

THE FINANCIAL SERVICES INDUSTRY: RECENT TRENDS AND FUTURE PROSPECTS

Aubrey N. Snellings

The financial history of the United States is a story of recurring change in response to economic, political, and demographic forces. These changes, however, have not occurred at a constant, steady pace. Relatively short periods of very rapid change have been followed by long periods of slow evolutionary growth. Some changes have resulted in a fundamental alteration of the financial system while others have been of only transitory significance. Thus, it is not always easy to spot significant changes when they are taking place, and it may be equally difficult to correctly assess the impact of ongoing changes on the future development of the financial system.

Nevertheless, some of the developments in recent years clearly suggest the emergence of trends that could profoundly alter the financial system over the next quarter century. There have been a number of these trend indicators but it is convenient to classify them under a few general headings. These include (1) a significant change in regulatory philosophy, (2) imaginative innovation on the part of financial entrepreneurs, and (3) technological developments, especially in the area of computerized processing and communication of financial data. It is obvious, however, that developments in these several areas have not been independent of one another. Regulatory practices, for example, have at times stimulated innovation in the financial industry. At other times, innovation has encouraged changes in regulatory practices.

Regulatory Policy The philosophy that dominated the activities of Federal regulatory agencies until fairly recently grew out of the developments in the early decades of this century. Partly as a result of competition between state and Federal agencies in the chartering of new banks, the number of banks in the United States rose from about 13,000 in 1900 to almost 31,000 in 1920. More than three-quarters of the new banks were small, state-chartered institutions with a minimum of capital. Moreover, many of them were highly dependent on the health of a single industry, such that when the industry experienced hard times so did the dependent banks. Some

sectors of the economy, notably agriculture, did experience hard times in the 1920's and by 1928 the number of banks had been reduced by some 4,500. Shortly thereafter, the onset of the Great Depression brought on the virtual collapse of the banking system, with the total number of banks in the United States falling by more than 11,000 between mid-1928 and mid-1933. As the depression deepened the nonbank portion of the financial system and much of the non-financial economy collapsed along with the banking system.

When the Roosevelt administration took office in early 1933, financial reform was the centerpiece of a program to bring about economic recovery. Numerous proposals for the reform of all types of financial institutions were submitted to an eager Congress that quickly enacted them into law. The result was the most far-reaching change in the body of laws regulating U. S. financial institutions that has ever occurred in a comparable period of time. In view of the conditions that existed at the time, it is not surprising that protecting the safety of financial institutions was one of the paramount objectives of this legislation. New agencies were set up to insure deposits in financial institutions and to supervise these institutions. At the same time the powers of some existing agencies, such as the Federal Reserve System, were greatly strengthened. Moreover, laws were passed that limited competition among financial institutions, both among institutions of a particular type as well as between different types of institutions.

For the next forty years the financial industry remained one of the most tightly regulated industries in the U. S. economy. The emphasis on "Safety First" that was born in the depression of the 1930's became the guiding philosophy of the regulatory agencies. Few would disagree that these agencies have been successful in protecting the soundness of the financial system, for over the past thirty years the number of financial institutions failing each year has been extremely small. This low failure rate, however, has not been achieved without cost. In particular, the increased safety involved a cost in the form of reduced competition.

Some of the regulatory devices that limited competition among financial institutions include:

1. Barriers to entry that have limited the number of competitors in a particular type of activity.

2. A strict segmentation of the financial industry, with many institutions limited to a rather narrow range of activity. Although commercial banks are permitted much more latitude than most other institutions, they are not allowed to engage in such activities as investment banking. The activity of savings and loan associations, credit unions, and most other financial institutions, have been quite narrowly circumscribed.

3. Prohibition of interest on demand deposits and interest ceilings on time and savings deposits.

4. Limitations on branching. Commercial banks cannot branch across state lines and branching within states is controlled by state law. Some states prohibit any branching by commercial banks.

The preceding are some of the more important devices that have been used to limit competition in financial markets. They are indicative of the types of restraint that have been imposed on financial institutions for what was thought to be their (and the public's) own good.

All of the foregoing barriers to competition still exist, but in recent years there has been a significant shift in the attitudes and philosophy of regulatory bodies. This change has come about partly as a result of imaginative innovation on the part of the financial industry and partly from a recognition by legislators and regulators of the costs involved in restrictions on competition. The soundness of the financial system remains the most important objective of the supervisory agencies, of course, but it is no longer the only objective. Regulators and legislators alike have recognized the trade-off between safety and competition and in the last decade or so they have chosen to move slightly away from the goal of absolute safety in favor of some additional competition. Moreover, in the last decade more and more of the time and energies of the regulators have been devoted to implementing the consumer protection and equal rights laws enacted by Congress.

Industry Innovation In recent years intense competition in financial markets accompanied by a rising interest rate structure stimulated a number of innovative actions by financial entrepreneurs that brought into being many new financial instruments

and new services to the public. At the same time, some of these changes had the effect of blurring the sharp distinction between different types of financial institutions and erasing some of the lines that have traditionally separated one kind of financial institution from another.

Pressures against the control of interest rates on deposits began as long ago as the early 1960's. At that time commercial banks began to issue large denomination certificates of deposit (CD), a device that enabled them to compete for funds in the national money markets. The CD was followed by a series of similar instruments in the 1960's, until the authorities recognized the futility of trying to prevent banks from raising funds in the money markets. Interest on deposits is still regulated, of course, but recent developments point toward the eventual elimination of such controls. Banks and S&L's are now permitted to pay somewhat competitive rates for funds through the issuance of so-called money market certificates, and the introduction of negotiable order of withdrawal (NOW) accounts in some states by savings and loan associations and mutual savings banks, share drafts by credit unions, and automatic transfer services by commercial banks in effect permit the payment of interest on demand deposits. Legislation has been introduced in Congress that would permit, over a period of time, all deposit interest rates to rise to market levels and permit all federally insured institutions to offer interest-bearing transactions accounts to individuals.

At the same time, banks and thrift institutions are expanding the scope of their activities. In many states thrift institutions are beginning to make consumer loans, and credit unions are offering longer term loans, even mortgage loans in some instances. The legislation being considered by Congress also provides that federally insured institutions shall be permitted to hold up to ten percent of their assets in the form of consumer loans, commercial paper, corporate debt securities, and bankers acceptances. The legislation also would give Federal savings and loan associations the ability to offer trust services on the same basis as national banks. A report of the Committee on Banking, Housing, and Urban Affairs of the U. S. Senate states that "The FHLBB is expected by regulation to tailor permissible trust powers to those that enhance the ability of thrifts to offer complete financial service to the consumers."¹

¹ U. S., Congress, Senate, Committee on Banking, Housing, and Urban Affairs, S. Rept. 96-368 to Accompany H. R. 4986, 96th Cong., 1st sess., 1979, p. 13.

In short, these nonbank financial institutions that provide services primarily to consumers are becoming more and more like each other and are coming more and more to resemble commercial banks. Commercial banks, for their part, have expanded the scope of their activities, especially through the formation of holding companies. Although the activities of bank holding companies are restricted by law to certain areas closely related to banking, the holding company device has enabled banks to enter several areas that had heretofore been closed to them. In addition, in recent years there has been growing sentiment in favor of allowing banks to engage in investment banking activity, especially in the direct placement of securities.

