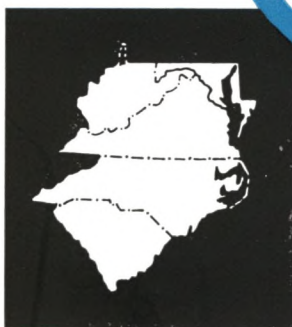


FEDERAL RESERVE BANK OF RICHMOND

# MONTHLY REVIEW

*Antitrust and the New Bank  
Holding Company Act  
Forecasts 1971  
The Supply of Money in the  
United States*



FEBRUARY 1971

# Antitrust and the New Bank Holding Company Act: Part I

Until 1956, the regulation of bank holding companies remained substantially independent of antitrust enforcement. For purposes of controlling monopolies and monopolistic tendencies commercial banking was considered a special case not subject to federal antitrust laws. As a matter of fact, the Banking Acts of 1933 and 1935 did much to discourage competition in commercial banking, denying to commercial banks many forms of competitive conduct encouraged in other lines.

With the enactment of the Bank Holding Company Act of 1956, however, the competitive criterion became explicitly relevant to acquisitions of commercial banks by bank holding companies controlling 25 percent or more of the stock, or the election of a majority of the directors, of each of two or more banks. Thereafter, antitrust principles—themselves in process of rapid change—became increasingly important in the regulation of bank holding companies. This trend was due in part to judicial decisions applying the antitrust laws to banking generally and in part to amendments to the banking and bank holding company laws themselves.

Now, with the passage in December 1970 of far-reaching amendments to the Bank Holding Company Act, a substantial integration of traditional antitrust policy and bank holding company regulation in the commercial banking industry has occurred. All types of bank holding companies, whether they control a single bank or more than one, and all forms of bank holding company expansion, as regards both banking and permissible nonbanking functions, are now subject to the administrative authority of the Board of Governors of the Federal Reserve System acting under general guidelines embodying the substance of antitrust doctrine, as modified to conform to the particular conditions of the commercial banking industry.

This article discusses the background and present status of bank holding company regulation by anti-

trust and administrative techniques. The first part traces the separate development of antitrust and bank holding company regulation along their different paths until 1956 and reviews the milestones that led to their recent integration. Subsequent parts, to appear in the next two issues, survey current bank holding company regulations as they apply to acquisitions of commercial banks and entry into nonbank businesses.

## The Antitrust Approach to Business Regulation

Comprehensive antitrust regulation in the United States dates from the Sherman Act of 1890. This short statute declares unlawful (1) every combination, contract, or conspiracy in restraint of trade or commerce, (2) every monopolization of trade or commerce or any part thereof, and (3) every attempted monopolization or combination or conspiracy to monopolize such trade or commerce. As the Supreme Court has noted, it was

...enacted in the era of "trusts" and of "combinations" of businesses and of capital organized and directed to control of the market by suppression of competition in the marketing of goods and services the monopolistic tendency of which had become a matter of public concern. The end sought was the prevention of restraints to free competition in business and commercial transactions which tended to restrict production, raise prices or otherwise control the market to the detriment of purchasers, or consumers of goods and services, all of which had come to be regarded as a special form of public injury.<sup>1</sup>

Congress, however, failed to define the characteristics of illegal restraint of trade and monopolization, thus leaving to the courts the task of interpreting the statute in the light of its legislative history and the particular practices at which it was aimed.

The vague and general nature of the Sherman Act's prohibitions was not the only difficulty confronting Federal courts called upon to construe and ap-

<sup>1</sup> *Apex Hosiery Co. v. Leader*, 310 U.S. 469, 492-493 (1940).

ply them. There was little common law precedent to guide the courts in shaping the new antitrust policy, and as the Supreme Court soon came to realize, even this body of law was not relevant to the public issues raised by Federal antitrust policy.

Faced with the reality that *all* contracts and combinations among businessmen necessarily restrain the trade of the contracting or combining parties to some extent, even if only by restricting their power to deal with others, and that most such arrangements are essential to the functioning of a free enterprise economy, the Supreme Court concluded in 1911 in its epochal *Standard Oil* and *American Tobacco* decisions<sup>2</sup> that it had no alternative but to be guided by the “rule of reason” in adjudicating alleged antitrust violations. Not all restraints of trade would be regarded as illegal. Only restraints deemed “unreasonable” by the courts would be proscribed.

From these beginnings antitrust jurisprudence evolved gradually on a case-by-case basis over a period of 60 years, although from time to time the Sherman Act has been supplemented by legislation defining particular forms of illegal practices. Among this legislation was the Clayton Act of 1914,<sup>3</sup> focusing particularly upon price discrimination, tying contracts, exclusive dealing, full line forcing, corporate stock acquisitions, and interlocking directorates; the Robinson-Patman Act of 1936,<sup>4</sup> replacing the ineffectual price discrimination provisions of the Clayton Act with complex provisions applicable to differential pricing and other discriminatory practices in distribution arrangements; and the Celler-Kefauver Antimerger Act of 1950,<sup>5</sup> designed to prevent economic concentration by means of corporate mergers, consolidations, and acquisitions of assets. Even as regards these last three Acts, however, the substance of illegal conduct today is largely the result of judicial interpretation and application of the law and not of the statutory language itself.

But the body of unique national antitrust law that emerged gradually between 1890 and 1960 was not applied to commercial banking generally until the past decade (although one ill-fated proceeding, discussed later, was undertaken in 1948). Partly responsible for the long delay was a succession of 19th

century Supreme Court decisions that fostered a widespread belief among lawyers that money transactions in and of themselves were not “commerce” subject to Federal jurisdiction under the commerce clause of the Constitution. These 19th century decisions relied upon an entirely different constitutional basis to justify Federal regulation in the areas of banking and currency.

