

**Dhananjayrao Gadgil Library**



**GIPE-PUNE-011985**

# ECONOMIC DEVELOPMENT

Studies in Applied Economics and World-Economy

VOL. II.

## COMPARATIVE INDUSTRIALISM AND ITS EQUATIONS

WITH SPECIAL REFERENCE TO ECONOMIC INDIA

BY

Dr. BENOY KUMAR SARKAR, M.A. (Cal), Vidya-Vaibhava (Benares)  
*Docteur en Géographie honours causa* (Teheran), Post-Graduate Department  
in Economics, Calcutta University, Hon. Professor of Economics  
and sometime Rector, College of Engineering and Technology,  
Jadabpur, Calcutta, *Gast-Professor an der Technischen*  
*Hochschule*, Munich (1930-31), Member, *Correspondant de*  
*la Société d'Economie Politique* (Paris) and *de l'Institut*  
*Oriental* (Prague), *Correspondente al Comitato Italiano sulla*  
*Popolazione* (Rome), and Royal Economic Society  
(London), Correspondent, *American Sociological*  
*Review*, Editor, *Arthik Unnati* (Economic  
Progress)

Chuckerverty Chatterjee & Co., Ltd.

15, COLLEGE SQUARE,

CALCUTTA

1938

Price Rs. 6

11985

X.1

F6.2

TO  
MAHADEO GOVIND RANADE  
(1842—1901)

AND

ROMESH CHUNDER DUTT  
(1848—1909)

PIONEERS OF ECONOMIC STUDIES IN MODERN INDIA

THESE STUDIES IN WORLD-ECONOMY

ARE DEDICATED

## Preface to the Economic Development Series

During 1920-25, while in Europe, I was collecting the material for *Economic Development* with a view to ascertaining the economic status of and suggesting the correct economic policy for India. At that time I hardly suspected that these studies in applied economics, international statistics and world-economy would lead me to undertake subsequent investigations in the same fields whether topically or regionally. But by 1932 my studies along these lines, carried on, again, partly in Europe, grew into substantial proportions so that a volume could be published as *Applied Economics* and other volumes had to be promised.

Since then my publications on diverse aspects of comparative statistics and problems of adult and young industrialism, regional as well as topical, have been on the increase. And as there has been exhibited some interest among economic investigators, businessmen and publishers to see them accessible within the covers of books it has been necessary for me to think of bringing all the allied studies in English under a more or less unifying title. That necessity is at the bottom of the *Economic Development Series* that is being announced at present.

The scheme of the *Series* is as follows :

### Economic Development · Studies in Applied Economics and World-Economy

- Vol I. Post-War World-Movements in Commerce, Economic Legislation, Industrialism and Technical Education (first published at Madras in 1926, Demy Octavo 464 pages).
- Vol II. Comparative Industrialism and its Equations with special reference to Economic India, first published as *Studies in Applied Economics* : Essays on World-Economy in its Bearings on Economic India with Statistical Conclusions as to the Equations of Comparative Industrialism (Calcutta 1932, Demy Octavo 320 pages, Nine charts).
- Vol III. Economic Remakings in East and West, ready for publication

It should be observed that each of these volumes is diverse in its make-up both in economic items and in geographical areas. Neither the items nor the geographical areas are identical in the different volumes. It has not been sought through the successive volumes to develop an historic continuity, whether in regions or in topics. The object in every instance is to analyze each question in regard to its contemporary values.

Every chapter bears its own dates and is treated as self-contained. The interpretations offered and the conclusions deduced have reference to the dates furnished, i.e., the conjuncture discussed. The contents of each volume have grown both in method and in substance according to the particular interest of the hour or the occasion, so to say.

India happens still to be in the earlier or rather infantile stages of most of the phenomena of capitalism, technocracy and social welfare. The data and interpretations furnished in these volumes, dealing as they do chiefly with the second industrial revolution, are therefore likely to remain useful for a long time. In the interest of practical business or economic statesmanship it may not be judicious for our countrymen always to consult the latest developments of Eur-America or the most recent investigations about them except perhaps for scientific curiosity or intellectual satisfaction. Economic India has quite an extensive ground to cover in agriculture, manufacture, commerce, labour organization as well as general and industrial education before our countrymen can be in the position to make an effective use of the most up-to-date statistics or theories of world-economy. This indeed is the fundamental theory underlying the equations of comparative industrialism.

The following works are excluded from the present Series, in so far as each deals with a special topic and is complete in itself.

- 1 *Indian Currency and Reserve Bank Problems* (Calcutta, first edition, 1933, second edition, 1934), Royal Octavo 94 pages. Fourteen charts.
- 2 *Imperial Preference vis-à-vis World-Economy* in relation to the International Trade and National Economy of India (Calcutta 1934), Royal Octavo 172 pages. Fifteen charts.
- 3 *Social Insurance Legislation and Statistics*,—A study in the Labour Economics and Business Organization of Neo-Capitalism (Calcutta 1936), Demy Octavo 470 pages. Nine charts. Two portraits.