Finally, it appears likely that barriers to bank branching across state lines will be eased in the not too distant future. A major review by the Treasury Department of the McFadden Act and the Douglas Amendment to the Bank Holding Company Act was mandated by the International Banking Act of 1978. It is widely anticipated that this study, when completed, will endorse multi-state branching. The holding company device permits banking organizations to carry on some activities across state lines already, and of course, much commercial lending is done in regional and national markets. The pressures to permit financial institutions located in multi-state metropolitan areas to operate offices in more than one state have been especially strong. The Federal Home Loan Bank Board, for example, recently proposed branching throughout the District of Columbia Standard Metropolitan Statistical Area. Finally, the continuing application of electronic technology to banking may provide the final push toward multi-state branching.

Technological Change The continuing changes brought about by competitive pressures and modifications in the regulatory environment will play an important role in determining the nature of the financial system of the future. Another major determinant undoubtedly will be the technological innovations that have been occurring at an ever-increasing pace in recent years. Regarding technological change, the most important innovation in the financial area was the development of computer and communications systems for transferring bits of information from one place to another by electronic means, and the application of these systems to the payments mechanism. The result is what is commonly referred to as an electronic funds transfer system (EFTS).

The subject of EFTS is a popular one these days, but it is one that should be approached with some caution. Simply because the potential for radical change represented by EFTS is so great, it is easy to overstate its importance for the near future. The temptation is to look at what is technologically possible with existing equipment and project all sorts of pie-in-the-sky developments in the relatively near future. While there is little question about the potential for change in EFTS, experience over the past decade indicates that progress toward realization of the full potential of EFTS may be slow. For while there are strong pressures toward development of EFTS capabilities, there are also important barriers to the adoption of certain aspects of the system. The actual rate of progress in the years ahead will be determined by the relative strengths of these conflicting pressures.

The immediate impact of EFTS will be on the way banks perform traditional services rather than on the provision of new services. The impact on payments services will be especially great. Since World War II, growth in the use of bank services, especially payments services, has been tremendous. It is estimated that more than 30 billion checks are written each year and the number is increasing at about seven percent per year. Needless to say, the cost of processing and moving this mountain of paper has been mounting accordingly. It is little wonder that the banks and the Federal Reserve System have had to turn more and more to the use of computers to get the job done. The next step would appear to be the use of modern technology to eliminate most of the checks.

The technology exists to permit revolutionary changes in the way financial services are provided, but the full potential of an EFT system is still a long way from being realized. Nevertheless, a number of important elements of such a system have been introduced. A large number of banks in urban areas have introduced automated teller machines, some of which are on-line to the banks' computers. These machines are capable of performing many of the routine tasks of a human teller and they are on duty 24 hours a day. Customers can obtain cash from the machines, transfer funds from one account to another, make loan payments, and request information as to the current status of a particular account. Some financial institutions are beginning to locate automated teller machines in stores and supermarkets. Employees may be on hand during the busiest hours of the day to take care of transactions the machine cannot handle, and at other times the machines are

available anytime the store is open. These facilities, of course, will reduce the need for traditional branches and may revolutionize the banking structure in the United States.

One of the innovations most often discussed, perhaps, is the point of sale terminal (POS). Located in stores and other business establishments, these terminals are on-line to a bank's computer. By use of a "debit card," the customer is able to make instant payment for goods purchased, or the customer may use a credit card and make payment through the extension of credit by the bank. The terminals may also be used to verify a customer's check. Thus far the reception of the POS terminals has been somewhat mixed. While some of these facilities have enjoyed success, a number have been discontinued because of lack of interest on the part of the public. A feature of these transactions that discourages public acceptance is the immediate debit to the customer's account that eliminates the float associated with check payment.

Many observers feel that the development of the automated clearing house (ACH) in regional financial markets represents an important step toward an effective EFT system. At the present time more than 10,000 financial institutions are participating in regional ACH's and since 1978 the regional organizations have been linked together into the National Automated Clearing House Association. So far, however, the actual functions performed by the ACH's are rather limited, with the handling of payrolls an important one. In processing a payroll through an ACH, an employer delivers a computer tape to his bank containing payroll information for his employees. By use of the tape, the employer's account at the bank is reduced and the employees' accounts at various banks in the clearing house association are increased. The important thing is that not a single check has to be processed. The federal government is the largest user of the ACH's at the present time with the direct deposit of social security payments and other federal disbursements. This not only reduces the number of checks in the banking system, it also greatly reduces the risk of having checks lost or stolen. However, serious questions of computer fraud and consumer privacy remain as barriers to customer acceptance of this system.

Check truncation is also receiving attention as an adjunct to the ACH. Under this procedure, the first bank receiving a check holds it and forwards the information on the check by electronic means to the bank on which the check is drawn. There are various means of forwarding this information, of course, but

one of the more interesting involves the transmission of the image of the check. The potential benefits of check truncation as a means of reducing the volume of checks flowing through the banking system are obvious, but some formidable obstacles must be overcome before this procedure becomes widespread.

How important are these technological innovations for the future development of the financial services industry? This is a difficult question to answer, but what is clear is that the changes described here are little more than the first tentative steps toward what could become a fully functioning electronic funds transfer system. It seems likely, however, that progress toward such a system may be very slow. More than thirteen years ago an article appeared in this publication entitled "The Giro, the Computer, and the Checkless Society." That article attempted to show that computers could be combined with the principles of the giro systems that have existed in Europe for many years to produce a payments system that could function without the use of checks. While the article recognized some of the obstacles to the achievement of such a system, progress has been much slower than was anticipated at that time. Several factors have retarded progress toward a checkless payments system, but by and large the absence of adequate technology has not been one of them. The basic technology needed for an EFTS has existed for some time and the unit costs of performing certain basic functions have fallen sharply over the last several decades.

The most important obstacle to the more rapid development of an EFTS has been the reluctance of the public to accept the new services. Most of the EFT systems that have been developed have certain features that are undesirable to the consumer. As mentioned earlier, the POS system involves the loss of float to the consumer. Automatic deposit of payrolls and other payments may allow fraud and violations of privacy, while the use of several of these systems may result in the loss of a legal receipt in the form of a cancelled check.

Thus far, consumers have had little economic incentive to give up checks in favor of an EFTS. For one thing, they are not presently required to pay the full costs of operating the payments system. Both the Federal Reserve and, perhaps to a lesser degree the commercial banks, subsidize the check processing system. It appears likely that the Federal Reserve System will soon begin to charge commercial banks the full costs of services provided, including check collection services. It will probably be necessary for the banks to pass these costs along to consumers to-

gether with that portion of such costs presently being absorbed by the banks. So the cost to consumers of using checks in the payment process is likely to rise in the not too distant future. The unit costs of EFTS transactions are fairly high at present, but there are at least two reasons to believe that these unit costs will fall quite rapidly as the EFTS becomes more widely used. First, an EFT system involves large fixed costs in the form of investment in capital equipment, but relatively small variable costs. Thus, as volume rises unit cost per transaction should fall quite rapidly. In contrast, a check-based payments system is quite labor intensive, so that variable costs are a large part of total costs. As volume increases, therefore, marginal costs tend to remain high. Second, technological improvements have occurred at an extraordinary pace in recent years. As a result, the cost of processing a single piece of data through a computer, for example, has fallen dramatically in the past two decades. It is doubtful that the possibilities for improvement in these areas have been exhausted, so continued reductions in equipment costs can be anticipated.

The major argument in favor of an EFT system, therefore, is that it holds the potential for increasing the efficiency of the payments mechanism and thereby reducing the unit operating costs. If financial institutions, including the Federal Reserve System, adopt a full-cost-pricing approach for payments services the greater efficiency of the EFTS will be reflected directly in the customer's transactions costs. Such a financial incentive may be more than enough to offset some of the objections to EFTS noted earlier.

