This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Trends in Government Financing

Volume Author/Editor: Morris A. Copeland

Volume Publisher: Princeton University Press

Volume ISBN: 0-870-14105-8

Volume URL: http://www.nber.org/books/cope61-1

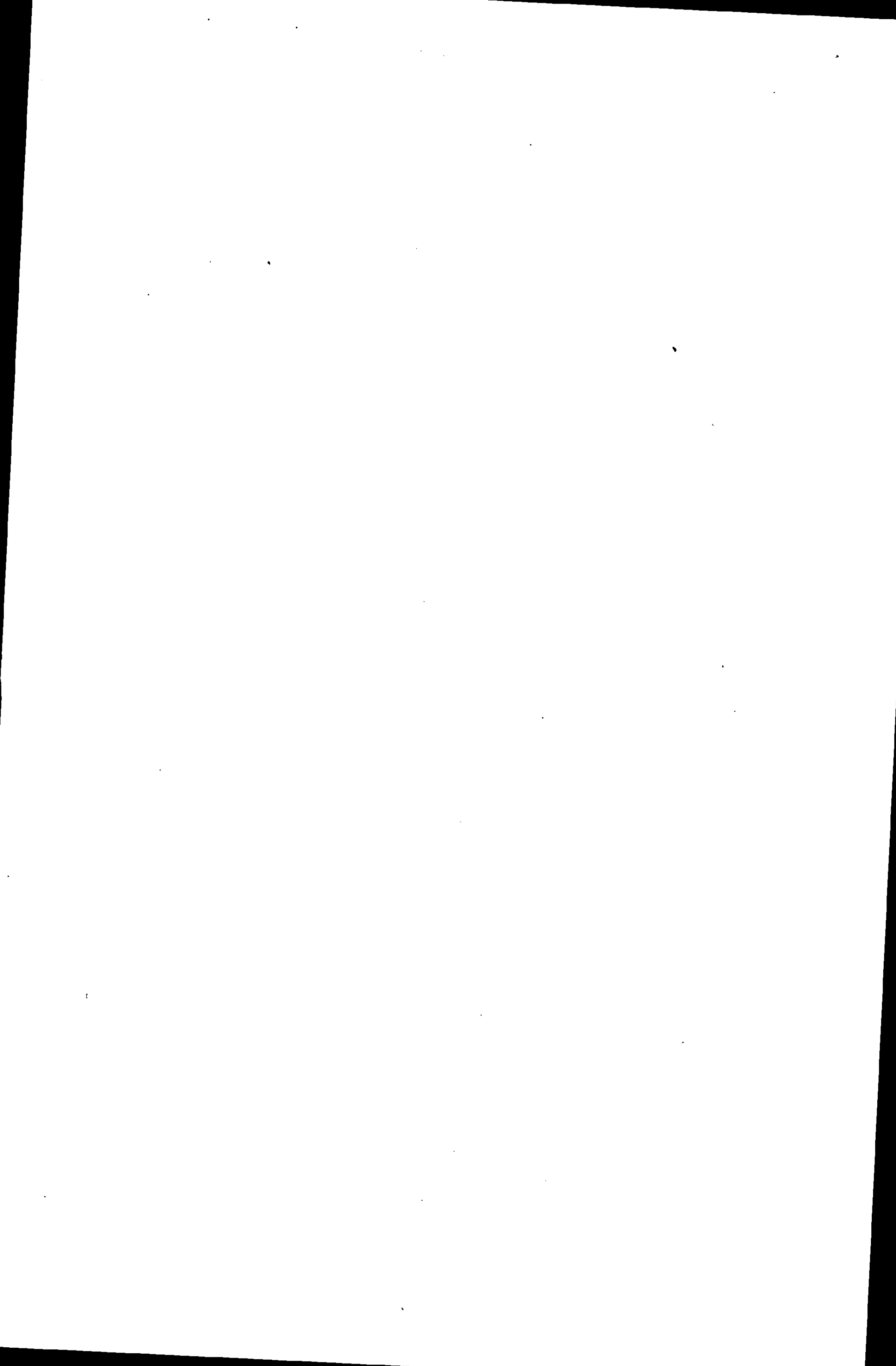
Publication Date: 1961

Chapter Title: Front matter, Trends in Government Financing

Chapter Author: Morris A. Copeland

Chapter URL: http://www.nber.org/chapters/c2348

Chapter pages in book: (p. -28 - 0)



TRENDS IN GOVERNMENT FINANCING

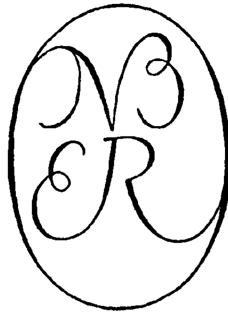
NATIONAL BUREAU OF ECONOMIC RESEARCH

STUDIES IN CAPITAL FORMATION AND FINANCING

1. Capital Formation in Residential Real Estate: Trends and Prospects
   Leo Grebler, David M. Blank, and Louis Winnick
2. Capital in Agriculture: Its Formation and Financing since 1870
   Alvin S. Tostlebe
3. Financial Intermediaries in the American Economy since 1900
   Raymond W. Goldsmith
4. Capital in Transportation, Communications, and Public Utilities: Its Formation and Financing
   Melville J. Ulmer
5. Postwar Market for State and Local Government Securities
   Roland I. Robinson
6. Capital in Manufacturing and Mining: Its Formation and Financing
   Daniel Creamer, Sergei P. Dobrovolsky, and Israel Borenstein
7. Trends in Government Financing
   Morris A. Copeland