**Commerce, Banking, and Antitrust** Legal authority for Federal antitrust legislation is found in the commerce clause of the Constitution, investing Congress with power to “regulate Commerce with foreign Nations and among the several States, and with the Indian tribes. . . .” Some of the first Supreme Court antitrust decisions after 1890 limited the scope of Federal jurisdiction to cases involving actual transportation of physical commodities across state lines. This approach was soon abandoned, however, and by the end of World War II it was clear that any significant effect upon interstate or foreign commerce attributable to challenged conduct would sustain antitrust jurisdiction.<sup>6</sup>

Nevertheless, this turnabout in judicial thinking did not affect the application of antitrust legislation to the commercial banking industry, as it (along with the insurance industry) continued to occupy a unique, immune status under such legislation. As noted, the Supreme Court had ruled on several occasions in the 19th century that transactions in money did not constitute “trade or commerce” for constitutional purposes. In *Paul v. Virginia*,<sup>7</sup> an 1867 decision, the Court concluded that writing a contract of insurance was not “commerce,” relying heavily on its earlier 1850 decision in *Nathan v. Louisiana*.<sup>8</sup> There the Court stated that the “individual who uses his money and credit in buying and selling bills of exchange . . . is not engaged in commerce but in supplying an instrument of commerce.”

These decisions, which predated the Sherman Act by many years, continued in full force and effect until the 1944 decision in *United States v. Southeastern Underwriters Association*.<sup>9</sup> Moreover, they were supported by a line of decisions dating back to *McCullough v. Maryland*,<sup>10</sup> which had affirmed

<sup>2</sup> *Standard Oil Co. v. U.S.*, 221 U.S. 1 (1911); *U.S. v. American Tobacco Company*, 221 U.S. 106 (1911).

<sup>3</sup> Act of October 15, 1914, 38 Stat. 730.

<sup>4</sup> Act of June 19, 1936, 49 Stat. 1526.

<sup>5</sup> Act of December 29, 1950, 64 Stat. 1125.

<sup>6</sup> See, for example, *Mandeville Islands Farms v. American Crystal Sugar Co.*, 334 U.S. 996 (1947).

<sup>7</sup> 8 Wall. 168 (1868).

<sup>8</sup> 8 Howard 73 (1850).

<sup>9</sup> 322 U.S. 533 (1944).

<sup>10</sup> 4 Wheat. 316 (1819).



the constitutionality of the Second Bank of the United States. In that landmark case, as well as in subsequent decisions upholding the National Banking Act of 1864, the Court had not relied upon the power of Congress over interstate commerce to support Federal regulation. Instead, it had grounded its decision on the Constitutional power of Congress to "coin money and regulate the value thereof." It was therefore generally assumed that Congress did not intend commercial banking to be subject to anti-trust control. This assumption found support in the much more detailed, specific legislation applicable to commercial banks as represented by the National Banking Act, the Federal Reserve Act, and existing state legislation.

Whatever jurisdictional questions might have existed regarding applicability of the Sherman Act to commercial banking were swept away with the 1944 *South-Eastern Underwriters* decision. This decision reversed the earlier position and indicated clearly the Court's conclusion that ". . . the transmission of great quantities of money, documents and communications across . . . state lines" is interstate commerce for antitrust purposes.

Soon thereafter, in 1948, the first antitrust proceeding directed against corporate acquisitions of stock in commercial banks was instituted under the Clayton Act by the Board of Governors of the Federal Reserve System. The defendant was Transamerica Corporation, a large diversified bank holding company based on the West Coast. The Board's complaint alleged that Transamerica controlled 41 percent of all commercial banking offices, 39 percent of total commercial bank deposits, and about 50 percent of commercial bank loans in the states of Arizona, California, Oregon, Nevada, and Washington, as a result of systematic and continuous acquisitions of bank stocks. Although Transamerica successfully defended the action, the opinion of the United States Court of Appeals for the Third Circuit held that commercial banking was, indeed, interstate commerce subject to antitrust regulation.<sup>11</sup> Nevertheless, the failure of the Board's antitrust proceeding in this factual context raised serious questions as to the probable effectiveness of the antitrust laws in controlling acquisitions by bank holding companies.

### Regulatory Approach of the Bank Holding Company Act

The *Transamerica* case led directly to

<sup>11</sup> *Transamerica Corporation v. Board of Governors of the Federal Reserve System*, 206 F.2d 163 (3rd Cir. 1953).

enactment of the Bank Holding Company Act of 1956.<sup>12</sup> Prior to this legislation, bank holding companies could acquire banks both within the state in which the holding company itself was incorporated and in other states as well. Acquisitions of nonbanking businesses were equally free from Federal regulation. As of December 31, 1950, 20 known bank holding companies owned various kinds of businesses including life insurance, home finance, automobile insurance, fire and marine insurance, and real estate. Although *South-Eastern Underwriters* and *Transamerica* had clearly established the applicability of the Sherman and Clayton Acts to bank holding company acquisitions, in reality not one antitrust proceeding had been brought against a bank holding company by the Antitrust Division of the Department of Justice in the entire history of the antitrust laws. In fact, the Board had only decided to bring its proceeding under the Clayton Act after receiving advice from the Department of Justice that there was inadequate evidence of abuse of power by Transamerica to support a Sherman Act charge.<sup>13</sup>

Beginning as early as 1927, rising concern over the growth of bank holding companies led to numerous legislative proposals for their direct regulation. At first, the principal thrust of these proposals was to restrict acquisitions of banks by holding companies. This emphasis was closely related to the bitter struggle over branch banking that raged in Congress throughout the decade of the 1920's. The Banking Act of 1933 settled this issue, at least for a time, by restricting branching by national banks to the same geographical limits permitted to state-chartered banks. As a result, no national bank could branch across state lines. Even within the state where its head office was located, a national bank could establish branches only if state banks within such state were authorized to have branches, and then only within the same geographic areas permitted to the state banks.

<sup>12</sup> 12 U.S.C. 1841 *et seq.*, as amended.

<sup>13</sup> Fischer, *American Banking Structure* (1968), p. 279. The Board's action was brought under "old" Section 7 of the Clayton Act, as originally enacted in 1914. While the Board's case was pending, Section 7 was extensively revised in 1950 to prohibit any form of corporate merger, acquisition or consolidation which might substantially lessen competition or tend to create a monopoly in any line of commerce in any section of the country. The amended statute is entirely different from the earlier revision, which had been largely emasculated by hostile Supreme Court interpretations in the 1920's and 1930's, long before the *Transamerica* proceeding. Especially notorious were the decisions in *Swift & Co. v. F.T.C.*, 272 U.S. 554 (1926), and *Arrow-Hart and Hegeman Electric Co. v. F.T.C.*, 291 U.S. 587 (1934). A changed antitrust environment and a receptive Supreme Court have made amended Section 7 into an extremely effective deterrent to corporate concentration by mergers or by corporate acquisitions involving competitors and companies standing in the relationship of actual or potential customer and supplier, as discussed in Part II of this article.

