

# FOREIGN BANKING IN THE UNITED STATES:

## *Movement Toward Federal Regulation*

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For at least a decade now, there has been much discussion about bringing foreign bank operations in this country under some form of Federal control. Recommendations that the scope of Federal regulatory authority be extended to cover foreign banks operating in the U. S. have come from several different quarters, both within and outside government. In response to this discussion, a number of bills directed toward foreign banking have been introduced in Congress, although none has been enacted to date. Today a new sense of urgency surrounds the issue, largely as a result of the dramatic growth in the foreign banking presence that has occurred during the past several years. Since January 1973, for example, the number of separately chartered and licensed foreign banking facilities has increased from 111 to 180, and the combined assets of these facilities have more than doubled to \$57 billion. Consequently, Congress is now closer than ever to acting on the question, and it seems likely that a foreign banking bill will be enacted in 1976. Foreign banking legislation will probably follow one of two basic scenarios: the Federal Reserve framework, embodied in its proposed legislation known as the Foreign Bank Act of 1975,<sup>1</sup> or the House Banking Committee framework, outlined in the FINE (Financial Institutions and the Nation's Economy) study discussion principles.

The character of the eventual legislation is a matter of interest to all bankers, not just those who themselves engage in international operations or who have direct dealings with foreign banks. Foreign banking operations have grown to such an extent (over 6 percent of total bank assets in the U. S. are now under foreign control) that they now have an important effect on credit market conditions generally. This article reviews the background that has influenced the movement toward Federal regulation of foreign bank operations and outlines the major ideas contained in the two legislative proposals active today.

**The Nature of Foreign Banking Operations** The U. S. activities of foreign banks have been conducted through four basic organizational forms: representative offices, agencies, branches, and subsidiary banks. Representative offices, which have no real banking powers *per se*, constitute the most primitive form of activity. They serve as customer information centers and business generating facilities, much as do the so-called loan production offices opened in various parts of the country by large domestic banks. Of the states that allow foreign banking, only California requires licenses for representative offices. As a practical matter, the traveling representatives of foreign banks have unlimited access to customers across the nation, so the information and assistance function is virtually free of constraints.

Agencies engage in various types of lending and investment activity, are not empowered to receive deposits, and in all cases must be licensed. They are particularly active in financing trade and investment between the U. S. and their home nation and also participate heavily as lenders and borrowers in the interbank credit markets and Eurocurrency markets. As primary sources of funds, agencies rely on balances placed with them by affiliated institutions (e.g., parent banks in their home country) and short-term borrowings from other banks.

The U. S. branches of foreign banks conduct a general banking business including, in most cases, solicitation of demand and time deposits. They have an essentially wholesale orientation, and most of their loans are of a business and commercial nature. Their loans have traditionally been made to the U. S. subsidiaries of home-based corporate customers, but they are becoming more and more interested in penetrating the U. S. corporate banking market. Foreign trade financing and lending in the market for interbank funds remain important activities. A few branches have successfully entered the market for retail deposits, but corporate deposits, both domestic and foreign, and interbank borrowings represent their primary sources of funds.

<sup>1</sup> The Federal Reserve's draft bill will have to be resubmitted again in 1976.

Foreign-owned subsidiaries, almost all of which are state-chartered, engage in a general banking business, as do branches. Unlike branches, however, their business is much more heavily oriented to the domestic market for loans and deposits, including retail deposits. Foreign subsidiary banks are required by the Bank Holding Company Act to carry FDIC insurance. They are eligible for membership in the Federal Reserve System and are on an equal competitive footing with domestic banks in the states where they operate. Although only about one-fifth as large as agencies and branches in terms of total footings, subsidiaries are nonetheless very important, especially in certain markets.<sup>2</sup> While the subsidiary form of organization provides the most complete set of banking powers to foreign entrants, it also has certain drawbacks. Perhaps the most significant drawback is the fact that subsidiary banks must be independently capitalized, making them an expensive investment relative to the branch alternative.

**The Regulation and Development of Foreign Banking Operations** The particular organizational form adopted by a foreign bank is determined to some extent by the intended function of its operation but more importantly by the laws of the individual states governing foreign banking activities. With only a few exceptions, foreign banking activities are regulated by the states.<sup>3</sup> Thus, foreign banks that desire to begin business here are faced with an array of different legal requirements and must adapt their organization to conform to the local laws under which they operate. Some of the laws that determine the structure of foreign banking in states where it is especially important will be reviewed in the discussion that follows.<sup>4</sup>

The first instance of direct entry in the U. S. by foreign banking interests dates back to the 19th century, when New York-based agencies of Canadian

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<sup>2</sup> The importance of the subsidiary form of organization was recently highlighted when European-American Bank and Trust Company, owned by a consortium of six large European banks, acquired the failed Franklin National Bank and its extensive network of retail outlets.

<sup>3</sup> The FDIC examines state-chartered subsidiaries of foreign banks. Foreign-owned banks with a national charter would be regulated by the Comptroller of the Currency. The requirement that all national bank directors must be U. S. citizens, however, has effectively limited this form of organization to domestic banks only. The Board of Governors of the Federal Reserve System supervises, through Regulation Y, the banking-related activities of foreign-owned bank holding companies. It also has jurisdiction, implemented through Regulation K, over Edge Corporations, in which foreigners are allowed to hold a minority interest.

<sup>4</sup> New York laws applying to foreign bank operations and important differences between New York laws and the laws of other states are cataloged in Franklin R. Edwards, *Regulation of Foreign Banking in the United States: International Reciprocity and Federal-State Conflicts*, Columbia University Graduate School of Business Research Paper No. 64 (New York: Columbia University, Graduate School of Business, 1974).

banks managed the money positions of their parent organizations. Dollar balances held with New York correspondent banks and call loans made to New York securities dealers and brokers were the primary types of secondary reserves maintained by the Canadian banks. When the volume of international capital and trade transactions increased after World War I, a more general interest in direct U. S. representation arose among banks of various nations, including Canada. Thus, in the early 1920's, a number of foreign branches were opened in several western states and in Illinois. Legislation prohibiting these operations was soon adopted across the nation, putting an end to the incipient expansion. The biggest blow to the expansion plans of foreign banks came in 1923, when a bill that would have permitted foreign branching was defeated in the New York legislature. Subsequently, the Great Depression and World War II reduced foreign bank interest in opening offices here.

Since World War II, the internationalization of business, supported by increased freedom in international capital movements, has provided a strong impetus to the development of foreign banking networks. This has been equally true for banks headquartered in other countries and for U. S. banks. Much of the liberalization in state laws to allow foreign bank operations has occurred out of recognition of this mutual interest. The leading U. S. banks, having encountered resistance to their strong foreign expansion programs in the 1950's, brought the need for reciprocal treatment to the attention of their state governments. Their efforts led to changes in state laws that have had far-reaching effects on the foreign banking presence in the U. S. The most notable changes in state regulations are those involving the financial centers. In 1961, for example, New York law was amended to permit branches of foreign banks to conduct a general banking business. And, most recently, a change in Illinois law effective in 1973 permits branches of foreign banks to operate in Chicago.

Ten states have enacted legislation that explicitly allows foreign banks to operate within their jurisdictions. In addition to the two mentioned above, this group includes Alaska, California, Georgia, Hawaii, Massachusetts, Oregon, Utah, and Washington. Sixteen states explicitly prohibit foreign banking operations of any kind, and laws of the remaining twenty-four are silent on the subject. There are no foreign banking facilities located in the

Fifth Federal Reserve District, and most of the states have laws designed to discourage entry. Virginia law prohibits all types of foreign banking activity, while Maryland and North Carolina disallow foreign branching. The banking statutes of South Carolina are silent on the issue. West Virginia law establishes application procedures for foreign corporations to follow in requesting a banking license, but state officials are candidly ill-disposed toward approving such applications. Branches and agencies are prohibited in the District of Columbia.

What are the motives that have encouraged foreign banks to enter the U. S. and to accelerate their rate of entry in recent years? Originally, the U. S.-based facilities of foreign banks had a narrowly specified set of objectives. Their primary purpose was to provide continuous service to home-based customers who themselves had established U. S. operations. Their sense of purpose has broadened, however, and they have now become more active competitors for the loan and deposit business of U. S. corporations. The U. S. financial markets have been a traditional source of attraction for foreign banks, and they remain so today. In a few instances, furthermore, foreign banks have seen an opportunity to capture a share of the retail banking market.<sup>5</sup> Currently, the European nations and Japan are lagging the U. S. in recovery from world-wide recession; business alternatives in this country, therefore, seem especially attractive to foreign banks. Foreign bankers are bullish on their business prospects here and evidently intend to step up their efforts to play a fuller role in the financial aspects of recovery.<sup>6</sup> In fact, the investment opportunities provided by the U. S. economy probably account for an important part of the recent spate in foreign banking activity. This is illustrated by the fact that the combined operations of foreign banking interests have caused a net inflow of capital into the U. S. This sum has increased from \$5.6 billion in 1972 to \$7.6 billion in 1975.