Trends in Government Financing

MORRIS A. COPELAND
CORNELL UNIVERSITY



A STUDY BY THE
NATIONAL BUREAU OF ECONOMIC RESEARCH

PUBLISHED BY
PRINCETON UNIVERSITY PRESS, PRINCETON
1961

Copyright © 1961, Princeton University Press
All Rights Reserved
L. C. CARD: 60-12237

Printed in the United States of America

This monograph is part of a larger investigation of trends and prospects in capital formation and financing made possible by a grant from the Life Insurance Association of America. The Association is not, however, the author, publisher, or proprietor of this publication, and is not to be understood as approving or disapproving by virtue of its grant any of the statements made or views expressed herein.

Relation of the Directors
to the Work and Publications
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 National 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 report shall be published until the Director or Directors of Research shall have submitted to the Board a summary drawing attention to the character of the data and their utilization in the report, the nature and treatment of the problems involved, the main conclusions, and such other information as in their opinion would serve to determine the suitability of the report for publication in accordance with the principles of the National Bureau.

5. A copy of any manuscript proposed for publication shall also be submitted to each member of the Board. For each manuscript to be so submitted a special committee shall be appointed by the President, or at his designation by the Executive Director, consisting of three Directors selected as nearly as may be one from each general division of the Board. The names of the special manuscript committee shall be stated to each Director when the summary and report described in paragraph (4) are sent to him. It shall be the duty of each member of the committee to read the manuscript. If each member of the special committee signifies his approval within thirty days, the manuscript may be published. If each member of the special committee has not signified his approval within thirty days of the transmittal of the report and manuscript, the Director of Research shall then notify each member of the Board, requesting approval or disapproval of publication, and thirty additional days shall be granted for this purpose. The manuscript shall then not be published unless at least a majority of the entire Board and a two-thirds majority of 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 shall have approved.

6. No manuscript may be published, though approved by each member of the special committee, until forty-five days have elapsed from the transmittal of the summary and report. The interval is allowed for the receipt of any memorandum of dissent or reservation, together with a brief statement of his reasons that any member may wish to express; and such memorandum of dissent or reservation shall be published with the manuscript if he so desires. Publication does not, however, imply that each member of the Board has read the manuscript, or that either members of the Board in general, or of the special committee, have passed upon its validity in every detail.

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

(*Resolution adopted October 25, 1926*
and revised February 6, 1933 and February 24, 1941)

NATIONAL BUREAU OF ECONOMIC RESEARCH
1960

OFFICERS

George B. Roberts, *Chairman*
Arthur F. Burns, *President*
Theodore W. Schultz, *Vice-President*
Murray Shields, *Treasurer*
Solomon Fabricant, *Director of Research*
Geoffrey H. Moore, *Associate Director of Research*
Hal B. Lary, *Associate Director of Research*
William J. Carson, *Executive Director*

DIRECTORS AT LARGE

Wallace J. Campbell, *Director, Nationwide Insurance*
Solomon Fabricant, *New York University*
Crawford H. Greenwalt, *E. I du Pont de Nemours & Company*
Gabriel Hauge, *Manufacturers Trust Company*
Albert J. Hettinger, Jr., *Lazard Frères and Company*
H. W. Laidler, *League for Industrial Democracy*
Shepard Morgan, *Norfolk, Connecticut*
George B. Roberts, *Larchmont, New York*
Harry Scherman, *Book-of-the-Month Club*
Boris Shishkin, *American Federation of Labor and Congress of Industrial Organizations*
George Soule, *Washington College*
J. Raymond Walsh, *New York City*
Joseph H. Willits, *The Educational Survey, University of Pennsylvania*
Leo Wolman, *Columbia University*
Donald B. Woodward, *Vick Chemical Company*
Theodore O. Yntema, *Ford Motor Company*

DIRECTORS BY UNIVERSITY APPOINTMENT

V. W. Bladen, *Toronto*
Arthur F. Burns, *Columbia*
Melvin G. de Chazeau, *Cornell*
Frank W. Fetter, *Northwestern*
Harold M. Groves, *Wisconsin*
Gottfried Haberler, *Harvard*
Walter W. Heller, *Minnesota*
Maurice W. Lee, *North Carolina*
Lloyd G. Reynolds, *Yale*
Theodore W. Schultz, *Chicago*
Jacob Viner, *Princeton*
Willis J. Winn, *Pennsylvania*