For the same reason the present Series excludes likewise the two demographic publications, namely

- 1 *Comparative Birth, Death and Growth Rates*,—A Study of the Nine Indian Provinces in the Background of Eur-American and Japanese Vital Statistics (Calcutta 1932). Folio 36 pages (of two columns each). Nine charts.
- 2 *The Sociology of Population* with special reference to optimum, standard of living and progress. A study in social relativities (Calcutta 1936), Royal Octavo 144 pages. Six charts.

It may perhaps be added that the following works in Bengali deal also with economic development, comparative industrialism, world-economy and applied economics, etc

1. *Ekaler Dhana-daulat O Artha-shastra* (The Wealth and Economics of Our Own Times)  
Vol. I. *The Forms of New Wealth* (1930), Double Crown 440 pages  
Vol. II *The New Foundations of Economics* (1935)  
Double Crown 710 pages Forty-four portraits
- 2 *Naya Banglar Goda-Pattan* (The Foundations of a New Bengal, Economic and Social), 1932.  
Vol. I *Theoretical*, Double Crown 530 pages  
Vol. II. *Practical*, Double Crown 450 pages
- 3 *Badtir Pathe Bangali* (Bengalis in Progress, Economic and Social), 1934. Double Crown 636 pages Forty-five portraits

In very few instances the material in the Bengali works is more or less identical with that in the English works within or outside the *Economic Development Series* But most of the Bengali material is new

BENOY KUMAR SARKAR

Calcutta  
14 April, 1938

## PREFACE

These studies in applied economics constitute some of my recent investigations in contemporary industry, commerce and agriculture carried on both at home and abroad,—in close contact with theorists as well as economic realities,—with a view to ascertain the proper economic policy for India. The topics have been approached from the standpoint of world-economy and international developments in economic legislation and statesmanship. The method of investigation may be seen in part in my reports published in the *Journal of the Bengal National Chamber of Commerce* (1931) under the following titles: "The Geneva Complex in World-Economy", "Contacts with Economic Italy", and "Industrial Centres and Economic Institutions in Germany".

The book is going to be published in several volumes,—each given over to diverse problems in the economics of business organization, finance and technique. The logical affiliations and chronological links between economic India and the other economic regions of the world,—which are in part aspects of the relations between what may be called the regions of the "First Industrial Revolution" and those of the "Second Industrial Revolution",—have been indicated in the form of quantitative parities or equations based on statistical coefficients (wherever international statistics can furnish fairly comparable information). Comparative industrialism or capitalism,—taking the two terms rather interchangeably in the widest sense, namely, that of "modern" economic and societal structure,—will be found thereby to be endowed with a fresh significance. The methodology and conclusions of the equations of applied economics may be seen, so far as vol I is concerned, in the chapters on bank and railway statistics.

These equations were discussed for the first time in my *Comparative Pedagogics in relation to Public Finance and National Wealth* (134 pages, Calcutta 1929) and may be traced for their theoretical foundations to *Economic Development* (464 pages, Madras 1926) as well as to the *Futurism of Young Asia* (409 pages, Leipzig 1922). The subject has likewise been treated in somewhat definite form in my papers entitled "Indiens Entwicklung im Vergleich zu Eur-Amerika" (*Deutsche Rundschau* Berlin 1930) and "Die Entwicklung und weltwirtschaftliche Bedeutung des modernen Indien" (*Ausländische Vorträge der Technischen Hochschule Stuttgart, Band 2, Indien*, Stuttgart 1931).



World-economy has been arresting my attention since 1918 when my study on the world's labour questions in their bearings on emigration and immigration was published as "Americanization from the viewpoint of Young Asia" in the *Journal of Race Development* (Clark University, U.S.A.) This study was followed shortly afterwards in 1919 by the publication in the *Journal of International Relations* (U.S.A.) of my investigation in foreign capital investments as underlying the economic and other concessions in China. Some of my subsequent papers on the topics of world-economy in its bearings on economic India may be listed below (without taking into consideration the chapters on commerce, economic legislation, industrialism and technical education which make up the volume entitled *Economic Development*)

1 "Die Industrialisierung Indiens" (*Verein Deutscher Ingenieure Nachrichten*, Berlin 1924)

2 "Aspetti e Problemi della moderna Economia Indiana" (*Annali di Economia*, Milan 1930)

3 "Die internationalen Handelsbeziehungen and Handelspolitik Indiens" (*Magazin der Wirtschaft*, Berlin 1931)

4 "Die weltwirtschaftliche Bedeutung der indischen Eisenbahnen im Rahmen der internationalen Eisenbahnstatistik" (*Allgemeines Statistisches Archiv*, Jena 1931)

5 "Il Movimento industriale e commerciale dell'India ed i suoi rapporti internazionali" (*Commercio*, Rome 1931).

The contents of the different chapters in vol I as in other volumes of the present book are dated at important points so that no difficulties may arise in regard to orientations. It should be relevant to observe, besides, that this work in several volumes is ideologically associated as one complex with the two following works in Bengali, each complete in two volumes

1. *Ekāler Dhan-daulat O Arthasāstra* (The Wealth and Economics of Our Own Times) vol I The Forms of New Wealth (374 pages, 1930); vol II The New Foundations of Economics

2. *Nayā Bānglār Godā-pattan* (The Foundations of a New Bengal Economic and Social) vol I Theoretical (530 pages, 1932), II Practical (400 pages, 1932)

All the three works are naturally subsequent to *Economic Development* (1926) and are indeed to be taken as in a certain sense the continuation or rather the expansion and deepening of that work along different lines, and, of course, with altogether new data.