The wide representation of foreign banks in the nation's financial centers has contributed to the continued preeminence of this country as the world's financial center. Foreign banks have made available a wider and fuller range of financial services and

have done much to encourage foreign trade. At a time of widespread concern about capital shortages, they have channeled more investment funds into the country than they have transferred out. These are important contributions that must not be lost sight of in the debate over foreign banking regulation.

**The Movement Toward Federal Regulation** The essence of the debate over Federal regulation is whether or not regulation of foreign banking activities should be centralized at the national level. Two major arguments have been advanced in support of centralized regulation. The first argument contends that current institutional arrangements make it difficult for the central bank to achieve its monetary policy objectives, particularly with regard to credit market conditions. Foreign banks have an important effect on credit market flows and, so the argument runs, must be subject to national policy. Until now, foreign bank compliance with Federal policies designed to control these areas has been voluntary. Since June 1973, for example, foreign banks operating in the U. S. have been asked to maintain reserves against increases in their negotiable CD's and Eurodollar borrowings. This request was made by the Federal Reserve as part of its anti-inflation program. Although the record of compliance is admirable, it nonetheless remains true that the U. S. Government's formal power to regulate foreign banks is almost nil.

The second argument encouraging the movement toward Federal regulation of foreign banks centers around the idea that the foreign institutions operating here enjoy greater privileges than do domestic banks. Accordingly, some feel that foreign banks should have their activities restricted to the same extent as are those of U. S. banks. The major advantage held by foreign banks is their ability to operate branches and agencies in more than one state, a privilege they enjoy due to the acquiescence of the states themselves.<sup>7</sup>

Since about 1966, the debate over these issues has intensified. In July of that year the Joint Economic Committee published a research paper on foreign banking activities.<sup>8</sup> The study concluded that the

<sup>5</sup> These motives are more fully described in Fred H. Klopstock, "Foreign Banks in the United States: Scope and Growth of Operations," *Monthly Review*, Federal Reserve Bank of New York, Vol. 55, No. 6 (1973), 140-54.

<sup>6</sup> "Foreign Banks Like U. S. Market," *Banking*, Vol. 67, No. 11 (1975), 40-4.

<sup>7</sup> This position fails to recognize the issue of international reciprocity, for in most foreign countries no limits are placed on the branching privileges of U. S. banks. See Anthony Favill Tuke, "Proposed Limits on Foreign Banks in U. S. Criticized," *American Banker*, May 31, 1974, p. 7.

<sup>8</sup> U. S., Congress, Joint Economic Committee, *Foreign Banking in the United States*, Economic Policies and Practices Paper No. 9, by Jack Zwick (Washington, D. C., 1966).

public interest would be served if legislation providing for Federal supervision of foreign banking activities were passed. It also suggested that the option of Federal chartering should be made available to foreign banks.

Shortly after the JEC study was released, the first bill aimed at bringing foreign banking under Federal control was introduced in the Senate.<sup>9</sup> It designated the Comptroller of the Currency as the sole chartering and supervising authority for foreign banking activities and made foreign banks subject to roughly the same rules as national banks, with the exception that they would be able to operate across state lines. The Comptroller's powers included the ability to impose upon banks from a particular nation the same set of regulations applied to U. S. banks operating in the foreign country, should they be more restrictive than those here. In this way, it was thought, equal treatment for U. S. banks operating abroad could be guaranteed.

This bill languished but still achieved its sponsor's primary aim of arousing Congressional interest. Interest in foreign banking legislation was further spurred by the October 1966 collapse of Intra Bank, a world-wide financial institution headquartered in Lebanon. Intra Bank had a New York branch that, although holding only a small amount of U. S. deposits, caused quite a sensation when it closed. Further, several U. S. banks incurred losses as a result of the closing of Intra Bank offices in other countries.<sup>10</sup> A number of other bills were introduced in the House and Senate over the next several years, and their thrust seemed to change somewhat. The idea of unfair competition became increasingly prominent, supplementing the argument based on the need for greater control to implement economic policy.<sup>11</sup>

Over the past several years, the Federal Reserve has attached a high priority to dealing with the question of appropriate foreign banking legislation. It recognized the importance of having detailed information on the financial activities of U. S.-based foreign banks and instituted a data collection program. A body of monthly balance sheet information for foreign banking offices in the U. S. is now available from late 1972.<sup>12</sup> In addition, the Federal Reserve

set up in February 1973 a System Steering Committee to review the regulatory aspects of international banking. As a result of this Committee's work, the Board sent to Congress on December 3, 1974, a draft bill known as the Foreign Bank Act of 1974. The intent of this proposed legislation was the establishment of a national policy toward foreign banks operating in the U. S. It was subsequently amended with a number of technical changes and resubmitted on March 4, 1975, under the title Foreign Bank Act of 1975. This bill has been introduced in the Senate.<sup>13</sup>

The basic principle underlying the Foreign Bank Act of 1975 is one of nondiscrimination between domestic and foreign banks. In other words, foreign banks would have the same privileges, and be subject to the same restrictions, as domestic banks. From this standpoint, the most important feature of the Act is the section extending the Bank Holding Company Act to cover branches and agencies of foreign banks, not just their subsidiaries, as is now the case.<sup>14</sup> The result would be to eliminate any further branch and agency expansion across state borders. A grandfathering provision in the Act, however, would allow foreign banks to retain interstate facilities operating prior to December 3, 1974, the date when the proposed legislation was first released.

Entry alternatives available to foreign banks would be increased under the Foreign Bank Act of 1975. Foreign ownership of national banks would be facilitated by giving to the Comptroller of the Currency authority to allow up to one-third of the directors of a national bank to be foreign citizens. Also, foreign banks and their state and Federally-chartered U. S. subsidiaries would be permitted to own controlling interests in Edge Corporations, an arrangement that is currently prohibited.

All foreign banking facilities, whether organized under state or Federal charter, would be required to obtain licenses from the Comptroller of the Currency. National control of all foreign banks, even those organized under state laws, would thereby be provided for. The requirement of FDIC insurance now applicable to foreign subsidiaries would be extended to branches and agencies. And Federal Reserve

<sup>9</sup> S. 3765, 89th Cong., 2nd Sess. (1966).

<sup>10</sup> H. Erich Heinemann, "Foreign Banking In U. S. Is At Issue." *The New York Times*, February 12, 1967, sec. 3, p. 1.

<sup>11</sup> See, for example, H.R. 11440, 93rd Cong., 1st Sess. (1973).

<sup>12</sup> "Data Series On Foreign Owned U. S. Banks." *Federal Reserve Bulletin*, Vol. 60, No. 10 (1974), 741-2.

<sup>13</sup> S. 958, 94th Cong., 1st Sess. (1975).

<sup>14</sup> Two organizational forms would remain exempt from the provisions of the Bank Holding Company Act: New York State Investment Companies, of which there are only a handful in operation; and foreign consortia in which none of the parent companies owns 25 percent or more of the bank's stock.

membership would be required of all foreign banking operations in the U. S. whose parent organizations had world-wide assets in excess of \$500 million.

The House Banking Committee, several of whose members have been very active in drafting foreign banking legislation over the years, has also generated a position on the question. Its position is incorporated as part of the overall FINE study process, which is leading up to an omnibus bill on financial structure and regulation.<sup>15</sup> Hearings on this section of the FINE study have already begun, and it is probable that action on foreign banking regulation will precede action on the other parts of the study.

The emphasis of the House Banking Committee proposal is on the relative competitive aspects of foreign and domestic banking, rather than on national economic policy areas. The proposal achieves essentially the same result so far as national policy control is concerned but is significantly more restrictive with regard to definition of an appropriate structure and range of activity for foreign banks. Under the FINE framework, all foreign banking entities in the U. S. that accept domestic deposits would be required to function under the subsidiary form of organization. Grandfathering would not be permitted, thus implying large-scale closings of foreign branches and agencies and conversions to subsidiary banks. State chartering of foreign banking activities would be

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<sup>15</sup> U. S., Congress, House, Committee on Banking, Currency and Housing, *Financial Institutions and the Nation's Economy (FINE)—Discussion Principles*, 94th Cong., 1st Sess., Title VI (1975).

abolished, with the entire supervisory function transferred to a newly-created Federal agency, The Federal Depository Institutions Commission.<sup>16</sup> The underwriting and equity investment activities currently permitted foreign banking organizations under some state laws would also be forbidden.

**Conclusion** There is a widely-held belief that the time for closer Federal supervision of foreign banking activities in the U. S. has arrived. The sheer magnitude of the foreign banking presence, and its consequent influence on financial market conditions, argue for legislation designed to centralize supervision at the Federal level. According to one view, this would help in the attainment of national monetary policies aimed at the credit markets. Additionally, some see a need to equalize the competitive positions of foreign-owned and domestic banking organizations. These views are reflected in two legislative proposals active today. The Federal Reserve and House Banking Committee proposals are similar in several respects, but the latter is considerably more restrictive in its treatment of permissible foreign banking activities. Legislative action based on one or the other of these proposals, or on some combination of their different features, is likely this year.

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<sup>16</sup> The supervisory activities of the Comptroller of the Currency, the Federal Reserve System, the Federal Deposit Insurance Corporation, the Federal Home Loan Bank Board, and the National Credit Union Administration would all be consolidated under the Federal Depository Institutions Commission. The new FDIC would then be responsible for the chartering and examination of *all* Federally-chartered depository institutions, foreign and domestic.