DIRECTORS APPOINTED BY OTHER ORGANIZATIONS

Percival F. Brundage, *American Institute of Certified Public Accountants*
Harold G. Halcrow, *American Farm Economic Association*
Theodore V. Houser, *Committee for Economic Development*
S. H. Ruttenberg, *American Federation of Labor and Congress of Industrial Organizations*
Murray Shields, *American Management Association*
Willard L. Thorp, *American Economic Association*
W. Allen Wallis, *American Statistical Association*
Harold F. Williamson, *Economic History Association*

DIRECTORS EMERITI

Oswald W. Knauth, *Beaufort, South Carolina*
N. I. Stone, *New York City*

RESEARCH STAFF

Moses Abramovitz
Gary S. Becker
Gerhard Bry
Arthur F. Burns
Phillip Cagan
Morris A. Copeland
Frank G. Dickinson
James S. Earley
Richard A. Easterlin
Solomon Fabricant
Milton Friedman
Raymond W. Goldsmith
Millard Hastay
Daniel M. Holland
Thor Hultgren
F. Thomas Juster
C. Harry Kahn
John W. Kendrick
Simon Kuznets
Hal B. Lary
Ruth P. Mack
Ilse Mintz
Geoffrey H. Moore
Roger F. Murray
Ralph L. Nelson
G. Warren Nutter
Richard T. Selden
Lawrence H. Seltzer
Robert P. Shay
George J. Stigler
Herbert B. Woolley

CONTENTS

FOREWORD by Simon Kuznets xv

PREFACE xxiii

I. INTRODUCTION 3

1. Concepts of Capital Requirements 3
2. An Outline of the Growth of Government Capital Requirements 6
3. Summary 16

II. CAPITAL REQUIREMENTS AND THE BUDGET 18

1. What Is a Government Deficit? 19
2. The Federal Budget Deficit 20
3. The FOF Nonfinancial Computation 23
4. Summary 26

A Note on Federal Surpluses and Deficits 27

III. A FURTHER HISTORICAL REVIEW 37

1. Federal Receipts, Expenditures, and Deficits 37
2. State and Local Government Receipts, Expenditures, and Deficits 45
3. Trends in Receipts, Expenditures, and Employment 49
4. Summary 60

IV. ARE THERE PATTERNS IN STATE AND LOCAL REQUIREMENTS? 64

1. Regional and Community Differences 64
2. Different Types of Financial Requirement 72
3. Orderly and Disorderly Finance 80
4. Summary 85

V. CHANGING RESPONSIBILITIES FOR MEETING FINANCIAL REQUIREMENTS 87

1. Substantive Functional Changes and Restrictions on Financing 88
2. The Rise of Special Districts 93
3. Grants-in-Aid and Changes in Fiscal Functions 98
4. Summary 102

VI. Fiscal Flexibility and Countercyclical Financial Requirements 104
1. On the Evolution of Fiscal Policy 104
2. The Experience of the 1930's 112
3. More Recent Minor Recession Experiences 123
4. Summary 127

VII. Some Fiscal Developments That Affect the Growth of Public Debts 129
1. The Growth of Financial Assets 129
2. Emergency Fiscal Developments 131
3. Summary 142
4. A Note on RFC Subsidy Payments, 1940–46, by Richard S. Martin 142

VIII. The Requirements of National Security and International Aid 147
1. Would It Be Feasible to Pay for a War as You Go? 147
2. How Far Need International Aid Be Financed by Borrowing? 155
3. On the Retirement of Emergency-Incurred Debts 158
4. Summary 163

IX. Trends and Prospects 165
1. Some Basic Distinctions 165
2. The Record of State and Local Financial Requirements 168
3. The Record of Federal Financial Requirements 172
4. A Postscript on Prospects 175

Appendix A. Additional Notes on the Tables 181

Appendix B. Statistical Compilations, Books, and Other Documents Cited 204

Index 209

TABLES

1. Government Gross and Net Debts, Selected Years, 1890-1950 — 7
2A. Bonded State and Local Government Debt Outstanding, 1880, by Purpose — 8
2B. Functional Distribution of State Government Debt, Selected Years, 1915-51 — 10
2C. Functional Distribution of City Government Debt, Selected Years, 1905-51 — 11
3. State and Local Government Gross and Net Debt, December 31, 1946 and 1950 — 13
4. Federal and State and Local Debt Growth Compared to Increase in Capital Assets and Construction — 15
5. Federal Government Nonfinancial Receipts, Expenditures, and Deficits, 1890-1954 — 38
6. A Comparison of Federal Nonfinancial Expenditures to Gross National Product — 39
7. Comparison of the Federal Nonfinancial Deficit with the Budget Deficit, 1917-54 — 44
8. State and Local Government Nonfinancial Receipts, Expenditures, and Net Deficits, 1910-54 — 46
9. A Comparison of State and Local Government Nonfinancial Expenditures to Gross National Product — 47
10. Federal Nonfinancial Receipts, Selected Years, 1890-1950 — 50
11A. Federal Nonfinancial Expenditures, Fiscal Years 1890, 1916, and 1929 — 52
11B. Federal Nonfinancial Expenditures, Calendar Years 1929, 1940, and 1950 — 53
12. Federal Employment at Selected Dates, 1900-1950 — 54
13. State and Local Government Nonfinancial Receipts, Selected Years, 1890-1950 — 55
14. State and Local Government Nonfinancial Expenditures, Selected Years, 1915-50 — 56
15. State and Local Government Expenditures by Level of Government, Selected Years, 1890-1950 — 57
16. State and Local Government Employment at Selected Dates, 1900-1950 — 59
17. 1950 Capital Outlays and Debt Transactions, 474 Cities, by City Size Groups — 66