The material for these studies in world-economy in its direct or indirect relations with economic India has arisen, as indicated at the outset, in part in the course of my recent travels and investigations in Europe from May 1929 to October 1931. My experiences during this period comprise among other things a guest-professorship at the *Technische Hochschule* (Technological University) of Munich for two semesters (1930-31) and occasional lectures at Kiel, Berlin, Innsbruck, Leipzig, Dresden, Stuttgart, and other universities in Germany as well as at the University of Geneva in Switzerland and the Universities of Milan, Padua and Rome.

To this period likewise belongs my paper entitled *I Quozienti di Natalita, di Mortalita, e di Aumento Naturale nell' India attuale nel Quadro della Demografia Comparata* presented at the International Congress on Population held at Rome in September 1931 at which I was a President of the Economic Section. The paper has been translated into English for the Eighth All-India Medical Congress held at Calcutta last March and is being published in the *Journal of the Indian Medical Association* (Calcutta).

While statistical and factual data will serve by themselves to tell their own tale in regard to the range and scope of each discussion, perhaps it should not be out of place to indicate the unifying link which connects the diverse topics with one another.

The themes are varied, so also are the regions. The object is to make a survey of the extensive field of applied economics. This survey, however, is not a purely speculative one. Its purpose is to exhibit India *vis a vis* other regions and doctor her up to the "next stage" of her economic possibilities.

References to India have indeed been sedulously eschewed from the first two papers. But they address themselves to two problems in which Indian business men and economists have of late been taking keen interest. In regard to the relations between Indian and foreign insurance companies the Indian Insurance Companies Act, 1928, hardly touches the most vital issues, and it is to those issues that attention has been called in the examination of the principles embodied in the continental legislation on the subject. The Reserve Bank of India, proposed in 1927, has not yet come into being but has been all the time in the air. It is the purpose of the second paper to attempt an analysis in as realistic a manner as possible of the fundamental considerations involved in note legislation and central banking such as stand out prominently in the experience of three pioneers in this field, namely, England, France and Germany.

The papers on Bengali bank-capitalism and Indian railways are calculated to show, in spite of progress in modern wealth, the essentially primitive condition of the industrialization such as has been achieved up till now. The fallacy of all those economists, sociologists and political philosophers,—Indian or foreign,—who are tempted to cite and emulate the contemporary developments of the *great powers of to-day*, especially of America, England, France and Germany, while formulating schemes of economic or societal reconstruction for *India with reference to the near future*, is thus automatically exposed. Attention is, on the contrary, diverted either to the present-day conditions of the "Balkan complex", Eastern Europe and Russia, or to the old conditions of the industrial pioneers and adults such as obtained, say, some two generations ago,—in order that the proper doctoring might be attempted. These two chapters exhibit India more or less in the conditions of what may be described as the First Industrial Revolution, which for England is to be placed between 1785 and 1848 and for France and Germany between 1830 and 1870. And so it happens that rationalization, which is the most signal feature of the Second Industrial Revolution, is to be found only in traces, in its rudimentary conditions, in India. The fifth chapter leaves no doubt on this point.

In the last chapter the almost inevitable economic and financial relations obtaining to-day between the regions of the First Industrial Revolution and those of the Second Industrial Revolution are analyzed on the peg of the world crisis of 1929-32. Indian economic statesmen as well as experts of other countries are furnished with view-points such as may help them to visualize in a concrete manner the basic foundation of genuine world-economy, namely, the export of capital and "instruments of production" (*Produktionsmittel*) from the regions of the Second Industrial Revolution to those of the First in order that the purchasing power of the men and women of the latter might rise helping thereby to heighten the standard of living of the former.

The chapters that are going to be published in the subsequent volumes will likewise serve to focus attention, from the angles of co-operative credit, labour force, occupational structure, unemployment insurance etc., on the same complex of relations between the industrial adults and industrial youngsters with special reference to India. The equations of comparative industrialism are, then, likely to remain no mere mathematical curios but bid fair to be appraised as perhaps quite helpful tools in the task of world-reconstruction at the hands of experts in applied economics, both Indian and foreign. World-economy is thus being brought down from the heights

of economic theory and history to the offices and godowns of actual export-import, factory equipment, agricultural transformation, rural uplift and municipal progress on an international scale.

My sincere thanks are due to the Calcutta University for the material facilities generously accorded to me on my first return to Calcutta towards the end of 1925 after an absence of nearly twelve years spent in foreign countries. I am deeply indebted likewise to the friends who have been liberally cooperating with me in my scientific work since then, especially in connection with the monthly review, *Ārthik Unnatī* (Economic Progress), and the *Bangiya Dhana-Vijñān Pariṣat* (Bengali Institute of Economics). To the Bengal National Chamber of Commerce whose decision in 1926 to publish an economic and statistical quarterly in English has enabled me as the editor to serve the Bengali commercial intelligence in a systematic manner with the objective facts and ideas of world-economy as well as with suggestions regarding the methods of advancing the economic welfare of the Bengali people I have equal reasons for expressing my profound gratefulness.

