

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM

Office Correspondence

Date July 10, 1945

To Chairman Eccles

Subject: _____

From Woodlief Thomas

Attached is a copy of a report, "Survey of Business Finance 1939-1943", which has been submitted to the System Research Advisory Committee and the Subcommittee of the Presidents' Conference Committee on Research and Statistics by the Committee on Business Finance.

W.T.

June 30, 1945.

SURVEY OF BUSINESS FINANCE 1939-1943

Report on the 1944 Cooperative Study of the
Robert Morris Associates and the Federal Reserve System

Submitted to the Subcommittee of the
Presidents' Conference Committee on Research and Statistics
and to the System Research Advisory Committee

By the Subcommittee on Business Finance,
Arthur R. Upgren, Chairman

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PART I: ORIGIN AND OPERATION OF THE SURVEY

During 1944 and the early part of 1945, the Federal Reserve System cooperated with the Robert Morris Associates in a study to provide information on the financial experience of manufacturing and trade businesses during the war. The objective of the study was to analyze in perspective the elements of strength and of weakness in the current financial position of small and large concerns in various industries, so as to aid bank officers in gauging the need for business borrowing during the reconversion and subsequent postwar periods.

The results of the study are contained in various tables and analyses of the financial statements of 1953 manufacturing and trade concerns. Some 1,608 of these statements were supplied from bank credit files by about 120 members of the Robert Morris Associates, while 345 statements for large manufacturers represent the continuing analysis of published sources that has been in progress for several years at the Board of Governors. The statements were tabulated at the Board of Governors and at the Federal Reserve Bank of Minneapolis. Supplementary tables of ratios were later computed by the Central Office of the Robert Morris Associates. Copies of these are attached as an appendix to this report.

Several Federal Reserve Banks are making further analyses of individual financial statements from concerns in their respective districts and it is anticipated that the data collected in this study will continue to provide a unique reference source for various questions relating to business finance during the war.

The following pages describe the origin and operation of the cooperative study.

Genesis of the Study

The 1944 cooperative study of the Federal Reserve System with the Robert Morris Associates (hereafter referred to as RMA) was part of a system-wide program, developed in response to a suggestion of Chairman Eccles on June 7, 1943

that the Reserve Banks gather information on the prospective financial requirements of industry and trade during reconversion. The research departments at several of the Reserve Banks and at the Board were already engaged in a variety of projects analyzing the wartime financial experience of business, and it was felt that the System was in a position to contribute materially to public information on the subject.

On June 29, 1943 the Chairman's suggestion was placed before a meeting of the Board with the Presidents' Conference, where it was referred to a Committee on Research and Statistics with a recommendation that a subcommittee of research men be appointed to consider the problem. At a meeting on September 21-22 of this Subcommittee's Executive Committee, a paper was presented by Mr. Dirks analyzing the growing financial liquidity of about 900 large manufacturing companies and its implications for their reconversion needs.¹ In view of the lack of information concerning medium and small size companies, it was agreed that the System should attempt to secure financial statements and other data bearing on the position of smaller firms.

At a meeting of the full Subcommittee on October 21, consideration was given to various possible approaches for further analysis of business financial positions. One of these, suggested by Mr. Upgren, was that the Federal Reserve System cooperate with the RMA in analyzing financial statements for a group of medium and smaller concerns. A subcommittee headed by Mr. Upgren was appointed to consider the proposal; other members of this subcommittee were Messrs. Dolley, Langum, and Dirks.

Mr. Upgren held further conversations with Mr. Ueland, President of the RMA in Minneapolis while Mr. Dirks prepared an exploratory memorandum outlining the scope of a prospective study. A favorable opinion on the possibilities was reported on November 30, to the Executive Committee of the Presidents' Conference Subcommittee. As a result, Mr. Upgren's subcommittee was reappointed under the title, Subcommittee on Financial Aspects of Reconversion, with Miss Burr, Messrs. MacKenzie, Musgrave, and Phelan as additional members, and was instructed to formulate recommendations for joint research work with the RMA.