18. Per Capita State and Local Debt at Selected Dates, 1902-50 68
19. State and Local Debts by Census Regions, 1890, 1922, and 1942 70
20. State and Local Short-Term Debt, Expenditures, and Cash Balances at Selected Dates, 1922-53 75
21. State and Local New Construction Expenditures and Deficits, 1916-53 76
22. State and Local New Long-Term Debt Issues and New Construction, 1915-53 78
23. State and Local Debt and Depreciated Construction, a Rough Three-Function Comparison, Selected Years, 1922-51 79
24. The Growth of State and Local Debts since 1839 89
25. The Growth of School and Special District Debt, Selected Years, 1880-1951 94
26. Functional Types of Special Districts in 1952 95
27. Local Government Units in the Continental United States and Their Debts, 1951 97
28. Intergovernmental Aid Compared to Nonfinancial Receipts, Selected Years, 1913-50 100
29. 1952 Intergovernmental Revenue and Expenditure and Total Revenue of State Governments in Relation to Per Capita Income, by Regions 102
30. Federal General Receipts and Surpluses by Selected Business Cycle Periods, 1867-1915 105
31. Various Federal Expenditure Programs and Federal Credit, 1929-33 108
32. Federal Countercyclical Programs Related to Personal Income and Farm Income, 1929-39 115
33. Federal Countercyclical Programs Related to Aggregate Demand, 1929-39 116
34. Loans Guaranteed or Insured by Federal Agencies, 1939 and 1954 118
35. Federal Credit at Selected Dates, 1920-53 119
36. Countercyclical Fiscal Influences in Recent Minor Recessions, 1945-54 124
37. Fiscal Influences on Net Income of Farm Operators since World War II 126
38. Assets in Federal Social Insurance Funds at Selected Dates, 1929-54 130
39. Cash and Securities in Various State and Local Government Funds at Selected Dates, 1915-50 130
40. Federal Recovery and Relief Funds and Expenditures, 1934-38 132

41. World War I Government Corporations and Business-Type Agencies 135
42. Government Corporations and Credit Agencies—1940 Balance Sheets and Operating Incomes 136
43. Total RFC Sources and Uses of Funds, from Inception to June 30, 1946 138
44. CCC Capital Reimbursements and Surplus Distributions, 1938-54 140
45. Federal Receipt and Expenditure Increases and Deficit Financing in Four Wars 148
46. Estimated and Actual Federal Expenditures, 1917-20 150
47. Federal Budget Expenditures, Appropriations, and Other Obligational Authority Enactments, 1941-47 151
48. Total Federal Budget Expenditures, Actual and Budgeted, 1939-54 153
49. International Aid during and after the Two World Wars, 1917-53 156
50. Federal Debt Less General Fund Balance after Two Wars 158
51. Federal Debt and Financial Assets at Selected Dates, 1919-54 160
A-1. State and Local Government Nonfinancial Receipts, Expenditures, Deficits, and Net Debts, 1909-50 188

EXHIBIT A. A Comparison of Four Government Surplus Computations, 1943-54 33

EXHIBIT B. Relations between Budget Receipts and Expenditures and Cash Income and Outgo, Fiscal Year 1953 34

EXHIBIT C. Relations between Cash Income and Outgo, and National Income and Product Accounts Receipts and Expenditures, Fiscal Year 1951 35

EXHIBIT D. Relations between Cash Income and Outgo and Flow of Funds Financial Transactions, Calendar Year 1947 36

Foreword

By Simon Kuznets

I

This monograph is part of an inquiry into trends and prospects in capital formation and financing initiated by the National Bureau of Economic Research in 1950, with the financial assistance of the Life Insurance Association of America.[1] The inquiry examines long-term trends in capital formation and financing in the United States and is organized primarily about the principal capital-using sectors of the economy—agriculture, mining and manufacturing, the public utilities, residential real estate, and governments. The analysis for each private sector summarizes the major trends in real capital formation from 1870 (or the earliest years for which data are available) and in financing from 1900 (the earliest practicable date), and the factors determining these trends, and, so far as possible, suggests the significance of these factors for the future. For governments, the subject of this monograph, the emphasis, for reasons indicated by Professor Copeland, is not so much on real capital formation as on financial requirements. In addition to the five sector studies, the inquiry includes two others. One, already published, deals with trends in financing channeled through intermediate financial institutions and attempts to link the major types of institutions with the various groups of capital users. The other, ready to be prepared for press, utilizes the results of all the other studies, within a framework provided by country-wide estimates of national product and relevant components and of country-wide estimates of total financing.