It remains to refer with pleasure to the scientific discussions on developments in business organization, technical progress, and economic policies with Senator Raphael-Georges Levy, banker and currency expert, as well as M. Emmanuel Vidal of the *Societe d'Economie Politique de Paris* (of which I have been a member since 1920).—Directors March of the *Statistique Generale de la France* and Pinot of *Le Comite des Forges de France*, Professors Truchy, Hauser, Gide, Bougle, Berr, Colson and Qualid (Paris), Mr. Pethick Lawrence, M.P., Professors Wallas, Tawney, Rowe, Schwartz and Laski of the London School of Economics, Director A. J. Toynbee of the Institute of International Relations (London), Professors Arthur Newton and Delisle Burns of London, Prof. Zimmern of Oxford (and Geneva), M. Comert, Mr. Cummings and their colleagues at the Information Section of the League of Nations, Prof. Milhaud of the International Labour Office, Professors Hersch and Rappard of Geneva, President Zahn of the Bavarian Bureau of Statistics, Exc. Dr. Oskar von Miller of the *Deutsches Museum* (Munich), the *Deutsche Akademie*, the *Technische Hochschule* and Professors Haushofer, Dorn, Adolf Weber, Lotz and von Zwiédineck of Munich, Dr. Goldenberger, the Bavarian minister of education, Dr. Carl Duisberg of *I. G. Farbenindustrie*, Prof. Matschoss of the *Verein Deutscher Ingenieure*, Directors Karl Lange of the *Verein Deutscher Maschinenbauanstalten*, Dr. Negbauer of the *Verein Deutscher Werkzeugmaschinenfabriken*, Dr. Hornig of the *Allianz und Stuttgarter Versicherungsgesellschaft*, Demuth of the *Industrie and*

*Handelskammer* (Berlin), Guttmann of the *Dresdner Bank*, Voss of the *Leipziger Messamt*, and Furtwangler of the *Allgemeiner Deutscher Gewerkschaftsbund*, President Wagemann of the *Statistisches Reichsamt* and *Institut für Konjunkturforschung*, Professors Tönnies (Kiel), Schumacher, Prion and Aereboe of Berlin, Spann (Vienna), Gunther (Innsbruck), Muesmann (Dresden), Wunderlich (Stuttgart), Wehrle (Karlsruhe), Helander (Nürnberg) and von Wiese (Cologne.) the statistician Dr Woytinsky (Berlin), Professors Graziani and Musco of Naples, Mortara (Milan), Pietra (Padua), Benini, DelVecchio, Carli and Niceforo of Rome, Director Dr. Tagliacarne of the *Consiglio Provinciale dell'Economia* (Milan), as well as Prof. Corrado Gini, President of the *Istituto Centrale di Statistica* in the Kingdom of Italy

Finally, I avail myself of this opportunity to gratefully record the cooperation in scientific and social work constantly extended to me by Dr. Narendra Nath Law, my friend and colleague of over two decades.

Calcutta,  
April 14, 1932

Benoy Kumar Sarkar

## CONTENTS

	PAGE
Preface	
Principles of Control over Foreign Insurance Companies ( <i>as embodied in the Economic Legislation of the Continent</i> ) ...	1
The Re-making of the Reichsbank and the Banque de France ( <i>a study in Note-Legislation in the Perspective of the Bank of England</i> ) ...	24
The Bank-Capitalism of Young Bengal ( <i>a study in Comparative Bank Management</i> ) ...	82
The Railway Industry and Commerce of India in International Railway Statistics . .	167
Traces of Rationalization in Indian Business Enterprise ...	221
The World-Crisis in its Bearings on the Regions of the Second and the First Industrial Revolutions ...	261
Index ...	303

	PAGE
Charts	
1 The Three Equations of Comparative Industrialism	Frontispiece
2 Reichsbank <i>visàvis</i> "All Other Banks" in "Active" and "Passive" Banking (1913-1924)	66
3 Banque de France <i>visàvis</i> Big Three in "Active" Banking (1912-26)	68
4 Progress of India's Swadeshi Manufacture and Diminution of imports in Cotton Yarn and Piece-goods	85
5. Progress of "Large" Indian Banks during the Swadeshi Period (1905-29)	110
6. The Equations of Railway Industrialism (1825-1925)	218
7 Post-war Expansion of Trade Union Membership in Great Britain and Germany as a Factor in Unemployment	271
8. Decline of Exports (1928-31)	276
9 Wage and Cost of Living Indices in Great Britain and Germany (1914-28)	.. 280

## INDEX

- Absolute figures in international statistics, misleading, 199-200  
Active banking, 66, 67  
Adam Smith, 58  
Administration of railways, 179-182  
Agricultural prices, fall in, 278  
Agricultural rationalization, 256  
Agriculture, modernization of, 290  
Amalgamation in bank business, 138, 259  
American bank-capitalism, 119  
American crash of 1929, 288, 299  
American finance in India, 250  
American statistics, 136  
Americanism in business organization, 229  
Anglo-American coefficients too high for Indian experience, 158  
Anglo-American Level, 118-120  
Artisan-farmers of France, 265  
Associated Indian Chamber of Commerce, 260  
Averages in comparative statistics, 200  
  
