STRATEGIC FACTORS
IN BUSINESS CYCLES

JOHN MAURICE CLARK

WITH AN INTRODUCTION BY
THE COMMITTEE ON RECENT
ECONOMIC CHANGES

A PUBLICATION OF THE
NATIONAL BUREAU OF ECONOMIC RESEARCH
IN COOPERATION WITH THE
COMMITTEE ON RECENT ECONOMIC CHANGES

NEW YORK: 1935
Reprinted 1949
PUBLICATIONS OF THE
NATIONAL BUREAU OF ECONOMIC RESEARCH,
INC.

NUMBER 24

STRATEGIC FACTORS
IN BUSINESS CYCLES
OFFICERS
1949
C. Reinold Noyes, Chairman
H. W. Laidler, President
Harry Scherman, Vice-President
George B. Roberts, Treasurer
W. J. Carson, Executive Director
Martha Anderson, Editor

DIRECTORS AT LARGE
D. R. Belcher, American Telephone & Telegraph Co.
Oswald W. Knauth, New York City
Simon Kuznets, University of Pennsylvania
H. W. Laidler, Executive Director, League for Industrial Democracy
Shepard Morgan, Finance Adviser, OMGUS, Germany
C. Reinold Noyes, New York City
George B. Roberts, Vice-President, National City Bank
Beardsley Ruml, New York City
Harry Scherman, President, Book-of-the-Month Club
George Soule, New York City
N. I. Stone, Consulting Economist
J. Raymond Walsh, WMCA Broadcasting Co.
Leo Wolman, Columbia University
T. O. Yntema, Vice President—Finance, Ford Motor Co.

DIRECTORS BY UNIVERSITY APPOINTMENT
E. Wight Bakke, Yale Gottfried Haberler, Harvard
C. C. Balderston, Pennsylvania Clarence Heer, North Carolina
Arthur F. Burns, Columbia R. L. Kozelka, Minnesota
G. A. Elliott, Toronto Paul M. O'Leary, Cornell
H. M. Groves, Wisconsin T. W. Schultz, Chicago
R. B. Warren, Institute for Advanced Study

DIRECTORS APPOINTED BY OTHER ORGANIZATIONS
Percival F. Brundage, American Institute of Accountants
Arthur H. Cole, Economic History Association
Frederick C. Mills, American Statistical Association
S. H. Ruttenberg, Congress of Industrial Organizations
Murray Shields, American Management Association
Boris Shishkin, American Federation of Labor
Warren C. Waite, American Farm Economic Association
Donald H. Wallace, American Economic Association

RESEARCH STAFF
Arthur F. Burns, Director of Research
Geoffrey H. Moore, Associate Director of Research

Moses Abramovitz F. F. Hill
Harold Barger Thor Hultgren
Morris A. Copeland Simon Kuznets
Daniel Creamer Clarence D. Long
David Durand Ruth P. Mack
Solomon Fabricant Frederick C. Mills
Milton Friedman Raymond J. Saulnier
Millard Hastay George J. Stigler
W. Braddock Hickman Leo Wolman
Strategic factors in business cycles by John Maurice Clark; with an introduction by the Committee on recent economic changes. New York: Printed by H. Wolff, 1934.

xv, 238 p. 23 cm. (Half-title: Publications of the National bureau of economic research, Inc., no. 24)

"A publication of the National bureau of economic research in cooperation with the Committee on recent economic changes."

INTRODUCTION

BY THE COMMITTEE ON RECENT ECONOMIC CHANGES

In 1921, in the midst of the early post-War depression, the President of the United States called a national Conference on Unemployment to deal with urgent emergency problems. Out of this Conference came a series of important investigations, each sponsored by committees set up by the Conference.

In 1927 a continuing committee of that Conference was brought together under the chairmanship of Herbert Hoover, then Secretary of Commerce, designated as “The Committee on Recent Economic Changes of the President’s Conference on Unemployment.” Its purpose was to make a comprehensive fact-and-figure picture of the results of the working of economic forces during a major business cycle, assembled in the form of a descriptive record with statistical measurements, which should reveal the developing pattern of our economic evolution.