In discussing specific plans for a project, parts of the new Subcommittee met seriatim in Minneapolis on January 13, 1944, in Philadelphia on January 17, in New York City on January 24, and again in Philadelphia on February 15. The discussions were attended variously also by officers of the Federal Reserve Bank of Minneapolis, by Messrs. Hardy, Kincaid, Roelse, Sienkiewicz, Bopp, Hoadley, McCracken, and Rice, by members of the Research Committee of the RMA and by representatives of the National Bureau of Economic Research and of Dun and Bradstreet. A second interim report outlining the subcommittee's views was made to the Executive Committee of the Presidents' Conference Subcommittee on January 20.

¹ This study, which was circulated among other Government agencies, preceded by several months the analyses of the Department of Commerce and of the Securities and Exchange Commission calling public attention to the growing liquidity of business in general. The study was later published in the Journal of the American Statistical Association (June 1944).

In the course of these discussions, the Subcommittee on Financial Aspects of Reconversion explored first the objective of gauging the postwar financial requirements of business, and how light on these requirements might be derived from historical data covering only past experience. Second, the Subcommittee explored the possibility of securing relevant data from other Government and private sources such as the Bureau of Internal Revenue, the Department of Commerce, the Office of Price Administration, the Price Adjustment Board of the War Department, Committee on Economic Development, Dun and Bradstreet, Regulation V files, public accounting firms, and special ad hoc questionnaires from the Federal Reserve Banks. While several Banks already had direct contacts with businesses in their districts, it appeared that a cooperative study with the RMA might be desirable in order to secure consistent and detailed business financial statements from all parts of the United States, consecutively for the war period. Third, the Subcommittee considered the industrial coverage which might be feasibly attempted, various problems in obtaining a representative sample, and the need for supplementary interviews of business firms by the contributing banks in order to answer important qualitative questions.

The conclusions of the Subcommittee were embodied in the program it recommended on February 21 to the Presidents' Conference and to the Board of Governors:

1. A cooperative study should be undertaken with the RMA to secure from bank credit files detailed financial statements for 2,500 or more business concerns covering the years 1939-1943. Banks would provide only such information as was already in their files and would make no ad hoc interviews with businesses.
2. The statements to be solicited should cover both manufacturing and trade activities, but no attempt would be made to control in advance the sampling response for particular industries. Reporting members should, however, be asked to indicate in advance the industrial distribution of the businesses on which they proposed to report.
3. The Central Office of the RMA would have charge of soliciting the statements, and would compute its usual ratios before turning the statements over to the System for tabulation.
4. Statements would be edited at the Board of Governors, where a preliminary tabulation would be made by midsummer.
5. If the industrial coverage should prove inadequate for some lines, supplementary schedules might be solicited by the Central Office from RMA members and by the Federal Reserve Banks from member banks in their respective districts.
6. Following the preliminary tabulation, the financial statements would be sorted according to the Federal Reserve districts in which the concerns were located, and statements for each district would be tabulated in detail by industry and size of concern at the respective Reserve Bank. From these tabulations totals for all companies in the sample would be assembled at the Board of Governors.

7. The research staffs of the Reserve Banks and of the Board should undertake to analyze the data to determine their bearing on postwar financial requirements of business. In this analysis data secured through cooperative efforts with the RMA would be combined with data for large manufacturing companies that were simultaneously being tabulated from published sources and analyzed at the Board of Governors.

When the proposed program was placed before the Presidents' Conference Subcommittee on March 2, 1944, several members indicated that solicitation of additional statements by Reserve Banks to round out the sample should be left optional with each Bank. Mr. Edmiston urged the need for speed in tabulating and suggested a preliminary report by the end of June. Following approval of the project by the Subcommittee, it was agreed that Mr. Dirks should serve as Executive Secretary to work out the operating arrangements with Mr. Duning and the Research Committee of the RMA. The Board of Governors and the Presidents' Conference subsequently approved the project and, on April 7, the Budget Bureau also wrote that it had no objection to the project and assigned an approval number.

Operation of the Study

The System's participation in the 1944 cooperative project with the RMA may be divided into three parts: (1) preparation and mailing of forms and schedules, jointly with the RMA; (2) editing and tabulating of schedules; (3) analysis of results. With the publication of summary analyses in the Federal Reserve Bulletin for January and April, 1945, these assignments have been completed. While a variety of factors have limited the scope of the study and have delayed its completion beyond the date originally contemplated, it is felt that the results have been highly significant and have more than justified the energy and funds devoted to the project.