Prospects For The Future Concrete changes growing out of the developments described in this article have been fairly slow in coming, but they are not insignificant. The least impressive phase of any process of change consists of the construction of an underlying groundwork that will permit and encourage further change. Developments over the past decades have provided such a groundwork and now the process of change appears to be gaining speed. But what does this process portend for the future? How will the financial services industry twenty-five years from now differ from that of today? Lacking clairvoyance, no one can be certain about things that far in the future, but the basic trend indicators discussed in this article suggest some of the things one can look for:

1. Financial service institutions will probably become more homogeneous. This does not mean that

all of these institutions will become identical. Indeed, one would expect some specialization to remain, with commercial banks continuing to emphasize business loans, savings and loan institutions and mutual savings banks holding a large proportion of their assets in mortgage loans, and credit unions making mainly consumer loans. Nevertheless, most of these institutions will look more like each other than they do today, especially those servicing the consumer sector. Some very large commercial banks may become even more highly specialized than they are now, providing financial services almost exclusively to business customers. These institutions may differ more from small banks than the small banks differ from nonbank financial institutions that serve consumers. The very large banks may also provide investment banking services. Thrift institutions and credit unions will differ from those of today primarily by virtue of a more diversified asset structure. Thrifts, for example, will be much more heavily involved in consumer financing than today and they may also be making loans to businesses. To the extent that institutions servicing the public become more alike, provisions of the law favoring certain types of institutions will be eliminated.

2. The several federal regulatory agencies probably will be combined into a single agency that also provides deposit insurance. Regulation in the traditional sense will be much less restrictive than in the past. Regulation of rates paid on deposits will have been eliminated, restrictions on branching will have been eased or eliminated, and many of the rules and regulations designed to protect financial institutions from competition will no longer exist. What might be called consumerist regulation and regulation to ensure equal access to credit, on the other hand, will be much more pervasive.

3. With the changes in the regulatory environment and the tendency of financial institutions to become more alike, competition should be quite intense over the next several decades. This could result in what might be described as a "shakedown" period during which some institutions may be eliminated by merger, holding company acquisition, or in a few instances, failure. At any rate, the total number of financial institutions serving the consuming public should not be much larger, and might be much smaller, than that of today.

4. The ordinary consumer will rarely find it necessary to visit his bank or thrift institution. Most routine transactions will be handled by machine from

remote facilities located in homes or in shops. Trips to a financial institution will be limited to special occasions involving such things as financial counseling, but even that may be done from the home. Banks and other financial institutions will need fewer branches as we know them today, with greatly ex-

panded automated teller machines located in shopping centers replacing many of today's branches. As a result, consumer banking will be much less labor intensive than it is today. Most of the routine transactions will be automated, with the customer in many instances doing most of the work.

The Federal Reserve Bank of Richmond is pleased to announce two new publications.

**BANK DEPOSITS AND THE MONEY SUPPLY:
CONCEPTS, MEASUREMENT, AND INTERPRETATION**

This volume contains eight *Economic Review* articles dealing with the public's primary monetary assets, i.e., the deposit liabilities of private financial institutions. Particular topics covered include the appropriate definitions of money, the effects of regulations prohibiting interest payments on demand deposits, seasonal adjustment of the money supply, and the behavior of different categories of demand and time deposits.

BUSINESS FORECASTS 1980

This publication is a compilation of representative business forecasts for the coming year. It also contains a consensus forecast for 1980.

These publications may be obtained free of charge by writing to:

Bank and Public Relations
Federal Reserve Bank of Richmond
P. O. Box 27622
Richmond, Virginia 23261

FORECASTS 1980

A CONSENSUS FOR A RECESSION

William E. Cullison

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

There have been few times in the history of forecasting the economy when there has been greater general agreement about the prospects for the economy. The fifty leading business and academic economists whose published forecasts have been received by this Bank are unanimous in predicting that the Eighties will begin with a recession. The major differences in the forecasts this year revolve around the type of recession (V-shaped or saucer-shaped) that is expected and the timing of the recovery. Most forecasters, however, are predicting a relatively severe V-shaped recession that bottoms out in the second quarter. They then anticipate slow but positive growth in the third quarter and a moderately vigorous recovery in the fourth. The forecasters who predict a different scenario are split into two groups, those who predict a shallow (saucer-shaped) recession and those who predict a sharp downturn of longer duration than two quarters. Opinion is roughly equally divided among the two competing alternative scenarios.

Consistent with the recession prediction, the unemployment rate is predicted to rise to almost 8 percent by the fourth quarter of 1980. Average corporate profits for 1980 are expected to be 7.6 percent below the 1979 average. The rate of inflation (measured by the implicit deflator for GNP) is expected to subside, but only very slightly, averaging 8.7 percent for the year. All of the forecasters expect private housing starts to decline sharply in the first quarter, and many expect the decline to continue in the second, but most of them think that the recovery will have begun by the third quarter.

The major areas of concern to the forecasters this year include the homebuilding industry and the prospects for consumer spending in general. Few forecasters expect the savings rate to continue at the low level registered in the second half of 1979, so they expect consumers to become more cautious in their spending. Sales of domestic autos are expected to continue to suffer from fuel price hikes, and the

housing industry is expected to be quite weak in the first half of the year because of high mortgage rates and scarcity of mortgage money.

All forecasters predict significant increases in oil prices in 1980. The recovery in the second half of the year is expected to come in response to lowered interest rates and increased defense spending, and a year-end recovery in consumer spending for durables led by a renewed interest in domestic automobiles.

Last year, the consensus prediction for real GNP growth, 2.4 percent, was remarkably close to the actual increase for the year as a whole. The quarter-by-quarter path for the economy, however, was considerably different from that predicted. The forecasters had expected a 3.1 percent annual rate of growth of real GNP in the first quarter, with growth rates falling to the 0.5 percent to 1.5 percent range in the remaining quarters of the year. Instead, the annual rate of growth of real GNP rose 1.1 percent in the first quarter, fell 2.3 percent in the second, and rose 3.1 percent and 1.4 percent in the third and fourth quarters. The decline in real GNP in the second quarter seemed to many observers to herald the beginning of a recession. The subsequent rises in real GNP, however, cast doubt on that view, although it is still not completely implausible. The decline in economic activity in the second quarter is now generally thought to have resulted primarily from fuel shortages and gasoline lines. At this writing, preliminary indications show fourth quarter real GNP to be higher than that registered in the third quarter. If, however, that preliminary figure is revised downward substantially, the beginning of the recession may yet be considered to be the second quarter of 1979. Forecasters last year expected the rate of increase in consumer prices to be considerably less than it actually was. They expected the Consumer Price Index (CPI) to rise 8.2 percent; it actually rose 11.3 percent. Most of them think that the CPI will rise 10.8 percent in 1980.

This article attempts to convey the general tone and pattern of some fifty 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 eco-

conomic indicators. Some are made in terms of annual averages while others are made on a quarter-by-quarter basis, and a consensus drawn from one of these groups may differ from that drawn from the other. Moreover, the individual forecasts are based on varying assumptions and this should be taken into account in interpreting the consensus.

This Bank also publishes the booklet Business Forecasts 1980, which is a compilation of representative business forecasts with names and details of the various estimates. No summary article can ever be as informative as the actual forecasts themselves. Serious readers are urged to look at the individual forecasts in more detail in Business Forecasts 1980.