Backward regions, 290, 297  
"Balkan Complex", 89-95, 292, 297-8  
Balkan standard, 148-153  
Banca d'Italia, 121-2  
Bank Charter Act, 25, 48, 49, 50, 53  
Bank failures in America and Europe, 287  
Bank functions and management, 128-130  
Bank management, comparative, 145-48  
Bank of England, 24, 25, 48-53, 58, 62, 71, 80, 81  
Banker and Modern Economy in India, 162-6  
Banking, active and passive, 66, 67  
Banking Enquiry Committee, 103, 259  
Banking Equations, 158-162  
Banking in Italy, 120-2  
Banking principle, 58, 62, 64  
Banks in Bulgaria, Greece, Jugoslavia and Rumania, 89-95  
Banks of Poland, 95-99  
Banque de France, 53-55, 55-60, 60-65, 68-69, 74, 79  
Bengal and the Balkan Complex in banking 89-95  
Bengal banks, 87-9  
Bengali "cottage banks", loan offices, 102-9, 259; their three lines of growth, 136  
Boycott and protection, 290, 292  
British bank-capitalism, 118-9  
British banking, 141-2  
*British Cotton Industry*, 246  
British Engineering Standards Association, 241  
British, French and German banking about 1870, 124-6  
Budgets, British and German, 281-3  
Bulgaria, banking law in, 138; banks in, 93; insurance legislation in, 21  
Burmah Oil Company, 243-4  
Business Organization, 221, 229  
Bye-products, utilization of, 242, 251, 252  
  
Capital at charge on Indian railways, 167-8  
Capital-cum-reserve of fifty one banks, 154-8  
Capital-exporting countries, 299  
Capital, mobilization of, 298  
Cartels, international, 233  
Central Bank of India, as an



- example for Young Bengal, 142-5; by the Great Power and the Balkan standards, 148-153  
 Chemical Industries in India, 251-4  
 Chronological distances, 209  
 Classes of Indian railways, 176  
 Coal and Indian railways, 245  
 Coal Committee, 244  
 Coefficients, 158, 264-5, 271-2  
 Collieries as "cottage industry" in India, 245  
 Commercial aspects of Indian railways, 193-4  
 Commercial, Reserve and State-banking of Notebanks, 65-74  
 Commercial statistics, 293  
 Commerz und Privatbank, 130  
 Community of interests in rationalization, 248, 253  
 Comparative Bank Management, 145-8  
 Comparative Industrialism, equations of, 162, 208-9  
 Comparative statistics, 199-200; absolute vs. real, 201-2  
 Competition between industrial adults and backwards, 290-1  
 Conjunction, dynamic, 268  
 Consumption scale, 279, 290  
 Co-operative Banks of Bengal, 99-100  
 "Cottage banks" of Bengal, 102-9  
 Cotton Association, East India, 258  
 Cotton Committee, Indian, 257  
 Cotton Textile Industry of India, 83-7  
 Crisis analyzed, 267-9  
 Currency and crisis, 268  
 Currency inflation and employment, 272-4  
 Currency principle, 58, 62  
 Curve as an equation, 208  
 Cyclical crisis, 267  
 Czechoslovakian finance, 97, 288, 300  
  
 Dalberg's nominalistic theory of money, 43  
  
 Dawes Plan, 43; and German railways, 194  
 Decline in capital import, 301  
 Deposits in relation to capital-cum-reserve, 154-8  
 Depression, comparatively mild in France, 265-6  
 Deutsch-Asiatische Bank, 111  
 Disconto Gesellschaft, 134  
 Discount policy, 70  
 Diversity of the Great Powers, 127-8  
 Dresdner Bank, 131  
  
 Ecology of associated industries, 247-8, 250-1  
 Economic units in banking, 137  
 Economies in hydroelectricity, 250; in Mysore Iron Works, 240-3  
 Efficiency-equations, in railways, 206, 208, not invariably to be deduced from economic equations, 158-162  
 Electrification, 249, 250  
 Engineering aspects of railways, 225  
 Engineering works, 255  
 Epochal crisis, 268-9  
 Equation charted in a curve, 208  
 Equations in banking, 83, 123-4, 149-153, 158-162  
 Equations of comparative industrialism, 208-9; not identical with efficiency equations, 162  
 Equations of railway industrialism, 203-6, 212-3, 216-8-220  
 Exchange Banks in India, 88, 109-112  
 Expenses and earnings of railways, 189-190  
 Exports declining, 276  
 Exports of capital, 299-301  
  
 Famine and unemployment as two forms of poverty, 285  
 Federal Farm Board, 255  
 Finance Committee of Indian Railways, 195  
 Fertilizers, 252