In order that this project might be carried out in a thoroughly scientific spirit, and be utterly free from partisan bias, the National Bureau of Economic Research, Inc. was enlisted by the Committee to assemble, assimilate and organize the factual and statistical material for study and interpretation. For
this undertaking a group of fifteen of the most competent economists in the country was assembled by the National Bureau of Economic Research. To the broad background knowledge of this collaborating group the National Bureau added its wealth of statistical data and its facilities for progressively measuring the operation of economic forces, reflecting the actions of millions of human beings engaged in the normal processes of living.

In 1928 Arch W. Shaw succeeded Mr. Hoover as Chairman of the Committee on Recent Economic Changes, and early in 1929 the Committee's first report was brought out, a two-volume work covering the period from 1922 to 1928, entitled Recent Economic Changes in the United States, intended as a record, partly statistical and partly descriptive, of the ascending curve of the cycle which started after the depression of 1921 and carried through 1928.

When, a year later, the country entered upon the descending curve of the major cycle under observation, the part that public works might be expected to play in stabilizing our national economy was engaging the attention of thinking men. Inasmuch as this represented a field where a statistical picture could be made with reasonable promptness, and one which would fit into its broad program, the Committee sponsored a study, which was prepared at the National Bureau of Economic Research under the
INTRODUCTION

direction of Dr. Leo Wolman, and published as Planning and Control of Public Works.

In 1932 the developing pattern of our economic experience was further disclosed by the publication of a work by Dr. Frederick C. Mills entitled, Economic Tendencies in the United States. This book, published cooperatively by the Committee on Recent Economic Changes and the National Bureau of Economic Research, summarized and extended the record covered by the two-volume report already described. In this work Dr. Mills essayed the important task of bringing out the characteristics of the tendencies prevailing during the period preceding the current economic depression, in comparison with the tendencies prevailing during the period preceding the World War. This served to clarify many economic relationships which had previously been little understood.

In this program the Committee and its collaborator, the National Bureau of Economic Research, have been concerned chiefly with making a quantitative analysis by means of facts and statistics, picturing as they do the movement of commerce and industry—ships crossing the seas with cargoes of imports and exports, freight and passenger trains rumbling across the continent, the daily transactions in banking houses, stock and produce exchanges, wholesale establishments and retail stores—all representing the reality of life and the relation of industry vii]
STRATEGIC FACTORS IN BUSINESS CYCLES
to industry and individual to individual. Without such a statistical and descriptive record as had been undertaken, representing the 'measurables' of our economic life, little progress could be made in the analysis or understanding of the motives and operations that underlie and affect the movement of economic forces.

All statistical measurements must of necessity be on a common basis if comparison is to be possible. In the statistical record compiled over the whole period covered by the Committee's program, whatever monetary units have been used have been in terms of dollars based on a constant relationship to gold. Early in 1933 the United States went off the gold basis. The Committee recognized this as a natural stopping point for its undertaking, and it determined to bring to a head as rapidly as possible all of the separate studies which formed its program of publication, thus fulfilling its mission at a time when the results would be of the most timely interest and service.

In line with this decision, there will follow as rapidly as they can be completed and prepared for the press, a study of "Profits" by Dr. Ralph C. Epstein; a study of "Prices" by Dr. Frederick C. Mills; a report on "Wages and Consumption," by Dr. Leo Wolman; a report on "Industrial Trends" by Dr. Willard L. Thorp; and possibly one or more additional reports or surveys.

[viii
INTRODUCTION

Meanwhile, the Committee sponsored a special study, from the descriptive and statistical record which had been assembled, to endeavor to disclose, so far as might be possible, what factors play an active role in throwing the economic mechanism out of balance and what factors adapt themselves passively to the changes produced by the active factors. It is this phase of the Committee's exploration which explains the present volume. While the statistical and factual record of the cycle was being made by the collaborating group of economists, Dr. Clark was a regular attendant at the meetings of the group. He participated in the discussions, studied the wealth of factual and statistical material which had been assembled, and assimilated much of the picture of our economic life which it reflected. Then, viewing the whole picture objectively, he essayed to make an appraisal and draw certain conclusions.