1979 FORECASTS IN PERSPECTIVE

The consensus forecast published in last year's January/February *Economic Review* predicted 1979 current dollar GNP to increase 10.2 percent over 1978. The rates of increase forecast ranged from 9.0 percent to 11.0 percent. Using the revised 1978 GNP total of \$2,127.6 billion, the consensus forecast for 1979 GNP would have been \$2,344.6 billion and the range from \$2,319.1 billion to \$2,361.6 billion. Increasing prices were expected to account for 7.6 percent of the gain in GNP, so GNP measured in constant dollars, or real GNP, was expected to rise 2.4 percent.

Current estimates by the U. S. Department of Commerce indicate that GNP in 1979 actually increased 11.3 percent. Prices, as measured by the implicit deflator for GNP, however, increased 8.8 percent, considerably more than anticipated. As a result, preliminary estimates put the increase in real GNP around 2.3 percent—about equal to the 2.4 percent increase predicted last year. The forecasters expected the unemployment rate to average 6.6 percent for the year. At present, preliminary estimates indicate an average of 6.0 percent.

As with the aggregate GNP figure, the forecasters also under-predicted the components of GNP. Most of the under-prediction can probably be attributed to underestimating the rate of inflation.

Personal consumption spending was forecast to increase 9.8 percent, but it actually rose 11.7 percent. Consumer purchases of durable goods, estimated to increase 6.5 percent, actually rose 6.3 percent. Purchases of nondurables were estimated to increase 9.7 percent, whereas the actual rate of increase was 12.5 percent. Consumption spending for services was forecast to increase 11.3 percent, but it was also

underestimated. The actual 12.9 percent increase was surprisingly far from the mark, considering that consumer spending for services are usually the most predictable component of consumption spending.

The forecasters expected a more moderate rate of increase in gross private domestic investment than the 15.7 percent rate of growth registered in 1978. The growth rate did, in fact, moderate to 9.8 percent, but the forecasters had expected it to be only 7.1 percent. The consensus prediction for inventory investment, which is a common source of forecast error, was relatively accurate. The consensus expected inventory investment to remain constant. It actually fell \$3.9 billion from the revised \$22.3 billion averaged for 1978.

Net exports, with which the forecasters also often have difficulty, was underestimated by only \$2.0 billion last year. The actual figure, —\$3.5 billion, was well within the range of forecasts. The range was, as is often the case, quite large—from +\$5.6 to —\$8.5 billion.

The forecasts of the last major component of GNP, government purchases of goods and services, centered around a rate of increase of 11.0 percent. Actual government spending is now thought to have risen only 9.3 percent. Thus, the growth of government spending was the only major component of GNP to have been underestimated by last year's forecasters.

Regarding profits and industrial production, the forecasts for 1979 underestimated profits substantially but predicted industrial production fairly accurately. Before-tax corporate profits were predicted to rise 2.6 percent; most observers now think they increased about 14.8 percent. The index of industrial production rose 4.1 percent, slightly more than the predicted 3.4 percent rise.

The forecasters underestimated the rise in the Consumer Price Index by an even larger margin than the Implicit Price Deflator. Consumer prices were expected to rise 8.2 percent, but current figures indicate a rise of 11.3 percent.

The consensus of the quarter-by-quarter forecasts for 1979 had current dollar GNP rising 10.5 percent in the first quarter, 7.8 percent in the second quarter, 7.1 percent in the third quarter, and 6.8 percent in the fourth, measured at annual rates. The realized quarterly increases, measured at annual rates, were 10.6 percent, 6.7 percent, 11.0 percent, and 10.1 percent. For real GNP, the consensus forecast called for annual rates of increase of 3.1 percent, 1.4 percent, 0.4 percent, and 1.2 percent for the four quarters, respectively. The realized increases for the first three quarters, were 1.1 percent, —2.3 percent,

and 2.4 percent, while the preliminary number for the fourth quarter is now placed at 1.4 percent.

The forecasters, then, exhibited considerably less prescience about the quarterly path of the economy than they did about average figures for the year as a whole. They expected relatively greater growth during the first quarter of the year, with the growth rates tapering off through the third quarter and increasing slightly in the fourth. Instead, the economy experienced its slowest growth in the first half of the year, with the quarterly growth rate for the second half picking up slightly after a 2.3 percent second quarter decline.

The limits of forecasting prescience were equally apparent in the discrepancy between actual and predicted quarter-by-quarter behavior of the unemployment rate. The unemployment rate was expected to average 6.1 percent in the first quarter and to rise to an average of 7.9 percent in the third quarter.

Consistent with the expectations that economic growth would improve in the fourth quarter, the unemployment rate was predicted to decline to an average of 6.8 percent in the last quarter of 1979. Instead, the unemployment rate surprised almost everyone by remaining relatively stable, with monthly rates fluctuating narrowly in the 5.7 percent to 6.0 percent range.

1980 FORECASTS IN BRIEF

Gross National Product Forecasts for 1980 current dollar GNP center around \$2,541 billion. This consensus forecast indicates an approximate 7.3 percent yearly gain, less than the 11.3 percent increase apparently registered in 1979. Estimates for increases in 1980 current dollar GNP range from 5.3 percent to 9.2 percent. Prices, as measured by the implicit deflator for GNP, are expected to increase

RESULTS FOR 1979 AND TYPICAL FORECASTS FOR 1980

	Unit or Base	Preliminary 1979*	Forecast 1980**	Percentage Change	
				1978/1979	1979/1980
Gross national product	\$ billions	2368.3	2541.1	11.3	7.3
Personal consumption expenditures	\$ billions	1509.8	1647.2	11.7	9.1
Durables	\$ billions	212.9	215.4	6.3	1.2
Nondurables	\$ billions	597.0	650.7	12.5	9.0
Services	\$ billions	700.0	777.7	12.9	11.1
Gross private domestic investment	\$ billions	385.9	376.6	9.8	-2.4
Business fixed	\$ billions	254.2	268.7	14.9	5.7
Residential structures	\$ billions	113.3	105.5	5.0	-7.0
Change in business inventories	\$ billions	18.4	5.2	—	—
Government purchases	\$ billions	476.1	527.0	9.3	10.7
Net exports	\$ billions	-3.5	-1.2	—	—
Gross national product (1972 dollars)	\$ billions	1431.0	1412.0	2.3	-1.3
Plant and equipment expenditures	\$ billions	174.1 ^o	184.0	13.2	5.5
Corporate profits before taxes	\$ billions	236.6 ^o	219.0	14.8	-7.6
Private housing starts	millions	1.69	1.43	-16.3	-15.5
Automobile sales (domestic)	millions	8.23	7.48	-11.2	-9.1
Rate of unemployment	percent	6.0	7.6	—	—
Industrial production index	1967=100	152.1	146.6	4.1	-3.6
Consumer price index	1967=100	217.4	240.9	11.3	10.8
Implicit price deflator	1972=100	165.5	179.9	8.8	8.7

* Data available as of January 1980.

** Figures are constructed from the typical percentage change forecast.

^o Estimated.

8.7 percent, about the same as the 8.8 percent rate of increase registered last year. By contrast, real GNP is projected to decline 1.3 percent, compared to a 2.3 percent rise in 1979.

The consensus of quarterly estimates indicates a contraction of the economy during the first half of the year and recovery in the second. It calls for real GNP measured at seasonally adjusted annual rates to decrease 4.6 percent in the first quarter of 1980 and 2.8 percent in the second, and to increase 1.4 percent in the third quarter and 3.1 percent in the fourth.

