

**ECONOMIC DEVELOPMENT
OF THE UNITED STATES**

ECONOMIC DEVELOPMENT OF THE UNITED STATES

BY
ISAAC LIPPINCOTT, Ph.D.

PROFESSOR OF ECONOMIC RESOURCES
WASHINGTON UNIVERSITY



D. APPLETON AND COMPANY
NEW YORK LONDON

1922

COPYRIGHT, 1921, BY
D. APPLETON AND COMPANY

PRINTED IN THE UNITED STATES OF AMERICA

PREFACE

The business achievements of the last hundred years, with all they signify for the satisfaction of human wants, are a remarkable performance. They are a revelation of what man can do in this respect when his attention is focused strongly on the pursuit of wealth. It may be assumed that the student is interested not only in what has been done, but why it was done. That is to say, while the mere record of our industrial advance may be of interest, the surpassing object of study is the forces that have brought about our unusual economic development. No study of our industrial past would be satisfactory which failed from this point of view. If we are merely seekers after practical things, the causes are certainly important, for in these are to be found an explanation of what has been accomplished; these causes also provide a basis for the criticism of our past industrial policy, and they must be understood in formulating a policy for the future.

In this volume I have treated the subject matter of economic history as a record of development. Throughout the study an attempt has been made to bring together causes and results. Herein the student will find most of the economic material with which he is familiar, with some additions perhaps to suit the particular emphasis of our study. Emphasis has been laid on the development and use of raw materials, on technical improvements, on the growing use of by-products, on the expansion of our industrial organization, on the growing specialization in all branches of industry, on the introduction and development of numerous commercial facilities, on the growth of government regulation,

and on the development of business education. Among other things, emphasis has also been laid on the effect of the expansion of our national domain and on the acquisition of our new possessions on our economic growth. No study of industrial development would be complete without a knowledge of the new methods of marketing and of our foreign commercial aims.

In organizing the material for this volume it has seemed to me that something is to be gained by tracing through a period the great branches of industry, as for example, manufactures, commerce, agriculture, and by showing the relation of these branches in process of development by the use of summaries and by introductory matter at the beginning of the chapters.

In presenting this material I have tried to keep in mind the needs not only of students in departments of economics and in schools of commerce, but also of the general reader. A study of economic development may serve as the starting point for the reader who wishes an initial survey of the whole field of industry, and as an outline of the field for the student who is pursuing specialized studies.

ISAAC LIPPINCOTT

CONTENTS

PREFACE	PAGE v
-------------------	-----------

PART I

FACTORS IN ECONOMIC DEVELOPMENT

CHAPTER

I. DEFINITIONS AND CAUSES	3
1. The Relation of Economic History to Economics	3
2. Industrial Groups	5
3. Relative Importance of the Groups	7
4. Industrial Evolution	8
5. The Division of Labor	8
6. The Localization of Industry	9
7. The Integration of Industry	11
8. Periods of the Industrial Development of the United States	11
II. CONDITIONS OF ECONOMIC DEVELOPMENT	14
9. Man as a Factor	14
10. Man's Institutions	15
11. Government and Industry	15
12. State and Local Governments	19
13. Private Institutions	20
14. Resources	21
15. The Soil and Climate	22
16. Forest Resources	24
17. Mineral Resources	26
18. Iron	27
19. Coal	28
20. Petroleum	23
21. Lead and Zinc	29
22. Copper	29
23. Gold and Silver	29
24. Water Resources	30
25. Other Resources	32
26. Summary of the Factors of Economic Developments	32

PART II

THE COLONIAL PERIOD

CHAPTER	PAGE
III. EXPLORATION AND SETTLEMENT	37
27. Early Conditions	37
28. The Discovery of America	40
29. Explorations of the Interior	41
30. The Difficulties of Founding Settlements	42
31. French Colonies	45
32. Spanish Settlements	46
33. English Business Enterprise: Background of Eng- lish Colonization	47
34. The First English Settlements	49
IV. COLONIAL INDUSTRIES	57
35. Agricultural Experiments	57
36. Farming in New England	60
37. Farming in the Middle Colonies	62
38. Agriculture in the Southern Colonies	62
39. Tobacco	63
40. Rice and Indigo	65
41. Agriculture in Louisiana	66
42. Colonial Methods of Cultivation	68
43. Land Tenure	70
44. Systems of Labor	75
45. Indentured Servants	76
46. Negro Slavery	80
47. Lumbering	82
48. Fisheries	85
49. Metals; Products of the Mine	87
50. The Rôle of the Extractive Industries	88
V. COLONIAL REGULATIONS	90
51. Colonial Legislation	90
52. The Mercantile Theory	92
53. Commercial Regulations, 1763-1775	98