But bank holding companies were under no similar restrictions and could lawfully acquire banks—at least insofar as Federal law was concerned—both within the states where they were located and in other states as well; and they continued to do so throughout the 1930's and 1940's. In addition, Transamerica and certain other bank holding companies began broadening their penetration into non-banking areas by means of acquisitions, thus bringing extensive banking and nonbanking businesses under common control. In 1938, President Roosevelt sent a special message to Congress calling for creation of a Temporary National Economic Committee to undertake “. . . a thorough study of the concentration of economic power in American industry and the effect of that concentration upon the decline of competition.” The measure included the following recommendation:

. . . that the Congress enact at this session legislation that will effectively control the operation of bank holding companies; prevent holding companies from acquiring control of any more banks, directly or indirectly; prevent banks controlled by holding companies from establishing any more branches; and make it illegal for a holding company, or any corporation or enterprise in which it is financially interested, to borrow from or sell securities to a bank in which it holds stock.

Roosevelt also recommended that the proposed legislation include a provision “for the gradual separation of banks from holding company control or ownership. . . .”<sup>14</sup>

Congress never seriously considered this so-called “death sentence.” Only two bills to regulate bank holding companies were introduced between the 1938 special message and the end of World War II, and no hearings were held on either of them.<sup>15</sup>

**The Federal Reserve System and Bank Holding Companies** Then in 1943, a new factor was introduced into the situation. The *Annual Report* of the Board of Governors to Congress called attention to the use of the bank holding company device as a means of evading restrictions on branch banking, and for the first time the Board expressed concern over the possible growth of conglomerate bank holding companies with extensive ownership of nonbank businesses. The report stated, in relevant part:

Accepted rules of law confine the business of banks to banking and prohibit them from engaging in extraneous businesses such as owning and operating

industrial and manufacturing concerns. It is axiomatic that the lender and borrower or potential borrower should not be dominated or controlled by the same management. In the exceptional case the corporate device has been used to gather under one management many different and varied enterprises wholly unallied and wholly unrelated to the conduct of a banking business. . . . The Board believes, therefore, that it is necessary in the public interest and in keeping with sound banking principles that the activities of bank holding companies be restricted *solely to the banking business* and that their activities be regulated, as are the activities of the banks themselves.<sup>16</sup>

Between 1945 and 1956 a number of bills to bring bank holding companies under direct Federal control were introduced in Congress. Some of these reflected the Board's recommendations; others took different approaches. During these years of discussion and debate the position of the Board on the question of permissible activities of bank holding companies moderated somewhat. Whereas in 1943 it had advocated that “the activities of bank holding companies be restricted solely to the banking business,” in 1952 the Board advised the House Committee on Banking and Currency as follows:

. . . the Board believes that the principal problems in the bank holding company field arise from two circumstances: (1) The unrestricted ability of a bank holding company group to add to the number of its banking units, thus making possible the concentration of a large portion of the commercial banking facilities in a particular area under single control and management; and (2) the combination under single control of both banks and nonbanking enterprises, thus permitting departure from the principle that banking institutions should not engage in *businesses wholly unrelated to banking* because of the incompatibility between the business of banking which involves the lending of other people's money and other types of business enterprises.<sup>17</sup>

By 1952, therefore, the Board had moved away from the view that bank holding companies should be restricted “solely” to the business of banking and had adopted the position that banking institutions should not engage in businesses “wholly unrelated to banking.” As will be seen, this was a subtle change, but an important one, for the future evolution of bank holding company legislation.

**The Bank Holding Company Act of 1956** As finally enacted, the Bank Holding Company Act of 1956 accomplished the two objectives sought by the

<sup>16</sup> *Annual Report of the Board of Governors of the Federal Reserve System* (1943), pp. 34-36 (emphasis added).

<sup>17</sup> “Control and Regulation of Bank Holding Companies,” *Hearings Before the Committee on Banking and Currency, House of Representatives, 82nd Cong., 2d Sess., on H.R. 6504* (1952), pp. 9-10 (emphasis added).

<sup>14</sup> Senate Document No. 173, 75th Cong., 3rd Sess. (1938), pp. 8-9.  
<sup>15</sup> Fischer, *Bank Holding Companies* (1961), p. 65.

Board. A "bank holding company" was defined as any corporation, business trust, association or similar organization controlling 25 percent or more of the voting shares or the election of a majority of directors of each of two or more banks. Any company meeting this definition was required to divest its interest in every business other than that of managing or controlling banks, with certain limited exceptions. In addition, every such company was required to register with the Board and to obtain its prior approval before acquiring control of more than five percent of the voting shares of any bank.<sup>18</sup>

The Federal and state branch banking statutes were supplemented by a provision written into the Act prohibiting the Board from approving any acquisition of any interest in any bank outside of the state in which the acquiring bank holding company maintains its principal place of business or conducts its principal operations unless specifically authorized by statute in the acquired bank's home state.<sup>19</sup> Ten years later this provision was further restricted by an amendment limiting an acquiring bank holding company to acquisitions within the state in which the operations of its banking subsidiaries were principally conducted on the date on which it became a bank holding company or on the date of the amendment, whichever is later.<sup>20</sup>

**Criteria for Approving Bank Acquisitions** Prefacing a proposed 1947 bank holding company bill was a "Declaration of Policy" asserting, among other things, that

. . . all of the provisions of this Act shall be interpreted to control the creation and expansion of bank holding companies; to separate their business of managing and controlling banks from unrelated businesses; and generally to maintain competition among banks and to minimize the danger inherent in concentration of economic power through centralized control of banks . . . .

To further the objectives of this policy declaration, the following standards were written into the Act to guide the Board of Governors in considering proposed acquisitions of banks by bank holding companies:

<sup>18</sup> Exceptions to this prohibition were written into the Act for voting shares of banks held by a bank (1) in a fiduciary capacity, unless held for the benefit of the shareholders of the fiduciary bank, (2) to collect a debt previously contracted in good faith, provided the shares were disposed of within two years from the date on which they were acquired, and (3) for additional shares acquired by a bank holding company in a bank in which such bank holding company owned or controlled a majority of voting shares prior to such acquisition.

<sup>19</sup> 70 Stat. 115 (1956).

<sup>20</sup> 80 Stat. 237 (1966).

