924, was widely opposed as unproductive and inequitable.¹⁶ Early in 1924 the governor offered a four point program for educational and financial relief, suggesting a shift from tangible to intangible property, an enlarged special privilege tax, taxes on incomes and profits of corporations, and a revision of the budget system, but he met a growing doubt as to the practicability of the plan for separation of sources of state and local revenue. The *Arkansas Democrat*, while agreeing that the educational program should be expanded, quoted C. J. Bullock and Mabel Newcomer as to the doubtful value of any effort to relieve real estate of the state property tax. Governor McRae himself was inclined to await the attitude of public opinion toward the proposal for further revenue reform.¹⁷

A special session was finally called, primarily with the purpose of substituting a net income tax for the gross income tax of 1923.¹⁸ Demands for educational reform were still insistent.

¹⁵ Including minerals and ores, pearls, diamonds, and other precious stones, fuller's earth, phosphates, shells, chalk, cement, clay, sand, gravel, asphalt, ochre, oil, gas, salt, sulphur, lignite, marble, stone and stone products, timber, and all other forest products. Sec. 1, act 118 of 1923.

¹⁶ *Arkansas Democrat*, Jan. 13, 1924; *Arkansas Gazette*, March 5, 1924.

¹⁷ *Arkansas Democrat*, Jan. 30, 1924.

¹⁸ *Arkansas Gazette*, March 5, 1924; *Arkansas Democrat*, Feb. 13, 1924.

The editor of the *Arkansas Gazette* asked that the entire net income tax be diverted to the school fund, observing that while in 1920 Arkansas was last in per capita current expense for education among the states, in 1910 it had been eighth from the last. In 1923, said the editor, 57 school districts, with 2,060 school children, had no school whatever; and 694 districts, with 31,820 children, had received less than \$200 per district, because of the limitation on property taxes.

Against this background, only a genuine alarm over the condition of the bauxite industry in Arkansas or a strong campaign on the part of the producers could have implemented an administration bill asking for the reduction of the severance tax on that item. Although production of bauxite had risen 72 per cent between 1923 and 1924,¹⁹ the price had dropped somewhat in the meantime and the bauxite industry was reported to be in a slump in the first few months of 1924,²⁰ owing partly to competitive imports up the Mississippi River. The governor received a petition from the Benton Chamber of Commerce stating that while the value of bauxite at the point of severance was about \$2.00, the cost of severance was \$1.75, that 5,000 people were dependent upon a continuance of the industry, that the mines expended two million dollars a year in the state, and that some of the land was assessed at \$400 an acre.²¹ Bauxite had paid \$18,034.49 in severance taxes in 1923, and the tax of 25¢ a ton, said this petition, threatened to kill the industry. The sharp curtailment of employment during this debate was attributed to the insecure economic position of the industry.²² Other groups in Saline County attested to the fact that as an employer and member of the community the company was "a model."

While, therefore, a minority charged the bauxite interests with "double-crossing" the state, and described as "bull, pure and simple," the bauxite company's "threat" to leave the state if the 25¢ tax was declared legal, both houses passed the bill

¹⁹ *Arkansas Gazette*, March 19, 1924.

²⁰ *Arkansas Gazette*, March 21, 1924.

²¹ *Arkansas Gazette*, March 23, 1924.

²² *Arkansas Gazette*, March 21, 1924.

as recommended by the governor.²³ Shortly thereafter the legislature also voted down the income tax, lest it drive capital from the state.²⁴

The 1924 measure substituted for the 25¢ a ton tax on bauxite the rate of 2½ per cent already in effect on most extractive industries and made the measure retroactive, applying it to the 1923 as well as to the 1924 production.

²³ *Arkansas Gazette*, March 30, 1924.

²⁴ *Arkansas Gazette*, April 2, 1924.

CHAPTER XI

SOUTH DAKOTA

TO THE STUDENT of political history, searching for the basis of political unity in these United States, a visit to South Dakota yields unexpected and even startling results. Homestake is admitted by the hardy politicians in Pierre to be a popular institution. The Homestake Mining Company has achieved a distinctive position as an honored and respected South Dakota enterprise in the face of the fact that it stands as a large and prosperous industrial concern in an agrarian state with generally low property values. To merit the good will and friendship of the people of South Dakota the company has been willing to spend money and effort over a quarter of a century. Throughout the state it is known for its ready contributions to charity, and for its exceptional record as an employer. The employees' band has traveled extensively through the small communities of South Dakota. The company has long aided the Junior League Baseball Tournament and broadcasts the results of the games. In the winter of 1935 a severe blizzard marooned a number of communities in Meade County, and Homestake donated a carload of coal, a large crew of men, and several pieces of equipment to keep the families supplied with the necessities of life. Homestake has an exceptionally low labor turnover. It boasts a Veterans Association of 400 employees, all of whom have been employed by the company for at least twenty-one years. None of these diverse activities are unimportant, for totaled together they indicate an appreciation on the part of the directors and stockholders of the duties of a corporation as a good neighbor. The most obvious characteristic of this company is that it is not only a force in the community but that it is *of* the community.

During the drought period from 1930 to 1936, the company drew and put to new employment over 400 men from the

neediest families in the eastern part of the state, and has been able to point out that during those years it paid \$2,782,738 in wages to South Dakota farmers¹ trained at some expense in preference to nonresident miners. These men increased the total pay roll of the company without a corresponding increase in ore production. At some additional sacrifice the company has also shown preference for South Dakota building products² in its construction work. In 1938 the expense of its public and industrial welfare work totalled \$203,657.97.³ Since before the first World War, when strikes first convinced the management of the desirability of good public relations, labor troubles have been at a minimum. Two bonuses have been paid in most years, and the company claims to have paid the highest wages in the metal mining industry during the last eight years. Even to the casual observer the morale of the town of Lead is exceptionally high.

It is true, as other mining companies allege, that to some extent the position of the Homestake Mining Company is due to the nature of its ore. The mine produces gold in steady quantities, with a stable market even during depression. But while this dependability of income does allow the company more scope for its social policies, it results, also, in greater vulnerability to political attack. Until the depression there had been no important drive upon Homestake throughout its seventy odd years of life, but the increase in price of gold drew to it the attention of all farm organizations in the state.

In 1935 the "Farmers Union ore tax bill,"⁴ backed by the slogan "Tax Gold — Not Poverty," proposed a levy of 10 per cent on all ores after deduction of production costs. The bill was copied largely from the Minnesota law,⁵ though the farmers found considerable difficulty in the determination of deductible costs and eventually turned it into a straight gross production tax. Mining engineers representing the Black Hills interests

¹ *Homestake, A South Dakota Enterprise*, p. 27.

² *Homestake, A South Dakota Enterprise*, p. 20.

³ *Homestake, A South Dakota Enterprise*, p. 26.

⁴ *Daily Capital Journal* (Pierre, South Dakota), Jan. 18, 1935.

⁵ *Daily Capital Journal*, Jan. 23, 1935.

pointed out that while iron ore mining in Minnesota involved simple stripping operations, mining in South Dakota involved unknown quantities and highly technical, even speculative, operations.⁶ The bill, it was objected, would injure the small prospectors,⁷ and a circular issued by the Associated Black Hills Commercial Clubs pointed out that during the preceding fifteen years every mining company in the Black Hills except the Homestake had ceased operations. Most of them had gone bankrupt and had sold their machinery as scrap, and only the higher price of gold had been able to revive mine activity.⁸

A petition signed by 1200 West River farmers maintained that 18 out of 25 farmers in that section opposed the bills, and another presented by two youths and signed by 12,000 residents of the Black Hills, "persons having no interest in mining," maintained that the proposed tax "would not affect the Homestake and other mining companies nearly as much as it would affect the youths of the Black Hills."⁹ In general the mining interests felt that the law was unfair, unworkable, discriminatory, and would discourage future developments.¹⁰

The president of the Farmers Union maintained that mine taxation was "fifty years past due in South Dakota." Attention was repeatedly called to the fact that the mine owners were nonresidents. The charge that the mine was owned in England was denied by a Lead attorney,¹¹ but the farm group made much of the fact that the Hearst interests had once been important stockholders in Homestake.¹² The bill passed the house early in the session by a vote of 73 to 30, after which the legislature settled down to an arduous debate. Governor Tom Berry suggested that with less haste and a more careful consideration of all the alternatives the results might be more satisfactory, and the measure was modified appreciably as the

⁶ *Daily Capital Journal*, Feb. 8, 1935.

⁷ *Daily Capital Journal*, Feb. 1, 1935.

⁸ *Daily Capital Journal*, Feb. 5, 1935.

⁹ *Daily Capital Journal*, Feb. 12, 1935.

¹⁰ *Daily Capital Journal*, Jan. 24, 1935.

¹¹ *Daily Capital Journal*, Feb. 9, 1935.

¹² *Daily Capital Journal*, Jan. 25, 1935.

session progressed. The final tax was 4 per cent on the value of mine production, with an exemption of the first 50,000 tons of ore mined by any one company in any one calendar year.¹³ Little else was accomplished by that term of the legislature.

In 1937, a similar contest took place over a bill to tax mineral production 10 per cent on its value.¹⁴ The small producers would have favored the repeal of the 4 per cent tax and a substitution of a new income tax.¹⁵ O. D. Collins, president of the Bald Mountain mine, producing 350 tons of ore daily and employing approximately 175 men, protested that he already paid 60 per cent of the money received above mining costs in the form of taxes, in spite of the fact that the stockholders had not yet received a return on their investment. But on the grounds that the contest was "a fight between the rich and the poor"¹⁶ the farm leaders demanded a readjustment of the 1935 measure, and as a compromise the house approved a 6 per cent tax on the value of ore production, with an exemption of the first 100,000 tons produced each year. As interpreted and administered the tax is levied upon the mint value of the gold produced, without deduction of costs.

In 1934 state taxes paid by Homestake were less than half a million dollars; in 1938 they were over a million and a half.¹⁷ From the standpoint of the state of South Dakota, the gross proceeds tax was not a good one, for, as the company has well indicated¹⁸ by pamphlet and by motion picture, a gross income tax is a charge against the ore, and the effect is to shrink the area of minable rock within the mine. The extent to which the mine's life is thus shortened is debatable, but it cannot be denied that the nature of the tax is to produce this result to some degree.

The company does not consider that prior to 1935 it had a conscious public relations program, but alleges that the mis-

¹³ Session laws, 1935, ch. 203.

¹⁴ *Daily Capital Journal*, Feb. 3, 1937.

¹⁵ *Daily Capital Journal*, Feb. 4, 1937.

¹⁶ *Daily Capital Journal*, Feb. 10, 1937.

¹⁷ *Homestake, A South Dakota Enterprise*, p. 30.

¹⁸ *Homestake, A South Dakota Enterprise*, p. 29.

information spread about the state regarding its operations made such a program necessary thereafter. The intensive educational campaign then inaugurated included a series of talks to civic organizations, informational advertisements in the several hundred weekly rural newspapers, a bulletin on the operations of the company, and a sound motion picture showing the scope of the Homestake operations. The picture has been shown throughout the state to schools, civic organizations, farmers meetings, and at the state fair. The company has also encouraged tourist visitors from within and without the state.

The company feels that these efforts have achieved results, and point to the fact that a bill reducing the ore tax from 6 per cent to 5 per cent passed the senate by a substantial majority in 1941 and failed in the house only by a narrow margin. In any case it cannot be denied that, owing partly to this recent effort at better public relations but even more to its long standing "good neighbor" program, Homestake has acquired the respect of the rest of the state. In terms of the social psychologist, it has succeeded to a unique degree in establishing itself as one of the "in" group rather than the "out" group.

CHAPTER XII

COLORADO: TERRITORY AND EARLY STATEHOOD

THE HISTORY of mining in Colorado falls roughly into four periods. Placer mining began with the Russell Expedition into the Pikes Peak region in 1858, but excitement subsided after 1861, and there was a decline in population from 1863 to 1870.¹ Thereafter for twenty years the chief development came in the exploitation of silver and lead fissure veins. California Gulch saw some activity in 1861, but not until after the discoveries of silver and lead in 1877 was the town of Leadville organized. A railroad was built to the camp in 1880. Additional discoveries in Cripple Creek in the early nineties led to one of the greatest gold camps in history.²

Along with this development of lode mining came new methods of ore treatment, overcoming the problems of reduction of refractory ores which had often paralyzed concentrating mills in the early eighties. The cyanidation process was adopted in the early nineties and the use of flotation after 1916 added to Colorado's position as a metal producer. A characteristic of the final phase of mining history has been the development of deep vein mining, with large capital investments, tunneling projects, scientific unwatering, and new treatment discoveries, permitting the reworking of old ore dumps.

Even prior to the organization of Colorado Territory in 1861, the miners had paid some sort of local road tax at a flat rate for mining claims.³ The Gold Hill District, in Boulder County, apparently went on record in 1861 as opposing a tax system which required an inspection of books.⁴ The ad valorem tax, as in other new communities with small property values,

¹This rough outline of mining history is taken primarily from Wilbur Fisk Stone, *History of Colorado* (1918), ch. xiii.

²T. A. Rickard, *The Cripple Creek District* (1900).

³Young, *Mine Taxation*.

⁴Young, *Mine Taxation*.

developed somewhat slowly, and the laws of the first session of the General Assembly of Jefferson Territory, held at Denver City, 1859-1860, said nothing about the taxation of lands or of mines.⁵

The Colorado State Constitution of 1876 specifically exempted mines from taxation for a period of ten years, except for taxes upon net proceeds and surface improvements. While the legislature failed to enact the net proceeds tax so suggested, Lake County (Leadville) appears to have assessed the mines on that basis for several years, until, in 1880, calling the tax illegal, the Little Pittsburgh became purposely delinquent on taxes of \$53,055.64, levied against \$1,500,875 of personal property (net proceeds) and \$15,000 of improvements on public lands.⁶ County Treasurer Richard Stanley thereupon attached all the personal property of the company, and placed a deputy sheriff with a squad of men to guard it, pending inventory. The Chrysolite, in alleged anticipation of similar action, also shut down, throwing 282 men out of work, and the community became sharply divided into two groups — one condemning the mines for removal of important source of county revenue, and the other condemning the county for stifling industry. The editor of the *Daily Democrat* vigorously denounced Stanley for making a test case out of so large a mine. The courts eventually upheld the mining company on the grounds that the legislature had not yet provided a method for carrying out the permissive provisions of the constitution.

The effect of the decision was felt throughout the state. The tax on net proceeds in Lake County had constituted a large item of county revenue,⁷ and the expenses of the county were unusually high because of mining operations. Leadville was a boiling camp. The *Leadville Chronicle* of February 21, 1879, carries a list of approximately 900 unclaimed letters lying in the Leadville post office. The county was plagued with a steady succession of homicides, suicides, and litigation over claim-

⁵ Revenues and Collections, ch. xvii.

⁶ The *Daily Democrat* (Leadville), Feb. 24, 25, and March 1, 2, 1881. Stanley vs. Little Pittsburgh Mining Company, 6 Colorado 416.

⁷ The *Daily Democrat*, Feb. 25, 1881.

TABLE 4
GOLD, SILVER, COPPER, LEAD, AND ZINC PRODUCED IN COLORADO, 1858-1925, BY YEARS, IN TERMS OF RECOVERED METALS *

Year	GOLD			SILVER Total value	COPPER Total value	LEAD Total value	ZINC Total value	Grand total value
	Placer	Lode	Total					
1858-1867	\$14,923,918	\$10,097,866	\$25,021,784	\$ 406,139	...	...	...	\$25,427,923
1868	320,000	1,690,000	2,010,000	266,150	\$ 11,500	...	...	2,287,650
1869	380,000	2,800,000	3,180,000	630,000	24,735	\$ 9,000	...	3,843,735
1870	695,000	2,320,000	3,015,000	660,000	38,654	15,000	...	3,728,654
1871	190,000	3,443,951	3,633,951	1,029,059	44,140	33,300	...	4,740,450
1872	271,500	2,374,963	2,646,463	2,015,000	72,542	73,600	...	4,807,605
1873	285,000	1,733,931	2,018,931	2,001,331	106,258	74,184	...	4,200,704
1874	258,997	1,893,490	2,152,487	3,000,966	104,619	76,676	...	5,334,748
1875	263,260	1,961,308	2,224,568	2,889,560	63,745	94,888	...	5,272,761
1876	285,000	2,441,311	2,726,311	2,974,707	70,000	81,375	...	5,852,393
1877	265,000	2,883,708	3,148,708	3,458,546	93,796	235,750	...	6,936,800
1878	275,774	2,964,574	3,240,348	5,373,904	89,000	494,000	...	9,197,252
1879	187,000	3,006,500	3,193,500	13,327,257	131,000	1,941,268	...	18,593,025
1880	179,000	3,073,514	3,252,514	16,557,170	183,826	3,567,400	...	23,560,910
1881	175,500	3,124,500	3,300,000	14,997,572	160,888	3,892,512	...	22,350,972
1882	192,500	3,167,500	3,360,000	14,548,359	285,354	5,390,000	...	23,583,713
1883	132,000	3,968,000	4,100,000	14,912,417	190,188	6,067,902	...	25,270,507
1884	123,551	4,176,449	4,300,000	13,736,251	261,706	4,674,209	...	22,972,166
1885	124,035	4,079,390	4,203,425	13,076,451	123,818	4,160,989	\$4,300	21,568,983

* From figures compiled by Charles W. Henderson, originally for inclusion in "Mining in Colorado," United States Geological Survey Prof. Paper 138, 1926. Certain figures for the years 1904 to 1913, inclusive, do not agree with figures appearing in Mineral Resources of the United States. From 1858 to 1895 the figures for gold and silver represent chiefly United States Mint estimates of recovered metals; figures for copper, lead, and zinc, as far as possible, represent refined metals (some of them estimates from assay content of ores treated, with allowance made for losses). The figures for 1896-1905 differ only in that they are based on actual receipts at the mints and smelters. The figures for 1906 to 1925 also represent actual receipts at mints and smelters, supplemented by reports from mining companies. For ore and concentrates to smelters the figures assay content of gold and silver but allow for losses of the base metals in treatment.

TABLE 4 (CONTINUED)

1886	163,328	4,286,672	4,450,000	12,251,250	127,257	5,428,000	4,400	22,260,907
1887	280,933	3,719,067	4,000,000	11,369,534	277,660	5,670,000	4,600	21,321,794
1888	104,500	3,653,599	3,758,099	13,813,596	272,345	5,649,777	14,700	23,508,517
1889	135,870	3,747,989	3,883,859	17,272,629	157,956	5,223,660	15,000	26,553,104
1890	126,380	4,024,752	4,151,132	19,740,000	559,368	4,913,639	16,500	29,380,639
1891	125,663	4,474,337	4,600,000	20,948,401	811,121	5,429,009	15,000	31,803,531
1892	71,900	5,228,100	5,300,000	20,880,000	880,866	4,800,001	51,750	31,912,617
1893	98,216	7,428,784	7,527,000	20,154,107	831,149	4,070,000	66,000	32,648,256
1894	108,747	9,382,767	9,491,514	14,667,281	615,734	3,340,458	52,500	28,167,487
1895	95,499	13,209,601	13,305,100	15,209,024	650,479	3,006,976	60,156	32,231,735
1896	90,419	14,820,581	14,911,000	15,349,642	650,395	2,688,178	50,388	33,649,603
1897	130,646	19,448,787	19,579,433	12,766,919	1,097,995	2,908,592	110,044	36,462,983
1898	83,428	23,451,104	23,534,532	13,866,532	1,347,965	4,309,813	179,430	43,238,272
1899	73,589	26,435,086	26,508,675	13,868,811	1,258,041	6,212,178	655,438	48,503,143
1900	77,966	28,684,070	28,762,036	12,608,637	1,299,251	7,228,090	716,410	50,614,424
1901	87,324	27,592,119	27,679,443	11,095,538	1,314,712	6,368,772	1,100,593	47,559,058
1902	118,774	28,398,140	28,516,914	8,449,008	1,132,601	4,358,169	2,523,963	44,980,655
1903	129,049	21,476,308	21,605,357	7,152,536	1,069,958	4,263,566	4,353,263	38,444,680
1904	193,068	24,049,417	24,242,485	7,517,260	1,204,828	4,622,453	3,405,353	40,992,379
1905	99,984	25,195,238	25,295,222	7,527,056	1,507,201	5,440,098	4,930,123	44,699,700
1906	106,019	22,790,652	22,905,671	8,390,553	1,277,338	6,078,850	5,246,787	43,899,199
1907	97,219	20,210,429	20,307,648	7,655,679	1,765,251	4,720,457	5,017,865	39,466,900
1908	184,457	22,411,114	22,595,571	4,771,227	1,346,547	2,589,118	1,416,110	32,718,573
1909	457,085	21,526,923	21,984,008	4,630,444	1,419,105	3,102,980	2,765,354	33,901,891
1910	389,828	20,115,786	20,505,614	4,594,829	1,061,632	3,346,586	4,162,841	33,671,502

TABLE 4 (CONTINUED)

1911	319,038	18,682,937	19,001,975	3,884,989	1,003,061	3,135,568	5,392,625	32,418,218
1912	423,865	18,164,697	18,588,562	5,050,423	1,172,705	3,385,902	9,123,374	37,320,966
1913	408,007	17,738,909	18,146,916	5,632,454	1,120,313	3,867,502	6,683,400	35,450,585
1914	642,360	19,240,745	19,883,105	4,864,224	883,010	2,894,264	4,935,523	33,460,126
1915	693,310	21,721,634	22,414,944	3,563,182	1,244,694	3,234,098	12,969,779	43,426,697
1916	712,924	18,440,897	19,153,821	5,038,006	2,121,524	4,893,072	17,994,252	49,200,675
1917	661,028	15,068,196	15,729,224	6,018,787	2,217,307	5,847,141	12,272,209	42,084,668
1918	526,202	12,225,516	12,751,718	7,063,554	1,550,501	4,683,214	8,111,185	34,160,172
1919	550,562	9,336,065	9,886,627	6,448,971	662,198	1,964,722	2,717,096	21,679,614
1920	514,588	7,061,731	7,576,319	5,896,175	744,047	3,730,383	3,952,050	21,898,974
1921	344,640	6,490,688	6,835,328	5,631,657	535,794	884,721	118,000	14,005,500
1922	356,403	6,017,016	6,373,419	5,855,911	455,416	1,291,246	1,325,706	15,301,698
1923	364,429	6,227,200	6,591,629	4,374,280	624,472	3,198,873	3,682,336	18,471,590
1924	418,506	8,174,610	8,693,116	2,180,428	355,432	3,804,565	3,687,255	18,620,796
1925	150,318	7,076,704	7,227,022	3,127,816	335,191	5,478,042	4,683,196	20,851,267
Grand total 1858-1925	\$30,243,106	\$658,638,922	\$688,882,028	\$507,042,189	\$41,018,189	\$198,944,786	\$134,586,854	\$1,570,474,046

jumping, and the editor of the *Daily Democrat* estimated that over half of the business of the courts grew out of mining disputes.⁸ After the Little Pittsburgh decision, county warrants dropped to a value of about 40¢ on the dollar, and the warrants holders in Denver apparently had much to do with a state-wide demand for a heavier tax on mining operations.⁹

In the campaign of 1882, Grant, the successful candidate for governor, suggested a mine tax, and two were introduced into the legislature in the following January,¹⁰ the most important being a proposal to tax all mines producing ore to the value of \$50 or more on their net proceeds, after deduction of certain specifically recognized costs. The proceeds were to be applied only toward reduction of or payment of interest on the county debt, or to the general fund if there were no debt.

In Lake County, as generally in Colorado, opinion over the bill was divided. One of the two mine tax measures had been introduced by Davis, Lake County, representatives, who maintained that 90 per cent of the people in his county favored the bill,¹¹ and backing him were his two colleagues in the house and the two Lake County senators.¹² Two Denver papers favored the measure.¹³

But a number of "leading citizens" of Leadville signed a memorial protesting against the taxation of mines for payment of bondholders.¹⁴ The Leadville mine owners felt that inasmuch as they produced nearly two-thirds of the metal output of the state, and inasmuch as Lake County was the nearest to insolvency, the bill was aimed directly at them, and they argued that the \$500,000 indebtedness was due not to low taxes but to extravagant expenditures. To tax the mines, said these interests, would drive capital to Arizona, New Mexico, and Utah, where there were no such levies, and would be unfair to the

⁸ The *Daily Democrat*, Feb. 25, 1881.

⁹ The *Leadville Daily Herald*, Feb. 8, 10, 16, 1881.

¹⁰ The *Leadville Daily Herald*, Jan. 23, 25, 1883.

¹¹ The *Leadville Daily Herald*, Feb. 8, 1883.

¹² The *Leadville Daily Herald*, Feb. 11, 1883.

¹³ The *Leadville Daily Herald*, Feb. 11, 1883.

¹⁴ The *Leadville Daily Herald*, Jan. 25, Feb. 8, 1883.

small miner who might by good fortune make \$50 a day.¹⁵ The measure they said should be termed "a bill to cripple the mining industries of the state."

Forty influential "Leadvillians" made the long railroad trip around through Grand Junction to present their arguments before the legislature, and "a madder set of men was never seen in Denver" when they found that the bill had been passed the night before. They descended upon Governor Grant, who, having been a mining man himself, received them cordially and for two hours listened to speeches against the tax. In the words of the enthusiastic reporter for the *Leadville Herald*:

The main argument advanced was that the tax imposed, if the bill passes, will be the second tax imposed upon the same property. For this reason the bill is declared unconstitutional. The arguments were powerful and were listened to by the governor with great interest.¹⁶

Pressure against the bill continued to grow. The *Leadville Herald* opined that "the legislature having passed a law to compel mining men to declare under oath the profits of their business, the people should now compel the members of the legislature to declare in the same manner the profits of their legislation." The mining and the Republican organs from the entire western part of the state joined in a denunciation of the measure,¹⁷ and the governor finally acceded to pressure and used his veto. The bill appeared to him to be hasty and ill-advised, threatening rates of 7 per cent on net proceeds, whereas they should have been limited to a maximum of 2 per cent. A "large majority of the mines of Colorado," he thought, "would be forced to cease operations, throwing hundreds of men out of employment, decreasing the capital of the state and working financial ruin in every way."¹⁸

With the expiration of the ten year constitutional limitation

¹⁵ The *Denver Republican*, Feb. 8, 1883; the *Register-Call* of Central City, quoted in the *Daily Democrat*, Feb. 6, 1883.

¹⁶ The *Leadville Herald*, Feb. 8, 1883.

¹⁷ Including the *St. Elmo Mountaineer*, *Bonanza Enterprise*, *Colorado Springs Republican*, *Buena Vista Herald*, *Colorado Springs Gazette*, *Crested Butte Republican*, *Denver Republican*, *Register-Call*; quoted by the *Leadville Daily Herald*, Feb. 23, 27, March 4, 1883.

¹⁸ The *Leadville Daily Herald*, March 11, 13, 1883.

on mine taxation the subject again came to the fore. The message of Governor Eaton to the legislature in 1887¹⁹ called the original exemption an error and expressed the opinion that its continuance would be a crime. Exemption, he thought, had defeated its own purpose, for instead of encouraging the development of mining it had allowed capitalists to plaster the country with patents, to hold until the labor of others might give them value. Thus the rich had been given an advantage over the poor, and many promising mining districts had been held back by the "phlegmatic conservatism of money." He believed there would be no opposition to a mine tax law, as correspondence with mining men over the state made it evident that any attempt to give further exemption to the industry would be regarded as the "vainest and frothiest of demagoguery."

But he was somewhat vague as to the exact type of law needed in Colorado, and the legislature was beset with a confusion of proposals. Here again the mining men, after consideration of all possible means of taxation, were finally found to ask for a production tax. Two senate bills and one house bill attempted to arrive at a formula for assessing the surface of mines. One proposed that all lode mines and mining claims should be valued at \$70 per acre, and all placer mines at \$25 an acre, plus improvements. Another divided mines into five classes according to output, ranging from less than \$5,000 to over \$100,000; production to mean, in this case, the money received for ore without deductions. Assessment on lode claims should vary with the class, from \$5 per hundred feet to \$200. Placer mines should be assessed from \$2 to \$75 per hundred feet according to class.²⁰ The house bill attempted to limit the tax to \$25 per acre for placer mines and \$40 per hundred for others.²¹ On January 31 a committee named by mining men in Leadville suggested a valuation of \$5 for each hundred feet on the lode, with valuations to increase by \$1 for each one thousand dollars of production. All three of the legislative bills were

¹⁹ The *Leadville Chronicle*, Jan. 8, 1887.

²⁰ The *Leadville Chronicle*, Jan. 26, 1887.

²¹ *9 Colorado* 635, 1886.

finally presented to the Supreme Court of Colorado for an opinion, and the court, in its December session, 1886, declared them to provide arbitrary assessments, made by the general assembly rather than by the assessor. Inasmuch as legislative jurisdiction was limited to the enactment of "general laws which shall prescribe such regulations as shall secure a just valuation for taxation of all property, real and personal," the court considered the proposals to be unconstitutional. Nevertheless, the court advised the legislature, in another opinion,²² that the termination of the ten year period did not automatically end mine exemption, and that some legislation on the subject was necessary if mines were to be taxed.

The mining men of Colorado, after considerable debate, decided to appoint committees to confer directly with the legislature, and out of these conferences came the law finally adopted. All producing mines with an output exceeding \$1,000 in value were to be assessed at one-fifth of the gross proceeds. Non-producing mines were taxable, as before, on their surface improvements.²³ In general the law was favorably received. Passage was scarcely contested by the mines, and the mining papers saluted it as a compromise measure of considerable merit.²⁴

In 1901 the mines in Colorado became caught in the demand for general tax reform. Colorado felt the need to expand the functions of some of its state institutions,²⁵ and believed that new sources of revenue might be found not only in higher valuations but in heavier taxes on the larger corporations. A specific difficulty was a constitutional limitation of the state tax rate to four mills,²⁶ but it was thought that taxes on other sorts of property should not be raised unless the mines tax were increased also. The report of the special revenue commission in 1901 confined itself almost entirely to an interesting and comprehensive account of the Australian land-value tax, but observed in passing that:

²² 9 Colorado 622.

²³ Laws of Colorado, 1887, p. 340.

²⁴ The *Daily Register-Call*, Central City, April 8, 1887.

²⁵ First Annual Report, Colorado Tax Commission, 1912, p. 13.

²⁶ Report of the Revenue Commission of Colorado, 1901, p. 10.

The taxation of mines and mining property is a farce, notwithstanding that a large part of them are owned by nonresidents. The value of the gold and silver mines of Colorado is more than the entire assessed value of all taxable property of the State; yet, while one mine last year sold for \$10,000,000, all of the gold and silver mining properties of the State were only assessed at \$8,502,217 for the year 1898, and Colorado the principal mineral State in the Union! ²⁷

To obtain full cash valuation of all property in the state the legislature completely revised its revenue law in 1901, providing incidentally that to arrive at the valuation of all mines of a value exceeding \$1,000, the assessor should list them at one-fourth of the gross proceeds, rather than one-fifth as theretofore.²⁸ This tax was to apply only to mines producing gold, silver, lead, copper, or other precious or valuable metals.

A study of taxation in Colorado published a year later by James Edward Le Rossignol ²⁹ gives additional insight into the method of mine taxation used at that time. In practice non-producing mines were assessed on a purely nominal value. The assessed valuation of mines producing gold, silver, lead, and copper was \$25,000,000 for 1901, while production for the preceding year had been \$50,000,000. The farmers of the state objected to such a condition, pointing out that the total gross production of farms and ranches, including sheep and cattle, was probably not more than \$46,000,000 in 1901, while the assessment was about \$80,000,000. Teller County, with a population of 29,000 and a total mining output of \$18,000,000, was assessed at \$14,000,000 in 1901, while Weld County, with a population of 17,000 and a total agricultural product not exceeding \$6,000,000, was assessed at \$12,000,000. Le Rossignol felt that a tax on the gross was likely to be unfair between mines because it impinged unequally upon their net. He suggested as a solution a larger tax on net incomes, at a rate more nearly approaching that paid by the farmers, merchants, and other property owners in Colorado. A 10 per cent tax on dividends of Colorado mines in 1901 would have yielded about

²⁷ Report of the Revenue Commission of Colorado, 1901, p. 6.

²⁸ Laws of Colorado, 1901, ch. 94, sec. 82.

²⁹ James Edward Le Rossignol, *Taxation of Mines* (1902), ch. vii.

\$1,200,000, compared to a yield of \$625,000 from a tax of 25 mills on the existing assessment of \$25,000,000. As a compromise he suggested a 5 per cent income tax plus a tax on surface improvements and machinery. But the entire tax program of 1901 ran into several difficulties.

The state board of assessors, set up in 1901 to aid in the assessment of corporate property, was declared unconstitutional, and the need of state institutions for funds made it necessary for Governor Orman to call a special session.³⁰ Lake County had been one of the chief sufferers under the tax law of 1901, for the assessor followed its provisions literally and increased assessed values from approximately \$4,000,000 to about \$14,000,000.³¹ Because some of the levies remained fixed, taxes in many instances were doubled. Owners of some non-productive mining claims reported that their valuations had been increased four or five times. The assessor explained that he had received instructions during the summer to assess all property at its full cash value, and argued that if the assessors in other counties had failed to do so they violated the plain provisions of the new statutes. That other assessors had so failed was evidenced by the fact that Teller County, with Cripple Creek, Victor, Altman, Anaconda, Gillette, Goldfield, and other towns, reported an assessment of only \$2,790,000, while the city of Leadville alone was assessed at \$3,064,000.³²

But Governor Orman, calling a special session to untangle the situation, in no way retreated from his position that the mines should be valued at a higher rate:

I have but one recommendation in the way of a change to make, and that is the provision providing for the assessment of mining property whether producing or non-producing. It seems to me as though when the assessing powers of the state are required to list and value all other property of the state at full cash value, that legislation of this kind, where the assessor is compelled to take one-fourth of the gross output for the year previous as the value of the property, that is certainly class legislation.³³

³⁰ Message of Governor Orman, the *Herald Democrat*, Jan. 29, 1902.

³¹ *Herald Democrat*, Feb. 9, 1902.

³² *Herald Democrat*, Feb. 9, 1902.

³³ *Herald Democrat*, Jan. 29, 1902.

This special session appeared for a while to be willing to follow the governor's implied suggestion. On February 18, the house, after the most bitterly fought contest of the session, voted 30 to 27 to tax mines on their full cash value, like other property.³⁴ The mining men declared that the measure would close the mines, throw thousands of men out of work, and bring starvation to Colorado. Six days later the house agreed to work out a compromise measure with the senate, and the mining interests at length succeeded in passing a net output tax through the house by a close vote of 31 to 29. This new measure divided mines into two classes, those yielding \$5,000 in gross revenue to be called producing mines, those with less to be called non-producing. Producing mines were required to report the actual cost of extracting the ore from the mine (but not the salaries of officers or agents not actually or consecutively engaged in or about the mine), the actual cost of transportation to place of reduction or sale, the actual cost of treatment, reduction or sale, and the net proceeds after deduction of the foregoing expenses. The producing mines were to be valued at one-fourth of the gross or upon the net proceeds, whichever was the greater.

This measure, like that of 1901, applied only to mines producing gold, silver, lead, copper, or other valuable and precious metals, and not to coal, iron, asphalt, quarries, or lands valuable because they contained other metals, minerals, or earths. All of these last were to be taxed as other property.³⁵

It does not appear that the law was well enforced. In 1910 Roy G. Blakey, writing a master's thesis at the University of Colorado, compared the reports of the United States Geologic Survey on output of gold, silver, copper, and lead after 1907 with the assessment of mines, and found "entirely too much difference (in the case of valuable minerals) between output and assessment in many counties." Thus Gilpin County with an output of \$1,283,355, Boulder with an output of \$182,597, and Chaffee with \$417,473 reported no assessments whatever

³⁴ *Herald Democrat*, Feb. 19, 1902.

³⁵ *Laws of Colorado, Extra Session, 1902, ch. 3, sec. 81.*

on this ore, while most of the important mining centers reported only from about one-sixth to one-tenth of the output rather than one-fourth. A few other counties reported assessments of one-third to one-half of the total output recorded by the Geologic Survey. Some discrepancies might be explained, he thought, by the tendency of assessors occasionally to lump output with assessments on machinery and improvements, but he concluded that considering both the method of taxation and the ineffectiveness of administration, capital in mining paid nothing like its proportionate share of taxes in Colorado.³⁶

³⁶ Roy G. Blakey, "Assessment of Property for Taxation in Colorado," master's thesis, University of Colorado (April 1, 1910), pp. 56 ff.

CHAPTER XIII

COLORADO: THE CASE OF CLIMAX MOLYBDENUM

THE WAVE of tax reform that swept the western states just before the first World War also left its imprint on the state of Colorado. In 1911 the legislature provided for a state tax commission and following the specific recommendation of the State Board of Equalization¹ directed it to assess all property at full cash value. But a companion bill to prevent any appreciable increase in taxation by limiting tax rates failed of passage,² as did a proposed constitutional amendment giving the tax commission direct power to equalize valuations. The failure of this amendment at the general elections left the commission little control over the assessment of mines or any other property, except through the moral suasion of local officers and of members of the state board of equalization. The board of equalization, in turn, had little legal authority, for the court in 1900 had declared that it could not change the valuation of classes of property within counties.³

In its first report the commission argued at some length for full cash valuation⁴ of property and for the changes in tax

¹ Report of the State Board of Equalization, 1909-1910.

² First Annual Report, State Tax Commission, p. 5.

³ *People vs. Ames*, 27 Colorado 346.

⁴ "In the more progressive states, which have adopted the centralized supervision of the general property tax system, there has been a pronounced movement to secure the assessment of all property at its full cash value. The reasons for this movement are: First: The demand for greater revenue to carry on the ever increasing functions of government. When all property is listed at cash value, a large amount now concealed and escaping taxation will be found and placed on the tax rolls. Second: The persistent undervaluation of the assessor has enabled property to escape its fair share of the public burden. When a percentage of full cash value is agreed upon, it has generally been found that the assessor has tended to assess at a lower percentage. From 1898 to 1909 Illinois tried the experiment of assessing at 20 per cent of full cash value. In 1909 the rate was changed to 33 per cent. The result has been so unsatisfactory, and the assessments so far below the percentage, that a special commission has been appointed there to bring about a reform. Third: There is at the present time a keener appreciation of the burden of taxation. Wealth is more unevenly dis-

rates which should accompany the increase in assessments. It pleaded also for centralized assessments of public utilities, for an income tax, and for a radical alteration in the method of taxing mines:

Since Colorado was made a state, all valuable mining property has been entirely exempted, or the assessed value fixed by the state in such a manner that the assessment thereof has been a farce. This practice has resulted in innumerable hardships, and has not resulted in the supposed encouragement of the mining industry.

In our opinion, mining property should be assessed the same as all other property. In view of the state going on to a full cash valuation, the gross output from mines, if taken as a basis of value at all, should be assessed at not less than 100 per cent.⁵

In partial support of its contention that mining property was avoiding taxation, the tax commission showed that the gross output from metalliferous mining claims, as reported in the abstracts of assessment by county assessors, had dropped from \$8,451,255 in 1908 to \$1,497,146 in 1912.⁶ The table indicates that the value of production in those years rose from \$32,718,573 to \$37,320,966.

Because all other valuations were to be increased, the legislature of 1912 made a material change in the assessment of mines, providing that the base thereafter should be 50 per cent of the gross and all of the net proceeds. It also provided that the total state tax for 1913 should be no more than 15 per cent above that for 1912, with a maximum raise allowed thereafter of 5 per cent a year. The same limitations applied to all tax levying bodies "from the state to school districts."⁷

tributed than was the case fifty or one hundred years ago. Prices are higher. There is a greater abundance of goods, but there are sharper contrasts and more interest in government matters. The electorate is more intelligent, and there is a greater demand for an equitable adjustment of the burden of government. Fourth: The impression to outside investors is much more favorable when they can be assured that the tax rate is low. It has long been known that a low rate of taxation is a strong inducement to migrating capital. Ohio was spurred to call a special session of the legislature and completely reform the tax system to obtain an assessment at full cash value, in order to prevent capital from leaving the state, where the tax rate is very high, and engaging in industry in West Virginia, which had recently reduced the rate below 1 per cent" (p. 32).

⁵ Page 38.

⁶ Page 177.

⁷ Second Annual Report of the Colorado Tax Commission, p. 5. State Tax

Considering the lack of specific power in the hands of the tax commission,⁸ the success of its efforts to raise state valuations must be attributed to the general spirit of reformation in the state as well as to the character of the state and county officers. In the fifteen mining counties of Colorado the state valuations from 1912 to 1915 were as follows:

<i>Assessed value</i>	<i>Mining property</i>	<i>All other property</i>
1912	\$17,896,172	\$ 36,947,647
1913	43,546,803	109,446,426
1914	38,355,744	107,446,395
1915	30,479,507	104,513,582 ⁹

In 1912 the total state valuation was \$442,330,199, compared to \$1,119,985,034 a year later,¹⁰ and the state levy was reduced in the meantime from 4 $\frac{1}{8}$ mills in 1912 to 1 $\frac{3}{10}$ mills in 1913.¹¹ The steady rise in total taxes did not seem to the tax commission to be the result of the higher valuations. From 1906 to 1913 the increase in expenditures was as follows: state taxes, 22.2 per cent; county taxes, 46.11 per cent; town taxes, 47.13 per cent; school taxes, 73.47 per cent; total, 51.33 per cent. The tax commission felt that in all states there was a "tendency for taxes to increase faster than the valuation of taxable property. The

Commissioner C. P. Link of Colorado expressed his opinion of his state's experience with mine taxation, before the National Tax Association in 1913 (Proceedings, p. 299): "Our mining bill is a constant apology to those of us who know anything about taxation. Colorado has always been led falsely to believe that the mining industry was something divine and must not be touched in the way of raising taxes, and I am ashamed to say our grand state exempted that industry for ten years. After that they passed a bill assessing them on 25 per cent of output unless the net exceeded 25 per cent of the gross, which meant that there was practically no assessment of the mining industry in the state, and last year under that bill it paid only about 4 per cent of the taxes of the state. We introduced a bill in the legislature by which mining property was to be assessed at full market value, just as other property was to be assessed and thereby we opened some more gates (of Hades), but after a very hard fight and probably in the face of the greatest lobby organized in that state we got some remedy. Now we assess fifty per cent of the gross output plus all of the net, where there is net. That was an improvement of about 150 per cent, but still it amounts to practically nothing."

⁸ Fourth Annual Report of the Colorado Tax Commission, p. 4.

⁹ Young, *Mine Taxation*, p. 47.

¹⁰ Second Annual Report, Colorado State Tax Commission, pp. 8 ff.

¹¹ Second Annual Report, Colorado State Tax Commission, p. 5.

difficulty appears to be in the excessive development of local civic pride."¹²

But the commission could not, as in Arizona, dwell at length upon the shift of taxes to the mining companies. Agricultural land improvements bore 25.32 per cent of the total valuation in 1914, as compared to 21.27 per cent in 1912, though town and city lots and improvements dropped from 40 per cent in 1912 to 34.89 per cent in 1914, and the total valuation of corporations rose from 14.44 per cent in 1912 to over 20 per cent in 1914. Mining property, which was 4.27 of the total valuation in 1912, dropped to 3.17 per cent in 1914.

Although taxes on producing mines seemed to be little higher under the new law, the taxation of mining companies upon half of their gross and all of their net proceeds was considered to work a hardship on mines with a large gross,¹³ and in 1915 the state responded to mining pressure by readopting the old base of one-quarter of the gross or the net proceeds, whichever was the greater. Inasmuch as other state valuations were still high, and the total assessment of mining property dropped by nearly \$8,000,000 in 1915, the share of total state valuation borne by the mines fell to 2.64 per cent.¹⁴

Resentment engendered by the horizontal increases in valuations led to an initiative measure in 1916 to abolish the tax commission. The bill was originated in Weld County in cooperation with the officers of the county of Denver, for both counties felt that they had been discriminated against by the commission. As might be expected from the shift of valuations under the higher assessments, the eastern part of Colorado, which was largely devoted to farming, gave majorities for the measure to abolish the commission, while the mining counties and the counties containing such cities as Pueblo, El Paso, and Las Animas favored the commission.

¹² Third Annual Report, State Tax Commission, p. 9.

¹³ John Glanville, assessor of San Juan County, "Assessment of Metalliferous Mines and Mining Law," in *Proceedings of the Fourth Annual Conference of the Colorado Tax Commission and the County Assessors of the State of Colorado* (Denver, Jan. 20, 21 and 22, 1916).

¹⁴ Fourth Annual Report of the Colorado Tax Commission, pp. 8, 32.

One of the factors operating against the tax commission was the unsatisfactory character of the tax limitation law. Of the 1,700 school districts in the state, nearly 400 found it necessary to secure permission of the tax commission for additional levies each year, largely because the eastern section of Colorado was being rapidly settled by homesteaders and the needs of education increased faster than the valuations. The necessity of securing the permission of the tax commission to increase the total levy was resented by these communities as constituting "undue interference with the local affairs."¹⁵

The tax commission itself gave much of the credit for final victory to Professor R. M. Haig of Columbia University. When the initiative bill was filed, the state survey committee, which had been created by the previous legislature, had asked Professor Seligman to make an investigation of the work of the tax commission. Professor Seligman had agreed to supervise the study, but sent Professor Haig to make the actual investigation. Haig's characteristically incisive and readable report was distributed broadcast to the state, especially to newspaper editors, members of the legislature, and other civic leaders. The civic and legislative bureau of the Denver Chamber of Commerce backed the commission and urged its retention, as did the Denver Civic League and the Denver Trades and Labor Assembly.¹⁶ Professor Haig boldly endorsed the effort to compel higher and more accurate valuations by the exercise of stronger control from the top.

Just before the vote on the initiative measure, the commission recommended that "mining property be assessed like other property, at its full cash value." The 1915 law, said the commission, allowed the wealthy mining properties to escape their rightful share of the public burden, and was unjust to the mines that operated on a small margin of profit. The tax rates in counties like Lake and Teller were oppressive because of low mine valuations. "It is true that the assessment of mines at their full cash value would involve a good deal of labor on

¹⁵ Fifth Annual Report of the Colorado State Tax Commission, p. 100.

¹⁶ Fifth Annual Report, Colorado Tax Commission, pp. 9 ff.

the part of the assessor, but it is questionable whether or not greater inaccuracy would result than results from the present law. . . ."¹⁷ Again in 1919 the commission recalled that it had "consistently and persistently urged that metalliferous mining property should be assessed at its actual value and not practically subsidized as at present. . . ."¹⁸ Both in 1919 and 1920 the Colorado State Association of County Commissioners attempted to draft an initiative measure to change the method of mine taxation, but "for some reason" the form upon which the association had agreed was not submitted.¹⁹ There has, in fact, been no important drive for mine tax reform for many years, and most mines are past the period of high profit when such a drive might be expected.

Providing another illustration of the effect of the size and content of the political arena upon the administration of tax laws, the Colorado Tax Commission of 1916 objected to the occasional perversion of the power of county commissioners to sell delinquent tax certificates at their own discretion. Under the law, said the commission, it was possible to offer a tax certificate of a large, delinquent corporation in the usual manner, and if, for some reason, there were no bidders, to sell the same certificate to a friend or representative of the company at a figure materially less than the amount of the tax. This method of avoiding taxes by control of the local administrative board the tax commission considered unsound. The legislature in 1916 failed to remedy the condition so that, a quarter of a century later, it again became an issue in state politics, and this time the contest between local and state political spheres attracted national attention. The remainder of the history of mine taxation in Colorado will be devoted to the case of the Climax Molybdenum Company — a case which ranks as one of the more interesting and significant of the last decade.

It is possible that the Climax Molybdenum Company found its political status altered by articles in *Fortune Magazine*.²⁰

¹⁷ Fifth Annual Report of the Colorado State Tax Commission, p. 13.

¹⁸ Eighth Annual Report of the Colorado State Tax Commission, p. 6.

¹⁹ Ninth Annual Report of the Colorado State Tax Commission, p. 5.

²⁰ *Fortune Magazine*, October 1936, pp. 105 ff.

The fact as reported in an article in October, 1936, that \$10,000 invested in Climax in 1926 would in ten years have been worth \$1,230,000²¹ attracted a great deal of interest in Colorado, and the report of high profits to the Molybdenum Company drew from the state tax commission in 1937 the suggestion that the assessment of this mine be adjusted to its probable value. This request opened a struggle which was destined to split the county and to find its way into the state legislative session of 1941.

The condition in Lake County was that which normally exists under home rule. The company had followed a policy of utilizing local legal talent as direct representatives in the community. Attorney Barney Whatley the company hired outright, and Eugene Bond, the county attorney, it kept on retainer, with the understanding that in case of litigation between Lake County and the Climax Company, he should sever his connection with the latter. To give the county assessor a basis for determining net and gross income for assessment purposes, the company arranged to report the value of molybdenum sold, reduced to the f. o. b. Climax basis,²² together with cost of production and transportation. The reports were accompanied by invoices purporting to show the value of molybdenite²³ shipped to companies abroad.

But the community representatives of this company were sitting over what might be termed a potential political fault, for the assessments were lagging behind the rising income of the corporation, and the political balance in Lake County was upset by an awakening interest on the part of the rest of the state.

Following the suggestion of the tax commission in 1937, the Lake County assessor and county attorney made some additional effort to check the reports of the company. Ordinarily in Colorado a company can be assessed by the use of net smelter returns and there is need to go little farther in the examination of company records, but the novelty of molybdenum rendered examination by the county more difficult as well as more neces-

²¹ *Fortune Magazine*, October 1936, pp. 105 ff.

²² Letter, Whatley to Bohen, May 25, 1932.

²³ Molybdenum sulphate.

sary. Indeed, it does not appear that figures were ever available showing the exact gross and net proceeds of operations at the Climax Mine, and the county could only hope to arrive at calculations which would be defensible in court as the best available evidence. In 1938 the company had produced 28,242,085 pounds of molybdenum, which represented about 56,000,000 pounds of concentrates. The value of these concentrates in the market, less the cost of shipping and sale, provided some means of access to the gross proceeds and the net proceeds of the mining operation, for such value comes close to being the net smelter returns, which, less costs of transportation to the smelter, have come by usage to mean gross proceeds. The courts have interpreted gross proceeds to mean the value of the ore at the mouth of the mine,²⁴ and net proceeds have been defined as the gross proceeds less certain designated costs of mining.

To ignore the company reports and to find a value of gross proceeds by deducting costs of transportation from the value of concentrates or molybdenum in the East provided a new type of problem.

County Attorney Eugene Bond, using data from the Bureau of Mines and other sources, decided that he could defend in court a value of \$2.90 for molybdenum ore at the mouth of the mine, with gross proceeds for 1938 of \$12,314,383, and net proceeds of about \$10,309,586. This latter sum, added to improvements and other personal property in Lake County, brought the total assessment to \$21,036,858, and increased taxes from \$36,074.57 in 1937 to \$281,587.69 in 1939.

During the process of calculating this assessment, Attorney Bond found to his chagrin that for several years the company reports had misled the assessor. The order of assessment for 1940 related the county's position in this fashion:

The Company returned certain statements and schedules under oath. For many years these returns were supported by documents purporting to be sales bills, showing the alleged actual sales prices of molybdenum per pound contained in molybdenite concentrates. These documents represented that the actual sales prices of these concentrates for the years in

²⁴ *Standard Chemical Company vs. Curtis, et al.*, 77 Colorado 10, 233, Pacific 112.

question ranged from approximately 15¢ to approximately 30¢ per pound of molybdenum contained, f. o. b. Climax, Colorado. I accepted these figures as the true sales prices, and as such, corroboration of the alleged value of the concentrates. . . .

Last August or September, and after I had completed my preliminary assessment, I discovered that the so-called "sales bills" were false in that they did not truly state the sales prices or value of the concentrates. They may have, and probably did, correctly state the cost of production at Climax per pound of molybdenum contained. The value, as represented by actual sale of unconverted concentrates (sold as such), exceeded 60¢ per pound of molybdenum contained instead of the 15¢ to 30¢ represented.

These false returns resulted in a gross under-assessment involving many millions of dollars of assessable value during the last several years.²⁸

In one respect, perhaps, this statement might be challenged. The documents were on their face merely invoices rather than sales bills, but it is certainly true that the documents had been presented to confirm the alleged price of the product, and the price therein contained was considerably less than the actual value of the metal. The explanation of the undervaluation in these invoices appears to lie in the fact that they accompanied exports to foreign markets (German) where prices were lower than in New York.

In November of 1939 the tax commission held a meeting in Denver with the county commissioners and several representatives of the company, but the tax commission refused to disturb the new assessment. In the spring the company filed its protest with the tax commission, made some offers of a compromise nature, and endeavored to meet with the county commissioners without Attorney Bond (on the stated theory that "litigation was the livelihood of lawyers"). The tax continuing unpaid, the board of county commissioners wrote Frank E. Kendrick, county treasurer, on November 6, 1940, noting that most of the quarter of a million dollars of uncollected taxes on his books was due from the Climax Company on assessment approved by the Colorado Tax Commission and the state board of equalization, and calling attention to the Colorado law authorizing the issuance of a distraint warrant in such cases. The board requested, and "insofar as it has the power so to do" directed, Kendrick to distraint

²⁸ Pages 2, 3.

sary. Indeed, it does not appear that figures were ever available showing the exact gross and net proceeds of operations at the Climax Mine, and the county could only hope to arrive at calculations which would be defensible in court as the best available evidence. In 1938 the company had produced 28,242,085 pounds of molybdenum, which represented about 56,000,000 pounds of concentrates. The value of these concentrates in the market, less the cost of shipping and sale, provided some means of access to the gross proceeds and the net proceeds of the mining operation, for such value comes close to being the net smelter returns, which, less costs of transportation to the smelter, have come by usage to mean gross proceeds. The courts have interpreted gross proceeds to mean the value of the ore at the mouth of the mine,²⁴ and net proceeds have been defined as the gross proceeds less certain designated costs of mining.

To ignore the company reports and to find a value of gross proceeds by deducting costs of transportation from the value of concentrates or molybdenum in the East provided a new type of problem.

County Attorney Eugene Bond, using data from the Bureau of Mines and other sources, decided that he could defend in court a value of \$2.90 for molybdenum ore at the mouth of the mine, with gross proceeds for 1938 of \$12,314,383, and net proceeds of about \$10,309,586. This latter sum, added to improvements and other personal property in Lake County, brought the total assessment to \$21,036,858, and increased taxes from \$36,074.57 in 1937 to \$281,587.69 in 1939.

During the process of calculating this assessment, Attorney Bond found to his chagrin that for several years the company reports had misled the assessor. The order of assessment for 1940 related the county's position in this fashion:

The Company returned certain statements and schedules under oath. For many years these returns were supported by documents purporting to be sales bills, showing the alleged actual sales prices of molybdenum per pound contained in molybdenite concentrates. These documents represented that the actual sales prices of these concentrates for the years in

²⁴ *Standard Chemical Company vs. Curtis, et al.*, 77 Colorado 10, 233, Pacific 112.

question ranged from approximately 15¢ to approximately 30¢ per pound of molybdenum contained, f. o. b. Climax, Colorado. I accepted these figures as the true sales prices, and as such, corroboration of the alleged value of the concentrates. . . .

Last August or September, and after I had completed my preliminary assessment, I discovered that the so-called "sales bills" were false in that they did not truly state the sales prices or value of the concentrates. They may have, and probably did, correctly state the cost of production at Climax per pound of molybdenum contained. The value, as represented by actual sale of unconverted concentrates (sold as such), exceeded 60¢ per pound of molybdenum contained instead of the 15¢ to 30¢ represented.

These false returns resulted in a gross under-assessment involving many millions of dollars of assessable value during the last several years.²⁵

In one respect, perhaps, this statement might be challenged. The documents were on their face merely invoices rather than sales bills, but it is certainly true that the documents had been presented to confirm the alleged price of the product, and the price therein contained was considerably less than the actual value of the metal. The explanation of the undervaluation in these invoices appears to lie in the fact that they accompanied exports to foreign markets (German) where prices were lower than in New York.