Personal consumption expenditures are expected to total \$1,655 billion for 1980, up 9.1 percent from 1979. The predictions for consumption spending range from increases of 7.0 percent to increases of 10.1 percent. Forecasters estimate that expenditures for durable goods will rise only 1.2 percent for the year, while expenditures for nondurables and services are projected to advance 9.0 percent and 11.1 percent, respectively. The slowdown in durable goods expenditures is expected to be felt primarily in sales of appliances, furniture, and automobiles as a result of a generally heightened consumer caution.

Government purchases of goods and services are projected to total \$527 billion. This estimate represents a 10.7 percent increase over 1979, somewhat more than the 9.3 percent gain of the previous year. The 1980 forecasts for increases in government purchases range from 9.0 percent to 12.3 percent.

Gross private domestic investment is expected to fall by 2.4 percent in 1980, following a 9.8 percent increase in 1979. Inventory investment is expected to be at a lower level than in 1979, which is consistent with a contractionary economy. Residential construction is expected to continue to be a weak sector of the economy, falling 7.0 percent, after a modest 5.0 percent rise in 1979. Business fixed investment spending will also be sluggish if the forecasts are correct. That sector is expected to register a 5.7 percent gain compared to 14.9 percent last year. The array of forecasts this year, as is usually the case, is quite broad in the investment sector. Expectations for residential construction range from decreases of 17.4 percent to increases of 0.2 percent. For business fixed investment, estimated increases range between 2.3 percent and 9.9 percent. Forecasts for investment in business inventories, for which the consensus was \$5.2 billion, range from -\$2.3 billion to +\$11.3 billion.

Industrial Production The typical forecast for the Federal Reserve index of industrial production (1967=100) in 1980 is 146.6, a decrease of 3.6 per-

TYPICAL* QUARTERLY FORECASTS FOR 1980

Percentage Quarter-to-Quarter Annual Rates
Unless Otherwise Indicated

	Forecast 1980			
	I	II	III	IV
Gross national product	4.9	5.4	8.6	10.4
Personal consumption expenditures	6.5	7.0	9.1	10.9
Durables	-2.2	-1.0	9.3	12.5
Nondurables	7.8	7.8	10.0	11.0
Services	10.6	8.7	9.6	11.5
Gross private domestic investment	-9.9	-11.4	2.7	16.1
Business fixed investment	4.2	1.2	2.6	6.7
Residential construction	-23.8	-16.0	7.9	40.3
Change of business inventories†	5.0	5.8	5.9	10.0
Government purchases	8.3	8.9	8.2	11.5
Net exports‡	-2.9	-1.9	-2.6	-2.2
Gross national product (1972 dollars)	-4.6	-2.8	1.4	3.1
Plant and equipment expenditures	4.0	1.0	1.0	8.4
Corporate profits before taxes	-28.7	-23.4	-4.7	20.2
Private housing starts	-62.6	-12.3	31.9	46.0
Industrial production index	-9.2	-5.4	1.6	6.2
Rate of unemployment‡	6.8	7.4	7.9	7.8
Consumer price index	10.0	9.6	8.4	8.4
GNP implicit deflator	9.1	8.5	7.6	7.5

* Median.

† Levels, billions of dollars.

‡ Levels, percent.

cent. This prediction again indicates the recession expected in 1980.

Housing The construction industry is expected to feel the effects of high mortgage rates, scarcity of mortgage money, and rising construction materials costs in 1980. Activity in this sector is expected to be almost 15.5 percent below the already slow 1979 pace. Private housing starts, which totaled almost 2 million units in 1978, totaled only 1.7 million units in 1979 and they are expected to total only 1.4 million units in 1980. Forecasters expect construction to recover in the second half of the year when credit is expected to be available and mortgage rates are expected to be somewhat lower.

Corporate Profits All but one of the forecasters expect pretax profits to decline this year. The most

pessimistic forecaster expects corporate profits to fall 13.2 percent. The most optimistic predicts only a 2.0 percent rise. The consensus forecast calls for a decline in pretax profits of 7.6 percent, to \$219 billion. This decline follows a gain of approximately 14.8 percent in 1979. Hence, corporate profits are expected to reflect the slower growth of the economy, although they are expected to decline somewhat less sharply than they normally do in recession years.

Unemployment Most forecasters are predicting an increase in the rate of unemployment during 1980. The typical forecast for the year's average is around 7.6 percent. This will be 1.6 percentage points above the 1979 average. Considering that the unemployment rate at year-end 1979 stood around 6.0 percent, the 7.6 percent prediction for 1980 indicates that the unemployment rate is expected to move somewhat higher than 7.6 percent during the course of the year. The quarterly consensus forecast, in fact, puts the unemployment rate at 7.9 percent and 7.8 percent in the third and fourth quarters, respectively.

Prices This year the forecast indicates that the rate of price increase will remain at about last year's rate. The implicit GNP deflator, which rose 8.8 percent in 1979, is expected to increase 8.7 percent in 1980. The Consumer Price Index is expected to rise 10.8 percent, slightly less than the 11.3 percent increase averaged in 1979. Forecasts for increases in the implicit deflator range from 7.2 percent to 9.6 percent, while forecasted increases in the Consumer Price Index range between 9.2 percent and 11.8 percent.

Net Exports The nation's trade position, measured on a National Income Accounts basis, was approximately \$3.5 billion in deficit in 1979 and is expected to improve moderately in 1980, showing an average deficit of only \$1.2 billion for the year. The forecasters expect import growth to moderate as the economy slows, but increases in oil prices are expected to nullify much of the improvement in net exports that might otherwise have been expected. Most of the forecasts were published before grain sales to the Soviet Union were embargoed. The estimates for net exports varied widely, between -\$17.2 billion and +\$4.0 billion.

Quarter-by-Quarter Forecasts Fourteen forecasters made quarter-by-quarter forecasts for 1980. As indicated by the accompanying table, the forecasters expect negative rates of growth in the first half of the year, but positive rates of growth in the second half. Translated into percentages and annualized, the expected median growth rates of real GNP

are -4.6 percent, -2.8 percent, +1.4 percent, and +3.1 percent for the four quarters, respectively.

These rates are median forecasts, however, and there is considerable variation among the forecasters. The forecasts for the decline in real GNP in the first quarter range from 5.4 percent to 1.1 percent; second quarter expectations range from decreases of 6.4 percent to increases of 2.2 percent; third quarter forecasts range from -6.5 percent to +3.1 percent; and expectations for the fourth quarter vary from -0.3 percent to +6.9 percent. This considerable range of quarterly forecasts in each of the quarters stems from differences in the forecasters' expectations about the timing of the anticipated recession. Although the largest majority expects the trough of the recession to fall in the second quarter of 1980 and recovery to begin in the third quarter, two forecasters expect recovery to begin in the second quarter, two expect it to begin in the fourth quarter, and one expects the economy to contract throughout 1980. Of the forecasters who expect the recovery to begin in the third quarter, the most pessimistic expects real GNP to fall at an annual rate of 4.6 percent in the first quarter and 6.4 percent in the second with a relatively strong recovery in the second half. The least pessimistic of the forecasters—those who expect recovery to begin in the second quarter—predict only a 2.2 percent decline in real GNP in the first quarter, but they expect real GNP to grow rather slowly throughout the rest of the year. The gloomiest outlook of all—that real GNP will contract in every quarter—calls for annual rates of decline of 1.1 percent, 4.8 percent, 6.5 percent, and 0.3 percent for the four quarters, respectively.

If the median forecasts are realized, the 7.8 percent unemployment rate for the fourth quarter will represent a considerable worsening of the current unemployment picture. Since the civilian labor force is around 104 million persons, an increase of 1.8 percentage points in the average unemployment rate means an increase in unemployment of almost 1.9 million persons. Several of the forecasters, moreover, expect the unemployment rate to be over 8.0 percent by year-end 1980.