PART III

FOUNDING OF THE NATIONAL INDUSTRIAL
SYSTEM, 1789-1866

VI. FORMATION OF THE CONSTITUTION AND THE IMMEDIATE RESULTS	105
54. Results of the Revolution	105
55. The Results of War Financing	106
56. The Effects of the Issue of Paper Money	108
57. Conflicting Regulations of the States	110

CONTENTS

ix

CHAPTER	PAGE
58. Other Results of the Revolution	111
59. Economic Provisions of the Constitution	112
60. The Formation of the New Government	118
61. Financial Matters	119
62. The First United States Bank	122
63. Coinage Laws	125
VII. GROWTH OF POPULATION; EXTENSION OF THE NATIONAL DOMAIN	128
64. The Population in 1790	128
65. The Distribution of Population, 1790	130
66. The Growth of Population	132
67. The Causes for Changes in Distribution of Population	133
68. Immigration	136
69. The Westward Movement	133
70. The Growth of the Westward Movement	140
71. The Settlement of the Far West	143
72. The Growth of the National Domain	145
VIII. PRODUCTS OF FIELD, FOREST, AND MINE, 1790-1860	149
73. Effects of the Revolution on Agriculture	149
74. Pioneer Farming	150
75. Invention of the Cotton Gin	153
76. The Production and Export of Cotton	155
77. The Westward Movement of Cotton Culture	156
78. Growth of Cotton Markets	157
79. Growth of Slavery	159
80. Agricultural Methods in the South	161
81. Other Southern Crops	161
82. Tobacco	162
83. Rice	163
84. The Rise of Agriculture North of the Ohio	164
85. Meat Packing	163
86. The Land Policy of the United States	170
87. Labor-Saving Machinery	173
88. Livestock	174
89. The Product of Mines	174
90. Iron Ore	176
91. Coal	177
92. Gold	179
93. Timber Resources	180
94. Summary of the Development of Resources	181
IX. MANUFACTURES, 1790-1860	183
95. Factors in Manufacturing Development	183
96. The Industrial Revolution	184
97. The Effect of English Improvements on Manufacturing in the United States	188
98. The Advantages of the United States for Manufacturing	189

CHAPTER	PAGE
99. The Effect of the War of the Revolution	190
100. The Introduction of Steam Power	191
101. The Wide Diffusion of Certain Industries	192
102. The Industrial Stages in the United States	193
103. The Growth of Manufactures	194
104. Patents and Inventions	198
105. The Decline of Home-Made Manufactures	200
106. Manufactures of Flour and Lumber	201
107. Textiles	202
108. Iron	205
109. The Distribution of Manufactures	207
110. The Tariff Policy	209
111. The Acts of 1824 and 1833	210
112. The Tariff Acts of 1842 and 1857	211
113. The Labor Movement	212
114. The Humanitarian Movement	214
X. COMMERCIAL EXPANSION	217
115. The Second United States Bank	218
116. Banking Development	220
117. The Suffolk Bank System	221
118. The Safety Fund System	222
119. The Free Bank System	222
120. Free Banking in Other States	223
121. State-Owned Banks	224
122. The Independent Treasury System	225
123. Coinage	225
124. Means of Communication	226
125. The Backward State of Improvements	227
126. Turnpikes	229
127. Gallatin's Plan	230
128. The Cumberland Road	232
129. The Canal Period	233
130. The Effect of the Crisis of 1837	238
131. Early Era of Railroads	238
132. The First Railroads	239
133. Financing the Railroads	242
134. Telegraphs	243
135. Express Service	244
136. The Postal Service	245
XI. FOREIGN AND DOMESTIC COMMERCE	247
137. Domestic Commerce	247
138. The Effect of Canals and Railroads on the Course of Internal Commerce	250
139. The Commerce of the Lakes	252
140. The Commerce of the Mississippi and Its Tribu- taries	254
141. River Improvement	259
142. The Commerce of the Plains	260
143. The Fur Trade	260

CONTENTS

xi

CHAPTER	PAGE
144. The Overland Trade	261
145. Summary of Domestic Commerce	263
146. Foreign Commerce; Commercial Treaties	264
147. Orders and Decrees	265
148. The Embargo and Non-Intercourse Acts	266
149. Foreign Trade, 1815-1860	268
150. Tonnage	268
151. The Composition of American Foreign Trade	270
152. The Largest Consumers of American Exports	271