In November of 1939 the tax commission held a meeting in Denver with the county commissioners and several representatives of the company, but the tax commission refused to disturb the new assessment. In the spring the company filed its protest with the tax commission, made some offers of a compromise nature, and endeavored to meet with the county commissioners without Attorney Bond (on the stated theory that "litigation was the livelihood of lawyers"). The tax continuing unpaid, the board of county commissioners wrote Frank E. Kendrick, county treasurer, on November 6, 1940, noting that most of the quarter of a million dollars of uncollected taxes on his books was due from the Climax Company on assessment approved by the Colorado Tax Commission and the state board of equalization, and calling attention to the Colorado law authorizing the issuance of a distraint warrant in such cases. The board requested, and "insofar as it has the power so to do" directed, Kendrick to distraint

²⁵ Pages 2, 3.

the concentrates and other personal property in the county. But the board actually had not the power to order such distraint, and the treasurer, for various reasons, did not care to follow the course of his predecessor of 1884.²⁶ The company fought all efforts to take the matter to court.

In the meantime, the 1940 valuation also was contested. The company reported gross proceeds of \$4,161,905.20. From the Bureau of Mines reports, the New York Stock Exchange application of the Molybdenum Company, and other sources, Mr. Bond determined that molybdenite was worth about 45¢ a pound and molybdenum 75¢ a pound, f. o. b. Langeloth, Pennsylvania, where it was treated; giving a total 1939 market value of over \$16,000,000. The annual report of the company showed that it paid over \$8,000,000 in dividends, that its selling profit for the calendar year 1939 was over \$13,000,000, and that its net profit before "other income," but after depletion and depreciation, was \$12,954,667.10.²⁷ On the basis of these and other figures the assessor was convinced and found that "the statement of the company that the gross value of the ore extracted in 1939 was \$4,161,905.20 was and is wilfully false" under the provisions of the Colorado Statutes.²⁸

Although the assessor noted that in such case the law seemed to allow him to assess the mine at the full cash value of the deposit, which was placed on the balance sheet at \$63,827,798.89, he used instead the apparent "net proceeds" for 1939 of \$9,912,569.81.²⁹ On this the tax was \$166,883.66.

While the company decided to fight the assessments without resorting to the normal course of litigation, and while, therefore, we do not know the precise pleas it might have made in the serious course of a court case, the arguments presented in reply to the original order of assessment and the testimony given before the board of county commissioners presumably indicate its line

²⁶ Above, Chapter XII.

²⁷ Actual reported net profit was \$10,309,586.

²⁸ Order of Assessment, p. 6.

²⁹ Arrived at by multiplying 3,430,952 tons by \$3.50 per ton (\$12,008,332) and subtracting the reported cost of extraction (pp. 7, 8).

of reasoning. Indeed, to the extent that these arguments differ from those that would normally be presented to a court, they are doubly interesting to a student of political science, for they suggest clearly the limitations of local administrative bodies. If the reader finds the reasoning difficult to follow, he should picture to himself the setting in which it was originally presented. He should imagine himself to be, for the moment, the assessor, who had formerly been the proprietor of a livery stable, or one of the three county commissioners, who, in their daily occupations were, respectively, the proprietor of a pool hall, driver of a truck for hire, and the janitor of a small office building. He should picture himself seated in an old office in Leadville, dressed in his uncomfortable best, facing a smooth and imposing coterie of legal, accounting, and administrative talent from Denver and New York City.

Prior to the hearing, the Climax Molybdenum Company filed its protest against the 1940 assessment. The first contention was the technical one that the statutes of Colorado made no provision for the assessment of producing mines located in more than one county. The second was that the tax imposed by the statute was a specific rather than an ad valorem tax, so that the assessor must follow certain prescribed methods of evaluation. Such valuation, said the petition, must rest upon the value of the ore at the mouth of the mine, and the ore in question had no cash or market value because the nearest competitive mills were too far away to permit profitable shipment. The potential value of the ore, therefore, had no "existence apart from the crushing plant and mill that belongs to" the company. In brief, Climax contended that the ore had no value because no other firm could use it.

It cannot be denied that both of these objections needed clarification by court or legislature action. Thus a company may own many contiguous claims over several counties and pay taxes only upon ore extracted from a shaft in one of them, depriving other communities of such revenue. As to the legality of the custom of figuring backwards from the "net smelter returns" or,

in this case, from the concentrates to determine the value of ore at the mouth of the mine, the court is not clear.³⁰ Certainly the claim that ore has no value unless salable is extremely intriguing. That the company elected to take none of these contentions to court suggests their weakness.

At the hearing itself the argument for the company was carried by the accounting rather than the legal department. Goodkind, a certified public accountant of New York City, defended the valuation of \$4,000,000 by two ingenious methods. He took, first, a value of sales of \$16,458,604.75, by multiplying pounds of molybdenum sold by the average price of 76.08 cents. This total value of sales he then apportioned among the various "component parts that go to make up the finished products" according to the cost of various operations. Thus, since the cost of extraction from the mine was \$2,095,762.19 and the total cost of operation of the company was \$8,287,868, he concluded that the part of the total sales to be apportioned to mining should be $\frac{\$2,095,762.19}{\$8,287,868.13}$ times those sales, or \$4,161,905.20.

This "gross value or gross proceeds" he believed provable by another means. Following appraisal by an independent mining engineer, the company had passed a resolution as of January, 1935, declaring that the value of the mine, as such, was \$74,131,250. This value was based upon the estimated average annual profit of six million dollars, "the life of the mine," and "a risk factor of 6 per cent and 4 per cent." The amount of molybdenum contained in the mine amounted to 1,050,000,000 pounds, and by dividing this amount "into the valuation of \$74,131,250, we find that the valuation represents 7.06 cents per pound for molybdenum contained in ore in place. By applying such a value to the 21,285,282 pounds of molybdenum extracted during the year 1939, we arrive at a value of \$1,538,007.48 as representing the value of the ore in place that was extracted during the year 1939." "By adding the cost of extraction to (this) value of ore in place, we arrive at a total value of the ore

³⁰ The leading case is *Standard Chemical Company vs. Curtis*, 77 Colorado 10, cited above, note 24.

extracted . . . of \$3,633,839.67, as compared with the value reported by the company on January 15, 1940 of \$4,161,905.20."³¹ This was the gist of the involved argument presented to the bewildered Lake County commissioners by Goodkind, C. P. A. of New York City.

We can dispose, first, of this extraordinary use of the battered Hoskold formula. The value of the ore in place, which he had obtained by dividing pounds of ore into the Hoskold valuation of the mine is, obviously, the present value of a pound of ore many years back in the mine. The phrase "the ore in place that was extracted" well represents the confusion in the argument. Taken by themselves the figures suggest another valuation. In the first place, the net profit of \$5,000,000, if realized in 1939, must have been considerably less than the "net proceeds" as contemplated by the Colorado law, for in the determination of "net proceeds" the law allows no deduction for taxes, for salaries of officers not directly engaged in mining, for insurance, depreciation, maintenance, or general overhead, and all of these must be deducted before the appraiser can arrive at a net profit upon which to base a Hoskold valuation. In the second place, the stock market had placed a total value of approximately \$100,000,000 on this company at a time when Climax had valued its ore at \$74,131,250,³² so that approximately three-fourths of the profits of the company might, by its own figures, be attributable to the mine.

The other argument, on its face, is equally vulnerable. Cost and value are not directly related in such instance, either by law or in economics, and cost cannot, therefore, be substituted for value.

The probable defense of the company of its refusal to recognize valuations made in the legal manner was the feeling that the profit of the company, and even the value of the mine, was due in large part to the work of what might be termed the front office. The ore deposit had been known since about 1903, and Climax Molybdenum Company had paid some sort of property

³¹ Minutes of hearing, filed in the office of county attorney.

³² *Fortune Magazine*, October 1936, pp. 105 ff.

taxes in the state of Colorado since the World War. The decade and a half which preceded its first profits in 1931 was, for President Max Schott and his friends, a long period of development and experiment and the education of steel men to the advantages of this product. The story of the effort is graphically told in the October 1936 issue of *Fortune Magazine*. For several years the company had a relatively small but dependable market abroad, largely in Germany, so that the promoters not only knew from experience the usefulness of their product but also that they could depend upon some continuity in plant operation. But it was only after many years of patient effort that domestic steel producers became educated to the value of molybdenum, and not until that time did the ore deposit become a valuable property. It did not seem necessary to the company to turn over to the residents of Lake County and, through the state tax, to Colorado in general, the harvest of the vision and endeavor of its officers merely because the tax law so directed.

The difficulty is an old one. At bottom it is the problem of separating that part of the profit of a mining operation which is due only to the economic development of the country from that which is due to the success of management. On the same plane is Colonel Greenway's development of the New Cornelia copper deposits at Ajo, entailing an expensive and hazardous experiment in treatment methods.³³ A similar instance might be found in the chance taken in the development of the deposits of the United Verde Extension.³⁴ Many a silver and gold mine might claim the same extenuating circumstance, and if there are differences they are of degree only. But it is not difficult to see the point of view of this company. An appreciation of the usefulness of molybdenum may have spread from Europe to America eventually, without the long process of promotion, but to the extent that Max Schott and his friends speeded its use, the value lying in the deposit can be attributed to them.

It is in line with the central thesis of this study to point out also that even in 1938 Climax Molybdenum Corporation paid

³³ Rickard, *History of American Mining*, p. 228.

³⁴ Rickard, *History of American Mining*, ch. xvi.

45 per cent of the Lake County taxes. The census for that year gave the county a population of 6,877, and Lake County contains several other mines and a smelter belong to the American Refining Corporation. It enjoys, moreover, a sizable tourist trade.

Yet even among the mining men of the state of Colorado there were many who decried the attitude of the company. The Colorado tax law is particularly liberal, and the mining men had no desire to see it threatened. Some pointed out, in private conversation, that if the deposit had been found in Minnesota it would be taxed not on the \$4,000,000 claimed, but on the \$75,000,000 confessed value, plus a license tax. Here again, in the background of their minds lay the basic principle of uniformity, and the need to enforce the law equally upon all. In this regard it might be noted that the state income tax law, which allows mines to deduct 40 per cent of the gross income, but not to exceed 50 per cent of net income in any one year for depletion, is applied to Climax Molybdenum as well as to the smaller and less long-lived companies.³⁵

Much of the criticism of the actions of this company was directed toward the methods employed to fight the assessment. For a company which elected not to go to court, the alternatives, of course, were few; but certain peculiarities of the property tax law of the State of Colorado gave it an opening. If a delinquent tax certificate is legally put up for sale, and there are no bids, the certificate can be sold by the board of county commissioners for whatever price it deems proper, and it may thus indirectly fall into the hands of the owner of the property. The company determined therefore to elect a loyal board of county commissioners and county assessor.

The 1940 campaign was a bitter one, in which the company was accused of courting the good will of the religious organizations with timely gifts and of intimidating the townsfolk by a threat of closing the mine. Against Assessor Bohlen, partially crippled, the company backed a family man who had lost one leg in a railroad accident. The central target of the attack was

³⁵ Session Laws, 1937, p. 711.

the doughty Eugene Bond, for his office was appointive, under the control of the county commissioners, and it had been he who had contrived to unravel the principal legal, accounting, and chemical problems surrounding the question of valuation. The fact that he had been on retainer to Climax at the beginning of the altercation, while completely justifiable in a community where the county attorney must keep up his private practice, undeniably left him in a vulnerable position, and the company made the most of it. The company succeeded in supplanting the two members of the board of county commissioners, and through them, Eugene Bond, but Bohlen, by the grace of a handful of votes, was rewarded for his courage by reëlection.

Pending its control of the board of county commissioners and of the office of county attorney, the mine warned prospective bidders for the tax delinquent certificate with the following announcement, published in the local paper:

CLIMAX MOLYBDENUM CO.

NOTICE

TO WHOM IT MAY CONCERN:

The undersigned, owner of the Climax Mine and real property advertised for sale in the notice of tax sale of the County Treasurer of Lake County, Colorado, appearing in this issue, does hereby give notice to all persons that the validity and legality of this Company's general taxes for the year 1939 covered by said notice of tax sale, are the subject matter of controversy between the undersigned Company and said County of Lake; and because of said controversy said taxes have not been paid by the undersigned, and the right and authority of said County to assess, levy, and collect said taxes, and of the said Treasurer to sell said property is wholly denied, challenged and controverted by the undersigned and will be resisted by every lawful means.

This Company has repeatedly duly tendered to said Treasurer the full amount of all taxes, penalties, and interest lawfully owing to said Lake County on the real and personal property mentioned and referred to in the said notice of sale.

CLIMAX MOLYBDENUM CO.

The advertisement was locally interpreted to mean that anyone who bought the tax certificate would "buy a lawsuit," and while several firms who specialize in such purchases expressed an interest, all eventually shied away from this tax delinquent cer-

tificate of \$294,938.75.⁸⁶ No small factor in these decisions was the fact that to maintain the value of this first certificate the purchaser might be compelled to buy the next three also.

As in many another instance, the political struggle shifted from the local community to the state capital, for the state tax commission, which had originally urged a revision of the assessment of this mine and in so doing had brought this trouble on the heads of the county officers, was not in a compromising mood, and neither was Eugene Bond. From their joint efforts six bills were presented to the legislature, one changing the base of mine taxation and of depletion under the income tax, one providing that the treasurer be compelled to distraint property of a producing company delinquent in its taxes, one clarifying the provision for taxation of mines whose property lies in more than one county, one providing that mines producing coal, iron, and molybdenum be assessed by the tax commission, and one providing that no tax delinquent certificate of a value over \$10,000 could be sold by county officers without permission of the tax commission.

In order to present its case before the legislature the representatives of Climax Molybdenum gave a dinner in Denver, and the group was addressed by Attorney Barney Whatley. A few days later James McInroy, chairman of the state tax commission and highly respected citizen of Denver, turned over his bills to the legislative committee with the remark, "The law is needed but you can do as you please. We haven't any money to throw dinners for legislators."⁸⁷ To support the commissioner's request for power to control sales of certificates of more than \$10,000 face value, Mr. McInroy quoted from a tax commission report of 1916, which had included the same proposal. Then, as now, the law giving county commissioners carte blanche in such sales had led to a practice among certain corporations of refusing to pay the taxes levied, in the hope that they could later arrive at a compromise with the county commissioners. The 1941 bill, invalidating sales of tax certificates whenever the de-

⁸⁶ Advertisement from the *Herald Democrat*, Dec. 7, 1940.

⁸⁷ *Herald Democrat*, Feb. 10, 1940.

linquent tax exceeded \$10,000, unless the terms are approved by the tax commission, was signed by the governor on March 4th.³⁸

The basic dispute at this writing is not ended. Even more, perhaps, than is true of most other mining companies, political policy has had to be determined in New York and neither in the courts nor in the legislature does there seem to have been a final political integration of conflicting interests.

³⁸ *Herald Democrat*, March 4, 1940; Sessions Laws, 1940, ch. 193.

PART III
STATES WITH THE AD VALOREM TAX

CHAPTER XIV

ARIZONA: THE EARLY TERRITORY

THE HISTORY of mine taxation in Arizona will receive more attention than that accorded any other state. Not only is it one of the most important mineral producing areas, but nowhere else has there been the constant political excitement over the subject. The mines have been extremely productive and well scattered, so that the entire population, during most of the territorial and state history, has taken sides on the question. Legislative sessions, like naval engagements, have merely been the more spectacular interludes in a constant maneuver of forces. At one time the valuation of mines was over half the total valuation of the state, and both taxpayer and tax beneficiary could afford under such circumstances to devote a considerable amount of energy to the matter of taxation. Students of public finance have been curious as to the effect of the political revolution in 1912, and those who have read the reports of the conferences of the National Tax Association from that time until 1917 will well remember C. M. Zander's descriptions of Arizona tax reforms. It was Zander who dominated the Committee on Mine Taxation of this association, and thus it was in large part his report which was quoted to substantiate the several state studies favoring ad valorem taxation made thereafter.

The first Arizona mine tax law has been discussed in an earlier chapter.¹ The second, passed in 1875, was aimed at lode rather than placer mines, and, as analysis will disclose, it in no way abrogated the general political principle that because of the difficulty of assessing either his property or his income, and because of his aversion to government in general, the individual miner was difficult to tax.

As is true of many tax reforms, this second mine tax accompanied a general business depression. Between 1870 and 1875

¹ Above, Chapter V.

TABLE 5
ARIZONA METAL PRODUCTION
AMOUNT OF MAJOR METALS *
1858-1934

Year	Tons	Gold (ounces)	Silver (ounces)	Copper (pounds)	Lead (pounds)	Zinc (pounds)	Total value
1858-67	234,619	748,000	.....	.....	.....	\$ 5,850,000
68	19,350	151,000	.....	.....	.....	600,000
69	29,025	151,000	.....	.....	.....	800,000
70	24,187	226,000	.....	.....	.....	800,000
71	24,187	226,000	.....	.....	.....	800,000
72	21,769	132,000	.....	.....	.....	625,000
73	14,512	154,000	.....	.....	.....	500,000
74	14,512	156,000	800,000	.....	.....	590,000
75	21,769	242,000	900,000	.....	.....	954,300
76	24,187	259,000	1,000,000	.....	.....	1,010,000
77	26,606	292,000	1,250,000	.....	.....	1,137,500
78	31,444	773,000	1,500,000	.....	.....	1,865,000
79	29,024	1,160,000	1,750,000	.....	.....	2,224,500
80	33,862	2,685,740	2,000,000	.....	.....	4,217,000
81	51,280	5,646,000	10,000,000	.....	.....	9,260,000
82	51,519	5,801,000	17,984,415	.....	.....	11,113,023
83	45,956	4,022,000	23,874,963	.....	.....	9,353,369
84	44,989	3,480,000	26,734,345	.....	.....	8,268,465
85	42,570	2,939,000	22,706,366	.....	.....	6,477,287
86	53,212	2,630,000	15,657,935	.....	.....	5,441,928

TABLE 5 (CONTINUED)

1887	.....	40,151	2,939,000	17,720,462	.....	.....	6,164,424
88	.....	42,159	2,320,000	31,797,300	.....	.....	8,394,446
89	.....	43,537	1,500,000	31,586,185	.....	.....	6,574,135
90	.....	48,375	1,000,000	34,796,689	.....	.....	7,478,283
91	.....	47,166	1,480,000	39,873,279	.....	.....	7,543,980
92	.....	51,761	1,161,900	38,436,099	.....	.....	6,539,440
93	.....	57,286	2,935,700	43,902,824	.....	.....	8,215,551
94	.....	96,313	1,539,453	44,514,894	2,960,000	.....	7,287,416
95	.....	95,071	986,900	47,953,553	4,106,000	.....	7,533,532
96	.....	125,978	1,913,000	72,934,927	2,330,000	.....	11,851,912
97	.....	140,089	2,239,900	81,530,735	4,368,000	.....	14,180,776
98	.....	119,249	2,246,800	111,158,246	4,448,000	.....	17,743,358
99	.....	124,135	1,578,300	133,054,860	6,754,000	.....	26,569,391
1900 ^b	1,838,500	202,856	2,995,000	118,317,764	7,500,000	.....	26,021,049
1 ^a	2,043,500	197,515	2,812,400	130,778,611	8,090,000	.....	27,958,338
2 ^b	1,565,200	198,933	3,043,100	119,944,944	1,198,000	.....	20,407,544
3 ^b	1,874,273	210,799	3,387,100	147,648,271	2,986,000	.....	26,539,859
4	2,324,070	168,274	2,314,910	199,481,044	1,779,967	.....	29,816,840
5	2,678,059	135,412	2,605,712	228,418,679	4,940,910	170,000	40,246,861
6	3,585,089	143,417	3,026,438	266,831,864	5,638,735	.....	56,812,355
7	3,567,133	126,613	2,511,897	254,879,489	4,660,684	228,490	55,511,560
8	3,695,938	117,647	2,808,450	285,858,133	3,008,583	678,446	41,811,975
9	4,029,955	132,427	2,601,161	303,899,461	3,098,083	5,977,237	44,053,023
10	3,914,969	152,351	2,566,528	297,491,151	2,696,998	5,484,899	42,731,519
11	4,567,139	165,951	3,276,571	306,141,538	10,274,552	4,562,984	44,157,223
12	6,840,082	181,997	3,490,387	365,038,649	6,806,443	8,758,243	67,050,784
13	7,931,862	194,657	3,948,091	407,923,402	16,144,772	9,428,067	70,875,027

^a From *Arizona Metal Production*, by Morris J. Elsing and Robert E. S. Heineman, Arizona Bureau of Mines, Economic Series no. 19, Bulletin No. 140 (University of Arizona publication, 1936).

^b 1900-1903 gold and silver from U. S. Mint Reports.

TABLE 5 (CONTINUED)

1914	8,009,927	202,167	4,377,994	393,017,400	15,003,068	9,792,337	59,956,029
15	9,612,559	201,531	5,649,020	459,972,295	21,738,969	18,220,863	90,806,349
16	17,033,810	192,801	7,212,039	721,833,169	27,062,087	19,677,949	190,806,170
17	15,770,193	245,174	6,983,913	712,166,891	23,465,445	20,894,860	209,393,802
18	19,038,486	262,919	6,686,152	764,855,874	12,503,689	2,269,643	202,134,880
19	13,727,403	217,998	5,266,605	538,100,844	10,203,078	1,717,000	111,157,872
20	14,920,478	231,529	5,355,303	558,256,302	14,599,765	1,457,296	114,628,584
21	5,455,030	141,753	2,469,394	185,034,194	6,541,433	.....	29,563,472
22	10,746,045	170,480	4,531,864	400,043,128	15,070,894	210,624	62,902,725
23	17,015,178	296,109	7,343,742	618,928,602	16,291,548	519,103	104,301,200
24	19,820,505	235,996	6,649,276	677,752,013	18,642,314	.....	99,610,379
25	20,927,382	201,741	7,257,868	713,355,129	23,876,017	7,332,116	113,138,198
26	22,382,685	234,011	7,381,027	723,296,051	23,258,274	12,946,423	113,536,288
27	21,991,874	200,495	6,847,680	682,190,547	19,865,961	2,268,960	98,790,957
28	22,828,766	191,927	6,791,351	732,276,803	14,380,964	1,278,636	114,300,381
29	25,860,772	202,318	7,543,283	830,628,411	16,054,122	2,458,580	155,567,133
30	19,802,919	169,390	5,540,732	576,190,607	8,491,623	1,630,506	81,042,416
31	13,690,610	126,186	3,245,311	401,344,909	1,964,112	.....	40,144,694
32	4,414,579	66,790	2,082,823	182,491,825	2,364,300	.....	13,535,935
33	995,728	79,993	2,390,363	114,041,781	3,442,540	11,024	10,307,749
34	3,270,242	167,024	4,448,474	178,082,213	6,877,216	1,810,279	23,292,150
Total Prior 1900	357,771,940	6,367,180	157,441,989	14,596,511,988	380,521,146	139,784,565	\$2,632,911,320
Total	.....	1,869,851	55,714,603	855,417,177	24,966,000	.....	207,964,016
Total	357,771,940	8,237,031	213,156,682	15,451,929,165	405,487,146	139,784,565	\$2,840,875,336

gold and silver production in Arizona had fallen from \$800,000 to \$500,000.² The territorial treasury of 1872 had paid off the debt of \$28,375 contracted by the first three legislatures³ and showed a surplus of \$3,313.24,⁴ but the session of 1873, feeling the pinch of hard times, reduced the property tax rate from 50¢ to 25¢, and within two years the public officers looked around for a new source of revenue. Governor A. P. K. Safford suggested a mine severance tax, and his message clearly indicates that the mining of veins of ore had come to depend upon outside capital and thereby had tended to fall into fewer hands. The new measure, he suggested, was not so much a tax on miners as upon capitalists. He believed that "a judicious tax upon ores sold or reduced would operate beneficially."

The capital to work our mines must necessarily, to a large extent, be brought from abroad, and the wealth taken from the mines, as a consequence, will go back to those who furnish the capital. It thereby appears but just that the Territory wherein the mines are located and which gives protection to the property and invested capital, should receive a fair proportion for the support of the government, and this method of taxation seems to be the most equitable one of accomplishing the object. A similar tax has been levied for many years in the State of Nevada, and all concerned acknowledged its justice.

The debate over the Davis mine tax bill⁵ centered about representatives of Mohave County, leading the demand for the measure, and of Yavapai and Pima, opposed to it. Opponents even moved that the bill apply only to Mohave mineral production and that the revenue be applied only to Mohave County needs, but Pima County may have been mollified by the removal of the territorial capital in that year to Tucson.⁶ As finally enacted, the law levied \$2 for territorial and county purposes upon each \$100 of net proceeds of mines, in lieu of the property tax upon mining claims. The net proceeds were to be found by deducting from the gross return the actual cost of extracting the

² Message of Governor McCormick to the Fourth Territorial Legislature; Bancroft Scraps, Arizona Miscellany (Bancroft Library), I, 449.

³ Message of Governor McCormick to the Fourth Territorial Legislature.

⁴ Bancroft Scraps, Arizona Miscellany (Bancroft Library), I, 245.

⁵ *Daily Arizona Miner*, Jan. 27, 1875 (debate on 25th).

⁶ Session Laws of 1875, p. 121.

ores of minerals from the mines, the cost of saving the tailings, the cost of transportation to place of reduction or sale, and the actual cost of reduction or sale. Following the precedent set in Nevada, the legislature exempted ores to the value of \$30 a ton, and provided that when the gross yield was over \$30 and under \$60 a ton, the deduction should not exceed 90 per cent; if over \$60 and less than \$100 a ton, the deduction should not exceed 80 per cent; if over \$100 and under \$200, the deduction should not be over 60 per cent; and if \$200 or over, not more than 40 per cent. An additional exemption of \$20 a ton was to be allowed on ore tailings or minerals that were roasted before reduction. If the miner failed to make his quarterly income report to the board of supervisors, the assessor was directed to make the assessment. The county treasurer was authorized to receive all taxes levied by the board of supervisors under the act. The deductions allowed were such as to discriminate against a mine with high costs.⁷ The administration was inadequate, for no county officer was specifically designated to compel the mines to make returns, and, as a matter of fact, this first law failed to indicate whether the county or the state should enjoy the proceeds. Finally, the exemption of ore yielding less than \$30 removed the tax from most of the ore in the territory, for smaller producers escaped through lack of proper administration, and only a few large silver mines handled ore worth over \$30 a ton.⁸

The failure to provide a manner of distributing the proceeds was not corrected until nearly two years later, when Territorial Treasurer P. R. Tully wrote to the clerks of the boards of county supervisors directing that the income should be handled as was revenue from the property tax.⁹ The next session (1877) stipulated that 25 per cent of the yield should go to the territorial

⁷ Compiled Laws of Arizona, 1887, pp. 351 ff.

⁸ The *Tombstone Weekly Epitaph*, Oct. 19, 1880.

⁹ "In the absence of such provision it is fair to presume that the money so collected shall be divided the same as other revenues: that is to say; if your county tax is \$1.50 on each \$100, then for every \$1.75 collected you would pay into the County Treasury \$.25.

"This seems to be the only fair and reasonable construction of the law, and I am legally advised that this is the proper construction." (Letter dated Nov. 27, 1876, included in the report of the Territorial Treasurer, Jan. 1, 1877.)

government, and 75 per cent to the county road fund, and, so amended, the law was unchanged until its repeal in 1881.¹⁰

It is significant that the repeal came at the height of one of the greatest mining booms in the West. The mine upon which this tax impinged most effectively was the fabulously rich Tombstone, not discovered until 1878 (three years after passage of the law), a mine which was said to contain \$73 in silver and \$4 in gold per ton of ore.¹¹

From 1878 to 1881 gold and silver output for the territory rose until the total for those four years reached \$14,744,000; or more, probably, than the combined output of the previous twenty years. Much of this increase was in the production of silver, the value of which rose from \$300,000 in 1876 to over twenty times that much in 1881. In 1881 alone, owing largely to operations in the Tombstone district, the territory produced gold and silver to the amount of \$7,440,000, and the total of \$7,678,000 produced in 1882 stood as an Arizona record until 1916.¹²

The Arizona Bureau of Mines estimates that the value of copper output rose from about \$90,000 in 1874 to \$1,820,000 in 1881, the year in which the mine tax was repealed. Two years later the territory produced nearly twenty-four million pounds of copper with a value of nearly \$4,000,000.

Thus, by 1881, the year of the repeal of this second law, the long-heralded boom in mining was obviously on its way.¹³ "Men of money" appeared in search of investment opportunities, and mining claims began to bring high prices.¹⁴ In addition to re-investments of profits, the following dividends were reported to

¹⁰ Ninth Territorial Assembly, p. 109; Eleventh Territorial Assembly, p. 878.

¹¹ Bancroft, *Works*: vol. XVII, *History of Arizona and New Mexico*, p. 587.

¹² Table 1.

¹³ Report of Acting Governor Gosper to the Secretary of the Interior, 1881. George Kelly, *Legislative History of Arizona* (Phoenix: Manufacturing Stationers, 1926), p. 74; Hiram C. Hodge, *Arizona As It Is* (1887); R. J. Henton, *The Handbook to Arizona* (1878), particularly ch. iv with tables showing names of mines, districts, owners, work done on shafts, mills, estimate of product per ton, and assays per ton, Payot & Company; Patrick Hamilton, *The Resources of Arizona* (1881), compiled under authority of the legislature.

¹⁴ The *Tombstone Daily Nugget*, Dec. 31, 1880; the *Territorial Expositor*, July 11, 1879.

have been paid by Arizona mines in the first nine months of 1881:

Copper Queen	\$ 100,000
Grand Central	100,000
Silver King	225,000
Tip-Top	60,000
Tombstone	450,000
Western	675,000

\$1,610,000¹⁵

Early newspaper accounts indicate that throughout the territory there prevailed the sentiment that, given time and care, the capital to develop these resources would finally appear, and that the ambitions of a generation might at last come true. The repeal of the mines tax under these circumstances requires explanation.

The drive against the bullion tax of 1875 appears to have begun in and about Tombstone, but there, also, the tax found its strongest support. The Republicans, backed by the *Tombstone Epitaph*, and led by "mining men of influence,"¹⁶ fought the tax in a vigorous written and spoken campaign. They argued, first, that the tax discouraged timorous capital. The mines were already the heaviest taxpayers in the country, for the fourteen mines therein paid nearly 10 per cent of the total county tax and would pay over twice as much in the coming year. In the second place, the arbitrary allowances for deduction of costs were felt to be confiscatory against mines where both costs and yield were high.¹⁷ The tax was highly discriminatory, in the third place, because it was inadequately enforced¹⁸ and because only silver ore yielded \$30 a ton.¹⁹ Thus, while the Vulture Mine had

¹⁵ The *Tombstone Daily Nugget*, Oct. 18, 1881.

¹⁶ *Tombstone Daily Epitaph*, Oct. 6, 1880; letter by T. L. Stiles, candidate for probate judge.

¹⁷ *Tucson Daily Citizen*, Oct. 14, 1880; *Arizona Sentinel*, Yuma, Jan. 8, 1881.

¹⁸ The *Arizona Miner*, Prescott, Oct. 19, 1880; the *Tucson Daily Citizen*, Oct. 21, 1880, speech by H. G. Rollins, of Tombstone; the *Tombstone Daily Epitaph*, Oct. 6, 1880, Stiles letter.

¹⁹ *Tombstone Weekly Epitaph*, Oct. 19, 1880.

the largest mill in the state,²⁰ its ore ran not over \$16 a ton, and while many another spot in southern Arizona had become prosperous under the influence of a non-taxpaying copper mine, the Tombstone Mill and Mining Company contributed \$1,000 a month toward county and state expense.²¹ Because the tax depended upon the coöperation of the miners it could never hope to be enforced as long as it was patently so unfair. Not only did it discriminate between mines, but it made no allowance for the hundred thousand dollars or so necessary to start a mine. Finally, said the Republicans, the patrons of custom mills escaped entirely. A meeting of citizens at Tombstone petitioned against the law and demanded that each candidate for the legislature declare his position upon this issue. Of the candidates who replied in the *Tombstone Epitaph*, the Republicans were solidly in favor of repeal of the existing measure, while the Democrats as solidly favored only modification.²²

The most popular argument of the Democrats against repeal was that no system should allow the ranchers to be taxed "to the ground" while the rich corporations were allowed to go scot-free, and they pointed out to the mine owners that if this tax were repealed the deposits would be assessable as property and the tax therefore would be heavier.²³ In such case, said Editor Woods of the *Tombstone Daily Nugget*, the mines would be quick to say that "the actual value of a mine is the value of its net profits."²⁴ That the tax was inquisitorial was an advantage, he thought, for it resulted in better knowledge of the value of the mine and acted as a protection for the investor. Others suggested that the law might be made acceptable by lower rates, fairer deductions, enforcement by some designated county officer, and a provision that all shippers should be responsible for the tax on the ore they carried. The Mohave County miners expressed these views in a petition to the legislature, and stated

²⁰ For a description of this famous mine, see Bancroft, *Works*: vol. XVII, *History of Arizona and New Mexico*, p. 587.

²¹ *Tombstone Daily Epitaph*, Sept. 4, 1880.

²² *Tombstone Daily Epitaph*, Oct. 9 to 15, 1880.

²³ *Tombstone Daily Nugget*, Oct. 10, 1880.

²⁴ *Tombstone Daily Nugget*, Oct. 10, 1880.

their readiness to pay a fair share of the taxes if collection were prompt and certain.²⁵

The campaign in Pima County seems to have been drawn up along orthodox economic lines, with the Republican friends of mining on one side and the Democratic ranchers on the other. The Republicans complained that whereas a petition "signed by some of the leading mine owners of this district and the heaviest taxpayers in the county" for a new polling place at the office of the Tombstone Company was refused, the county officers were willing to place one near the Mexican border for the use of the same group of cowboys who had recently demoralized Lincoln County in New Mexico.²⁶

On the surface the repeal of the mine tax by the legislature of 1881 seemed simply to be a victory for the political chicanery of the mining corporations, and such was the opinion of several observers.²⁷ This conclusion is supported by the fact that in Pima County, the only locality witnessing an active campaign on the issue, the Democrats elected eleven of the sixteen senators and representatives to which the county was entitled, and the entire legislature contained only 35 members. In roll call, at least, the Pima County Democrats were well represented.²⁸ There seems to be no record of the political machinations within the legislature nor of how the members voted, although we do know that in this session Tombstone was made the county seat of the new county of Cochise — an honor long its ambition.²⁹ Tradition also has it that the mine owners threatened the cattle men with a closer count of their livestock for assessment purposes, if the mine tax were left in force. This explanation is particularly credible, for there is ample evidence that the inherent difficulty of assessing range stock gave to the cattle men an advantage similar to that enjoyed by the mine owners.³⁰ It

²⁵ *Arizona Miner*, Prescott, Oct. 19, 1880.

²⁶ *Tombstone Daily Epitaph*, Oct. 14, 1880.

²⁷ *Arizona Miner*, March 5, 1881, Kelly, p. 96, quotes the *Phoenix Expositor* of April 8, 1881, which in turn quotes a long and vigorous denunciation by the *San Francisco Bulletin* of the repeal of this mine tax.

²⁸ Session Laws, 1881.

²⁹ Session Laws, p. 4.

³⁰ Thus, during tax reform movement of thirty years later, the tax commission

seems obvious that this was but another illustration of what would today be called the collapse of the general property tax principle. Elsewhere the general property tax tended to become inapplicable as the community became industrialized. Here is an illustration of the fact that in the earliest period of the exploitation of natural resources, the property tax may be equally inapplicable and remain so until agriculture becomes the dominant occupation.

Those, therefore, who emphasize the corruptive influence of the mining interests in the legislature of 1881 take an unduly narrow view of the situation. The property tax was unenforceable upon the cattle industry, and no equivalent tax was enforceable upon the mining industry as a whole. The few larger mines defended themselves by whatever means they possessed, and their defense was aided by the basic rule that as a proposed tax base becomes smaller, so does the probable yield and the pressure for the tax law itself.

In further explanation of the power of capital in these frontier communities, attention should be directed to its scarcity. These territories lived in terms of the future. Their industries were infant industries and to encourage the investment of capital seemed, as will be demonstrated, their most pressing and important duty. Both before and after ³¹ the repeal of this tax the feeling was expressed that any burden on capital cost the territory more in discouragement of new enterprise than it would yield in revenue. Frequently thereafter the exemption of mines from taxation was explained on the grounds that the mines were young, and hence were entitled to encouragement. While this, also, is too narrow an interpretation of the tax program, it does deserve the consideration which the remainder of this chapter will give it.

There are many interesting evidences of the fact that the

noticed that 100,000 sheep had been dipped in Chochise County, and immediately looked with suspicion upon the fact that only 93,610 sheep were upon the assessment rolls. More vigorous search added sheep and cattle to the value of \$100,000, but even in these figures, of course, there is a puzzling discrepancy. *Arizona History*, p. 137.

³¹ *Arizona Weekly Democrat*, March 2, 1883.

exodus of capital from the financial centers "to the more fertile soils and unworked mines of the thinly peopled parts of the globe"³² held the rapt attention of all of those in this thinly peopled region, and every move of the government was judged primarily by its effect upon investments. As has been demonstrated, the early miners had vigorously besought the federal government to protect the title to their claims and to drive off the Indians, but warned that a tax might impede the opening of new mines and thus "kill the goose with the golden egg."³³

That the egg was to be golden was never doubted by the early prospectors, and from this optimism there sprang a continuous effort to lure capital. To say that capital was the "limiting factor" may be somewhat inaccurate from the standpoint of economic theory, but certainly it is true that the early residents wanted more capital rather than more labor, and, most important of all, they knew that eventually it would come. This youthful enthusiasm sprang logically from the fact that no one knew how great the future might be. The same spirit that had dictated the petition to Congress asking for organization of the Territory of Arizona³⁴ was now responsible for long and enthusiastic letters to California papers urging investment in Arizona mines. "Great was the Comstock," said a correspondent to the *San Diego Union*, "but greater is to be the McCracken."³⁵ "Every dollar advanced toward developing the mines of Arizona will at once come back and a hundred fold more," wrote another enthusiast to the *San Francisco Alta*.³⁶ Just as the middle western farmer of the 1850's trod his raw acres and felt no doubt of the ability of railroads to make them valuable, so these mine owners were sure that only the want of capital stood between them and fortune.

Newspapers in every part of Arizona and California carried ardent pleas for the entry of capital into the territory.³⁷ The

³² John Stuart Mill, *Principles of Political Economy*, book IV, pt. 2.

³³ Mowry, *Arizona and Sonora*, p. 209; see also Sylvester Mowry, U. S. A., Delegate Elect to Washington, *Memoir of the Proposed Territory of Arizona*.

³⁴ Above, Chapter V.

³⁵ February 3, 1875; Bancroft Scraps, Arizona Miscellany (Bancroft Library), I, 377.

³⁶ Page 114.

³⁷ Beside the Arizona papers quoted elsewhere see *Arizona Star*, July 29, 1880,

Indian uprisings after the Civil War had seemed to many Arizonans the only logical reason for the tardy appearance of investors, but to the disappointment of the territory, interest in Arizona mines developed slowly among financial circles even after that scourge was withdrawn. "The Indians are gone," cried the *Yuma Sentinel*, "capitalist . . . come and help us."³⁸ The citizens of Prescott complained that though the Indians had once been blamed for the timidity of the "capitalist," the boundless bodies of gold, silver, and copper still awaited him. A persuasive correspondent to a west coast paper described the popularity of a "reputed capitalist" in a mining camp, and remarked that the immediate swarming of all the "tender feet" upon such an arrival was due to an ignorance of the fact that in most cases the capitalist could and would go out to find his own claim.³⁹

The economist will be struck by the personalized nature of this longing for capital. The "capitalist" ordinarily bears the blame for the imperfections of the institution of capitalism, but rarely does the need for capital make him the personal object of popular solicitation. Perhaps the most revealing item came from the able pen of the editor of the *Arizona Miner*⁴⁰ in a plea for subsidization of railroads. He had once thought, said he, that the timidity of the capitalist was due to the Indians, but those troubles were definitely over:

Still, the capitalist, who is able to take his ease and ride in palace coaches over the road of iron refuses to give up luxury and comfort, and we remain with our treasure vaults unprospected, dormant, and to the owner valueless.

From men who had not ridden in palace coaches to seek their fortune these sentiments had a certain supercilious undercurrent. The capitalist was loved, alas, only for his money.

Nov. 18, 1880, June 16, 1881. This last editorial foresaw in the development of the telephone and electric light a future demand for copper. For illustrations of the nature of the correspondence in California papers, see Bancroft Scraps, *Arizona Miscellany* (Bancroft Library), vol. I: *San Diego Union*, Feb. 3, 1875 (p. 377); *San Francisco Chronicle*, April 29, 1877 (p. 384); *San Francisco Post*, July 19, August 13, 1877 (pp. 393, 396); *San Francisco Alta*, August 2, 1875 (p. 114); and pp. 85, 92, 433.

³⁸ *Arizona Sentinel*, Nov. 14, 1874.

³⁹ Bancroft Scraps, *Arizona Miscellany* (Bancroft Library), I, 433.

⁴⁰ *Arizona Miner*, July 20, 1880.

And yet the need for capital was serious and undeniable. The reports of the various governors of the Arizona Territory to the Secretary of the Interior wove into descriptions of the mineral wealth and delightful climate a continuous plea for the encouragement of capital investment. In Arizona, said Governor J. C. Fremont,⁴¹ were the only instances within his knowledge where three or four men working together without money or outside aid had managed to develop veins into regular silver mines with a record of several hundred thousand dollars production. More important than these enterprises, he said, were the innumerable smaller "silver farms" then in operation, whose production was hindered only by lack of capital and transportation. To tap these resources and the rich trade of Mexico, Governor Fremont asked the federal government to intervene in three directions to aid in giving security of titles, to spread "authorized knowledge of the value of mines," and to encourage transportation facilities:

There are neither railroads to it nor in it, nor any roads other than those afforded by the natural surface of the ground, and these are rendered more than ordinarily difficult by the hot, dry, and sandy or stony ground over which lie the approaches to the Territory.⁴²

"To give full development to the mining interests," said the governor, "large capital must be brought into the Territory. There is not money here to do it."

As a matter of record, in the hunger of the state for investment, mining was not the only enterprise encouraged by tax exemption and other legislative aids. The unfortunate Pima County Narrow Gauge Railroad, described by Hubbard,⁴³ was but one of the many projects for which the credit of the county was given or offered. In an effort to encourage the drilling of artesian wells the legislature offered in 1873, 1875, and 1889 rewards of from \$1,500 to \$5,000 to anyone who should drill a

⁴¹ Report of the Governor of Arizona Territory, Prescott, October 28, 1878. (In report of the Secretary of the Interior, 1878.)

⁴² Report of the Governor of Arizona Territory. (In report of the Secretary of the Interior, 1887.)

⁴³ H. A. Hubbard, *A Chapter in Early Arizona Transportation History* (University of Arizona, Social Science Bulletin no. 6, 1934).

flowing well in an otherwise arid region,⁴⁴ and all ditches carrying water for any purpose were exempt from assessment.⁴⁵ Homesteaders were exempted in 1899 to a value of \$3,000 for real estate and personal property.⁴⁶ The territory early bonded itself heavily for specific roads,⁴⁷ as is illustrated by the fact that the bond issue of 1879 paid 10 per cent interest, and the bonds, in denominations of \$50, \$100, and \$350, were ordered to be paid for work on the road at not less than 80¢ on the dollar. The sum of \$40,000 was apparently a strain on the credit of the territory. Counties, of course, were also allowed to bond themselves during the eighties and nineties and thereafter for roads within their boundaries.⁴⁸

Considering the dearth of transportation facilities, the step from roads to railroad subsidies was not a long one. Maricopa and Yavapai counties were each allowed in 1879 to issue \$30,000 of 10 per cent bonds to railroads, within ten days after the completion of each ten miles of construction, the limit in the former county to be \$150,000 and in the latter \$250,000. For payment of interest and principal each was to levy a tax of not less than 90¢ on each \$100 of valuation. A tax exemption of up to four years was allowed the Maricopa road during its construction.⁴⁹ The railroad from Prescott, to connect with the Atlantic and Pacific line, was allowed a tax exemption of six years, after 1881, provided the road was completed within three years.⁵⁰ Exchange of county and railroad bonds was permitted in several instances. Pima County, in 1883, was allowed to exchange bonds up to \$200,000.⁵¹ Maricopa was permitted to vote on the pro-

⁴⁴ Acts of 1873, p. 61; Acts of 1875, p. 21; Acts of 1889, p. 21.

⁴⁵ Acts of 1899, p. 20.

⁴⁶ Acts of 1899, p. 48.

⁴⁷ Acts of Arizona, 1879, p. 39, \$40,000; p. 66, \$10,000. Acts of Arizona, 1879, p. 68, \$10,000; p. 131, \$6,000. Laws of Arizona, 1881, p. 31, \$10,000.

⁴⁸ In 1881 the Laws of Arizona authorized bond issues for Yavapai County of \$5,000 (p. 251), and \$15,000 (p. 255). In 1885 the following issues were authorized: Yavapai, \$4,000 (p. 25); Graham, \$5,000 (p. 187); Maricopa and Yavapai, \$6,000 (pp. 324, 325); Yavapai, \$6,000 (p. 331); Apache, \$12,000 (p. 334).

⁴⁹ Acts of Arizona, 1879, p. 49.

⁵⁰ Laws of 1881, p. 118.

⁵¹ Laws of 1883, p. 61; Hubbard, *A Chapter in Early Arizona Transportation History*.

posal to exchange bonds up to \$60,000.⁵² Various direct aids permitted by the legislature totaled at least \$1,310,000 between 1879 and 1885, and the additional acts allowed payments of from \$1,500 for each mile of narrow gauge road to \$4,000 for each mile of standard gauge, without specific limit, in any county.⁵³ For many reasons, among them the objections of the counties involved, not all of this money reached the railroads, of course, and the policy came to a sudden end with the act of Congress of July 30, 1886, providing that

no Territory of the United States now or hereafter to be organized, or any political or municipal corporation or sub-division of any such Territory, shall hereafter make subscription to the capital stock of any incorporated company, . . . or in any manner loan its credit to or use it for the benefit of any such company or association, or borrow any money for the use of any such company or association.⁵⁴

In 1903 the bonds of delinquent counties were refunded into those of the territory, but by 1913 the four counties of Pima, Maricopa, Yavapai, and Coconino owed upon them to the State of Arizona a total of \$868,805.82.⁵⁵

Although the federal law of 1886 was aimed directly at Arizona, it should not be concluded that the inhabitants of that territory were the only people in the West who attempted to subsidize the investment of capital. The Granger movement in the Middle West against railroads came only after the middle western roads were built, and at that time in the Rocky Mountain states, still dependent upon stage coach and freighter, no such aversion was felt to the corporations. Neither the Republican platform of 1872 opposing "further grants of public lands to corporations and monopolies" in order that "the actual domain be set apart for free homes for the people," nor the resolution to the same effect adopted by the lower house of Congress, struck a responsive chord in this western region, and the defeat in the lower house of Congress of the Senate bill to grant lands for the proposed Salt Lake and Portland Railroad seemed to the

⁵² Laws of 1883, p. 244.

⁵³ Laws of 1885, pp. 66, 193, 206, 259.

⁵⁴ Hubbard, pp. 27, citing c. 818, 24 Stat. 170.

⁵⁵ Hubbard, pp. 61 ff.

citizens of Idaho particularly selfish and narrow-minded, in view of the grants made previously in other sections.⁶⁶ Both Nevada and Idaho sent repeated requests to Congress for railroad subsidies.⁶⁷ Nevada, in every session from 1869 to 1875 inclusive, made grants to railroads or allowed counties to do so.⁶⁸ In Idaho the legislature could never bring itself to such action, partly because of doubt as to its mortgageable future, partly because of fear of Congressional disapproval, and partly because of the Credit Mobilier Scandal and general doubt as to the soundness of the principle.⁶⁹ Yet even as a relatively conservative community Idaho saw fit to grant a specific exemption to all railroads of any and all taxes levied between 1873 and 1880.⁶⁰ A bill to bond the Territory of Idaho for the benefit of a telegraph company met the governor's veto, but private subscribers thereupon collected enough to pay half the cost of the extension, taking in exchange a quantity of scrip entitling holders to telegraph service.⁶¹

When, in Arizona, the method of direct financial aid came to an unnatural end, the territory turned with concentrated enthusiasm to tax exemption. It freed the Grand Canyon Railroad from taxes for six years after 1889.⁶² The session of 1891 gave a twenty year exemption to any road built without other subsidies, and every session thereafter until 1905 granted specific immunities from taxation.⁶³ The last territorial session, in 1909, not only exempted one more railroad but substituted for the property tax on telephone and telegraph companies gross earnings taxes of 2 per cent and 1 per cent respectively, in lieu of all taxes upon their operating properties.⁶⁴

⁶⁶ *Idaho Statesman*, March 7, 1872, June 13, 1872.

⁶⁷ Statutes of Nevada, 1864-65, Concurrent Resolutions Nos. VIII, XVII; *Idaho Statesman*, Jan. 9, 1868, June 13, 1872, December 30, 1873, May 21, 1874; Seventh Session Laws, p. 87.

⁶⁸ Laws, 1869, pp. 39, 43, 62, 138; 1871, p. 67; 1873, p. 215; 1875, p. 77.

⁶⁹ *Idaho Statesman*, Aug. 24, 1872, Jan. 5, 1875, Jan. 16, 1875.

⁶⁰ *Idaho Statesman*, Nov. 13, 1873.

⁶¹ *Idaho World*, July 23, 1875, March 30, 1875.

⁶² Laws, 1889, p. 38.

⁶³ The term "any" often used in railroad exemptions appears to have meant some specific road or roads then in the minds of the members of the legislature. Laws, 1891, p. 42; 1893, p. 44; 1894, p. 52; 1897, p. 54; 1899, p. 79; 1901, p. 1448; 1903, p. 63.

⁶⁴ Laws, 1909, pp. 160, 229.

The policy was a source of debate, but even Governor Murphy, federal appointee, favored railroad exemptions, if "not for too long a time."

It is not the intention of this chapter either to defend such subsidies or to discount the active participation of the lobbyists in securing them, but to note that the legislature, far from confining its liberality to low mine taxes, was willing to favor any form of capital investment, even to the extent of exhausting the credit of the territorial and county governments. Equity in taxation seemed of less importance than full utilization of resources, and public indifference allowed any sort of difficulty in assessment to result in a gain to the owner of the property. To a certain extent such laxity usually springs from a relatively low tax burden, as students of the property tax have long recognized, and the difference between the experience in Nevada after statehood and that of the Rocky Mountain territories suggests that the financial help of the federal government may have influenced the territories to an appreciable extent. In Montana, Nevada, and Arizona the coming of statehood was accompanied by heavier mine taxation.

The primary role of the capitalist in this first act, therefore, was that of the wooed, timorous, and pampered darling. By what metamorphosis, now, does he become the infamous villain of statehood?

CHAPTER XV

ARIZONA: THE LAW OF 1907

THE GRANGER MOVEMENT was not confined to the Middle West. As the nineteenth century drew to an end and the intensity of the conflict abated somewhat in the Mississippi Valley, it appeared here in the Rocky Mountains, and just as the passage of railroads into strong hands lost them the concern of the middle western farmer, so the growing financial strength of the deep mines lost them popular sympathy in the West. While wealth gave the mines added power in the legislature, it nourished there also an opposing force of public opinion, and though to neither side was there an immediate advantage, the contest, once relatively unimportant, assumed little by little a grimmer aspect.

After the decline of prices during the middle eighties the value of gold output recovered sharply and copper production steadily increased. By 1888 the Arizona Copper Company at Clifton, the Copper Queen at Bisbee, the United Verde at Jerome, and the Old Dominion at Globe were operating at full capacity, with other properties in the process of development.¹ In 1890 the total copper product was 34,796,689 pounds; in 1900, 118,317,764 pounds; in 1906, 266,831,864 pounds; and the last amount was over half of the average yearly production between 1920 and 1930. As stocks of the United Verde, the Copper Queen, and others rose on the eastern markets and profits to the holders began to attract national attention, a fertile field was developed for fraudulent Arizona mining stocks.²

¹ Governor's report to the Secretary of the Interior, 1888.

² "The almost fabulous production of some of Arizona's great copper mines, the remarkable success of mining ventures in this territory, together with the high price of copper and the active trading in copper stocks, have afforded opportunities for speculators and stock jobbers to unload upon over-credulous Eastern investors a great deal of worthless mining stock, and companies have been organized upon quite a number of undeveloped prospects in Arizona and capitalized far beyond any reasonable valuations, and through much advertising and extravagant misrepresentations have sold stock throughout the Eastern

The new railroads were an important stimulant in this economic development. The Southern Pacific, building from the West, first entered Arizona on the morning of September 30, 1877, on a thousand feet of track, without the permission of the Secretary of War and against the orders of the military post at Fort Yuma,³ and during the next four years opened to market many of the richest deposits in the territory. Only a forty-three mile wagon haul to Gila Bend separated the Ajo ores from the railroad. The building of the Santa Fe through the northern part of the territory in 1881 allowed ore from the Jerome deposits to be shipped to Denver, after a sixty mile wagon haul to Ash Fork.⁴ Because of lower copper prices in 1884, work on the United Verde deposits at Jerome was suspended, but in 1888 rail connections between Ash Fork and Prescott eliminated most of the wagon haul, and after the completion of the narrow gauge connection at Jerome Junction, in 1894, profitable operation of the mine was possible in spite of the low copper prices of the early nineties.⁵ After 1884 the ore from the Morenci mines was hauled by wagon only seventy miles to Lordsburg, and direct rail connections were established to the mine at Globe in 1898. The Phelps Dodge Corporation began, in the late nineties, to build a road from the smelter in Douglas, through Bisbee, to connect with the Southern Pacific at Benson, thus furnishing an outlet for the Copper Queen. The company then purchased the El Paso and Northeastern Railroad, extending its line from El Paso to the Chicago, Rock Island and Pacific, and

States, amounting, I am told, in par value, to several millions of dollars and upon which no return whatever can be reasonably expected. . . ." (Governor's report to the Secretary of the Interior, 1889.)

³ Bancroft Scraps, *Arizona Miscellany*, I, 484; *San Francisco Bulletin*, Oct. 4, 1877.

⁴ Waldemar Lindgren, *Ore Deposits of the Jerome and Bradshaw Mountains Quadrangles, Arizona*, U. S. Geological Survey, Bulletin 782 (Washington: Gov't. Printing Office, 1926), p. 1782; E. D. Gardner, C. H. Johnson, B. S. Butler, *Copper Mining in North America* (U. S. Bureau of Mines Bulletin 405, 1938); J. B. Tenney, "The Copper Deposits of Arizona," in *Copper Resources of the World*, a publication of the International Geological Congress (Washington, D. C., 1935), I, 167-235.

⁵ Tenney, "Copper Deposits of Arizona," *Copper Resources of the World*, I, 167-235.

completion of the work in 1903 more than doubled the output of the Copper Queen.⁶ After 1912 shipments were made by truck thirty miles from the Silver King at Superior to Florence, and in 1915 both Superior and Ajo were given direct rail connections.

Population expanded steadily, as indicated by the following figures:

<i>Year</i>	<i>Population</i>
1870	9,658
1880	40,440
1890	59,620
1900	122,931
1910	204,354
1920	334,162

In 1870 the population was 70 per cent male, in 1900 60 per cent, in 1920 only 55 per cent. Civilization was inexorably encroaching upon the last frontier.