In determining whether to approve any acquisition . . . consideration shall be given to the financial history and condition of the applicant and the banks concerned; their prospects; the character of their management; the convenience, needs, and welfare of the communities and the area concerned, and the national policy against restraint of trade and undue concentration of economic power and in favor of the maintenance of competition in the field of banking.<sup>21</sup>

Although the Senate Banking and Currency Committee reported the 1947 bill out favorably, no further action was taken. A similar bill without the "Declaration of Policy" was introduced in 1950, and the italicized portion quoted above referring to national antitrust policy was omitted. In its place were substituted the words ". . . whether or not the effect of such acquisition may be to expand the size and extent of a bank holding company system beyond limits consistent with adequate and sound banking and the public interest. . . ."

The criteria finally selected in the 1956 Act to guide the Board in ruling upon proposed acquisitions of banks by holding companies were substantially the same ones incorporated into the 1947 bill, as modified in 1950. It turned out, however, that this substitute was unsatisfactory and unworkable in practice, as the Board recognized in a report to Congress in 1958 only two years after the Act went into effect. Commenting on its experience in attempting to distinguish permissible from prohibited acquisitions during the first two years, the Board told Congress, in part:

As guides for the exercise of the Board's judgment in passing on applications, the first three of these statutory factors present little difficulty . . . . To a large extent this is also true of the fourth factor, relating to the convenience, needs and welfare of the communities and area concerned. The factor which has given rise to the greatest difficulty is the fifth—that relating to whether the proposed transaction would expend the "size or extent" of the holding company system "beyond limits consistent with adequate and sound banking, the public interest, and the preservation of competition in the field of banking." The major problem has been the difficulty of balancing considerations affecting competition and the public interest under the fifth factor and those affecting convenience and needs under the fourth factor.

Even so, and although they were substantially replaced in 1966, the 1956 standards at least provided an interim statutory framework for regulating bank

<sup>21</sup> "Providing for Control and Regulation of Bank Holding Companies," Hearings Before the Committee on Banking and Currency, United States Senate, 80th Cong., 1st Sess. on S. 829 (1947), p. 9 (emphasis added).

holding company growth during a decade of rapid and profound antitrust change. No one, except perhaps the Supreme Court, could have said with any confidence just how much lessening of competition would be required for a bank acquisition to violate either the Sherman or the Clayton Act prior to the early 1960's. As for conglomerate acquisitions of nonbank businesses by bank holding companies, antitrust tests simply did not exist at that time.

But by 1966, as a result of a series of Supreme Court decisions beginning with the *Philadelphia Bank*<sup>22</sup> opinion in 1963, a different antitrust environment had come into being. And by 1968, a changed economic environment caused hundreds of leading commercial banks with billions of dollars in deposits to organize one-bank holding companies. These organizations, exempt from the restrictions of the Bank Holding Company Act, immediately began entering or announcing plans to enter a variety of new business areas, some having little direct

relationship to the traditional business of commercial banking.

Congress reacted in 1970 with important new legislation bringing one-bank holding companies under regulation. In addition, antitrust prohibitions applicable to reciprocity and tying arrangements were specifically applied to all insured banks and to bank holding companies. At the same time, the provisions of the Bank Holding Company Act governing entry by all types of such companies into new areas were substantially changed. Meanwhile, in 1966, antitrust principles governing corporate mergers and acquisitions had been substituted for the original five "banking factor" criteria for approving bank acquisitions written into the Act in 1956.

The 1966 and 1970 amendments, which have had the effect of substantially merging antitrust and bank holding company methods of regulation in the commercial banking industry, will be discussed in the next two parts of the article, to appear in the March and April issues of the *Monthly Review*.

*William F. Upshaw*

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<sup>22</sup> *U.S. v. Philadelphia National Bank*, 374 U.S. 321 (1963).



# FORECASTS 1971

## *Recovery in Sight?*

Forecasting the economy's performance for the coming year is a difficult task, and all too often the forecasts prove to be less accurate than the predictor may have desired. For example, in the waning months of 1969, few if any of the seers incorporated a protracted automobile strike in their projections. But, as is well known, the strike had widespread and significant effects upon the economy. The estimates of the quarter-by-quarter change in GNP had been reasonably accurate until effects of the General Motors strike began to appear, but then the forecasting error began to mount.

In general, last year's forecasts might be summed up as having been accurate with respect to the direction of the economy, if not to the magnitude of its changes. The only exception to this evaluation is the rate of price increase, which was expected to slow. The forecasters thought that slackening conditions in labor and product markets would be reflected in a smaller rate of increase in prices. Some slowing of price inflation did occur in the second half of 1970, but the implicit price deflator—the price index for GNP—in 1970 ended up showing a higher growth rate than in 1969.

This year forecasters are aware of the possibility of some major strikes during 1971, and most note that the threat of a steel strike will affect the economy even if the strike does not materialize. Many expect an abatement of inflationary forces during 1971 notwithstanding the continuation of strong cost-push pressures. Also, 1971 is expected to be a year of significant recovery for the construction industry. The impetus to general economic recovery is expected to come from that industry, from state and local government spending, and from consumer spending. Capital outlays and Federal Government expenditures are expected to contribute little to economic growth in 1971.

The consensus of forecasts examined in this article indicates a 1971 GNP of around \$1,050 billion. Based upon current Department of Commerce estimates for 1970 GNP, this figure would represent a gain of approximately 7.5%, which is greater than the 4.9% rate in 1970. Economists are predicting a

rather large jump in current dollar GNP during the first quarter of 1971. This gain is expected to result partly from consumer purchases of durable goods deferred from the last quarter of 1970 because of the automobile strike. Also, adding to the gain will be business inventory accumulation because of a replenishment of automobile dealer stocks and a build-up of steel stocks in anticipation of a possible strike in that industry. None of the forecasters expects an end to inflation in 1971, but many think that its rate of growth will be slightly less in the fourth quarter than in the first.

The 1971 forecasts summarized here represent the best efforts of business and academic economists during the autumn and winter of 1970 to predict the performance of the U. S. economy in 1971. This article attempts to convey the general tone and pattern of some 50 forecasts reviewed by the Research Department of this Bank. Not all of them are comprehensive forecasts, and some incorporate estimates of the future behavior of only a few key economic indicators. Several represent group rather than individual efforts.