The forecasters expect the rate of increase in the prices of items included in GNP to decline somewhat during the year. The consensus forecasts were for increases of 9.1 percent, 8.5 percent, 7.6 percent, and 7.5 percent for the four quarters, measured at seasonally adjusted annual rates. Price increases forecast ranged from 6.6 percent to 10.1 percent in the first quarter, 6.5 percent to 9.3 percent in the second, 6.1 percent to 8.1 percent in the third, and 6.3 percent to 10.3 percent in the last quarter of 1980.

Less Promising . . .

THE 1980 OUTLOOK FOR AGRICULTURE

Sada L. Clarke

Top-level economists of the U. S. Department of Agriculture presented their views of this year's prospects for the nation's agriculture, and the implications for retail food prices, at the 1980 Agricultural Outlook Conference last November. The outlook as they saw it then, together with their more recent analyses of economic developments, is summarized below.

This article does not reflect the probable sharp cutback in U. S. agricultural exports likely to result from the President's decision to reduce grain shipments to the Soviet Union by 17 million metric tons. Under the embargo, announced January 4, grain exports to the USSR have been cut to 8 million tons from the 25 million originally agreed to.

The nation's farmers chalked up a banner year in 1979, with net farm income reaching an estimated \$30 to \$32 billion, second highest on record. The farm income picture for 1980 is less promising, however. While a modest increase in gross farm income is anticipated, farm production expenses will continue to surge, probably rising about in line with the general rate of inflation. Should production costs rise at this rate, as now seems likely, net farm income could fall sharply from the 1979 level, perhaps by as much as 20 percent. Under such circumstances, many farmers will likely find themselves in a difficult cost-price squeeze, especially during the latter part of the year.

Consumers seem assured of record supplies of red meats and poultry through the middle of 1980. Barring adverse weather, plentiful supplies of many fruits, vegetables, and summer field crops are also anticipated. But expectations point to further increases in grocery store food prices, with the possibility of somewhat smaller advances than in 1979.

This digest of the outlook for the nation's farmers and retail food prices in 1980 are highlights of forecasts made by economists of the U. S. Department of Agriculture, both at the annual agricultural outlook conference last November and in published assessments of more recent economic developments.

Crucial to the outlook for farm income and food prices are prospects for a general weakening in the economy, some slackening in domestic demand as the economy slows, and the likelihood of a relatively high rate of inflation but with some moderation anticipated in the first half. Continued strong foreign demand prospects for U. S. farm products also figured prominently in the outlook appraisal.

Farm Income Picture Weak The nation's farm economy fared well last year. Gross farm income hit a new high, and net farm income was the second highest in history. But indications are that the nation's farmers will not fare as well in 1980. Gross farm income may rise 2 or 3 percent over the record level in 1979, provided there are no major weather-related disruptions or shortfalls in 1980 crops at home and abroad. The increase, if realized, would derive mostly from a \$2 to \$3 billion gain in crop receipts, a slight advance in government payments, and a modest rise in other farm income. Little or no change from 1979 levels is anticipated for total livestock receipts.

Expectations, however, are that total farm production expenses in 1980 will likely rise about as much as the general rate of inflation. Fuel expenses, expenditures for fertilizer, and higher interest charges will be major factors sharply increasing the costs of production. More modest leaps in expenses for hired labor, pesticides, and seed are expected, with boosts probably somewhat below the overall rate of inflation. But the costs of inputs of farm origin, primarily feed and feeder livestock, will probably increase much less than in 1979.

Should production expenses rise at the rate anticipated, the increase would more than offset prospective gains in gross farm income, leaving net farm income sharply below the 1979 figure, probably totaling around the mid-\$20 billion range. Farmers'

net returns at this level would compare with last year's estimated \$30 to \$32 billion and 1978's \$28 billion.

Net farm income, of course, varies by regions, products produced, farm size, local weather, distance from markets, and the like. So, when one recalls that the expected declines in net farm income in 1980 will not be shared equally by all farmers, the outlook doesn't seem to be universally gloomy. To illustrate: Incomes of hog farmers will probably be down substantially, and returns to broiler producers and cattle feeders may be tight. Soybean producers face the likelihood of lower prices. Vegetable and citrus growers are also confronted with potential price declines. But for dairymen and producers of feeder cattle, feed grains, and wheat, the outlook for 1980 looks favorable.

Food Prices to Rise Further Grocery shoppers will find little comfort in the outlook for food prices in 1980. Retail food prices are going up again, rising somewhere between 7 and 11 percent above the 1979 level. Indications now point to an increase of about 8 percent. But should weather conditions disrupt crop and livestock production, the rise would tend to be nearer the higher end of the range. Whatever the average 1980 increase, it will follow on the heels of an 11 percent advance last year and a 10 percent rise in 1978.

Food processing and marketing costs will be the chief cause of the rising retail prices of food at home in 1980. These costs, which closely parallel the rate of inflation, are expected to rise from 9 to 12 percent above 1979 levels. Labor, packaging, transportation, and energy costs—principal components of marketing charges—will all be major factors in the rise in food prices.

Little change from last year is anticipated in the farm value of food, however—that is, unless bad weather disrupts production of farm food products, as it has for the last two winters, and pushes prices higher. Should the weather remain favorable, the farm value of domestically produced food could average about 1 percent higher than in 1979. But should poor weather conditions occur, the farm value of food could advance as much as 10 percent.

Higher prices for fish and imported foods are also in prospect and will be a significant source of increase in food prices. Price gains of from 8 to 10 percent are likely for these items. Larger supplies of fish are anticipated, but growing demand is expected to result in an increase of about 9 percent in the prices of fish and other seafood. Because of freeze

damage to the Brazilian coffee crop, coffee prices have risen since last summer and will probably continue to increase through 1980. This upturn in coffee prices reverses a downward trend that began in 1977.

The outlook for prices of food bought away from home suggests an increase ranging from 8 to 10 percent over a year ago. Because of the large service component of the away-from-home foods, their prices generally move more closely with labor costs and with the general rate of inflation than do the prices of food at home.

General inflation, as is well known, is a factor that contributes to increases in food prices. The Consumer Price Index for all urban consumers (CPI-U) is the most commonly used indicator of overall retail prices. Moreover, changes in this index are the most frequently used measure of inflation. The relative importance of food in the CPI-U is currently 18.2 percent. This implies, of course, that nearly one-fifth of all consumer expenditures for goods and services is spent for food. Spending for food at home accounts for 69 percent of all food expenditures, while spending for food away from home comprises the remaining 31 percent.

Export Demand to Remain Strong The boom in U. S. agricultural trade that began in the early 1970's is continuing. Exports of U. S. farm products jumped 17 percent in fiscal 1979, reaching a total of \$32 billion and a record high for the tenth straight year. The growth in agricultural exports is expected to continue in fiscal 1980, rising almost one-fifth in value to a new high of \$38 billion—four and three-fourths times the 1971 level. U. S. agricultural imports are likely to rise less rapidly, however, and the agricultural trade surplus may widen to around \$20 billion, up from about \$15.8 billion a year earlier.

The volume of agricultural exports may increase about 16 percent in 1980, hitting a total of some 160 million metric tons versus 137.5 million tons last year and more than double the export tonnage in 1971. Expanded shipments to Russia will account for much of the increase. More than half of the projected gain in export volume will be in feed grains. But larger shipments of soybeans, protein meal, and cotton are also likely.