Some of the findings have been presented in part or in preliminary form in a series of Occasional and Technical Papers.[2] This monograph,

[1] Monographs already published, by Princeton University Press for the National Bureau of Economic Research, are: *Capital Formation in Residential Real Estate: Trends and Prospects*, by Leo Grebler, David M. Blank, and Louis Winnick, 1956; *Capital in Agriculture: Its Formation and Financing since 1870*, by Alvin S. Tostlebe, 1957; *Financial Intermediaries in the American Economy since 1900*, by Raymond W. Goldsmith, 1958; and *Capital in Transportation, Communications, and Public Utilities*, by Melville J. Ulmer, 1960; *Capital in Manufacturing and Mining: Its Formation and Financing*, by Daniel Creamer, Sergei P. Dobrovolsky, and Israel Borenstein (1960).

[2] Leo Grebler, *The Role of Federal Credit Aids in Residential Construction*, Occasional Paper 39 (1953); Daniel Creamer, *Capital and Output Trends in Manufacturing Industries, 1880–1948*, Occasional Paper 41 (1954); Raymond W. Goldsmith, *The Share of Financial Intermediaries in National Wealth and National Assets, 1900–1949*, Occasional Paper 42 (1954); Melville J. Ulmer, *Trends and Cycles in Capital Formation by United States Railroads*,

like those preceding it, presents the full results of a specific study, together with the supporting data.

II

The weight of every type of government activity in the country's economy has increased markedly since the beginning of the century. The share of governments in the labor force and in total tangible durable assets rose sharply, and so did their share in net and gross national product. Perhaps even more important, the total volume of government transactions—the magnitude of taxes and other receipts plus borrowing, and the magnitude of disbursements, either on commodities or services or in transfers—has grown at rates much greater than those of the country's total economic activity. As a result, the distinctive characteristics of governments—the substitution of social and political criteria for those of the market place, making for disparity between the price of government services to recipients and the cost of these services, together with other associated consequences—have had increasingly ramifying effects throughout the economy.

Professor Copeland's monograph is a valuable contribution to the understanding of one trend in the complex that reflects the increased weight of governments in the economy—the long-term rise in the importance of governments as borrowers. A few figures clearly illustrate the magnitude of this rise. At the end of 1900, liabilities of the government sector amounted to about 9 per cent of total liabilities in the national balance sheet; and the results are no different if we limit liabilities to payables, mortgages, bonds and notes, and securities (i.e. if we exclude currency, deposits, and insurance and pension reserves). By the end of 1955, governments accounted for 28 per cent of total liabilities (and almost 46 per cent of liabilities excluding currency deposits and various insurance reserves).[3] A similar result is indicated by data on the share of governments in external financing. Of the total volume of external financing over the period from 1900 to 1955, 45 per cent is accounted for by governments, the proportion being particularly high in periods dominated by wars and major depressions.[4] It is this large share of governments in total borrowing

[3] See Raymond W. Goldsmith *et al.*, *A Study of Saving in the United States*, Princeton 1956, Vol. III, pp. 42–43 and 56–57, and *Financial Research and the Problems of the Day*, 37th Annual Report of the National Bureau of Economic Research, May 1957, p. 36.

[4] See Simon Kuznets, *Capital in the American Economy: Its Formation and Financing*, Table 47.

1870–1950, Occasional Paper 43 (1954); Alvin S. Tostlebe, *The Growth of Physical Capital in Agriculture, 1870–1950*, Occasional Paper 44 (1954); Israel Borenstein, *Capital and Output Trends in Mining Industries, 1870–1948*, Occasional Paper 45 (1954); David M. Blank, *The Volume of Residential Construction, 1889–1950*, Technical Paper 9 (1954); all published by the National Bureau of Economic Research, New York.

that tripled the ratio of government liabilities to the total within the country from 1900 to the recent years.

To be sure, with the rise in the share of governments in capital formation and in the stock of tangible wealth, we would expect their share in borrowing to increase—as it would for the private sector. But in the case of governments there is no close connection between their capital formation and their borrowing. The rise in their share in total borrowing is far greater than the rise in their share in tangible assets or in capital formation. Dr. Goldsmith's estimates, already cited, show that at the end of 1900 governments accounted for 9 per cent of all tangible assets, excluding consumer durables. By the end of 1955 the share had increased to 17 per cent—as compared with the rise from 9 to 28 per cent in their share in total liabilities. Likewise, the monograph referred to in footnote 4 shows (Table 45) that of the cumulative total of gross capital formation over the period 1900–1955, the share of governments was 16 per cent—as compared with a 45 per cent share in total borrowing or external financing.[5]

Second, when we distinguish between state and local governments, on the one hand, and federal government on the other, we find further dissociation between capital formation and borrowing. Thus, in Dr. Goldsmith's estimates, the share of state and local governments in total liabilities *declines* from 4.2 per cent at the end of 1900 to 3.6 per cent at the end of 1955, whereas their share in total tangible assets, excluding consumer durables, *rises* from 5.6 per cent to 10.5 per cent over the half-century. By contrast, while the share of the federal government in tangible assets increases from 3.0 to only 6.3 per cent over the period, its share in total liabilities increases from 4.7 to 24.4 per cent. And similar differences in the movement of the shares in capital formation and in external financing would be revealed were we to use the data in the monograph referred to in footnote 4.