From the standpoint of mine taxation the most interesting aspect of the period between 1881 and the enactment of the special tax of 1907 is the fact that in reality there existed in the statutes, lacking only enforcement, the same law as that under which mines were taxed after statehood. This was no secret, for Editor Woods of the *Daily Nugget* had warned the mines, in 1880, that upon repeal of the special tax their property would become taxable, like any other, upon its actual value as marketable real or personal estate. Also, in 1886 the Territorial Supreme Court answered two questions directly involving mine assessment: ⁷ first, were mining claims, for which patents had been issued by the federal government, taxable under Arizona laws, and, secondly, were certain assessments for the year 1885 valid? The court in this case upheld assessment of such claims at true cash value. That for a quarter of a century legislative chambers should ring with denunciation of the mines for their opposition to a fair tax, when such a measure was at hand and needed only to be applied by the assessor, is an interesting illus-

⁶ Tenney, p. 221.

⁷ Waller vs. Hughes, 1886, II Arizona Civil No. 163.

tration of the frequent difference between the law and its execution.⁹ The fact is that the assessor represented only the political synthesis of his county.

The territory marked time on this matter for about twenty-five years, but the mine tax measures introduced were many and continuous. In 1883 at least two such bills appeared⁹ — one a tax on bullion and the other a tax on 1 per cent of the net proceeds. The latter appears to have evoked the "best speech of the session" and was lost in the house only by vote of the speaker.¹⁰ Editorial opposition was based on the grounds that such a tax would hinder the development of mining.¹¹ During both of the two following sessions additional efforts were made to tax mines, first upon their net proceeds,¹² and then, apparently, upon the value of claims as property,¹³ but both were unsuccessful.

The low price of copper and lack of transportation facilities tended to keep the matter in abeyance during the middle eighties,¹⁴ but by 1888 both of these obstacles had been somewhat overcome, and the territory began to feel more prosperous.¹⁵ In his address to the legislature of 1891 Acting Governor Murphy thought it time to express his hearty disapproval of the existing method of taxing mines:

The question of taxing the proceeds of mines has always met with active opposition from the mining interests. The personal property of mining companies is now taxed, and in my opinion, there is no good reason why the profits of mining enterprises, if they can be properly reached without jeopardizing territorial progress, should not be taxed.

Again at the next session he expressed the same sentiments:

Although I am opposed to arbitrary assessments to a degree affecting the encouragement, healthy growth and perpetuation of the mining industry, yet I can see no good reason why dividends or other profits resulting from

⁹ The same condition of an unenforced ad valorem tax often existed in other Mountain states.

⁹ *Arizona Gazette*, Feb. 14, 15, 1883.

¹⁰ *Arizona Gazette*, March 8, 1883.

¹¹ *Arizona Weekly Democrat*, March 2, 1883.

¹² *Council Journal*, p. 512, 1885.

¹³ *Council Journal*, p. 54, Jan. 27, 1887.

¹⁴ Governor's message to the Secretary of the Interior, 1895 and 1896.

¹⁵ Governor's message to the Secretary of the Interior, 1888 and 1890.

the mining of precious metals in Arizona, and distribution to other parts of the country should not contribute something to the revenue of the Territory.

Governor Louis C. Hughes, in his message of 1895, went to the heart of the matter when he pointed out that many industrial interests escaped taxation, and argued that every enterprise that received the protection of the law should pay its share of the cost of government. The entire theory of tax exemption, in his opinion, was wrong, and the failure to levy an adequate tax upon the mines was but one result of a fundamental error in principle.

The opinions of these and later governors of the territory are lent importance by reason of the fact that governorship came not by popular election but by appointment from the president of the United States, and the appointee did not need to betray his better judgment upon a question of this kind merely to gain favor with the voters.

During the middle nineties the territory indicated frequently that it was suffering a change of mind regarding the need to encourage capital. The house, in 1891,¹⁶ suggested by resolution that no railroad should be exempt from taxation without express vote of the people. When, in 1895, a bill proposed to exempt from taxation for a period of five years all public smelting and reduction works thereafter to be created,¹⁷ the committee recommended that it not pass, on the ground that capital was "able to take care of itself."¹⁸ Other bills to exempt mining claims and ores from taxation¹⁹ and to exempt unpatented mining claims²⁰ failed of passage, as did Mr. Ashurst's bill to encourage the construction of certain railroads²¹ by tax exemption.

A mine tax bill introduced by Mr. Brady, of Pinal County,

¹⁶ Journals of 16th legislative assembly, pp. 316, 548. Resolution adopted by the house asking council permission for the introduction of an act forbidding exemption of railroads from taxation without submission of the question to the people.

¹⁷ Journals of the Territory of Arizona, 1895, p. 315.

¹⁸ Journals, 1895, p. 330.

¹⁹ Journals, 1895, p. 363 (House Bill 36).

²⁰ Journals, 1895, p. 404.

²¹ Journals, 1899, p. 586.

into the Council in 1897 was done the honor of a second reading, though upon motion of G. W. P. Hunt (of Globe, the home of Old Dominion) the bill was tabled.²² In 1899 the members from Maricopa County introduced another bill providing for the taxation of mines, mining property, and possessory rights in the territory, but after the committee reported it to the house without recommendation it failed of passage.²³ This failure came in face of Governor Murphy's vigorous support of such a measure in his address before the legislature:

Either the profits of mines or a proper value upon dividend-paying mines should also be assessed. There can be no possible justification for permitting great producing mines to escape contribution to the revenues of the Territory. It is frequently stated that mines worth \$100,000,000 in Arizona, and which pay their owners on that amount, do not pay taxes upon a valuation for all their property, real and personal, of \$2,000,000. This is wrong, and in no way can the proposition be defended that great riches in gold, copper, and silver dug from Arizona ground and distributed as dividends in the East and in Europe should not be taxed in some form within the Territory.

In 1901 he repeated the same paragraph, word for word. Indeed, if governor's messages can be considered valid testimony, the cause of mine taxation apparently grew to overwhelming importance in the ten years from 1895 to 1905. Between 1888 and 1895 copper production had moved steadily forward from 32 million pounds to 48 million pounds, and in the next three years jumped to 73 million, 81 million, and 111 million respectively. This industrial growth invited attack. Would it give to the companies an equivalent increase in their power of political defense?

The major excitement of the session of 1901 centered around the proposal to levy the property tax upon net proceeds, exempting machinery and improvements,²⁴ but the bill lost in the committee of the whole by vote of 6 to 18. Another measure proposing to tax net proceeds was introduced in 1903. This so-called

²² Legislative Journals, 1897, pp. 421, 426, 469, 471.

²³ Legislative Journals, 1899, pp. 598, 690, 867, 872 (House Bill 78).

²⁴ Kelly, *Legislative History of Arizona*, p. 217; Legislative Journals, pp. 340, 341, 351, 420, 422, 423 (House Bill 9).

Bullion Tax bill called for a tax on net proceeds after deduction of the cost of extraction, of the saving of tailings, of transportation to the place of reduction or sale, and cost of reduction or sale, but it lost by vote of 11 to 12²⁵ in the house. Two measures were introduced in 1905 — one for the assessment and taxation of sites, mining property, and output of mines,²⁶ and the other for the taxation of net proceeds.²⁷

Not the least of the reasons for the growth of public resentment was an undercurrent of doubt as to the incorruptibility of its elected representatives, a factor which will be considered in the following chapter. While little was said openly upon this particularly delicate subject, we know from the general tradition of the state, as well as from newspaper editorials and governor's messages to the legislature, that objections to the low mine tax were reaching something of a crescendo during the first five years after 1900. The *Arizona Star* pointed out that the act of 1875 had been repealed only "with the pledge and promise of the mining companies doing business at the time that there would be no opposition to a re-enactment of the law as soon as the industry was established. It was then believed (said the *Star*) that the law could be safely re-enacted in ten years from that date, but twenty-five years have passed and the law has not yet been restored to our statute books."²⁸

Governor Brodie put the situation bluntly before the session of 1903:

Great wealth has for many years been taken from the mines in this Territory and distributed as dividends in other sections of the world. . . .

I believe, in justice and fairness, that owners of producing mines in this Territory would willingly pay a tax on the output of their mines, such a tax would be a just and proportionate one as compared with other Territorial taxes, and to be applied, as other income from taxes are, to the support of the Government under whose jurisdiction their mining operations are conducted and from whose territory their revenues are derived. Such a tax

²⁵ Legislative Journals, pp. 272, 287, 379, 429, 451, 458, 471 (House Bill 54, introduced by Parr, of Navajo County).

²⁶ Legislative Journals, pp. 400, 409, 416, 436, 558 (House Bill 83, introduced by Wilson, of Pima County).

²⁷ Legislative Journals, pp. 407, 409, 416, 438, 558 (House Bill 89, introduced by Kreuger, of Maricopa County).

²⁸ February 14, 1907.

should be made so that in no sense would it become a detriment to the development of new mines and prospects.

Such a tax as this, imposed upon the output of producing mines, would add materially to the revenue of the Territory, would greatly reduce the rate of taxation, and would allay the feeling of those engaged in other pursuits than mining that they are bearing more than their share of the expense of maintaining the Government.

By 1905 he appears to have realized more clearly that there was an important relationship between the established policy of low mine taxation and the territorial tradition of exemptions to all other forms of capital investment:

A system of taxation that excludes any particular industry or object is wrong. . . . At present our system is full of discrimination and injustices. The spirit of encouraging railroads by exempting them from taxation for a period of years is responsible for it to a large extent. . . .

When the Territory fails to set an example of equity and justice in the matter of taxation it should not complain if there is a strong disposition to escape full taxation by those who must bear the burden. . . .

In the purchase of this profitable vocation mining companies pay to the Territory no tax on the production of their mines. Their taxation ends with the limitation of their land and improvement assessment, while the stockman pays a land and improvement tax and also a tax on the production of his land. The farmer pays a tax on his land, improvements on the land, and what the land produces. All states where large mining operations are carried on exact certain revenues from mine owners in support of the government under whose protection they conduct their affairs. In Arizona previous legislatures have preferred to allow the period of exemption to continue, but it is evident to all fair-minded men that the Territory has extended leniency and fostered this industry beyond the years of expediency.

He therefore recommended a moderate tax on the gross output of all mines in the territory.

The break in the deadlock came in 1901, when the board of equalization of the county of Cochise, taking a step which might easily have been made twenty years before, exercised its right to review assessments, and made a material increase in the valuation of the famed Copper Queen Mining Company. The same method, incidentally, was used in Idaho to bring about the Idaho mine tax law of 1903.²⁹ To oppose the increase the Copper Queen Mining Company appeared in the district court,

²⁹ Above, Chapter VIII.

charging discrimination between mines. For many years, said this company, the custom in Cochise County had been to list patented mining claims as land, at a uniform valuation of five dollars an acre, and except for the discriminatory assessment against this particular company, all other patented claims were still assessed at that price.³⁰ The district court gave verdict for the mine, but the decision was reversed by the territorial court on the ground that the company had not been able to prove over-assessment. The lower court, said the decision, should have enjoined only the collection of such taxes as were based on the overvaluation.

In February, 1905, J. H. Kibbey was appointed to the vacancy left by the resignation of Governor Brodie. As a citizen of Phoenix he had been a member of the territorial council, and by appointment of Governor Brodie, territorial attorney general.³¹ For the first time it was felt that the small property owners of Maricopa County were represented in the governor's chair. The board of equalization, of which he was the new chairman, took action which it, also, might have taken years before. Charging that the mines of the territory had been assessed at a rate ranging from .02 per cent to 50 per cent of actual value, it ordered material increases in the general mining valuations of most mining counties.

Against this onslaught opposition rose from two directions. The copper companies, on the one hand, took the matter to court; and the several boards of supervisors in these mining counties refused, on the other hand, to carry through the ordered increases. In January, 1906, both issues reached the supreme court of the territory.

In the first case, *Copper Queen Consolidated Mining Company vs. The Territorial Board of Equalization*,³² the court was called upon to decide two issues. First, did the territorial board, when it ordered higher valuations of mining property and caused a general increase in the aggregate valuation of all property in

³⁰ *County of Cochise vs. Copper Queen Mining Company*, 8 Arizona 221. Three hundred and twenty-three claims were said to be assessed at \$3,686,831.

³¹ Kelly, pp. 239, 229, 227.

³² 9 Arizona 383.

the territory, exceed its jurisdiction? This the majority of the court denied, and it called attention to the fact that such had been the practice of the board for eighteen years. When, in the revision of 1901, the legislature had left the statutes governing the question with no substantial change, it had given tacit approval to the "practical construction" given by the board of equalization. The second question was that of whether or not the board might equalize assessments of patented mining property, as a class, when such property was merely a sub-classification on the rolls, existing by custom or wish of the assessors and not by direction of the law. To this the majority of the court replied in the affirmative, stating that there was nothing in the statute to prohibit the extension on the roll of descriptions of land other than those required by the statute. The equalization could not have been made without such extentions, and inasmuch as they were upon the rolls their equalization could legally be made. Moreover, said the court, the board had power under the statutes to compel the assessors to make such sub-classification.³³

In the next case the territorial board was, in a legal sense, less successful.³⁴ The matter in litigation was the attempt of the board of equalization to compel the several boards of supervisors to revalue mining property in their respective counties as directed. The court here decided that though the territorial board of equalization had power to equalize property by classes, and although the board of supervisors should give effect to the action of the territorial board, there was in this case no real equalization. No uniform standard of value had been determined or applied. Thus, said the court, the board's own records showed mines in Cochise County to have been assessed originally at .02 per cent of actual value, those in Graham at 10 per cent, those in Pima at 10 per cent, those in Yavapai at 3 per cent, and those in Maricopa and Pinal at approximately 50 per cent. The board

³³ To these answers two justices dissented on the grounds that the board had no such power to cause sub-classifications by assessors and boards of equalization and that such sub-classifications would rest entirely with such assessors.

³⁴ *Territory vs. Board of Supervisors* 9 *Arizona* 405 (*Arizona Republic*, Jan. 25, p. 3).

had raised mine valuations in Cochise County 1500 per cent, leaving assessments, by the board's own figures, at 32 per cent of actual value; in Graham County they had raised assessments 400 per cent, leaving a 50 per cent ratio of assessed to true value; in Pima 500 per cent, leaving a 60 per cent ratio; in Yavapai 100 per cent, leaving a 6 per cent ratio; while Maricopa and Pinal counties had been left as they were. Therefore, said the court, there had been no true equalization and the demurrer of the boards of supervisors must be sustained.

But the victory was one in which the mining companies could find little comfort. The court had merely called attention to the fact that, by the records available, the Cochise mines, including the Copper Queen, should have been assessed at, say, 170,000 per cent rather than 1500 per cent of the original figure, and that many other mining properties appeared to have been under- rather than over-assessed. In reality the governor and the territory felt that it had gained a moral victory³⁵ and, indeed, by the end of 1905 the total of the governor's winnings was substantial. In that one year mine assessments rose from \$4,442,955 to \$14,440,689.³⁶

As Governor Kibbey's campaign continued he endeavored to follow more circumspectly the technicalities of the law, and he prepared for the assessment of 1906 by assembling the county assessors at Phoenix for instruction and encouragement in the matter of mine assessment. Said Governor Kibbey, later, of this meeting:

I became convinced then, as I had believed before, that the failure of county officers to assess property on the basis of equality was due largely to precedent, to prevailing customs as they found them, to lack of proper thought, and to other causes rather than to dishonesty of the officers themselves. In fact, I would impute no dishonesty in the premises. It is easily conceivable, however, that the county assessor, or supervisor, who owes his election to assistance received from a mining company or to any other influential single interest may find it easy to believe that suggestions from that mining company or that other interest relative to its assessment should have too favorable consideration.³⁷

³⁵ Kelly, pp. 250 ff.

³⁶ Report of State Board of Equalization, 1941.

³⁷ Special message on mine taxation to legislature of 1907.

Whether the Governor thought the assessors honest or dishonest is not as clear as fewer words might have made it. While he expressed his belief that after this conference the assessment of property was the most creditable ever achieved in the Territory, it is interesting to note that in the next year his Board of Equalization found it necessary to order increases in local assessments of 400 per cent in Cochise County, 200 per cent in Gila County, 50 per cent in Mohave County, $33\frac{1}{3}$ per cent in Yavapai County and 100 per cent in Yuma County. Mine assessments for 1906 were \$14,574,049.

It is easy to suspect that the mining companies went very willingly, as had their Idaho neighbors in 1903, to the legislature for a special tax. Their few court victories had given but temporary and unsubstantial protection, and even if the figures used by the Court in *Territory vs. Board of Supervisors* had seemed to the mine owners grotesque and nonsensical, the property tax had obviously acquired a certain ominous aspect.

The session of 1907 promised to be one of the most important in territorial annals, and in his regular message Governor Kibbey spent eleven and a half pages on the mine tax question. He described his activities and attempted to answer the charge that they had injured the small mine owner. It was true that the board of equalization had been forced to demand the increased assessment in terms of the entire class of mining property, rather than by individual mines, but the governor maintained that the outcry over increased valuations for the small operators came not from the small operators themselves but from their self-appointed guardians, the advocates of the great copper companies. If the order to Cochise County to multiply mine assessments by fifteen had harmed the small operator, it had been only because of the custom of assessing large and small "practically alike" and because of the necessity that the territorial board of equalization adjust by classes of property rather than by individuals. If the local authorities had merely multiplied all valuations by fifteen without attempt to discriminate between the valuable and the inferior deposits, the fault lay only with the local authorities.

The legislature was asked to note the fact that such increase in assessed valuation had not resulted in harm to the mining industry:

I am pleased to remind you that the prophecies of evil that was to flow from the efforts of the Territorial Board of Equalization to assess the mines at fairer valuations have not been fulfilled — not one of them. Capital has not been driven from the Territory. On the contrary, never before in our history was capital so eagerly seeking mines . . . the present "boom" in the mining business is without parallel in Arizona.

It was the governor's further opinion that while the mining industry should have the particular care of the state, it should not be considered too sacred for taxation. The idea that a mine should not pay taxes unless it were profitable seemed to him a novel one, but he did concur in the belief that a non-producing mine should be assessed at a nominal figure. To the charge that mining was a risky enterprise and should be encouraged by low taxation he replied by asking if, in Arizona, the risk of mining ("I am not speaking of prospecting") were so great that the territory dared not estimate the value of a mine at over a fifth of the annual bullion product. To the suggestion that Arizona follow the lead of Nevada and Idaho and lay a tax only upon net profits he replied by asking why all businesses should not be taxed on that base. California, he pointed out, assessed mine deposits like other property. He quoted a telegram from Michigan showing the Baltic mine with a paid-in capital of \$1,800,000 assessed at \$6,000,000, as compared with the Calumet and Arizona with a paid-in capital of \$2,000,000 assessed at \$82,000.

The governor stated it as his belief, finally, that the opinions of honest and informed men, familiar with mining, could determine the value at which those mines "would be taken in payment of a just debt due from a solvent debtor" and that courts could be depended upon to give protection against unjust valuations.

Interest in the legislative session of 1907 centered about the Doran bill, which proposed to place the property tax upon 20 per cent of the gross mineral production, the assessment to be made

by county assessors rather than by a central authority.³⁸ Kelly reports that the mining interests had no small part in the drafting of this measure:

During the sessions, mining men and their attorneys appeared before joint legislative committees with the result that the mining interests finally accepted the Doran bill as satisfactory. At one meeting of the joint committee there was an array of prominent mining men of the territory present and also Governor Kibbey. Among these mining men and attorneys were S. W. French, of Bisbee; Frank Murphy of Prescott; C. E. Mills, of Morenci; C. W. Clark, of Jerome; Dr. L. D. Ricketts, E. E. Ellinwood and Ben Goodrich.³⁹

Because the new bill would give the mines a lower assessment rate than other property, the belief was widespread that the Doran bill was sponsored by the mining companies. There was some question both of the wisdom and the constitutionality of any device such as this which would discriminate between classes of property.⁴⁰ But on March 7 the bill passed the council and on March 9 the assembly, and two days later, to the dismay of his constituents, Governor Kibbey affixed his signature.⁴¹ The measure divided mines and mining claims into two classes, productive and nonproductive. From a yearly report of operators of productive mines the county assessor was required to make an "Assessment Roll of the Gross Product of Mines and Mining Claims," containing the amount of mineral production by each mine. He was then to ascertain the value of those products in New York City, as evidenced by some established authority or market report. Upon 25 per cent of this total should be levied the taxes for the year. A glance at Chart 1 will indicate that mine assessments immediately rose about 45 per cent, but tended to decrease somewhat thereafter to 1911. The per cent of total state valuation borne by mines rose from 23.4 per cent in 1906 to 27.0 per cent in 1907 (under the new law), but fell

³⁸ *Arizona Star*, Feb. 14, 1907.

³⁹ Kelly, pp. 253-254.

⁴⁰ *Arizona Star*, Feb. 21, March 8, March 10, March 13, 1907.

⁴¹ His acquiescence is somewhat difficult to explain, for he had maintained that the property tax was practicable and equitable. He may have decided that this would fix valuations at the height to which he had pushed them, and would also avoid the problem of assessment of physical properties.

thereafter to 19.3 per cent in 1911, owing, no doubt, to the fact that the price of copper declined during those last four years from 21¢ to 12.5¢ per pound.⁴²

The new revenue measure was received with great indignation by the voters and press of the territory:

The outcome of this law, if enforced, will be that the great copper companies will pay taxes on one-fifteenth of actual cash market value of their properties, while other taxpayers will pay nine to ten fifteenths of such value. From this outrageous discrimination there are three avenues of escape. One is by an Act of Congress, a second by the next territorial legislature from whose membership the indignant taxpayer will eliminate the unfaithful servants, and a third is by a concurrence of action among such county assessors and such members of the board of equalization who have the backbone and the moral courage to stand for equal taxation between the people and corporations.

All that is necessary to carry into effect such a plan of retribution and relief as we have outlined will be for the assessors to value horses at \$5, cows at \$2, sheep at 20¢, hay at 70¢ a ton, pianos at \$10, brussels carpets at 10¢ a yard . . . alfalfa fields at \$2 an acre and \$5,000 homesteads at \$350. Such assessors and equalizers as will give the taxpayers this kind of a square deal will be blessed by a grateful people.⁴³

The board of equalization found that the new law was not particularly satisfactory to administer, for non-producing mines remained assessable under the property tax, and the board of equalization continued to have difficulty with recalcitrant local assessors, who insisted on returning all such mines at the same value per acre.⁴⁴ It appeared, said the board, that in fact there was great difference in the market value of unproductive mines, and that to assess them equally not only deprived the public of revenue but, when the aggregate assessment of unproductive mines was raised under the equalization proceedings, caused injustice to the owners of mining property of small value.

For several years thereafter the question was pushed aside by the overwhelming importance of coming statehood. The law continued to be unpopular and served in some respects to fan the flame against the influence of the mining companies, but it

⁴² Elsing and Heineman, *Arizona Metal Production*, p. 12.

⁴³ *Arizona Star*, March 12, 1907.

⁴⁴ Proceedings, p. 16, June 1908.

was considered to be better than no law at all.⁴⁵ Governor Kibbey's failure to mention the subject in his address to the legislature of 1909 was explained on the grounds that he probably felt it proper to leave the problem to the new state government,⁴⁶ now thought near at hand.

⁴⁵ *Arizona Star*, March 15, 1907.

⁴⁶ Kelly, p. 259.

CHAPTER XVI

ARIZONA: THE CONSTITUTIONAL CONVENTION

THAT ARIZONA was the last mining territory to adopt a mine tax is an indication, at least, that to 1907 the larger corporations enjoyed more than adequate political representation. Yet within a few years the complaint arose that those interests were nearly ignored. Said State Auditor Callaghan in 1914, gravely concerned over the course of events, "as it is ever the case, a taste of power, long denied, provokes a lust for excess, and results in an arbitrary abuse thereof, and it was no surprise to find that the corporations who had for so long dominated legislation, now found themselves unable, almost, to get a hearing."¹

The law of diminishing returns was undoubtedly the basic influence in this change of popular sentiment. Behind the political campaigns and legislative debate lay the fundamental fact that capital, once scarce relative to other factors of production, was now plentiful, that it no longer needed subsidization, and might be treated more cavalierly. But even the economist must recognize certain political factors not explained by economics. The "moral" issue that the corporations had controlled territorial and county governments and corrupted the representatives of the people provided an emotional stimulant, while Hunt, Zander, and their colleagues adequately fulfilled the need for capable leadership. Neither in single-minded conviction nor in effective direction can this campaign in Arizona be equalled elsewhere in the West.

In Arizona, more perhaps than in any other state, the electorate has been concerned with political corruption, and popular opinion had generally found it easy to blame the mines rather than the legislature, the voters, the meagre legislator salary, or the inherent peculiarities of the democratic system. The fact is

¹ Report of State Auditor, September 1914, pp. 9 ff.

that in few other instances have the political methods of minorities and majorities been as sharply contrasted.

The measures which were said to be used by the minorities to control territorial government divide themselves into two groups, one including such orthodox methods as persuasion of voters and influence of appointive party machinery, and the other such irregularities as bribery of government officials.² The caucus method of nominating candidates for office was charged with undemocratic results, in that local caucuses might be packed with corporation men who might elect a friendly chairman, who, in turn, might be depended upon to appoint friendly majorities on nominating committees.³ By this means, it was believed, the larger corporations exerted influence over county assessors, county boards of equalization, members of the legislature, and even the state board of equalization. Democrats have made the further charge that corporations attempted to force their employees to vote the Republican ticket on penalty of loss of their jobs. Ex-Governor Hunt has given it as his opinion that wherever employees were not unionized and had not been educated in the principle of the free ballot, such attempts were often successful.⁴

There are localities in which the problem of minority representation is not so imposing, where, with numerous minorities, some will be able to combine on every important issue, and the theory of majority rule thus proves fairly practicable. In Arizona the problem stood forth bare and obtrusive, softened only by a certain engaging frankness on the part of the principal actors. In other states the facts of the case are usually kept

² Much of the following material is taken from a thesis by Victor S. Griffith, Jr., "State Regulation of Railroad and Electric Rates in Arizona to 1925" (MS), accepted in partial fulfillment of the requirements for the degree of Master of Arts at the University of Arizona. The author had unusual opportunity for the collection of information on early Arizona politics, and his material not only bears the stamp of authenticity but his conclusions are confirmed by the interviews of the present author.

³ Griffith, p. 7.

⁴ T. A. McGinnis, "Influence of Organized Labor on the Making of the Arizona Constitution" (MS.), thesis accepted in partial fulfillment of the requirements for the degree of Master of Arts at the University of Arizona, p. 35. After personal interview with Hunt.

within a fairly narrow circle; here they became common gossip. "We had a certain job to do," said one former corporation lobbyist years later in an interview, "and we went about it the only way possible. The legislature could not be expected to live on the salary the Territory was paying them."⁵ Another, from Yavapai County, is said to have given to the Prescott paper, at the beginning of every session, the statement that he was going to Phoenix to buy mules for the mines, and he complained at times that the mules ran as high as \$25 per head.⁶ McClintock quotes a statement by a well known officer of the Southern Pacific to the effect that the \$4,800 cost to that firm of certain 1905 legislation was "too damned much."⁷

As in other states the practice of giving free passes to office holders was thought to have worked for injustice, and gossip even held that after final assessment of the railroads each year the board of equalization was given a vacation in California at the expense of the Southern Pacific.⁸ Thus Frank Baxter, Yuma attorney, wrote Hunt asking that the issue of free passes to office holders be made a crime. "You and I well know that the Free Pass Evil, though not so glaring as in former years, is still bad enough to, in many cases, defeat the ends of justice, and to allow some of our big corporations to avoid the payment of their just taxes. . . ."⁹ Bills to eliminate this evil were introduced in every session from 1899 to 1907 inclusive,¹⁰ but not until the creation of an Arizona Railroad Commission was the free pass privilege ended.

While this charge of corrupt practices is more a part of the spoken than of the written tradition of the state, several indirect references to it are to be found in published documents. Thus Auditor Callaghan, even when sincerely troubled by the scope

⁵ Griffith, "State Regulation of Railroad and Electric Rates in Arizona to 1925."

⁶ Griffith, "State Regulation."

⁷ J. H. McClintock, *Arizona the Youngest State* (1916), I, 290.

⁸ Griffith, from interview with reliable source, but quoted here only to illustrate the attitude of the voters.

⁹ Letter of February 1, 1907; Griffith, p. 21.

¹⁰ Journals, 20th session, p. 265; 21st session, p. 218; 22nd session, p. 323; 23rd session, pp. 556, 572; 24th session, pp. 203, 261, 316 (House).

of the drive upon the larger corporations, could not deny that, encouraged by various laws, investors in Arizona's wealth had grown large and waxed fat in prosperity, that they were "but inadequately taxed" for the support of government and that they were "resisting with all the power their wealth afforded, needed reforms, and all endeavor to assess their just proportion of the tax."¹¹ J. Parke Channing, engineer for an Arizona mining company, suggested something of the same sort before the National Tax Association in 1913. "In the early days we admit the mines in Arizona were ridiculously undertaxed, and those who come in now with new mines — the pendulum swinging the other way — are getting punished for the sins of the older mines."¹² The tax commission report of 1914 made the following guarded charges:

At one time or another it (mining property) has used every means to resist any raise proposed and to dodge or beat taxes laid. At all times, even in the recent past when charges of corruption could not as generally be made, it has obstinately opposed every effort to collect more revenue from it. . . .

Governor Hunt, in his message to the first legislature of 1912, spurred the reform movement with reference to the years during which mining corporations had escaped their just share of the costs of government, and ended with the appeal:

Let it not be said that in Arizona wealth or position, place or power, are potent to secure immunity from the laws of the land or alleviation of the requirements visited upon those in more modest stations.

While written records have been worded with some delicacy, the deep indignation of the majority at the political tools of the minority obviously furnished an effective moral issue.

The very process of acquiring statehood further developed a class consciousness in the territory. From 1872 to 1909 every delegate to Congress introduced a bill for admittance to the Union,¹³ and while the earlier attempts may have been prima-

¹¹ Auditor's Report, 1914, pp. 12 ff.

¹² Proceedings, p. 412.

¹³ McGinnis, "Influence of Organized Labor on the Making of the Arizona Constitution."

rily in the interest of local politicians,¹⁴ the Arizona electorate became increasingly attentive after 1905.¹⁵ The argument over the admittance of Arizona appears to have been part of the old struggle between the agricultural interests on the one side and the industrial and financial interests of the East on the other,¹⁶ and it was the eastern politicians who were opposed to "free coinage of Western Senators."¹⁷ Also it appears probable that the mining companies opposed statehood as a threat to a condition which to that time they had well in hand.¹⁸

Nearly every move in the long struggle to gain statehood emphasized in the minds of the voters the character of the principal issue to arise after that goal had been reached. Would the large corporations be more or less influential in the state than they had been in the territory? One of the (less convincing) arguments put forth by the proponents of the mines tax in 1907 had been that failure to spread the tax burden more equitably between the corporations and other property holders would force Congress to conclude that the territory was not yet ready for self-government, and as early as 1904 a tax upon the mines had been urged as one of the best means of encouraging Congress to grant Arizona single-statehood, as opposed to joint admission with New Mexico.¹⁹ Even in the debates at Washington over the proposition to admit Arizona and New Mexico as one state (jointure) both sides brought the question of mine taxation prominently to the foreground. When the Arizona delegation, opposing jointure, appeared before the territorial committee of the House, it was met by criticism of the small amount of taxes

¹⁴ H. A. Hubbard, "The Arizona Enabling Act and President Taft's Veto," *Pacific Historical Review*, September 1934, p. 307.

¹⁵ Governor Zulick had recommended statehood in his message of 1889; the voters had approved the result of a constitutional convention in 1891, as had the lower house of Congress; but the United States Senate refused to admit Arizona as a state at that time. McGinnis, "Influence of Organized Labor."

¹⁶ Hubbard, "Arizona Enabling Act and President Taft's Veto," *Pacific Historical Review*, September 1934, p. 307.

¹⁷ Lockwood, *Pioneer Days in Arizona*, pp. 368 ff., quoting Harrison.

¹⁸ Congressional Record, 59th Congress, 1st session, pp. 1509, 1512, 1557, 1570, 1574, 1577, 2995, 3042, 3044, 3047, 3048, 3387, 3454, 3535, 3573, 3576, 3578.

¹⁹ *Arizona Daily Star*, Dec. 13, 1904; Dec. 1, 1906; Dec. 14, 1906; Dec. 22, 1906.

paid by the mines and railroads in Arizona, and the implication that the territory, by itself, was unable to handle its own political problems.²⁰ The Arizona delegation maintained that if Arizona were given time and opportunity she would see that taxation of such corporations was "properly made," and the tax of 1907 may have been considered a fulfillment of that promise.

When B. S. Rodey, former delegate to Congress from New Mexico, maintained before this same committee that special interests were suppressing public opinion and did not dare submit the question of joint statehood to the people of Arizona, he was greeted by a chorus of "No! No!" from the listening Arizona delegation,²¹ and the following paragraphs were inserted in the Congressional Record by that group:

We wish here to emphatically deny the charges which have been made that a corrupt mining and railroad lobby is in Washington endeavoring to defeat joint statehood. The members of this delegation have come here representing the people of Arizona, paying their own expenses, and under no obligations of any character to any particular class in Arizona, with the honest and legitimate object in view of presenting to Congress the reasons why the jointure of these two Territories should not be effected. The conditions of assessed valuation of mines and railroads has been given a very prominent place in discussion. We submit that the same difficulties are encountered in securing a proper assessment in Arizona as in other parts of the United States. . . .

The proper assessment of mines has always been a subject for serious contemplation. . . . It is admitted for the sake of argument that the assessed valuation of mines in Arizona is too low. The difficulty is to discover and enforce an equitable method of assessment. This is true in New Mexico, and is likewise true in states east of the Mississippi.²²

As one of the high points of the hearing, Senator W. A. Clark of Montana was called to make a statement regarding the frequent charges before the committee of "unjust and corrupt taxa-

²⁰ *Arizona Republic*, Jan. 20, 1906, dispatch from Washington dated January 19.

²¹ *Arizona Republic*, Jan. 21, 1906. Popular vote on this proposal (November 1906) was 16,265 opposed and 3,141 in favor, in Arizona. In New Mexico, the vote was 14,735 opposed and 26,195 in favor of jointure. (Lockwood, *Pioneer Days in Arizona*.) The amount of mineral wealth in Arizona may have influenced both votes.

²² Hubbard, "The Arizona Enabling Act and President Taft's Veto," *Pacific Historical Review*, September 1934, p. 307, from Congressional Record, 59th Congress, 1st session, p. 2410.

tion of the United Verde property" of which he was admittedly the chief owner. Senator Clark replied that he had always paid the full tax levied except at one time when an unjust assessment had compelled him to contest the tax in court. "I defy anyone to estimate accurately the value of a mine," said Senator Clark. "The eye cannot reach beyond the ground and the ore which seems to be in inexhaustible quantities may play out at any time." The mine was then valued for taxation purposes at about \$1,200,000 (twenty years later the assessment, uncontested in court, was \$32,528,000),²³ and when Chairman Hamilton read newspaper clippings in which Senator Clark was quoted as saying he had rejected an offer of \$25,000,000 for the mine, Clark denied the incident, explaining that he had never offered the property for sale, and had never had an offer for it.²⁴

Thus in a variety of ways a strong political and economic class consciousness grew and developed in the territory, and most of the important questions of government seemed to revolve around mine taxation. Yet a comparison with other states suggests that there were additional peculiarities in the drive against the mines in Arizona. In Montana, also, non-resident investors influenced state affairs, and there also the labor and agricultural elements had cause to unite their political forces against the mines.

Montana became a state when the copper industry was still young, when capital still might need encouragement, and it was not so difficult to place in the constitution a provision for the taxation of new proceeds. The entire burden of changing the law rested thereafter on the small property owners, and to enact a new mines tax required a majority in both houses. As will be apparent later, even where the mining representatives were burdened with this particular factor of inertia, as in Arizona, the farmer-labor element was barely able to hold the one-third of one house necessary to prevent passage of a special mine tax over the governor's veto.

A further generalization suggests itself. In Montana the cor-

²³ Report of State Tax Commission, December 1926, p. 52.

²⁴ *Arizona Republic*, Jan. 20, 1906; Jan. 23, 1906.

porate leadership, after the beginning of the century, was strong and united. In Arizona the mines were owned not by one great Anaconda but by several different concerns, headed by men with differing personalities and divergent concepts of correct political activity. Jealousy was not unknown between leaders in different mining corporations. The left wing, on the other hand, included men of unusual ability, and behind them the labor and farm vote was adequately organized through most of the period from 1912 to 1932.

The remarkable life of George W. P. Hunt has been described elsewhere.²⁵ He punched a burro into Arizona in 1881, the year in which the mines secured repeal of the tax law of 1875. Before his death in 1935 he had served seven terms in the territorial legislature, twice as president of the council. He had been chairman of the constitutional convention and seven times thereafter governor of Arizona. His following was largely a personal one, built around friendship and respect, and a belief that he always kept his word. His political stronghold was not among the farmers of Maricopa County, for his career was twenty years advanced before the Roosevelt Dam was built, but in the outlying mining, lumbering, and dry-farming communities, difficult to propagandize by other interests and full of "old-timers" who looked upon Hunt as a personal friend. The labor vote never deserted him. His death undoubtedly marked the end of a political era in Arizona.

Even more directly connected with mine tax reform in the state was his lieutenant and political advisor, C. M. Zander. Zander was not only considered a shrewd politician but was aggressive to the point of pugnacity. His position as Hunt's aide brought upon his shoulders some of the ill will that otherwise would have been borne by Hunt, and statewide belief in his political sagacity meant that too many men had reason to consider him dangerous. But his word, like Hunt's, was considered good, and they worked well together. Without Hunt, says Zander, the mine tax would have been impossible. It would have been impossible, also, without Mr. Zander.

²⁵ Frank C. Lockwood, *Arizona Characters* (Los Angeles: The Times Mirror Press, 1928), ch. xi.

The state thus possessed the issue, the leadership, and the emotional drive necessary for political revolt. In the first and special legislative sessions the character of the members became of considerable importance. The enthusiasm which accompanied this newly acquired statehood and the distinction associated with the new positions attracted individuals who had never before seriously considered participation in territorial politics. The rosters will show the names of leading merchants and professional men, and other individuals who were accustomed to follow their own judgment. The stipend, also, had been raised from four to seven dollars a day. There is a period in the life of every community, sometimes long and sometimes short, when the spirit of youth pervades the air. The buildings on the farm and in the town still smell of tar-paper and new lumber; great farming projects are suddenly brought under cultivation, and towns mushroom into cities over the space of a few years. The new settlers not only change the political balance by their very numbers but are young, optimistic, and ambitious. Change and enthusiasm are the order of the day. In Arizona the territorial government had been cynical and impotent. Statehood seemed to offer an opportunity to start afresh, and the new order challenged the services of the best talent in the territory.

The state convention itself was dominated by the representatives not of business but of labor, and to this group goes much of the credit for the radical nature of the constitution. The separation of interest between mine owner and miner did not come to the surface until after 1900 when the Western Federation of Mines entered the state. In 1903 there was a short but violent strike in Morenci. Fifteen members of the Arizona Rangers went to the scene, followed by the national guard and a unit of the United States cavalry from Fort Huachuca — one of the few instances in which federal troops have been used for such purpose in peace time. In 1906 and 1907 there were strikes in Bisbee, Morenci, and other camps as an accompaniment to the unionization of employees.²⁶ In 1909 the Old Dominion

²⁶ Kelly, *Legislative History of Arizona*, p. 255. The legislature of 1903 for-

Mine of Globe closed down, along with other mines in that district, in protest against high handed activities of a "walking delegate," and before resumption of operations approximately 2,000 men are said to have been discharged.²⁷ The existence of a large supply of Mexican labor is considered to have given the mines something of an advantage, and it was stated during the proceedings of the constitutional convention that a large per cent of the underground workers spoke little or no English.²⁸ The labor element grew resentful of blacklists, the activities of private police²⁹ and, as evidenced by the request for an anti-injunction law and for referendum and recall provisions in the constitution, had even become distrustful of legal authority. Labor thus added its strength to the Granger movement.

The labor group early expressed the belief that the new state constitution offered an opportunity to place the government more securely in the hands of the mass of voters. At the call of the Bisbee miners, representatives of all labor unions in the territory met at Phoenix on July 11, 1910, to outline the provisions that should be incorporated in the constitution. The keynote of the meeting was struck by Chairman Provost:

I see in this gathering the representative of labor grasping one of the greatest opportunities which has ever been offered to the working classes to conduct the government of their commonwealth in their own interests. Therefore let us be united to the end that Arizona may receive through our efforts the grandest and most just constitution ever written for any state in the Union.³⁰

The assembly agreed to request that the following liberal measures be placed in the new constitution: equal suffrage, referendum, recall, anti-injunction law, the election of United States senators by popular vote, an employee liability act, the abolition

bade employment of miners underground for longer than eight hours a day, except in emergencies involving life or safety, and prohibited mining companies from paying their employees in merchandise orders, as, according to Kelly, "had been practiced in a number of the mining districts of the Territory."

²⁷ McGinnis, p. 29; McClintock, II, 590.

²⁸ Verbatim report, Arizona Constitutional Convention, 1910, vol. 4, Friday forenoon, December 2.

²⁹ Labor Platform, *Arizona Star*, July 13, 1910.

³⁰ McGinnis, p. 31.

of the fee system in all courts, right of the state to seize property of any corporation or person refusing to comply with the law, provision that the state defray the expense of the defense as well as the prosecution of those charged with crime, provision that no private police be allowed to arrest or give testimony in court, a two year term for all state officials, state right to engage in industrial enterprises, and the right to amend the constitution by a majority vote of the electors on initiative either of the legislature or the people.³¹

To avoid a split in the left wing vote, the leaders of the Democratic party promised to incorporate the labor planks in the next platform, and while the new labor party officially withdrew from the field, it was well aware of its power. The farmers and property owners had no such organization, but they, too, gathered about the Democratic platform and demanded a constitutional provision which would guarantee to the people "security against the dominance of corporate and corrupt control of public affairs . . . (and) the payment of a just and fair proportion of taxes by all corporations. . . ." ³² Opposition by corporation officials to the proposal for recall of the judiciary no doubt helped the Democratic ³³ party elect 41 of the 52 delegates; many of them were members of labor unions or otherwise friendly to the labor element.

The convention was not particularly satisfactory to the people of the new state. The men who gathered at the capital had more than the necessary emotional drive, but the constitution as an instrument of democracy was difficult to wield, and the hubbub of oratory and dispute that arose from the convention was something of a disappointment to an impatient public. In general the resulting document was considerably more liberal than the average of its time. It provided for an eight hour day on public works and a child labor law, it paved the way for an employers' liability law by abrogating the common law rules with regard to accidents, it forbid blacklists, and stated (some-

³¹ McGinnis, p. 32.

³² McGinnis, p. 32.

³³ McGinnis, p. 32.

what optimistically) that "monopolies and trusts" should never be allowed in the state. Article XV provides for an elected corporation commission which should prescribe just and reasonable rates for railway transportation. The proposal to legalize picketing, on the other hand, was killed in the committee of the whole by a vote of 27 to 16, and the effort to create a commission of labor was fruitless.

Debate over proposals for popular referendum, initiative, and recall attracted nation-wide attention and no doubt added to the self-consciousness of the territory. The central point of issue was the proposal that judicial officers be subject to recall, and the constitution with this provision was passed by Congress, vetoed by the president, resubmitted without provision for recall of judges, was thereupon signed by the president, and, following the suggestion of certain liberal congressmen,³⁴ was immediately amended in Arizona to allow for popular recall of judges.³⁵ The provision for initiative allowed 10 per cent of the qualified voters to propose legislative measures and 15 per cent, a constitutional amendment.³⁶ Referendum of legislative action was made possible upon petition of 5 per cent of the qualified voters, providing that such submission be made within ninety days after passage of an act and providing that by two-thirds vote of each house the bill was not declared an emergency measure.³⁷ An unpopular mine tax, for instance, could not become effective unless passed by two-thirds vote of both houses, even though it might be signed by the governor.

Primarily because of the provision for recall of judiciary, only one of the Republican delegates was willing to sign the document, and nowhere does there appear the name of a representative from Coconino, Santa Cruz, or Pima counties.³⁸ Yet it would appear to the observer that the difficulty lay not so much

³⁴ Speech of Congressman J. A. Martin of Colorado, August 19, 1911, House of Representatives.

³⁵ Revised Code of Arizona, 1928, p. cxi.

³⁶ Constitution of Arizona, art. IV (2).

³⁷ Constitution of Arizona, art. V (3) and court interpretations.

³⁸ Lockwood, *Pioneer Days*, p. 378.

in confusion over the sentiments of the electorate as in the fact that the constitution was not an effective instrument for the expression of that sentiment. The complaints against the corporations were specific and not to be remedied by a liberal constitution.

The matter of taxation, which was the real interest of the Democratic party, was not considered to be a proper subject for detailed constitutional provision. The officers of the National Tax Association suggested to the convention that it should adopt a simple and flexible phrase regulating methods of taxation, and in an effort to forestall more elaborate provisions G. W. P. Hunt read from the rostrum part of a letter, supporting the Association, from F. W. Taussig of Harvard:

I beg to express my opinion in favor of the proposals made by the International Tax Association with regard to provisions on this topic in the constitution proposed for your state. Our experience in Massachusetts has been instructive. A hundred years ago hard and fast lines were laid down in our constitutions, probably suited to the conditions of that day. Those conditions are now outgrown, and we find ourselves hampered by antiquated restrictions. A simple and elastic constitutional provision, such as the Tax Association suggests, leaves the needed discretion to the legislature and permits accommodation to the changing needs of growing communities. I am sure you would find the weight of opinion among the economists and serious students of taxation throughout the country in favor of the proposed provision.

In the matter of tax exemptions, however, the delegates were adamant, and even at the sacrifice of constitutional flexibility they put an end to the long history of state liberality on this score. "The power of taxation," said the constitution, "shall never be surrendered, suspended, or contracted away. . . ." ³⁹ Thus Arizona laggingly followed the advice of her territorial governors, and at the inception of statehood brought under full assessment a considerable amount of railroad and public utility

³⁹ After this the convention, by error, substituted the old territorial provision regarding taxation for the phrase suggested by the tax commission. The sentence adopted read "All taxes shall be uniform within the territorial limits of the authority levying the tax, and shall be levied and collected for public purposes only." A later amendment, placing all power for levying and collecting taxes in the hands of the legislative was partly the result of an effort to overcome the faults of this part of the original provision (*infra*, p. 140).

property formerly taxed by agreement with the legislature on a relatively low valuation.⁴⁰

The inadequacy of the constitution as a complete and satisfactory expression of the popular discontent was apparent even in 1910, and changes in the equilibrium of forces in the state promised a continued shift of the law toward the left. The mines faced something of a recession in 1913, but war prices and war profits doubtless strengthened the demand for higher assessments and may even have lessened the antagonism of the mine owners to such a reform. New political factors, particularly the character of the new leadership in the legislative and administrative branches of government, pointed in the same direction. While the repeal of the law of 1907 would require a majority in both houses, so that the mines were favored by a small factor of inertia, time and the new forces promised to be equal to this one remaining obstacle.

⁴⁰ Though the effect of this rigid provision was somewhat marred, in 1928, by an amendment which allowed exemption not only to government, church, charitable, and school property but also to honorably discharged soldiers, sailors, and marines who had lived in the state prior to January, 1927. The latter exemption was not intended to apply to property assessed at over \$2,000 or to individuals whose total assessment was over \$5,000.

CHAPTER XVII

ARIZONA: THE STATE MINE TAX

WHEN GEORGE W. P. HUNT stood before the first session of the first state legislature to deliver his first governor's message, one common thought dominated the minds of the speaker, the legislature, and the gallery:

It is a notorious fact (said Governor Hunt) that certain classes of property in Arizona have never supplied a fair proportion of the public revenue, and although sporadic efforts have been made to correct this situation, it has never been corrected to the present day. As a consequence the small property owners, and particularly the owners of agricultural lands, though least able to bear the burden, are supplying a great deal more than their proper proportion of the public funds.

It is a matter of such common information as to occasion no disputation that the large corporations, the railroad companies, the telephone and express companies, operating in the State, are escaping the payment of their fair share of taxes; and your particular attention is directed to the laws affecting these companies, to the end that they may be forced to contribute equally with the owner of a horse, a cow, an humble home, or a plot of ground, to the maintenance of the institutions of the State. Let it not be said that in Arizona wealth or position, place or power, are potent to secure immunity from the laws of the land or alleviation of the requirements visited upon those in more modest stations.

The legislature needed little prodding. It repealed the law of 1907 and gratuitously added that it did so because it intended to provide a system of taxation by which the assessment of all property in the state should be on a full-cash basis.¹ Following the specific suggestion of the governor the legislature provided for a state tax commission, with supervisory powers over assessors and county boards of equalization to the end that assessments be "relatively just and uniform." The commission was given general supervisory powers over assessments, including the right to adjust specific property valuations. Except for the original members, who were to be appointed by the governor,

¹ Session Laws of Arizona, regular session, first legislature, 1912, ch. ii.

each was subject to popular election, with a term of six years and a salary of \$3,000.²

In June Governor Hunt appointed Charles R. Howe of Tombstone, C. M. Zander of Buckeye, and P. J. Miller of Yuma to form the first commission. With only six weeks to prepare for the final equalization of property assessments for 1912 they announced their intention to raise the level of assessed valuations, this year, to approximately 50 per cent of actual value; an introduction to an assessment of 100 per cent of value to be attained some time in the future.³ In appreciation of the fact that the valuation of mines was its most pressing duty, and in preparation for the August equalization, the commission issued an immediate request for sworn reports touching upon mine operations for the preceding five years.⁴ With this material at hand the commission met with the local boards of equalization and, after discussion of the mining property within each county, issued written recommendations as to the value to be placed on each mine. Within a month and a half after appointment the tax commission succeeded in elevating mine valuations in the state from \$10,000,000 (the figure for 1911) to \$45,000,000.⁵ The proportion of total state valuation borne by the mines rose from 19.3 per cent in 1911 to 31.7 per cent in 1912.⁶

To say that these new mine assessments aroused resentment among mining circles is to put the matter mildly. Zander, in his description of Arizona tax reform before the National Tax Association in 1913, remarked that the commission had found that geologists were wrong in their contention that Arizona was a land of extinct volcanoes.⁷

² Session Laws, First legislature, 1912, ch. xxiii.

³ The experience of the commission in increasing assessments of other than mining property will be discussed in Chapter XVIII.

⁴ Including number of employees, size of payroll, gross ore production, gross production of refined metal, prices of metal, cost of production, number of tons of ore possessed by the mine and production that might "reasonably be expected in the future."

⁵ First Tax Commission Report, p. 59.

⁶ *Arizona Mining Journal*, C. H. Howe, June 1917.

⁷ Telegrams, letters, resolutions and delegations poured in on the commission. Town councils, boards of supervisors, boards of trade, chambers of commerce, and associations met and resolved that it was all wrong. Newspapers poured out

The mining interests and the friends of mining had been without voice in the determination of the policy of the new state, and now found opportunity to criticize the results of that policy. The commission, in its first report, admitted that its mine assessments were not entirely popular,⁸ but maintained that the greatest opposition had come from the United Verde mine in Yavapai County. The arguments offered by the representatives of this company, said the commission, "were some of the most remarkable and astounding ever heard by the Commission at any of its hearings. Not only did it plead that any assessment above twenty-five per cent of its gross output would be unfair, inequitable and confiscatory, but it finally insinuated that in order to protect itself from illegal tax extortion the company would have to go into politics. . . ."

This line of argument did not make any great impression on the Commission, since not only they but all other citizens of the State have known for some time that the United Verde Copper Company has been in politics for the last twenty years, solely, and only for the purpose of evading the payment of its just proportion of the State and County tax.

The board of equalization of Yavapai County (containing this mine) substituted a mine valuation of \$3,500,000 for the \$4,657,000 recommended by the commission, and upon second thought cut the original assessment in half, attempting by telegram to persuade other county boards to do likewise. Fortunately for the commission both the second reduction and the attempted "conspiracy" came too late to affect the final, legal valuation of mine property.⁹

Yet the commission could not successfully pretend that dissatisfaction had been confined to this one corporation, and two months after the first equalization the tax commission met with representatives of the producing mines to discuss the entire

their vials of vituperation, figuratively showing their teeth and shaking their fists and saying in direct English, "We'll get you! Damn you!" For editorial comment on this situation see McCormick, "Mine Taxation in Arizona," senior thesis, University of Arizona, 1935, pp. 17-20.

⁸ First Biennial Report, Arizona Tax Commission, pp. 33-34.

⁹ First Biennial Report, Arizona Tax Commission, pp. 33-37, 49-55; *State of Arizona vs. Board of Supervisors of Yavapai County*, 14 Arizona, p. 222.

problem of mine valuation and taxation.¹⁰ Apart from the question of political tactics, such a meeting was a logical result of the extreme difficulty of the entire mine tax problem. The members of the commission themselves seemed not to be certain of the justice of the ad valorem taxation of such property, and the meeting early developed the fact that each side wanted the other to take the responsibility of suggesting a solution.

Dr. L. D. Ricketts, consulting engineer of the Calumet and Arizona and a highly respected citizen of the state, was chosen by the mine representatives to respond to the welcoming words of Commissioner Miller. The mining people, he said, wanted to pay their share of the expenses of the state, but he did not believe that fairness could be secured through assessment by physical inspection of the property.

Thus there arose the question that plagues all those who demand some special form of taxation on income from property — how can a state determine the rate of taxation on gross or net income which will deal equitably between farm and mine? Each side demanded an answer from the other.

Both Commissioner Howe and Commissioner Miller expressed sympathy with some form of special tax, and Dr. Ricketts thereupon inquired whether Chairman Miller had “an idea of what percentage of total taxation the state should receive from the mining interests.” Miller replied that judging from the reports to the tax commission the mines contained roughly one-half of the valuation of the state. E. E. Ellinwood, mine attorney, inquired then as to the probable future cost of state government, but this line of approach was suddenly cut off by the incisive voice of C. M. Zander, who pointed out that inasmuch as the amount of taxes paid by property should be dependent only upon the relation between its assessed value and the total assessment of the state, such a question was irrelevant. The tax commission had hoped, said Mr. Zander, that the mining men would have some suggestion as to the proper method of valuing mining property.

¹⁰ First Biennial Report, Arizona Tax Commission, pp. 55 ff., meeting of Oct. 28, 1912.

By the opening of the second day's session Mr. Carmichael was able to read a proposal upon which the principal mine operators of the state had compromised. The base suggested was \$5 an acre for surface land plus 12½ per cent of the gross and 100 per cent of the net income.¹¹

The tax commission, on the other hand, was as yet far from agreement on the best method of taxing mines. Newly confronted with the problem, each member had his own idea of how it should be solved. From the positions offered him by Governor Hunt, Zander had asked for the tax commission appointment as offering the best scope for his talents, and he now became firmly convinced of the feasibility of physical appraisal. Mr. Miller committed himself in favor of the use of gross or net income as an assessment base, and Mr. Howe, in common with many others in the state, was somewhat doubtful of the willingness of the radical element to treat the mines with fairness. By the time the legislature met in 1913 only Mr. Zander, among all of the important executive and administrative officers, opposed taxation on a basis of some percentage of gross and net income.

As to the general need for an increase in mine valuations and the necessity for a strong commission all were in accord. In the

¹¹ To this there was some objection, even from one or two who purported to be mine owners. Patrick Rose, member of the board of supervisors of Gila County, protested that \$5 an acre for the land was much too low, and that in his county assessments of such land were \$35 an acre. He also expressed the opinion that 12½ per cent of the gross was insufficient. If, he said, he was able to produce from his own mine, say, half a million dollars of bullion a month, he should be required to pay the state some taxes upon it, even though it might have been produced at a loss. "If I paid the taxes I would be paying only what was right for the privilege of operating." He was aware, he said, of the difficulties under which mines worked, but he considered that those difficulties were no more than those of the farmer, who had to pay taxes regardless of profit.