# FORECASTS 1976

## *Recovery But No Bicentennial Boom*

*William E. Cullison*

Recovery, led by strong consumer spending, will continue throughout 1976, but the recovery will not be at as rapid a pace as has been the case following past recessions. Such, at least, is the general conclusion reached by leading business and academic economists who have published forecasts for the 1976 economy.

This general conclusion, as is the case with all forecasts, is not really an attempt to foresee the future. Professional forecasters can only evaluate the implications of certain trends, and—given certain assumptions about future events—extend these trends into the future. If unforeseen events occur, the “prediction” does not come about.

Each year the Federal Reserve Bank of Richmond compiles various forecasts of the economy's performance for the coming year. This year the forecasters based their forecasts on the following assumptions: (1) extension of the 1975 tax cut without President Ford's proposed spending limit, (2) little, if any, increase in oil prices (revocation of the \$2 per barrel oil tariff will offset the rise in OPEC prices), (3) a good crop year, (4) sluggish recovery abroad, and (5) continued difficulties for many municipalities in selling their bonds. On the basis of these assumptions, the forecasters expect approximately a 6 percent rate of real growth for GNP. This higher rate of growth is expected to be accompanied by a 6 percent rate of inflation.

Last year the consensus prediction overestimated the actual GNP total by approximately \$34 billion. Real GNP, or GNP measured in 1958 dollars, likewise was overestimated, and by \$23-\$24 billion. Forecasters had expected real GNP to decline 0.6 percent; it actually fell approximately 2.9 percent. Much of the difficulty stemmed from their mistaken appraisal of the first quarter. Although almost all of the forecasters who made quarterly forecasts expected first quarter real GNP, measured at annual rates, to decline, none anticipated a decline as large as \$24 billion. The most pessimistic anticipated a decline of only about half that amount.

In any event, and perhaps as a result of their misstep on the first quarter, most forecasters were expecting real GNP to bottom out in the second quarter and recover slowly in the second half. As is common knowledge now, real GNP in 1975 hit its low point in the first quarter and showed a good rate of recovery in the second half of the year.

This year the forecasters expect a steady, although not ebullient, rate of recovery throughout 1976. Personal consumption spending, particularly for durables, is expected to be strong and to exhibit its greatest growth in the first half of the year. The experts also expect the economy to benefit from inventory rebuilding and a pickup in the construction of single-family dwellings. Business spending for plant and equipment is expected to increase only modestly in the first half of the year, but as the recovery continues and as production increases, businessmen are expected to reactivate previously postponed capital spending plans. Thus, plant and equipment spending is expected to accelerate in the second half of the year.

This article attempts to convey the general tone and pattern of some 40 forecasts received by the Research Department of this Bank. Not all of these forecasts are comprehensive, and some incorporate estimates of future behavior of only a few key economic indicators. The consensus of the annual forecasts may differ from the consensus drawn from the quarterly forecasts, since different forecasters were applying their skills. Also, since there were varying assumptions in the individual forecasts regarding events in 1976, the general tone and pattern may not necessarily be based upon the more realistic assumptions, but only those most prevalent.

This Bank also publishes the booklet *BUSINESS FORECASTS 1976*, which is a compilation of representative business forecasts with names and details of the various estimates. No summary article can begin to be as informative as the actual forecasts themselves. Serious readers are urged to look at the individual forecasts in more detail in *BUSINESS FORECASTS 1976*.

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

### 1975 FORECASTS IN PERSPECTIVE

The consensus forecast for 1975 GNP, published in last year's January/February *Economic Review*, called for an increase of 8.2 percent over 1974. The forecasts for increases in GNP ranged from a low of 5.1 percent to a high of 10.8 percent. Using the revised 1974 GNP figure of \$1,397.3 billion, the consensus forecast for 1975 GNP would have been \$1,512.0 billion and the range from \$1,468.2 billion to \$1,548.2 billion. Increasing prices were predicted to account for all of the 8.2 percent gain in GNP, and slightly more. GNP measured in constant dollars, or real GNP, was expected to fall 0.6 percent.

All of the forecasts that have been collected were made before the revised GNP figures were released. Since it would be of little use to evaluate the 1975 forecasts on the basis of the new revisions, the Research Department of this Bank estimated fourth quarter 1975 on the old basis. The fourth quarter estimates were made by determining a consensus of the forecasts published in December 1975 and early January 1976.

Including these fourth quarter estimates, a 1975 current dollar annual GNP total of \$1,477.1 billion is indicated; that figure is almost \$34 billion short of last year's consensus forecast. Only one of last year's forecasters predicted a current dollar GNP total less than what now seems to have been the actual figure. Prices increased somewhat more slowly than predicted, 8.8 percent versus 9.0 percent, but even so, real GNP appears to have been overestimated by all

### RESULTS FOR 1975 AND TYPICAL FORECAST FOR 1976

	Unit or Base	Estimated 1975 <sup>†</sup>	Forecast 1976*	Percentage Change	
				1974/1975	1975/1976
Gross national product .....	\$ billions	1,477.1	1,653.5	5.7	12.0
Personal consumption expenditures .....	\$ billions	953.6	1,057.8	8.8	11.0
Durables .....	\$ billions	134.2	153.2	5.2	15.0
Nondurables .....	\$ billions	416.2	460.7	9.4	10.7
Services .....	\$ billions	403.2	443.9	9.2	10.1
Gross private domestic investment .....	\$ billions	170.3	220.0	-18.7	28.4
Business fixed .....	\$ billions	144.6	159.5	-3.1	10.3
Residential structures .....	\$ billions	39.7	52.9	-13.7	33.3
Change in business inventories .....	\$ billions	-14.0	7.6	—	—
Government purchases .....	\$ billions	341.0	370.7	10.3	8.7
Net exports .....	\$ billions	12.2	5.0	—	—
Gross national product (1958 dollars) .....	\$ billions	797.6	845.4	-2.9	6.0
Plant and equipment expenditures .....	\$ billions	113.5	121.7	1.0	7.2
Corporate profits before taxes .....	\$ billions	123.8	151.7	-12.0	22.5
Private housing starts .....	millions	1.2	1.6	-13.0	35.0
Automobile sales .....	millions	8.6	9.5	-2.7	11.5
Rate of unemployment .....	percent	8.5	7.8	—	—
Industrial production index .....	1967=100	113.4	123.9	-9.1	9.3
Wholesale price index .....	1967=100	174.9	187.1	9.2	7.0
Consumer price index .....	1967=100	161.2	171.7	9.1	6.5
Implicit price deflator .....	1958=100	185.2	195.6	8.8	5.6

<sup>†</sup>Because of revisions in the national income and product accounts, the fourth quarter published GNP data are not comparable with the unrevised earlier figures. Thus, comparable GNP totals for the fourth quarter had to be estimated. See the discussion in the text for a description of the estimating procedure.

\*Figures are constructed from the typical percentage change forecast for 1976.

forecasters save one. Real GNP in 1975, expected to fall 0.6 percent, declined approximately 2.9 percent, from \$821.2 billion in 1958 dollars to \$797.6 billion. The one pessimist thought real GNP would fall 3.6 percent, to \$791 billion. As might be expected from their underestimate of the extent of the recession, the majority of the experts also underestimated the unemployment rate for the year. The rate of unemployment in 1975, which averaged 8.5 percent, was predicted at 7.3 percent.

For the past few years, forecasters seemed to have erred more in predicting the rate of price increase than in estimating the performance of the GNP accounts in real terms. Last year, however, was different, and the large errors were made in estimating the components of real GNP. There were particularly large errors in predicting investment and net exports. Business fixed investment, forecast to increase 8.2 percent to \$161.2 billion, is estimated to have actually fallen by 3.1 percent to \$144.6 billion. Inventory investment, which was expected to *rise* \$3 billion, is thought to have actually fallen \$14.0 billion.

The net exports account total, which the forecasters missed badly, actually provided the forecasters with an offsetting error within their GNP estimate. Net exports, predicted to be  $-\$5$  billion, was the only account to do better than the forecasters expected. It totaled somewhere around  $+\$12.2$  billion, thus helping out the consensus forecast for GNP with a \$17 billion offsetting error. The forecasters, as usual, were close to the mark for government purchases of goods and services, missing the actual figure by less than \$1.0 billion.

The consensus of quarter-by-quarter forecasts for 1975 was for current dollar GNP to rise \$26.0 billion in the first quarter, \$31.0 billion in the second quarter, \$38.0 billion in the third quarter, and \$40.0 billion in the fourth. The realized changes in quarterly GNP were  $-\$14.0$  billion,  $+\$24.3$  billion,  $+\$62.7$  billion, and (approximately)  $+\$46.2$  billion for the four quarters, respectively. The quarterly projections for real GNP were for changes of  $-\$1.0$  billion,  $+\$3.0$  billion,  $+\$7.0$  billion, and  $+\$9.0$  billion. For the four 1975 quarters respectively, however, GNP in constant dollars actually fell by \$24.0 billion, then rose \$3.6 billion, \$24.7 billion, and what appears to have been \$9.6 billion. The forecasters were thus correct in predicting a stronger second half for the year and reasonably close to the increases registered for the second and fourth quarters. They went wrong in underestimating the depth of the economic decline in the first quarter and the vigor of the "bounce-back" in the third quarter. Even the one forecaster who predicted a lower annual figure for real GNP

than the actual missed on the quarterly changes. He expected real GNP to decline in both the first and second quarters and to recover very slowly in the second half.