- Financial rationalization of rail-  
ways, 225  
 Financing of railways, 179-182  
 First Industrial Revolution, 290-2,  
299  
 Five Note-banks in Germany,  
26-30  
 Foreign capital, 299-301; for  
backward regions, 291  
 Foreign element in Bengal banks,  
87-89  
 Foreign finance in Balkan bank-  
ing, 89-95  
 France, and Germany between  
1850 and 1875, 136; bank-  
capitalism in, 112-8; insurance  
legislation in, 13-15; socio-  
economic structure of, 265-7  
 Frankfurter Maschinen-fabrik,  
226  
 Free trade vs. protection, 293  
 French, banking about 1870, 125;  
practice in note-banking, 53-55;  
railways and India, 212, 215,  
218  
 From one-third cover to gold  
cover (1924), 43-48  
 Fusion-amalgamation, 224
- German, and French coefficients  
too high for Indian experience,  
158; banking about 1870, 125;  
metal workers visàvis French  
industrial policy, 267; railways  
and India, 212, 215, 218  
 Germany, insurance legislation  
in, 1-13  
 Gold cover, 35-38, 43-48, 48-53,  
53-55, 55-66, 60-64  
 Gold point, 70  
 Gold standard, suspension of,  
289  
 Goods-carriages of the world's  
railways, 172-3  
 Great powers, industrial, 290;  
political 120, 127-8, 219  
 Great Power Standard, 148-153,  
219  
 Greece, banks in, 90
- Helfferich's idea of banking  
reserve, 48  
 History of railways, 210-1, 214-6  
 Hydroelectric developments in  
India, 247-8, 249-250
- "Ideas of 1905", 104  
 Imperial Bank of India, 88, 259  
 Imports declining, 278  
 India in the world's railway-  
system, 168-173  
 Indian Banks, 82-3, 88; vs.  
exchange banks in India,  
109-112  
 Indianization, 188, 236  
 Indian Munition Board, 253  
 India's backwardness, 203, 290,  
297; in railway industrialism,  
207  
 India's equations with Germany,  
Italy, Japan and the Balkan  
complex, 159  
 India's railway equations, 218-20  
 Industrial adults, 262-290, 297  
 Industrialization of backward  
regions, 290, 297  
 Industrialization of India in  
cotton, 83-7  
 Industrial revolution in India,  
221, 224, 290, 292, 298  
 Industrial revolutions, First and  
Second, 269; as one complex,  
292  
 Insurance business in France,  
13-15; in Germany, 1-13; in  
Italy, 15-17; in Portugal, 20; in  
Switzerland, 17-20  
 Internal colonizing, 292  
 International capital movements,  
297  
 International Chamber of Com-  
merce, 260, 293  
 International statistics, of banks,  
154; railways 168-173, 186-7,  
197-303, 210-16; of unemploy-  
ment, 263-4; difficulties of  
interpreting, 199-200  
 Interpretation of International  
Statistics, 158-162, 209

- Investments to be reorganized, 291
- Italian private banks, 122-4
- Italian railways and India, 213, 215, 218
- Italy, banking in, 120-2, 122-4, between 1875 and 1905, 136, insurance legislation in, 15-17
- Japan, banking law in, 138, between, 1875 and 1905, 136
- Japanese banking, 126-7, railways, 204-8, and India, 219
- Joint-stock banks under Bengali management, 102-9
- Jugoslavia, banks in, 91
- Knapp's nominalistic theory of money, 43
- Labour saving appliances, 223, 241, 245
- Latin America, 290, 292, 297, 298, 301
- Latvia, insurance legislation in, 23
- Legislative Assembly and Indian railway finance, 195, 225
- Limited liability principle in banking, 125
- Lithuania, insurance legislation in, 23
- Loan Offices of Bengal, 102-9, 136, 259
- Locomotives of the world's railways, 170-1
- Manufactured goods, imports of, 293-4
- Marketing and rationalization, 245-8, 251, 256
- Marketing of iron and steel, 234
- Markets and depression, 289
- Mass production, 229
- Meaning of India's banking equations, 158-62
- Mechanization in coal-mining, 244
- Modern poverty, 285, 290
- Monetary theories, 43
- Money, 30, 31, 33, 34-38, 50, 51
- Moneylenders in India and the world, 164
- Morphology of Bank Capitalism in France 112-8
- Motorenfabrik Koeln-Deutz, 226
- Mysore Iron Works, 240-3
- Nationalism and Socialism in railways and Reserve Bank, 191-2
- Nationalization-cum-rationalization, 224; in railways, 180, 182, 187, 191, 192
- National Socialists of Germany, 295
- New Banque de France (since June 1928), 60-64
- New Industrial Revolution, 246-7, 269, 292
- Next decade of Bengali banking, 140
- "Next stages", theory of, 210
- No cover, no notes, 34-38
- Note-banking, 24
- Note-banks vis à vis the Government, 76-81
- Note-legislation in England, 48-53
- Oil industry vs coal, 243-4
- Oil seeds, economics of, 252
- Over-employment, 270-71
- Paper-money vs bank-notes, 30-32
- Passenger-carriages of the world's railways, 171-2
- Passenger-Kilometres, 197
- Passive banking, 66, 67
- Paying concerns, 289
- Per capita values in railways, 200-1
- Poland, banks in, 95-99, insurance legislation in, 20-21
- Politics of reparations, 298
- Poor relief, ancient and modern, 285
- Population, redistribution of, 292
- Portugal, insurance legislation in, 20