Preparation and mailing of financial schedules -- During January and February 1944 several meetings were held between members of the Subcommittee on Financial Aspects of Reconversion and representatives of the RMA to draw up the forms and instructions to be used on the project. These included three sheets: a financial schedule for transcribing 56 balance sheet and income items with supplementary questions describing the type and location of business; an industrial classification listing the 130 lines of manufacturing and trade for which a sample was desired; and a page of instructions covering the selection of the sample and method of reporting.

Printing of the financial schedule was arranged by the RMA while the Board of Governors provided printing of the industrial classification and instructions. During the first half of April the RMA Central Office distributed about 9,000 copies of the schedule and about 1,000 copies of the instructions and industrial classification to its members in over 400 banks. The number of schedules sent each bank varied from 5 to 100 according to the size of the bank.

Receipt of completed schedules -- In planning the study it had been anticipated that most of the completed schedules would be available by the end of May and that no statements would need to be considered after July 1. Actual receipt of statements lagged much behind the plans. The total number of statements received was also very much less than had been anticipated.

By May 15, 1944, the RMA had received from its members advance reports indicating the industrial distribution of 1,708 promised statements. The first shipment of 240 statements was received at the Board of Governors on June 6, 1944; by July 3 the number was up to 900, and by August 1 the RMA Central Office reported the total received was 1,650 with another 750 promised. It reported also that only 120 banks out of the 400-odd member banks had so far cooperated; this was about the same number as had taken part in previous years' studies. Early in August Mr. Steinmetz, chairman of the RMA Research Committee, sent a personal appeal for statements to RMA members in 200 of the larger banks that had not yet participated in the study.

When final tabulations were commenced at the Board of Governors on September 12 a total of 1,971 statements had been received of which 1,608 were acceptable for tabulation and 363 had to be rejected. The main reasons for rejecting statements were duplication and lack of income statistics. Even so, roughly a third or more of the statements accepted for tabulation were incomplete in important items and these were filled in with estimates.

The number of statements tabulated is only about two thirds as large as the number for which the RMA have published statistics in previous years. This poorer showing is explained partly by the fact that this year's request for figures covered 5 successive years, thus excluding many concerns for which banks had not maintained old records. Another factor was the shortage of help in the reporting banks.

Editing of financial statements -- The editing of statements in preparation for tabulating was the most difficult and time-consuming part of the project.

In the first place a great many gaps in the figures had to be filled with estimates in order to avoid rejecting a large share of the statements and losing the other valuable information contained on them. Many concerns supplied no data on current depreciation allowances, and estimates for these were obtained by applying ratios of depreciation to net property as reported for other concerns in the respective industry and size class. Many statements also lacked sales figures for one or two years. These were supplied by referring to the trend of inventories, receivables and profits. Dividends and withdrawals also frequently had to be supplied by analyzing changes in surplus.

A second task in editing was to rectify the incorrect location of entries on the schedule. Items were sometimes written in on lines other than the ones intended, and on some of the schedules the years appeared in reverse order. Some schedules also carried figures down to the last dollar instead of stating amounts in thousands of dollars.

A third task in editing was to examine the surplus adjustments for various assets and liabilities on each statement so as to segregate transactions apparently involving a flow of cash from those which were merely bookkeeping writedowns or transfers. These adjustments were then coded so that the ones which appeared to represent bookkeeping transfers could be carried back in subsequent tabulation to the primary accounts. This analysis and reversing adjustment was needed so that, in analyzing the final tabulations, spurious inferences would not be made regarding additions to assets, profit levels, etc.

Lesser editing tasks included verification of industrial coding, entering a size code based on total assets at the end of 1941, identifying unincorporated businesses from the nature of their net worth and profit entries, and arithmetic checking of all subtotals and totals.

All editing, which was done at the Board of Governors, was supervised by Mrs. Doris Warner under the general direction of Mr. Dirks.

Tabulation of statements -- Since the number of statements was less than originally anticipated it appeared that they could most efficiently be tabulated at the Board of Governors instead of distributing the work among the twelve Reserve Banks.