By country of destination, the picture of prospective exports of farm products in fiscal 1980 looks something like this. The European Community, as was true throughout the 1970's, will be the largest market with purchases totaling about \$7.7 billion. Japan, our largest single-country market, will take

about \$5.3 billion. Soviet purchases should total around \$4 billion, their largest ever. Latin America with purchases totaling \$3.5 billion and Eastern Europe at \$2.2 billion will be other leading markets.

Rising population, competitive U. S. export prices, and a reasonably healthy world economy are factors boosting prospects for U. S. agricultural exports in fiscal 1980. One of the major causes of the anticipated strong growth in exports, however, is the *shortfall in the Soviet's 1979 grain harvest*. The United States, under its grain agreement with Russia, has thus agreed to sell the USSR up to 25 million tons of grain in fiscal 1980, compared with 15 million in fiscal 1979.

Nonetheless, uncertainty abounds in the 1980 outlook for foreign agricultural trade. Political developments abroad could alter the outlook significantly. Moreover, world supply and demand are always areas of some uncertainty. Here at home, major problems—among them the scarcity and rising costs of fuel, availability of barges and railway cars, condition of the nation's railroads, and the navigational bottleneck to barge transportation on the Mississippi that is often made worse by severe winter weather—could arise to disrupt the internal domestic transportation system which is already functioning at close to maximum capacity. With a record tonnage to be shipped, domestic transportation capacity will be a crucial factor in determining whether or not the expected volume of grains and oilseed will be exported.

Farm Financial Situation and Outlook The nation's farmers were generally in a much more favorable financial condition as they began the new year than they were at the beginning of 1979. Both net farm income and asset values rose significantly during 1979, resulting in record improvement in farmers' financial situation. Farm debt grew moderately, loan repayment problems for the most part were minimal, and interest rates on farm loans rose to record levels. By and large, the availability of farm loan funds appeared to be adequate, although the expansion of farm loans at commercial banks was slower than at some other lenders.

Current indications point to an interruption in the *uptrend of the overall financial condition of the nation's farmers in 1980*, however. Net farm income, as noted earlier, could decline sharply. The likelihood of only a small gain in gross farm income, coupled with another big rise (around 11 percent) in production expenses, could mean that net farm income may fall as much as one-fifth. Off-farm

income may increase slightly but not nearly enough to offset any significant decline in farm income. Farm asset values are expected to show some increase, however, leading to a further rise in farmers' equities. When farm and off-farm income prospects and the anticipated increase in farmers' equities are taken into account, the result suggests that there may well be an interruption in the uptrend in the overall financial condition of the farming sector in 1980.

The nation's farmers, looking ahead to other financial and credit prospects for 1980, will find that the high interest rates on farm loans and the general tightening in the availability of farm loan funds will probably continue. Supplies of loan funds are expected to remain generally adequate to meet their demand, although farmers may find it necessary to shop around for loans. Demand for farm loans will probably remain strong. High interest rates, in fact, are expected to affect the amount of money farmers borrow very little.

Most likely, increased funding in 1980 will come from the Farm Credit System and from seller financing of land purchases. The volume of farm loans made by commercial banks and life insurance companies will probably not rise significantly, however.

Should farm income decline sharply as anticipated, the increase in farmland values may slow appreciably, probably rising somewhere between 5 to 10 percent. A gain within this range would compare with the 16 percent jump in the year ending February 1, 1980 and the 14 percent upturn during the preceding year.

While it is expected that farmers as a whole will be able to adjust to the higher interest rates without too much difficulty, there will be certain types of farmers who will be adversely affected by the increased financial risks of the current situation. Most likely, according to USDA agricultural financial analysts, the high interest rates will have the greatest impact on: (1) the number of new farmers, (2) some marginal farms that will have to sell out because they will find the smaller profits and larger cash-flow requirements too much to handle, and (3) growing farms with high debt-to-equity ratios that may find their profits reduced substantially by the high interest rates and lenders thus reluctant to provide more debt financing.

Commodity Digest Capsule reviews of the Department of Agriculture's outlook for the principal moneymaking commodities produced by farmers in this five-state Fifth District are presented below.

Tobacco: Gradually declining domestic prospects and moderate export demand highlight the tobacco outlook for 1980. Total tobacco use in the current marketing season will probably fall below last season but will still exceed the weather-reduced output in 1979. These conditions will bring a decrease in next summer's carryover, but carryover stocks are ample.

Marketings from the 1979 season fell short of quotas, so quota carryover into 1980 means increased effective quotas for flue-cured and burley tobaccos this year. With larger effective quotas, and if growing conditions are more favorable, total tobacco output is likely to be larger than in 1979. Greater production plus the 9 percent higher support prices indicated for 1980 mean the likelihood of larger cash receipts from this season's tobacco marketings.

U. S. tobacco supplies for the 1979-80 marketing year are 6 percent below last season's level. Beginning stocks were only slightly larger, but the 1979 crop was 22 percent smaller than in 1978—the smallest since 1957, in fact—because of reduced acreage and lower yields. Total tobacco usage in 1979-80 may be down by 5 percent because of a downtrend in domestic use and only a moderate export demand.

U. S. cigarette output in calendar 1979 was running about 2 percent above 1978 and was expected to reach a record high. Cigarette exports continue to increase at a brisk pace, but domestic cigarette consumption has stabilized. The outlook for 1980 indicates that U. S. cigarette sales will be maintained at the high 1979 level.

Exports of U. S. leaf (unmanufactured) tobacco in 1979 fell one-fifth below the record level in 1978. Leaf exports were hurt by 1979's smaller U. S. crop, more adequate foreign holdings of older U. S. tobacco, and less favorable dollar conversion rates for foreign buyers. Prospects are that total leaf exports for calendar 1980 will do well to equal those in 1979.

Soybeans and Peanuts: The record soybean harvest last fall put heavy pressure on prices. As a result, prices to producers in 1979-80 are expected to average around \$6.25 per bushel compared with \$6.75 last season. With the record crop added to the September 1 carryover of 173 million bushels, soybean supplies for 1979-80 rose to 2.4 billion bushels, up from 2.0 billion bushels last season.

Because of record supplies and lower prices, total soybean use is expected to expand to around 2.0 billion bushels, 8 percent above a year ago. Demand for soybeans and soybean products will continue

strong in 1979-80, with both domestic crushings and exports probably increasing although not nearly as much as supplies. Soybean exports are actually expected to reach a new high, with further growth in meal and oil demand overseas providing the impetus. Carryover stocks next September 1 are likely to be more than double the quantity on hand last September.

U. S. peanut supplies for 1979-80 are also at a new high, about 3 percent above last season. Domestic use of peanuts for food totaled a record 2.0 billion pounds in 1978-79, 8 percent over the previous year, and equaled more than 9 pounds per person. Edible usage is expected to increase further this season, but the rate of gain may not be as large as it was last year. The chief reason for the boost in consumption may well be due to the fact that peanut prices have been relatively low compared with competitive foods.

Exports of peanuts from the U. S. have been at record levels for the last two seasons, and the outlook for 1979-80 is for another good export year. U. S. peanuts have been competitively priced in world markets since supplies from India and other major exporting countries have been reduced.

Peanut prices to growers are averaging near the 21 cents per pound loan rate for the 1979-crop "quota" peanuts. While this rate is the same as in 1978, the loan rate for "additional" peanuts, at 15 cents per pound, is 2.5 cents above the 1978 rate.

Cotton: Sharply higher production, strong foreign demand, and prospects for a slight decrease in domestic mill use highlight the 1979-80 cotton marketing year.