*The views and opinions set forth in this article are those of the various forecasters. No agreement or endorsement by this Bank is implied.*

**1970 Forecasts in Perspective** A year ago most projections of current dollar GNP for 1970 centered around \$986.5 billion, an increase of 5.8% over 1969. The forecasts ranged from a low of \$966 billion to a high of \$990 billion. After allowing for expected price increases, the growth of real GNP was predicted to account for about one-third of the 5.8% rise. Latest estimates by the Department of Commerce indicate a 1970 GNP total of \$976.8 billion, which is well within the range of our forecasters. Compared to 1969, when the seers had predicted a GNP of around \$912 to \$915 billion and the economic aggregate actually totaled \$931.4 billion, 1970 was a banner year for forecasters. The most frequent estimates for 1970 GNP, however, were a good deal larger than the actual GNP recorded; so 1970 could only be called a "banner year" when compared



RESULTS FOR 1970 AND TYPICAL FORECAST FOR 1971

	Unit or Base	Estimated 1970	Forecast 1971*	Percentage Change	
				1969/1970	1970/1971
Gross national product .....	\$ billions	976.8	1,049.6	6.9	7.4
Personal consumption expenditures .....	\$ billions	617.2	663.4	6.9	7.5
Government purchases of goods and services ....	\$ billions	220.5	233.9	3.9	6.1
Gross private domestic investment .....	\$ billions	135.4	145.0	— 3.1	7.1
Net exports of goods and services .....	\$ billions	3.7	4.5	—	—
New plant and equipment expenditures .....	\$ billions	80.4	80.8	6.6	0.5
Change in business inventories .....	\$ billions	3.2	5.2	—	—
Corporate profits before taxes .....	\$ billions	82.6	89.2	— 9.4	8.0
New construction put in place .....	\$ billions	91.4	98.7	0.5	8.0
Private housing starts .....	millions	1.43	1.70	— 2.7	19.0
Domestic automobile sales .....	millions	7.2	8.5	—14.9	18.0
Rate of unemployment .....	per cent	5.0	5.5	—	—
Industrial production index .....	1957-1959	167.6	173.5	— 3.0	3.6
Wholesale price index .....	1957-1959	117.1	119.4	3.6	2.0
Consumer price index .....	1957-1959	135.3	140.5	6.0	4.0
Implicit price deflator .....	1958	134.8	139.6	5.3	3.6

\* Figures are constructed from the typical percentage change forecasted for 1971.

with the poor 1969 performance. If there had been no automobile strike during the fall, 1970 might indeed have been a memorable forecasting year.

The consensus of the quarter-by-quarter forecasts for 1970 was that GNP was expected to rise by approximately \$10 billion during the first quarter, \$10.5 billion in the second, \$14 billion in the third, and \$16 billion in the fourth. GNP actually increased \$7.8 billion in the first quarter, \$11.6 billion in the second, \$14.4 billion in the third, and between \$5 billion and \$6 billion in the fourth. The average predicted increase for the first three quarters of 1970 was \$11.5 billion, compared to an actual average increase of \$11.3 billion. Compared to past performances, therefore, their estimates for current dollar GNP were close indeed.

Unfortunately, the forecasts for GNP measured in 1958 dollars were less accurate. The predictors thought that prices would rise from 4% to 4.5% over the year. In fact, the implicit price deflator for GNP rose 5.3% over the course of the year. In contrast to the predicted moderate slowing from the 4.7% increase during 1969, the inflation rate for the year was moderately higher than in 1969.

In any event, GNP measured in 1958 dollars is now expected to total \$724.7 billion for 1970. This figure represents a decrease of 0.4% from the 1969 total. It might be noted that the forecasters have rather substantially underestimated the rate of price increase in each of the last three years.

The estimates of the various components of GNP, as well as other important economic indicators which were projected for 1970, generally reflected a tendency to underestimate the slowing of the economy from its 1969 pace. The rate of unemployment, predicted to average 4.3% to 4.5% for the year, was actually 5.5%. Gross private domestic investment was expected to increase by 4% to about \$145 or \$146 billion; it actually fell by approximately 3% to \$135.4 billion. The estimators' over-optimism with respect to the 1970 performance of construction and inventory investment accounted for most of their error in the investment sector.

On the consumer side, 1970 personal consumption expenditures were expected to be around \$614 billion, but they appear now to have totaled \$617.2 billion. Personal consumption was one of the few aggregate series that was underestimated. The

underestimate cannot be easily rationalized since domestic automobile sales, which account for a significant proportion of consumer expenditures, were substantially overestimated. They were expected to total around 8 million units in 1970, but current indications are that they will total 7.2 million.

The consumer price index rose over 6% from its 1969 average, which was higher than the average forecast of a 5% rise. The forecasters also tended to underestimate the slowing of the business sector of the economy. The index of industrial production, which was predicted to average between 172 and 173 for the year, actually dropped to an average of 167.6. Corporate profits before taxes dropped 9.4% to \$82.6 billion in 1970—again well below the estimated range of \$90 to \$91 billion.

Apparently, almost all of last year's forecasters underestimated the extent of the downturn in the economy and expected inflation to subside more than it did. With respect to the two economic goals of price stability and full employment, it is unfortunate that the predictions were not realized.

#### THE 1971 FORECASTS IN BRIEF

**Gross National Product** Forecasts for 1971 GNP are concentrated around \$1,050 billion. This estimate represents an approximate 7.4% yearly gain, somewhat more than the 4.9% advance registered for 1970. The forecasts range from a low of \$1,031 billion to a high of \$1,059 billion. Price rises are expected to account for about half of the anticipated increase in current dollar GNP. Most of those who made quarterly forecasts expect GNP, measured at seasonally adjusted rates, to increase by almost \$30 billion during the first quarter, \$20 billion in the second, \$17 billion in the third, and \$18 billion in the fourth quarter.

As a rule, personal consumption expenditures are estimated around \$663.5 billion. This represents an increase of 7.5%, which is somewhat more than the 6.9% increase registered during 1970. Government purchases of goods and services are expected to total \$234 billion. This increase of approximately 6% is again projected to be larger than the 1970 gain of 3.9%. The forecasters expect a further decline in defense spending, but they think that other Federal Government expenditures will rise enough to offset the decline. State and local government expenditures, on the other hand, are predicted to be one of the strongest sectors of the economy in the coming year, mainly because of anticipated improvements in the capital markets.