Because of the greater rise in the governments' share in borrowing than in their share in the stock of real capital, and the disparity between their financing and capital formation, Professor Copeland's monograph concentrates on the financial requirements of governments, i.e. on the draft they make upon the loanable funds in the country. In attempting to present a comparable record over a sufficiently long period, Professor

[5] Tangible assets and capital formation exclude here durable military commodities (war construction and munitions); but even their inclusion would still leave a large difference between the governments' share in capital formation and in borrowing. We can add gross war construction and munitions to both total gross capital formation and the government component of it (for 1900–1955). Although this treatment exaggerates the share of governments in the additions to *net* stock of tangible wealth, with which shares in external financing or borrowing are properly compared, the share of governments in gross capital formation becomes only 27 per cent—still well below the 45 per cent share in total borrowing.

Copeland had to deal not merely with the usual obstacles in the way of poor and discontinuous data. Two major analytical difficulties had to be resolved. The first lay in defining properly the governmental deficit that represented a draft upon the supply of loanable funds—as distinct from variant definitions of governmental deficit that have been formulated and discussed, largely in connection with budget planning and fiscal legislation. The author's decision to treat additions to assets of government corporations and trust accounts as an offset to any deficiency in nonfinancial revenues relative to nonfinancial outlays may provoke disagreement on the ground that receipt of, say, contributions to social security funds in excess of benefits paid represents implicit borrowing. And yet if governmental requirements are taken to mean the calls that the governments make upon the loan fund markets, Professor Copeland's treatment can hardly be gainsaid. The second analytical difficulty lay in the interrelation of the levels of government, with respect to the changing distribution of financing responsibility, the changing restraints imposed on the borrowing capacity of some, and a secular proliferation of types of special administrative units. While data were available for the several levels, and it appeared possible to associate the financial requirements trends at these levels with somewhat different complexes of factors, it was nevertheless necessary to emphasize that all levels are interrelated—to stress the fact that the net surpluses of local and state governments are often contingent upon the net deficits of the federal government. One may extend this point, recognizing that the same is true as between the private sector and governments: surpluses in the former are often conditioned by net deficits in the latter, and it would be misleading to view the surpluses as achievements and the deficits as failures without taking cognizance of the frequent connection between the two.

III

The findings in Professor Copeland's monograph are summarized at the end of each chapter and brought together in the last. We note here some of the broader aspects, in the hope that the wider bearing of the study will thus become patent.

(1) War expenditures have been quantitatively the major source of governmental debt. There has been a definite rise in the proportion of such expenditures financed by taxes and a corresponding decline in the proportion financed by deficits—from the War of 1812 to the Civil War, to World War I, and to World War II. But a major war in the future is likely to cause a much greater proportionate draft on the country's wealth and income than any in the past. And the fast rate at which such expenditures would be incurred, even disregarding possible war-inflicted destruction, is bound to produce a lag in the fiscal mechanism—again with

resulting large deficits and borrowing. Such deficits do not mean, of course, that nobody pays. The resources are consumed, but the burden falls on those whose uses of national product are restrained during the war and whose claims are eventually reduced by the rise in prices and the decline in the purchasing power of the dollar—if not by direct repudiation.

(2) Another important source of governmental net deficits has been countercyclical policy—the discharge of the responsibility for maintaining economic stability and reducing the impact of depressions. Here net deficits during slack times are part and parcel of the basic policy; and as Professor Copeland points out, the increased weight of cyclically sensitive revenues (such as income taxes) means the likelihood of larger deficits during the contraction phase of business cycles.

(3) Debt reductions do occur after major wars, but they are only partial and are to some extent merely consequences of the lag in the taxing mechanism. Such reductions may also occur during the expansion phase of business cycles. But the pressure for all such debt reductions is, by and large, weaker than the pressure of forces inimical to the marked scaling down of government debt, a pressure which is a combination of the pressure upon governments to assume an increasing number of functions (with consequent effects on expenditures) and resistance to high tax levels (with consequent effects on revenues). At the risk of oversimplifying, the problem can be viewed as one of conflicting pressures by producers, consumers, and asset holders (not just debt owners). While all are adversely affected by such deficit financing as results in higher prices and declining purchasing power of the dollar, the immediate interests of many groups of producers and consumers can be protected by drives for increased money incomes, or for increased contributions from governments, or for decreased taxation by governments. And such drives are likely to be far more powerful than the pressures generated by the prospective losses of the owners of fixed-value assets, or by the lagging incomes of those groups in the community whose bargaining power, for various institutional reasons, is inferior to that of other groups.

(4) The responsibility for external security and for economic stability and growth has shifted increasingly to the federal government. Partly as a consequence, the latter has had to assume also increasing responsibility for the redistributive functions within the economy. Accordingly, it was at the federal government level that the main burden of financial requirements was concentrated—to the point of taking over part of the burden originating at the state and local government levels. The very multiplication of responsibilities at the federal government level, reflecting as it does the variety of functions which by social consent the central government is expected to perform, means an increasing number of

pressures. And this makes it more, rather than less, difficult to pursue consistently any single policy objective—such as that of debt reduction once the war or depression emergency that led to the large rise in debt is over.