The tabulations were made available to the System and to the RMA in three stages from the Board of Governors and in a fourth stage from the Federal Reserve Bank of Minneapolis. From the first 750 statements received by June 23, 1944, a preliminary tabulation was made of a few salient items for 1940 and 1943 and these were published in the Federal Reserve Bulletin for July. From the first 900 statements which were at hand by July 3, complete composite financial statements were prepared for 1940 and 1943, with classifications by size of company and certain broad industrial groupings. Photostatic copies of these tables were sent on July 26 to all Reserve Banks, to the RMA and to certain outside agencies. Despite increasing shortages of help the final tables for 1,608 statements for the four years 1940 through 1943, classified by 30 major industries and 5 sizes of business, were prepared between September 15 and October 10. After printing at the Board of Governors, copies were distributed beginning October 17, 1944. Subsequently tables were also prepared at the Board from financial statements of 345 large manufacturing companies, drawn from Moody's Manuals of Investments. The tabulations at the Board were supervised by Mrs. Warner under the general direction of Mr. Dirks.

Early in September it became evident that further tabulations for subindustries and for the Pacific Coast area, which had been requested by the RMA, could not be provided at the Board within a reasonable time owing to a shortage of help. The problem was solved at a meeting of the Subcommittee on September 18 when Mr. Upgton offered to provide clerical help at Minneapolis during the latter half of October. In accordance with this offer, Mrs. Warner spent two weeks at Minneapolis directing and supervising the preparation of composite financial statements for 756 concerns in 25 selected subindustries, and for 139 concerns from the Twelfth Federal Reserve District. These tables were subsequently printed at the Board of Governors and distributed on November 23, 1944.

At the request of the RMA, certain supplemental breakdowns were also prepared at the Board during November and December. These included funded debt, stock and earned surplus for the various groups of companies previously tabulated.

Other tabulations from RMA statements -- The tabulations described above completed the System's obligation under the cooperative agreement. From the detailed statements provided by the System, the RMA Central Office has computed percentage distributions of assets and liabilities and various ratios useful in analyzing financial condition. These data, together with summary figures from the System's tables, were published by the RMA in February and March 1945.

In addition to the above tabulations, the Federal Reserve Banks at Richmond, Philadelphia and New York have made various tabulations and analyses from the individual financial statements for concerns located in their districts.

Analysis of the Data

A summary of the factual aspects of the statistics provided through the cooperative study has been prepared by Mr. McCracken and comprises Part II of this Subcommittee report. Three other analyses of the data by Mr. Dirks have been published in the Federal Reserve Bulletin:

Business Finance in the War, July 1944 (Review of the Month)
Wartime Earnings of Small Business, January 1945
Wartime Financing of Manufacturing and Trade Concerns, April 1945

The analyses already made of the data show that, although limited in scope and representativeness, they have contributed significantly to existing information about business finance during the war. This information contains implications of importance to all who are concerned with smoothing the coming transition of industrial and commercial business to peacetime conditions.

Extension of Project for 1945

In view of the worthwhile results derived from the cooperative study in 1944, the Subcommittee on Business Finance recommended continuance of the cooperative arrangement this year.¹ Representatives of the Subcommittee and of the RMA consulted during February 1945 regarding the forms and instructions to be used. The number of items to be transcribed on the financial schedules was reduced by almost a fourth, and the instructions were simplified and consolidated with the financial schedule; the industrial classification for advance reporting was eliminated. Data are being requested only for 1943 and 1944 with certain provisions for relating the new figures to the previous project.

¹ On March 2, 1945, the name of the Subcommittee on Financial Aspects of Reconversion was changed to Subcommittee on Business Finance. New members on the Subcommittee include Mr. Hoadley to replace Mr. Langum, and Mr. Hostetler to replace Mr. MacKenzie. Mr. Upgren resigned from the Subcommittee in June 1945.

Continuance of the project for 1945 was approved by the Subcommittee on Research on March 3 and by the Board of Governors on March 9, 1945. The Budget Bureau also approved the project and assigned an approval number. During May about 10,000 copies of the financial schedule were mailed out by the RMA Central Office. About 1,000 completed statements had been received by the end of June 1945 and it appeared that the ultimate total might exceed the number received in 1944.

For the Subcommittee on Business Finance
By F.C. Dirks.