The present volume is the result. Intended to achieve a perspective on the pattern of our recent economic experience, it shows something of the evolving design and, in careful fashion as becomes a work by so eminent a student of economic theory, examines into the general direction the pattern is taking.

While Dr. Clark is responsible for the conclusions herein set forth, the Committee on Recent Economic Changes is pleased to offer this report of his findings as a valuable and timely contribution to current economic thought. Indeed, the Committee hopes
that it may prove to be helpful in relating yesterday's economic experience to tomorrow's economic needs. For out of his intensive study of the pattern of our recent economic life Dr. Clark has endeavored to isolate what he terms the "strategic business factors"—strategic because they seem to have a causal influence upon the business cycle and are possibly susceptible of conscious control by the community. Highly suggestive, also, is his analysis of the character of and requirements for national economic balance, and the discussion of the means and possibilities of attaining and maintaining it.

The Committee is glad to have the opportunity of presenting an analysis of this character. It is also glad to add its emphasis to Dr. Clark's call for an improvement in the quality and quantity of the country's statistical services. But it realizes that effective results can be achieved only by putting to work the results of scientific analysis and continued statistical investigation in the realm of practical affairs. What is perhaps more needed at the present time than anything else is the development of means of coordinating and utilizing the experience of men of affairs and the results of economic research.

It is the Committee's belief that economic research itself is made more fruitful through contact between economists and men who are more familiar with business than with text books, for whatever scientific analysis has to contribute to human wel-
INTRODUCTION

fare must be done through the channel of practical application. Among the things which the Committee views with most satisfaction is that its work has made at least a modest contribution toward the achievement of some such union. In the carrying out of this work it has had the generous support of the Rockefeller Foundation, the Economic Club of Chicago, the Carnegie Corporation, and various socially-minded groups and individuals, whose support it here gratefully acknowledges.

Recognizing the timeliness of Dr. Clark's report, the Committee has been led to hasten its publication that it may serve the immediate need of clearer perspective. It is presented, not as a full and matured expression of the Committee's own collective viewpoint, but as the findings of an able thinker upon a broad problem of great significance at the present juncture in our social-political-economic life. It leads up to the great question that we face as a nation: which factors are and which are not amenable to purposive control by public or private agencies?

Arch W. Shaw, Chairman
Renick W. Dunlap
William Green
Julius Klein
John S. Lawrence
Max Mason
Adolph C. Miller
Lewis E. Pierson

John J. Raskob
Samuel W. Reyburn
Louis J. Taber
Daniel Willard
Clarence M. Woolley
Owen D. Young
Edward E. Hunt,
Secretary

November, 1933
RELATION OF THE DIRECTORS
TO THE WORK OF THE NATIONAL BUREAU OF ECONOMIC RESEARCH

1. The object of the National Bureau of Economic Research is to ascertain and to present to the public important economic facts and their interpretation in a scientific and impartial manner. The Board of Directors is charged with the responsibility of ensuring that the work of the Bureau is carried on in strict conformity with this object.

2. To this end the Board of Directors shall appoint one or more Directors of Research.

3. The Director or Directors of Research shall submit to the members of the Board, or to its Executive Committee, for their formal adoption, all specific proposals concerning researches to be instituted.

4. No study shall be published until the Director or Directors of Research shall have submitted to the Board a summary report drawing attention to the character of the data and their utilization in the study, the nature and treatment of the problems involved, the main conclusions and such other information as in their opinion will serve to determine the suitability of the study for publication in accordance with the principles of the Bureau.

5. A copy of any manuscript proposed for publication shall also be submitted to each member of the Board. If publication is approved each member is entitled to have published also a memorandum of any dissent or reservation he may express, together with a brief statement of his reasons. The publication of a volume does not, however, imply that each member of the Board of Directors has read the manuscript and passed upon its validity in every detail.