The consensus 1975 forecast projected personal consumption expenditures for the year to increase 9.8 percent to \$963.1 billion. Current estimates place personal consumption expenditures almost \$10 billion lower, at \$953.6 billion, an increase of only 8.8 percent. Gross private domestic investment, forecast to *increase* 1.4 percent to \$212.2 billion, accounted for the largest error among the GNP components. It actually *fell* approximately 18.7 percent to \$170.3 billion. In addition to the overestimates for inventories and business fixed investment mentioned earlier, the forecasters had predicted a recovery for residential construction in the second half of the year with the result that outlays for residential structures for the year were expected to total \$43.8 billion, a decline of \$2.1 billion from the 1974 level. The actual total, however, fell approximately \$6 billion.

All in all, it would appear that last year's forecasts were off the mark by an unusually large margin. Much of the inaccuracy, moreover, was attributable to errors in forecasting the first quarter, surprisingly not the more distant fourth quarter. Turning points are always difficult to forecast, however, and past attempts have not usually been spectacularly successful. Also, for the past several years, the forecasters have tended to predict a better performance for the economy than the one that actually materialized.

In other areas, the 1974 forecasters also overestimated the strength of economic activity. The index of industrial production fell 9.1 percent, against a forecast of a 0.3 percent decline. Corporate profits before taxes were predicted to fall 9.7 percent to \$127.3 billion; they actually fell 12.0 percent to \$123.8 billion. The consumer price index, like the implicit price deflator, was predicted fairly accurately. Consumer prices were expected to increase 9.5 percent; they actually rose 9.1 percent.

#### 1976 FORECASTS IN BRIEF

NOTE: *None of the forecasts for 1976 reflect the revisions in the national income and product accounts released in January 1976.*

**Gross National Product** Forecasts for 1976 current dollar GNP center around \$1,653.5 billion. This consensus forecast represents an approximate 12.0 percent yearly gain, which is considerably more than the 5.7 percent increase apparently registered in 1975.



Prices are expected to increase only 5.6 percent. GNP measured in constant dollars, or real GNP, is expected to rise 6 percent in 1976, which is indicative of the modest recovery expected for the economy, but which is a considerable improvement over the almost 3 percent decline in 1975. Estimates for increases in current dollar GNP range from a low of 9.0 percent to a high of 13.4 percent, but the great majority are close to 12 percent. The consensus of quarterly estimates indicates that recovery will continue at about the same rate throughout the year. It projects increases of \$41.8 billion in the first quarter of 1976, \$46.7 billion in the second, \$46.0 billion in the third, and \$50.5 billion in the fourth.

Personal consumption expenditures are expected to total \$1,057.8 billion for 1976, up 11.0 percent from 1975. Forecasters estimate that expenditures for durable goods will show an increase of 15 percent for the year, while expenditures for nondurables and services will rise 10.7 percent and 10.1 percent, respectively. The faster rate of expansion of durable goods expenditures is expected to stem primarily from recovering automobile sales, but sales of large appliances and furniture are also expected to pick up as a result of generally higher levels of consumer confidence and a moderate housing recovery. The forecasters assume that consumers are now in a good financial position and are predicting that the saving rate will fall unless inflation strikes again.

Government purchases of goods and services are projected to total \$370.7 billion. This estimate represents an 8.7 percent increase over 1975, considerably smaller than the 10.3 percent gain of the previous year. The 1976 forecasts for government purchases range from increases of 7.1 to 10.4 percent.

Gross private domestic investment is expected to rise substantially, by 28.4 percent in 1976. This estimate represents dramatic evidence that recovery is expected, since investment in 1975 registered an approximate 18.7 percent decline. Inventory rebuilding, heading the investment recovery, is expected to add \$20 billion to the economy. Residential construction is not far behind, increasing by \$13.2 billion or 33 percent over 1975. Business fixed investment, a more moderate source of strength, is expected to increase 10.3 percent. The forecasts, as is usually the case, cluster less closely around the consensus in predicting investment than in any other prediction. The increases predicted for residential structures range from 12.6 percent to 50.0 percent. For business fixed investment, estimated increases range from 6.5 percent to 15.3 percent. And forecasts for gains in investment in business

#### TYPICAL\* QUARTERLY FORECAST FOR 1976

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

	<u>I</u>	<u>II</u>	<u>III</u>	<u>IV</u>
Gross National Product	41.8	46.7	46.0	50.5
Personal Consumption Expenditures	24.4	27.0	28.0	27.3
Gross Private Domestic Investment	11.3	12.8	11.0	11.0
Net Exports‡	8.4	6.3	5.7	6.6
Government Purchases	7.0	8.2	7.0	10.8
Gross National Product (1958 dollars)	11.3	11.2	11.8	10.9
Implicit Price Deflator†	5.2	5.6	5.2	5.6
Rate of Unemployment (%)‡	8.1	7.9	7.6	7.4

\*Median.

‡Actual estimate.

†Percentage changes at annual rates.

inventories, for which the consensus was \$7.6 billion, range from \$3.5 billion to \$16.0 billion.

**Industrial Production** The typical forecast for the Federal Reserve index of industrial production (1967 = 100) is 123.7, an increase of 9.3 percent. If realized, this performance will be much better than the decline of 9.1 percent in 1975. The projected increase for 1976 would still leave this index below its 1974 level of 124.7. The 1976 recovery is expected to be attributable mainly to gains in the production of automobiles and construction-related items.

**Housing** The construction industry is expected to register a moderate recovery from the very low levels of 1974 and 1975. But activity in this sector is expected to remain low relative to 1971, 1972, and 1973. Private housing starts, which totaled over 2 million in 1971, 1972, and 1973, 1.3 million in 1974, and 1.2 million in 1975, are expected to total 1.6 million units in 1976. Considering that housing starts closed the year 1975 at about a 1.3 million unit annual rate, 1.6 million units in 1976 represents only a modest expectation for improvement. Forecasters expect the recovery to be limited mainly to single-family dwellings. While home financing is expected to be easier, forecasters note important negative factors in housing markets, chiefly (1) the large inventory of unsold houses on hand, (2) high current prices for new homes, and (3) the distressed financial conditions of many builders.

**Corporate Profits** The consensus forecast indicates that this year should be much more profitable for corporations than 1975, with pretax corporate profits expected to increase 22.5 percent to \$151.7 billion. This compares with an approximate 12.0 percent decline registered last year.

The projected 22.5 percent increase in corporate profits may seem inordinately large at first glance. However, the corporate profit situation has been generally poor over the past few years. In an inflationary period, firms can show profit on the book value of inventories held, but the profit is largely illusory because firms must pay higher prices to replace the inventory. If one adjusts profit figures for changes in inventory valuation and measures the adjusted profit figure in constant dollars, the projected 1976 figure for corporate profits turns out to be lower than the profits earned ten years ago. All of the forecasters expect a much better pretax profit figure than was realized last year. The most pessimistic forecaster expects a 14.7 percent profit increase; the most optimistic a 32.5 percent rise.

**Unemployment** Most forecasters are predicting only a modest decline in the rate of unemployment during 1976. The typical forecast for the year's average is around 7.8 percent, only 0.7 percentage points below the 1975 average. Considering that the unemployment rate at year-end 1975 stood around 8.3 percent, a 7.8 percent average for 1976 indicates that employment growth is expected to outpace labor force expansion by only a small amount.

**Prices** This year the forecast indicates a general improvement in the outlook for prices. The implicit GNP deflator, which rose 10.2 percent in 1974 and an estimated 8.8 percent in 1975, is expected to increase only 5.6 percent in 1976. The consumer price index is also expected to increase much less rapidly, 6.5 percent compared to last year's 9.1 percent. The wholesale price index is expected to increase at a

higher rate than the other indexes, 7.0 percent, but considerably slower than the 9.2 percent rate of advance registered in 1975 and far better than 1974's 18.9 percent wholesale price increase.

**Net Exports** The nation's trade position, which was approximately \$12.2 billion in surplus in 1975, is expected to continue in surplus in 1976, but at a lower \$5 billion level. The forecasters expect imports to continue to increase as consumer spending picks up, but they foresee a smaller rate of increase for exports, since the recovery abroad is expected to be slower than the U. S. recovery. The estimates for net exports varied between +\$2.0 billion and +\$10.0 billion.

**Quarter-by-Quarter Forecasts** Twelve forecasters made quarter-by-quarter forecasts for 1976. As indicated by the accompanying table, these forecasters generally expected about the same rates of growth in the first half of the year as in the second. While the quarterly estimates generally clustered rather closely around the median, one forecaster expected a different pattern of recovery—a slow first quarter, moderate second and third quarters, and a rapid fourth quarter.

With this one exception, the forecasters are predicting that by the fourth quarter of the year real growth will range from \$9.7 billion to \$13.9 billion. The quarterly consensus for the unemployment rate shows a pattern that is consistent with the consensus GNP forecast—the rate declines by about the same amount throughout the year.