Gross private domestic investment is expected to rise by about 7.1% to \$145 billion, which is a sub-

#### TYPICAL\* QUARTERLY FORECAST FOR 1971

Quarter-by-Quarter Changes in Billions of Dollars  
Unless Otherwise Noted

	I	II	III	IV
Gross National Product	29.5	20.0	17.0	18.2
Personal Consumption Expenditures	18.5	10.9	12.0	11.0
Gross Private Domestic Investment	7.1	3.4	0.0	4.0
Net Exports	0.0	0.0	0.0	0.2
Government Purchases	3.2	3.0	3.5	3.3
Implicit Price Deflator†	3.9	3.5	3.4	3.1

\* Median.

† Percentage changes at annual rates.

stantial improvement over the 3.1% decline during 1970. Plant and equipment spending is projected to remain almost unchanged, but the overwhelming majority of forecasters expect construction spending to show a rapid recovery from the depressed conditions of the past two years. Construction, therefore, will combine with increased business inventory investment to offset the rather lackluster spending pace predicted for producers' durable goods.

It should be mentioned that no clear consensus emerged for investment spending. In the case of gross private domestic investment, the estimates most often clustered between 6.6% and 7.4%, but the median estimate was that it would rise by 7.4%. Moreover, the estimates ranged widely from a 4.3% to an 11.4% rate of increase. Likewise, even though more plant and equipment spending forecasts fell in the zero to 1% range than in any other range of equal magnitude, the median estimate called for an increase of 2%. The predictions ranged widely, from a decline of 4% to an increase of 7.7%. Estimates for inventory investment show even less of a consensus. It was most often estimated to be between \$5 and \$5.5 billion. The median estimate was \$6 billion, however, and the figures cited by our group of forecasters ranged between \$3 billion and \$11.1 billion.

**Industrial Production** Most predictions call for the Federal Reserve index of industrial production (1957-59=100) to average around 173 or 174 during 1971. This estimate represents a 3.5% increase in the index, compared to the actual decline of 3% on record for 1970. The forecasters expect

a recovery in automobile production from the strike-affected conditions of 1970 as well as an expansion in the production of other consumer durables.

Several of the forecasters think that the threat of a steel strike will cause forward building of steel inventories during the first half of 1971. Many of them, however, seemed to believe that a major work stoppage in that industry would be avoided.

**Construction** The value of new construction put in place is expected to total \$98 to \$99 billion in 1971, an increase of around 8% over 1970. Both residential and nonresidential construction outlays are expected to show the effects of the recovery in the construction industry. Private housing starts are commonly expected to rise almost 20% to a total of 1.7 million units. Forecasters usually base their predictions for a recovery in the construction industry upon greater availability of funds in the mortgage market combined with pent-up demands engendered during the last couple of years.

**New Plant and Equipment** Most of the forecasts indicate that firms will spend \$80.8 billion for plant and equipment during 1971. This forecast is for almost no increase in expenditures over the \$80.4 billion totaled in 1970 and represents a substantially smaller growth rate than the 6.6% recorded during 1970. The low estimate for 1971 seems to stem from the generally bearish investment plans of private businesses.

**Corporate Profits** Forecasters are far from unanimous about the future for corporate profits, and the predictions for the growth of profits before taxes range from 5% to 15%. Most of the estimates, however, are in the neighborhood of 8% growth, which would raise the total to \$89.2 billion for the year. Such a growth of corporate profits would suggest a sizeable increase over the 9.4% decline which corporate profits recorded in 1970. Profits after taxes are also expected to show an 8% growth rate to \$48 billion. Since most forecasters estimate either before-tax profits or after-tax profits, very little can be inferred about their assessment of corporate tax liabilities in 1971.

**Unemployment** The unemployment rate is projected to average 5.5% by most of the observers of the 1971 scene, and the forecasts range between 4.8% and 6.1%. Since the unemployment rate reached a high of 6% in December to average 5% for the year, our forecasters are predicting some downward movement in the unemployment rate during 1971.

**Prices** This year nearly all of our forecasters are predicting some moderation in the rate of inflation. The most common prediction is that the implicit price deflator for GNP will increase by only 3.6%—well below the 5.2% increase of last year. The most pessimistic of our forecasters predicts an increase of only 4%. The consumer price index is generally expected to rise by almost 4% during the year. Estimates for the increase in this index ranged from 3% to 4.6%. Wholesale prices are expected to increase by a smaller amount, approximately 2%, during the year.

**Quarterly Forecasts** Eleven of our forecasters made quarter-by-quarter predictions for the 1971 economy; the details of their forecasts are summarized in the quarterly table. They call for a relatively rapid rate of growth for GNP during the first quarter attributable mainly to recovery from the automobile strike, some slight tapering off during the second and third, and a slight acceleration again during the fourth quarter. Prices are expected to rise somewhat less in the fourth quarter than in the other three, but always at a more moderate annual rate than in 1970.

**Summary** The economy slowed considerably more than anticipated during 1970. This slowing, however, was accompanied by a faster rate of inflation than had been anticipated. Prices actually accounted for the entire increase in current dollar GNP during 1970.

The 1971 consensus is for a resumption of growth in real GNP, some abatement of inflation, and a decline in the unemployment rate from its fourth quarter 1970 level. This year the forecasts might be called “cautiously optimistic,” and most of the experts think that 1971 will be a better year for business than 1970, but not startlingly so.

*William E. Cullison*

**A compilation of forecasts in booklet form, with names and details of estimates, may be obtained from the Federal Reserve Bank of Richmond.**



# The Supply of Money in the United States

## Part II — The Monetary Framework

Part I of this essay summarized some of the principal institutions and events that have been instrumental in shaping control over the money supply in the United States. This section examines the more important technical factors and processes that generate change in the U. S. money stock at the present time.<sup>1</sup>

**High-Powered Money** The units of money in common use are the final products of a refined technical operation. Two different industries combine and coordinate resources and raw materials to generate the dollars that compose this product. The primary industry is the central bank. It produces what is sometimes known as high-powered money (HPM), which consists of (1) currency and (2) commercial bank reserve accounts in the central bank. These components make up the base on which the actual money supply of hand-to-hand currency and demand deposits is formed. Most currency is a part of the actual money supply, but it also may be held by banks as reserves on which demand deposits are expanded.<sup>2</sup>

Two institutions, other than the gold and silver industries, have furnished the monetary system with HPM in the past. First, the Treasury Department at various times printed paper currency (e.g., U. S. notes, Treasury notes, and silver certificates) when authorized to do so by Congress. During the late nineteenth and early twentieth centuries it also manipulated its deposit balances in national banks as a part of deliberate policy to increase and decrease bank reserves at different seasons of the year.