To this astonishingly liberal argument W. L. Clark, general manager of the United Verde, replied that while he did not know the name of the gentleman who had just spoken he considered that as a mine owner he was one man in a thousand. Mr. Clark believed that mine owners operating at a loss should have the benefit of tax exemption so they could proceed with development. The benefit to the community of the added wealth and business would offset the loss in taxes. A mining camp producing a large tonnage of ore, he maintained, added wealth to the state. This recommendation was later embodied in the principal mine tax measure introduced in the 1913 session.

election of 1912 the members of the tax commission sponsored a constitutional amendment providing that "The manner, method and mode of assessing, equalizing and levying taxes in the State of Arizona shall be such as prescribed by law." Because it would enable the legislature to place the entire power of property tax administration in the hands of a tax commission that had already increased mine assessments by 330 per cent, the voting public adopted the amendment by an imposing majority.¹² To give effect to this provision the commission prepared laws for the second state legislature covering such powers as seemed desirable.

Zander, in the meantime, attended the convention of the National Tax Association in Buffalo, and there acquired a maxim that not only suited his instincts but confirmed his judgment. Mr. Armstead of Minnesota chanced to remark in conversation that "the mining companies and other large corporations will get in and play all right when they see they have to do it,"¹³ and Mr. Zander felt confirmed in his suspicion that the objection to ad valorem taxation of mineral deposits rose not so much from the technical difficulties of assessment as from a normal disinclination to pay taxes. The real mine tax problem, he decided, was a political one, and when he returned home he "proceeded to assess the mines from the stump."¹⁴ It was in character that he described the interview (without Mr. Armstead's name) in the First Report of the tax commission.

The commission presented its special report on mine taxation March 17, 1913, after the legislature had been in session for several weeks, and explained the delay by the charge that the mining companies had been dilatory about the submission of necessary data. The report was in the form of unanimous findings of fact and majority and minority recommendations. As fact the commission reported that whereas the mine owners had been given to understand that the commission would not recommend a law that did not contemplate "something like 'full cash

¹² Article IX, sec. II, Constitution of Arizona.

¹³ Quotation from Arizona Tax Commission Report, 1912, p. 29.

¹⁴ Personal interview with Zander, November 1936.

value' of the mines for purposes of assessment, the measure proposed by the mining companies would not bring this result. Sworn statements from mine officials had indicated that the total gross value of production for the year 1912 was \$61,468,527.82, 12½ per cent of which would be only \$7,683,566.01. This amount added to \$23,636,511.94 "net production" for 1912 gave a total value for assessment under the proposed bill of \$31,320,077.95, which was a million and a half dollars less than the total assessed valuation for 1912. Because other property was to be assessed at its full cash value, the commission could not endorse a bill which would reduce the 1912 valuation of mining property.

Mr. Howe and Mr. Miller presented a majority recommendation for a special tax on gross and net income, but with rates high enough to bring the assessed valuation of mines to approximately \$108,000,000. This, they believed, would compare "exceedingly favorably" with the total of \$69,815,000 valuation of copper mines in Michigan, and would mean an increase of about 160 per cent over the valuation of the year 1912. They believed, on the other hand, that because of the many difficulties involved in the valuation of property by capitalization of net proceeds, the ad valorem taxation of mining property was not feasible. No two persons, they said, could agree "on the thousand and one things that should or should not be charged in order to arrive at a net."

C. M. Zander's minority report was a vigorous attack on the reasoning of the majority. The total valuation of the Michigan mines had nothing to do, he thought, with the valuation of Arizona mines. Furthermore, the claim that the majority's recommendation would increase total valuations one and six-tenths times was unintentionally erroneous and much too optimistic.¹⁵

¹⁵ This valuation of \$108,000,000 is based on the 1912 production. The assessed valuation of 1912 was based on the 1911 production. A valuation found by the 1912 method and based on the 1912 production would amount to about \$60,000,000, to which would be added about \$25,000,000 for equipment and non-productive mines, or a total of \$85,000,000 as against the \$108,000,000 found by the gross and net plan. So it can be seen that instead of an increase of one and six-tenths, it is an increase of less than one-fourth over the method used in 1912; and when it is remembered that in 1913 all property is to be assessed at its

As a further dissent from the majority proposal he cited all the objections contained therein against the capitalization of net proceeds, and pointed out that they applied with equal force to the plan to tax gross and net proceeds. Finally, he criticized the theory that any combination of gross and net would, other than accidentally, approach the value of a mine. Only by physical valuation would it be possible to put upon the mines a tax "equitable to that received from other property."

Mr. Zander pointed out that the relation between the actual value of copper mines in Michigan, as appraised by Engineer Finlay, and the net proceeds of those Michigan mines was about one to eight, a ratio which, if applied to the Arizona mines, would give them a valuation of about \$200,000,000. It appeared to him, moreover, that because, as Mr. Finlay said, the new mines in the Southwest contained the "greatest reserve of available copper in the world," the ratio would more likely be ten to one than eight and a half to one, and he was of the opinion that the total value of mines might be much more than \$200,000,000.

The frequent claim that the large copper mines had but two or three years' ore in sight meant nothing, and in any case it was unnecessary for the success of physical valuation that the extent of the ore deposits be exactly ascertainable. The continuous discovery of new reserves, calling for repeated reappraisals, was a happy condition for the state, and revaluation every four years by a competent engineer would be all that was necessary to bring assessments up to date. Mr. Zander emphasized the statement of the majority that the question of mine taxation was the most vital problem confronting the commission, and on so important a matter he could not give a suggestion of approval to the majority plan.

This minority report deserves particular attention because of its content and because it was the turning point both of Zander's career and of state discussion of the problem. Prior to that time the opposition had portrayed C. M. Zander as merely another political busybody on the tax commission. By this report he not

full cash value, it is plain that the advantage claimed for the amount of taxes paid is wiped out entirely. (Special Report, March 17, p. 13.)

only attacked the entire western tradition of mine taxation, but established himself as something of an authority in his own right.

But this session of 1913 was already grimly deadlocked. When it convened in January the mines and the commission had both sponsored bills of high tactical importance. The general revenue bill, backed by the tax commission, contained a complete revision of the property tax law, giving the commission power to assess productive mines, railroad and public utilities, and making more explicit their right to direct county officers. By the provisions of this bill the state board might equalize assessments not only between classes of property but also between individuals, and no county board could change the value of assessments after state equalization. Moreover, if this revision could be passed through the legislature the commission need never lack funds:

There is hereby annually appropriated, out of the general fund in the state treasury, a sum sufficient to carry out the provisions of this act.⁴⁶

To the mine group, on the other hand, all hope for future security seemed to rest in the possibility of a special mine tax, and the measure sponsored by them provided that mines be assessed at 12½ per cent of the gross, plus the net earnings and the value of the improvements. Sponsorship of this bill was united and strong, and opposition was confused. The mines were fighting for a law that would not leave them at the mercy of arbitrary assessments, while the tax commission had been under steady fire since the mine valuations of 1912. The senate passed the bill with only two dissenting votes and openly threatened that unless the house followed suit the revenue and tax commis-

⁴⁶ Revised Statutes, Civil Code, p. 1559, par. 4833. Upon this point Mr. Zander said to the 1917 convention of the National Tax Association: "If there are any restrictions anywhere in any of the states upon the functions of the tax commission, they have been removed in Arizona. We looked for all of them in order to eliminate all of them. In addition to that the tax commission has unlimited appropriation. 'There is hereby appropriated out of the general fund of the State of Arizona a sum sufficient to carry out the provisions of this act.' Of this I am a firm advocate, and I would say to all of these people who are crying out in the wilderness for help that the first thing for you to do is to create a tax commission and endow it with omnipotence, omnipresence, and opulence, and then all these other things will be added unto you."

sion bill would fail of passage. Not only was there no precedent in the principal western mining states for ad valorem taxation but the tax commission offered little leadership in that direction, inasmuch as the majority expressly favored the special tax. Retiring Auditor Callaghan had called for a special tax in his last report, as had Governor Hunt in his message to the legislature. Thus of all the leaders who expressed themselves on the subject only Zander demanded the ad valorem method.

Yet the farm element in the house continued to stand, somewhat uncertainly, for assessment of mines as property. The membership of the 1913 legislature was the same as that of 1912, there having been no intervening election, and the strong reform movement of the earlier year had not yet lost its momentum. The mining companies, moreover, were loth to incur the public ill will that would result from the blocking of necessary legislation. After a deadlock of some days Mr. Zander sent word to the leader of the mines group, saying that a compromise would be possible. He informed Governor Hunt of the ground upon which such a compromise might be effected, and left town. By the terms of the resulting "gentleman's agreement" the special mine tax bill with a temporary life of two years was passed as a rider to the revenue bill.¹⁷ The mines tax law provided a base of 12½ per cent of the gross revenue, four times the net revenue and the value of the improvements.¹⁸

Each side in this compromise had gambled on the future. Zander felt that the disinclination of the mines to go before the people and defend the blocking of the revenue bill was due to the indefensibility of their position,¹⁹ and he no doubt believed that with another two years the commission, the governor, and the voters might be convinced of that fact. The mining element, on the other hand, had not only won a two-year special tax but had brought the short one-year trial of ad valorem taxation — the only such trial in the Rocky Mountains — to a troubled end. The activity of the commission in its attempt to assess mines as

¹⁷ *Arizona Gazette*, May 5, 1913.

¹⁸ Revised Statutes of Arizona, Civil, ch. xii.

¹⁹ Interview with Zander, November 1936.

property had been under a cloud, and except for Mr. Zander and the representatives of the small-property owners in the house the experiment was repudiated. The popularity of the new law would depend to a large extent upon its yield, and if it were successful the mines could appeal to the legislature and the voters in 1915 merely to continue in force a law of proven success. As both sides looked back upon the recent session they must have been impressed by two facts: First, but for one man the special mine tax law would probably have been placed permanently upon the statute books; second, the gainer from the compromise would be decided definitely and finally in 1915, and already the principal issue of that session stood out in bold relief.

As the months went by Mr. Zander became more sure of his judgment, and when he attended the National Tax Association conventions in 1913 and 1914 he brought upon the floor the arguments that had so long raged through Arizona. When he had expressed surprise, during the convention of 1912, that the National Tax Association had made no study of mine taxation, he was appointed chairman of a committee of seven to examine the subject and report the following year. The findings, when presented in 1913, purposely ignored the problem of the taxation of undeveloped ore bodies, but laid down several principles to be applied to any deposit to the extent that it was explored and known. The most important were as follows:

- (1) The committee did not believe that conservation of mineral resources demanded reduced taxation.
- (2) Explored and developed ore bodies should be valued at once and taxed upon the same basis as other property. The necessary element of uncertainty, found in the valuation of any property, might in this case be kept within reason by impartial and industrious officials.
- (3) The existence of real uncertainty might well call for conservative appraisals.
- (4) Information should be freely given by mine officials.
- (5) For the class of mine under consideration a gross or net income tax was not feasible, primarily because to know the net income the assessor must know all the factors,

such as depletion, required to estimate the value of the mine itself.

- (6) A tax based upon the market value of capital stock lends itself to wildcat schemes and the expert appraiser should, in any case, have as adequate a basis for judging the value of a mine as the stock-buying public. The report extolled the system used in Michigan, Wisconsin, and Minnesota.

In general the document shows the firm hand of C. M. Zander, and members of the committee were willing to give him the credit of authorship.²⁰ The report invites criticism in at least two respects. As indicated in an earlier chapter, conservative appraisals have often been politically impossible. The fifth argument — that to know net income demands a knowledge of depletion which, in turn, demands mine valuation — is answered by the universal tendency to ignore depletion in any form of state taxation, except by rough and general rules. Appendix I indicates the treatment of depletion in state income tax laws.

To make Zander feel at home on this occasion there arose to challenge him Mr. Miller of the Arizona Tax Commission and J. Parke Channing, engineer for one of the larger Arizona mining corporations. They objected that the ad valorem system injured the porphyry coppers because the extent of such ore bodies was quite easily ascertainable, while the content of other deposits was not. To overcome the difficulties of the ad valorem method these two men suggested the use of some combination of gross and net as a base, though neither of them were prepared to say whether the net should be multiplied by four, five, or ten. Mr. Channing believed that the new mines were now being punished in Arizona for the sins of the older ones, and objected that his mine paid 10 per cent of its net profits in taxes in 1913. Mr. Zander, in rebuttal, charged that the method of gross and net would allow Mr. Channing's porphyry mine to go untaxed, and he added that he assumed that in the absence of a better method an assessing body should use the same system for valu-

²⁰ The Proceedings of the National Tax Association, 1913, pp. 387 ff.

ing any class of property as that which was used by the people in the industry. T. S. Adams, of Wisconsin, gave Zander indirect support when he declared that, in his opinion, mines which insisted on using their net profits for the tax base must be prepared to pay at a rate far beyond that to which they had been accustomed. When Mr. Zander returned to Arizona he felt that his theories had been tested and found substantial not only in the middle western copper states but within the National Tax Association as well.

The forces and the arguments that impinged upon the vital session of 1915 are still readily discernible. With the general temper of the voters (perhaps then cooling somewhat) the reader is already familiar, but the weight of the drive for the special mine tax should not be underestimated. Both sides understood before the opening of the session that unless such a law were passed, the senate would block the passage of all other important legislation, including the appropriation bill. The strength of the conservative group in the senate is apparent from its early fifteen to four endorsement of the special tax.²¹

The Merchants and Manufacturers Association, meeting in Phoenix, resolved that it favored a special mine tax bill, that it opposed a continuance of the power of the tax commission over mine assessments, and that, as an economy measure, the commission be abolished.²² The American Mining Congress organized branches throughout the state and openly bent every effort toward securing the passage of the mine tax bill.²³ Much of the press could see little reason to anticipate any other outcome, and so certain were the dispatches to Tucson upon this subject that at the unexpected conclusion to the contest the *Arizona Star* was forced to explain that "campaign against the bill is said to have been planned by Zander, the Maricopa County member of the state tax commission."²⁴

The suspicions of the *Arizona Star* were quite well founded.

²¹ Journals, p. 102, Jan. 30.

²² *Arizona Republican*, Feb. 13, p. 1.

²³ Interview by Mr. Wolcott of the American Mining Congress, *Arizona Daily Star*, Feb. 9.

²⁴ March 6. See also Jan. 12, 21, 31; Feb. 14, 18; *Arizona Gazette*, March 15.

In perhaps the oldest car in the state, known to the press, because of its color and threat to the mining interests, as "The Yellow Peril," Zander covered every part of Arizona in his campaign for reelection in 1914, and the burden of his talk was that only ad valorem taxation could be just to both farm and mining property. Even the mine owners, he said, should for once be willing to pay their honest share of the cost of government. He brushed past indignant private secretaries in Douglas and Bisbee and said a few words to this effect to the mine executives, and to the surprise even of his friends he carried the county. George W. P. Hunt, his traveling companion and fellow campaigner, watched the reaction of the crowds, listened to the arguments, and began to shift to Zander's point of view. As the final returns came in, he remarked that of the old crowd only the two of them had pulled through, and both had run on a definite anti-mine ticket. While Hunt said nothing thereafter to deny his stand in 1913, he was ready with his veto to help the cause of ad valorem taxation, and he was adamant to any form of persuasion. Because he did not choose to deny publicly the earlier declaration in favor of a special mine tax, the mining interests were able to maintain the impression, even during the session of 1915, that he was in sympathy with them, and his 1913 statement was read on the floor of the house.²⁵ But because he would not, in fact, agree to sign the special measure, a two-thirds majority became necessary for passage, and this, of course, the proponents of the measure knew.

Besides the pledged support of the governor, Mr. Zander now held the promise of 24 of the 35 votes in the house. Also won to the side of ad valorem taxation was Charles Howe, the only member of the commission not running for office this year, for out of the sharp differences of the first months in office they had finally developed a mutual regard and understanding. Zander had modified his early stand in favor of physical appraisal to the extent that he agreed with Howe that many factors, such as income and costs, must be taken into consideration, and on this general approach the two had compromised. Mr. Miller still

²⁵ *Arizona Republic*, March 6, p. 6; *Arizona Star*, March 6, Jan. 12.

defended the special tax, but his place was taken in 1915 by a successful rival, Tom Campbell, who, though he avoided any part in the legislative imbroglio, maintained that the commission should be able to determine within reasonable bounds the value of mining property. Outwardly, at least, the commissioners now presented a united front, and together with the governor and the house they constituted the defense against a reënactment of the special mine tax law.

Most of the arguments for retention of the tax law of 1913 were outlined by the retiring Commissioner Miller in his minority report. The yield of that tax, in the first place, had broken all records, and mine valuations had risen 220 per cent, even over the much maligned assessment of 1912. From \$45,000,000 in 1912, mine valuations had jumped to \$140,500,000 in 1913, and \$146,500,000 in 1914, a figure which Mr. Miller believed capitalized net earnings at the reasonable rate of about 20 per cent.²⁶ He opposed ad valorem taxation on the ground that appraisal was guesswork and unfair to porphyry mines with ore blocked out well ahead. He feared that to value mines on the basis of ore deposits would put a premium on the early exploitation of the natural resources of the state. He argued, in the third place, that to tax a mine on its full value each year until it was exhausted was an entirely different thing from taxing a farm on its total value, for a farm had an indefinite life.

The principal argument not included in this minority report was the possibility of the discouragement of investors. Alarm was expressed over the procession of desirable citizens who were leaving the state or preparing to migrate.²⁷ Shortly before the final vote on the question certain newspapers in the state published a letter from E. L. Wolcott, representative of the American Mining Congress, which warned the state of the evil effect of the prevailing attitude toward mine investments.

The action of the present legislation is doing very much to retard mining development in this state. I have seen the result of this inactivity in every

²⁶ Second Tax Commission Report, p. 57.

²⁷ Dr. John E. Bacon, Inspiration Mine Hospital, senator from Gila County, address to the Annual Board of Trade Banquet. *Arizona Daily Star*, Jan. 12, 1915.

camp and unless something is done in the near future to encourage development of the mineral resources of Arizona in a legitimate way, the state is bound to suffer materially.

I have been in correspondence with a number of people who are very willing to invest their money in this state if they were only sure of a square deal after they got here.²⁰

The several branches of the American Mining Congress in the state were bending every effort, said Mr. Wolcott, toward securing the passage of the mine tax bill then before the legislature.

To this formidable barrage of arguments the majority of the tax commission gave no ground. The figures of increased mine valuations they held to be misleading, for the effort to raise all assessments to 100 per cent of true cash value had increased the total from \$140,000,000 in 1912 to \$407,000,000 in 1914, and of this, mining property had borne 31.7 per cent in 1912, 37.2 per cent in 1913, and only 35.7 per cent in 1914.

The general charge of the majority was that the law had proved to be impractical to execute. Chief among the difficulties was the fact that a valuable mine might escape with a nominal tax by producing only sufficient ore to come under the provisions of this special mines tax, and thus avoid assessment by local officers. Under the 1913 law, also, a city might be deprived of revenue from the portion of the surface property of the mine lying within the city boundaries. Thus, in Bisbee, the most valuable piece of property in the city had been removed from the town's tax base. Again, a mine taxed under this measure could take from assessment thousands of acres of contiguous non-producing mining property. Finally, the commission reported that through trick accounting methods mines had tried, and in some cases had succeeded, in lowering materially the figure for net profits. New construction had been listed as "betterments" or "repairs." In one instance a railroad owned by a mine showed an operating net profit of more than 35,000 per mile in 1914, 97 per cent of which, claimed the commission, was paid out of the net earnings of the mine. In this instance the mine by improper accounting had reduced its valuation approximately one million dollars.

²⁰ *Arizona Daily Star*, March 5, 1915.

So unsatisfactory had been the reports made to the state capital that the commissioners had found it necessary to insist on personal examination of the records of many companies, and after such examinations the commission had been able to add \$20,000,000 to the assessed mine valuations.

Two years' experience had convinced the commission that the law was faulty in the following respects:

- 1st. That it has not equalized the valuation of producing mines with that of other property not assessed under a specific law.
- 2nd. That valuations have not been equalized between the different mines themselves.
- 3rd. That it places a premium on dishonesty by penalizing the honest mine owner who returns for taxation the correct net production of his mines, and allows the dishonest one who twists the seemingly designed wording of the law around so as to cover every imaginable expenditure to escape his just share of the tax under the law.²⁹

To the charge that no other western state taxed mineral deposits on their value, the report produced a table to show that mines were taxed in the West at less than one and one-half times the gross output of those that were producing. Western mines, said the report, were clearly avoiding their share of the cost of government. To the objection that mineral deposits were a different calibre of property and could not be assessed in the ordinary manner, the commission retorted that the difficulty of ascertaining the valuation of metalliferous mines consisted largely of the difficulty of overcoming the opposition interposed by the operators, and the effect of their propaganda upon the citizens of the state. As to the fear of driving out the mines, as risky enterprises, the commission replied that most losses to holders of mine securities were due to fraud and not to the risks of legitimate mining. Cecil Rhodes was quoted as saying:

My investigation . . . shows that farming is more risky than mining; that 20 per cent more people lose money and fail in the mercantile business than in mining, and that 41 per cent more lose money in the manufacturing business than in mining; and 17 per cent more men lose money in any other business than mining.³⁰

²⁹ Second Tax Commission Report, p. 34.

³⁰ The same quotation, from a speech delivered in London, was printed in the *Arizona Mining Journal* two and a half years later (October 1917, p. 12).

Why should the state fear to drive out the mining business any more than any other business? Assessment of property was never perfectly accurate, but adjustments could be made wherever the engineering appraisal was shown by experience to have been in error. Ad valorem taxation had proved not overexpensive where, as in Michigan, Wisconsin, and Minnesota, the tax commission was not hampered by politics. In the face of the same opposition which existed in the West, those states had solved the problem.

A state still had a valid right to use and enjoy the mineral wealth within its borders, said the commission, and under this principle some countries held title to their natural resources and sold only the privilege of profitable operation. The income from natural wealth should not be dissipated by the state nor used for current expenses, but should be handled as part of the capital of the country. The rapid exhaustion of those resources was a sad commentary on the foresight of the governments of the western states.

Millions and millions in wealth have been produced by different sections of the West and shipped away. . . . Sections, counties and even states have flourished, waxed great and then become destitute, their resources and opportunities dissipated.

Surely the time had come when Arizona should be destined to be the first western state to compel a solution to the mine tax problem.

The recommendations of the state tax commission were divided. Mr. Miller advocated the use of a multiple of the net proceeds "from 4 to whatever the legislature may think proper." The gross proceeds tax should be eliminated and the minimum net for producing mines should be \$25,000, to prevent valuable mines from reporting a very small net to avoid taxation. A uniform system of accounting should be prescribed by the state tax commission. Surface ground should be taxed like other property, and if a mine were closed for three months the commission should be empowered to assess it on the average net production for the previous five years.

The majority asked only that "no special legislation provid-

ing for . . . valuing and taxing mines be passed by the legislature," so that the temporary, two-year tax law of 1913 might pass unhindered from the statutes, and mines might be taxed in the same manner as other property.³¹

On January 11, there occurred an incident to which mining men have since referred as the turning point of the campaign. At a dinner honoring Governor Hunt and other office holders, Dr. John E. Bacon, of the Inspiration Mine Hospital and senator from Gila County, gave the principal address, and as his contribution of humor to the evening, attempted to diagnose the ills of the state in medical terminology. His reference to the governor affronted an important group of the governor's friends, who thereafter, by mutual agreement, it is said, formed an effective bloc of anti-mine votes in the house. How much of the actions of the session should be laid to the errors of the mining group and how much to the activity of Zander and the farm group is probably indeterminate.

There are left to us a few indications of the nature of the struggle in the legislative chambers during this regular session of 1915, though the tendency of the war news to cover the front pages deprived the public of information and probably, therefore, reduced the pressure on the legislature, just as war prosperity probably reduced the mine opposition to higher taxation. Press reaction varied. The conservative *Arizona Gazette* reported, at the close of the session, that the mine tax bill had been killed for the benefit of the tax commission, and it denounced the waste of money involved in holding a legislature which accomplished nothing.³² Dispatches to the *Arizona Daily Star* continuously forecast victory for the mining group, with scarcely a mention of the elements that might be against the bill.³³ The *Mining Journal*, at Clifton, reported in July, 1915, that the legislature's deliberations, or "delirium tremens," came to an end Monday night.

The *Yuma Sun*,³⁴ on the other hand, reported that the hotels

³¹ Second Tax Commission Report, p. 80.

³² March 15, 1915.

³³ Jan. 12, Jan. 21, Jan. 31, Feb. 14, Feb. 18.

³⁴ Feb. 6, 14, 1915.

were filled with corporation lobbyists, and noted that as the session progressed the small mine interests ceased to take so vigorous a part, and left the burden to the larger companies. Only twenty-six companies would be affected by this special tax, said one article in the *Arizona Republican*,³⁵ and six of these owned over three-fourths of the property involved.

As the session wore to a close, charges of lobbying and corruption were openly hurled between the two opposing camps. Opposition to the mine tax bill, said the miners, was composed of three classes of men — those who knew nothing about mines, those who had been brought under the influence of friends, and those who had traded their votes. The tax commission was described as the most conspicuous lobby on the horizon, as no doubt it was.³⁶ The farm group replied that never in history had the mines maintained so powerful a lobby in Phoenix. Mr. Powers stated that he had been promised "whatever he might want in the way of political preferment if he would support the bill and had been threatened with political extinction if he did not."³⁷ The use of money was openly charged and several members of the legislature intimidated, in the uproar at one point in the session, that others had been bought and paid for.³⁸

The history of the 1915 legislative session is written in the laws it did not pass. A bill to abolish the tax commission failed.³⁹ Because the mine tax bill was blocked, so was the revenue bill, and two special sessions were necessary in order to attend to vital legislative matters. In these special sessions Governor

³⁵ Former Senator C. B. Wood, Feb. 4, 1915, p. 10.

³⁶ Zander appeared every day on the floor (where he did not belong) or in the gallery, and nearly every day John Christy of Greenlee, with a broad English accent and all good humor, denounced him as one who had forsaken his public duty to become a demagogue. Among the many stories of this banter is of the time when, imitating the Sergeant of Arms who reported those arriving after roll-call, Mr. Christy addressed the chair, saying, "Mr. Speaker, Mr. Zander has arrived and has taken his seat."

Zander reports that he was subject to personal threats and that Mr. Howe, because he had been seven years assessor in Cochise (a mining) County, was under considerable pressure, the principal threat being the probable abolition of the tax commission. (From interview with Zander, Howe, April 1936.)

³⁷ *Arizona Republic*, Feb. 14, p. 2.

³⁸ *Arizona Republic*, March 6, p. 6.

³⁹ *Arizona Daily Star*, March 4.

Hunt insured the passage of revenue and appropriation bills by specifying that only those particular matters might be considered.

Mr. Zander entertained the National Tax Conference in Atlanta two years later with an extemporaneous description of part of the battle. When called upon, the last day of the session, to explain the principle of ad valorem mine taxation in Arizona, he inserted a bit of illustrated philosophy regarding the proper sphere of a tax commission:

There has been a great deal said about taking the tax commission out of politics. I have nothing to say on the pros and cons of that, but I want to say so far as Arizona is concerned that the chairman of the tax commission of Arizona at one o'clock of the last night of the regular session stood behind the leader of the house and said to him, "Sam, this session should adjourn now." Sam said, "All right, we will adjourn it." He made the motion and the speaker of the house, in great confusion — everybody rising to make a motion or to make some speech, or to accept a compromise offered by the senate, which included the passage of this mine tax bill — did not put the motion. The chairman of the state tax commission, who is not supposed to have a thing to do with politics at all in Arizona, tapped the gentleman on the shoulder; "Sam, this legislature must adjourn." He made the motion and the same proceeding took place. The committee from the senate was on its way to the house to make another compromise. The chairman of the state tax commission, who never did have anything to do with politics in Arizona, said; "Sam, adjourn this legislature now!" "All right, we will adjourn it." So he said: "Mr. Speaker, this is the third time I have made the motion to adjourn this legislature; you have failed heretofore to put the question; now you are going to put the motion." And he got up, he walked down the aisle, and stepped up to the chair — a window opened out onto the ground below — then he said: "Mr. Speaker; you will put this motion immediately or you will go out that window." And the speaker said, "Gentlemen, the motion has been put and seconded that this house stands adjourned sine die: all those in favor of the motion make it known by saying aye." Aye! — and it was carried. The special mine tax bill was dead and Arizona was then delivered so that it could lead the way for all the western states in making the mining companies pay the same tax that other property pays in the West.

"And," said he later, "how they did roar to hear how we did things out in Arizona!" Indeed it is with deep regret that we must here record that in several particulars the passage is more dramatic than accurate. As an allegory, however, it well illustrates the valid point that the Arizona Tax Commission held

itself to be not only the representative but also the leader of the non-mining property owners. When William Bailey, of Utah, suggested that all western legislatures could not be handled in such a manner, Zander replied, "That raises another question. You know the commission in Arizona is elective. I do not know that I can defend it, but I know this much, that the tax commission in Arizona knows every baby in that state."

The ad valorem tax law did, in fact, come to be accepted as a passable method of taxation, even to the mines. In the *Arizona Mining Journal*, in June, 1917,⁴⁰ appeared an article by C. R. Howe of the state tax commission on "Mine Taxation in Arizona."

After a trial of this method for two years, it is gratifying to the tax commission to state, that it is so satisfactory to all concerned that for the first time since 1907, the last Legislature passed through an entire session without so much as mentioning mine taxation.

The law had proved fair, he said, because the burden had been distributed between mines according to their ability to bear the tax, as indicated by the average yearly net income, and it had proved acceptable to the state because it yielded a good income regardless of the peaks and hollows of mineral production. "The question of mine taxation in Arizona," said Mr. Howe, "has been satisfactorily solved."

⁴⁰ *Arizona Mining Journal*, Phoenix, Arizona, June 1917, p. 9.

CHAPTER XVIII

ARIZONA: CONSEQUENCES OF THE REVOLUTION

THE SUCCESS of the ad valorem tax rested not so much on the measure itself as in its administration, for the commission was under the obligation to meet the objection that mineral bodies were not assessable. Along with this program of mine valuation the commission had to work out a general synthesis and reorganization of the entire property tax. The undertaking entailed, in this case, an attempt to assess all property at its actual value.

The most immediate problem, nevertheless, was that of mine valuation. The first mine assessment was based on a capitalization of the three year average of net earnings of copper mines at 15 per cent, and of gold and silver mines at 20 per cent, with no allowance for depletion, interest on bonds, or open accounts in the determination of this net. The resulting capitalization was taken as the value of the entire operative property of the company owning the mine, including the machinery and tools used in the extraction and production of ore, and its conversion into metal.¹ The commission deducted from the total valuation the assessed value of machinery and other operating property found by the county assessor, and the remainder was held by the commission to be the value of the mine itself.

During the next two years the tax commission was able to improve upon this rough formula in a number of ways. Several of the larger companies owned smelting plants used partly for smelting custom ore, and in such instances the commission held hearings to determine "what proportion of these smelters was devoted to smelting their own ores and what proportion was devoted to custom ores." The latter was not allowed as a deduction from the value found originally by the commission. As hearings multiplied and more information came to the office, it

¹ Third Tax Commission Report, p. 10.

was found that the mines themselves should be reclassified. One of the reasons for reclassification was that the high rate of capitalization was intended to cover depletion of the ore body, and depletion varied widely between mines. A resolution of May 5, 1916, accordingly, divided mines into eight groups,² and in June, 1916, the commission added three subdivisions under each class. Subdivision A included all properties that had entered the profitable productive stage during the period under consideration; subdivision B, all that had suspended profitable production during that period for reasons other than market or physical condition; and subdivision C, all that had suspended production when the property could have been operated at a profit.³

As a "capitalization factor" to be used with these several

² *Class 1:* Copper mines whose ore bodies are found in veins, fissures, and lenses and do not show evidence of exhaustion. *Class 2:* Copper mines whose ore bodies consist of porphyry deposits and large acreages of contiguous ground largely unexplored and undeveloped. *Class 3:* Copper mines whose ore bodies consist of developed low grade porphyry deposits. *Class 4:* Copper mines whose ore deposits show evidence of exhaustion. *Class 5:* Gold and silver mines whose ore deposits show evidence of exhaustion. *Class 6:* Gold and silver mines whose ore deposits have not shown evidences of exhaustion. *Class 7:* Zinc and lead mines (tungsten and molybdenum mines added later. Fourth Tax Commission Report, pp. 12-13; Third Tax Commission Report, p. 11.) *Class 8:* All producing mines of irregular output. *Class 9:* (Added later) Copper mines heretofore non-producing or of irregular production, but whose present development indicates that they will become regular producers. (Fourth Tax Commission Report, pp. 12-13; Third Tax Commission Report, p. 11.)

³ *Class No. 1:* American Smelting and Refining Company, Calumet and Arizona, Commercial Mining Company, Copper Queen Consolidated Mining Company, Magma Copper Company, Old Dominion Copper Mining and Smelting Company, Swansea Consolidated Gold and Copper Mining Company, United Globe Mines, United Verde Copper Company, Warrior Copper Company. *Class No. 1, subdivision A:* United Verde Extension Mining Company; *subdivision C:* Shattuck Arizona Copper Company. *Class No. 2, subdivision B:* Arizona Copper Company, Ltd. *Class No. 3:* Miami Copper Company, Ray Consolidated Copper Company; *subdivision A:* Inspiration Consolidated Copper Company. *Class No. 4:* Great Western Copper Company, Thomas Higgins, Helvetia Copper Company, Iron Cap Copper Company, Wolverine and Arizona Copper Company; *subdivision B:* Detroit Copper Mining Company in Arizona, Shannon Copper Company. *Class No. 5:* Tom Reed Gold Mines Company. *Class No. 6:* Gold Road Mines Company. *Class No. 7:* The Needles Mining and Smelting Company, Union Basin Mining Company. *Class No. 8:* Arizona Commercial Mining Company, Arizona United Mines Company, Owner (Cobrizza Mines Development Corporation, Lessee), Consolidated Arizona Smelting Company, Marshall D. Draper, Trustee, Gibson Copper Company, Grand Gulch Mining Company, Mineral Hill Copper Company, Narragansett Mines Company.

classes of mining property the commission decided upon the following:

<i>Class Number</i>	<i>1916</i>	<i>1918</i>
1	15%	15%
2	15	15
3	15	15
4	20	17
5	25	25
6	25	20
7	25	20
8	33 $\frac{1}{3}$	30 ⁴

For years thereafter the tax commission considered that a formal report upon its method of valuation was unnecessary and impracticable. Part of its reticence grew out of the loss of the Standard Oil case, but the principal reason was the decision of the state supreme court in the Inspiration mining case,⁶ in which the court intimated strongly that so far as the Arizona law and constitution were concerned, the commission might use as methods of valuation any system it judged best. The taxing power of the state, said the court, is vested in the legislature alone, and in the use of that power the legislature may appoint its own agents.

The fact is that as representatives of the farm element the commissioners faced no insurmountable problem in the valuation of mines. The voters insisted upon high mine assessment, and the courts allowed the commission all the latitude it needed. But with regard to the rest of its duties, the supervision of the assessment of farm and residential property, the tax commission was less successful. Indeed, so difficult was this part of its work that it came eventually to be almost abandoned. Failure in this respect is the more impressive in that the commission started with the best of intentions, with the blessing of many favorable political conditions, and with the full realization that mine assessments could be fair and accurate only in relation to the

⁴ Fourth Tax Commission Report, 1918, p. 12.

⁶ State vs. Inspiration Copper Co., 20 Arizona 503.

assessment of other property. The relation between the problem of mine assessments and the desire for full cash valuation of other real estate is suggested by the special report of the Arizona State Tax Commission in March 1913. One of the objections raised by the majority to ad valorem taxation of mines was that true assessments of other property would be impossible:

While the Commission is endeavoring to enforce the law as it finds it on the statute books, which reads that all property shall be assessed at its "full cash value," yet it is a well-known fact that this is a goal never yet attained by any of the older states and exists only in theory.⁶

To this Mr. Zander replied in characteristic fashion:

The minority insists that although this goal has never been reached anywhere else, it might be reached in Arizona. To admit that this goal can never be reached is to impede a near approach to it.

In many another state, as we have seen, the demand for tax reform in this era included an insistence upon "full cash value assessments." The arguments used in Arizona were much the same as elsewhere. As early as 1887 the governor's message to the legislature decried under-valuation as a deterrent to immigration and to the investment of capital, and a false portrayal of the real wealth in the territory.⁷ The annual report of the governor to the Secretary of the Interior, 1892, explained that "as previously reported, the system of low valuation and high rates is injurious and misleading, and calculated to create false impressions with intending immigrants and investors. . . ."⁸ Governor Hughes' message to the legislature of 1895 deplored the same condition.⁹ In Arizona, of course, accurate valuations of corporate property should be accompanied by full assessments of all other real estate.

The drive for "Full Cash Valuations" began in 1912, almost immediately upon the organization of the commission. Valuations had ranged, it was thought, from 25 per cent to 70 per cent

⁶ Page 11.

⁷ C. Meyer Zulick, Governor's Biennial Message.

⁸ Page 5.

⁹ Kelly, *Legislative History of Arizona*, p. 167.

of actual value, "according to the local pressure brought to bear on the assessor by the property owner and the assessor's ability and disposition to fairly assess the property in his county."¹⁰ Because of the short time between the appointment of the commission and the time for county assessment of property, it was decided to attempt to place valuations only upon a 50 per cent basis for the first year. With the full cooperation of the assessors — a cooperation which the commission retained as long as it was strong enough to carry the responsibility — the state-assessed valuation rose from \$98,032,708.64 in 1911 to \$140,338,191.08 in 1912.¹¹

It is significant, however, that much of the increase came from the addition to the rolls of property formerly not listed, or by the increase of the assessment upon certain corporate property. Land and improvements increased only from \$14,000,000 to \$18,000,000, in spite of the fact that new land was continuously coming into cultivation during these years. Between 1910 and 1913 the county assessors listed 400,000 additional acres,¹² and while new farmland is not immediately of much intrinsic value, it must in this case have been worth at least two dollars and a half an acre under the Homestead Act, and most of it should have been worth at least twice that much. Livestock increased from \$7,780,000 to \$9,330,000, though much of this advance was due to the addition of stock not formerly assessed. Assessments of livestock increased in 1914 when the commission learned that 200,000 sheep were dipped in Cochise County, as against 93,610 listed by the assessor, and a more vigorous search added sheep and cattle to the value of nearly \$100,000.¹³ Town and city lots and improvements actually dropped in value from \$26,476,000 to \$25,871,000 between 1911 and 1912. The actual increase in town and farm real estate and livestock approximated only \$5,000,000. Whence came the additional \$37,000,000?

¹⁰ Fourth Tax Commission Report, p. 15.

¹¹ Chart 1, p. 265.

¹² Arizona Tax Conference, 1914, p. 5.

¹³ Proceedings of Arizona Tax Conference, 1914.

Railroad assessments this year jumped from \$19,250,000 to \$28,250,000, partly because the Santa Fe and the Southern Pacific, two of the largest roads in Arizona and formerly taxed under agreement with the legislature at a fixed sum of \$17,500 a mile, became first assessable under the constitution in 1912. Inasmuch as the mileage of these lines was increasing very little at this time,¹⁴ it is obvious that the rate of assessment must have risen approximately 50 per cent. But by far the most impressive advance in assessments in this effort to reach a level of 50 per cent of true value appeared in mine property, where valuations rose in one year from \$19,242,331 to \$45,145,084. Viewing the record, the average property holder had far more reason to support the new tax commission than to oppose it. The constitutional amendments proposed in the 1913 election to strengthen the position of the tax commission were never in any danger.¹⁵

The assessment of property for the year 1913 was undertaken with a great deal of enthusiasm, and, setting a meritorious example for their successors, the members of this first commission made a sustained effort to direct positively the activity of local officers.¹⁶ Under the inspiration of the commission the city of Tucson was given an entire reassessment, without attention to the previous year's figures,¹⁷ and strenuous efforts were made to coordinate the work of all the assessors in the state. There are many indications that in this the commission received unusually complete cooperation of those local officials.¹⁸ While

¹⁴ The increase between 1911 and 1916 was from 2118 miles to 2404 miles. Tax Commission Report.

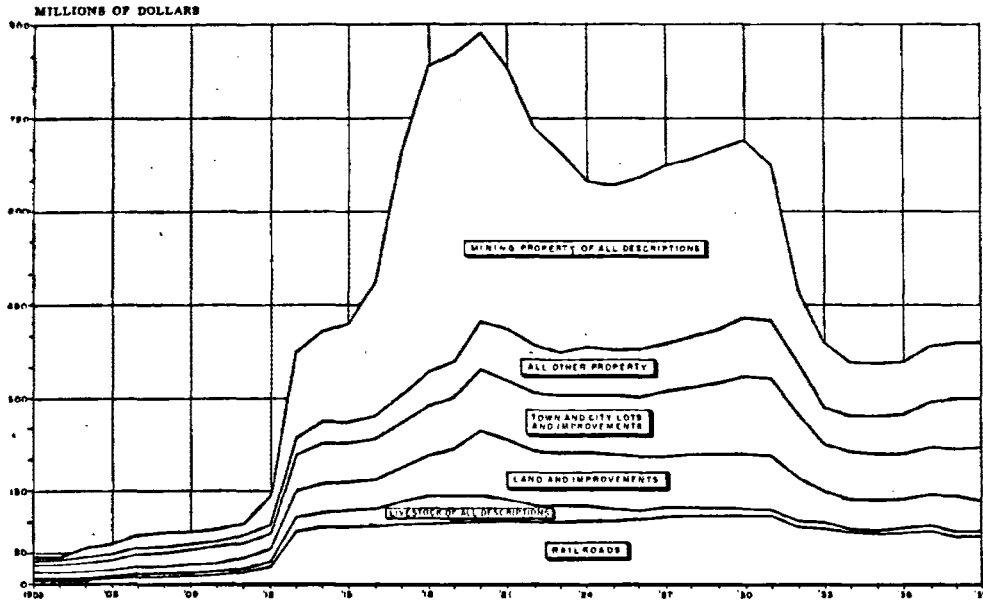
¹⁵ Art. IX, sec. 8, Arizona Constitution.

¹⁶ The first annual report of the state tax commission drew heavily from material gathered by Mr. Zander on his trip to this convention, particularly with regard to the inadvisability of the "separation of sources" of state and local revenues as in California, the need for readjustment of forest taxation, the usefulness of a low tax on monies and credits, the need for extensive classification of property during the process of equalization, and, finally, the necessity for a strong centralized control of assessments. Upon this last subject the report argued that while local assessors and local board of equalization have a proper place in assessments because of their familiarity with local conditions, both should be under state control to prevent their abuse of this knowledge.

¹⁷ Arizona Tax Conference, 1913, p. 251. The tradition of the Pima County assessors' office tends to bear out this contention.

¹⁸ Attempts at accord among local assessors were not, of course, entirely new, for at least since 1911 the assessors had been operating under certain gentlemen's

CHART 1
ARIZONA: NET PROPERTY VALUATIONS, BY GENERAL CLASSIFICATION,
YEARS 1903 TO 1939 INCLUDED *



* Table No. 66, Sixteenth Biennial Report, State Tax Commission of Arizona.

agreements entered upon in 1911 and 1912 had been of value, they felt that mutual suspicion was not materially reduced until the state tax commission directed this more equitable valuation.¹⁹ Even the annual meetings of the assessors now took on added interest, for each assessor in turn was put on the stand for thorough cross examination.

Yet the biennial reports of the commission placed more emphasis upon the shift of the tax burden to corporation property than upon its effort to bring about accurate assessments. A table in the report of 1913 thus classified property by per cent of total state valuations:

	1911	1912	1913
Land and improvements	14.2%	12.7%	10.7%
Mines and machinery	19.3	31.7	37.2
Town and city lots and improve- ments	26.5	18.2	15.2
Livestock	7.8	6.5	5.9
Railroads	19.1	20.0	22.2
Telephone and telegraph . . . . .			.5
Water works, street railways, gas, light, power, and ice plants . . .			1.4
All other property	13.1	10.9	6.9

In such a manner the tax commission was able to show the voters of the state that the proportion of state taxes paid by the mines and railroads had risen from 38.4 per cent in 1911 to 59.4 per cent in 1913, and to suggest that the small-property owner should not take offense if his own assessments were increased somewhat in the process. This was the primary advantage held by Zander over other tax reformers, and yet only experience would tell whether or not the individual property holder, faced by the fact of an increase in his own valuations, would be amenable to any form of consolation.

In 1914 the commission could report valuation of telephone,

agreements renewed yearly at their state meetings. (Arizona Tax Conference, 1915, p. 5.)

¹⁹ Arizona Tax Conference, 1915, p. 5.

telegraph, and express companies to be seven times the highest valuations of the territorial period.²⁰

Railroads received another increase of \$6,000,000 in valuation in 1914 and, by following the suggestion received from Nebraska, the commission enabled cities to include certain railroad property under their assessments, and in some cases materially increased their tax base. In the city of Tucson, for instance, railroad assessments rose from \$200,000 to \$1,250,000.

In 1914, further to protect itself, the commission hired several appraisers familiar with the Somers system of urban property valuation, and to avoid charges of discrimination between the larger Arizona cities these appraisers reassessed all of those cities in the same year.²¹

But in spite of all it had done to sell the program of mine valuation, the real pressure was still on the left. Zander's report to the National Tax Association in 1914 suggests, again by allegory, the reception given this tax program:

In Arizona's last report to you the story was told of how Arizona went on a full cash valuation: How the farms became desert wastes; how stocks of merchandise spoiled on the shelves; how the crown sheets all blew out of the railway locomotives; how the telephone and telegraph wires all corroded and fell from the poles; how the bulls roared from mountain top to mountain top; how the bucks became old and senile; how the mines rumbled in the bowels of the earth; how the tall timber sighed as it swayed to the seismic disturbances of volcanoes that geologists had taught were long extinct.

Gentlemen, the great upheaval in Arizona has subsided, verily, the lion and the lamb have lain down together in green pastures. . . .²²

Some of the volcanic eruption occasioned by these tax reforms came from the larger corporations and some from the cattlemen.²³ One news organ in particular was given to acrimonious editorials of the sort characteristic of a frontier newspaper:

One little commissioner travels at the state's expense to Apache County to "instruct" the assessor of that county how to perform his duty. Another hies himself off to Cochise on a similar mission at the expense of the overburdened tax-payers of the state. What a farce to see these little incom-

²⁰ Second Biennial Report, p. 25.

²¹ Second Biennial Report, p. 15.

²² Proceedings of the National Tax Association, 1914, p. 21.

²³ *Arizona Gazette*, March 4, 1913.

petent fellows rushing around over the state presuming to tell men chosen by the people as assessors how to conduct their offices.²⁴

The early western newspapers usually confined their vitriol to attacks upon opposition editors, but it was to some extent as characteristic of the pioneer press in the West as of that in the East, that as Beveridge has said, what it "lacked in information it made up in personal abuse."²⁵

Of more importance was the complaint of the chief beneficiary of this new program, the small property owner. When Zander ran for office in 1914 this group of voters had as yet been relatively untouched by the general property tax reform and he secured their support with relative ease, but as the members of the tax commission attempted to carry out the promise of full cash valuation for all property, they came inevitably and regretfully, after mines, railroads, public utilities, private car companies, and stockmen, to farm and urban real estate. While Zander always maintained that the assessment ratios of farm and urban property were raised to 90 per cent of actual value, county records indicate otherwise. For the years 1919-1920, 50 available comparisons between assessments and true consideration in sales contracts indicate an assessment ratio of 60 per cent in Pima County, and 70 such comparisons indicate a ratio of 54 per cent in Maricopa County. Fifty-five such comparisons in Maricopa County in 1926 indicate a ratio of 42 per cent. For the years 1927 to 1928, 75 comparisons in Pima County indicate an assessment ratio of 48 per cent, while 50 comparisons in Maricopa County show a ratio of 37 per cent.²⁶ A study by Ashby Lohse of the prices of securities of Arizona mines indicates that except during the violent market of 1928 and 1929 mines were assessed at approximately their stock-and-bond values.²⁷

Nevertheless, the small property owners were indignant and even assembled in Phoenix to protest the rise in the general

²⁴ See the *Arizona Democrat*, May 26, 1913; April 29, 1913.

²⁵ A. J. Beveridge, *The Life of John Marshall (1916-1919)*, IV, 268.

²⁶ Study by Leslie Mekkelson and Warren Roberts conducted in 1936.

²⁷ Ashby Lohse, "Valuations of Arizona Mines," senior thesis, University of Arizona, 1936.

level of assessment. Zander addressed one of these meetings, pointing to the decreased share of the state tax borne by the small property holder, and chiding them on their general attitude.²⁸ Partly because he could be on the spot to answer these bursts of resentment, Zander was able to carry Maricopa County and its farm votes in each of two campaigns.

Other farm communities, however, furnished a fertile field for political opposition. When, during the campaign of 1920, word came to the tax commission office that an opponent was in the process of convincing the voters of Yuma County that their farm assessments were unjustifiably high, Zander sent down charts and figures showing the facts of the case. But statistics, unfortunately, were inadequate. He had not expected to carry the mining counties, and with the loss of Yuma County, one of the three large agricultural areas, he was defeated for reelection. The small property owner never allowed the completion of the program of full cash valuation, and since these early days of the tax commission the voters have made it generally unprofitable for the commissioners to exercise any of their power over local assessments of farm and urban real estate.²⁹

The general effect of the tax reform movement after 1912 upon the state assessment base is indicated by Chart 1, and to this picture should be added the fact that municipal and school taxes appear to hit the corporate property rather hard. A study of the per capita county tax in each of the several Arizona counties indicates that, with the exception of one, the seven counties with the highest per capita tax were also the seven counties with the highest ratio of corporate property to other assessable property.³⁰ Thus the average ratio of corporate property to the total assessment in these seven counties was 60 per cent, while the average per capita county tax was \$62. The other seven counties contained on an average only 37 per cent

²⁸ Interview, Zander, Howe, April 1936.

²⁹ Warren Roberts, "Some Aspects of Mine Taxation in Arizona," *Proceedings of the Pacific Coast Economic Association* (Stanford University Press, 1937), p. 16.

³⁰ By corporate property is meant that owned by mines, railroads, telephone and telegraph companies.

of corporate property, and their per capita county tax was only \$37.³¹

The state school fund, also, operated to take money from counties with a larger per cent of corporate property for distribution in counties with a larger number of children. Of the seven counties which, during the years 1924 to 1932, received more from the school fund than they put into it, none had over 50 per cent of railroad, public utility, or mining property, while the seven counties which supplied this money contained from 52 per cent to 73 per cent of corporate property.³²

Even the tax commissioners were disturbed over the rapid rise in educational expenditures following the increase in assessed valuations. The second tax commission report pointed out that the state appropriation for educational purposes alone, in 1914, was more than one hundred thousand dollars greater than the entire state appropriation for all purposes in 1911, and deplored the tendency to consider the money received from the state as an additional or gratuitous income.³³ To lend support to the marginal utility school of public finance, however, is the fact that the income from the tax on corporations apparently allowed a somewhat lower tax on farm real estate. The Bureau of Agricultural Economics estimated that in 1933 farm taxes in Arizona were \$1.49 per hundred dollars of actual value, or third from the bottom among Mountain States.³⁴

The rapid decline of mine assessments after 1929 was accompanied by something akin to a counterrevolution. Between 1929 and 1932 the state lost five cases of mine valuation, compelling state refunds of over half a million dollars in taxes collected, and a reduction in these valuations of about 37 per cent.³⁵

³¹ The per capita county tax is the average for the years 1928-1933, inclusive. The per cent of corporate property is that given for 1931 in the Biennial Report, State Tax Commission of Arizona, Table 12. The principal qualification of this conclusion is that those counties with a high percentage of corporate property often have also a scattered population.

³² From reports of the tax commission for those years.

³³ Second Biennial Report of the Arizona State Tax Commission, 1914, p. 21.

³⁴ House Document No. 406, 73rd Congress, 2nd session, table 5, "Farm Real Estate Taxes per \$100 of value, by States and Geographic Divisions," 1913-1933.

³⁵ Valuations of United Verde Extension, Magma, Copper Queen, Shattuck-Denn, United Verde. Figures in the office of the tax commission.

In none of these cases had the state originally depended upon engineering valuations, for engineers were not employed, ordinarily, unless the state faced suit. Engineers hired to aid the state in a court case usually elected to defend valuations somewhat lower than those originally imposed.³⁶ In 1936 the state won the important Phelps Dodge case, covering the valuation of several deposits, but the opinion suggested rather clearly that the court had found the prediction of prices and interest rates difficult, had decided only that the company had not entirely sustained its burden of proof.³⁷ One of the curious and interesting parts of the case was the refusal, following precedent, to allow the introduction of statistical evidence on the relation between sales prices and actual assessments of real estate in Arizona, but the admittance as evidence of the assertion by several county assessors that they assessed property at its true value.

Of considerable significance from the standpoint of the theory of pressure groups put forward in Chapter IV is the fact that the fall in assessed valuations during the depression was cumulative. As mine values fell with the drop in price of copper, the advantage of a high tax upon them grew less, and the efforts by left-wing politicians to stop this decline met with no success.

Faced by an elected tax commission whose function had degenerated to the sole job of assessing the "corporations," the mines were forced to pursue a long and elaborate campaign to bring about the reductions in tax burden they considered necessary under the low metal price and reduced output of the thirties. The court cases were only part of the program. In 1932 they backed proposed amendments to the constitution to limit state expenditures to the same level, per capita, as in 1917, plus the gasoline tax.³⁸ Although this campaign failed, it was bitterly fought, and public institutions such as the state university,

³⁶ See *State Tax Commission et al. vs. United Verde Extension Mining Company*, 4 Pac. 2nd 395.

³⁷ *Phelps Dodge vs. Frank Luke et al.*, memorandum decision, filed with Clerk of District Court, Tucson Division, Nov. 3, 1936, p. 29.

³⁸ Proposed referendum measures 100-101 on file in the office of the secretary of State.

which would have been most seriously injured by the proposed amendment, were forced to take active part in opposition to it, and thus were compelled to emphasize their position as the heaviest "tax eaters" in the state. In the sessions of the legislature following this campaign a radical reduction in appropriations for such institutions was thus made somewhat more easily. A combination of property tax payers and state institutions then united to back a state sales tax, which further acted to lift the burden from mining property.

Throughout the depression there was the continuous plea that high taxes were discouraging capital investment in Arizona mines and giving permanent injury to the industry. Typical of the material issued was the interview given by Robert E. Talley, president of the United Verde Copper Company, to the Associated Press, Dec. 24, 1934, stating that the valuation of \$18,000,000 was three or four times too high and that a reopening of the mines depended upon its reduction. The company, he continued, had expended close to \$12,000,000 in a four year program of development and maintenance work, but would be compelled to drop the 700 men thus employed unless the mines could afford to begin production.³⁹

In answer to these and other charges made within and without the state, it should be recorded that in the opinion of responsible mining engineers in Arizona the tax has not been high enough or arbitrary enough to discourage mining. The decline in mineral production in Arizona was due to the collapse of the copper market during the depression, and to the fact that with a falling price the deeper mines or those with higher costs became marginal. Some, including the famous United Verde Extension, are practically exhausted.

It is true that assessments have often been somewhat arbitrary. The specific charge most often heard among mining men on this matter relates to the closing of the Sodium Products Corporation plant at Camp Verde in 1934,⁴⁰ but this mine had an uneven overburden and the commission found it to be diffi-

³⁹ *Arizona Daily Star*, Dec. 25, 1934.

⁴⁰ *The Verde Copper News*, July 13, 1934.

cult to value on the basis of earnings. Testimony of President R. W. Coad, before the Interstate Commerce Commission in 1929,⁴¹ suggests that without lower freight rates the mine could not ordinarily expect to compete with German imported salt-cake, and indicates that the closing of the mine was due to other factors than taxation. It is not apparent that any of the important copper mines made significant modifications of mine policy because of the tax.