If the forecasts are realized, the 7.4 percent unemployment rate at year-end 1976 will mean that finding work will have become somewhat easier in the bicentennial year than in 1975. But it will also mean that the bicentennial was not a particularly happy year for almost 7 million others. The forecasts for the unemployment rate at year-end 1976 ranged from 7.0 to 7.9 percent.

## *BUSINESS FORECASTS 1976*

The Federal Reserve Bank of Richmond is pleased to announce the publication of *Business Forecasts 1976*, a compilation of representative business forecasts with names and details of estimates for the coming year. The booklet is available free of charge from this Bank. Please address requests to Bank and Public Relations, Federal Reserve Bank of Richmond, P. O. Box 27622, Richmond, Virginia 23261.

# PREDICTING THE RATE OF INFLATION IN 1976

Robert L. Hetzel\*

There is currently much interest in predicting the rate of inflation for 1976. In recent years a number of *ad hoc* explanations of inflation have attributed price rises to special factors prevailing in the economy at the time. According to this approach, inflation is a process whereby the price effects of special factors in one sector of the economy are pushed along to other sectors and spread throughout the economy to affect the general price level. As an alternative, the monetarist view sees inflation as strictly a monetary phenomenon—excessive increases in the money supply induce individuals to increase their spending in an attempt to restore their real money balances to the desired level. In the aggregate, this increased spending forces the general price level upward. The purpose of this article is to explain the monetarist view of inflation, to use this view to evaluate the need for special factors arguments to explain recent inflation, and to evaluate the outlook for prices in 1976.

Although special factors explanations of inflation have existed for many years, such theories have been given much attention in discussions of spiraling prices since 1973.<sup>1</sup> Chart 1 displays the percentage contribution of the major components of the Consumer Price Index (CPI) to the total increase in the CPI. Such a chart is often used as the starting point for a special factors explanation of inflation.<sup>2</sup> Chart 1 shows that in 1973 food and energy prices accounted for 62.8 percent of the increase in the CPI. The rise in food and energy prices, and by inference a major part of the rise in the CPI, is then commonly accounted for by two special factors: the devaluation of the dollar and international commodity inflation. The first factor, the devaluation of the dollar, is considered inflationary for two reasons. The price of

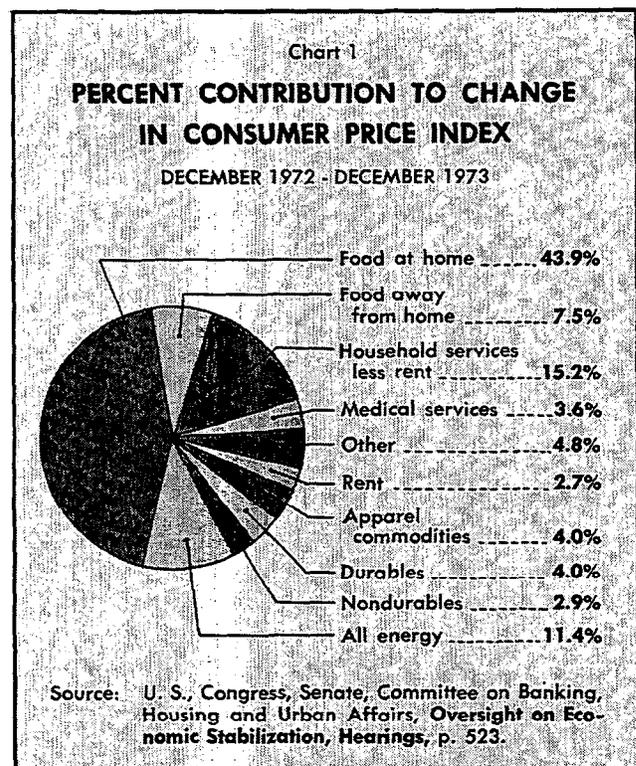
imported items such as oil is raised directly, and the price of exported items such as grain is raised indirectly via increases in foreign demand for our exports. The second factor, the international commodity inflation, involves rising prices of internationally-traded goods such as oil and grain. Underlying this phenomenon are high levels of world output, poor weather and the resulting below-average harvests, and the OPEC oil cartel. In addition, special factors theories of inflation often attribute inflation to a variety of other causes such as the extent of unused industrial capacity, the unemployment rate, the growth of wages, increases in monopoly power, etc.

Using a special factors approach, if one wants to predict the growth in the CPI he would analyze conditions in various sectors of the economy and aggregate all these forces into an overall inflationary impact. For example, a study of crop forecasts and anticipated demand would reveal the outlook for food prices, a study of the oil sector would reveal the outlook for fuel prices, etc.

\* The author is a staff economist, Federal Reserve Bank of Richmond. The views expressed herein are solely those of the author and do not necessarily represent the views of the Federal Reserve Bank of Richmond.

<sup>1</sup> For a survey of pre-World War I special factors theories of inflation and comments on this literature by early economists, see Thomas M. Humphrey, "On Cost-Push Theories of Inflation in the Pre-War Monetary Literature," *Banca Nazionale del Lavoro Quarterly Review* (forthcoming, March 1976).

<sup>2</sup> The chart is contained in U. S., Congress, Senate, Committee on Banking, Housing and Urban Affairs, *Oversight on Economic Stabilization, Hearings*, John T. Dunlop, statement before the Subcommittee on Production and Stabilization of the Senate Banking, Housing and Urban Affairs Committee, Feb. 6, 1974, p. 523.



**An Alternative View** The monetarists present an alternative point of view regarding the cause of inflation. This view defines inflation as the change in the rate of exchange, or terms of trade, between dollars and the aggregate basket of goods and services produced. Inflation means that a dollar depreciates when measured in terms of the goods and services for which it will exchange. What is of economic significance to individuals is not simply the number of dollars they hold (their nominal cash balances) but rather the purchasing power of these dollars measured in terms of the aggregate basket of goods and services (their real cash balances). Real cash balances depend on the number of dollars individuals hold *and* the rate of exchange between dollars and the aggregate basket of goods and services. Assuming the total number of dollars all individuals hold is determined by the government, the only way individuals taken collectively have of adjusting to a situation in which their actual holdings of real cash balances are greater than their desired holdings of real cash balances is by a depreciation in terms of dollars in this rate of exchange, that is by inflation.

A single individual will attempt to adjust to such a discrepancy by reducing the nominal amount of his cash balances, that is by increasing his spending rate; however, one person's reduction in nominal cash balances is another person's addition, since the total amount of dollars is fixed for the aggregate of individuals. The result is to increase aggregate spending on the basket of goods and services. The increase in spending in turn causes a general rise in the price level as producers of goods and services raise prices when they find that demand for their products exceeds supply. This rise in the price level reduces actual aggregate real cash balances (the real purchasing power of the nominal money stock) to the desired level. Equilibrium is restored by a depreciation of the dollar against the basket of goods and services.

Why, then, do actual holdings of real cash balances in the aggregate exceed the amount that people desire to hold? To explain this phenomenon, the monetarists employ the empirical generalization that changes in desired real cash balances occur only gradually or as a result of the consequences of an earlier change in money balances from the supply side. For example, estimates by individuals of their long-term income are assumed to be a significant determinant of their demand for real cash balances, but factors highly variable in the short run, such as money market interest rates, are not assumed to be significant determinants. The implication then is that

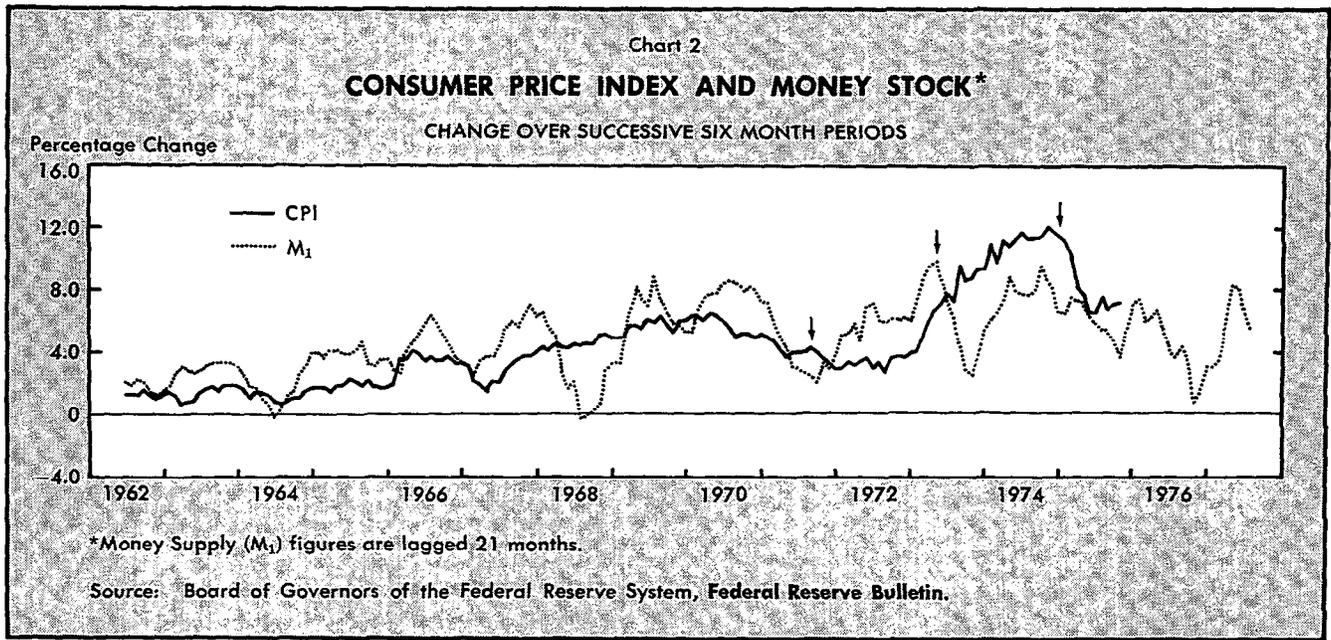
large fluctuations from one year to the next in the rate of inflation derive from the supply side. They derive from large fluctuations in the supply of nominal money.