(5) The growth of capital formation and financing at the state and local levels is part and parcel of the technological revolution that created our cities, led to the building of our roads, called for the spread of public education, and so on. Similarly, much of the rise in the volume of federal government activities and expenditures, even including the costly wars, was a product of modern economic growth—with the increasing complexity of its institutions, larger private economic units, decreasing tolerance for economic fluctuations, and a vastly greater variety of costly tools for warfare. While there are no truly inexorable historical trends, there are patterns in the movement of society so intertwined with others that, given one set, the other is likely to follow. Thus, just as industrialization was bound up with the growth of the cities, the cities once grown demanded a wide extension of functions of municipal governments—to assure the minimum of communication, health standards, educational levels, and security—not attainable by means of the market mechanism and private enterprise. And just as the spread of industrialization to separate, sovereign national units was likely to produce international friction and war, so the increasing economic power of the nations involved was brought to bear when such friction and conflicts arose.

(6) Professor Copeland wisely minimizes discussion of whether the governmental functions that led to such large drafts upon the funds of the country, their huge financial requirements, were undertaken wisely or discharged efficiently. One can only follow his example here, except for one comment. In view of the not unexpected lag in the administrative and political mechanisms of governments in adjusting to their rapidly increasing responsibility, and the competition of governments' claims to resources with claims from other sectors in the economy, it would be surprising if there were no gaps and inadequacies in the discharge of some of the governmental functions. The point in the present connection is that the wide recourse of governments to borrowing may have, in part, contributed to some of the difficulties in the proper performance of their duties. For example, the possible effect of such borrowing on rising price levels and the consequent decline in the purchasing power of the dollar may have affected adversely the very groups within the labor force upon whom governments had to rely heavily in the important functions under their auspices; and whatever pressure federal government issues exercised upon the market for government securities may have lessened the demand for local or state issues needed for financing some badly needed capital improvements.

IV

The preceding comments are casual reflections on a broad theme and perhaps not needed to convince readers of the importance of the topic treated by Professor Copeland in his monograph. In these days it is scarcely necessary to argue the major role of governments in the country's economic life, or the value of a skillful recounting of the story of governments' financial requirements.

Since the governments are the setters of the framework, the courts of last resort, the residual legatees of economic and other problems which the private sector cannot by itself resolve, they are one complex of our institutions about which a *general* projection into the future is most easily made: in the increasingly divided and intricate world that faces us, the role of governments is bound to become greater. But despite the ease of making a general projection, there is the great difficulty of ascertaining specific aspects and magnitudes. For these require knowledge, or reasonable probings, not only of the wide range of problems that are likely to face the country, but also of the distinction between those to be assigned to the private sector and those to the public sector. To illustrate, one aspect of the projection of financial requirements of governments is linked to the country's propensity to economic instability, its proneness to depression—given the accepted, and still growing, responsibility of the government for assuring full employment of resources. Furthermore, there are bound to be shifts in functions of governments at different levels, as the apparently increasing role of the federal government in the field of education clearly illustrates. To provide a usefully specific projection of the financial requirements of governments would require a separate review of the various impending or likely changes in the factors that make for government expenditures, and of the probable responsiveness of the fiscal mechanisms.

All of this does not lessen the importance of understanding clearly what happened in the past, nor reduce the value of Professor Copeland's analysis of the financial requirements of governmental operations. As the author himself stresses, the analysis is partial; and it could hardly be otherwise, considering the scope of the subject. But it reveals clearly some of the forces at play, provides a record of wide reference value, and suggests the directions of further analysis necessary to a projection linked to some broad assumptions relating to the domestic and international scene.

Preface

This study is a part of the National Bureau's inquiry into long-term trends in capital formation and financing. Because of the special characteristics of the sector of the economy with which it is concerned and the data limitations these characteristics entail, it is largely—though not entirely—concerned with trends in financing.

While primary attention in the case of the federal government is devoted to the period since 1890, and in the case of state and local governments to the period since 1910, in various connections it has seemed advisable to delve somewhat farther into the past.

This study was begun in 1950. It would have been completed somewhat sooner if work on it had not been interrupted several times. In view of the length of time in process it has been decided in general to make 1954 the cut-off date for the figures presented. However, in a few cases it has seemed advisable to include more recent information.

There is a definite connection between government financing and government capital formation, at least in the case of state and local units. But broadly even for these units it seems necessary in considering financing requirements to deal with the government's budget as a whole. What is financed is the government deficit, or rather one kind of government deficit.

Governmental accounting and budgetary practices differ from those of private business enterprises in that a "budget" surplus is a guide to policy rather than the primary policy objective, and especially in the case of the federal government in that it is not the only kind of accounting surplus that serves as a guide to policy. Chapter II is concerned with different accounting surplus or deficit computations, and particularly with two: the budget computation and the excess of nonfinancial sources over nonfinancial uses of funds. This latter computation is pertinent in connection with a fiscal policy directed toward economic stabilization; also it is a nonfinancial deficit—not a budget deficit—that must be financed.