PART IV

EXPANSION OF NATIONAL INDUSTRIES, 1860-1914

XII. GENERAL CHARACTERISTICS OF THE PERIOD	275
153. The Changes of the Last Half-Century	275
154. The Results of the Civil War	276
155. New Resources	277
156. The Human Element	279
157. Economic Institutions	279
158. Other Economic Innovations	282
159. A New Spirit of Enterprise	284
160. The New Social World	284
161. New Industries	285
162. The Causes of Industrial Growth	286
XIII. TERRITORIAL EXPANSION	288
163. The Resources and Development of New Possessions	288
164. Alaska	289
165. The Philippine Islands	293
166. The Hawaiian Islands	297
167. Porto Rico	301
168. The Resources of Other Possessions	304
169. The Economic Value of Island Possessions	305
XIV. GROWTH OF POPULATION	307
170. The Westward Movement	307
171. The Growth of Population	311
172. Immigration	314
173. The Causes of Immigration	315
174. The Restriction of Immigration	318
175. Chinese Immigration	323
176. Economic Contributions of Immigrants	324
XV. EXTRACTIVE INDUSTRIES: I, MINING AND QUARRYING	326
177. Extractive Industries	326
178. Development of the Mineral Industry	326

CHAPTER		PAGE
179.	The Source of the Leading Mineral Products . . .	328
180.	Iron Ore	330
181.	Copper	332
182.	Coal	334
183.	Petroleum	337
184.	Natural Gas	341
185.	Lead and Zinc	341
186.	Aluminum	342
187.	Cement	344
188.	Stone	344
189.	Gold and Silver	344
190.	Other Minerals	345
191.	The Concentration of Industry	345
192.	The Rank of the United States as a Producer of Mineral Products	346
 XVI. EXTRACTIVE INDUSTRIES: II, LUMBERING AND FISHERIES		 348
193.	The Uses of Timber	348
194.	The Uses of By-Products	349
195.	The Shifting Source of Timber	350
196.	Organization and Mechanical Improvements	352
197.	Foreign Trade in Forest Products	355
198.	Our Forest Policy	355
199.	Forest Reserves	358
200.	Fisheries	359
 XVII. AGRICULTURE: I, GOVERNMENT ENCOURAGEMENT		 362
201.	The Relation of Agriculture to Manufactures	362
202.	The Growth of Agriculture	363
203.	The Causes of Growth	366
204.	Government Encouragement	368
205.	Agricultural Experiment Stations	370
206.	Agricultural Education	371
207.	Agricultural Coöperation	372
208.	The Federal Farm Loan System	374
209.	The Land Policy of the United States	378
210.	Irrigation	382
 XVIII. AGRICULTURE: II, DEVELOPMENT OF THE INDUSTRY		 387
211.	Farm Machinery	387
212.	Farm Management	391
213.	New Crops	391
214.	The Production of Cereals	395
215.	The Export of Breadstuffs	398
216.	Stock Raising	399
217.	The Concentration of the Livestock Industry	400
218.	The Development of the Range	401
219.	The Dairy Business	405
220.	The Poultry Business	406

CONTENTS

xiii

CHAPTER	PAGE
221. Cotton	408
222. The Size of Farms	411
223. Tenancy	412
224. Agricultural Products	413
XIX. MANUFACTURES: I, GENERAL CHARACTERISTICS	415
225. The Function of Manufacture	415
226. Features in the Growth of Manufactures	416
227. Growth of Manufactures	416
228. The Cause of Growth	419
229. Power Used in Factories	423
230. Patents	425
231. The Use of Waste Materials and By-Products	430
232. The Localization of Industry	434
233. The Density of Manufactures	438
XX. MANUFACTURES: II, GROWTH OF CERTAIN INDUSTRIES	441
234. Iron and Steel	441
235. Electrical Apparatus and Supplies	444
236. Automobiles	446
237. Agricultural Implements	447
238. The Textile Industries	450
239. Men's Ready-Made Clothing	456
240. Women's Ready-Made Garments	460
241. Boots and Shoes	460
242. Food and Kindred Products	462
243. Slaughtering and Meat Packing	464
244. Flour and Grist-Mill Products	465
245. Other Industries	466
246. The United States Census	467
XXI. MANUFACTURES: III, THE COMBINATION MOVEMENT	469
247. The Modern Aspects of Business	469
248. Business Under the Corporate Form	470
249. Corporation Evils	473
250. The Increasing Size of the Business Unit	475
251. The Combination Movement	477
252. What Is a Trust?	481
253. The Number of Combinations	482
254. The Advantages of Combination	482
255. Unfair Competition	483
256. Anti-Trust Laws	485
257. The Sherman Anti-Trust Law	485
258. The Dissolution of the Standard Oil Company and the American Tobacco Company	486
259. The Clayton Act and the Federal Trade Commis- sion Act	487
260. The Webb Export Act	489