**Some Theoretical Considerations** A critical question separating those who rely on special factors explanations of inflation and those who do not is whether an increase in a particular price can lead to a rise in the general price level.

While recognizing that *in the short run* an increase in the relative price of a key input such as oil could lead to a temporary increase in the general price level, critics of special factors explanations of inflation see an equilibrating mechanism at work in the long run. They argue that individuals, because of their wealth, the amount of uncertainty in the world, etc. want to hold in the aggregate a given amount of money measured in terms of its purchasing power. A price rise for a particular commodity will cause actual real cash balances to be less than desired real cash balances as the weighted average of all prices rises initially. Individuals will then hold less money in real terms than they desire and will reduce their expenditures until prices of other goods subsequently fall enough to offset the original rise in the price level, and equality is restored between actual and desired real cash balances.<sup>3</sup>

The special factors and monetarist explanations of inflation also imply a different impact on prices of an increase in exports. Some proponents of special factors theories of inflation argue that, in general, high levels of grain exports are inflationary. Increased exports entail reduced amounts of grain available domestically, higher grain prices, and a higher average price level. However, unless grain exports are subsidized by the government, grain is exported by sellers who do so only because they are able to exchange it for goods that have more value to them than the grain. Exchanging grain exports for more highly valued imports makes people as a whole wealthier; therefore, they desire to hold greater real cash balances. For a given nominal quantity of money the price level must fall, and grain exports are deflationary, not inflationary. As a matter of general theory, therefore, it is invalid to link domestic inflation causally with increased exports.

<sup>3</sup> A slightly more sophisticated theory wherein changes in relative prices lead to a general price rise involves the assumption of an accommodative monetary policy. If in the adjustment to changes in relative prices unemployment is created, a central bank committed to a policy of full employment would be induced to expand the money supply at a faster pace. In this case a change in an individual price leads to a general price rise via accommodative monetary policy.



Money affects prices only with a long lag. As the rate of growth of money increases, individuals find that their real cash balances exceed the desired level; however, it takes time for them to realize that the increase is permanent and not a temporary fluctuation. Individuals then try to reduce their cash balances by spending more. Producers at first reduce their inventories rather than raise prices, since they do not know if the increased demand is permanent or only temporary. Given the persistence of increased demand, employers try to increase production. As the demand for productive resources increases, the prices of these resources increase. Labor will work longer hours only if their wage rates are increased, for example. Employers then raise prices in response to increased costs, and finally the CPI rises. The whole process is lengthened by the existence of contracts in nominal terms, both explicit and implicit, which are renegotiated only infrequently. Incidentally, the time sequence of the above series of events explains the popular appeal of cost- or wage-push theories of inflation. Employers appear to raise prices, and cause inflation, in response to rising wages and other costs.

**Money Growth and Prices** How well has monetary growth explained inflation recently in the United States? Chart 2 shows the percentage rate of change of the consumer price index and of the money supply lagged 21 months. Changes for both series are on an annual basis, and money is the sum of currency in circulation and demand deposits ( $M_1$ ). The series are smoothed by using successive percentage changes

between the value for the current month and the value for six months previous.<sup>4</sup>

In order to determine the number of months to lag money ( $M_1$ ) in Chart 2, the percentage changes in the CPI and  $M_1$  were correlated for the period from January 1955 to August 1971, with the latter lagged at values ranging from 12 to 30 months. The lag of 21 months was chosen as the correlations rose and then fell as the lag progressed from 12 to 30 with 21 as the peak value.

Percentage changes in  $M_1$  have a higher trend value than those in the CPI. From 1952 to 1970 the average annual rate of change in the CPI was 2.1 percent. Keeping the 21-month lag of Chart 2 for the period that corresponds to 1952 to 1970, the average annual rate of change in  $M_1$  was 2.8 percent. The trend value for  $M_1$  is then 0.7 percentage points above the CPI for this period. The CPI is also a more stable series than the  $M_1$  series.

The behavior of the money supply affects the behavior of prices over a period of many years and with a variable lag, so that the CPI and  $M_1$  as shown in Chart 2 are not expected to move together; nevertheless, from June 1962 to August 1971 their movements are similar. There is one significant drop in the money series that does not correspond to a fall in the CPI. This decline reaches a trough in July 1968 and reflects the lowering of the rate of growth

<sup>4</sup> For the CPI we use  $2 \times [\ln \text{CPI}(0) - \ln \text{CPI}(-6)]$  where  $\ln$  is the natural logarithm and the values in parentheses, the 0 and -6, refer to the values of the CPI that occurred in the current month and six months earlier. The factor 2 converts the percentage change to an annual basis. The values for  $M_1$  are calculated similarly, then lagged by 21 months.

of money in 1966. The rate of growth in the percentage changes of the CPI, however, does diminish in this period.

**Recent Experience** Proponents of special factors theories of inflation argue that the rate of change in the CPI that began in 1973 cannot be explained satisfactorily as a monetary phenomenon. How well does the money stock series predict the price series, particularly the rise in the CPI beginning in the spring of 1973? In examining this question, it is useful to refer to the two consecutive 20-month periods starting in August 1971, the date when wage and price controls were instituted. These two periods are marked by downward-pointing arrows in Chart 2.

As illustrated in the chart, there is a 20-month period from August 1971 to April 1973 when the rate of change of the CPI is lower than would be predicted given the underlying pressure on prices represented by lagged rates of change of the money supply.<sup>5</sup> The rate of change of the CPI for this period is 3.7 percent; the rate of change of  $M_1$  lagged 21 months is 6.0 percent.<sup>6</sup> (The percentages are on an annual basis.) As the trend rate of growth of lagged  $M_1$  exceeds that of the CPI by 0.7 percent for the period 1952 to 1970, a simple way of predicting the rate of growth of the CPI is to take the rate of growth of  $M_1$  lagged 21 months and subtract 0.7 percent from it. For the 20-month period from August 1971 to April 1973 the actual rate of growth of the CPI then fell short of the predicted rate of growth by 1.6 percentage points, i.e.,

$$3.7 - (6.0 - 0.7) = -1.6.$$

This result suggests that initially the wage and price controls did succeed in making the CPI rise more slowly than it would have risen in the absence of controls. Contracts in nominal terms contain implicit assumptions about future rates of inflation, and a lowering of inflationary expectations will temporarily cause the prices negotiated in contracts to be lower than otherwise. Also, 47.7 percent of the items in the CPI were covered by controls in Phase II (November 14, 1971, to January 11, 1973). The prices of these items must have risen more slowly than in the absence of controls. Finally, the price behavior in the uncontrolled sector is not independent of price behavior in the controlled sector. As an

<sup>5</sup> The period actually includes 21 months. The reference to 20 months refers to the number of monthly percentage changes in this period.

<sup>6</sup> The calculations use a six-month average of the CPI ending in August 1971 for the initial observation and ending in April 1973 for the final observation.  $M_1$  is calculated similarly except that the values precede those of the CPI by 21 months.

illustration, consider a statement from a representative of the grocery industry made in hearings before Congress on whether to extend controls after their scheduled expiration date, April 1974:

... in Phase II, the Price Commission was able to control prices effectively for bread and other baked goods by limiting the prices of the three largest firms in the industry. These firms were precluded from implementing *any* cost justified price increases because their profit margins would have exceeded the level of their margins during an arbitrarily selected base period. Smaller bakers, on the other hand, with reduced profits, when not constrained by the profit margin test, were permitted to pass on their increased costs under price control regulations. They were, however, in reality, simply unable to raise their prices to recover increased costs because if they did their products would be more costly to consumers than the controlled larger firms, and they would have been chased off the grocery store shelves. As a result, many smaller bakers have been subjected to severe and critical financial hardships, resulting in numerous closings.<sup>7</sup>

The above quotation suggests that controls on prices in one part of the economy may retard price rises in the exempted part of the economy, but only temporarily. In the case referred to above, some firms in the exempted sector were driven out of business. More generally, however, prices must be driven up in the exempted sector by enough more than they would have been in the absence of controls to cause the average price level for the entire output of the economy, exempt and nonexempt, to reduce real cash balances to the level desired by individuals. This reasoning suggests that over the long run price controls could not have been expected to slow the rate of inflation. Furthermore, it suggests that a period when the growth rate of the CPI has been reduced by the imposition of price controls will be followed by a period of more rapid than normal growth in the CPI. If this compensatory rise in the CPI plus lagged rates of growth of money account for the bulge in prices in 1973 and 1974, then one can explain inflation even in recent times in terms of monetary phenomena, and there is no need for recourse in the explanation to special factors.