6. The results of an inquiry shall not be published except with the approval of at least a majority of the entire Board and a two-thirds majority of all those members of the Board who shall have voted on the proposal within the time fixed for the receipt of votes on the publication proposed. The limit shall be forty-five days from the date of the submission of the synopsis and manuscript of the proposed publication unless the Board extends the limit; upon the request of any member the limit may be extended for not more than thirty days.

7. A copy of this resolution shall, unless otherwise determined by the Board, be printed in each copy of every Bureau publication.

(Resolution of October 25, 1926, revised February 6, 1933)
# CONTENTS

## PART ONE

**THEORETICAL APPROACH**

The Nature of the Study 3  
Framework of a Theory 13

## PART TWO

**TYPICAL CYCLE PATTERNS**

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>23</td>
</tr>
<tr>
<td>The Factor of Timing</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>26</td>
</tr>
<tr>
<td>Construction</td>
<td>27</td>
</tr>
<tr>
<td>Durable Luxury Goods</td>
<td>44</td>
</tr>
<tr>
<td>Consumers’ Goods in General</td>
<td>47</td>
</tr>
<tr>
<td>Industrial Production and Prices, Employment and Payrolls</td>
<td>50</td>
</tr>
<tr>
<td>Stocks of Goods</td>
<td>53</td>
</tr>
<tr>
<td>Dealings in Securities</td>
<td>56</td>
</tr>
<tr>
<td>Agricultural Production and Prices</td>
<td>61</td>
</tr>
<tr>
<td>Foreign Trade</td>
<td>65</td>
</tr>
<tr>
<td>Banking</td>
<td>68</td>
</tr>
<tr>
<td>Corporate Incomes</td>
<td>69</td>
</tr>
<tr>
<td>General Conclusions as to Timing of Series</td>
<td>71</td>
</tr>
</tbody>
</table>

### Amplitudes of Fluctuations:

- Production 73  
- Incomes 79  
- Prices 89  
- Profits 91
# CONTENTS

## PART THREE

### GENERAL MOVEMENTS, 1922-1929

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>96</td>
</tr>
<tr>
<td>The Stock Market</td>
<td>98</td>
</tr>
<tr>
<td>Construction</td>
<td>101</td>
</tr>
<tr>
<td>Banking</td>
<td>102</td>
</tr>
<tr>
<td>Fixed Capital</td>
<td>103</td>
</tr>
<tr>
<td>Corporate Net Incomes</td>
<td>106</td>
</tr>
<tr>
<td>Employment</td>
<td>108</td>
</tr>
<tr>
<td>Durable Goods</td>
<td>108</td>
</tr>
<tr>
<td>Conclusion</td>
<td>109</td>
</tr>
</tbody>
</table>

## PART FOUR

### SPECIAL FEATURES OF THE LAST CYCLE

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>111</td>
</tr>
<tr>
<td>Non-Cyclical Factors: Post-War Conditions</td>
<td>116</td>
</tr>
<tr>
<td>Increase of Durable Goods</td>
<td>119</td>
</tr>
<tr>
<td>Conditions Bearing on Recovery</td>
<td>121</td>
</tr>
</tbody>
</table>

## PART FIVE

### ANOTHER APPROACH: THE MEANING AND REQUIREMENTS OF BALANCE

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>124</td>
</tr>
<tr>
<td>The Meaning of ‘Balance’</td>
<td>127</td>
</tr>
<tr>
<td>Labor and Employment</td>
<td>131</td>
</tr>
<tr>
<td>Steady Production: the Individualist Prescription</td>
<td>134</td>
</tr>
<tr>
<td>Savings and Capital Expenditures</td>
<td>136</td>
</tr>
<tr>
<td>A Stable Credit System vs. Cumulative Movements</td>
<td>138</td>
</tr>
<tr>
<td>Long-Run Problems of Distribution of Incomes</td>
<td>139</td>
</tr>
</tbody>
</table>