Since 1914, the Federal Reserve System has been the more prominent institution for furnishing HPM. It issues Federal Reserve notes and maintains the reserve (or deposit) accounts of member banks. The Treasury still has some outstanding currency in the

form of silver certificates and fractional coin, and it still has substantial balances (tax and loan accounts) with commercial banks. However, the Federal Reserve System has taken over most of the currency-issuing job, and member bank deposits in Federal Reserve Banks have been substituted for the specie reserves that used to be held by the banks themselves.

Both the central bank and the Treasury may carry out seasonal policies with HPM but only the central bank can provide year-to-year (secular) increases in this basic stock. Where the Treasury must rely on bank reserves already in existence to change its balances at commercial banks, the Federal Reserve System creates HPM from scratch by buying government securities or acquiring other assets. The final payment for the securities takes the form either of an issue of Federal Reserve notes or of a new credit to the reserve accounts of member banks. Both of these items are counted as liabilities of Federal Reserve Banks, and both of them are HPM.

Once HPM has been created by the central bank, its final monetary effect depends on its route through the second of the two money-generating industries—the commercial banking system. Most Federal Reserve notes are channeled through commercial banks to become a part of hand-to-hand currency. However, commercial banks keep about 10 percent of these notes as reserves in addition to their deposit reserve accounts in the central bank.

**The Currency-Deposit Ratio** In addition to the quantity of HPM, two ratios have an important influence in determining the ultimate quantity of money. One is the ratio of currency to demand deposits expressed as

$$r_c = \frac{C}{D_d} ,$$

that households and business firms wish to maintain. This ratio is a function of technical factors, such as checking facilities available to the nonbank public. It also depends on such behavioral factors as trust or mistrust of banks, desire to avoid inflation or evade taxes, black market activities, and the extent of personal travel. Given the total amount of the

<sup>1</sup> Much of the following discussion on high-powered money and the two determining ratios are presented in greater depth in Philip Cagan, *Determinants and Effects of Changes in the Stock of Money, 1875-1960*, NBER, Columbia University Press, 1965.

<sup>2</sup> The total stock of HPM as of June 30, 1970 was \$80.0 billion. This total consisted of (1) member bank reserve accounts with Federal Reserve Banks—\$22.2 billion; (2) Federal Reserve notes outstanding—\$50.6 billion; and (3) Treasury currency outstanding—\$7.2 billion. The defined narrow stock of money was \$222 billion, consisting of \$172 billion private demand deposits adjusted for inter-bank holdings and \$50 billion of currency held outside commercial banks and the Federal government.

HPM base, the narrow money supply (defined in footnote 2) is larger when the currency-deposit ratio is smaller, and vice versa. For example, let this ratio be one-to-five at some point in time. Then assume that households and business firms experience some change in preferences that prompts them to maintain a ratio of only one dollar in currency to six dollars in checkbook balances, and let them deposit some of their currency in commercial banks in order to achieve this new ratio. The net effect of currency deposited in the banks is to give the banks excess reserves. If the central bank holds constant the stock of HPM, that is, if it does nothing to offset the additional currency in the commercial banks, these banks now have the means to expand credit on the asset side and deposits on the liability side. The volume of deposits then increases by the amount of excess reserves times the inverse of the average ratio of reserves to demand deposits maintained by the commercial banking system. Thus, a unit of HPM held as hand-to-hand currency by the nonbank public has much less monetary influence than the same dollar held as a reserve unit in a commercial bank.

**The Reserve-Deposit Ratio** The second of the two determining ratios is largely a function of central bank policy. It is the ratio of all banks' reserves to their total demand deposits. It may be expressed as

$$r_R = \frac{R}{D_d} ,$$

where  $R$  is the dollar volume of commercial bank reserves held against demand deposits and  $D_d$  is the dollar value of demand deposits. Generally, the banks make loans and investments until the actual ratio is reduced to the legal minimum ratio required by law. By increasing earning assets and thereby reducing this ratio, banks maximize the earnings potential of their portfolios.

The minimum required ratio varies from one bank classification to another and between state banks and member banks of the Federal Reserve System. Reserve requirements for state chartered banks are subject to state laws. While these laws may be very different one from another, they generally specify reserve requirements in terms of vault cash (currency), deposits in "other" banks—usually member banks of the Federal Reserve System—and "approved" government securities. The "approved" securities are limited issues of state or Federal government securities bearing relatively low rates of interest. Most of the reserves maintained by these banks, however, are interbank deposits with member banks; so the reserve requirement limitations

imposed by the Federal Reserve System on member banks indirectly restrict creation of state bank deposits as well.

For the commercial banking system as a whole, some ratio of total reserves to total deposits exists at any given moment. If the quantity of HPM and the value of the currency-deposit ratio mentioned above are already determined, the volume of demand deposits (and also the total stock of money) is greater when the reserve-deposit ratio is lower and smaller when this ratio is higher.

These three basic parameters define an unadjusted money stock. However, several factors involving monetary accounting and classification must be disposed of before the narrow stock of money is obtained.

**Accounting Issues in Classifying the Stock of Money** One item to be considered is interbank demand deposits—deposits to the credit of one bank and accounted as a liability by another bank. According to current Federal Reserve regulation, a commercial member bank that makes such a deposit in another member bank may deduct this amount from the total of its own demand deposits subject to reserve requirements. Even though the *recipient* bank must keep reserves against these deposits, the net effect is to exempt the member banking system as a whole from maintaining reserves against interbank deposits. If this allowance were not made—if reserve requirements were in full force against interbank deposits—an increase in this item would diminish the *measured* narrow money supply even though gross demand deposits remained constant. As it is, the reserve allowance permits an increase in interbank deposits with no corresponding decrease required in deposits held by the nonbank public, foreigners, or the government. Member interbank deposits, therefore, neither absorb reserves nor are a part of a classified money stock.

Another difficulty, one which cannot be handled so readily, is the fact that both time and demand deposits require reserves. Therefore, reserves held against time deposits in commercial banks must be deducted from total reserves in order to count the amount of reserves that can be used to expand demand deposits.