For the 20-month period starting April 1973 and ending December 1974, the rate of growth in the CPI is 10.6 percent. The corresponding rate of growth of lagged  $M_1$  for this period is 6.8 percent.<sup>8</sup> Was the excess of price growth over lagged  $M_1$  growth

<sup>7</sup> U. S., Congress, Senate, Committee on Banking, Housing and Urban Affairs, *Oversight on Economic Stabilization, Hearings*, George W. Koch, statement before the Subcommittee on Production and Stabilization of the Senate Banking, Housing and Urban Affairs Committee, p. 390.

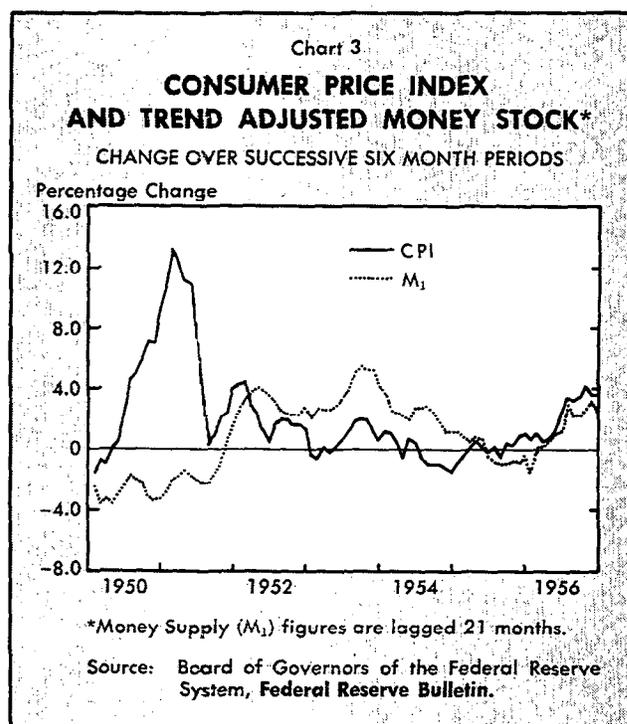
<sup>8</sup> The computation is performed as before with the base observation being the previous final observation and the new final observation being the six-month average ending December 1974. Again, the percentages are on an annual basis, and the percentage change in  $M_1$  referred to below is calculated similarly using values 21 months earlier.

more than could be expected with a monetary explanation of inflation?

One method of predicting the expected rate of price rise is to adjust the growth rate of lagged  $M_1$  for (1) the difference in trend rates of growth between  $M_1$  and the CPI and (2) the shortfall of the actual rise in the CPI from the predicted rise in the CPI in the period of price controls. The difference in trend growth rates of  $M_1$  and CPI is 0.7 percent. The shortfall of the actual from the predicted rise in the CPI in the preceding period, as calculated above, was 1.6 percent. Adding these to the 6.8 percent lagged  $M_1$  growth rate ( $6.8 - 0.7 + 1.6$ ), the predicted growth rate for the CPI in the period from April 1973 to December 1974 is 7.7 percent. As the actual rate of growth in the CPI was 10.6 percent, the actual value was greater than the predicted value by 2.9 percentage points. As a percentage of the actual rate of inflation, the prediction error is 27 percent.

The question now becomes (1) whether an error of this magnitude is large enough to justify looking for a special factors explanation as opposed to a monetarist explanation of inflation on the grounds that new forces are present or (2) whether given the length and variability of the lags involved an error of this magnitude is what could be expected from past experience. This question might be approached by calculating discrepancies between actual and predicted rates of inflation as a percentage of the actual rate of inflation for the three preceding 20-month periods and comparing those errors with the above error. Again predicting the rate of growth of the CPI using lagged, trend adjusted growth in  $M_1$ , these errors are calculated to be -25, 30, and -10 percent for the periods August 1966 to April 1968, April 1968 to December 1969, and December 1969 to August 1971, respectively. The errors are comparable to the error for the 1973-1974 period.

Furthermore, there have been periods in the past when the rate of growth of the CPI has significantly exceeded that of the lagged money supply. Chart 3 is for the period January 1950 to December 1956 and is calculated in exactly the same way as Chart 2, except that the  $M_1$  series is lowered by 0.7 percent so that it may be used to predict the CPI series directly without adjusting for differing trends. As shown in Chart 3, during the Korean War period prices rose significantly faster than would be indicated by lagged rates of growth of  $M_1$ . Individuals expected a re-



currence of the inflation of World War II and an erosion in the value of their cash balances. There was, therefore, a decrease in the demand for real cash balances, an increase in aggregate spending, and a rise in the price level. It is interesting to note that while the actual rate of growth of the CPI was greater than the predicted growth during the Korean War for the reasons just mentioned, this discrepancy was offset in the period following the War by a rate of growth of the CPI below the predicted growth.

For the period of the price bulge in 1973 and 1974, the actual exceeded the predicted rate of growth of the CPI by 2.9 percentage points. There have been periods other than wartime when errors of similar magnitude occurred. For the 20-month period January 1957 to September 1958, making predictions as before, the actual rate of growth of the CPI was 2.4 percentage points above the predicted rate. It is interesting to note that special factors theories of inflation, in particular cost-push inflation caused by unions, were especially popular during this period.

Some final general observations are useful. There are reasons for expecting that the actual would exceed the predicted changes in the CPI for the 1973-1974 period even after adjusting for the retardation in the growth of the CPI caused by the initial imposition of wage and price controls in the earlier period. Before April 1974, the date wage and price controls expired, businessmen thought that controls might be extended. After April 1974, businessmen

thought the controls might be reimposed. As allowable price increases under controls depend on base prices, businessmen probably kept prices up instead of lowering them or raised them more than they might have ordinarily as a way of not getting caught with a low base price. Second, the real cash balances people desire to hold depend on the cost of holding the balances. Inflation is a cost or tax on these balances, since in order to maintain real balances at a given level the individual must add to his nominal cash balances every year to compensate for their depreciation in value. In response to the increase in the rate of inflation starting in the last half of 1972, caused by previous high rates of growth in  $M_1$ , people may have tried to reduce their real cash balances relative to previous holdings. Such an attempt would cause an overshooting in prices for a while, or put otherwise, for a while lagged money stock data would temporarily under-predict prices. Finally, a monetarist explanation of inflation suggests that the rapid price rises of 1973 and 1974 were unsustainable. Over a long period of time, the rate of rise of prices must be in line with the rate of growth of the money supply. The period considered ends December 1974. A decrease in the rate of change of the CPI after that date is shown in Chart 2.

*The forecasts presented in the following section are those of the author and in no way represent the views of the Federal Reserve Bank of Richmond.*

**Predicting Price Movements** This type of analysis does not disprove special factors explanations of inflation or show the superiority of monetary theories of inflation. It does suggest, however, that in the recent past it has been reasonable to use lagged rates of growth of money to predict prices and that the last few years do not represent a departure from past experience in this respect.

Table I

**PREDICTED RATES OF CHANGE IN THE CPI**

April 1976	6.2
May 1976	4.6
June 1976	3.3
July 1976	2.9
August 1976	<u>3.6</u>
Average	4.1

Table I shows rates of change in the CPI for next year that are predicted using the very simple technique of extrapolating from past rates of growth of the money stock suggested above. The figures are rates of change of the CPI on an annual basis for the six-month period ending with the date shown. They are the actual annualized percentage rates of change of  $M_1$  for the corresponding six-month period 21 months earlier minus 0.7 percent. The figures may be read off Chart 2 by lowering the  $M_1$  series 0.7 percent. As the  $M_1$  series is more erratic than the CPI series, probably the average figure of 4.1 percent is a better predictor of price behavior this year.

This article has developed the monetarist explanation of inflation. It has also presented a simple method of forecasting inflation based on the observed lags between rates of change of money and prices. The lags, as shown, are not only long but also variable. The actual rate of inflation may be significantly above or below 4.1 percent in 1976. If the overshooting effect described above did occur in 1973-1974, its actual rate of growth may be lower as the reverse process occurs this year. In any case, this monetarist forecast may be compared with those using different frameworks as the events unfold over the coming months.



# OUTLOOK FOR AGRICULTURE OPTIMISTIC

*Sada L. Clarke*

*Agriculture's prospects for the first half of 1976 were outlined by top level economists of the U. S. Department of Agriculture at the National Agricultural Outlook Conference in mid-November. The following is a digest of the outlook as they see it.*

Optimism pervaded the outlook for U. S. agriculture through the first half of 1976 when speakers presented their views at the National Agricultural Outlook Conference in mid-November. Farmers' returns are expected to be maintained at the improved price and income levels realized during the second half of last year. Moreover, consumers should notice a slowdown in the rise in retail food prices. Major factors generating these improvements are the bumper grain harvests last fall, strong foreign demand that will maintain a record pace for exports, the economic recovery now underway, and the beginning upturn in livestock production.