The campaign for reduction in valuation during the thirties, fought in this and other ways, was generally successful. The new political equilibrium in the state was not widely understood, however, until 1937, when Governor Stanford, coming into office on a liberal platform, undertook to fulfill a pledge to eliminate the sales tax or to levy a compensatory charge on the large corporations. To gather data and report on the relative burden of the mining companies Governor Stanford appointed a committee composed of David Marks, representative from Cochise County, Mr. Frank Pomeroy, senator from Maricopa County, and Warren Roberts, of the University of Arizona.⁴² This committee reported, with several qualifications and admonitions, that to raise the total mines tax to the point at which it would bear the same relation to total state revenue as it had in the twenties would require a supplemental gross proceeds tax of about 4 per cent. The committee, however, emphasized the inherent dangers of any general gross production tax, and particularly the possible injurious effect upon marginal mines. Against the advice of Mr. Zander, who believed that a "soak-the-mines" platform was no longer a popular one, and against the advice of the committee, the governor's advisers requested a 7 per cent tax on mine proceeds in the hope of being able to compromise on 4 per cent.

During the special session called to consider the mine tax no one offered to compromise on the governor's bill, and there was never a possibility that a tax on mines would pass the house. The legislature, instead, entrenched the sales tax more firmly by

⁴¹ *Arizona Republic*, Phoenix, Jan. 23, 1929.

⁴² Letter by the committee to Governor Stanford, dated March 23, 1937.

giving the counties a share in the proceeds, and no important sentiment in the state appeared to back the governor's program. The mines tax issue seemed, suddenly, to belong to another era.

The history of mine taxation in Arizona has thus run a full cycle, with a cumulative drive for higher taxes as the mines prospered, and a cumulative decline as they became depleted. The state has now ⁴³ elected a commission which is, in majority, sympathetic to the mines, and the commission, in turn, has employed an engineer to place a valuation, by the Hoskold formula, upon every operating property. In all but a few relatively unimportant instances the new engineer reported the former valuations to have been too high.⁴⁴

⁴³ 1940.

⁴⁴ Interview, Dec. 30, 1940.

CHAPTER XIX

NEW MEXICO

LIKE many other western territories, New Mexico in its early days depended somewhat heavily upon business licenses for public revenue, though the Kearney code ¹ of 1852 provided that the several prefects might levy property taxes as well as licenses for the support of their respective counties.² From an early date the New Mexico revenue laws established a policy of the encouragement of new capital investments. The legislature in 1878 exempted new railroads from taxation for six years,³ and in 1882 exempted mines and mining claims bearing gold, silver, and other precious or useful metals for a period of ten years from the date of record of location, except that the net product and the surface improvements should be taxed as other property.⁴ By 1897 the territory had extended its six-year exemptions to sugar-beet factories, woolen mills, and smelters, refining and reduction works, together with all machinery and fixtures appertaining thereto and used therein, including not more than 100 acres of real estate for each factory or mill, to be exempt for six years if the improvements were commenced in good faith by January 1st, 1898.⁵ Those begun the next year were exempt for five years, and the laws of 1890 provided that no tax should be assessed upon any mining claim in the state, nor upon any shaft or workings therein, until after patent had been duly issued by the United States; and all such improvements were given a further exemption for one year after issue of patent.⁶ By 1907

¹ S. W. Kearney, Brig. Gen. of the United States Army.

² Laws of New Mexico, 1852, sec. 18; Laws of New Mexico, 1857-58, ch. 16; 1865, article lvii.

³ Laws of New Mexico, 1898, p. 49. The same law decreed that railroad rates should not be reduced until earnings should exceed 10 per cent of the cost of construction.

⁴ Chapter 62, sec. 3.

⁵ Laws of 1897, ch. 24.

⁶ Laws of 1899, ch. 60.

six-year exemptions had been extended to broom factories, cement and plaster companies, and water power plants, and even by 1915 most of the original exemptions were still in effect.⁷ As a further encouragement to investment Governor William C. McDonald in 1913 urged a higher valuation and a lower tax rate to attract capitalists and homeseekers.

Upon the formation of state government in 1911 there were many complaints that the revenue laws were incomplete, indefinite, and weakly administered, and the larger corporations, including the railroads and the coal mining companies, objected to what they considered to be an unjust share of the tax burden.⁸ Out of a total valuation in 1911 of sixty million dollars, the railroads carried over fifteen and a half million, and mines over two million. The total assessment of corporate property was about one third of the state valuation.⁹ The new constitution expressly permitted the legislature to levy a tax upon the net proceeds of mines, but for several years no mines tax law was enacted. The legislature in 1913 asked that all property be assessed at one third of its value, and owing to this and other reforms the total assessed valuation of the state rose to something over eighty-four million dollars. Bending to popular demand the state board of equalization in 1913 assessed certain coal lands on the value of their deposits and surface improvements, and the Chino Copper Company on its improvements and net proceeds, raising mine assessments from \$2,146,797 in 1911 to \$3,610,768.¹⁰ This assessment the Chino Company fought "as a matter of principle."¹¹

In 1915 the legislature undertook some extensive reforms. Following the governor's recommendation and the fashion of the times it provided for the assessment of property on the basis of full cash valuation, and created a state tax commission to ad-

⁷ New Mexico Statutes, Annotated, 1915, section 5432.

⁸ First Biennial Report of the State Tax Commission of New Mexico.

⁹ Report of Special Revenue Commission, p. 297.

¹⁰ Proceedings of the Board of Equalization of New Mexico, 1913. See also testimony of Mr. Sully, p. 98 of Report of Hearings of the Special Revenue Commission, 1920.

¹¹ Statement of Mr. Sully, Report of Hearings.

minister the property tax. While the power of this commission was considerably less than its supporters had originally intended (for they had endeavored to pattern the law after that of Arizona), it possessed, besides the functions formerly belonging to the state board of equalization,¹² the power to receive the reports of mining companies and certify the net proceeds to the several boards of county commissioners. An agent of the commission was authorized to examine the books of mining companies for the purpose of verifying reports. Further to clarify the mine tax law the state adopted the Colorado definition of net proceeds, extending it, as Colorado had not, to coal mines.¹³ The Colorado provision that one quarter of the gross proceeds might be substituted for the net proceeds, in case one quarter of the gross were higher, was omitted from the New Mexico law. The measure was also similar to that in Utah, except that Utah allowed a deduction of expenditure for capital improvements.

The mining companies themselves had backed this bill. The legislature had called representatives of the mining interests to Santa Fe and discussed the problem openly. The coal operators leaned toward a tax on gross output, and the Chino Copper Company found that a tax on the gross value of product, in lieu of all other taxes, would approximately equal the sum of the tax on net, improvements, and surface value of land. But other metal mines, particularly those producing silver and gold with a much higher ratio of gross to net income, found that the proposed tax would work against them, and as a result the legislative committee recommended the use of net profits as a base.¹⁴

The new tax commission entered upon its duties with some enthusiasm and apparently with a full intention of carrying out the letter of the law. The commission agreed that the provision for true valuations was a particularly good feature, for experience had indicated that such assessments were more easily compared and gave greater assurance of equality.¹⁵ Total valua-

¹² Laws of 1915, ch. 74.

¹³ Laws of New Mexico, 1915, ch. 55.

¹⁴ Testimony of Mr. Sully, general manager of the Chino Copper Company, before Special Revenue Committee, New Mexico, 1920, p. 98.

¹⁵ First Biennial Report, p. 7.

tions were raised from \$89,203,939 in 1914 to \$318,147,120 in 1915, and state taxes in that year rose by about 25 per cent.¹⁶ Railroads now bore nearly 30 per cent of the total valuation. The new mine tax law added \$10,358,946 to the rolls. The mines bore 3.33 per cent of the total valuation in 1911, 4.19 per cent in 1913 and 5.25 per cent in 1915.¹⁷ In Grant County, center of metalliferous mining, the increased mine valuations allowed the tax rate on Chino Copper Company property to drop from about 33 mills to about 9 mills.¹⁸

As the mining business boomed under the impact of war demands, New Mexico forgot its traditional respect for capital and the message of Governor E. C. De Baca in 1917 sounded much like an echo of Zander's speeches across the border in Arizona:

The present mine tax law is unfair and unjust to the other taxpayers of the State. The mines pay taxes upon the net value of their product, or in other words, they are taxed upon their net income. The merchant and farmer were not taxed by this standard. If they were, they would pay very little taxes in many cases.

Again, a company or individual may own thousands of acres of mineral lands and actually operate only fifty or one hundred acres. The land not producing is not taxed, although very valuable as mineral land.

Either productive mines and mineral lands should all be taxed at their actual value, like other property, or if a tax is levied on their output it should be on the gross value of the output. A limit should also be placed upon the amount of land contiguous to an operated mine that is not to be taxed.

The tax commission attempted to stem the growth of anti-mine sentiment by calling attention to the fact that the law of 1915 had resulted in a "very considerable increase in the taxation of mines" and had been an undoubted benefit to the state.¹⁹ The legislature of 1917 made no material response to Governor De Baca's recommendation, in spite of the fact that state sentiment continued to demand higher mine taxes. Some of the dissatisfaction arose because of the general belief that all coal lands, developed or undeveloped, were of the same value as if

¹⁶ Special Revenue Commission Report, p. 296.

¹⁷ Special Revenue Commission Report, p. 296.

¹⁸ Testimony of J. M. Sully, general manager of the Chino Copper Company, during Hearings of the New Mexico Special Revenue Commission, p. 105, 1920.

¹⁹ Second Biennial Report, p. 8.

each were readily marketable. Other dissatisfaction lay with the fact that the yield of the net profits tax was given to rapid fluctuations. There was the feeling that, as Governor De Baca had said, the tax, to be just, should be uniform upon all classes of property.

The legislature of 1919 made two steps toward a satisfaction of this discontent. Faced by a post-war depression it provided that for 1919 and 1920 the tax commission should take as the base of mine taxation the mine improvements and the average value in dollars of mine net proceeds for the years 1916, 1917, and 1918, unless the 1919 net proceeds should be higher, in which case the latter should be used.²⁰ No tax was to be levied on current production if the above average was less than \$50,000. This law, of course, not only stabilized the returns from mine taxation, but kept them at a high level. As a preliminary to further tax reform the legislature of 1919 provided for a special revenue commission to study, among other things, the general problem of mine taxation. The report of the special revenue commission in 1920, like the Colorado study of 1916, bears the vigor and directness of style of Robert Murray Haig, who acted as special counsellor for the commission. The published Hearings and Report of this commission together constitute one of the better state tax studies in the United States.²¹

Four days of hearings developed rather clearly the general outline of argument which the commission was later to follow with reference to the problem of mine taxation. Eight witnesses testified on the subject, including one from Colorado and one from Arizona, and the arguments were met in a straightforward manner by Chairman H. J. Hagerman and by R. M. Haig. The coal-mining men were deeply concerned with the difficulty of determining the extent of the irregular deposits characteristic of New Mexico and with the further problem of determining present worth, though Mr. Haig drew from them an admission that

²⁰ Session Laws of New Mexico, 1919, p. 136.

²¹ *Report of Hearings of the New Mexico Special Revenue Commission*, held at Santa Fe, Aug. 16-20, 1920 (no publisher named); report of the *New Mexico Special Revenue Commission*, Santa Fe, New Mexico, November 23, 1920 (The Santa Fe New Mexican Publishing Corporation).

some uncertainty was inherent in any method of mine taxation. The mining representatives agreed in principle that mine property should bear an equitable proportion of the taxes, and during the hearings the chairman read a statement for the commission, making it clear that insofar as possible the commission would recommend a policy of mine taxation which would neither subsidize nor penalize the mines but would place them "on a basis" equal and uniform with all other classes of property.

A considerable amount of the testimony related to mine taxation elsewhere. Under questioning from Mr. Haig, Judge E. C. Stimson, of Colorado, admitted that there existed some feeling among the agricultural people that the mines were not bearing their fair share of the tax burden.²²

E. E. Ellinwood, attorney for Phelps-Dodge and a resident of Arizona, expressed the opinion that if the New Mexico law were modified to yield a steadier flow of revenue and to eliminate the exemption of contiguous property, it would be as good a system as was possible to devise. He recommended the use of several years' average net profits, and suggested that if the system failed to "raise enough money for the State" the tax should be placed on some multiple of the net. But his testimony indicated that the ad valorem system used in Arizona was quite satisfactory to the mines in that state,²³ even though the method used — that of the capitalization of net profits — was somewhat arbitrary. J. M. Sully testified that a comparison between his Chino mine and the Ray Consolidated in Arizona indicated that while the latter had approximately twice the invested capital, its assessment was nearly three times as high. Ray Consolidated taxes amounted to about 1.17¢ per pound of output as compared with .993¢ per pound in New Mexico.²⁴ Questioned by the chairman as to whether he considered the Michigan valuations to have been fairly made, Mr. Sully professed to be unacquainted with conditions there, but gave it as his opinion that Mr. Finlay was a man of high standing and that his assessments

²² *Report of Hearings of the New Mexico Special Revenue Commission*, p. 119.

²³ *Report of . . . Special Revenue Commission . . . 1920*, p. 123.

²⁴ *Report of . . . Special Revenue Commission . . . 1920*, p. 109.

were looked upon as the best that could be made. He understood, however, that Michigan made no use of them, but that whenever it needed a sum of money the state was accustomed to call on the mines and say "We have got to have so much out of you fellows."²⁵

Setting up as its central standard the point of view of the state as a whole, the final report considered the advantages and disadvantages of three possible approaches to the mine tax problem: the policy of subsidization, the policy of penalization, or the policy of equalization.

It then becomes our task (said the commission) to form a judgment as to which of these policies is most equitable under the conditions obtaining in this state. We realize that this involves an interpretation of the sentiment and the interests of the people of the state but we believe that, in spite of the possibilities of error in making such a decision, the answer to the problem is unmistakably clear.

The policy of subsidization was defensible, said the report, under three possible conditions — to meet competition from subsidized mines in other states, to encourage immediate development, or to aid a mine in the undertaking of unusual risks or large preliminary expenditures under some peculiar local circumstance. Except on these grounds a policy of subsidization was scarcely conceivable, for it would be absurd to pay some one to extract the natural resources of the state unless some benefit were to accrue to the state. Yet none of these reasons appeared pertinent in the light of New Mexico's position, for the encouragement of rapid development was the policy of a desperate bankrupt, and there was not, in fact, any peculiar local condition demanding state aid. Even if other states should subsidize mining operations, competitive subsidies would be open to question.

As a second alternative, the policy of unusually high taxation, as in Minnesota, rested on the theory that mine ownership rested on luck, and that the return thereon was due in large measure to the community. Coupled with this theory was the conventional single-tax argument. But the committee was certain that

²⁵ Report of . . . Special Revenue Commission . . . 1920, p. 95.

these principles were not in accord with these generally accepted in the state of New Mexico.

What the people of New Mexico undoubtedly demanded, said the committee, when they insisted on an "equitable" mine tax, was that the mining industry be placed on precisely the same basis as other economic interests in the state. The representatives themselves avowed that they sought no preferential treatment, and defended the existing method of taxation on the ground that it achieved equality.

We believe, then, that we can assume practically united support for the view that we should seek a solution for the mine tax problem which will result in placing mines in the same position as other interests, not in a better or a worse position.²⁸

The commission called attention to the provision of the state constitution that "taxes levied upon tangible property shall be in proportion to the value thereof, and taxes shall be equal and uniform upon subjects of taxation of the same class."

In order to meet the constitutional requirement that "taxes shall be equal and uniform upon subjects of the same class" it is apparent that taxation in practice must result in a burden on mine property which corresponds as closely as possible to the burdens imposed on other tangible property of the same value.

Any one who undertook to defend the equity of the then existing mine tax law "defining equity as equality and uniformity as prescribed by the state constitution" must take the position that from year to year or in the long run the yearly net product added to the value of the improvements would result in a figure approximating the total value of the mine. But to assume that capital values fluctuated as rapidly and violently as the net earnings was little short of ridiculous. "Who would seriously maintain for example, that the market value of a coal property with vast reserves sinks to zero whenever there is no net profit as the result of a single year's operation?" The whole system was inexact and arbitrary as a method of arriving at market value. It was inequitable both as between mines as a class and other property and between different mining properties within the

²⁸ Special Revenue Commission Report, New Mexico, 1920, ch. iv.

class. Indeed, because of the difference in risk and the unequal spread between net and gross income between various mines, even a tax on some multiple of net or gross product appeared not to satisfy the demand for equity.

The report cited other objections to the then existing method. The Colorado Tax Commission had recently placed itself in favor of the substitution of an ad valorem tax for the tax under discussion, so that "whatever virtue the Colorado precedent may have been supposed to possess" had disappeared. The New Mexico version of the Colorado law, moreover, had omitted the provision that the base should be one quarter of the gross proceeds whenever this amount exceeded the net. Under the New Mexico law, therefore, it was possible for a company to do just enough work to place it in the category of a productive mine, with a net proceeds of zero, so that it avoided a tax on the value of the deposit. A further weakness of the law was the fact that under the contiguous property clause a company might own any amount of ore or coal contiguous to the land on which operation was maintained and pay no tax thereon. This provision had encouraged speculative holding of natural resources and had discriminated between mines with vast reserves and those with small reserves, as well as against metalliferous mines in favor of coal mines.

The ad valorem method seemed to the commission to be the best solution to the mine tax problem in New Mexico.

Qualified students of taxation have long appreciated the theoretical advantages of the ad valorem system of mine taxation, but until recently they have been inclined to accept the position that the technical problem of arriving at a valuation was an insuperable one. The ad valorem tax was recognized as the only scientific one if the mine tax was to form a part of a system of property tax. Recently there has been a radical change of attitude.

This change in attitude, said the commission, was comparable to that which had taken place with reference to the state income tax after Wisconsin had proved its practicability. The "establishment in several states of the feasibility of the ad valorem taxation of mines under proper administration bids fair to initiate a sweeping movement in the direction of its general adop-

tion." To support this belief the commission presented the report of the special committee on mines taxation of the National Tax Association, in 1920, and, in addition, a description of the methods of mine taxation then in use in Michigan and Minnesota. Finally, attention was called to the fact that the technical difficulty of valuation was reduced in New Mexico by the nature of its mining operations. Coal mines were perhaps the easiest deposits to value; and according to the testimony at the hearings of the commission fully 98 per cent of the metalliferous mining in the state consisted of operations in porphyry deposits which also presented no great difficulties.

The special revenue commission therefore recommended that the tax commission be empowered to assess all mines as property, that \$25,000 be appropriated to meet the expenses of a nationally known engineer for an initial valuation, and that provision be made for a permanent mine tax assessor to make the valuations thereafter.

The result of this report, so far as it dealt with mine taxation, was a five months survey by J. R. Finlay and assistants,²⁷ and the inauguration of a system of ad valorem taxation of mines in that state.²⁸ Perhaps the outstanding contribution of Finlay's study from the standpoint of mining men was the resulting education of the state on the subject of the value of coal land. Not only did this study explain indirectly the reason why a deposit, no matter how large, is valueless if its use is postponed to the distant future, but it pointed out that "almost all the value of the coal industry is in the plants; not in coal in the ground."²⁹ In general the report was received with satisfaction throughout the state and the valuations found by Finlay were adopted with slight modification by the tax commission. The collapse of the war boom and the finality of the work of the special revenue commission and of the mine appraisals brought a definite end to important political agitation on this subject in New Mexico.

The history of mine taxation in this state during the ensuing

²⁷ Finlay, *Report of Appraisal of Mining Properties of New Mexico, 1921-1922* (n. p., n. d.).

²⁸ Laws of 1921, ch. 133.

²⁹ Finlay, *Report*, p. 7.

twenty years is at least equally interesting, but has been composed of much more subtle changes and must be described with some caution. The fact is that the state at the present moment is in a position not materially different from that which existed during the thirty years before the survey.

The factors which have brought about this gradual reversion lie with the peculiarities of the mining industry and political condition of the state. The mine tax law of 1921, which allows the use of the net profits base as an alternative means of valuing ore deposits, has apparently been responsible for little of the change. To one unused to the informality of New Mexico the law is incomprehensible, for it specifically allows the tax commission to take its choice between two methods of appraisal of productive mines — assessment upon a five year average of net proceeds plus surface improvements, or upon the value of the ore reserves. The reason for the extraordinary flexibility of this provision appears to have been the difficulty found in applying the ad valorem tax to unpatented claims. It was understood in 1921 that the tax commission would choose the alternative that would yield the highest valuations, for the method of averaging the net proceeds for 1917, 1918, and 1919 had proved extremely satisfactory to the state, and the ad valorem basis might conceivably have yielded less revenue. The minutes of the tax commission, in regular February session for 1922, show that the commission carefully compared the results of valuation by averaging net output for the years 1917 to 1921 with the valuations as found in the Finlay report before ordering that the ad valorem method be adopted and his assessments used for that year.³⁰

During the twenties the Finlay valuations of metal mines seem to have become something of a tradition. No important new appraisals were made, and no other yardstick was available. The message of Governor J. E. Hinkle to the legislature in 1923 contains the derogatory observation that "the tax commission field inspection should be to a great extent eliminated. It is only useful to furnish jobs."

³⁰ Minutes of the New Mexico Tax Commission, Regular February Session of 1922, p. 407.

The Finlay valuations had materially increased the assessments of most of the metal mines. In Grant County the valuations for the two years 1921 and 1922 were as follows: ³¹

	1921	1922
Chino	\$7,680,020.00	\$15,269,270.87
Empire Zinc	232,158.35	854,380.80
Hanover Copper Co.	12,618.75	11,859.62
Hanover Bessemer Iron and Copper	181,584.80	255,530.00
Phelps Dodge Burro Moun- tain Branch	2,215,201.85	3,254,784.00

In 1930 the Chino valuation was practically the same as that found in 1922; the Empire Zinc Company's assessment was \$613,890.34; Hanover Bessemer was valued at \$256,886; and the Phelps Dodge Burro Mountain Branch at \$1,792,211.75. The fact that the state never employs a valuation engineer means that the mines are, in the words of local observers, "assessed by debate."

As in Arizona, the collapse of metal prices in the thirties has tended to have a cumulative effect on the mine tax program, and the tendency is to tax mines on their average net income. Not only has the lower metal price brought less profit to a political support of high mine valuation but the leading engineers in the state are willing to express the (surprising) thesis that in actual practice the average net revenue as defined by law is likely to be somewhere near the market value of mine property in New Mexico. The position is an extreme one, and to some extent influences state policy.

³¹ In each case these are the valuations from the records of the county treasurer and include some property not assessed by Mr. Finlay. Mr. Finlay's valuations for the foregoing mines, in the order named were as follows: \$15,000,000, \$840,000, \$11,660, \$250,000, and \$3,200,000.

CHAPTER XX

ALABAMA

THE CITY of Birmingham, as the name implies, was founded with the hope that it might some day become the leading iron and steel producing center of the continent.¹ Iron for domestic use was made in this vicinity in the first quarter of the nineteenth century, and though several of the early establishments were destroyed by the Civil War, surveys by that time had demonstrated that there lay side by side, and in huge quantities, the coal, iron, and limestone necessary to make of Jefferson County an important industrial center. Public petition and private capital brought two railroads to the county — the South and North Road and the Northeast and Southwest, and in 1871 the first lots of the new metropolis were sold by the Elyton Land Company.² Production in the city did eventually live up to the most optimistic hopes of its founders, though there was no such sudden boom in Alabama as in the iron regions of the Great Lakes district. Added to the delay caused by the Civil War was the long depression of the seventies, and, of more lasting significance, the iron ore of this region had a high phosphorus content. Finally, the market for fabricated steel was in the North, making it necessary to ship the Alabama product to distant markets, and the outlet for iron, therefore, depended much on the freight rates. To a large extent the labor and tax differential must balance the freight differential to fabricating centers in the North and East.

The Alabama mining companies have always expressed the fear that any inordinate tax burden upon the iron and steel industry would be shifted in the form of smaller production and

¹ *Early Days in Birmingham* (Birmingham: Birmingham Publishing Company, 1937); J. W. DuBose, *The Mineral Wealth of Alabama and Birmingham* (1886), and *Jefferson County and Birmingham, Alabama* (1887).

² DuBose, *Mineral Wealth of Alabama*, pp. 57 ff.

less employment, and the tax program has apparently been modified by such considerations.

In recognition of the existence of taxable value in mines the code of Alabama of 1886 provided that timber and minerals should be assessed separately from the soil whenever, by sale or otherwise, they were severed in ownership from the land.³ At the time this law was drafted Birmingham boasted a population of over 21,763,⁴ most of whom were newly attracted to Jefferson County. Several new blast furnaces had been established during the previous six years, including one by the Woodward Iron Company, built in 1881, and a plant erected by the Tennessee Coal, Iron and Railroad Company, constructed in 1886.⁵ But from 1893 onward Alabama, desirous, like the early western territories, of augmenting its natural resources with eastern capital, launched upon a series of tax exemptions for all industries that promised to be of permanent value to the state. Factories for spinning and weaving were offered a five year exemption in 1893,⁶ and additional exemptions were offered thereafter to ship building, wood pulp products, bags, wooden cabinets, farm implements, lime nitrogen, condensed milk, cheese and other milk products, aluminum, glass, ceramic products, enameling, farm implements, calcium cyanide, "or any other manufactured products."⁷ Most of these exemptions were for a period of ten years after plant construction and most of the offers are still in existence. Any manufacturing property which is brought within a city by the extension of the corporate limits is exempt from city taxation for a period of ten years thereafter. Newly constructed factories and the land they occupy are exempt for ten years and pig iron and coke in the hands of the manufacturer thereof are exempt for twelve months after production. Tax rates, moreover, are limited by state constitution.

³ Alabama code, 1886, par. 475.

⁴ DuBose, *Mineral Wealth of Alabama*.

⁵ DuBose, *Jefferson County, Alabama*, pp. 588 ff.

⁶ Alabama laws, 1893, p. 855.

⁷ Alabama laws, 1897, p. 917; 1901, p. 211; 1907, p. 519; 1923, par. 3023, 3026; 1927, p. 461. Alabama Revenue Laws, annotated 1936, p. 9, sec. 4.

The state tax rate has risen by the slow process of constitutional amendment to \$.65 per annum and the county rate to \$1.15. District schools are allowed \$.30, so that most ore property bears the rate of \$2.10. Property in the city of Birmingham bears an additional levy of \$1.80. The assessment ratio is fixed by law at 60 per cent of true value.⁸

But with the boom years of the war Alabama lost some of its deference for capital, and expressed a demand that the mines share with the state some of the profits made during that period. In his message of January 21, 1919, Governor Kilby called for a graduated income tax and an excess profits tax to offset the manifest injustice of the regressive property tax and to reach those individuals who drew their earnings from stocks, bonds, and other forms of intangible property. After the adjournment of this first session, the Recess Committee on Finance and Taxation made a study of the state fiscal problem and recommended a small tax on coal and iron output.

We have an investigation of the manner in which the State is being impoverished by the constant drain upon her natural resources, and the committee are unable to say why the State, being thus impoverished by those who are growing rich extracting the treasures of the State should not share in a just distribution of this wealth. We have, therefore, unanimously recommended a small tax on coal, iron, cement and turpentine.

The recommendation was presented and defended by the governor in his message of July 8, 1919. Coal mining companies, he pointed out, had more than doubled their prices since the beginning of the war and could easily pay an additional tax.⁹

The mining companies — coal and iron — should pay their full and just share of the taxes. These vast mines of wealth were lavished upon the State by a bountiful nature. They have been bought up by private interests who operate them for a private gain, to which I offer not the slightest objection, as a matter of course, and are being gradually but surely exhausted and the lands left almost worthless. These lands should be regarded and treated differently from other lands which will yield revenues through the ages to come. Millions of tons of coal and iron ore in some form or other are annually shipped from the State, which process is slowly but

⁸ Alabama Revenue Laws, annotated 1936, p. 9, Sec. 6.

⁹ The *Montgomery Advertiser*, Wednesday, July 9, 1919.

surely depleting the natural wealth of the State. This property should be taxed while it is here.

The original proposal included a tax of 10¢ a ton on iron ore.

The mining companies, in reply, pleaded that the soft red ore, originally running 50 per cent or more in iron content, had been exhausted, and that the self-fluxing ore was only 36 per cent iron. Coal and limestone flux lay farther underground and costs had materially risen under war demands for labor. The war freight rates had discriminated against the South so that there were six fewer blast furnaces than in 1908. Most of the blast furnaces had, at some time, been in the hands of their creditors and only eighteen were then in blast. While Alabama sold only 3 per cent of the nation's coal, said the miners, it washed 40 per cent of that washed in the United States, because of the unusually large amount of impurities contained, and large contracts were often made on the basis of a difference in price of as little as 2½¢ per ton. Pig iron had to be sold in Ohio, in competition with iron of much shorter haulage, and the flat increase in war freight rates had put a heavy proportional burden on the South.¹⁰

The tax as finally passed amounted to 2¢ a ton on coal and 3¢ per ton on iron ore, payments to be made to the state treasurer.¹¹

The campaign for better educational facilities was led in Alabama by Governor Bibb Graves, who asked the legislature in 1927 to find a way to raise an additional three million dollars for this purpose, without increasing the ad valorem tax. "For its own protection, the state must see to it that every normal white child is put through the grammar grades. Not one of the grammar schools must ever be permitted to run a less term than seven months." Teachers, he thought, should never be paid less than \$75 a month.¹² The legislature, in an effort to follow his suggestion, considered passing a luxury tax as well as the severance and hydroelectric taxes which the governor had proposed

¹⁰ *Montgomery Advertiser*, July 16, 1919.

¹¹ Manuscript Report of State Tax Commission, Dec. 10, 1926; section 418, p. 450, acts of 1919.

¹² *Montgomery Advertiser*, Jan. 19, 1927.

during his campaign. The total cost of the increased budget promised to exceed the Governor's specific request, and the recess committee found the problem difficult.¹³

Final revisions of the revenue code in 1927 were comprehensive, and included, with the additional levy on coal and iron, a series of taxes on production of electricity, on gross receipts of railroads, telegraph, telephone and express companies, and a \$20,000 a year tax on certain car companies.¹⁴ The new code levied a tax of 2½¢ a ton on coal and 4½¢ on iron, with an additional levy of 3% of the net value at the mine, quarry or pit, (after deducting costs of mining, quarrying, loading and preparation for market) of all other mineral products. The law failed to specify the base from which these deductions were to be taken to determine the net. The entire proceeds of these taxes were to be placed in a trust fund for educational purposes only. Collections in the next few years were as follows:

	<i>Year to October 1928</i>	<i>1929</i>	<i>1930</i>
Coal	\$456,975.64	\$445,022.52	\$425,750.43
Iron	282,298.90	297,299.25	284,636.67
Other	13,262.79	10,601.68	8,035.79 ¹⁵

The commission observed in 1931 that while the collection of the iron ore tax had been particularly satisfactory, owing to the small number of the mines, the coal tax had been more difficult because of the large number of small operators, some of them wagon mines, paying only a nominal tax. The severance tax on other metallics had been quite unsatisfactory, both because it was poorly written and because the tax was too small to warrant effective enforcement. Without a larger yield the commission could not afford to inspect the books and employ a field force. The mine tax has customarily been administered locally and the tax commission has rarely intervened, believing that in general the law has been as well administered as other parts of the property tax.

¹³ *Montgomery Advertiser*, Jan. 27, Feb. 15, 1927.

¹⁴ *Laws of Alabama*, 1927, p. 139.

¹⁵ Report of State Tax Commission, 1931. Exhibit G. Manuscript in office of Tax Commission, Montgomery.

In 1922, however, state and county officials hired John R. Pill, an independent mining engineer, to make the first complete valuation of coal and iron ore reserves of Jefferson County for tax purposes. His methods of valuation are an interesting variant of mine appraisal. He assumed, first, that to recover its investment in plant and equipment a mine must have forty years of reserves, and that on the average it will progress along the seam of ore at the rate of about 120 feet per year, with a production of nearly 6,000,000 tons in a period of about ten years. This assumption was not always valid, for with changes in market conditions a firm might put down a new shaft a mile or two away from the old, and thus raise the present worth of the ore from, say, \$400 an acre, to perhaps \$1200 an acre. Unless this new shaft was the result of an increased demand for Alabama ore, however, it would call for a downward revision of estimates of production from other shafts equal to the proposed production from this shaft. The only way in which he could avoid this shift in values would be to assume a range life, as was done in Minnesota.

His more immediate problem was akin to that facing the assessor of business lots, for he had to build a series of tables with which to relate a few scattered sales of ore property to the value of the entire seam of ore in Jefferson County and the several company holdings therein.

He calculated the gross tonnage per acre for each holding, allowing for variations in the pitch of the seam, and assumed that with the room and pillar method of operation 80 per cent of the ore could be recovered, with a value of 3¢ per ton at the outcrop. Of the gross value of a seam of ore he calculated that 35 per cent depended upon thickness, 35 per cent upon quality of the ore, 15 per cent upon access to railway transportation at the mouth of the slope and 15 per cent upon the depth of the cover. As a method of readily ascribing to given acreages the values, which, on this basis, they deserved, he then set up the tables shown on the following page.

I. THICKNESS

<i>Feet</i>	<i>Rating</i>
10	100%
9	90%
8	80%
7	70%
6	60%
5	50%
4	40%
3	30%

II. QUALITY

<i>Metal content</i>	<i>Rating</i>
50%	100%
40%	80%
35%	70%
34%	60%
33%	50%
32%	40%
31%	30%
30%	20%

III. ACCESS TO TRANSPORTATION

<i>Distance to shaft (miles)</i>	<i>Rating</i>
0	100%
1	90%
2	80%
3	70%
4	60%
5	50%
6	40%
7	30%
8	20%

IV. DEPTH OF COVER

<i>Feet</i>	<i>Rating</i>
[outcrop]	100%
250	90%
500	80%
750	70%
1000	60%
1250	50%
1500	40%
1750	30%
2000	20%

Thus, suppose a seam to run 50,000 tons to the acre at 3¢ a ton, or with a value of \$1500 at the outcrop; 1 per cent of \$1500 is \$15, 35 per cent is \$525 and 15 per cent is \$225, so that a given seam of hematite might then be valued in this manner:

10' thick	100%	(of 35%)	\$ 525.00
35% metal	70%	(of 35%)	367.50
At outcrop	100%	(of 15%)	225.00
5 miles	50%	(of 15%)	112.50
			<hr/>
			\$1230.00
			.60
			<hr/>
Valuation for tax purposes			\$ 738.00

In 1936 the original values were checked again by Mr. Pill, then land agent for the Woodward Iron Company, and adjustments were made for changes in the value of ore and for progression of the mining operations. Under this appraisal the highest valuation given any acre of property was \$16,200 (in Sec. 22, T. 18S, Range 3). In general a significant comparison between assessments and sale values is difficult to make. In the first place, sales are extremely rare and are usually of property at some distance from working operations, so that the price paid is usually higher than the assessment. The only correction for such a problem, as already indicated, is to give all property a "range" life, which would be difficult to do on an acreage basis. In the second place, there is no base price of ore as in the Great Lakes region, and however hypothetical the "Lake Erie" price may be, it is an essential part of ore valuation in Michigan, Minnesota and Wisconsin. The assessments in the early twenties appear to have been based upon Mr. Pill's work; for the administering authorities professed to believe them acceptably in line with sales, and none of the valuations were carried by the mining companies to court. Yet as time progressed they became merely the starting point for discussions between the county assessing officer and the companies. A comparison of sales of iron and coal property with Mr. Pill's valuations is made increasingly difficult by the fact that in Jefferson County assessment increases on mining companies have been made as a lump sum, to be placed on land or mills as the company desired, a custom which may explain the fact that assessments on the plat book appear to run somewhat higher than the valuations found by Mr. Pill.

Testifying to the concern felt by Alabama for the industries established there, the privilege tax on coal and iron mining was lowered in 1935 by a method which suggests again the manifold deviations of the democratic process. The legislature reenacted the license tax of $2\frac{1}{2}\phi$ a ton on coal and $4\frac{1}{2}\phi$ a ton on iron ore, but in each case inserted the following words:

Provided that in order that the industrial development of the State may be best preserved and promoted and in order that any deleterious effect of

the tax levied in this schedule may be minimized, the State Tax Commission is authorized and empowered to lower, with the approval of the Governor, as in its knowledge of prevailing conditions may, from time to time, prove expedient and advisable for the best welfare of the State, but not to raise the rate on which the tax is computed.¹⁶

The same session changed the nature of the tax commission sufficiently to call for the appointment of a new chairman and two associate members.¹⁷ The change in the wording of the privilege tax was considered to be an administrative measure¹⁸ and it was generally understood that the rates would be lowered, primarily to relieve some of the pressure on the coal industry. On November, 1935, a resolution was adopted by the state tax commission, with the approval of the governor, pursuant to the authority of the 1935 revenue act, reducing the tax rates on coal from $2\frac{1}{2}\phi$ per ton to $1\frac{1}{2}\phi$, and on iron ore from $4\frac{1}{2}\phi$ to 3ϕ per ton, effective December 1, 1935.

Because of the highly integrated character of the iron and steel business in the Birmingham area and because of the lack of any base price of ore, the determination of the burden of the ad valorem and privilege tax on metal mining would be extremely difficult. The decisive factors, in any case, are not reducible to figures. With a need to expand industry, both to give employment to labor and to furnish a market for farm produce, any element which threatens to raise the marginal cost and narrow the market for iron ore is to be avoided. As to whether the tax in 1935 was too high, the state passed judgment on very rough data, assuming a low profit, a high elasticity of demand for iron and coal, and a preference for the possible increase in employment rather than for state services that might be made possible by the tax itself.

¹⁶ General Acts of Alabama, regular session, 1935, p. 475.

¹⁷ General Acts of Alabama, regular session, 1935, p. 30.

¹⁸ *Montgomery Advertiser*, July 3, 1935.

CHAPTER XXI

MICHIGAN: THE AD VALOREM TAX

COPPER was discovered in 1842¹ and iron in 1844² in the Upper Peninsula of Michigan, and in 1846 Governor Alpheus Felch urged the legislature to encourage the three hundred odd inhabitants of this isolated area by whatever means was possible. Ore lands, he thought, should be sold outright and not leased.³ In lieu of all other state taxes, the legislature then passed a tax of 4 per cent on the smelter yield of ore.⁴

The history of mine taxation in Michigan for two generations thereafter gives a convincing illustration of the uncertainty of special revenue measures, especially during periods of rapid economic change. In 1851 the legislature added a tax of 1 per cent on the paid-in capital,⁵ and the constitution of 1850 provided that half of such a tax should go back to the treasurers of the counties from which it was received.⁶ The legislature, however, refused to grant such a refund, even in the face of the governor's rebuke, and the chief executive was finally forced to order the funds transferred to the counties involved.⁷ In 1855 this tax on paid-in capital was repealed for domestic companies paying taxes on ore,⁸ and in 1863 specific taxes on foreign corporations were remitted to the county road and bridge fund.⁹

In 1853 the legislature enacted the first of the Michigan tonnage taxes, with rates of \$1 per ton of copper ore, 10¢ per ton of

¹ L. E. Young, *Mine Taxation in the United States*.

² Statistics from Floyd O. Poindexter, *Mineral Industries of Michigan* (Department of Conservation, State of Michigan, 1940), p. 12.

³ George N. Fuller, *Messages of the Governors of Michigan* (Lansing: The Michigan Historical Commission, 1927), II, 19.

⁴ Laws of Michigan, 1846, p. 93.

⁵ Laws of Michigan, 1851, act 144.

⁶ Michigan Constitution of 1850, sec. 7.

⁷ *Messages of the Governors of Michigan*, II, 202, 227, 1851, 1853.

⁸ Laws of Michigan, 1855, act 159.

⁹ Laws of Michigan, p. 323.

TABLE 6
 PRODUCTION OF COPPER IN MICHIGAN *
 1845-1938

Year	Pounds	Year	Pounds
1845	26,880	1893	112,605,078
1846	58,240	1894	114,308,870
1847	477,120	1895	129,330,749
1848	1,032,640	1896	143,524,069
1849	1,505,280	1897	145,282,059
1850	1,281,280	1898	158,491,703
1851	1,744,960	1899	147,400,338
1852	1,744,080	1900	145,461,498
1853	2,905,280	1901	156,289,481
1854	4,074,560	1902	170,609,228
1855	5,808,320	1903	192,400,577
1856	8,211,840	1904	208,309,130
1857	9,531,200	1905	230,287,992
1858	9,157,120	1906	229,695,730
1859	8,926,400	1907	219,131,503
1860	12,069,120	1908	222,289,584
1861	15,037,120	1909	227,005,923
1862	13,585,600	1910	221,462,984
1863	12,985,280	1911	218,185,236
1864	12,490,240	1912	231,112,228
1865	14,358,400	1913	155,715,286
1866	13,749,120	1914	158,009,748
1867	17,525,760	1915	238,956,411
1868	20,935,040	1916	269,794,531
1869	26,624,640	1917	268,508,098
1870	24,622,080	1918	231,096,150
1871	26,750,080	1919	177,594,135
1872	24,552,640	1920	153,483,952
1873	30,089,920	1921	100,918,001
1874	34,332,480	1922	122,545,126
1875	36,939,360	1923	137,691,306
1876	38,270,400	1924	145,333,227
1877	39,025,280	1925	138,029,764
1878	39,690,560	1926	175,441,565
1879	42,848,960	1927	177,537,775
1880	49,736,960	1928	178,442,704
1881	54,573,120	1929	186,393,974
1882	56,982,765	1930	169,297,775
1883	59,702,404	1931	118,495,055
1884	69,353,202	1932	54,396,108
1885	72,148,172	1933	46,853,130
1886	79,890,798	1934	48,215,859
1887	75,471,890	1935	63,208,689
1888	86,472,034	1936	95,968,019
1889	88,175,675	1937	94,928,000
1890	101,410,277	1938	94,075,588
1891	114,222,709		
1892	123,198,460		9,007,519,682

* From Poindexter, *Mineral Industries of Michigan*, p. 10.

TABLE 7
 IRON ORE SHIPMENTS FROM MICHIGAN MINES *
 1854-1938

Year	Tons	Year	Tons
Previous	75,083	1897	6,429,520
1854	3,000	1898	7,408,060
1855	1,449	1899	9,308,731
1856	6,790	1900	9,237,502
1857	25,646	1901	9,403,224
1858	22,876	1902	11,490,273
1859	68,832	1903	9,154,147
1860	114,410	1904	7,805,880
1861	49,909	1905	11,684,432
1862	124,169	1906	12,149,451
1863	203,055	1907	12,166,929
1864	247,059	1908	7,302,060
1865	193,758	1909	12,251,965
1866	296,713	1910	11,955,105
1867	565,504	1911	8,898,554
1868	510,522	1912	12,428,361
1869	639,097	1913	12,463,319
1870	859,507	1914	8,835,274
1871	813,984	1915	13,506,119
1872	948,553	1916	18,812,972
1873	1,195,234	1917	17,694,731
1874	899,934	1918	17,495,377
1875	881,166	1919	12,816,304
1876	993,311	1920	18,470,354
1877	1,025,129	1921	5,065,137
1878	1,127,583	1922	12,433,729
1879	1,420,745	1923	13,980,769
1880	1,948,334	1924	10,974,662
1881	2,125,729	1925	15,116,269
1882	2,656,933	1926	16,810,160
1883	2,518,048	1927	14,532,831
1884	2,225,146	1928	14,241,102
1885	2,205,190	1929	16,838,568
1886	3,179,511	1930	11,154,773
1887	3,934,339	1931	5,555,376
1888	4,113,803	1932	978,371
1889	5,829,828	1933	6,075,897
1890	7,185,139	1934	5,499,771
1891	5,728,081	1935	7,241,544
1892	7,182,344	1936	10,502,036
1893	4,370,550	1937	12,638,155
1894	4,689,291	1938	4,107,580
1895	5,991,968		
1896	5,532,967	Total Shipments	547,166,584

* From Poindexter, *Mineral Industries of Michigan*, p. 14.

iron ore and $\frac{1}{2}\phi$ per ton of coal.¹⁰ In 1861 it exempted mineral lands to the extent of 640 acres to each holder, for the encouragement of outside capital.¹¹ In 1863 the tonnage taxes were changed to 75ϕ per ton of copper and \$3 per long ton of iron, if such iron was exported before being smelted and refined. Pig or other iron manufactured in the state was relieved of specific taxes except that upon capital stock. The tax on coal was still $\frac{1}{2}\phi$ a ton.¹²

Two years later the tonnage tax on iron was lowered to \$1.50, with the same provisions as above,¹³ and the next session changed the copper tax to 75ϕ a ton if smelted in the state and \$1 if not.¹⁴ In 1875 the supreme court declared these taxes to be laid upon interstate commerce and therefore unconstitutional,¹⁵ but long before the decision was announced the legislature had seen the error of its ways and had given up the attempt to develop state smelting industries by the process of taxation of exports.

In most important mining states there has seemed to be a period of development during which the mines are strong and prosperous, with an increasingly bright outlook, but with relatively low taxes. Revenue laws are not as burdensome as they were during the days when the mines were without political influence or as they became during later periods when the agricultural and urban interests have banded together to exploit them. In 1870 Michigan produced 859,570 tons of iron ore and 24,622,080 pounds of copper,¹⁶ and for another quarter of a century was destined to be the leading producer of iron and copper in the United States.¹⁷ Yet the law of 1871, setting rates at 75ϕ per ton for copper, 1ϕ per ton for iron, and $\frac{1}{2}\phi$ for coal,

¹⁰ Laws of Michigan, 1853, p. 58.

¹¹ George Lord, "Taxation of Mining Properties," address to the State Conference on Taxation, 1916, p. 13.

¹² Laws of Michigan, 1863, no. 205.

¹³ Laws of Michigan, 1865, no. 135, p. 244.

¹⁴ Laws of Michigan, 1867, no. 191, p. 262.

¹⁵ Jackson Mining Company v. Auditor General, 32 Michigan 488, the law in question being that of 1865.

¹⁶ Poindexter, pp. 8, 14.

¹⁷ Poindexter, pp. 8, 14.

remained unchanged for twenty years. In 1885 the state legislature attempted to encourage gold, silver, and lead mining by a five year exemption of mines from the specific tax.¹⁸

In 1890 the Republican party, which had dominated Michigan state politics since 1854,¹⁹ was temporarily unseated, and incoming Governor Winans lent his weight toward revision of the tax system.²⁰ For two decades there had been dissatisfaction with the web of specific tax laws woven by the State of Michigan. In 1873 Governor John J. Bagley²¹ had called attention to the fact that one street railway company, owning 7½ miles of road, paid \$215 annually, another, owning 5½ miles, paid \$650 annually, that still another paid no tax whatever, and asked that the street railways be compelled to pay the municipal levy rather than the specific tax. He had repeated the request two years later.²² The Lake Shore and Michigan Southern Railway paid under its charter .75 of 1 per cent of its capital stock and bonded debt, while other railroads paid about .27 of 1 per cent, street railways about .25 of 1 per cent, telegraph property about .23 of 1 per cent, while other property in the state paid about 2 per cent on its valuation.²³ Governor Winans was the first to condemn the specific tax on mines. "There seems to be no good reason why property owned and used by railroad, mining, telegraph and telephone companies . . . and other associations for private purposes should be exempt from general taxation. . . . The granting of special privileges to any class affords just cause of complaint to the masses. I commend this subject of exemptions to your careful consideration."

This session of 1891 seemed from the beginning to crystallize whatever political discontent had been accumulating during the long Republican regime. The senate adopted a resolution condemning the giving of railroad and other corporate passes to

¹⁸ Laws of Michigan, 1885, act 131.

¹⁹ Excepting only the partial defeat of 1883-1885. Address of President of the Senate, Jan. 7, 1891, *Journal of the Senate*, p. 8; *Detroit Free Press*, Jan. 7, 1891, editorial.

²⁰ Address of Governor Winans, *Journal of Senate*, Jan. 12, 1891, p. 62.

²¹ Fuller, III, 164.

²² Fuller, III, 236.

²³ Fuller, III, 232 ff.

members of the legislature and other servants of the public "as at best suspicious and demoralizing and calculated to retard the business of the session."²⁴ A petition from the agricultural section bearing 470 signatures asked that individuals and corporations be placed on the same basis for tax purposes, and Senator Doran informed his home paper in Grand Rapids that the legislature opposed the continued exemption of 640 acres of land for each mine.²⁵ The predominant sentiment was that mines should pay the "same tax" as that borne by the workman and farmer. At Senator Doran's request the auditor general produced for the legislature a record of payments by mines and railroads under the tonnage tax law of 1871 and the specific taxes granted the latter industry. From 1876 to 1890, when iron production had grown from 993,331 to 7,185,139 tons, state taxes had risen from \$8,154 to \$57,756. Copper output had increased from 38,270,400 pounds to 101,410,277 pounds, while state taxes rose from \$11,735 to \$31,050.²⁶

Senator Doran then placed a bill before the legislature providing that the tax on iron ore be upped from 1¢ to 20¢ per ton and on copper from 75¢ to \$5 per ton, eight-tenths of the proceeds to go to the state general fund, and the balance to the county where collected. But he also declared himself in favor of the taxation of the real and personal estate of mining companies in the same manner as other property.²⁷

The Upper Peninsula, cut off geographically and socially, and outnumbered politically, resorted to petition to present its case, the total number of signatures running to several thousand, representing lodges, labor unions, and scattered individuals from

²⁴ Journal of the Senate, Jan. 20, 1891, p. 105.

²⁵ Journal of the Senate, Feb. 24, 1891, p. 284; *Grand Rapids Democrat*, Feb. 6, 1891.

²⁶ Figures on production from Poindexter, *Mineral Industries of Michigan*; auditor general's report from *Grand Rapids Democrat*, Feb. 10, 1891. He reported also that five railroads operating under special charter paid taxes ranging from ½ per cent to 1 per cent of the paid-in capital. The railroads organized under the general law paid 2 per cent on gross earnings, not exceeding \$4,000 per mile and 3 per cent on an excess of \$4,000. Street railways paid ½ per cent on paid-in capital until 1882, when the law was repealed and no specific tax was levied.

²⁷ *Grand Rapids Democrat*, Feb. 21, 1891.

every range. The Société St. Jean Baptiste of Republic, Michigan, pleaded that any increase in the tax on the production of iron mines "would be disastrous to this portion of the peninsula" and that the "consequent reduction in wages" would bring "eventual suffering of many of the laboring men in our midst."²⁸ Most of the letters, like that of the Scandinavian Benevolent Society of Republic, noted that many mines were scarcely able to make a profit and that others had been closed because of competition from the south. Many of the petitioners indicated their sincerity by asking that the property tax be applied universally, on mines as well as on other property. The specific tax, they said, had originally been the idea of the southern rather than the northern part of the state.²⁹

The editorial writers from the south of the state were cynical, those from the Peninsula bitter. The *Detroit Free Press* said little, but gave space to some of Senator Doran's charges against the Calumet & Hecla Copper Company.³⁰ The *Grand Rapids Democrat* assumed its proper place as the organ of the left-wing farm element:

The frantic tone of many of the papers published in the northern peninsula, and the rush of lobbyists from that part of the state to Lansing, show that some of the people up there are excited. The occasion for the excitement is the proposition to cause mining property to pay its equitable share of taxation. . . . It is not to be expected that those who have enjoyed immunity from fair taxation so many years, and have profited immensely by such immunity, will yield readily to the proposed change in the status of affairs. . . . If the present method of taxing mining property is correct, why should it not apply to farming property and timber lands, for instance?³¹

The *Detroit Tribune* took the view that the mining business had been "enormously profitable," that no other corporations sent out to their stockholders "such splendid dividends," while what with their manipulation of the product and of prices there is very slender opportunity for the expression of great sympathy

²⁸ The petitions are found in the House Journal, 1891, pp. 857 ff.

²⁹ House Journal, pp. 1201, 1171.

³⁰ Jan. 31, Feb. 19, 1891.

³¹ Editorial "Excited," Feb. 22, 1891.

with them when it is proposed to impose a tax upon them that will in some degree equalize the general tax burden."³²

But the *Marquette Mining Journal* maintained that "Senator Doran's bill providing for the imposition of a state tax of twenty cents a ton on the iron ore produced in this state . . . should be entitled 'A bill to encourage the manufacture of iron in the South.'" The general argument of the mining representatives in Lansing was that the bill would close the non-Bessemer mines, particularly those in the Crystal Falls and Iron River district, and that explorations then partly developed would of necessity have to be abandoned.³³

The final compromise seemed satisfactory to all concerned. Senator Doran's bill was reported adversely out of committee, while the senate committee of the whole adopted a substitute bill requiring all mining companies to be taxed under the general property tax laws of the state.³⁴ This bill the legislature adopted. Senator Doran maintained that the taxes of the Calumet and Hecla under the new law would be raised from \$17,000 to \$49,000, and that companies holding large pieces of land idle would be forced to sell.³⁵

The Republican party was reinstated in 1892 and the question of taxation remained relatively dormant until the advent of Governor Hazen S. Pingree in 1897. Four times mayor of Detroit, he remained in office as governor for two terms, and, for a variety of reasons, will long be remembered in Michigan. His basic theory was that "the first essential of just taxation is that it shall be equal. To exempt one person from taxation is to rob another. To provide a low rate for one and a high rate for another is despotic."³⁶ His chief concern as governor, as it had been while mayor of Detroit, was with public utilities. His interest in mine taxation was secondary.

His message to the extraordinary session of 1898, declared that "The inequality of our system of taxation is so great that it

³² *Grand Rapids Democrat*, March 7, 1891, editorial "Equalization."

³³ *Grand Rapids Democrat*, March 7, 1891.

³⁴ *Grand Rapids Democrat*, March 28, 1891.

³⁵ *Grand Rapids Democrat*, March 29, 1891.

³⁶ Address to the legislature, 1898. Fuller, IV, 82.

should not be permitted to continue for another year." Railroad, express, telegraph, telephone companies "now owning, according to their sworn statements, at least one-third of the property of this state, are required to pay only about one-twenty-sixth of the taxes levied for state, county, and municipal purposes. . . ." He gave the history of railroad taxation, declaring that though the early laws of 1846 and 1855 were supposedly passed to encourage railroad development, the taxes then assessed of $\frac{3}{4}$ of 1 per cent and 1 per cent on capital stock would, if still in force, multiply by three or four times the present taxes. Every change since that time, he declared, had decreased the amount paid by the railroads, in spite of the fact that the immense grants from the state had included not only six sections of land for every mine but, in 1856 and 1867, outright tax exemptions for seven years. "The value of the lands thus given away is almost beyond computation. They were covered with magnificent forests of pine and hardwood and beneath the surface there was untold mineral wealth."

The center of interest during these sessions was the Atkinson bill, providing for a state board of assessors of the property of railroad, telegraph, telephone, and express companies at cash value. The bill was defeated through the senate in 1897 and again in this special session of 1898. Equal taxation was the basis of the fall campaign of 1898, but though the bill was tardily passed in the spring of 1899, it was declared unconstitutional on April 26.³⁷ Governor Pingree was able to persuade the legislature to create a board of state tax commissioners in June of that year, with modified powers, and finally, in the November election of 1900, to secure a constitutional amendment allowing passage of the Atkinson bill. But the opposition, working through the senate during the regular session and three more special sessions before 1901, blocked his efforts to remove the special taxes from the public utilities.