CHAPTER	PAGE
XXII. MANUFACTURES: IV, LABOR PROBLEMS; THE TARIFF	491
261. The Causes Involved in the Development of the Labor Movement	491
262. The Results of the Movement	493
263. The Effects of the Civil War	493
264. The Growth of Labor Organizations	495
265. The Farmer's Movement	497
266. The Knights of Labor	499
267. The American Federation of Labor	501
268. General Purposes of the American Federation of Labor	504
269. Union Methods and Policies	505
270. Results of the Labor Movement	506
271. Labor Legislation	508
272. Employers' Associations	510
273. Methods of Industrial Peace	511
274. Tariff History	512
275. The Tariff Commission	518
XXIII. COMMERCIAL DEVELOPMENT: I, -MEANS OF COMMUNICATION	520
276. The Scope of Commercial Industries	520
277. The Increase in Mileage	521
278. Transcontinental Railroads	523
279. Credit Mobilier	526
280. Railroad Consolidation	527
281. Railroad Evils	529
282. Railroad Regulation	531
283. The Interstate Commerce Commission	532
284. The Amendment of the Commerce Act	533
285. Railroad Rates	535
286. Electric Railways	537
287. Inland Waterways	538
288. Improvement of Rivers	539
289. Canals	540
290. Lake Transportation	542
291. Coastwise Trade	543
292. The Telegraph and Telephone	544
293. The Post Office	546
XXIV. COMMERCIAL DEVELOPMENT: II, MONEY AND BANKING	550
294. Specialization in Banking	550
295. Currency Changes	551
296. The Need for Banking Reform	552
297. The National Banking System	553
298. Importance of the National Banks	556
299. Greenbacks	557
300. Effects of the Greenbacks	558
301. Resumption of Specie Payment	560

CONTENTS

XV

CHAPTER		PAGE
302.	The Panic of 1873	561
303.	The Silver Question	562
304.	The Bland-Allison Act, 1878	564
305.	The Sherman Act, 1890	565
306.	The Panic of 1893	566
307.	The Gold Standard Act, 1900	568
308.	The Revival of Business	569
309.	The Panic of 1907	570
310.	Shortcomings of the National Banking System	570
311.	The Aldrich-Vreeland Act, 1908	572
312.	The Federal Reserve Banking System	573
313.	The Organization of the Federal Reserve System	574
314.	The Federal Reserve Banks	575
315.	Note Issues	576
316.	Reserves	576
317.	Other Provisions	577
318.	The Growth of the Federal Reserve System	577
319.	The Development of the Clearing House	579
320.	Trust Companies	580
321.	Building and Loan Associations	581
XXV. COMMERCIAL DEVELOPMENT: III, COMMERCIAL ORGANIZATION		
	583
322.	Commercial Organization	583
323.	The Work of the Chambers of Commerce	586
324.	The Chamber of Commerce of the United States of America	587
325.	Foreign Chambers of Commerce	589
326.	Boards of Trade	589
327.	Auction Markets	591
328.	The New York Stock Exchange	592
329.	Other Organizations	594
330.	Changes in Methods of Distribution	595
331.	The Department Store	596
332.	The Mail-Order Business	598
333.	Chain Stores	599
334.	Commercial Facilities	599
335.	Fire Insurance	599
336.	Marine Insurance	601
337.	Life Insurance	602
338.	Storage	603
339.	Mercantile Agencies	605
340.	Advertising	606
341.	Commercial Education	608
XXVI. COMMERCIAL DEVELOPMENT: IV, DEVELOPMENT OF FOREIGN COMMERCE		
	611
342.	The Differences in Products	611
343.	Changes in the Character of Industries	613
344.	The Effect of the Increase of Wealth	614

CHAPTER		PAGE
345.	The Effect of Industrial Development on Foreign Trade	615
346.	Economic Interdependence	616
347.	Government Aid to Commercial Development	616
348.	The Export Trade Act	618
349.	The Tariff Commission	619
350.	The United States Shipping Board	620
351.	Foreign Commercial Facilities	621
352.	The Wireless Telegraph	622
353.	International Financial Facilities	623
354.	Foreign Commercial Organizations	624
355.	The Pan-American Union	625
356.	The Merchant Marine	626
357.	The Growth of Foreign Commerce	628
358.	Changes in the Character of Foreign Trade	628
359.	The Largest Consumers of American Products	629
360.	The South American Trade	629

PART V

THE WAR PERIOD, 1914-1920

XXVII.	INDUSTRY DURING THE WAR PERIOD	635
361.	Economic Changes since 1914	635
362.	Economic Conditions in 1914	636
363.	Early War Legislation	639
364.	Revenue Measures	640
365.	The Bureau of War-Risk Insurance	640
366.	The United States Shipping Board	641
367.	The Council of National Defense	642
368.	Food Control	645
369.	Fuel Control	648
370.	Labor Administration	649
371.	The War Finance Corporation	651
372.	The Silver Purchase Act	653
373.	Railroad Administration	654
374.	The Control of Foreign Trade	656
375.	Summary of War Control	658
376.	War Taxes	659
377.	The Growth of War Industries	661
378.	Foreign Commerce during the War	662
379.	Facilities for Foreign Trade	663
380.	Other After-War Measures	664
381.	Conclusion	665
INDEX		671