The course of federal nonfinancial surpluses and deficits since 1890 and the course of state and local surpluses and deficits since 1910 are sketched in Chapter I and further examined in Chapter III.

Most state and local debts have been incurred to finance capital outlays, but the extent to which such outlays have involved deficit financing

has varied from time to time. The reasons for this are examined in Chapter IV. Chapter IV also undertakes several time-series explorations and cross-section explorations of financing patterns. And Section 3 of the chapter first notes that there have been somewhat recent instances of what it seems fair to call disorderly finance, and then considers the implications of a long-term trend toward greater orderliness.

Chapter V is concerned with shifts in financing responsibilities from one type of government unit to another. Disorderly state finance during the first sixty or so years of the nineteenth century led to constitutional restrictions on state borrowing, and these restrictions in turn led to a rapid growth of municipal debts. Then the sequence became: disorderly municipal finance, restrictions on municipal borrowing, and a rapid growth of school and special districts and of the indebtedness of these new kinds of government units. But this has not been the end of the process of shifting financing responsibilities. Through the development of grants-in-aid programs states have assumed an increasing part of the costs of local governments, and the federal government an increasing part of state and local costs.

Chapter VI traces the gradual assumption by the federal government of a responsibility for economic stabilization and for recovery from depressions and relief from the distress that they cause. It examines the way in which this responsibility was discharged during the 1930's and during the 1945–46, 1949, and 1953–54 recessions, and the extent of the financial requirements it entailed.

It is important to distinguish between increases in gross government debt and increases in net debt in the sense of debt minus financial assets. The latter measures the net borrowing from the sectors of the economy. A major factor in the growth of financial assets has been the development of reserve funds under social insurance programs. But the federal government has also become a large-scale lender and loan underwriter, and in recent years there has been a rapid accumulation of state and local investment and endowment funds.

Chapter VII deals with the growth of financial assets; also with a contrast between two federal legislative processes in periods of emergency. During the 1930's and during both world wars Congress in various ways in effect delegated a significant part of its appropriating power; it made no comparable concessions in the process of levying taxes. Presumably in all three emergencies this contributed to the extent of deficit financing.

Chapter VIII examines certain factors making for wartime deficit financing and notes that there has been a trend toward something a little closer to a pay-as-you-go basis. It also distinguishes the conditions under which international aid is likely to entail domestic borrowing, and it

traces the gradual decrease in the disposition to retire war- and other emergency-incurred federal debts.

In Chapter IX I have attempted to draw some inferences from the findings of the earlier chapters that seem pertinent for an appraisal of the prospects for future government financial requirements.

When I was invited to undertake this study, I accepted with some hesitation because I did not feel myself entirely at home in the field of public finance. Nor do I yet. And in the course of the study I have come to recognize—no doubt I should have realized it at the outset—that there are serious difficulties in conducting a statistical inquiry of this nature from an academic post without the assistance of the controls and checks that a continuing statistical research organization can provide. Nonetheless I venture to hope that my findings in regard to trends are not in need of amendment because of any detailed errors in figures and interpretations that have crept into this study, and that the inferences I have drawn from the findings are firm.

This study has profited greatly from the constructive criticisms of an earlier draft by Moses Abramovitz, Daniel Holland, Simon Kuznets, and Lawrence Seltzer. In the case of several chapters, too, I have had helpful suggestions from Solomon Fabricant, A. Miller Hillhouse, and Harold Groves. I am indeed grateful to all these individuals.

All the authors of the monographs in this series had the benefit of the aid of the Advisory Committee on the Study of Capital Formation and Financing, which assisted in drafting plans for the over-all inquiry and reviewed the final manuscripts. The committee was composed of Leo Wolman, Chairman; Sherwin C. Badger, Donald R. Belcher, Claude L. Benner, Percival F. Brundage, Arthur F. Burns, W. Braddock Hickman, Edgar M. Hoover, DeLong H. Monohan, and Geoffrey H. Moore.

At one time I had planned to write a separate paper on federal deficit concepts. A number of people made helpful suggestions and comments on a draft of this projected paper for which I am deeply indebted: Daniel P. Brill, Roger W. Jones, J. Weldon Jones, Earl Rolph, and Carl Tiller. Although the projected paper was dropped, Chapter II has been a substantial gainer from the work that was done on it.

On the statistical documentation side I am particularly indebted to Mrs. Ester Moskowitz, who assisted in checking various portions of the manuscript during the later stages of its preparation.

Three men who were graduate students while this study was in process have helped on it: John Dawson during 1950–51, Charles D. Smith during 1953–55, and Richard Martin during 1955–56. Without their able assistance it would not have been possible. But of course—with one exception—I am solely responsible for any errors this study may contain. The one

exception is the note appended to Chapter VII, of which Martin is the author.

This study, like the broad inquiry of which it is a part, was financed primarily out of a grant of funds by the Life Insurance Association of America to the National Bureau of Economic Research. During 1955–56 the study was assisted by a grant of $500 from the Eli Lilly Fund.

Ithaca, New York MORRIS A. COPELAND