- Poverty as world phenomenon, 284
- Presidency Banks, 258
- Price Economics in rationalization, 242, 248, 251
- Price-indices in India, 277
- Prices declining, 287
- Principle of Maximum Circulation in France, 55-60
- Protection and Indian Steel, 230
- Protection vs. free trade, 293
- Public burden, 285
- Public ownership and management, 184-5
- Purchasing power of backward regions, 290, 297
- Quality-goods, demand for, 290-1
- Railway Board, 193, 224
- "Railway-density", 200, 201
- Railway developments of the world, 210-1
- Railway-equations of India, 211-3, 216-20
- Railways, finance separated from general finance, 194; materials purchased in India, 174; powers of the world, 168-9
- Railways of Indian States, 179
- Rate of transport modernization, 218-220
- Rates Advisory Committee, 196; of discount, 70-72
- Rationalization, absence of, in chemical industries, 252-4, along diverse fronts, 239; alphabet of, 247; and industrial ecology, 248-9; and marketing, 250; and price, 242, 248; in Bengali banking, 139-140; in British cotton, 246; of the purest brand 228, tests, 226, 243
- Rationalization-unemployment, 275
- Re-agrization, 291
- Reichsbank Act, 32-34
- Reichsbank, and Banque de France as Central Banks, 74-76; reconstructed, 38 43
- Reparations, 294
- Reparations Commission, 43
- Ricardo, 58
- Route-mileage figures of the world, 168-9
- Rumania, banks in, 92; insurance legislation in, 22
- Russia, as backward region, 292, 297; economic developments in, 158
- Russo-Asiatic Bank, 111
- Sarabhai, millowner, 222
- Sassoon group of cotton mills, 222
- Savings Banks of Bengal, 101
- Second Industrial Revolution, 209, 246-7 269, 292
- Shares, fall in, 288
- Soaps and fats, 253
- Socialism in railway-administration, 191-2
- Soda compounds, 253
- Standard of living, 292; in England and Germany, 281-2; transformation in, 269
- State and private control in railways, 186-8, 189-92
- Statistical Tables relating to British and Foreign Trade and Industry*, 293
- Statistics, absolute and per capital, 199; commercial banks, 82-83, 88, 90, 94, 96-101, 104-7, 110, 119, 123, 125, 127, 131-5, 141-5, 146-50, 154; Indian cotton industry, 84-87; insurance, 2, 13, 15, 17; note-banks, 29, 37, 54, 55-57, 59-60, 63, 66-69, 71-72, 78-81; railway, 168-173, 176; unemployment, 263-4
- Statistics of comparative industrialism, difficult to interpret, 158-162
- Strikes in India, 223
- Supply-price in rationalization, 242, 248
- Swadeshi Movement, 82, 83, 104, 291; and Tata Iron works, 226

- Switzerland, insurance legislation  
in, 17-20
- Tariff Board and Indian steel,  
230
- Tariff truce, 293
- Tata Industrial Bank, 259
- Tata Iron & Steel Works, 226-240
- Tata Sons Ltd, 250, 255
- Taylor System, 222
- Technical Institute, 235
- Technical, rationalization, 232,  
uptodatization, 222, 224,  
colleges of India, 254
- Technological, economies and  
rationalization, 241, 243, 245,  
246, 248, Laboratory, 257
- Textile Tariff Board, 222
- Three directions of growth, 136
- Ton-Kilometres, 198
- Trade not much hindered by  
tariff, 293
- Trade Union membership,  
British and German, 270-1
- Traffic on railways, 196-8
- Trust-like complex, 243
- Types of equations in compara-  
tive industrialism, 208-9
- Unemployment Insurance in  
Britain & Germany, 282-3;  
statistics, 263-4
- Union des Industries Metallur-  
giques et Minières, 267
- Utilization of bye-products, 242,  
251, 252
- Vegetable oil industry, 252
- Versailles Treaty, 43, 295
- Vertical Trust, 237-9, 251
- Wage-rates in Great Britain and  
Germany, 280-1
- War as teacher of rationaliza-  
tions, 258
- War-debts, 294
- Waste-products in rationalization,  
239, 251-22
- Working classes, and peasants,  
292, and rationalization, 223,  
229
- Workshops Committee of State  
Railways, 225
- World-economy, 209, 262, 292,  
297, 299; and price economics,  
251, in railways, 200; on a  
scientific basis, 205
- Young Plan, 296

# Opinions on the Economic Development Series

VOL. I.

## POST-WAR WORLD-MOVEMENTS IN COMMERCE, ECONOMIC LEGISLATION, INDUSTRIALISM AND TECHNICAL EDUCATION

Demy, Octavo 464 pages.

Price Rs. 8.