During this memorable administration the governor evinced some uncertainty with regard to mine taxation. He was convinced that the method of taxation was faulty, and even though

³⁷ Pingree Message, Fuller, IV, 235.

he was committed to the principle of uniformity in public finance he feared that the difficulties involved in the appraisal of mines made the property tax inapplicable.³⁸

There is no question but that the mine tax law of 1891, placing the property tax upon the mines of the Upper Peninsula was less severe in its effect than the Democrats had hoped. The report of the Michigan Tax Commission of 1900³⁹ indicates that the copper mines were benefited by it:

	STATE TAX	
	<i>Iron</i>	<i>Copper</i>
1888	\$30,801	\$29,137
1889	33,613	27,514
1890	44,819	31,296
1891	54,639	32,787
1892	70,325	32,056

One-fifth of the foregoing revenue was remitted to the counties from which it was collected, and the tax commission estimated that the specific taxes of 75¢ per ton and 1¢ per ton for copper and iron mining respectively would have produced at least as much as the ad valorem tax. Governor Pingree maintained that the copper companies were taking unfair advantage of the ad valorem tax,⁴⁰ blamed the condition on local underassessments, and compared the total assessed valuation of \$219,290 for copper mines in Keweenaw County with their alleged stock value of \$18,745,000.⁴¹ In the special session of December, 1899, he called for a return to the taxation of copper and iron mining companies on their output.

There is little question but that the State is losing vast sums of money each year in the matter of taxation by the present system of taxing mining properties. The mines of the Northern Peninsula are largely owned by non-residents of the State. But a very small proportion of the stocks are owned by citizens of this State. These foreign owners elect and control the assessing officers, and these properties are taxed and assessed at such value as they choose to place upon themselves.⁴²

³⁸ Message to the special session, Dec. 29, 1899. Fuller, IV, 207.

³⁹ Page 57.

⁴⁰ Message to Extraordinary session of 1898, Fuller, IV, 82.

⁴¹ Message of June 1899; Fuller, IV, 169 ff.

⁴² December 29, 1899; Fuller, IV, 207; Michigan Historical Commission, 1927.

In this and the next session the house passed, and the Senate blocked, the administration bill to place a graduated tax on copper mines ranging from $\frac{1}{6}$ of a cent per pound on mines whose output was 5,000,000 tons annually or less to $\frac{1}{2}$ cent per pound on mines with output of 50,000,000 tons or more per year. The bill was considered to be directed primarily at the Calumet and Hecla as the only copper mine in the Upper Peninsula turning out the larger amount.⁴³

May we note in passing that this administration of Governor Pingree was not the political aberration which many good Michigan people considered it to be. Nearly all important mining states experienced similar movements. They were part of the agrarian revolution, and the motivating forces were as complex as those of any other part of this revolt. Even the odium under which Governor Pingree fell was characteristic of this phase of political development, and can be found in the history of most other left-wing leaders in the struggle over mine taxation. The "smearing" he received was somewhat more open, perhaps, than is recorded elsewhere and therefore may be more safely quoted by the historian, but much of what Pingree said has been thought or repeated by other defeated reformers. He was vilified on the platform, in editorials, and in the pulpit.⁴⁴ The pastor of the First Methodist Church of Benton Harbor, Michigan, in a sermon on "The Passing of the Century," gained the front pages of the *Detroit Free Press*⁴⁵ by his denunciation of the governor for the unwarranted pardoning of criminals, for his uncouth language, and for his preparation of and participation in an intemperate public banquet.

May God grant that our state would never have at its head a man so uncouth in language and so low in morals that he would not only indorse the liquor traffic, but would prepare and participate in a public banquet that was a disgrace to the state.

Professor F. S. Goodrich of Albion College, who occupied the pulpit of the Christian Church at Marshall, Michigan, preach-

⁴³ *Detroit Free Press*, Dec. 30, 1899.

⁴⁴ The *Detroit Journal*, Dec. 28, 1899, Dec. 29, 1899; *Detroit Free Press*, Dec. 29, 1899, Dec. 30, 1899, Dec. 31, 1899.

⁴⁵ Dec. 31, 1900.

ing on the subject of "Belshazzar's Feast," proclaimed that Pingree, at the call of ill-advised, selfish, and degraded politicians who posed as his friends, had prostituted his high office to gratify a selfish ambition.⁴⁶

The governor took notice of these attacks in his retiring address to the legislature:

My experience during my political life, extending over a period of twelve years, has convinced me that in order to secure the full commendation of those who consider themselves the "better classes," the Governor and other high officials must do nothing to antagonize the great corporations and the wealthy people. I am satisfied that I could have had the praise and support of our "best citizens" and our "best society," and of the press of the State generally, if I had upheld those who have for years attempted to control legislation in their own interests. . . . This experience I had while I was mayor of Detroit. This has been my experience while holding the office of Governor. Every large interest that I have antagonized has been arrayed against me, and the allies of those interests, the newspapers of the State, have lost no opportunity to attempt to draw the minds of the people from the real issue by making personal attacks on me and publishing malicious and wilful libels, and to belittle my efforts and bring me into disrepute, in order that the present system of unjust, inequitable, and iniquitous laws might still remain in force, to the detriment of the great masses of the laboring classes and farmers and those of small properties who are unable to speak and act for themselves.⁴⁷

The remainder of the story of mine taxation in Michigan has been that of the development of administrative methods, and in this the state has had no peers. The conditions that allowed this success will be discussed in more detail in the following chapter, but it might be observed, in passing, that the mines were numerous and somewhat isolated, so that mining companies were interested in an equitable method of apportioning the tax burden among themselves. The effect has been somewhat cumulative, inasmuch as the entire state has been eager to support a department of conservation, and the position of mine appraiser in this department has attracted men of high caliber.

In terms of the science of political pressures men may attain dignity and stature when they can lead a movement and thus be relatively free from pressure from behind, or can resist directly

⁴⁶ *Detroit Free Press*, Dec. 31, 1900.

⁴⁷ *Senate Journal*, Jan. 9, 1901, pp. 48-113.

the immediate pressure of the mob and thus show the ability to withstand, without help, the forces they inherently oppose. The job of tax administrator should be so set up that he can be something more than a weather vane. The tax commissioner frequently stands in a less favorable position than other government employees. The ordinary government worker may often follow a relatively routine pattern and show leadership in the execution of prescribed duties. An elected executive or congressman on the other hand may show leadership by standing for a principle and by retiring when that principle is defeated. But those who fall between — who wish to retain their jobs indefinitely, while political pressures about them swirl and shift in a violent and dynamic pattern — may find themselves without either leadership or dignity. A steady buffeting of this type often leads to a considerable demoralization. In this respect the mine appraiser and geologist in Michigan, where the environment is relatively calm and there is not too great a difference between the law and its execution, are in a singularly favorable position.

The tax commission, for a decade after its appointment, struggled with what it felt to be an impossible task. Several criteria were used in early valuations: (1) quotations of capital stock, (2) ores in sight, (3) gross and net income, (4) royalties, (5) recent sale of property, and (6) ore production. None of these, however, were particularly satisfactory. While the stocks of copper mines were quoted daily and the actual value of such mines was therefore relatively easy to compute, the managers of those mines opposed the "stock and bond" method on two counts. They alleged, in the first place, that such market quotations were speculative and that the valuations were considerably more than the known ore reserves could support. In the second place, the iron mines which were held by foreign corporations could not be so valued, and thus were not given their fair share of the total valuation.⁴⁸

To use "ore in sight" would indirectly provide a penalty for development work. During the hearings before the tax commission in the fall of 1900 this method of valuation was advo-

⁴⁸ First Annual Report of the State Tax Commission, 1900, pp. 54 ff.

cated by the companies whose prospecting had not advanced beyond the needs of the present year, but it was demonstrated that the use of "ore in sight" alone would cause some of the smaller producing mines to be assessed higher than more valuable mining properties in the state.⁴⁹

Net income was unsatisfactory as a base because most of the iron was used by companies mining it, and market quotations were undependable. Royalties might have been used to determine the value of the ore in the ground, by the simple process of capitalization, but mines often became much more valuable than the original lessors could predict, and in any case the royalty contracts could not be opened without the use of inquisitorial methods. The state tax commission had used a few scattered sales to determine values, but this method was not generally possible.

Though the assessment of iron mines in 1900 was nearly four times as large as it had been in 1899, the valuation of the Calumet and Hecla copper mine alone, made under the capital stock method, was in 1900 nearly three times the total valuation of all the iron mines of the northern peninsula, "and largely so because the stock of the company is upon the open market." Yet Michigan, in 1899, furnished more tons of iron ore than any other state and two-fifths of all the ore produced in the United States.

It is not claimed by local assessing officers having in charge the valuation of mines under the present law that their true or equitable values have been ascertained. In a majority of cases the supervisors are either the managers or principal employes of the mines. This is true, not only in the copper, but in the iron country. Various reasons are given for the low assessments that have been made upon them; one assessor claiming that his iron mine and others were put at a nominal figure because they were a blessing to the community and afforded labor, and that without the iron mines the community would be practically worthless; others claiming that since the land companies, who owned large quantities of land, upon which undoubtedly were many valuable mineral rights, are almost entirely escaping taxation; that when these land companies could not secure an assessment at but a slight percentage of actual worth, they would fight the taxes in court. . . .⁵⁰

⁴⁹ First Annual Report of the State Tax Commission, 1900, pp. 54 ff.

⁵⁰ First Annual Report of the State Tax Commission, 1900, p. 59.

The valuations of 1900 show an increase in the mining counties of \$79,515,032 of which \$62,182,492 was in the copper county of Houghton.

One of the serious questions had to do with the relation of the ratio of assessment applied to mines and that used on other property. To defend the assessment of copper mines at their true value the state should make some effort to treat other property in the same fashion. The wording of the tax commission law of 1899 was such as to leave considerable administrative power in the hands of the commission.⁵¹ The law granted it "general supervision" over the assessing officers of the state (of which, incidentally, there were two thousand, not counting four to five thousand reviewing officers),⁵² and directed it to take such measures as would place all property on the assessment rolls at its actual cash value. The commission did not have power to appoint assessors, but could confer with them, could institute proper proceedings against them for failing to comply with the law, and could prefer charges against such officers to any prosecuting attorney, the attorney general, or the governor.

Under this authority the board early sent a circular letter of instructions to each assessing officer, calling his attention to the legal requirement that property be assessed at cash value. A "strong effort" was made to find the actual ratios between true values of properties, as indicated by sales in 1901, and assessments, and each township was raised by the percentage indicated under this ratio. Even then it was necessary in most counties to accept the assessments of the local supervisors.⁵³

The commission announced in 1902 that it was "firmly convinced" that a proper equalization could be made only by placing the valuations of the state at their "Cash Value," as the constitution dictated, but it recognized a certain public antipathy toward the program:

Obstacles of every character are encountered to thwart our efforts. We have been called "Tax Sleuths," "Tramps," and what not. Mistakes are magnified, but we are human and no doubt make them.

⁵¹ Act no. 154 of the Public Acts of 1899.

⁵² First Annual Report of the State Tax Commission, 1900, p. 71.

⁵³ Second Annual Report of the State Tax Commission, 1902, p. 44.

But it emphasized the benefits accruing to counties whose proportion of the total assessments were now less, and quoted the *Port Huron Herald*:

The hard fact which interests people is that some 20 per cent or less of the community will have to pay more taxes and these are those who are personally able to pay, while the vast majority—those who own their little \$800 or \$1,000 or \$1,200 homes—will have less taxes to pay than before. . . . The general public does not seem to be much disturbed by the lamentations of a few rich men and a few wealthy estates which were tossed in the air; . . .⁵⁴

During the next two years the commission continued systematic comparison of sales price with assessments. Between 1899 and 1904 the total increase in assessed valuation of real estate was \$356,379,588, of which Houghton, Wayne, and Kent contributed \$89,000,000, the rest being distributed over the remaining 27 counties.⁵⁵ The fourth and fifth commission reports say nothing more about the program of full cash valuation, but again in 1910 several pages are addressed to the subject.⁵⁶ Only by that method, said the commissioners, could the law be obeyed, and only in that manner could there ever be a fair distribution of the tax burden. But the fact that a decade had elapsed between the first determination to assess property at its true value and this long report indicates that other property beside iron mines was still being underassessed. Over other real estate the commission lacked the power to make assessments at full cash value. On iron mines it did not have sufficient information.

⁵⁴ Second Annual Report of the State Tax Commission, 1902, pp. 97 ff.

⁵⁵ Third Annual Report of the State Tax Commission, p. 13.

⁵⁶ Sixth Annual Report of the Board of State Tax Commissioners, p. 20.

CHAPTER XXII

MICHIGAN: ADMINISTRATION OF THE MINES TAX

Of the two principal problems before the commission — the equalization between mines and the equalization between farms and mines — only the first was ever solved, for the demand of full cash valuation eventually ran its course. The state rate was always relatively unimportant and finally disappeared entirely, since, partly in recognition of the competitive position of these mines, Michigan did not levy additional taxes for distribution elsewhere in the state. There did finally emerge, however, a strong demand for adequate equalization between the mines, since both the mines and the local assessors were numerous, and mining companies eventually tired of attempting, by political intrigue, to gain advantages over each other. Thus, finally, the demand for a scientific appraisal of mining properties in Michigan came from many directions — from the tax commission, which had been unable to determine the valuation of iron mines; from the mining companies, who felt that relative assessments were unfair between mines in the same county; and from the farmers, who felt that, on principle, the mines should pay more taxes. The state appropriated \$30,000 for the undertaking and hired J. R. Finlay to direct it.

Not for some days after Finlay arrived in Michigan did he realize that owing to the state of public opinion and to local rivalries between mining companies the assistant engineers must also be called in from outside the state, and that the job of securing precise information within a short period of time would thus be difficult. It was plain from the beginning, said Finlay, that no examination of mines in the ordinary sense could be attempted. To ascertain both the quality and quantity of ore in Michigan was a physical impossibility in the time allotted, and the work therefore resolved itself into an examination of the essential records of the various mines. However, at the conclu-

sion of the survey he reported that owing to the expert aid of his assistant engineers and the full coöperation of the companies, the final result was accurate within a "very moderate range of error."

It is to be remembered that the factors of cost and price are established by official and authentic documents, and that the life of the mines is also mainly established by the same kind of documents. The whole range of error lies in the mere extension of life that I have adopted as reasonable beyond what is plainly measurable. Now since the question is one of present values, it is demonstrable that my error in these extensions must be simply enormous before the error in valuation becomes considerable. The life of the mines is admitted to average sixteen years. If I extend this life to twenty years, the increase of life is 25 per cent, but the increase of present value is only 15 per cent.

As a matter of fact, he had added to the tonnage in sight only the equivalent of one working level, even for the mines that showed no evidence of weakening.¹

The final report was made August 21, 1911, and Dr. C. K. Leith, of the University of Wisconsin, who had been Mr. Finlay's chief assistant, remained as advisor to the tax commission at the reviews held in the four mining counties of Dickinson, Gogebic, Iron, and Marquette.² During these reviews, and upon the recommendation of Mr. Finlay, the iron mines were raised in value from \$19,625,508 to \$85,567,500. The fact that Finlay had considered the copper mines to have been overvalued was given very little publicity, this first year, and the tax commission merely ignored his recommendations for these companies.³ In the report of 1913-1914 two years later, the commission admitted that Finlay had appraised the copper properties at an aggregate which was considerably less than their assessed valuation the same year, but the commission insisted

¹ Finlay, *Report of Appraisal of Mining Properties of Michigan*, introduction.

² Seventh report of the Board of State Tax Commissioners, pp. 8 ff.

³ The appraisal showed that copper mines were assessed at practically their full value; therefore, no reviews were held in the copper producing counties. (Seventh Report, pp. 8 ff.) The report of 1913-1914 (pp. 14 ff.) carried the "conclusion that the copper properties continue to be assessed at approximately cash value. . . ."

that further investigations, made with the assistance of the state geologist, warranted the conclusion that "the copper properties continue to be assessed at approximately cash value. . . ."

TABLE 8
COPPER VALUATIONS AS OF JANUARY 1ST
(From records in the Department of Conservation)

Year	Valuation	Evaluator
1911	69,815,000	Finlay
1912		
1913		
1914		
1915	78,468,600	Local assessor
1916		
1917		
1918		
1919	98,652,935	Recommended by appraiser
1920		
1921	55,716,851	Local assessor
1922		
1923	49,189,884	Local assessor
1924	35,489,250	Tax commission
1925	35,208,450	" "
1926	29,887,000	" "
1927	29,029,000	" "
1928	27,594,000	" "
1929	28,781,706	" "
1930	33,368,610	" "
1931	28,562,661	" "
1932	19,963,545	" "
1933	12,081,741	" "
1934	10,117,125	" "
1935	7,273,162	" "
1936	7,910,311	" "
1937	8,750,991	" "
1938	8,616,823	" "
1939	7,537,482	" "
1940	7,151,375	" "

Among the iron mines there was considerable dissatisfaction over the appraisal, the principal contention being that no engineer, within the time allotted, could value so many properties. In the test case of *Newport Mining Company vs. City of Ironwood*, however, the court left little recourse to the mining companies. The principal contentions of the appellant were as follows: (1) that Mr. Finlay's theory of appraisal and method of valuation made the mining business for which the property as-

essed was used the measure of the valuation whereas the only proper basis of the assessment was the value of the land, (2) that non-mining property was not assessed at its true value, (3) that the assessment was excessive. Some of the testimony was extremely interesting. The manager of the Newport mine considered the Finlay valuation to have been arbitrary:

our estimate of ore in sight as of April 10th is 5,475 tons. This we maintain is all the ore that can be rightfully charged to the Newport mine for taxation purposes. To our figure Mr. Finlay has added 3,600,000 tons above the 2,140 level, on the assumption that the ore area on this level will be the same as that on the 1,740 foot level. In addition to this amount, he has added an additional 7,000,000 tons for possible ore below our 2,140 foot level. We are willing to admit that if the assumptions of Mr. Finlay are correct, and we will be pleased if such is the case, his estimate is within reason. We do not, however, admit that Mr. Finlay, or any other person, has the right to assume for taxation purposes any ore over and above that which is actually developed.*

Another witness, representing one of the larger mining interests in the state, agreed with Mr. Finlay as to method, but felt that he had no right to assume that the price in the future would be the same as that for the last five years. For some of the mines Mr. Finlay had assumed the same price for a twenty-year life of the property. Another witness stated:

I appear for the Cleveland Cliffs Iron Company. It appears to me that it was physically impossible, in the time given by the legislature for the appraisal of these mines, for the appraiser to make a thorough examination and accurate estimate of the value of each mine.

Throughout the testimony there were disagreements with the factors used in the determination of those values.

The court felt that because little of the ore body could be in sight, the total valuation must be a matter of judgment. The court also called attention to the fact that the tax commission, on review, had assessed the property at a sum nearly \$5,000,000 below the Finlay valuation, and had thus apparently exercised judgment. As to the charge that other property was under-assessed, the court stated:

*Newport Mining Co. vs. City of Ironwood, 185 Michigan Reports, June 1915, pp. 669 ff.

Before the year 1911 the Board had power, when a complaint was made to it, to review rolls in the district from which the complaint came. It had not, until the year 1911, the power to undertake such a review of rolls upon its own motion. . . . The argument that property, generally, in the state was underassessed, is answered, I think, by the statement that, admitting there was a general condition which needed to be remedied, the remedy had to be applied in detail and not generally, unless the last condition was to be made worse than the first.

In 1914, another case was brought before the same court.⁵ The 1914 assessment of this Cleveland Cliffs mine and stock-pile had been \$1,555,299, without apparent recognition of the fact that the property, plus houses, 5,000 acres of land, power plant, timber lands of value, and other real estate had just been sold for \$600,000, "so that the purchase price of said mine and stock-pile does not exceed the sum of \$500,000." "It is a fundamental principle of taxation in Michigan, said the plaintiff, "that the words, 'true cash value,' wherever used in the tax laws, shall be held to mean the market value of such property when sold in the usual course of business."

But the court held that the assessors adopted no wrong principle for determining the cash value when they considered the factors approved as the Finlay method, the official data at hand, and the fact of the sale to plaintiff. It would be unfair, the court thought, to say that they had not considered the fact of the sale as affecting the cash value, and there was no evidence of fraudulent purpose. The court then added this significant paragraph:

The case for the plaintiff, is, I think, no better than this: The good faith, judgment and conclusions of the assessing officers is opposed by the good faith, judgment, and conclusions of the vendor and vendee of the land, affected, in the case of the vendor and vendee, by private interest. But the duty, in this behalf, rests upon the assessing officers, and their discharge of it, in this case, cannot be interfered with by the court.

The commission, thereafter, had little to fear in the way of litigation over its assessments.

Unlike most other states, Michigan fully utilized this foundation laid by J. R. Finlay as the basis for a mine valuation program. In Arizona Mr. Finlay's report was largely ignored as

⁵ *Cleveland Cliffs Co. vs. Republic Township*, 196 Michigan Reports 189, 1917.

being too low to meet existing political conditions. In New Mexico his figures were followed without much regard to changing conditions long after he would have thought them pertinent. But in Michigan this survey was used as it should be, with the knowledge that for the best results the findings must be developed and modified each year. Credit for this position probably must be divided among several factors — the large number of mining companies and their desire for relatively exact valuations, the character of mining operations in Michigan, which demanded continuous reassessment, dissatisfaction with the large number of assessing districts and officers which had originally caused single mines to be assessed by numerous untrained and scattered individuals, the existence of a Board of Geological Survey with a large amount of useful information already accumulated, the pressure on the part of the agricultural population for high mine valuations, and the gratifying result of Finlay's appraisal of iron mines. To the extent that the course of history can be influenced by single individuals, credit must be given to R. C. Allen, who, as representative of the State Board of Geological Survey, was primarily responsible for adjusting this new "Michigan System" to the peculiar technical and diplomatic problems faced by the mining industry.

Some of the problems with which Michigan has dealt would be found in any state which conscientiously tried to administer the property tax on mines. Others have risen from the peculiar conditions of the mining industry in this state — conditions which may, to some extent, eventually be found elsewhere. Since the administration of R. C. Allen the state has used the Hoskold formula for valuation purposes, with an assumed 6 per cent return to the investor and 6 per cent on the capital accumulations. The rates today are considered somewhat unorthodox and have never been popular with the mine managers, for 6 per cent is considered low for a return in an industry as risky as mining, and is too high for a return on a sinking fund invested in safe securities. There are several possible explanations for these rates. One is the fact that their determination presents a technical problem understood by few state officers, and the precedent

once set, therefore, is difficult to change. Another is the fact that the principal problem facing the state geologist is that of making the assessments relatively equal as between mines, and if the same interest rate is applied to all, the height of that rate is of secondary importance.

Openly, however, the defense of interest rates of "6 and 6" is that the capital returned to the owner is not invested in a sinking fund but put back in the mining business where it earns the higher rate. A second defence is that such rates are equivalent to a straight 6 per cent discount of future mine profits, and a straight discount is considered by some students to be more acceptable than the Hoskold formula for valuation purposes. These rates have been combined originally with a yearly discount of anticipated profits in recognition of mine risks. All of these matters have been discussed in Chapter IV. From the point of view of the economist, the Michigan system is notable because it avoids to an important degree the questionable practice of lumping a variety of the engineer's doubts in the discount rate.

The Lake Erie price for iron ore is considered in Michigan to be approximately 20 per cent too high, but valuations are nevertheless based to a considerable extent on yearly reports showing the difference between costs of production and this lower lake price.

In several ways the appraiser of mines has attempted to avoid the dangers involved in any unbending application of the ad valorem tax to mines. He has made an effort to avoid penalizing a company for its development work, for accumulating a stock pile in the winter time, or for skillful management. Usually he has sought to adapt the system of ad valorem taxation to the conditions of depletion and high costs which face all of the copper and some of the iron mines. One of the means of avoiding a penalty on development work is to make a strong effort to appraise the undeveloped ores of competing mines. The stock-pile tax is even more important, for during the winter months when lake transportation of ore is impossible, continuous employment of miners will result in the accumulation of stock piles for every

mine, and every expenditure for winter wages thus increases the total assessment for the mines. Michigan has done a particularly good job of meeting the legal and political requirements of assessment of such stock piles at their value, without discouraging the mines from the continuance of steady winter employment.

The third problem, that of avoiding the penalization of mines for efficiency, is equally difficult. As has been indicated in an earlier chapter, the true profit to the unusually successful mine operator should not be capitalized in the valuation of the mine, as any mine valuation formula is apt to do if applied without discrimination to the net earnings. While to draw a distinction between the return due to ownership of the mine and that due to the ability of the mine operator is never entirely possible, the use of figures for average costs and profits does allow some flexibility in valuation.

To those states who are looking ahead to the taxation of depleted mines, the experience in Michigan is particularly significant. The largest Michigan copper mines, with a long history and a proud dividend record, are now approximately a mile deep, and their operation is only occasionally profitable. In 1930 the Seneca Copper Mining Company and in 1931 the Ahmeek Mine of the Calumet & Hecla Consolidated Copper Company discontinued operations owing to the low price and depressed market for copper. In 1932, owing to depletion of ore supplies, the Mohawk Mining Company discontinued all operations and dismantled its buildings and mills.

From 1932 until early in 1935 approximately 90 per cent of the employable persons in Keweenaw County were on some form of relief. It is true that this was not the only mining community with a heavy unemployment burden during those years, for the copper mining centers of Arizona and Montana suffered severely and for a long period of time. But the opening of the Ahmeek Mine in May, 1935, relieved the situation in Michigan only to a small extent. Even in July, 1941, the director of the Department of Social Welfare reported approximately 50 per cent of the employable persons in the county on some government program.

The Seneca Mine was still closed and the high percentage of unemployed existed in spite of the fact that the Ahmeek Mine was working at full capacity. Only a material increase in the price of copper would enable the Seneca Mine and other smaller operators to resume production.⁶

From the social point of view the important element in this picture is the fact that many were without work for nearly ten years. Few families can survive a ten-year period of unemployment without a serious dislocation of morale. There were many men in their late twenties, married and single, in that county, who had practically never been employed. Unemployment there, as in some of the depressed coal mining regions of the world, became a mode of life, and the debilitating effect upon the population was obvious even to the casual visitor.

The iron ore regions of Michigan present a far less difficult social problem, but competition with cheaper ores in Minnesota combined with the depression to give some of the mines an extremely low, if not entirely hypothetical, value, even to an engineer. Yet it seemed necessary to assess and tax some of those mines on the basis of the community need for revenue, and with the cooperation of the state tax commission and the state engineer the mines undertook to assess themselves. Out of these efforts to adapt the ad valorem tax to an old mining area grew the theory that the rise and fall of mine valuations through their life should be smoothed out, with perhaps a lower valuation during their heyday and overvaluation during old age.

But again the lack of certainty in this process of arbitrarily modifying the ad valorem tax has brought with it some seeds of friction. The theory that mines should pay taxes according to community needs opens the entire question of the extent of those needs, and, furthermore, tempts the authorities to play politics by taking valuations from one piece of property of a given mining company to add to another, under the plea of necessity. This is not the only state, of course, where the corporation has tolerated an arbitrary increase in assessments to meet some financial

⁶ The foregoing information is from a letter of July 23, 1941, from R. M. Dodge, Director, Department of Social Welfare, Mohawk, Michigan.

crisis in the local government, but the solution is not necessarily a satisfactory one for the mining company.

It should be added, however, that certainty can grow out of custom, as the history of tax administration in Michigan demonstrates. The local board of supervisors does not have to follow the mine assessments suggested by the tax commission, but in actuality failure to do so is extremely rare. The tax commission, in turn, need not follow the findings of the mine appraiser, but except in an extreme political emergency, such as in the depths of a depression, his influence has tended to dominate the entire legal machinery of valuation.

A part of the strength of the mine appraiser's position is due to the peculiarities of mining in Michigan. The Minnesota ores, lying to a large extent near the surface, can be defined with some exactness, and a court decision like that of 1935 can be used for several years thereafter as a basis for assessment. But none of the copper mines and only part of the iron ore deposits in Michigan are handled by open pit methods, and in general, therefore, they demand yearly revaluation. The mine appraiser, by going underground, can modify from year to year the general geological conceptions of that area. He can study mining conditions and compare methods, and perhaps foresee changes in costs due to depth, heat, water, or kindred obstacles. In general, the mine appraiser in Michigan, because of his strategic position as a scientist and his relative freedom from political pressure, has been the key to the successful execution of the ad valorem method of taxation. The very existence of such an office, on the other hand, is due to the character of the political pattern in Michigan and this, in turn to the economic and geographic position of the mines. The character of this position will be made clearer by comparison with the history of mine taxation in Minnesota and Arizona, where the net mine rent appeared to be higher and the mines themselves were not geographically isolated. The fact that the bulk of the mining area in the Upper Peninsula was originally granted to Michigan rather than to Wisconsin has undoubtedly made some difference in the tax program. But of all the factors leading to this admirable ad-

ministrative condition, the most obvious is that the open-pit iron mines of Minnesota and the open-pit copper mines of Utah, Nevada, Arizona, and New Mexico have kept the price of ore low, and the rural pressure groups in Michigan, as in Alabama, are aware of the competitive difficulties facing their mines.

This is not to say that the tax burden in Michigan is relatively low, but only that the tax system is not used as a means for redistributing income. From the reports issued by the Department of Conservation the following table can be constructed, to indicate the relation of the general property tax burden per ton of ore during the five years 1936 to 1940 inclusive to labor costs, "gross ore profit," and royalty. The "gross ore profit" is calculated on the assumption that ore is sold at the Lake Erie price (a condition which is somewhat infrequent) and is merely the difference between total ore costs and that price.

	<i>Marquette Range</i> (underground)	<i>Gogebic Range</i> (underground mines)	<i>Menominee</i> (underground)	<i>Silicious Open</i> (pit mines)
Property tax	.1733	.2526	.1390	.0272
Labor costs	1.0118	1.0133	.9589	.2047
Gross ore profit	1.3692	.9815	.8743	.1563
Royalty	.2602	.3855	.2695	.0914 ⁷

⁷ "General Statistics Covering Costs and Production of Michigan Iron Mines," Department of Conservation, Geological Survey Division. Compiled by G. E. Eddy, Appraiser of Mines, 1940.

CHAPTER XXIII

MINNESOTA: EARLY HISTORY

THE IRON RANGES of Minnesota developed somewhat more slowly than those of Michigan, and for many years mining appeared to be in need of encouragement. There was apparently a shipment of ore about 1850 through St. Mary's rapids,¹ and in 1854 the legislature successfully petitioned Congress for a grant of lands for a railroad to the St. Louis iron range, speaking of the rich deposits of copper and iron in the vicinity of Lake Superior. The road was incorporated two years later, but the project lay dormant for nearly a quarter of a century. In 1881 George Stone appeared before members of the legislature stating that the group he represented was interested in some ore property but hesitated to make any large investment until they could be assured against unreasonable taxation.² The legislature thereupon enacted a tax to be in lieu of all others, amounting to 1 cent per ton of iron and 50¢ per ton of copper mined, shipped, or disposed of, half of the revenue to go to the counties and half to the state. The same group, incorporated in 1882 as the Minnesota Iron Mining Company, acquired the franchise of the Duluth and Iron Range Railroad Company, together with its swampland grant, and between 1880 and 1883 gained control of 17,000 acres at what is said to have been a cost of \$40,000.³ A first shipment of 62,000 tons was made from the Vermillion Range in 1884. The population of St. Louis County grew rapidly in the next decade,⁴ and by 1890 it is said to have contained 284 mining

¹ Woodbridge and Pardee, editors, *History of Duluth and St. Louis County* (1910).

² W. W. Folwell, *History of Minnesota* (St. Paul: Minnesota Historical Society, 1926), III, 199, IV, 53.

³ Folwell, IV, 53 ff.

⁴ Year	Population
1880	4,504
1890	44,862
1900	82,832
1910	163,274

Walter Van Brunt, *Duluth and St. Louis County* (1921), IV, 51.

companies. In that year the Merritt Brothers uncovered deposits in the Mesaba, and two years later the first shipments were made from the Mountain Iron Mine over the Duluth, Mis- saba and Northern Railroad. In 1892 Frank Hibbing found the

TABLE 9
MINNESOTA IRON ORE PRODUCTION *

Year	Thousands of tons	Year	Thousands of tons
1884	62	1911	23,336
1885	225	1912	34,196
1886	304	1913	36,340
1887	394	1914	23,352
1888	512	1915	32,619
1889	845	1916	46,190
1890	880	1917	45,394
1891	895	1918	44,069
1892	1,172	1919	34,792
1893	1,435	1920	40,347
1894	2,742	1921	17,709
1895	3,860	1922	30,772
1896	3,970	1923	45,306
1897	5,555	1924	31,589
1898	5,879	1925	38,452
1899	8,386	1926	41,920
1900	9,466	1927	36,505
1901	10,791	1928	39,168
1902	15,415	1929	47,478
1903	14,571	1930	34,881
1904	13,439	1931	17,309
1905	21,837	1932	2,250
1906	25,613	1933	14,953
1907	29,177	1934	15,968
1908	18,100	1935	20,533
1909	29,287	1936	33,782
1910	30,404	1937	49,052

* The Lake Superior Iron Ore Association, *Lake Superior Iron Ores* (Cleveland: 1938), pp. 308-309.

ore at the site now bearing his name. Mountain Iron, Biwabik, and McKinley were incorporated in 1892, Eveleth and Hibbing in 1893, and a year later Hibbing boasted its first barber.⁵ The ranges were tough. Men who had occasion to walk abroad at night carried an unlighted lantern in one hand and a loaded revolver in the other.

⁵ *St. Louis County, Minnesota*, by St. Louis County Historical Society, p. 39; Van Brunt, II, 555.

The early history of Minnesota, like that of Arizona and other western states, shows a long continued effort to encourage capital investments by grants and tax exemptions. The state constitution of 1857 provided that "the credit of the state shall never be given or loaned in aid of any individual, association, or corporation," but in 1858 the legislature submitted an amendment which, when adopted, permitted the lending of state credit to land-grant railroad companies to the amount of five million dollars. When the railroads suspended construction in 1860 the state took up the franchises, lands, and roadbeds under its lien.⁶

The state made swamp land grants in 1861, 1863, and 1865 to prospective railroads, and these grants were in addition to those by the federal government. In each instance the property tax was "commuted" to a definite gross earnings tax. Thus the law of 1865 provided that after thirty miles of railroad had been completed and during the first three years of the life of the road the tax should be 1 per cent of the gross earnings, during the next seven years it should be 2 per cent, and thereafter 3 per cent, in lieu of all other taxes. To insure the permanency of these grants a constitutional amendment of 1871⁷ provided that any future repeal or amendment of such lieu taxes should be submitted to popular vote, and in 1878 a general statute⁸ offered this exemption to any railroad which would accept the provisions of the act. When, in 1894, an attempt was made to repeal these exemptions, the state supreme court, while admitting that the failure to set a time limit had been unfortunate, held that the exemptions were part of a contract and must stand wherever the companies had performed their part.⁹ The state's encouragement of mining was obviously a matter of general policy, therefore, and not confined to this one particular industry.

Yet the attempt to reverse this policy followed quickly upon the heels of ore discovery and development. In 1889 a mineral lease law provided that from any lands sold thereafter in St.

⁶ James Heaton Baker, "History of Transportation in Minnesota," in Minnesota Historical Society, *Collections*, IX (1901), 25.

⁷ Art. 4, par. 32a.

⁸ Chapter ii, par. 128, 129.

⁹ *State v. Luther*, 56 Minn. 156.

Louis County the mineral rights should be reserved to the state. A proposed constitutional amendment in 1891 authorized a specific tax on mining property, but the measure failed. The Populist Party at Omaha, July 4, 1892, demanded that mining lands be taxed equally with other property.¹⁰

Public sentiment was able to justify this sudden change of policy on several grounds. The resources of the state had undoubtedly been dealt out with considerable liberality. In 1873 Congress had exempted Michigan, Minnesota, and Wisconsin from the mining law which restricted mining claims to rectangles six hundred by fifteen hundred feet, and threw the entire area open to homesteads and preëmptions.¹¹ Until 1889 the state pursued the same open handed policy, selling its holdings of timber and mineral as arable lands, and the lease law of that year, providing that ore properties belonging to the state might be mined at a royalty of twenty-five cents a ton, was not only belated in its effect but set a rate which, as the region developed, proved to have been too low.¹² In 1907 the total receipts from royalties and contracts totaled only \$273,433.

Much of the land on the iron ranges had been sold before anyone knew of the iron deposits or could foresee the value of iron in the new age. In other cases the existence of iron appears to have been suspected but not definitely known. Nowhere was there a realization of the vast extent of the deposits. Hull, of the famous Hull-Rust properties, joined Boeing in the purchase of 7,500 acres of timber land at the price of \$22,500. The pine was profitably removed, and it was on this piece of land that Frank Hibbing uncovered several million tons of iron ore.¹³ In such a manner a large share of the mineral bearing land was disposed of in the two fall openings of 1875 and 1882. The state decided later that some of the land was acquired under questionable circumstances, and in December, 1894, the Pine Land Investigating Committee of the Minnesota legislature reported suits in progress to recover \$400,000, for fraud and collusive bidding.¹⁴

¹⁰ Folwell, III, 199.

¹¹ Van Brunt, I, 358, 361, II, 539.

¹² Folwell, III, 199 ff.

¹³ Van Brunt, II, 539-540.

¹⁴ The *Representative*, Dec. 26, 1894.

In some cases recovery was possible on the grounds that estimates had been improperly made.¹⁵

Other factors continued to influence public sentiment. The tracts of white pine stretching through northern Minnesota had seemed at first to be inexhaustible, and when, suddenly, they were gone, the state felt that it had received little in compensation. Some resentment developed when it was learned that the Merritt Brothers, who had made sacrifices to develop some of the most valuable of the ore deposits, had lost the property on a mortgage to John D. Rockefeller, from whom it had passed, finally, to the United States Steel Corporation.

It is true that none of these conditions governing the final ownership of iron ore deposits seems to prove a clear public interest in them after sale. Whatever may have been wrong with the timber purchases, the acquisition of mineral lands seems to fall more under the heading of "findings" than of "stealings," and in any case the state had forgotten the generation during which it had tried unsuccessfully to interest capital in mining. The fact that states universally do whatever is possible to encourage exploitation of deposits when they are marginal or sub-marginal and demand a share in them only after they prove profitable indicates that the state's natural interest is not in the physical resources, but in the profit or net rent found therein.

Nevertheless the anti-mine group was able to develop, as an emotional drive, the popular sentiment that the moral title to the iron ore deposits was clouded. Said Altgeld, the fighting mayor of Chicago, in a speech at Omaha, January 17, 1899:

Look about you. Nearly all the wealth of this land is passing into a few hands, and not one of those hands favorable to the freedom of the citizen. Every great industrial, commercial, mining or transportation enterprise is passing into the hands first of corporations, and then by further consolidation into the hands of trusts. . . .¹⁶

In 1895 the state constitution was amended to allow the legislature somewhat more freedom in the taxation of mining than

¹⁵ Theodore Christianson, *Minnesota* (New York: The American Historical Society, 1935), II, ch. xi.

¹⁶ *The Representative*, Minneapolis, Jan. 18, 1899.

it otherwise possessed, though the purpose of the amendment was lost in verbiage. So far as it bore upon mine taxation it read as follows:

The legislature may impose . . . upon . . . mines . . . a tax as uniform as reasonably may be with taxes imposed on similar property or the earnings thereof . . . and . . . it shall be competent for the legislature . . . to impose such tax . . . by taking as a basis of such imposition the . . . quantity of production . . . or in other manner or by such other method as the legislature may determine; but the proceeds of such taxes on mining property shall be distributed between the state and the various political subdivisions thereof wherein the same is situated, in the same proportion as the taxes upon real estate are distributed.

The legislature in 1901, feeling the need of a new revenue code, created a commission for the purpose,¹⁷ which reported the following year in favor of a tonnage tax.¹⁸ Because of the vagueness of the amendment of 1895, the commission recommended the adoption of a new one, urging as one of the reasons the inherently unsatisfactory character of the ad valorem tax, which had been in operation since 1897:

The inhabitants of every mining district consist largely of those employed directly or indirectly in the operation of mining properties. The influences surrounding a local assessing officer will manifest themselves in favor of the owners of the property assessed. This truth is exemplified by the experience of Michigan.¹⁹

This criticism of the operation of the ad valorem tax on mineral lands was probably well taken. The tax commission reported in 1908 that during the decade of operation of the property tax, after 1897, there had developed a curious system of dual equalization. The state board, having determined the amount of the assessment against iron ore properties as a whole, so informed the mine owners, who, in turn, apportioned the assessment among the mines on the basis of their output. The result was to turn the property tax into a tonnage tax, so far as individual mines were concerned, and to relieve the large companies, with extensive reserves, at the expense of the smaller.

¹⁷ General Laws, 1901, ch. 13.

¹⁸ *Report of the Minnesota Tax Commission* (St. Paul: The Pioneer Press Co., 1902).

¹⁹ But for most other property the commission recommended full cash valuation; again admittedly following the Michigan precedent (*op. cit.*, pp. 16, 24).

Under this system reserves were listed at nominal values as wild land.

The 1901 legislature presented to the voters an amendment which, it was hoped, would remove some of the restrictions upon the legislature not only concerning mining, which was admittedly the chief concern, but concerning inheritance, stock, bond, and railroad taxation as well.²⁰ It failed of passage and the legislature of 1903 was unable to agree on a form of resubmission. Not until 1906 was the "wide open" amendment submitted and adopted, removing all restrictions on the legislature except that taxation should be uniform upon the same class of subjects.²¹

The intensity of the drive upon the mines after 1905 was due in large part to nation-wide enthusiasm developing during the first decade of the century over the future of American business in general, and of the steel corporations in particular. U. S. Steel, to defend its capitalization before a congressional committee, had put a valuation of \$700,000,000 on its ores,²² a figure nearly thirteen times the total assessment of all iron mining property in Minnesota and Michigan. The holdings of U. S. Steel were estimated to be approximately half of the total in those two states.

Many of the rumors at the time of Governor Johnson's campaign were authenticated a few years later during the hearings before the House Committee on the investigation of the United States Steel Corporation. In August, 1911, a letter was made public which had been written by Charles M. Schwab to Frick in May 15, 1899, stating that rails could be made for less than \$12 a ton and sold abroad at a profit at the competitive world price. While it was alleged in 1911 that the cost of production of steel rails had risen to \$21.50, this still allowed a profit of \$6.50 a ton.²³ Both Schwab and James Gayley had estimated

²⁰ The *Minneapolis Tribune*, Jan. 9, 1909.

²¹ Minnesota State Constitution, art. 9/1.

²² *Hearings before the [House] Committee on Investigation of United States Steel Corporation* (8 vols., Washington: Government Printing Office, 1912), VIII, 233.

²³ *Hearings . . . on . . . U. S. Steel*, II, 1322, 1341.

iron ore to be worth \$1 a ton in the ground, and the former, at least, had made the statement some years before Johnson was elected governor.²⁴ It was during one of these hearings²⁵ that the committee referred to a report of the Minnesota State Tax Commission valuing ores at from 14¢ for the poorest ores to 33¢ for the best, and asked Mr. Schwab: "So it proves from this that in the Minnesota region, when they come to the assessment of these ore lands, why they do not put an exaggerated value on them." Schwab replied, "No, that is evident." The question continued: "Those are the ores that, in your testimony this morning, you spoke of as being worth \$1 a ton?" "I did." He admitted, however, that he held none of those ores, and the Bureau of Corporation was always skeptical of the right of U. S. Steel to give so high a value to its deposits. Opposed to the corporation's value of \$700,000,000 for 1902, the Bureau of Corporation was willing to allow no more than \$100,000,000, but even this was nearly twice the \$54,142,063 tax assessment placed on all iron ore in Minnesota and Michigan.²⁶ Granting the rough calculation that half of the ores were owned by U. S. Steel, and assuming that assessments for other property were at a ratio of approximately 50 per cent, the Bureau of Corporation estimates suggest that the ore valuation of 1902 should have been doubled.

Another indication of the general optimism felt over the value of these deposits is found in the famous "Hill Lease" acquired by the United States Steel Corporation on large properties held by the Great Northern Railway Company. The contract was entered into in 1906, providing for a royalty of 85¢ a ton, to be increased by 3.4¢ each year. Terms in general were onerous, compelling U. S. Steel to ship over the Great Northern Railroad and to mine a minimum of 750,000 tons the first year, to be increased by a like amount each year until a yearly output of 8,250,000 tons should be rendered. By 1910 the lease required

²⁴ *Hearings . . . on . . . U. S. Steel*, I, 436; II, 1342; *Tariff Hearings before the Committee on Ways and Means of the House of Representatives, Sixtieth Congress, 1908-1909* (8 vols., Washington: Government Printing Office, 1909), II, 1762.

²⁵ *Hearings . . . on . . . U. S. Steel*, II, 1342.

²⁶ *Hearings . . . on . . . U. S. Steel*, VIII, 283.

the payment of 95.2¢ per ton royalty plus 80¢ a ton freight on a minimum of 3,000,000 tons,²⁷ and on October 26, 1911, the steel company gave the required three years notice of cancellation of the contract. The iron ore trade understood that one of the reasons for the original lease was the desire to forestall the acquisition of the property by a possible competitor, and that, conversely, one of the reasons for disposing of it was federal anti-trust proceedings instituted on October 26, 1911,²⁸ the day of cancellation. Unquestionably, however, the Hill lease reflected the feeling common to steel men of that era that ore production and profits would continue to rise as in the past. This spirit of optimism was reflected, in turn, in the legislative debate in Minnesota.

Yet in spite of the widespread understanding that the main purpose of the "wide-open amendment" of 1906 was to make possible a tonnage tax, the legislature failed to enact such a measure. Governor John A. Johnson lent his vigorous support to a tonnage tax.²⁹ He called attention to the fact that while, under the ad valorem system, the St. Louis County assessments had risen from less than \$4,000,000 in 1896 to \$70,000,000 in 1906, the United States Steel Corporation had testified in chancery suit in 1902 that their ore holdings were worth \$700,000,000. The bulk of these holdings lay in St. Louis County, where they had paid an equivalent of 20 mills on a valuation of only \$27,500,000. He did not believe that the solution lay in higher valuation for such companies, for an increase in valuation would only reduce the already light local rates.

It is plain that if the iron mines . . . paid all the taxes levied for all purposes in that county, outside of the taxes paid by city property, they would still pay only a comparatively small proportion of their fair and just tax burden as compared with the rest of the state.

He hoped that the further increase of mine valuations of 70 per cent, for 1907, would increase the taxes to a total of \$1,200,000, of which perhaps \$150,000 would go to the state,

²⁷ *Engineering and Mining Journal*, Oct. 28, 1911, p. 829; Dec. 19, 1914, p. 1108.

²⁸ *Engineering and Mining Journal*, March 30, 1912, p. 660; Oct. 28, 1911, p. 829; Dec. 19, 1914, p. 1108.

²⁹ Biennial Message, Jan. 9, 1907. In Executive Documents, Minnesota, I, 587.

but he was impressed with the practical impossibility of applying a valuation and tax rate which would cause them to pay a "just proportion of their taxes on a basis of equality with other property throughout the state."

The State of Minnesota has received one of the greatest heritages of mineral wealth ever bequeathed by Mother Nature to a commonwealth. The iron thus far surveyed and tested measures approximately one-half of the reserve deposits of the continent. The 1906 shipments of 25,483,000 tons from the Minnesota mines is over one-half of the American total and one-fourth of the world total. But the state itself is receiving a very meagre share of the net revenue and general benefits.

The great iron ore beds are being yearly depleted for the benefit of a few and these chiefly non-resident corporations.

Governor Johnson pointed out that the new constitutional amendment endowed the legislature with the power as well as the duty of providing a system of taxation which would give the state at least an "approximately fair share of its just revenue income from this great iron ore wealth." Of the proposals brought before the legislature, one, the governor's, provided for the taxation of royalties; another proposed that ore with a metallic content of 49 per cent or more should pay a tax of 5¢ a ton, in lieu of the state ad valorem; and a third provided for a tax of 25¢ a ton on all ore produced, with a rebate of 20¢ for ore smelted within the state.³⁰ None of these measures passed, though in deference to the third, which was openly aimed at the erection of steel mills in Minnesota, U. S. Steel built a mill at Duluth.³¹

During this session a joint committee, appointed to determine the best method of mine taxation, collected a large amount of testimony bearing upon ore properties. The committee found that there were 1,400,000,000 tons of iron ore in sight on the Vermillion and Mesabi ranges alone, and that these rich fields were taxed only to the sum of \$1,500,000 in 1906, of which only \$196,000 was paid as state taxes. The committee was convinced that for many years these properties had at no time been as-

³⁰ First Biennial Report, Minnesota Tax Commission, pp. 13, 15; Ninth Biennial Report, ch. vi.

³¹ "The Truth About the Tonnage Tax" (Minnesota Fair Tax Association, 1920).

essed at more than one-fifth of their true value. Three resolutions, therefore, appeared before the legislature: one that the valuation of iron properties should be between \$210,000,000 and \$250,000,000, a second that it should be not less than \$300,000,000, and a third, which was finally adopted by the house, to the effect that from the information gained by the joint investigating committee "it is the sense of the House that the assessment on such lands should be raised to \$225,000,000, approximately."³²

While, therefore, the legislature was unable to agree upon a new tax program, the anti-mine group did insist on the creation of a state tax commission to rectify the underassessments which appeared to exist, and to report on the advisability of a tonnage tax. The powers granted the commission were nearly identical with those in Michigan, and, as in that state, the tax commission emerged as a compromise measure, from a legislature unable to agree on specific changes in the revenue law.³³

The state tax commission, when it made its first annual report, was divided on the subject of the tonnage tax. A majority favored it. The interests of the state, said the majority, were distinct from those of the local governments, for while the latter required steadiness and certainty of income and could not rely safely upon the output of mines as a revenue base, the state desired only to secure some share of the wealth found in its borders. Both might be satisfied by allowing the local authorities to retain the property tax, and by placing an additional tonnage tax on mine output.³⁴ To this argument the minority member, O. M. Hall, dissented. A flat rate, he thought, would be unfair to some mines, and even a graduated rate would be less fair than the equalized ad valorem tax. The yield would be fluctuating and too uncertain, even for the state. The threat of vindictive rates, finally, would furnish a large measure of uncertainty to owners, and would seriously disturb the mining business.³⁵

³² First Biennial Report, Minnesota Tax Commission, p. 111.

³³ First Biennial Report, Minnesota Tax Commission, pp. 13, 15; Ninth Biennial Report, ch. vi; see above, Chapter XXI on Michigan.

³⁴ First Biennial Report, Minnesota Tax Commission, p. 143.

³⁵ First Biennial Report, Minnesota Tax Commission, p. 143.

The session of 1909 was one of the most bitterly contested in the history of Minnesota. A majority of the tax commission favored a tonnage tax³⁶ and the governor's message urgently endorsed it.³⁷ Governor Johnson was one of the few Democratic governors in Minnesota history, and in two campaigns he had been elected largely because of his mine-tax platform. The constitutional amendment of 1906 had been another indication of the popular will. The legislature, after strenuous debate, passed an act designating as class "A" mines those producing 20,000 tons or more of ore between January and September 2, of any one year, and as class "B" those producing less. Class "A" mines, under the act, were to pay a specific tax on production, varying with the metallic content. Ore with a metallic content of less than 49 per cent paid 2¢ a ton; ore with metallic content of 49 per cent or less than 54 per cent paid 3¢ a ton; ore with 54 per cent or less than 59 per cent, 4¢ a ton; and ore with higher content 5¢. These taxes were to be in lieu of all other state taxes.

It seems probable that the proposed law penalized the Vermillion Range, for while the iron content of those ores was higher than in the Mesaba, the ore lay in deep mines rather than in strip mines, and the cost of extraction was higher. In this session, as in others, the real division of opinion lay between the northern and the southern part of the state. All groups in St. Louis County were opposed to the principle that the tax system should be used to siphon income to the southern part of the state, and made common cause against the bill. Following the precedent established a few years earlier in Michigan, the mining camps deluged the legislature and the governor with telegrams, apparently sending 3,000 to the governor alone, asking for his veto of this measure.³⁸

The governor at length yielded, and few veto messages have found so dramatic a setting. Up in the iron range bells rang, whistles blew, and people shouted in the streets. The *Minneap-*

³⁶ Minnesota Tax Commission, First Biennial Report, p. 143; Second Biennial Report, p. 14.

³⁷ House Journal, 1909, I, 935; II, 1893-1897.

³⁸ Folwell, III, 288 ff.

olis Tribune, the next day, expressed the opinion that Johnson had saved Minnesota "from a sectional division more bitter at the beginning than that which separated North and South before the Civil War." The *Minneapolis Journal* declared the veto to be "a courageous and sensible thing."³⁹

Governor Johnson explained his action at considerable length. The bill, he said, was uncertain and ill-digested, not fully understood by its friends and intensely feared by the sections of the state to which it specially applied. It was possibly unconstitutional. The moral, industrial, and practical effect of the bill would be injurious to mining and, indirectly, to the rest of the state. General ignorance of the principle behind this bill, and the uncertainty of its terms, had plunged the whole subject of taxation into a sea of political and sectional feeling and prejudice. Minnesota had achieved success with the present ad valorem system, the revenue therefrom was continuously increasing, and the ore valuations by the Minnesota Tax Commission were the subject of admiration of leading tax authorities throughout the country.⁴⁰ In this he probably referred to the figures given wide publicity during the year, showing that total mine taxes had risen from \$88,849.43 in 1896 to \$1,148,386.17 in 1906, and that state revenue from this source had grown from \$11,879.96 to \$194,188.13.⁴¹

The test of strength in the struggle over the tonnage tax bills of 1907 and 1909 seemed, for a decade thereafter, to be conclusive. The fact is that, as the report of the minority member of the tax commission had suggested, the proponents of a tonnage tax labored under an economic disadvantage. The very theory of the severance tax was misleading in substance and inapplicable in practice, for if the public interest were in the ore rather than in the profit therefrom, all ores must be taxed, even those of the marginal mine, and the mine might be marginal either because

³⁹ April 21, 1909; Folwell, III, p. 290.

⁴⁰ *The Messages of Governor J. A. A. Burnquist and former Governor John A. Johnson, accompanying their vetoes of Tonnage Tax Bills, passed during their respective terms of office*, published by the Commercial Club of Duluth, Oct. 24, 1919.

⁴¹ *Assessed Valuation and Tax Rates in Iron District St. Louis County, Minnesota* (n.p., n.d.), Table I.

of low grades of ore or because of high costs. To shift the aim of the tax law to the net rent of the mine it was necessary first to work out formulas and methods of administration which would satisfactorily deal with net rather than gross income. This change in point of attack was not made for another ten years.

In the meantime, as Governor Johnson had indicated, the tax commission, following the wishes expressed in the legislature of 1907, had rapidly revised the mine assessments upwards. During the first summer the commission found tonnages which, valued at from 33¢ to 8¢, produced a gross valuation of \$186,204,002, of which \$137,562,048 belonged to the Oliver Iron Mining Company, subsidiary of U. S. Steel. The final mine valuation, including personal property, was \$194,428,928, which, while still short of the \$225,000,000 requested by the legislature, was over three times the \$64,586,409 of the previous year.

During its first two years of operation the commission accepted estimates of the various mining companies as to the extent and value of their holdings, and adopted a method of classification of mineral deposits, grouping 2,116 different mines, mineral properties, and prospects into five grades of operating mines and four grades of prospects. To these classes of mineral property the rates given per ton were as follows:

MINES		PROSPECTS	
<i>Class</i>	<i>Cents per ton</i>	<i>Class</i>	<i>Cents per ton</i>
I-A	33	1	15
I-B	30	2	10
2	27	3	8
3	23	4	\$3.50 to \$50
4	19		an acre
5	15		

The formula allegedly used to arrive at these rates has been described as follows: In each class the differences between the cost of mining and the average price of ore during the previous three years was projected twenty years into the future, and

given a present worth on the basis of 4 per cent interest. This present worth, then, was reduced to correspond to the ratio of assessed to true value found in the rest of the state, which, upon examination of the county records, appeared to be approximately 43.5 per cent.⁴² Whether the commission actually did make such a present worth calculation has been a matter of debate,⁴³ but Armson, testifying in the Oliver Iron Mining Case pointed out that 33¢ with 20 years exhaustion period at 4 per cent interest, if intended to be 43.5 per cent of the real value of the property, would indicate a not unreasonable profit of approximately \$1.66 a ton on the best ore.⁴⁴

In June of 1910 the commission hired Edward P. McCarty, of the School of Mines of the University of Minnesota, who advised some reclassification and added 32,698,537 tons of ore to the original estimation.⁴⁵ The classes were as follows:

Active Mines

1. Open pit, low mining cost, high grade ore.
2. Open pit, moderate mining cost, medium grade ore.
3. Open pit, high mining cost, mixed grade ore.
4. Underground, low mining cost, high grade ore.
5. Underground, moderate mining cost, medium grade ore.
6. Underground, high mining cost, excess rock and water, mixed grade ore.