There are a number of uncertainties in the outlook, however. Among them, two stand out: (1) The strength in the turnaround in livestock production will depend to a great extent on the impact of developments in foreign markets on the supply and cost of feed. (2) Gains in consumer buying power, believed by many to be the key to sustaining general economic growth, could be limited by continued inflation and rising costs of energy.

**Farm Income, Fiscal Year 1975-76** Total cash receipts from farm marketings in 1975-76 are expected to add up to around \$101 billion—around \$10 billion more than in 1974-75. Higher prices will help to bring about much larger receipts from livestock and livestock products, whereas a greater volume of marketings will be the primary factor behind a modest increase in crop receipts. Rising, albeit moderating, farm production expenses are likely to offset much of the gain in gross income. Even so, a sizable rise in realized net income is indicated, perhaps running well above the \$25 billion—third largest of record—estimated for calendar 1975.

**Supplies and Costs of Farm Inputs** With farmers planning for all-out production again in 1976, demand for farm inputs is expected to be strong. Moreover, the farm supply shortages of the past several years have eased. As a result, supplies of items such as fertilizer, fuels, and pesticides are said

to be adequate for this year's farming operations. Most petroleum fuels reportedly are plentiful, in fact, and supplies of many types of farm machinery seem to be catching up with demand. Feed supplies are larger, and prices are easier.

Farm costs in general are expected to continue upward in 1976 but not at the leaping pace of recent years. Actually, fertilizer prices are declining. But farm wage rates will probably jump 8 to 11 percent over 1975 levels because of the January 1 increase in the Federal minimum wage for farm workers.

**Agricultural Exports** Heavy world demand for U. S. farm products is setting the stage for another record export year in fiscal 1976. Expectations are that the value of farm product exports may reach as high as \$22.7 billion, about \$1 billion more than in fiscal 1975. Unlike a year earlier, the increased value this year will result from a larger volume of exports rather than higher prices.

Shipments of grains, oilseeds and products, cotton, and tobacco—the principal commodities—could exceed 103 million metric tons. Such a level would be about 19 million tons over last year's volume and would set a new record. An especially strong export year is foreseen for wheat and feed grains.

By destination, shipments to the USSR and Eastern Europe will show the biggest gain over last year. But larger exports to North Africa, South Asia, Southeast and East Asia, and Japan are also expected. Lower prices will reduce the value of exports to Western Europe and Latin America even though export volume will likely hold up well.

**Retail Food Prices** Grocery shoppers can take heart! The slowdown in spiraling food prices that began in 1975 promises to continue during the first half of 1976. Moreover, supplies of fresh and processed fruits, tree nuts, and canned and frozen vegetables are large. And larger supplies of poultry and red meats seem highly probable.

Retail food prices, under conditions that now appear most likely, will probably edge upward at an

annual rate of 4 to 5 percent during the first six months of the year—about one-half of the 9 percent rate of advance in calendar 1975. Such an increase would mean an average annual rate of slightly more than 1 percent per quarter. First quarter prices may rise at a somewhat faster pace. But a slower rate of increase is seen as likely for the second quarter as production of fed beef, pork, and poultry expands.

Food marketing costs will of course continue to play a major role in the level of retail food prices. Marketing spreads—the difference between the retail price and farm value of foods—will likely advance further during the first half of the year. But gains may slow relative to a year earlier, probably rising only about 5 percent compared with an 11 percent increase during the same period in 1975.

**Commodity Reviews** The digests that follow are highlights of the Department of Agriculture's expectations for major commodities produced in the Fifth District.

*Tobacco:* Larger supplies, both at home and overseas, highlight the outlook for tobacco in 1976. U. S. cigarette consumption (total and per capita) may advance further this year. But smokers are not expected to smoke as many per capita as they did during the record year 1963. Exports of unmanufactured tobacco fell about 10 percent last year, and leaf exports in 1976 may do well to hold near recent levels. The high prices of U. S. leaf are adversely affecting tobacco exports even though worldwide preference for cigarettes containing flue-cured and burley tobaccos has risen sharply. With last year's large crop, carryover stocks can be expected to increase.

The basic flue-cured tobacco marketing quota for 1976 has been cut 15 percent in an effort to keep supplies in line with demand. But the addition of net undermarketings from 1975 leaves the effective quota only 10 percent below last season's level. The basic quota for burley may remain about the same as in 1975. Price support levels for eligible 1976-crop tobaccos will be  $13\frac{1}{2}$  percent higher than in 1975.

*Cotton:* Smaller supplies and larger disappearance characterize the 1975-76 outlook for cotton. With the sharply reduced 1975 crop, current season supplies are expected to drop to the lowest level since 1923-24. On the demand side, combined domestic mill use and exports probably will range from 9.8 to 10.8 million bales versus 9.8 million last year. Carry-

over stocks next July 31 thus may total around 3.5 to 4.5 million bales, down from 5.7 million at the end of 1974-75.

Domestic mill use holds promise of bouncing back in 1975-76, consuming an estimated 6.8 to 7.3 million bales in contrast with last season's 5.9 million—smallest since the 1930's. How strong domestic demand will be will depend to a great extent on the general economic and textile activity during the next few months and on the competition from manmade fibers. Not to be overlooked, however, is the significant role that fashion's "casual natural look" is playing in cotton's comeback. The natural look has now increased demand not only for the popular all-cotton denim and corduroy materials but also for other coarse cotton fabrics, such as brushed sateens, twills, sheetings, and the like.

Foreign demand for cotton is weak, and U. S. cotton prices are not competitive in world markets. So, much uncertainty surrounds export prospects for the 1975-76 season. Current indications point to a moderate recovery in foreign cotton demand in early 1976, with exports for the marketing year ranging from 3.0 to 3.5 million bales, well below last season's level.

*Soybeans and Peanuts:* Record large supplies, significantly expanded utilization, a sharp buildup in carryover stocks next fall, and lower average farm prices are the main features of the soybean outlook for 1975-76. Soybean plantings in 1976 could fall below last year's levels if the current soybean/corn price ratio of 2 to 1 continues. Even though soybean usage is expected to increase, it may well not equal the record use in 1973-74. Moreover, total soybean utilization may fall below production for the third consecutive year. Soybean exports are expected to increase sharply but face increased competition and may fall short of the record shipments of 1973-74. The lower prices and large supplies should spur exports of soybeans, however.

Peanut production continues to outstrip consumption, and supplies are at record levels. Use of peanuts in edible products this season is expected to rise by some 6 percent to about 9 pounds per capita. But despite the likely increase in consumption, peanut supplies are well in excess of requirements for food and farm use. About one-third of the crop will be acquired by the Commodity Credit Corporation under the price support program, and crushings to dispose of the surplus peanuts will increase sharply. Under existing law, 1976 acreage allotments have been set at the minimum level.

*Poultry and Eggs:* More poultry and eggs are in prospect for the first half of 1976. Egg output may gain slightly early in the year but could fall to around year-earlier levels in the spring. The outlook for broilers and turkeys calls for substantial production increases over a year ago, however.

Egg prices may well remain sluggish, averaging near or below year-ago prices during the first half of the year unless consumer demand picks up more than is now anticipated. Moderate expansion in broiler consumption, small red meat supplies, and higher consumer incomes should more than offset the expected increase in broiler supplies and hold average broiler prices this winter near the mid-40 cent per pound range. Turkey prices, likely to decline seasonally after the holidays, may remain above a year earlier into 1976 in spite of indicated production gains.

With larger supplies and lower prices of most feed ingredients likely, the cost of producing poultry and eggs in the coming months is expected to average below levels a year ago.

*Meat Animals:* Pork output may continue below 1975's reduced level through mid-1976, keeping hog prices relatively strong through the winter. More pork is indicated for the second half, however, starting with small gains around midyear and then becoming larger toward the end of the year. With the outlook for reduced feeding costs and the recent record high hog prices, producers seem likely to keep farrowings up through most of the year. Should hog slaughter for all of 1976 total around 3 to 5

percent above 1975, as now seems probable, the price of hogs could move generally lower during the summer and fall.

More fed beef and less nonfed steer and heifer slaughter are in prospect for 1976. With feeding costs more favorable and feeder cattle available, cattle producers have already begun to place significantly more cattle on feed. Fed cattle marketings will probably begin to show increases over year-ago levels in the first quarter, with larger gains following in the second. If placements continue to rise, nonfed slaughter is expected to decline significantly, with most of the reduction occurring in the second half. Should the feed situation, including pasture conditions this summer, remain favorable, cattle slaughter for the year could be from 2 to 4 percent above a year earlier. Fed cattle slaughter would comprise all of the increase. Assuming that consumer demand holds up, it now looks as if fed cattle prices in 1976 might average close to, or just above, the 1975 price range of \$44 to \$48.

*Dairy Products:* Milk output during the first half of 1976 may increase slightly if gains in production per cow offset comparatively small declines in cow numbers as is now expected. Farm milk prices are likely to continue well above year-earlier levels early in 1976. But should increasing milk production and consumer resistance to higher retail dairy prices materialize, milk prices at the farm level may show sharper-than-normal seasonal price declines. The recent increase in price support levels will likely hold farm milk prices above those a year ago, however.

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