*Sociological Review* (London). "This book is of interest to us, Westerners, on its own merits of extensive knowledge of us; as well as for its presentation of Indian outlooks beyond those commonly current. For instead of abstract politics we have here concrete economics, and seen as fundamental to politics, largely of a new kind. To the general students of economics this treatment should be suggestive; indeed at its best it is exemplary. Prof. Sarkar has for many years been studying one European country after the other, and from many viewpoints; so his book is a result not only of reading, but of wide personal intercourse and travel, and full of economic information and social reflection from all these sources. With all his descriptive concreteness there are large and bold generalizations and frequent passages of social criticism and interpretation; and these ranging over France and Germany, from America to Japan and of course from India to Britain, and home again; in fact leading upto a broad sketch of an economic policy, very comprehensive for young India. Alike as widely informative and as actively stimulating, this book will be found well worth looking through and thinking over both in East and West" (Prof. Patrick Geddes).

*Technik und Wirtschaft* (Berlin): "Would be of considerable use even to critical European theorists and practical men whose demands are more extensive. The technical side of the latest developments has also been plentifully exhibited. In regard to this item as well as other parts of the book the author has laid under contribution plenty of German writings" (Prof. Hashagen).

Prof F W. Taussig (Harvard University, Cambridge, Mass., U.S.A.).  
 "You lay out a large programme in a statesmanlike way. What you aim to do would tax to the utmost the capacity of any set of people".

Prof E R A. Seligman (New York) "Glad to notice that you do not share the opinions of your compatriot Gandhi about the industrial future. Very sensible and worth while."

*Sociology and Social Research* (University of Southern California, Los Angeles, U.S.A.). "Gives a plan for meeting the widespread poverty conditions in India through such factors as the development of new industries and the importation of foreign capital."

*Bombay Chronicle*. "We are in full agreement with the author's diagnosis of the disease and we approve of the prescription suggested. Sarkar divides the population of India into eight groups and discusses with great ability the methods to increase their respective incomes"

## VOL. II.

### **COMPARATIVE INDUSTRIALISM AND ITS EQUATIONS WITH SPECIAL REFERENCE TO ECONOMIC INDIA**

Demy Octavo 320 pages. Nine Charts.

Price Rs. 6.

*American Economic Review* "Prof Sarkar, a well-known Indian scholar, endeavours to determine a proper economic policy for India. There is something reminiscent of Frederick List's stages of economic development in Prof. Sarkar's position. The author believes that fresh significance will be given to the study of economic organization and social structure if the relationships between the regions of the 'second' Industrial Revolution (England, France, Germany and the U.S.A.) and those now entering upon their first Industrial Revolution (India, China, the Balkans, South America etc.) are fully understood. He concludes that the standards of living in Western Europe and the U.S.A. can be raised only to the extent of a simultaneous development in the industrially less developed countries" (Prof. Bogart).

*Allgemeines Statistisches Archiv* (Jena): "The author before making use of the figures has taken care to examine their dependability and signi-

finance It is because of this caution coupled with international and synthetic survey of economic events that he has been able to offer a judgment on the topics in question that is faultless both in theory and economic policy" (Prof. Henninger).

Prof. André Siegfried (Paris): "In the chapters consecrated to capitalism in Bengal and rationalization in Indian industry are discussed the questions of mighty interest and I rejoice to study them under your direction".

Prof. F. Tönnies (Kiel): "Your observations are instructive You are entirely right when you say in conclusion that the world economic depression through which we have been passing appears to be but a station in the transition of entire mankind to a somewhat higher level of life and thought".

*La Vita Economica Italiana* (Rome): "The present volume contains six studies on the following subjects: (1) principles of control relating to foreign insurance companies, (2) the reorganization of the *Reichsbank* and the *Banque de France*, (3) the bank capitalism of Young Bengal, (4) the railway industry and commerce of India in international railway statistics, (5) traces of rationalization in Indian industrial enterprises, (6) the world-crisis in its bearings on the regions of the second and the first industrial revolutions.

"The chief aim of the author consists in continually comparing the development and the condition of the varied economic phenomena of India with those of European states. These comparisons are calculated in relative economic indices per inhabitant per territory

"The work of Sarkar has the merit of making some important economic problems of India known from the Indian standpoint" (Prof. Vergottini).

*Weltwirtschaftliches Archiv* (Jena): "Special significance is attached to the method of quantitative comparisons which Sarkar designates as 'comparative industrialism' or 'comparative capitalism'.

"Of the wide field of applied economics the most varied parts have been discussed in these chapters. Common to them all is the comparison of India with other countries and the tendency to draw the necessary conclusions for India from these comparisons, in order that India may be enabled to rise to the next higher stage of economic development.

"In the chapter on the world-crisis Sarkar brings the conclusions together. Great Britain, Germany and other countries can recover if they can expand their markets, and this can happen only when the purchasing power of agricultural regions is restored.



"This work furnishes plenty of well worked-out Indian economic statistics. The statistics of other countries cited by the author are specially interesting because of the comparative method introduced. Certainly the economic equations calculated by Sarkar give a clear picture of India's economic position in the perspective of the countries compared with" (Prof. Wehrle).

**Chuckervertty Chatterjee & Co., Ltd.**

15, College Square  
CALCUTTA

**B. G. Paul & Co.**

12, Francis Joseph St.  
MADRAS.