Reserve Tonnage

1. Undeveloped reserve ore of active mines, class 1.
2. Undeveloped reserve ore of active mines, class 2.
3. Undeveloped reserve ore of active mines, class 3.
4. Partially developed and stripped, high grade ore.
5. Partially developed, not stripped, medium grade ore.
6. Partially developed, not stripped, mixed grade ore.

⁴² Testimony of James G. Armson, member of the tax commission from 1909 to 1933, in the case of *Minnesota vs. Oliver Iron Mining Company et al.*, 1935, vol. II, Testimony, pp. 13 ff. This case hereafter to be called the Oliver Iron Mining Case.

⁴³ Oliver Iron Mining Case, II, 23.

⁴⁴ *Ibid.*

⁴⁵ Third Annual Report, Minnesota State Tax Commission, p. 85; Fourth Annual Report, p. 80.

To these properties the rates given per ton were as follows:

Class	Active Mines	Reserve Mines
	(cents)	
1	38.20	24.31
2	24.73	20.84
3	31.26	17.36
4	26.63	12.73
5	21.99	11.58
6	16.21	9.26

A particularly admirable aspect of the work of the state tax commission was the publication of a large amount of interesting and educational material on the mining region. The second report carried sixteen pages on the geology of the most productive mining areas, together with information on methods of mining.⁴⁶ The third printed a careful treatise, prepared under the direction of the School of Mines, on the general problem of mine valuation, together with illustrated charts and plates.⁴⁷ The fourth carried a thirty page report on the economics and geology of the Cuyuna range, just then coming into production.⁴⁸

In 1906 mineral property contributed a little over 8.5¢ to each dollar of state taxes collected from real estate. In 1912 its share was 22.5¢. State valuations were as follows:

Kind of property	1906		1912	
	Valuation	% of tax \$	Valuation	% of tax \$
Acre property	\$392,979,128	52.27	\$ 492,172,962	42.78
City and village	294,422,074	39.16	398,802,305	34.67
Mineral	64,486,409	8.57	259,418,277	22.55
Total	\$751,887,611		\$1,150,172,544	

As a result of this increase in assessment of mining property the state income from this source rose steadily. At the inauguration of the tax commission, in 1907, mine taxes increased from \$179,272 to \$671,489, and by 1914 were \$1,314,538.

⁴⁶ Second Annual Report, Minnesota State Tax Commission, ch. vi.

⁴⁷ Third Annual Report, Minnesota State Tax Commission, ch. v.

⁴⁸ Fourth Annual Report, Minnesota State Tax Commission, pp. 111 ff.

It is probably true, as mining men suggest, that behind these mounting valuations was the general enthusiasm of the decade. The tonnage determined in 1907 was 1,192,000,000, to which the commission gave only a 20-year life. To have exhausted the ore so rapidly would have required an average annual shipment of approximately 60,000,000 tons, whereas the average shipment during that period was slightly in excess of 31,000,000.⁴⁹

The work of the tax commission during these first few years established the values that were followed with small modifications thereafter. No important effort was made again, by the commission, to make a present worth valuation of mineral deposits. The court, in the Oliver Iron Mining Case in 1935, held that the tax commission had never used a present worth formula in making its valuations.⁵⁰ During the twenties the number of classes was increased, and when the Occupation Tax of 1921 was passed, the tax commission took advantage of the reports required under the new law to ask for information more useful in the execution of the property tax than of the Occupation Tax.⁵¹ About 1920, the tax commission changed its conception of the exhaustion period to 35 years, and its rate of discount from 4 per cent to 7.5 per cent,⁵² but did not, on this account, lower class rates. The original class rates had been increased 5 per cent in 1910, 5 per cent in 1912, and 5 per cent in 1914 and 1920. After this final adjustment the rates were as follows: Class 1, 40.1¢; Class 2, 36.4¢; Class 3, 32.8¢; Class 4, 27.9¢; Class 5, 18.3¢; Class 6, 27.9¢; Class 7, 23.1¢; Class 8, 17¢; and Class 9 containing special properties assessed at varying rates.⁵³

The increase in 1920 was due to a desire to balance the increase in farm valuations and to recognize the quotations of ore, which were the highest in history.⁵⁴ But the depression after 1929 did not in turn cause the class rates to be lowered. In the words of Mr. Armson, the tax commission gave some attention

⁴⁹ Armson testimony, Oliver Iron Mining Case, vol. II, Testimony, p. 41.

⁵⁰ Oliver Iron Mining Case, I, 307.

⁵¹ Oliver Iron Mining Case, II, 29.

⁵² Oliver Iron Mining Case, II, 41.

⁵³ Armson testimony, Oliver Iron Mining Case, II, 43.

⁵⁴ Armson testimony, Oliver Iron Mining Case, II, 43.

to the depression and the decline in the selling price of ore, but it gave it no effect and did not reduce the rates.⁵⁵ Only the steady decline in remaining tonnages of the better grade of ores brought lower values.⁵⁶

But the tax commission of Minnesota, like those of other mining states, found it difficult to reconcile the demand for full cash valuation of mines with universal undervaluation of all other property. In its report of 1910 it earnestly repeated its previous recommendation that all property be assessed at its true value. Since 1858 such had been a constitutional or statutory requirement, but it had been "openly and unblushingly violated by assessors everywhere. No class of property is assessed at true value, and, what is infinitely worse, much of it is not assessed at all." "Nothing more surely and insidiously undermines public morals than a disregard for law." Yet the commission had been embarrassed by certain salary and municipal debt-limiting statutes and by statutes providing for special tax levies, such as the general one mill school tax. Administration resulting in full cash valuations would raise the salaries of county auditors, treasurers, and their clerks, would give an enormous boost to municipal debt limitations, and would nearly double school and university taxes. The commission pleaded for relief, and the legislature felt that the law should be amended to conform to custom, but could not immediately decide on the proper ratios. Suggestions ranged from 30 per cent to 60 per cent, while one member proposed that iron ore should be assessed at 60 per cent, city property at 50 per cent, and farm property at 40 per cent. No agreement was reached at the 1909 session, but the commission was asked to "take into consideration in any regulation . . . the values which have heretofore been given such property."⁵⁷ The commission in 1912 again called attention to the problem, suggesting an assessment rate of 50 per cent,⁵⁸ and in 1913 the Minnesota legislature adopted the now famous classification law,

⁵⁵ Armson testimony, *Oliver Iron Mining Case*, II, 46.

⁵⁶ *Oliver Iron Mining Case*, II, 70 ff.

⁵⁷ *Minnesota Tax Commission*, Second Biennial Report, pp. 3 ff.

⁵⁸ *Minnesota Tax Commission*, Third Biennial Report, p. 109.

which, as amended in 1923, directs that mineral lands be assessed at 50 per cent, household goods at 25 per cent, live stock at $33\frac{1}{3}$ per cent (except when in the hands of producers, when the rate was 60 per cent), and land in general at 40 per cent.⁵⁹ In 1914 the commission raised ore valuations 5 per cent to bring them to the level of 50 per cent of true value.⁶⁰

The most staggering blow to the leading iron mines of the Mesabi range, however, came from an unexpected quarter. The mining camps themselves organized a political revolt.

⁵⁹ Minnesota State Code, 1927/1993.

⁶⁰ Minnesota Tax Commission, Fifth Biennial Report, p. 136.

CHAPTER XXIV

MINNESOTA: VICTOR POWER

WITH FEW EXCEPTIONS, mining camps have always been politically loyal to the mine. In most cases they can scarcely be said to have a political life of their own, separate and apart from the economic hegemony of the company, for it is the business of the manager to produce ore; and, given fair and reasonable coöperation from his eastern office, he can organize the mining community into an orderly and efficient working unit. If, as in Ruth, Nevada, there is an insufficient supply of milk for the miners' families, he must see to the purchase of a herd of cows. The mine manager attends to the water supply, fire-fighting equipment, houses for workmen and their families, schools, municipal buildings, streets and roads, and the general maintenance of law and order. Not infrequently, arrests by the local police are reported directly to him. There is probably no class of business executive with as large a responsibility, nor one that has acquired the respect of so wide a group of people. Well educated, living the year around in an isolated community of mine employees, his view uncurtailed by those residential restrictions that protect his board of directors from the more sordid aspects of life, his family taking active part in the social life of the town, he is probably the best living example of Plato's benevolent dictator. When Zander, leader of the anti-mine group in Arizona, paid tribute to the caliber of the mine managers in his state, he expressed the sincere sentiment of many other observers.

But this does not mean that such a camp is one large happy family. The low marginal productivity of a mine laborer definitely colors his viewpoint. The camp is likely to have more than its share of communists or syndicalists, and strikes are apt to be destructive and violent. National and state issues array the miners against their superintendents. The mine tax program in

Arizona was made possible partly by the support of the mine employees, though such a condition is unusual. Even more rarely has it transpired that the miners have organized as an opposition party, in the local community, and through the power of taxation levied tribute on the mine itself. In this respect Minnesota furnishes a unique chapter in mine tax history.

The rise of Victor Power and his counterparts on the Mesabi Range is a story that lies as yet too much in the realm of rumor and legend to allow a detailed account in such a study as this, but enough should be told to show that the problem of mine taxation often is not purely economic. It is true that many of the economic circumstances ordinarily productive of high mine taxation were here. The mines were fabulously valuable, and the voters did not believe that high taxation would stop mining operations for any significant period of time. Unfortunately for the company, it had not yet learned of the political dangers involved in allowing a townsite to include land containing ore deposits. With adequate leadership, and an issue antagonizing mine owners and employees, the mining camp might declare political independence.

There are other and less convincing explanations of the revolt. Some ascribe it to the refusal of the corporation to allow Hibbing the reasonable comforts of community life, with dry, well-lighted streets, and attractive buildings,¹ but those who make this charge are unfamiliar with mining camps. Mining camps, in their natural state, rarely show the softening influence of the more advanced American cultures, and the iron range was still young. Others emphasize the personality of Vic Power as the nucleus of attack; but while strong leadership, such as this man gave the community, was an important element in the case, both the right and left wing frequently err in personalizing the forces against them and in ascribing their difficulties to the iniquity of individuals. To a large extent leadership responds to an economic opportunity. The elements in the case were many.

The town of Hibbing was built partly over the adjacent ore

¹"Story of Hibbing—Wonder Village of the World," *Western Magazine*, May 1916.

properties, and a considerable local discontent grew out of the fact that as mining operations drew closer they began to intrench upon local property rights. An editorial early in 1912² objected that with mining on the east, north, and west of the village, real estate values were steadily falling, particularly when property was near blasting operations. The removal of the pit viaduct to Chisholm, at night and without warning to the village, was resented by those whose properties depended somewhat on trade from that street.³ In February, Mrs. Lizzie Hukari Liend secured a permanent niche in Minnesota history by petitioning for an injunction to restrain the Oliver Iron Mining Company from further injury to her business. She complained that her hotel building, which formerly rented for one hundred dollars a month, had been vacant for several months because heavy blasting adjacent to the hotel drove out all customers. Her tenants, said Mrs. Liend, took their horses out of the barn for fear a rock would come through the roof and kill one of the animals. Mr. Liend, in a statement to the press, said that if the company would pay a fair price for the property, in which Mrs. Liend's former husband, Mr. Hukari, had invested fifteen years before, Mrs. Liend would gladly sell. Mr. Liend said it was no pleasure to be living in the presence of an artificial earthquake.

In so homely a fashion did the trouble begin. The corporation had bought at liberal prices such property as it had necessarily removed for purposes of mining,⁴ but apparently believed that the purchase of property merely because of operations in proximity to it would set an expensive precedent. The corporation made answer by a general denial, claiming that whatever interest Mrs. Liend had was subject to its own rights under the mineral lease, which gave the company authority to enter upon and remove all ores within a period of fifty years. The corporation claimed due care and caution in blasting. Paragraph 10 of the answer further maintained:

That said village of Hibbing is a mining town; that almost its sole in-

² The *Mesaba Ore and Hibbing News*, February 3, 1912.

³ The *Mesaba Ore and Hibbing News*, February 10, 1912.

⁴ The *Mesaba Ore and Hibbing News*, February 10.

dustry is and always has been the mining of iron ore: . . . that without said mines there would be no reason or excuse for a village there or in that vicinity; that defendant was working said mine up to the commencement of this action, employing several hundred men therein, who would have been idle and would have been required to seek work elsewhere, than at or in the vicinity of Hibbing, where their homes are, and if defendant had not continued to operate said mine during the winter months, and at the time of the commencement of this action, rather than during the warmer weather and when the earth was not frozen, partially for the advantage of said miners and for said village and to offer employment to said miners at a time when they would otherwise be idle.⁶

At the temporary injunction restraining the continued blasting in the Sellers pit the Hull-Rust and the Burt-Sellers mines also closed, allegedly throwing 800 men out of work,⁶ and a special train bearing Vice-President D. G. Kerr of the U. S. Steel Corporation and President W. A. McGonagle of the Duluth, Missabe and Northern Railway Company, together with several other officials on tour of the range, stopped in Hibbing. Kerr told newsmen that the company had no intention of mining the ore known to underlie the north end of the city, and that unless the differences between the property holders and the mining company might be satisfactorily adjusted, the tonnage which was to have been taken from the Sellers pit that year would be taken from some other point on the range.⁷

The matter hung fire for several months. The local editor felt that the corporation was hiding unfairly behind the one injunction and had created unnecessary unemployment in the Hull-Rust property, but he obviously feared the outcome. The United States Steel Corporation, he thought, was "big enough and rich enough to beat us all out in this fight if it starts in earnest once, and after all, the best thing we can do is to look to our own bread and butter." He maintained, too, that the corporation had been "all that the word 'fair' means" in its purchases of other property. The foreman of the Burt-Sellers mine was sent away to Chisholm for heavy stripping operations, although most of the other mines continued to operate around Hibbing.⁸

⁶ Par. 10, the *Mesaba Ore and Hibbing News*, March 2.

⁷ Par. 10, the *Mesaba Ore and Hibbing News*, March 2.

⁸ *Mesaba Ore and Hibbing News*, March 11.

⁹ Nov. 23, 1912.

In December, the courts permanently enjoined the corporation from breaking windows or throwing stones on Mrs. Liend's property.⁹ The village was both surprised and jubilant, and hailed "another victory for Attorney Victor L. Power, who has put up a long fight against the mighty corporation and its unjust usurpation of the people's rights." He had overcome "countless obstacles" and had truly represented all the people of Hibbing.¹⁰

Right-wing circles frequently place much of the responsibility for the trouble upon the disappointment allegedly felt by Power at his failure to be hired as a mining company attorney, but perhaps the problem was broader than that. The conception of public relations which is now held by all large corporations was unknown at that time, and the lessons learned in Minnesota, as in Arizona, were expensive. It seems probable that, given the existing conditions, some person or group of persons would have taken the place of leadership assumed by Victor L. Power. In the neighboring village of Chisholm it was Joe Austen, in Arizona it was C. M. Zander.

Certainly it is true that Power seemed preordained to the position. Born in 1881, the son of a successful lawyer, Power came to the Mesabi when a young man and worked for a short time in the mines.¹¹ After studying law he returned to Hibbing, a young man of intelligence and definitely impressive personality. When, during this early litigation, the mining companies predicted that grass would grow in the streets, he replied that the city would hire men to cut it.¹² Against economic strength he opposed votes.

The outcome was still uncertain in 1913, but in spite of some fear that the fight, if it continued, would ruin local business,¹³ Victor L. Power was elected village president, and the entire Progressive ticket went into office. The vote for Power was 722 against 369 for the unsuccessful candidate, H. R. Weinck, who

⁹ Dec. 7, 1912.

¹⁰ Dec. 7, 1912. Much the same story is told in the *Minneapolis Journal*, April 6, 1926.

¹¹ *Western Magazine*, May 1916.

¹² His speech, *Mesaba Ore and Hibbing News*, March 11.

¹³ Editorial, *ibid.*, December 12.

had held the office for the past seven years. The village tax of approximately \$200,000, levied during several previous years, was increased, for 1914, to \$753,800.46,¹⁴ and by 1919 was \$2,368,903.10.¹⁵ Such, in this democracy, was the power of a few hundred votes. The neighboring *Virginia Enterprise* looked upon the new regime with envy, but hailed the courage of voters who had refused to believe that the litigation would kill the town, and had broken the iron rule of the mining company.¹⁶

The new administration had something of the arrogance of those newly and unexpectedly come to power. The tax was high, admittedly, but, said the local editor, to this there could scarcely be an objection, inasmuch as 95 per cent of it was paid by the mining companies.¹⁷ The town spent liberally to take care of winter unemployed, and to the charge that the wage paid was considerably higher than that prevailing in the mines, the city replied that human labor was too sacred to be bought and sold like goods at a market price.

The excitement at Hibbing was not yet over, however. The Harrison Bill was introduced to the legislature at St. Paul to limit per capita expenditures to \$25. Hibbing appealed to the fair play of the legislature to defeat a measure "aimed at one locality,"¹⁸ and Victor Power fought the bill vigorously. While it passed the senate 41 to 7,¹⁹ it met defeat in the house, and the "biggest demonstration ever given in Hibbing" greeted Power on his return.²⁰ In the fall of the same year the mine companies refused to pay the taxes levied, but again Power won through the courts,²¹ where it was held that there was no evidence of misappropriation of funds sufficient to stop tax payments. In this particular case the town and the corporation finally arbitrated the amount of the tax.²²

¹⁴ Editorial, *Mesaba Ore and Hibbing News*; also, *Virginia Enterprise*, Sept. 20, 1913; records in office of county auditor, at Hibbing.

¹⁵ Records in office of county auditor, at Hibbing.

¹⁶ *Virginia Enterprise*, Sept. 20, 1913.

¹⁷ *The Mesaba Ore and Hibbing News*, Sept. 20, 26, 1914; Feb. 20, 27, 1915.

¹⁸ *The Mesaba Ore and Hibbing News*, April 3, 1915.

¹⁹ *Engineering and Mining Journal*, Nov. 27, 1915.

²⁰ April 24, 1915.

²¹ *The Mesaba Ore and Hibbing News*, Sept. 18, 25, Oct. 9, 1915.

²² *Mesaba Ore and Hibbing News*, Nov. 27, 1915.

Back in 1912, shortly after the injunction in favor of Mrs. Liend, the editor of the *Mesaba Ore* had once expressed the ambitions of the village in the form of a prophecy. Imagining himself to be writing in 1915, he described "The Story of a City That Was Moved," and related the sale of the property in the old part of the village to the corporation, and the removal of the town to other ground. He imagined that the council had levied a tax of \$1,400,000 to which it was entitled under the law, rather than the \$200,000 to which it was accustomed. Out of this, he related, Hibbing was able to build properly paved streets, with electric lights and telephone service, wires underground, and sanitary and storm sewers. Trees, he imagined, had been planted in the parks and along the streets, and the town could boast "many splendid public buildings that excite the admiration of all visitors."²³ Except that the move was made five years later than he had prophesied, the editor displayed remarkable prescience. By 1921 the old townsite had been bought from its owners, the town had been moved to a new and better location, and the new Hibbing was all that public expenditures could make it.

Yet with all this rise in the standard of living, the morale of the town was definitely not of the best. In the first place, Hibbing had become nationally famous as the symbol of civic extravagance. When, during litigation in the district court, one of the judges was reported to have declared that the people of the range towns were spending money like drunken sailors, the town was deeply incensed,²⁴ and as time went on the city fathers became increasingly conscious that such a reputation was undesirable. Then, too, political activity became an important career in Hibbing, and a large proportion of the population began to depend upon public expenditures as a regular source of income. Hibbing, with 1,318 voters in the state election, had 894 men on the payroll, while Chisholm, which soon followed Hibbing's lead, reported 733 voters and 538 men on the payroll. The levy in

²³ Editorial, Dec. 12, 1912.

²⁴ *Mesaba Ore and Hibbing News*, Sept. 26, 1914.

Mountain Iron in 1913 was said to have been an increase of 435 per cent over that in 1912.²⁵

The *Engineering and Mining Journal*, reporting the increased tax burden, observed that there was apparently no malice behind it, only an awakening to good business opportunities long neglected. It quoted the *Mesaba Ore*:

We should not overlook the opportunity presented to us, and you will notice that we are not overlooking it. . . . The "Ore" believes that every cent possible should be collected from the mining companies while they are still with us, to the end that we may retain unto ourselves a share of the wealth that, once removed, will never return. . . . We do not believe in waste or extravagance in municipal management or anywhere else, but we shall hold that the village of Hibbing should collect every year the one and one-half million dollars due it from the mining companies. . . . We owe it to ourselves to collect every cent available from the taxation of these mines and use it to beautify our towns because it belongs to us. Hibbing surely receives no thanks for handing over a million dollars a year of its own money to eastern mine owners, and we will be just as well treated if we collect and spend all that is due us.²⁶

When an effort was made by a tax association to bring about a reduction of the salary of the village treasurer from \$4500 to \$1500, the local editor replied somewhat facetiously that such a change would never do, as it would reduce spending and take the spice out of politics.²⁷

In 1921, in partial compensation to the mining companies for the so-called "occupation tax" of that year, the legislature set a maximum per capita levy for all city or village purposes at \$100, with an additional \$60 for local school purposes, exclusive of necessary levies for payment of debts incurred prior to the passage of the bill, or for interest thereon. Costs of completion of buildings then in process of construction were also excepted.²⁸ But these limits were high, and the tax commission reported that several districts had apparently accepted the provisions of the law as an invitation to increase their levies to the maximum.²⁹ Of the twenty-two cities and one village with a population from

²⁵ *Engineering and Mining Journal*, Nov. 27, 1915.

²⁶ *Engineering and Mining Journal*, Nov. 27, 1915.

²⁷ *Mesaba Ore and Hibbing News*, Feb. 20, 1915.

²⁸ Chapter 417, laws of 1921.

²⁹ Minnesota State Tax Commission, Eighth Biennial Report, p. 155.

five to twenty thousand, nineteen were in non-mining districts and four in mining districts. The average per capita levy in 1921 for the former was \$13.97 for city, \$16.75 for schools, a total of \$30.72; while for mining towns the average was \$94.27 for city and village purposes, \$52.48 for schools, a total of \$146.75. Of the eighty-two villages of less than 2,500, the sixty-nine non-mining villages spent a total for village and school purposes of \$25.02, while the mining villages spent a total of \$214.60 per capita. Admitting the greater needs of these mining districts, the commission denied that there was any reason why they should spend five or six times as much for civic or school purposes per capita as St. Paul. The commission recommended voluntary reduction by the people of the districts, or, failing that, a reduction in the per capita tax limitation.³⁰ Further per capita limitations were passed in 1928. But the range towns still spend considerably more per capita than does the rest of the state.³¹

It seems to be apparent from the history of Hibbing that political and economic competition have combined to limit the amount of municipal expenditure that accrues to any one single individual.

It is an interesting reflection on American political mores that in the midst of this epic adventure in majority rule Victor Power himself was charged by the voters of Hibbing with having used his office irregularly, and he was defeated in the election of 1921. The charges appear to have risen from a complex of circumstances, among which was the fact that the benefit derived from the removal of the village to its present location was unevenly distributed. Money was made in local real estate. His speeches, during this campaign, and the one following, in which he was reinstated, tell more of conditions than can reliably be learned elsewhere. Attacked by the "Square Deal" group for having spent \$22,000,000 in nine years without proportionate benefits to the community, Vic Power, in large advertisements, stood for the "Square Meal." "When Times Are Tough and Men Need Work, He Is the Choice of the Common People." He declared

³⁰ Eighth Biennial Report, p. 164.

³¹ Below, Chapter XXVI.

in a public address that the city had paid \$100,000 a month to labor during the months of the depression and stated that St. Paul and Minneapolis with a total combined population of more than half a million paid no more than \$48,000 a month. Municipal work was carried on during the winter, he said, even though it cost twice as much as during the summer.³² "Did we do wrong," he asked, "to take money from Schwab to prevent him from breaking the bank of Monte Carlo?"³³ He denied charges of graft. "I don't understand how I am still out of jail if I have stolen as much money as I am charged with having done."³⁴

The truth of the matter is that the benefits from this record breaking distribution of political plunder had not been proportionate to the expenditure. If a city hires three times as many janitors as it needs, the result is not that each receives a great deal more than if he were otherwise employed, but that each works fewer hours. In the American code, easier work is not equivalent to the earning of more money, and the competition for jobs set an effective limit to the possible height of the wage of city employees. Similarly, elective officers, if they are paid more, attract keener competition and must spend more to be reelected.

Competition took other forms. The desire on the part of other communities for part of this fund, or the desire on the part of the mine owner to cut taxes, made it necessary for Hibbing's representative, Vic Power, to spend part of every legislative session at St. Paul. In the campaign to which we have just referred he claimed to have been primarily responsible for the fact that the per capita tax limit was \$100 rather than a smaller figure.³⁵ This, and the house filibuster³⁶ against a limitation bill in 1915, had undoubtedly cost money. The general rationalization used by anyone protecting a favorable economic position is that the aggressor is not entitled to share in the income, and the experi-

³² *Mesaba Ore and Hibbing News*, March 10.

³³ *Mesaba Ore and Hibbing News*, March 14.

³⁴ *Mesaba Ore and Hibbing News*, March 11.

³⁵ *Mesaba Ore and Hibbing News*, March 12.

³⁶ *Engineering and Mining Journal*, Nov. 27, 1915.

ence in this case indicates that the many, as well as the few, are not averse to the use of money as a tool of group pressure to protect such a "net rent."

Some observations on the political condition in such a community have been made elsewhere.³⁷ Soon after taxation begins to diverge from benefit, the beneficiary will prefer to spend the money privately, will rather have it flow directly to his pocket-book in the form of cash than have it continue to augment the variety and quality of public services. The constitutional provision that expenditure shall be for general welfare, and the conventional machinery of tax collection and disbursement, normally check this impulse, as does the fact that if the flow of public funds is to take the form of higher wages and salaries for public employees, the elasticity of supply of labor will operate to limit the income to any individual.

The fact that the taxpayer in this instance had so small a voice in local government and could be taxed so heavily without direct economic injury to the community meant that, after the customary governmental services were provided, the pressure for direct distribution of this revenue to individual voters became increasingly intense. Some of the results will be discussed in the two following chapters, but many aspects cannot be found in published form. While, as Power suggested, he himself was charged with graft, this particular charge was only a major point in the conviction of observers that a small layer of graft was spread thinly over a large portion of the populace — graft growing out of road building and maintenance, the removal of the city to its new location, the erection of public buildings, and kindred matters. This is not necessarily inclusive of the fact that, as will be demonstrated, individual municipalities hired far larger numbers of men, as in janitorial positions, than was necessary.

Within the mining communities themselves there has always been some difference of opinion as to the benefits derived from large municipal expenditures. Businessmen in these mining towns are apt to remark that they would not knowingly hire in

³⁷ Above, Chapter IV.

their firms men who had a record of municipal employment on the range. The majority of people, however, call attention to the crude mining-camp conditions that existed in these towns prior to 1912, and point out that without the political revolution the municipal parks, paved streets, and fine schools would have been indefinitely postponed. To this there is undoubtedly some truth. Certainly the first-generation immigrant, brought over by the mining companies, accepts municipal employment readily and without qualms of conscience. This is an area to which the New England tradition cannot be expected to penetrate immediately. This particular era in mine-tax history, however, is now drawing rapidly to a close. Valuations have declined steadily, from \$90,729,154.00 in 1924 to \$58,229,576.00 in 1939, and taxes fell from a peak of \$2,480,778.15 in 1923 to \$783,300.00 in 1940.³⁸ There is no necessarily causal relationship between valuations and this decline in expenditures, of course, and the principal influence was the fact that the original limitation of \$100 per capita was gradually reduced³⁹ to \$70. As shall be described hereafter, the legislature in 1941 amended the law to the effect that by 1950 city and town expenditures will be no more than \$50 per capita and school district expenditures no more than \$40. This is one of the few instances in which an enlargement of the political arena, to include the entire state, benefited the taxpayer.

³⁸ From records of the county auditor.

³⁹ Laws of 1921, ch. 417; Laws of 1929, ch. 206.

CHAPTER XXV

MINNESOTA: THE OCCUPATION TAX

WHETHER the notoriety accompanying the lavish expenditures of the range towns helped to curb them is doubtful, but certainly it stimulated the envy of the agricultural sections and added to the mounting demand for fuller state participation. If economic conditions had remained as in the prewar era, the results of this demand would probably have been small, for bills similar to the one vetoed by Governor Johnson, introduced in the sessions of 1911 and 1913, made little progress. In 1917 a measure providing a 2 per cent tax on the gross value of ore at the mouth of the mine received the strong backing of the southern counties but failed also. By 1919 the drive was on in earnest, with seven different measures before the legislature in the regular session, backed by the newly organized Nonpartisan League which was thought by the mining interests to control nearly 25 per cent of the house.¹ During the special session of that year the demand was still stronger, and a bill levying 5 per cent on ores, after deduction of certain specified mining and shipping costs, passed both houses. To fight the measures in the regular session the mining interests stressed the competitive position of Minnesota iron mines and described a tendency to develop ore beds in New York, Wisconsin, and Michigan rather than in Minnesota, because of the fear of these super-taxes. Dwight E. Woodbridge, consulting mining engineer of Duluth, presented a table showing the capacities of the more important iron producing fields, and the alleged cost per unit of iron laid down at the Atlantic coast,

¹ The *Iron Age*, Feb. 27, 1919; also Minnesota Fair Tax Association, "The Facts About the Tonnage Tax. A Message from the people of Northern Minnesota to the people of the state, and an appeal to reason and the spirit of fair play" (Offices: Hibbing, St. Paul, Minnesota, 1920); Eleventh State Tax Commission, ch. xi.

to indicate an alarmingly vulnerable position for Lake Superior mines.²

Governor Burnquist used his veto to save the mines from this tax, stressing the injustice of discriminatory measures, and the unanimous opposition of those who lived on the range. In answer to the charge that the ore had originally been acquired dishonestly, he suggested that "if any individual or corporation has procured from the state a title to land illegitimately, it (the state) should resort to the courts and go to the legislature for relief."³

The tax commission in 1920 expressed opposition to any change in the mine tax law. It felt, in the first place, that to encourage the utilization of low grade ores the state could well afford to exempt them from taxation, or at least to impose a very low tax until the ores became merchantable. The demand for higher taxation, in the second place, was purely sectional and not based on justice. Finally, the threat of special taxation removed from mine taxation any reasonable assurance of a permanent policy. "It is only fair to the people who are investing such large amounts in developing our mining industry that the method of taxing the values arising from such investments be fixed with some reasonable assurance of future permanency."⁴

But as the Nonpartisan League gathered momentum and the farm depression of 1921 ate into normal tax receipts, the pressure upon the mines increased. The Lake Erie price fell somewhat after the war, but the tax commission felt unable to modify valuations on that account. Mr. Armson, then a member of the

* Alabama	\$3.50
Newfoundland	5.00
Northern Cuba	5.80
New York and New Jersey	6.10
Brazil	7.30
Norway	7.50
Lake Superior	11.50

From abstract of a statement made to the Tax Committee of the House of Representatives, Minnesota Legislature, on Feb. 24, 1919.

² *The Messages of Governor J. A. A. Burnquist and former Governor John A. Johnson.*

⁴ Quoted in the Eleventh Biennial Report, Minnesota State Tax Commission, ch. xi.

tax commission, was called upon later, during the hearings on the Oliver Iron Mining Case in 1934, to explain why the commission had disregarded this fall in Lake Erie prices. His reply was as follows:

Perhaps counsel was not quite as familiar with the pressure put on the Tax Commission in various sections of the state to keep the values up in order, perhaps, that more taxes could be raised. I dislike to have to say it, but perhaps he is not familiar with the politics of the mining tax situation.⁵

High mine valuations did not satisfy the demand by the farm group for a larger share of the mine tax proceeds. The occupation tax law of 1921 levied on all ores mined or produced in Minnesota a tax of 6 per cent, and placed the duty of administration in the hands of the tax commission. This new task the commission viewed with considerable distaste, first because of the vagueness of the law, and secondly, because of its belief that the tax was unfairly discriminatory against this one class of property.

While the measure avoided the fundamental weakness of a severance tax, in that it did not threaten marginal mines, it also avoided the administrative disadvantages of an income tax. It lay somewhere between the two. From the value of the ore, to be determined by the tax commission, there were to be deducted reasonable costs of separating ore from the ore body, including the removal of the overburden, the sinking of shafts, and the running of drifts. Royalty payments might be deducted as costs, as well as the "percentage of the ad valorem taxes levied for said year against the realty in which the ore is deposited equal to the percentage that the tons mined or produced during such year bears to the total tonnage in the mines."⁶ The law was upheld in the United States District Court and, finally, by the Supreme Court.⁷

Differences of opinion between the commission and the mining companies over the interpretation of the occupation tax, dur-

⁵ Oliver Iron Mining Case, I, 89.

⁶ Ninth Biennial Report, Minnesota State Tax Commission, ch. vi.

⁷ Ninth Annual Report of the Minnesota State Tax Commission, ch. vi; *Oliver Iron Mining Company vs. Lord*. 262, U. S. 172.

ing the first two years of operation, involved nearly \$3,000,000,⁸ or over half of the total tax. Among the allegations of the companies were the following:

- (1) That the Lake Erie base values were higher than actual sale price of ore.
- (2) That large quantities of ore were sold on long time contracts at much less than the published market price, with payments made in monthly installments.
- (3) That the commission had not sufficiently considered the high silica content of certain ores, which materially reduced their price.
- (4) That proper allowance had not been made for depreciation of plant and equipment.
- (5) That loss on one mine had not been offset against the profit from another, owned by the same company.
- (6) That the commission had not allowed for commissions paid for selling the ore, for cargo analysis, or personal property taxes on stockpiles or movable mine equipment.

In its report for 1924 the commission was obviously as much on the defensive against the legislature as against the mines. The commission found it necessary to point out that except in six cases, where small reductions were made to correct manifest errors in reports of the companies or in the computation of the tax, all requests for tax reduction had been denied. Every reasonable doubt had been decided in favor of the state, and the unexpectedly large yield of the tax had been due in part to this policy.⁹ The deductions allowed were approximately 83 per cent of the expense, exclusive of interest and depletion, so that the tax was actually equivalent to about $7\frac{1}{4}$ per cent on the net value of the ore.

In its report of 1924 the tax commission asked the legislature for a rewording of the law, so that less responsibility should fall on the commissioners. Even by 1930 the difficulties of administration were so embarrassing as to call forth another discussion

⁸ Ninth Annual Report, ch. vi.

⁹ Ninth Biennial Report, Minnesota State Tax Commission, p. 105.

in the report of that year.¹⁰ But in view of the willingness of the commission to give the state the benefit of all reasonable doubts, the legislature found it unnecessary to modify the law, except to correct the omission of a tax on the income to the royalty holder. The royalty tax law of 1923 was similar to that of 1921 on ore, except that it allowed no deductions.¹¹

Between the first expression of its opposition to the proposed special mine tax in 1920 and its report of 1928, the state tax commission saw no occasion to change its opinion. After quoting verbatim the admonitions of 1920, the commission reaffirmed its belief that "a double super-tax is . . . unsound." To show the point of view of the mining companies, the commission printed the letter in which the companies had asked, unsuccessfully, for decreased valuation. The letter, signed by nearly all the mining concerns, included the following paragraphs:

The total taxes paid by the iron ore industry have been increased from approximately \$8,000,000 in 1916 to substantially over \$20,000,000 in 1927. The taxes have steadily risen until they are now costing the industry substantially more than is paid out for labor in producing ore. . . . The total taxes paid by the entire mining of the United States, as shown by governmental figures, is only 2.26 per cent of the value of the total mining production of the United States—the burden of the iron ore industry in Minnesota, therefore, is twelve times that of the country as a whole. . . . These tremendous burdens, coupled with the highly competitive conditions in the industry, are producing results detrimental to the economic welfare of the state, as well as to the industry.

In 1919, there were 149 iron mines operating in Minnesota; in 1927 there were only 90 mines operating; 59 mines having been closed down in the meantime.

The letter pointed to the fact that while production of steel ingots and castings had remained approximately the same from 1917 to 1927, Lake Superior iron ore had dropped from 62,600,000 tons to 52,933,000 tons, "demonstrating the inroads made on Lake Superior ores during a ten-year period by foreign and eastern ores and iron substitutes." The letter was signed by representatives of the Oliver Iron Mining Company, M. A. Hanna Company, Pickands Mather & Company, Cleveland

¹⁰ Twelfth Biennial Report, Minnesota State Tax Commission, p. 89.

¹¹ Mason's Minnesota Statutes, 1927, par. 2392.

Cliffs Iron Company, Republic Iron and Steel Company, Inland Steel Company, and many others. Supporting figures were given to demonstrate the high ratio of taxes to costs of mining in the state of Minnesota and the abnormally high expenditures by mine towns.¹²

The tax commission had denied the request of the mining companies for reduced valuations, giving as a reason the rather doubtful argument that "any reduction in the taxable value of iron ores that could be made under existing laws would afford but little relief to the mining industry. It is not so much a question of valuation as it is of excessive taxation. Any material relief must therefore come through legislative action." To further such legislative action, the commission pointed to the practical cessation of exploration for new ore deposits and to the fact that mining of low-grade ores and underground mining could no longer be done at a profit. "The discontinuance of exploration activities and the closing down of numerous mines, has thrown thousands of men out of work. . . . We suggest and recommend that the percentage of taxable value now applied to iron ore be reduced from 50 per cent to 33 $\frac{1}{3}$ per cent of full value."

The fact that the peak yield of \$6,126,443 came in 1923 was due both to the abnormal output of that year and to the decline in price thereafter. The ad valorem tax in the state had totaled \$1.18 per ton of output in 1921, \$.765 in 1922, and \$.61 in 1923. To these amounts the ad valorem tax had added, respectively,

¹² These figures were as follows:

	1925	1926	1927
State and local taxes	\$21,703,000	\$21,014,000	\$21,378,000
"Cost of mining" (of which approximately			
60% was labor cost)	22,635,000	23,034,000	20,742,000
Gross value at mouth of mine	82,559,000	93,783,000	79,125,000
% of tax to gross value	26%	22%	26%
% of tax to labor cost	160%	152%	164%
Total per capita tax in mining districts ..	\$230.03	\$223.56	\$222.36
Rest of state	47.45		
Entire United States	42.69		
Indebtedness per capita of mining district	\$234.51	\$220.89	\$200.00
Rest of state	65.33		
Entire United States	75.06		

\$.13, \$.12, and \$.137. During the five years 1923 to 1927 the average yearly yield was as follows:

Tax	State	Counties, Mun's %	Trust Funds %
Ad valorem	\$9,561,250 10.5	\$82,011,265 89.5	
Occupation	8,105,615 50.		\$8,105,615 50.
Royalty	4,596,205 100.		
	\$22,263,070 19.9	\$82,011,265 72.9	\$8,105,615 7.2

The commission's failure to lower valuations eventually resulted in suit by the mining companies. In 1934 seventeen companies, including the Oliver Iron Mining Company, Republic Steel Corporation, Hanna Ore Mining Company, and Pickands, Mather & Company, undertook the prodigiously detailed and expensive task of proving to the trial court at Duluth the overvaluation of the many ore properties in that county. The six volumes of evidence, together with the opinions, in this trial court, were presented to the state supreme court in the *State of Minnesota vs. Oliver Iron Mining Company et al.*, in 1935. To defend the valuations in the trial court they employed C. K. Leith. The state was forced, therefore, to undertake its own valuation, and hired Charles H. Baxter, of the Michigan School of Mines, to direct it and act as state's witness.

Most of the questions involved are more suitable for discussion in a formal study of mine valuation than in a history, but the opinion of the trial court contains material of broad significance.¹³ The court pointed out that the state did not undertake to defend its original valuations.

It does not now ask us to accept such valuations as either accurate or proper. It does ask us to apply rules as to the burden of proof so that no change be made in such valuations; but it does not assert that such valuations represent either relatively or absolutely the true values of such properties. Indeed, the State's valuations at this trial differ more widely from the Tax Commission valuations than the defendants' do.¹⁴

While the court could find no convincing evidence that the tax commission had ever made a present worth valuation of these

¹³ Memorandum opinion of the court, signed by four judges, *Oliver Iron Mining Case, I, 306.*

¹⁴ *Oliver Iron Mining Case, I, 307.*

ore deposits, the use of such a formula in valuation could be defended not only by the admissions of the commission and the testimony of engineers, but by the fact that the defendants had for years arrived at valuations for purchase and sale by this same present worth formula.

Under such a state of the record, the claim that the defendants (by their valuations under the present worth formula) have not sustained the burden of proof, howsoever heavy such burden may be in Minnesota, cannot be sustained.

But apparently the court felt that neither the state nor the mining companies had conclusively established the proper valuations, and the court therefore undertook, with considerable reluctance, to decide upon a valuation of its own:

While the court acts merely as a reviewing body in such cases as these, the practical situation here requires us to make an original valuation. The testimony of the State's witnesses, the arguments of counsel for the State, and the entire conduct of the trial invite us to make an original valuation of the properties as a basis for our review of the valuations made by the Tax Commission.

It is unfortunate that a court has such a duty imposed on it. The valuation of ore deposits is primarily an engineering, not a judicial, function. The judicial questions have been decided, quite satisfactorily to ourselves; the engineering ones, not so satisfactorily. As we have had the testimony of engineers of high repute on both sides, probably we have done as well as the nature of the judicial process will permit. Our conclusions will necessarily be verified or discredited by experience and the passing of time. For the future, the Tax Commission and its engineering staff will have the record in this case, and the new facts that will be ascertained by further development of the ore bodies in and about the properties to be valued, the fluctuations in the Lake Erie selling price, the discovery of new ore bodies. . . .

The court thereupon announced the factors it had decided upon in arriving at the new valuation. It found no "normal" price of ore, because abnormal prosperity had been followed by abnormal depression, but decided on \$4.65 for Bessemer and \$4.50 for non-Bessemer. These were not average prices, but those in existence in 1929, 1931, 1933, and 1934. While the court believed that the Lake Erie price had been a pegged price since 1929, it was a top and not a bottom price, and allowed the state the "highest possible profit spread under the Hoskold

Formula and therefore the maximum valuation in so far as the selling price determines it."

In determining costs the court employed the five-year averages of 1927 to 1931, with small modifications, and used those presented by the defendants, which were computed from experience in the operation of each individual mine, rather than the state's which were merely averages.¹⁵

Whereas the defendants had used rates of 8 per cent (for the discounting of future profits) and 4 per cent (on sinking fund) in the Hoskold formula, and the state had used 6 per cent and 6 per cent, the court elected to assume rates of 7 per cent and 4 per cent. The tax commission had asked for a valuation totalling \$100,477,734. In its final decision the court granted \$81,864,845.

The dissenting opinion in the trial court maintained that the defendants had not carried the burden of proof, and emphasized, particularly, that the Lake Erie price was fictional. The mining companies, said the dissenting judge, should have reported actual sales prices. The state supreme court, however, upheld practically all of the valuations of the trial court.

A study made in 1930 by George Buchanan Clarke of the Minnesota system of agricultural taxation¹⁶ indicates that farm land in that state was actually assessed at a somewhat lower rate than provided by law. For the period from 1926 to 1927 the ratio of assessed to true value was about 80 per cent, while for 1914 to 1915, the period immediately following the enactment of the classified assessment law, the ratio was slightly over that figure. These original assessments, of course, were divided by three for the tax base of unplatted real estate and by two and a half for platted real estate, and it follows that farm property, in those years, was underassessed by about one fifth.

¹⁵ Oliver Iron Mining Case, I, 313.

¹⁶ G. B. Clarke, "The Minnesota System of Agricultural Taxation" (MS.), p. 584 (Doctor's Thesis, University of Minnesota, 1930).

CHAPTER XXVI

MINNESOTA: THE INTERIM COMMISSION

THE REPORT of the Minnesota Interim Commission on Iron Ore Taxation, made in 1941, summarized the facts and arguments against a continuation of the iron ore tax policy. It reported that in Minnesota, Michigan, and Wisconsin the tax burden in cents per ton was distributed as follows:

	1935	1936	1937	1938	1939
<i>Minnesota</i>					
Ad valorem	86.9	49.4	39.16	110.4	51.7
Occupation	7.0	7.2	20.5	11.0	15.4
Royalty	2.3	1.5	.3	2.7	3.2
	96.2	58.1	62.6	124.1	70.3
<i>Michigan</i>					
General property ..	31.03	17.66	15.02	32.18	20.84
State corporation ..	1.12	.89	2.46	1.77	1.41
<i>Wisconsin</i>					
State, local, and income	19.54	16.90	18.33	31.06	17.39

Stockholders of the United States Steel Corporation had received less than 1 per cent on their investment during the years 1930 to 1939, and over a period of forty years had been paid an average of only \$4.16 per share — “not much greater than savings bank interest would have been had it been taken out quarterly as earned, and far less than if savings bank interest had been allowed to compound.”¹

When an emotional appeal against the corporations was desired, said the commission, the stockholders were lumped together as capitalists, in face of the fact that the average number

¹ *Report of the Minnesota Interim Commission on Iron Ore Taxation (1941)*, pp. 81 ff.

of shares held were only fifty-seven, and that stock ownership was distributed among more than two hundred thousand individuals and organizations, as follows:

	<i>Number</i>	<i>Per cent</i>
Charitable, religious, and educational organizations	880	.40
Insurance companies	130	.06
Trustees and guardians	9,757	4.49
Individuals — women	91,406	42.05
Individuals — men	100,642	46.30
All others, including brokers	14,571	6.70

The commission was unwilling to assume that the independent ore companies were making proportionately more than the United States Steel Corporation, and warned that high taxation was tending to drive these companies from Minnesota. The commission referred to the tendency to develop the ores of New York and New Jersey, with particular reference to the leasing by Republic Steel Corporation of the Wetherbee-Sherman properties near Fort Henry, New York, and drew from statements of company officials and others to show that the reason for the development of steel capacity on the east coast lay partly in the high tax burden in Minnesota.² The upper limit to the production of ores from Minnesota was the blast furnace capacity of the steel centers served, and though little had been added to this capacity in recent years, investments to the extent of perhaps a hundred and twenty million dollars had been made in the Birmingham, Alabama, district alone. Because the best grades of Mesabi ore would be exhausted within twenty years, Minnesota might be in danger of losing some of its iron ore industry if the present tax trends continued.

The annual statistical reports of the Iron and Steel Institute, incidentally, bear out the conclusions of the Interim Commission as they relate to the period just prior to the war. The output of the Pennsylvania, Ohio, Indiana, and Illinois steel mills dropped from 53,357,436 tons to 47,934,979 tons between 1938 and 1940,

² Report of the Minnesota Interim Commission on Iron Ore Taxation, pp. 76 ff.

while the output of the southern mills (primarily in Alabama) rose from 1,433,339 to 2,955,416. In 1938, moreover, the southern mills were utilized at 61 per cent capacity while the north central group was utilized at only 37 per cent of capacity. In 1940 the figures were 91 per cent and 71 per cent respectively. The trend is not so clear over a longer period, however, and the overwhelming dominance of the North is still apparent in the foregoing figures.

The Interim Commission, in comparing expenditures of mining towns and school districts with non-mining municipalities, could do little more than reiterate and elaborate upon the extravagance characteristic of the former. Whereas the cost per pupil in range school districts ranged from \$164.29 to \$392.27, the cost in comparable non-range communities varied from \$56.95 to \$127.03. Part of this expenditure differential was due to the declining size of families and number of school children in the range districts, and failure to close rooms and readjust costs accordingly, but much of the cost was for janitorial service. Thus Gilbert with 763 pupils in 1939 paid out \$75,574 in janitorial service, or as much as any two of the six comparable off-range districts paid for teachers.³ The commission found no marked difference in monthly salaries paid to teachers, though the range districts showed a larger teacher-pupil ratio, and the commission was of the opinion that the number of teachers could be reduced about one-third. Costs of general administration also were found to be exceptionally high in these range schools.

Municipalities were restricted by two kinds of tax limitations. The law as amended in 1929⁴ restricted total levies to \$70 per capita raised by cities⁵ and villages, and all villages (but not cities) were subject to statutory mill limitations on particular levies. Of these two limits the lower was the legally effective one. Nine villages were limited, in 1939, by the general village mill rates, and fourteen villages and cities by the per capita limitation.⁶ The commission concluded that every city and village

³ Report of the Minnesota Interim Commission, Table 7, pp. 102-103.

⁴ Laws, 1929, ch. 206.

⁵ Except that Hibbing, by the laws of 1935 (ch. 134), was gradually being reduced to \$50 per capita.

⁶ Report, pp. 30 ff.

in 1938, 1939, and 1940, with the exception of Coleraine and Leonidas, levied the maximum amount permitted by law,⁷ and the levies, therefore, were not affected by declines in valuations. Such, generally, had been true also of school districts, which in most cases were restricted only by a per capita limitation of \$60.⁸

The first and principal defense by the range communities of the extraordinary height of school and municipal expenditures was that the money was necessary for relief:

Admitting that in the past when these towns were new or being built, that levies were then excessive and that extravagances existed in the range communities, such is not the situation today. Every cent spent in these communities is spent to relieve an unemployment situation.⁹

The Interim Commission, in answer, emphasized the opportunity for duplication in effort and the certainty of unscientific and wasteful distribution of relief funds inherent in the use of school money for purposes for which it was not intended. The law placed responsibility for relief administration upon counties, and the voluntary assumption of school districts of that duty made it impossible to set up either standards of welfare or standards of education.

The second defense was that the high standard set by the school system on the range was an ideal for the rest of the state to follow. The commission, however, felt that additional expenditure had been of questionable benefit to the students:

It undoubtedly does offer to its students many facilities not available elsewhere. The school buildings, auditoriums, gymnasiums, swimming pools, athletic fields, manual training, occupational and health equipment are truly magnificent. Whether or not the finished product, that is, the graduates therefrom, benefit accordingly is a question in which we are most particularly interested. We appreciate that this is difficult information to obtain and that it is perhaps unfair to attempt to compare graduates from one school with those of another, due largely to the human element involved.¹⁰

⁷ Except that in 1940 Virginia levied approximately \$10,000 less than that amount (*Report*, p. 139).

⁸ *Report*, p. 36.

⁹ Quoted from their brief, *Report*, p. 141.

¹⁰ *Report*, p. 142.

The commission then printed the findings of the Northeastern Division of the Minnesota Education Association regarding the occupations of the 567 men graduates of the Eveleth High School from 1926 to 1936. Out of the total, 138 were unemployed in 1936, 130 were common laborers, 30 were in Civilian Conservation Camps, and 30 were in the Works Progress Administration. "In other words, substantially more than half of these high school graduates were either unemployed or engaged in common labor." Comparative figures were not submitted for other communities.

The problem of unemployment was encountered in various forms throughout the work of this commission. Seasonal unemployment in the Lakes region arises from the nature of the climate, for winter temperatures west of Lake Superior are similar to those around the Gulf of Alaska.¹¹ The lake shipping routes, also, are frozen, so that ore produced underground must be stored in stock piles. Open-pit mines usually confine their winter activity to stripping the overburden from the ore, development work, and repair of equipment. While it seems probable that the large amount of full and part-time employment of men by municipalities and school districts may have originally been urged by the lack of other sorts of winter work, this study was unable to find that municipal pay rolls included any sort of remuneration to the seasonally unemployed. The Unemployment Compensation Law, on the other hand, has recently been of material benefit:

<i>Year</i>	<i>Unemployment taxes paid in by mining companies</i>	<i>Benefits paid out by the fund</i>
1936	\$ 85,817.39	.....
1937	226,580.30	.....
1938	287,933.39	\$236,671.71
1939	345,639.01	219,260.96

The commission recommended that to encourage winter production by underground mines, the tax on stock piles should be

¹¹ Ellsworth Huntington, *Principles of Human Geography* (5th ed., revised; London: Chapman & Hall, 1940), p. 87.

lifted for one or perhaps two years after production. The personal property tax assessment of May 1st approximates the opening of the Lakes to ore transportation, and on that date the underground mine operator has nearly half of his yearly production in stock piles on the surface. The value of this ore is higher, by the costs of mining and raising to the surface, than ore in place, and the tax, therefore, operates as a penalty against winter employment of the men.¹²

In addition to this seasonal problem there appeared to be a secular trend of unemployment in the industry as a whole. The peak of mine employment in St. Louis County, said the commission, occurred thirty years ago, when, according to the county mine inspector's reports, 19,981 men were employed in the mines of that county.

By 1923 this number had decreased to 11,895; by 1929, to 8,008; and by 1939 to 4,589. The actual number of men employed in the mines of that county is somewhat greater than these figures indicate, since, at least in recent years, the mine inspector's report (1939 Report, p. 8) is based on statistically perfect employment, 8 hours per day, 5 days per week, 52 weeks per year. An employee working 40 weeks counts as .8 of one employee.¹³

In addition to this secular decline in mining employment there was a decline in lumbering operations in the same area.

The causes appear to have been several: the reduction of production by underground methods, the decline in exploration, stripping and development work, and the introduction of labor-saving machinery.¹⁴ The decline in production after the World War and during the last depression accentuated the difficulty. In 1920 there were 8,091 men employed in the underground mines in St. Louis County, in 1929 there were 2,252.

The commission suggested that lower tax costs in underground operations would stimulate production there, and considered it to be "a significant fact that the reduction in the production of underground ore from St. Louis County paralleled an increase in the production of beneficiated ore from Itasca County low

¹² *Report*, p. 83.

¹³ *Report*, p. 88.

¹⁴ *Report*, pp. 81, 89.

grade deposits. The Itasca County communities have always maintained a much lower level of local taxation than the corresponding communities in St. Louis County.”¹⁵ Because underground mining offered the steadiest employment it should be given every possible encouragement. “A tax cost in the neighborhood of 70 cents on a ton of ore, worth not to exceed \$2.76 at the mouth of the mine, is a considerable cost item.”¹⁶

One thing is certain — if present trends continue unchecked, Minnesota is going to lose a substantial part of its iron ore industry. . . .

No matter how bad the Range communities may think present employment conditions are, they are bound to become infinitely worse as one company after another looks to other states for their future ore supply.¹⁷

In his dissenting report, J. Lawrence McLeod, M.D., maintained that much of the unemployment throughout the iron ranges was due to the fact that many families originally imported from the old world to work in the mines found themselves cut adrift by technological change. Not only did these people assume that a municipal payroll was just as legitimate and proper as an industrial one, but they were led by local politicians to believe that they could exploit the mining companies without limit. Part of the fault, he thought, belonged to the companies that had originally imported these families and had failed to help readjust them.

The members of the committee who had been appointed by the legislature felt that, as in other industries, technological unemployment should be left primarily to economic forces, and emphasized the tendency of municipal pay rolls to carry large numbers of people who were not and had never been hired by the mining companies.

Of the men on the part-time pay rolls at Virginia, approximately 76 per cent in number, receiving 72 per cent of the money, never worked for the mining companies, and only 13.5 per cent in number, receiving 19 per cent of the money had been “laid off” or discharged by the mining industry.

In Hibbing 73.5 per cent in number, receiving 75.7 per cent of the total pay rolls, had never worked for the mining industry. In Ely 66 per cent in

¹⁵ *Report*, p. 82.