Time deposits raise yet another problem. Since interest is paid on them, they are in competition with a whole complex of interest-earning assets in financial markets. Therefore, their creation by commercial banks is subject to interest rate effects and interactions of demands and supplies of other financial assets. These feedbacks may alter the re-

serves available for demand deposit creation, so that interest rates on financial assets may have some indirect bearing on the volume of demand deposits. This influence is so roundabout that it is difficult to measure. The opinion here is that it is visible but of low significance.

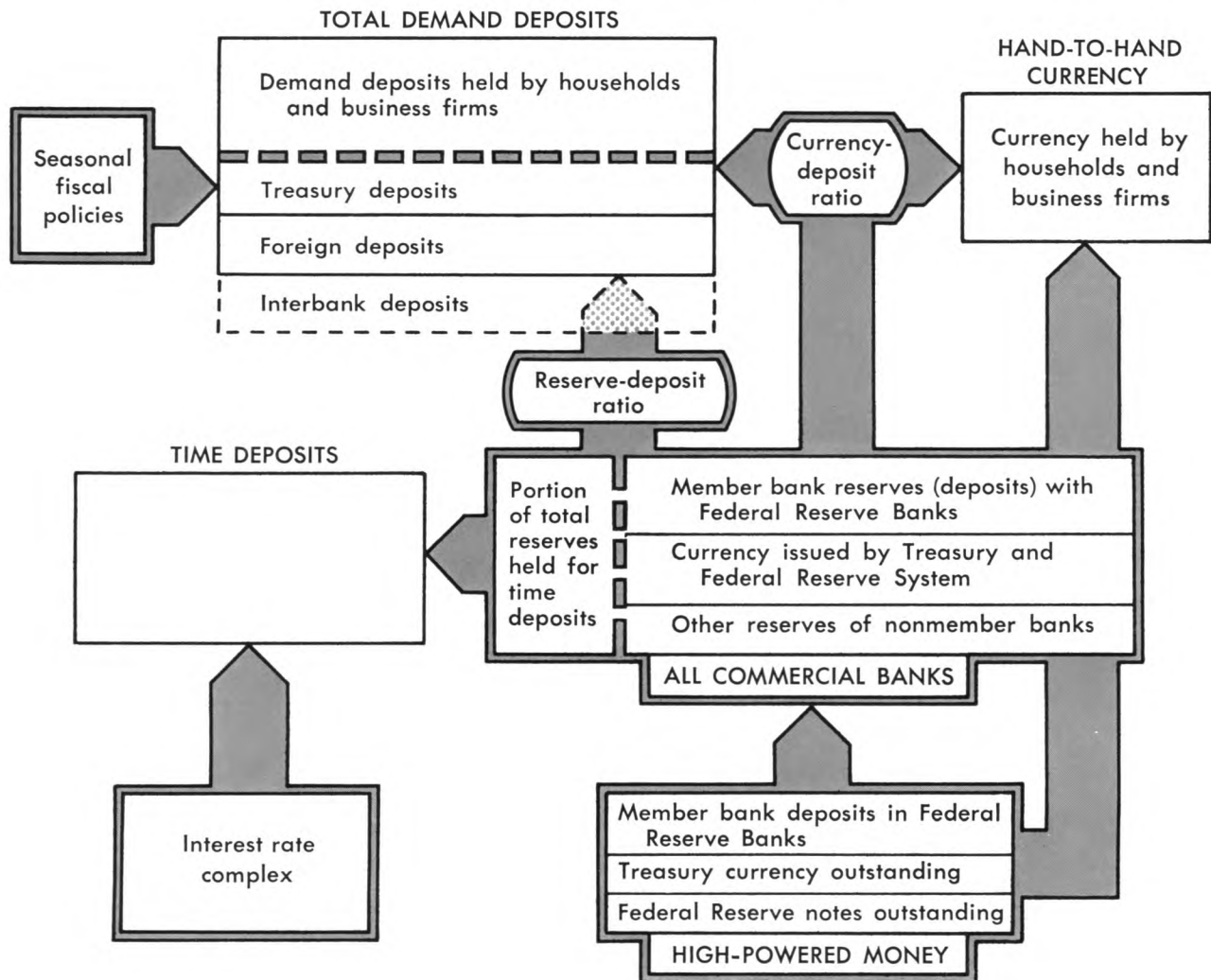
Dollar demand deposits held by foreigners in U. S. commercial banks also require an accounting pigeon-hole. These deposits absorb reserves just as any other deposits do. Since they may be used to buy goods and services produced in the United States and are largely behavioral, they are included in the narrowly defined money supply.

The Federal government also has demand deposit balances in commercial banks, as well as vault cash (currency) in government offices, and deposit accounts with Federal Reserve Banks. The latter

two of these three items remain relatively constant, but the tax and loan accounts at commercial banks are another matter. While subject to reserve requirements, they are not usually counted as a part of the narrowly defined stock of money. The government is assumed to carry out policies and make decisions that require spending without regard to its cash balance holdings. Only money held by private households and business firms can influence (or be influenced by) individual behavior. However, classifying *the* money supply to include or exclude government balances is purely arbitrary. It can be done either way. The way it is done should depend on the function of the money supply so classified.

**Short-Run Effects of Treasury Balances** The ability of the Treasury to create HPM has become

### GENESIS OF THE MONEY SUPPLY





negligible. Its fiscal powers of taxing and spending, however, cause the balances it keeps in commercial banks to fluctuate widely. These balances average about \$6 billion, but their month-to-month variation is often \$2 billion and is sometimes more than \$4 billion due to a lack of synchronization between federal tax receipts and disbursements. Since none of the government's cash holdings is created by the Treasury, increases and decreases in government balances must be reciprocated by corresponding decreases and increases in the money holdings of households and business firms in the private economy. Sometimes, the change of the month-to-month money supply in the private economy from this source is larger than the annual secular change due to Federal Reserve policy effects either on HPM or on the reserve-deposit ratio. This datum emphasizes that

the Treasury's short-run influence on the private money stock is frequently massive.

Figure 1, in which some nonmonetary details are condensed, gives a schematic view of the whole money-generating process. HPM originating in the Federal Reserve System (and to some extent in the Treasury) is channeled through commercial banks to become either hand-to-hand currency or bank reserves. The currency-deposit and reserve-deposit ratios establish the ultimate amounts of deposits and currency that will be generated as well as the total of both. Offstage, a complex of interest rates in the money market has some possible effects on total time deposits created, and thus on the total of demand deposits. Seasonal fiscal policies, finally, are seen defining the short-run volume of Treasury deposits held in the aggregate of total demand deposits.

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