¹⁶ *Report*, p. 81.

¹⁷ *Report*, p. 83.

number, receiving 49.40 per cent in dollars of the pay rolls had never worked in the mines, and only 11 per cent in number, receiving 13.7 per cent in dollars had been "laid off" or discharged by the mining companies.¹⁸

The fluctuation in municipal pay was due often to other than economic considerations. The number of part-time employees was quite uniform throughout the year, except that at Christmas certain employees, including returning college students, were added, perhaps to give them some extra spending money. Otherwise there was no indication that the municipal pay rolls were augmented seasonally, and the size of the municipal budget was obviously not the result of industrial seasonal instability. On the other hand, it was obviously true that pay rolls did fluctuate with election years.

For example, Virginia's city elections were held in February, 1938, and in February, 1940. The street department pay rolls in January and February, 1938, were approximately \$27,000 and in the same months in 1940 they were approximately \$32,000, but in January and February, 1939, when there were no elections, these pay rolls averaged \$11,500.

The acuteness of the relief problem in the range, said the commission, was due to the fact that it contained a stranded population. Whatever their reason for coming to the area, these people were now uneconomically placed, and there was little prospect of the development of private employment sufficient to absorb them. To the question of the extent to which and the manner by which they were to be persuaded to be relocated and rehabilitated there was no easy answer.¹⁹

The report of this Interim Commission is of permanent value, not only in the light it throws upon the results of the tax policy in the Minnesota iron ranges, but as a political document illustrating the types of argument that must be used in this democracy to effect a change in such policy. On some of the questions involved in the discussion the report was obviously at a disadvantage. Whether or not taxes were high enough to raise the marginal cost of ore production, the price of ore, and cost of steel in the North will always be difficult to prove. The growing po-

¹⁸ *Report*, pp. 89 ff.

¹⁹ *Report*, p. 93.

sition of the South and East, relative to Pennsylvania, Ohio, Michigan, and Illinois, as steel producing centers, obviously rests on many elements, including wage differentials, freight differentials, and the relative rate of growth of the local market for iron and steel. Yet, upon the conclusion that a decline in tax costs must accompany the eventual decline in quality or ease of extraction of iron ore there can be no question. It is obvious that when the tax does take more than the net rent of the mines in Minnesota, the effect will be felt in Detroit, Cleveland, and Pittsburgh, as well as in the mining regions; and yet, because the tax is only one of the joint costs of producing steel, the mining companies will still find difficulty in relating the position of the steel mills to the tax on ore without divulging the costs and profits of each mine owner.

From the point of view of the country as a whole, or of the state of Minnesota, it should not be necessary for the mining companies to prove that the local tax burden is high enough to endanger the competitive position of the ore companies. It is sufficient to prove that local funds are being squandered and that a natural resource, in the nature of employable population, is kept on municipal pay rolls without being fully utilized. The extent to which mining towns should be allowed to work out their own standard of municipal living is indeterminate, and the difference between adequate governmental services and wasteful expenditures is to some extent a matter of degree, but in the iron mining regions of Minnesota there can be no doubt that there has existed a condition of municipal extravagance.

The minority report suggested, but did not say openly, that inasmuch as the iron mining companies had imported its labor, often from eastern Europe, they were responsible for the continued employment of that labor, either in the iron mines or on municipal pay rolls. This is an argument often heard among the range communities and was therefore justifiably presented in the report. Most of the unemployment, of course, is due not to a drop in the secular curve of production, but to technological improvements in mining methods.²⁰ The extent to which em-

²⁰ Yaworski, Kiessling, Barter, Eaton, and Davis, *Technology, Employment,*

ployers should be held responsible for finding work for those released by technological changes is perhaps a matter for debate, but it is certain that large municipal pay rolls do not answer the problem. Those on the iron ranges sometimes complain that the companies do not spread employment — that when they hire men they frequently hire more than one from the same family, leaving other families without income. The suggestion occasionally arises that the mining companies should spread employment even to the extent of allowing part-time work to all families in the mining town. Such a policy, of course, under a condition in which taxes are limited only by the per capita method, would have a cumulative effect, in that the existence of more families would allow more taxes to be levied, and this in turn would allow more families to be supported wholly or partially on the municipal pay roll. In any case, it is not an answer to the problem of technological unemployment.

Between 1929 and 1939 the population of the range towns and cities declined appreciably, indicating that even during a period of business depression the solution to this important problem went steadily (if somewhat impersonally) forward.²¹

The findings of the survey committee and the statewide discussions of mine tax issues had their culmination in several acts passed by the legislature in 1941. Over-all limitations on per capita expenditures in the mining regions had been lowered over a period of twenty years, and by this new law it was provided that such limitations should eventually be \$50 for all cities and villages and \$40 for school districts. The process of reduction was to be spread over a period of ten years, as shown in Table 10. The principal modification of these provisions was that if the total were not in excess of \$110,000, the district might levy up to \$60 per capita, but not over \$110,000.²²

Two additional measures were enacted with an eye on the range unemployment problem. One was an appropriation setting

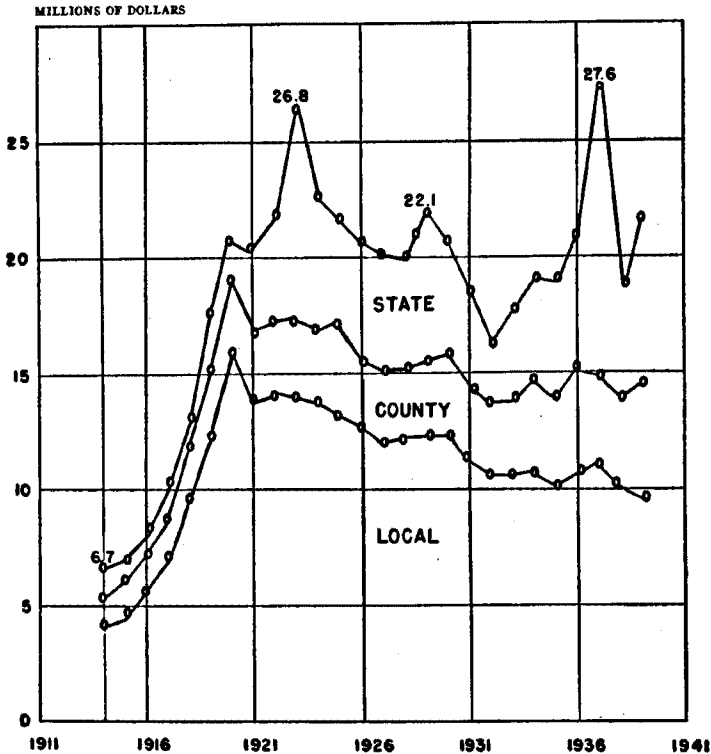
and Output Per Man in Iron Mining (Philadelphia: National Research Project in cooperation with the U. S. Department of Interior, 1940), especially ch. iii.

²¹ Fifteenth census, Population, I, 571 ff.; *Directory of Newspapers and Periodicals* (Ayer & Son, 1941), pp. 458 ff.

²² Session Laws of 1941, ch. 543.

CHART 2

TOTAL TAXES LEVIED ON MINNESOTA IRON ORES



aside 10 per cent of the amounts credited to the fund of mine occupation taxes²³ for the creation of a Commission of Iron Range Resources and Rehabilitation. The provisions were somewhat general:

When the Commission above named shall determine that distress and unemployment exists in any county by reason of the removal of natural resources and the decrease in employment resulting therefrom, he may use such amounts of the appropriation made to him in this section as he may determine to be necessary and proper in the development of the remaining resources of said county and in the vocational training and rehabilitation of its residents.

²³ Five per cent of those paid in from May 1, 1941 to April 30, 1942 (ch. 544, Session Laws of 1941).

Whether this effort will eventually help to solve the problem of technological unemployment in those districts as yet remains to be seen.

TABLE 10
LIMITATIONS ON TAXES (EXCEPT SPECIAL ASSESSMENTS FOR LOCAL IMPROVEMENTS ON PROPERTY SPECIALLY BENEFITED THEREBY)

Year	Villages of 3,000 or less	Cities and villages over 3,000	School districts of 5,000 or less	School districts over 5,000
1941	\$70.00	\$67.50	\$60.00	\$57.50
1942	70.00	65.00	60.00	55.00
1943	67.50	62.50	57.50	52.50
1944	65.00	60.00	55.00	50.00
1945	62.50	57.50	52.50	47.50
1946	60.00	55.00	50.00	45.00
1947	57.50	52.50	47.50	42.00
1948	55.00	50.00 and the same	45.00	40.00
1949	52.50	.... thereafter	42.50	....
1950	50.00 and the same thereafter	....	40.00 and the same thereafter	....

The second bill is generally credited in part to the work of Professor E. W. Davis and the University of Minnesota School of Mines Experiment Station in the promotion of interest in the utilization of the vast resources of low grade ore on the range. The act provides that in addition to the occupation tax and the royalty tax, but in lieu of all other taxes, owners of such deposits shall pay 5 cents per ton of merchantable ore concentrate as shipped, plus $\frac{1}{10}$ of 1 cent per ton of each 1 per cent that the iron content exceeds 55 per cent when dried at 212 degrees Fahrenheit. In any year in which at least 1,000 tons of ore concentrate is not produced from any 40-acre tract containing taconite the deposits shall be taxed as usual, providing that the tax shall not exceed \$1 an acre. A somewhat similar bill liberalized the royalties to be charged for the extraction of such ore from state land.²⁴

To increase employment in the utilization of low grade, underground, and high labor cost ores, the state allowed credit against the occupation tax of 10 per cent of the labor cost in excess of

²⁴ Session Laws of 1941, ch. 546.

20 cents per ton of ore, but not to exceed $\frac{2}{3}$ of the total tax. With a further eye on the taxpaying differential between the best and the poorest mines, the legislature levied a 10.5 per cent tax on all royalties paid in the years 1941 and 1942, and 9 per cent thereafter, in addition to all other taxes provided by law.²⁵

²⁵ Session Laws of 1941, ch. 544.

CHAPTER XXVII

CONCLUSION

TO THE EXTENT that this study has discussed general principles of public finance it has of necessity been confined to an outline of a few aspects of the subject. An effort has been made to keep the slogans and stereotypes of the several interest groups in their proper place, and to recognize the function, as well as the inherent limitations, of such phrases as "the wealth of the state belongs to the people," "taxation according to ability to pay," "taxation according to benefit," or "taxes must be equitable." As slogans they serve to implement and dramatize the self-interest of the group, uniting individuals upon broad objectives, meaning many things to many men, but to the disinterested observer they may be confusing. The student of public finance, to serve the group with which he identifies himself, must determine its true interests. He must aid in narrowing the field of conflict, in order to eliminate incidental antagonisms and to concentrate attention on the more important goals. He must also determine the extent to which a further pressing of basically controversial issues is unprofitable, and he can be of maximum service only if he knows and understands the traditional procedures of arbitration embodied in the law of the land.

We have examined some of the factors determining a tax policy, and have found evidence of two sorts of equilibrium. One is primarily economic. Any special tax greater than marginal benefit tends to come out of economic rent.¹ But under what conditions will a tax actually take more than economic rent, and under what conditions will it take less? The equilibrium here involved is not wholly economic. The tax will rarely take as much as the rent, except as the product of administrative necessity or economic lag, for as the tax increases

¹ By rent in this instance we mean the income in excess of that necessary to supply the factor of production in economic competition.

beyond the point of marginal benefit, and takes a larger share of the economic rent, the tax beneficiaries meet an increasing amount of opposition. The marginal net return to the tax-beneficiary thus disappears. In and out of the legislature the taxed business fights expropriation. The firm asserts that it is about to fail, and as the economic rent disappears this eventuality seems more possible and the economic issues become more confused. This is true of any kind of tax, including that on inheritances and incomes. As the economic effect of the tax becomes more doubtful and the actual or threatened cost to the beneficiary equals the utility of the tax itself, the beneficiary limits his demand for public services, or turns elsewhere for revenue, even to himself.

The student of public finance who remains unconvinced of the significance of the political process in his particular field of interest should reflect on the fact that peace and economic progress have been possible only within nations. Between nations there has been no permanently successful machinery of arbitration. Within them the antagonisms and frustrations find adjustment in the democratic process. People drive, individually and in groups, by various ways to slack the dissatisfactions within them, distributing their energies between social, political, and economic competition as the possibility of success seems to indicate. A constitution will stand only as long as it provides a method of measuring and expressing group interests, weighing them according to the capacity and desire of each element to turn its energies toward political activity.

As long as there is economic and social homogeneity, the middle class is not aware of the fact that a government speaks for the strong, because it always speaks for the same class. In this simple political and economic alignment the people confuse government with slogans and legal and social stereotypes, for there is only one group concerned and therefore only one ideology is needed to express its self interest. No individual can ever be completely aware of the brute force presented by his group as long as he moves with it. But with the economic division of labor comes political divergence of interest, and not only

does the common law rule of uniformity of treatment lose some of its effectiveness but each group gives its own interpretation to popular ideologies, or forms new codes of its own. Force now becomes more evident, not so much because the individual now feels the strength of his own group, but because he feels the shock of opposition.

This study gave much of its attention to an analysis of the types of pressure available to those struggling over economic rent, and to the broad pattern of the contest. We have assumed that under the hedonistic calculus each would apply its energies in the political struggle to the point at which those energies would be better spent in business. The point of equilibrium constantly shifts with the fluctuations in the value of economic alternatives and with changes in the type of weapons. If, as in South Dakota, the depression lowers the price of wheat at approximately the same time that devaluation of the dollar raises the value of a gold mine, the mine will find itself on the defensive. To many students this is not an engaging philosophy, but it is extremely useful. The subject is necessarily offensive, because it involves a struggle over goods already produced, and the spectacle of a division of the spoils is never inspiring. But it gives a solid foundation to a field of public finance that has long been chaotic and its usefulness is as wide as the problems of government. The democratic process is inherently one of flexibility, demanding a constant change in the areas controlled by the contestants, and the substitution of a political "defense in depth" for violence.

The available data indicate that even in the peculiar circumstances under consideration, with non-resident ownership of economic rent, there has been no complete confiscation of such income. The relatively low taxes imposed during the first World War were due, of course, to temporary conditions, to the fact that the mine income had risen so suddenly, and to the fact that prewar governmental services were based on a different political and economic philosophy than prevailed thereafter. Utah Copper Company appears to have paid state and local taxes of .89 per cent and .56 per cent of net income after taxes in 1916 and

1917. Hecla in Idaho paid only .60 per cent of net income after taxes in 1916. In Arizona, where the property tax was inaugurated before the beginning of the war, the tax burden was somewhat higher, but reached only 2.8 per cent of reported net earnings² in 1916 for the mines then operating. But losses in 1921 were large, Utah Copper Company in that year paying state and local taxes of nearly half a million dollars, with a net loss of over two million.³ In Idaho, state and local taxes for the three leading companies, from 1920 to 1933, averaged 6.53 per cent of net income.⁴ The mines license tax which went into effect in 1934, charging a flat rate of 3 per cent against net profits as defined by law for tax purposes, increased the mines tax burden about 44 per cent for the years 1934 to 1939 inclusive for those three mining companies.⁵

In the ten years between 1924 and 1933 the Tintic Standard in Utah paid the equivalent of about 9.36 per cent of its net income in state and local taxes⁶ with little variation in the ratio. The Utah Copper Company in the years 1925, 1926, 1927, 1928, and 1929 paid 6.97 per cent, 7.22 per cent, 7.99 per cent, 4.88 per cent, and 6.29 per cent respectively, but in the years between 1930 and 1935 inclusive the company paid taxes of \$4,254,359.50, leaving a net income of \$10,177,230.30, a ratio of 41.80 per cent.⁷ Between the years 1924 and 1933 inclusive Tintic Standard, Utah Copper, and Silver King Coalition paid taxes equal to 9.36 per cent of combined net earnings.⁸

Neither in New Mexico nor in Colorado are there mines with sufficient public reports to allow an estimate of the tax burden

² Before depletion and depreciation. From figures in the office of the state tax commission. These and all other estimates of tax burden in this chapter relate only to property and special mine taxes.

³ Net income figures as published in annual statement, less dividends from Nevada Consolidated Copper Company. Tax figures from company office.

⁴ Taxes paid by Hecla, Bunker-Hill and Sullivan, and Federal, available in office of county treasurer, Wallace, Idaho. Income data as reported in *Moody's Industrials*.

⁵ Yield of this tax in office of state commissioner.

⁶ Data acquired from company records.

⁷ Because the Utah Copper Company was integrated with Kennecott in 1935 there are no separate data on income available thereafter.

⁸ From company records.

on net income,⁹ though New Mexico might be compared to Arizona in that both use the property tax, and the tax base in Colorado (the net proceeds or one quarter of the gross, whichever is higher) might be considered similar to that in Idaho before 1934, except that it is heavier for less prosperous mines. Utah, with a base of three times a legally defined net (including the base of the occupation tax), could be considered to have a heavier tax than Colorado or Nevada. On Montana there are no dependable data and the gross proceeds base makes comparison difficult.

In Nevada the largest producer — the Nevada Consolidated Copper Company — paid taxes in 1923, 1924, and 1925 equal to 8.91 per cent, 11.43 per cent, and 7.56 per cent of net income.¹⁰ The twelve largest Arizona mines appear to have paid about 15 per cent of reported net profits (before depreciation and depletion) during the years 1916 to 1933, though the New Cornelia, partly because it was not in operation during some of the war years, paid out about 21 per cent of net profits in state and local taxes, and the United Verde Extension, at the other extreme, paid only 10 per cent.¹¹

These figures are not intended to be exactly comparable. Some of the Arizona income data do not take into account losses incurred in 1921, unreported to the commission; and the net income figures, including those for Arizona, often do not allow for depletion. Yet the point appears to be clear that during the period of youthful prosperity the western mine taxes were not confiscatory. Indeed, the most interesting conclusion of this comparison is the small difference in effect between the various types of mine taxation. The local government was usually the mining camp, and the tax to support it was not likely to change in spite of an altered tax base. Unless the state itself levied a direct tax on mining, therefore, as in the case of the per capita

⁹ The mines tend to be integrated with other concerns, to have holdings in other states or to be privately owned.

¹⁰ In 1926 it acquired control of Ray Consolidated Copper Company in Arizona and Chino Copper Company in New Mexico and income statements thereafter are consolidated.

¹¹ From data acquired from the office of the tax commission, in 1934.

education tax in Arizona or the license tax in Idaho, the higher base for the property tax rate usually increased the tax but little.

This conclusion is not so true for iron mines in Michigan and Minnesota. From data compiled and reported by F. G. Pardee of the Department of Conservation of Michigan, and from the reports of the state tax commission of Minnesota, Mr. O. A. Sundness, general superintendent of the Snyder Mining Company, has drawn the following charts to indicate the percentage distribution of value of ore at Lake Erie. As he observes, the share entitled "Operator's Equity" is actually somewhat less than here pictured, because it assumes that all ore brings the "Lake Erie Price" which in fact only applies to the best grades sold. The Oliver Iron Mining Company has contended that for the ore it handles the price is approximately 40¢ below the "Lake Erie Price."¹² To lend more stability to the charts he has used a five year moving average. Supporting figures are found in Appendix II. By weighting the per ton taxes, royalty and operator's equity by the tonnage, each year, it is possible to arrive at the approximate return to each, and, by addition, to determine the amounts going to each share for the period examined. During the years 1921 to 1929 inclusive the ratio of taxes to combined royalty and operator's equity (after taxes except federal) was 66.0 per cent in Michigan and 75.1 per cent in Minnesota. For the years 1924 to 1933 inclusive the same ratio was 68.1 per cent and 79.3 per cent, for the two states.

Again it should be observed that these figures are not directly comparable with those relating taxes to reported net income in the western states. The owner's equity reported for Minnesota and Michigan includes depletion, federal taxes and profit to the operator; and that reported for Minnesota includes, in addition, interest on all capital. Nevertheless, the burden is obviously much higher, relative to net income, than in the West.

Tax burdens will of necessity be high, relative to net incomes, when the mines become depleted. The Michigan copper mines, for the years 1923 to 1927 inclusive (the last years for which

¹² Letter from Clarence J. Hartley, assistant general solicitor, Oliver Iron Mining Company, Jan. 7, 1942.

CHART 3
 DISTRIBUTION OF VALUE AT LAKE ERIE, 5-YEAR AVERAGE
 MICHIGAN IRON ORES

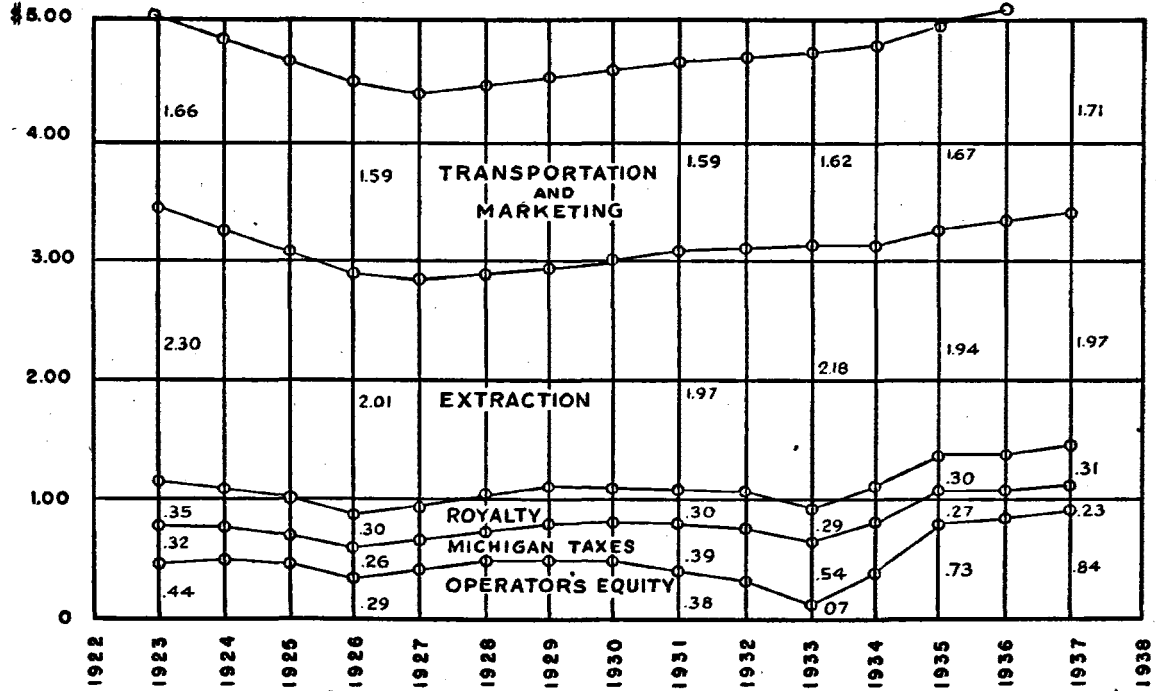


CHART 4

PERCENTAGE DISTRIBUTION OF VALUE AT LAKE ERIE, 5-YEAR
AVERAGE — MICHIGAN IRON ORES

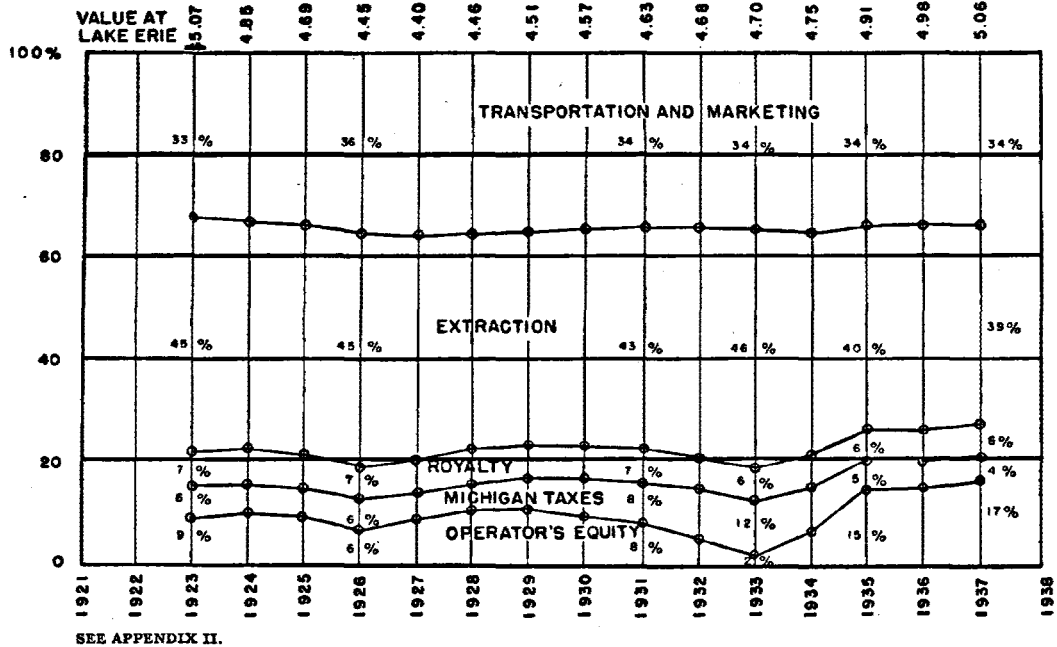


CHART 5

DISTRIBUTION OF VALUE AT LAKE ERIE, 5-YEAR AVERAGE
MINNESOTA IRON ORES

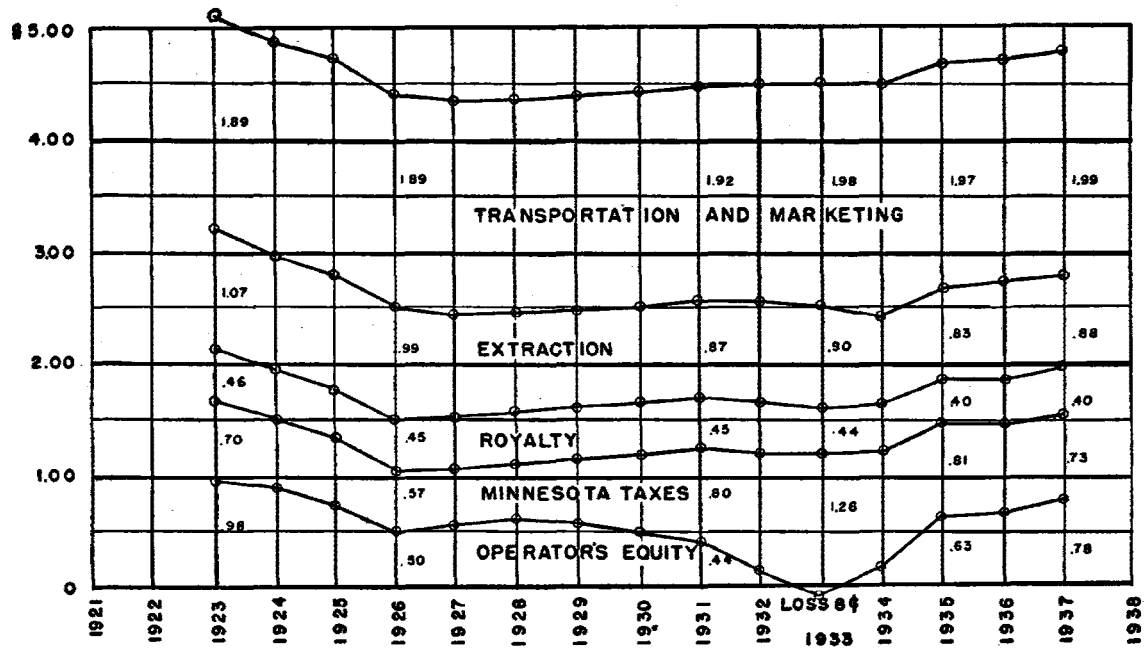
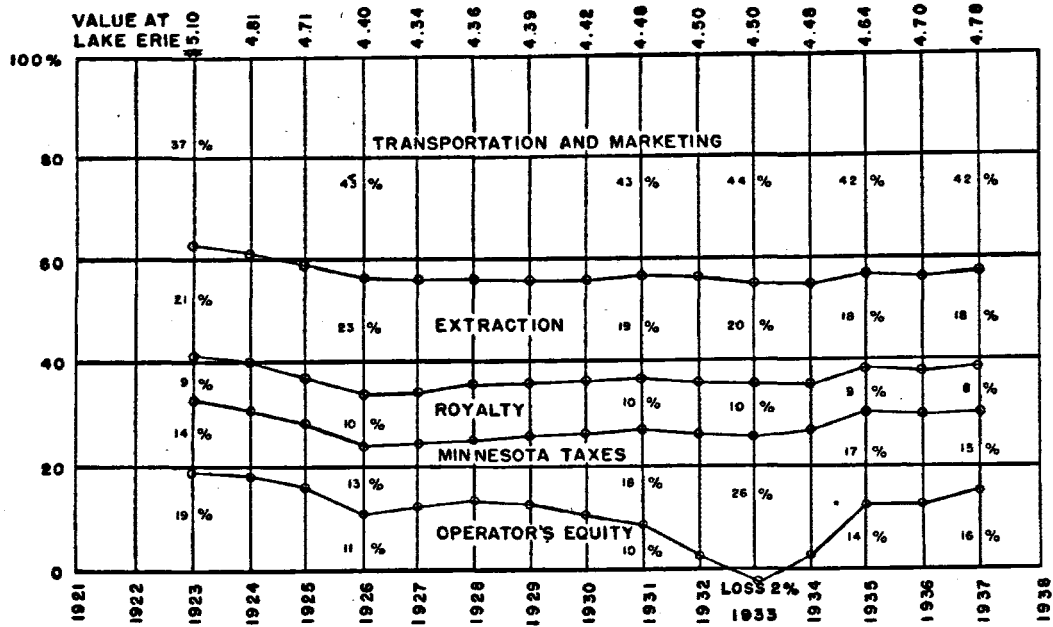


CHART 6

PERCENTAGE DISTRIBUTION OF VALUE AT LAKE ERIE, 5-YEAR AVERAGE — MINNESOTA IRON ORES



SEE APPENDIX II.

there is available data), show average profits of .8849¢ a pound, after paying property taxes of .5831¢ a pound, leaving a ratio of 66 per cent.¹³ These were deep mines with high costs and questionable futures.

The central thesis of this study is borne out in part by the fact that though the iron ore tax in Michigan is high, relative to profits and royalty, the companies confine most of their complaint to the condition in Minnesota. They have been willing to accept the ad valorem method and the necessary costs of local schools and government (with some reservations as to the definition of "necessary costs") and have generally approved of the Michigan tax system. Their deep and violent objection to the condition in Minnesota grew out of the feeling that the tax system was discriminatory and that some of the proceeds were being wasted. Again it is evident that involved even in the argument over whether or not taxes are high enough to discourage mining in a particular locality is the assumption that those taxes are higher than marginal benefit of government services. In an old mining community, where costs actually do threaten the mine with failure, the expenses of local government are accepted as necessary.

To date the federal mineral policy has consisted of a straightforward program of private ownership of deposits, and a *laissez faire* policy toward market price. The margins of minable ore are thus determined by market and existing technological conditions. States have evolved some modifications of this policy. They have been conscious of the fact that taxes might operate as costs, to discourage the exploitation of submarginal deposits, and have endeavored to lighten those taxes somewhat when such appeared to be the case. Yet these modifications have been relatively few, and it cannot be said that they have been important compared to the large amount of taxes taken from the inframarginal mines for expenditure elsewhere in the state. There is little suggestion that the economic rent of the richer mines has been used to extend the area of minable ore.

The tax burden in the Mesabi is obviously high enough to be

¹³ 1927 report of the Department of Conservation.

of some consequence to a firm considering the opening of new mines, and the state of Minnesota, partly because it owned considerable quantities of low grade deposits, has undertaken to encourage the utilization of such ore. In 1940 E. W. Davis, of the University of Minnesota Mines Experiment station, became disturbed by the alleged threat of U. S. Steel (the Oliver Iron Mining Company) to lower the price of ore and, indirectly, to raise the grade that could profitably be mined, and suggested that Minnesota counter with a tax on ore shipments which should vary directly with the iron content.¹⁴ By lowering the grade of ore mined, he said, Minnesota could increase range employment (because the same iron content would demand more labor in mining) and lengthen the life of the better deposits. This first proposal brought some criticism, both from mining companies and from those who thought an increase in range employment was not an end in itself, but the laws of 1941, already described, endeavored to increase the utilization of magnetite by lowering the tax on it. In this, as in other such cases, the state tax is recognized to be a joint cost, to be apportioned as the traffic will bear.

We can return, in summary, to the basic thesis of the study, that the value of these deposits sprang from a national demand and that the accident of their location provided a problem in politics as well as in public finance. The values of these properties were more fit objects for national than for local taxation. But the nation made up its mind on the subject of mineral exploitation at a time when those mineral values were first coming to light, and the decision to open natural resources to private development was only a part of a pattern of free enterprise found throughout our early national history. Anyone who examines the story of mining taxation with an eye only to the distribution of income may miss the principal characteristic of the period — that within the limits of those natural resources and within the limits of social pressure, individuals found an unprecedented scope for purposeful activity, with a sense of

¹⁴ E. W. Davis, "Change in U. S. Steel Iron Ore Marketing Policy Endangers Range Communities and State," in *Minnesota Municipalities*, March, 1940.

accomplishment that was an important end in itself. The problem of political organization and the duty of the courts is to free such activity from unnecessary irritations and uncertainties. In this case, the road to such freedom for production lay more in the prompt determination of the nature of the tax, and in the enforcement and clarification of the law, than in the tax itself. Few states are without serious defects in this regard, and the fault must be widely shared.

The courts are in a difficult position in this problem for, as Bentham pointed out, certainty in law comes as much from an acceptance of the social will as from doctrinaire insistence upon conventional patterns. If the public insists upon the taxation of a deposit, the value of which is so largely a matter of speculation and individual judgment, the courts can hold neither the tax commission nor the mine owner entirely responsible for proving beyond doubt the proper valuation. Here lies the most important single problem in mine taxation — that of the distribution of the responsibility for administration. To what extent should the courts bow to the fact that the administration of the law as well as the law itself is a product of political pressures?

The answer is a matter of judgment, but we must look with critical eye upon the fact that administrative bodies have frequently been allowed to operate with no more than a gesture toward enforcement of the law. The thesis that the responsibility lies more with the mine owner than with the commission has been stated most clearly by the dissenting opinion in the *Oliver Iron Mining* case¹⁵ and in the opinion of the *Phelps-Dodge* case.¹⁶ The first maintained that the burden of proof of an erroneous valuation lay with the property owner, and the latter suggested rather clearly that the court had found the problems difficult and had decided against the company largely because the company's contentions with regard to future costs and prices were not convincing.

But the courts might well impose, also, the accepted legal

¹⁵ Above, p. 362.

¹⁶ Above, p. 271.

doctrine that a valid assessment demands the exercise of the discretion of the administering body and that a true assessment cannot be arbitrary, for rarely has such judgment been seriously exercised. In almost all important cases the commission has refused to substantiate its original valuation and has hired an engineer to make a new one lower than the original but as high as he believed he could defend before the court.

There would be small loss and much gain in any insistence on the part of the courts that the tax commission make a genuine effort to carry out the duties for which it was hired. While the courts might, to some degree, run counter to popular demand, they would force more of such political pressures into the legislature where the issues would be more sharply presented.

In addition to the fact that sales of metal and ore may become increasingly infrequent and that the market values even of salable raw materials are subject to severe changes and are difficult to predict, it should be remembered that the property tax was not, as among farmers, self-imposed. Under these circumstances an insistence that the tax payer bear all of the burden of proof is manifestly impractical and unjust. Wherever there is increasing difficulty in valuation enough of this burden should fall upon the state so that it shall utilize, as does the court, the "best evidence," to the end that the legislature, with a clearer view of the issues, may decide whether or not the public interest demands a change in the law.

The problem with regard to the use of some combination of gross and net income is somewhat different. This is a tax base long honored by the mines themselves and in its use the normal distribution of responsibility is more logical. Here again there has been a pronounced administrative weakness, a weakness curable only by legislative direction, by the appointment of able personnel, and by the clarification of terminology.

It is to be hoped that to the students of history and of political and economic processes this case study opens more fields of speculation than it closes. The economic history of the west is still relatively untouched and few states have a recorded political history worthy of the name. There is much still to be

done in the area lying between engineering and economic theory. More important than any other field, however, is the study of democratic government, and of the ways in which, given the type of freedom enjoyed in few of the countries of the world, men may smoothly and speedily arbitrate their differences.

APPENDIX I

THE ARGUMENT that because a definition of mine income involves the determination of a depletion allowance and this, in turn demands mine valuation, the taxation of metallic mines on their income is no easier than their taxation on property assessment, loses force when a study is made of depletion allowances. Mine depletion has always been handled in terms of generalities or has been ignored entirely. Even in Arizona the profit figure capitalized to determine the taxable value of the mine, during the early years of the administration of the property tax, was "income before depletion or depreciation." All state mine tax laws that use as the tax base some arbitrary definition of a multiple of income ignore the factor of depletion. Taxes are considered to be one of the costs of doing business and not necessarily related to net income.

State treatment of depletion for income tax purposes indicates again that legislation for a specific problem, for which there is no parallel within the jurisdiction of the governing body, will depend upon the forces within that jurisdiction, with little reference to legislation elsewhere.

METHOD OF COMPUTING DEPLETION ALLOWANCE GRANTED METALLIFEROUS MINES

New Mexico

Oil and Gas — depletion shall be allowed upon the cost or other basis of the property, as allocated to the current year's production . . . on a unit of production basis, or at the option of the taxpayer, shall be 27½ per cent of the gross income . . . but in no case shall the allowance exceed 50 per cent of the net income. . . .

Mining — depletion shall be allowed on a similar basis to that governing taxpayers engaged in production of oil and gas. . . .

Source: The Income Tax Act of 1933, Art. 7 (j)-5, p. 35 (as amended).

Oklahoma

Any taxpayer may, at his option, deduct as an allowance for depletion in lieu of the calculation of depletion the following: Coal mines, 5%, metal mines, 15%, sulphur mines or sulphur deposits, 20%, oil and gas wells, 20%, of the gross income. Such allowance,

in all cases, shall not exceed 50% of the net income of the taxpayer.

Source: Oklahoma Income Tax Law of 1935, Section 9 (g), pp. 12-13.

South Dakota

No specific statute. Allowance depletion made on the same basis as that allowed by the Federal Government.

Source: Letter from Division of Taxation, July 17, 1941.

Tennessee

No depletion dividend allowed.

Source: Letter from Department of Finance and Taxation July 17, 1941.

Utah

Depletion allowance may be claimed on the basis of cost divided into depletion units, or a claim may be made for percentage depletion on the basis of one-third of the net income from the property during the taxable year computed without allowance for depletion.

Source: Letter from Utah State Tax Commission, July 22, 1941.

Wisconsin

Net income tax cost of the mine is divided by the estimated number of tons of ore to be removed from it. The quotient is the allowable depletion per ton of ore mined. The total depletion allowance for a given year is determined by multiplying the allowance per ton by the number of tons mined during the year.

Source: Letter from Department of Taxation, July 24, 1941.

California

(2) In the case of mines (other than metal, coal, or sulphur mines) discovered by the taxpayer after February 28, 1913, the basis for depletion shall be the fair market value of the property at the date of discovery or within thirty days thereafter, if such mines were not acquired as the result of purchase of a proven tract or lease, and if the fair market value of the property is materially disproportionate to the cost. The depletion allowance under section 8 (j) based on discovery of value provided in this paragraph shall not exceed 50 per centum of the net income of the taxpayer. . . .

(3) In the case of oil and gas wells the allowance for depletion under section 8 (j) shall be 27½ per centum of the gross income. . . . Such allowance shall not exceed 50 per centum of the net income of the taxpayer. . . .

(4) The allowance for depletion under section 8 (j) shall be, in the case of coal mines, 5 per centum, in the case of metal mines, 15 per centum, and, in the case of sulphur mines or deposits 23 per centum, of the gross income. . . . Such allowance shall not exceed 50 per centum of the net income of the taxpayer. . . .

Source: California Personal Income Tax Act 1939, Section 9.5 (b), p. 27.

Idaho

15 per cent of the gross income in the case of metal mines. Shall not exceed 50 per cent of the net income of the taxpayer.

Source: Letter from the Office of Tax Commissioner, July 31, 1941.

Kansas

(1) depletion based upon the cost of the property or, if acquired prior to January 1, 1933, the cost or fair market value thereof as of that date, whichever is greater; or, (2) depletion based upon a percentage of income in certain cases as specified in the act.

Source: Income Tax Law and Regulations 1937, Art. 56, p. 34.

Minnesota

In determining the amount of depletion, many factors are taken into consideration, that is, the rate of royalty, the term of lease, and the probable time within which the ore body will be mined out. Further, the character of the ore body, that is, whether high grade or low grade, whether mining will be hazardous or relatively stable, are among the factors that are given consideration in determining the present worth of expected income for the property. With these factors determined and the present worth established, the depletion rate thus established is effective through the life of the property.

Source: Letter from Department of Taxation, July 18, 1941.

Michigan

No state income tax and therefore no method for computing depletion is needed.

Source: Letter, Department of Conservation, August 4, 1941.

Montana

Same as under the Federal Income Tax Law.

Source: Letter, Board of Equalization, July 31, 1941.

APPENDIX II

THE FOLLOWING tables present supporting data for charts on distribution of "Lake Erie Value" of Michigan and Minnesota ores, compiled from figures published by the Department of Conservation of Michigan and from the reports of the State Tax Commission of Minnesota.

TABLE 1
MICHIGAN ORE VALUES AND COSTS PER TON BASED ON PRODUCTION (ANNUAL)

	Production Mil. tons	5-yr. total	Ore value at Lake Erie	Transpor- tation and market- ing	Value at mine	Extrac- tion columns	Value in ground	Royalty to owner	Taxes Ad val. occupa- tional royalty	Operator's equity inc. interest, all federal taxes and profit	Int.
1921	7.1	...	\$5.56 ^a	\$1.79	\$3.77 ^a	\$2.99	\$.78 ^a	\$.43	\$.50	Loss \$-.15 ^a	\$.09
1922	10.3	...	5.14	1.64	3.50	2.24	1.26	.36	.37	.53	.08
1923	14.2	...	5.61	1.67	3.94	2.24	1.70	.38	.27	1.05	.09
1924	12.2	..	4.93	1.61	3.33	2.32	1.01	.33	.31	.37	.06
1925	14.5	58.3	4.36	1.63	2.73	2.05	.68	.30	.25	.13	.05
1926	15.2	66.4	4.33	1.57	2.76	1.94	.82	.29	.24	.29	.05
1927	15.1	71.2	4.32	1.58	2.74	1.90	.85	.29	.24	.31	.04
1928	13.7	70.7	4.40	1.58	2.82	1.90	.92	.28	.26	.33	.04
1929	15.2	73.7	4.58	1.58	3.01	1.78	1.23	.28	.24	.71	.04
1930	13.5	72.7	4.66	1.59	3.07	1.87	1.20	.31	.27	.62	.04
1931	7.5	65.0	4.66	1.59	3.07	2.06	1.01	.28	.52	.21 ^b	.08
1932	2.5	52.4	4.65	1.66	2.99	2.71	.28	.40	1.17	Loss - 1.29 ^b	.21
1933	2.4	41.1	4.74	1.64	3.10	2.66	.44	.27	.88	Loss - .71	.06
1934	5.0	30.9	4.72	1.58	3.14	2.00	1.14	.29	.34	.51	.03
1935	5.2	22.6	4.78	1.69	3.09	2.04	1.05	.27	.32	.46	.03
1936	9.1	24.2	4.80	1.73	3.07	1.75	1.32	.30	.19	.83	.03
1937	12.0	33.7	5.17	1.67	3.50	1.88	1.62	.32	.17	1.13	.01
1938	5.9	37.2	5.23	1.74	3.49	2.41	1.08	.34	.34	.40	.01
1939	9.1	41.3	5.22	1.72	3.50	1.99	1.50	.32	.22	.96	.01

^a Figures in these four columns are too high because much ore is sold below L.E. price.

^b 1931 additional idle expense was 7c, 1932 idle expense was 40c.

TABLE 2
MICHIGAN ORE VALUES AND COSTS PER TON BASED ON PRODUCTION (5-YEAR AVERAGE)

	Lake Erie value	Transport. and marketing	Value at mine	Extrac- tion	Value in ground	Royalty	Tax	Operator's equity
1923	\$5.07	\$1.66	\$3.41	\$2.30	\$1.11	\$.35	\$.32	\$.44
1924	4.85	1.62	3.23	2.15	1.08	.33	.28	.47
1925	4.69	1.61	3.08	2.08	1.00	.31	.26	.43
1926	4.45	1.59	2.86	2.01	.85	.30	.26	.29
1927	4.40	1.59	2.81	1.91	.90	.29	.24	.37
1928	4.46	1.58	2.88	1.88	1.00	.29	.25	.46
1929	4.51	1.58	2.93	1.88	1.05	.29	.28	.48
1930	4.57	1.59	2.98	1.92	1.06	.29	.34	.43
1931	4.63	1.59	3.04	1.97	1.07	.30	.39	.38
1932	4.68	1.60	3.08	2.07	1.01	.30	.46	.25
1933	4.70	1.62	3.08	2.18	.90	.29	.54	.07
1934	4.75	1.67	3.08	2.05	1.03	.30	.42	.31
1935	4.91	1.67	3.24	1.94	1.30	.30	.27	.73
1936	4.98	1.69	3.29	1.97	1.32	.31	.25	.76
1937	5.06	1.71	3.35	1.97	1.38	.31	.23	.84

TABLE 3
PERCENTAGE DISTRIBUTION OF VALUE OF MICHIGAN ORE AT LAKE ERIE (5-YEAR AVERAGE)

	5-yr. ave. Lake Erie value	Transport. and marketing		Extraction		Royalty		Tax		Operator's equity	
			%		%		%		%		%
1923	\$5.07	\$1.66	32.7	\$2.30	45.4	\$.35	6.9	\$.32	6.3	\$.44	8.7
1924	4.85	1.62	33.4	2.15	44.3	.33	6.8	.28	5.8	.47	9.7
1925	4.69	1.61	34.3	2.08	44.4	.31	6.6	.26	5.5	.43	9.2
1926	4.45	1.59	35.7	2.01	45.2	.30	6.8	.26	5.8	.29	6.5
1927	4.40	1.59	36.1	1.91	43.4	.29	6.6	.24	5.5	.37	8.4
1928	4.46	1.58	35.4	1.88	42.2	.29	6.5	.25	5.6	.46	10.3
1929	4.51	1.58	35.0	1.88	41.7	.29	6.4	.28	6.2	.48	10.7
1930	4.57	1.59	34.8	1.92	42.0	.29	6.4	.34	7.4	.43	9.4
1931	4.63	1.59	34.3	1.97	42.6	.30	6.5	.39	8.4	.38	8.2
1932	4.68	1.60	34.2	2.07	44.2	.30	6.4	.46	9.8	.25	5.4
1933	4.70	1.62	34.4	2.18	46.4	.29	6.2	.54	11.5	.07	1.5
1934	4.75	1.67	35.2	2.05	43.2	.30	6.3	.42	8.8	.31	6.5
1935	4.91	1.67	34.0	1.94	39.5	.30	6.1	.27	5.5	.73	14.9
1936	4.98	1.69	33.9	1.97	39.6	.31	6.2	.25	5.0	.76	15.3
1937	5.06	1.71	33.8	1.97	38.9	.31	6.1	.23	4.6	.84	16.6

TABLE 4
MINNESOTA ORE VALUES AND COSTS PER TON BASED ON PRODUCTION (ANNUAL)

	A Production		B Ore value at Lake Erie	C Transpor- tation and market- ing	D Value at mine	E Extrac- tion columns (3 + 8)	F Value in ground D - E	G Royalty to owner	H Taxes Ad val. occupa- tional royalty	I Operator's equity inc. interest, all federal taxes and profit
	Mil. tons	5-yr. total								
1921	17.5	....	\$5.78 ^a	\$2.03	\$3.75 ^a	\$1.24	\$2.51 ^a	\$.47	\$1.17	\$.87 ^a
1922	28.8	....	5.22	1.78	3.44	1.03	2.41	.48	.76	1.17
1923	44.8	....	5.61	1.93	3.68	1.01	2.67	.44	.60	1.63
1924	32.4	....	4.84	1.88	2.96	1.13	1.83	.46	.69	.68
1925	37.6	161.1	4.35	1.89	2.46	1.05	1.41	.45	.58	.38
1926	41.7	185.3	4.32	1.89	2.43	.94	1.49	.44	.50	.55
1927	36.5	193.0	4.28	1.89	2.40	.99	1.41	.45	.57	.39
1928	38.5	186.7	4.25	1.89	2.36	.87	1.49	.45	.52	.52
1929	46.9	201.2	4.46	1.89	2.57	.79	1.78	.45	.47	.86
1930	36.2	199.8	4.48	1.91	2.58	.88	1.70	.46	.57	.67
1931	18.4	176.5	4.54	1.93	2.60	.95	1.65	.44	1.02	.19
1932	5.5	145.5	4.59	2.15	2.44	1.31	1.13	.55	3.01	2.43 Loss
1933	12.6	119.6	4.47	1.98	2.49	.84	1.65	.42	1.42	.19 Loss
1934	16.2	88.9	4.47	1.92	2.55	.85	1.70	.41	1.19	.10
1935	19.9	72.6	4.47	2.02	2.45	.81	1.64	.44	.96	.24
1936	32.5	86.7	4.47	1.97	2.50	.82	1.68	.40	.65	.63
1937	49.6	130.8	4.93	1.97	2.96	.84	2.12	.38	.56	1.18
1938	14.7	132.9	4.98	2.03	2.95	1.26	1.69	.39	1.26	.04
1939	31.8	148.5	4.96	2.01	2.95	.88	2.07	.43	.70	.94

^a Figures in these four columns are too high because much ore is sold below L.E. price.
Columns B, C, D, are taken from Table No. 10 and E, G, H, are from Table No. 11 of the 1936 Tax Commission's Report.

TABLE 5
MINNESOTA ORE VALUES AND COSTS PER TON BASED ON PRODUCTION (5-YEAR AVERAGE)

	Lake Eric value	Transport. and marketing	Value at mine	Extraction	Value in ground	Royalty	Tax	Operator's equity
1923	\$5.10	\$1.89	\$3.21	\$1.07	\$2.14	\$.46	\$.70	\$.98
1924	4.87	1.88	2.99	1.03	1.96	.45	.61	.90
1925	4.71	1.90	2.81	1.02	1.79	.45	.58	.76
1926	4.40	1.89	2.51	.99	1.52	.45	.57	.50
1927	4.34	1.89	2.45	.92	1.53	.45	.52	.56
1928	4.36	1.89	2.47	.89	1.58	.45	.52	.61
1929	4.39	1.90	2.49	.88	1.61	.45	.58	.58
1930	4.42	1.91	2.51	.87	1.64	.46	.67	.51
1931	4.48	1.92	2.56	.87	1.69	.45	.80	.44
1932	4.50	1.94	2.56	.91	1.65	.45	1.05	.15
1933	4.50	1.98	2.52	.90	1.62	.44	1.26	.08 Loss
1934	4.48	1.99	2.49	.86	1.63	.42	1.06	.15
1935	4.64	1.97	2.67	.83	1.84	.40	.81	.63
1936	4.70	1.98	2.72	.88	1.84	.40	.80	.64
1937	4.78	1.99	2.79	.88	1.91	.40	.73	.78

TABLE 6
PERCENTAGE DISTRIBUTION OF VALUE OF MINNESOTA ORE AT LAKE ERIE (5-YEAR AVERAGE)

	5-yr. ave. Lake Erie value	Transport. and marketing		Extraction		Royalty		Tax		Operator's equity	
			%		%		%		%		%
1923	\$5.10	\$1.89	37.1	\$1.07	21.0	\$.46	9.0	\$.70	13.7	\$.98	19.2
1924	4.87	1.88	38.6	1.03	21.2	.45	9.2	.61	12.5	.90	18.5
1925	4.71	1.90	40.4	1.02	21.7	.45	9.5	.58	12.3	.76	16.1
1926	4.40	1.89	43.0	.99	22.5	.45	10.2	.57	12.9	.50	11.4
1927	4.34	1.89	43.5	.92	21.2	.45	10.4	.52	12.0	.56	12.9
1928	4.36	1.89	43.4	.89	20.4	.45	10.3	.52	11.9	.61	14.0
1929	4.39	1.90	43.3	.88	20.0	.45	10.3	.58	13.2	.58	13.2
1930	4.42	1.91	43.2	.87	19.7	.46	10.4	.67	15.2	.51	11.5
1931	4.48	1.92	42.9	.87	19.4	.45	10.0	.80	17.9	.44	9.8
1932	4.50	1.94	43.1	.91	20.2	.45	10.0	1.05	23.4	.15	3.3
1933	4.50	1.98	44.0	.90	20.0	.44	9.8	1.26	28.0	-.08	-1.8
1934	4.48	1.99	44.4	.86	19.2	.42	9.4	1.06	23.7	.15	3.3
1935	4.64	1.97	42.5	.83	17.9	.40	8.6	.81	17.4	.63	13.6
1936	4.70	1.98	42.2	.88	18.7	.40	8.5	.80	17.0	.64	13.6
1937	4.78	1.99	41.6	.88	18.4	.40	8.4	.73	15.3	.78	16.3

THE LOEB CLASSICAL LIBRARY

THE great literature of the Greeks and Romans has remained alive throughout the centuries because of the deeply satisfying pleasure it has given to each new generation of readers. The *Odyssey* of Homer, the poems of Ovid, the philosophy of Plato, the adventures of Aeneas — these are old friends of the classroom. But many other books, by both familiar and less well-known authors, provide reading as stimulating today as it was two thousand years ago. The witty dialogues of Lucian, the brilliant comedies of Aristophanes, the travels of Strabo, and the botanical discoveries of Theophrastus, founder of modern botany, are only samples of the wide range of subjects included in the LOEB CLASSICAL LIBRARY of over 360 titles.

In the LOEB CLASSICAL LIBRARY the original Greek or Latin text is printed on left-hand pages with a line-for-line translation on facing pages. Write for a descriptive catalogue. The price is uniformly \$2.50 a volume.

HARVARD UNIVERSITY PRESS
CAMBRIDGE 38, MASSACHUSETTS

Recent Harvard Economic Studies

THE STRUCTURE OF SOVIET WAGES

A Study in Socialist Economics

By ABRAM BERGSON

An illuminating study of the inequality of wages in the Soviet Union. "An excellent study of Russian economics . . . and makes use of official statistics." *The New Republic*. No. 76. \$3.50

THE EARLY HISTORY OF DEPOSIT BANKING IN MEDITERRANEAN EUROPE

By ABBOTT P. USHER

A new understanding of early banking activity is presented in this detailed and fully documented study which establishes the actuality of credit creation in early banking systems. No. 75. \$5.00

WESTERN PRICES BEFORE 1861

A Study of the Cincinnati Market

By THOMAS S. BERRY

Although limited to the period between 1780 and 1861, many data are applicable to the present. The account is divided into three parts, each of which provides a separate treatment of price materials. No. 74. \$5.00

ECONOMIC FLUCTUATIONS IN THE UNITED STATES

A Systematic Analysis of Long-Run Trends and Business Cycles, 1866-1914

By EDWIN FRICKEY

Presents a wholly fresh approach to the problem of analyzing economic fluctuations, developing a sound system of measuring long-run trends and business cycles and applying it to an important range of economic data. No. 73. \$5.00

THE CREATION OF PURCHASING POWER

By DAVID McC. WRIGHT

This book deals with one of the most fundamental and far-reaching problems of economics: that of finding, within the general framework of the capitalist system, adequate means for combating economic instability. No. 72. \$3.00

HARVARD UNIVERSITY PRESS