The outlook for U. S. cotton exports this season is bright. Exports of cotton, in fact, may exceed domestic mill use for the first time since the 1930's. Cotton exports are likely to reach 6.8 million bales, up from 6.2 million last season. Moreover, the U. S. export commitment—shipments plus outstanding sales—now stands at 7.1 million bales, more than 2 million above a year earlier. The strong demand for U. S. cotton stems from continued expansion in foreign mill use, low foreign carryin stocks, and the sharply larger U. S. production.

Domestic mill use, in contrast to export prospects, is expected to decline further this season, falling to 6.2 million bales from 6.4 million last season. This forecast assumes that there will be a moderate slowdown in the U. S. economy during the next few months. Should the expected slowdown not materialize, or if it is milder than anticipated, domestic

mill use could rise to some 6.5 million bales especially in view of cotton's improved price competitiveness with manmade fiber staple and the relatively strong foreign demand for U. S. cotton textiles.

So, although U. S. cotton disappearance—domestic mill use plus exports—may rise to around 13 million bales, the largest since 1973-74, the big crop harvested last fall will result in a sharp upturn in stocks during the season. By August 1, 1980, cotton stocks could total around 5.6 million bales compared to a beginning level of 4 million.

Poultry and Eggs: The 1980 outlook for poultry producers is not favorable. Broiler producers, especially, are expected to have an unfavorable year. Feed prices will be higher, and the general economic situation does not seem strong. Broiler growers began losing money last summer and are currently in a severe cost-price squeeze. Producers can thus be expected to cut production in 1980, with the largest cutback coming during the second half. With sharply higher pork output in 1980, broiler prices will likely hold below break-even levels during much of the year.

Net returns to egg producers in 1980 will probably be below 1979 levels. Egg production in the first half may be only 1 to 2 percent above a year earlier. But with large supplies of other protein foods, prices to producers are likely to fall substantially below early 1979 prices. Moreover, higher feed prices can be expected to squeeze net returns in the first half.

Turkey producers are not likely to face conditions in 1980 as unfavorable as those confronting broiler growers, unless they overproduce. Hatchings of turkey poults late in 1979, however, indicate there will be a sizable expansion in turkey output during 1980. Turkey production may be 20 percent above a year earlier during the first half of the year. The larger turkey output, together with large supplies of other meats, will cause turkey prices to decline and to average well below prices in the first half of 1979.

Dairy: The gains in milk production that characterized the last half of 1979 are likely to continue at least through mid-1980. The larger milk output, combined with relatively large commercial stocks and a possible reduction in commercial use, will

moderate year-to-year gains in farm milk prices during the first half of 1980. Farm milk prices, as a result, will probably average considerably closer to the support price than a year ago. Milk-feed price relationships are expected to remain relatively favorable, however. This situation will likely result in heavy concentrate feeding that will further boost output per cow, more than offsetting small declines in cow numbers. With gains in milk prices slowing early in 1980 and costs of production continuing to rise, the net income position of dairy farmers could be less profitable than the relatively favorable situation in the first half of last year.

Meat Animals: Hog producers saw a dramatic turnaround in their profits during the second half of last year, and indications are that these unfavorable conditions are continuing into the first half of 1980. Net returns to producers are likely to improve during the latter half of the year, however. The strong expansion in hog production in 1979 is expected to continue through at least mid-1980, and maybe on through the summer. Most of the year-to-year gain in production will probably occur in the first half, however. With these large pork supplies, hog prices will likely be well below year-earlier levels and may be below the cost of production for many producers. Hog prices are likely to improve in the second half of the year, with much of the expected gain attributed to a stronger economy.

The January 1 inventory of cattle and calves on farms indicated that the rebuilding of the nation's cattle herd is underway. It not only marked the upswing of the next cattle cycle but also the end of the four-year liquidation phase of the last cycle. Beef production is expected to decline during the first quarter of 1980, remaining under year-earlier levels. But beef output may rise slightly in the second quarter and show the first year-to-year gain since the spring of 1977. Larger supplies of competing meats are expected to help prevent a sharp increase in prices like that which occurred in the first half of 1977 and 1978. Should the expansion in pork and poultry production slow and if the general economy rebounds in the second half of 1980 as expected, cattle prices could strengthen from their first-half level.

BULLIONISTS' EXCHANGE RATE DOCTRINES AND CURRENT POLICY DEBATES*

Thomas M. Humphrey

Almost seven years have elapsed since the U. S. abandoned the moribund Bretton Woods system of pegged exchange rates for a regime of flexible exchange rates. During that time the country has experienced double-digit inflation, rapid currency depreciation, mounting trade deficits, and a skyrocketing price of gold. The policy debates generated by these events have tended to crystallize around the following questions. What caused the fall of the dollar on the foreign exchanges? How can that fall be reversed and the currency strengthened? Can exchange rate movements be counted upon to correct trade balance deficits? Can currencies remain persistently under- or overvalued on the foreign exchanges thereby justifying corrective government intervention? How is the soaring price of gold related to exchange rate depreciation? Do exchange rates and the price of gold indicate how well the monetary authorities are doing in the fight against inflation?

Bullionists' Answers Many answers have been given to the foregoing questions. Few commentators, however, have noticed that some of the best answers were advanced more than 170 years ago by the so-called bullionist writers in the famous early 19th century Bank Restriction Controversy over the causes of the fall of the paper pound and the rise in the price of gold following Britain's decision to leave the gold standard for floating exchange rates during the Napoleonic wars. The bullionists, whose ranks included such luminaries as David Ricardo (1772-1823), Henry Thornton (1760-1815), John Wheatley (1772-1830), William Blake (1774-1852), Francis Horner (1778-1817), and Thomas Malthus (1766-1834), were the monetarists of their day. Like modern monetarists, they sought to refute the non-monetarist contention that the fall of the pound and the rise in the price of gold were real phenomena that had nothing to do with money. That is, they sought to refute the Bank of England's contention that the depreciation of the pound was due to special

factors beyond its control, namely autonomous real disturbances to the balance of payments.

The Bank adhered to a balance of payments theory of exchange rate depreciation. Similar to modern government officials who attribute the fall of the dollar largely to excessive oil imports and the associated transfer of wealth to the OPEC nations, the Bank of England blamed the fall of the paper pound on extraordinary food imports necessitated by domestic crop failures as well as on military outlays abroad and remittances to Britain's continental allies. Nothing was said about money. By contrast, the bullionists blamed the fall of the pound on the inflationary policies of the Bank of England itself. They contended that the Bank had taken advantage of the suspension of the gold standard to expand its note issue recklessly. This overissue of money, they thought, was largely if not solely responsible for the rise in the prices of goods, gold, and foreign exchange experienced by Britain in the first two decades of the nineteenth century. In so arguing, the bullionists forged the links of the monetarist theory of the money-price-exchange rate mechanism.

Basic Analytical Framework The bullionists' basic analytical tool was the distinction between *real* and *nominal* exchange rates, or what modern economists refer to as the terms of trade and the purchasing power parity, respectively. According to the bullionists, these variables constitute the two components of actual quoted exchange rates. The real exchange rate, they explained, expresses the relative real price of goods at home and abroad. That is, assuming all goods are traded, it expresses the relative price of one country's output in terms of the other country's output. Being a real economic variable, it is determined by real (i.e., nonmonetary) factors such as tastes, technology, and resource endowments and, therefore, is affected by temporary

* An earlier version of this article appeared in the September 10, 1979 issue of *The Money Manager*.

disturbances to those factors. Also, as the relative real price of goods, it influences the demands for exports and imports, adjusting to bring the two into balance. In other words, it operates to equilibrate the balance of payments. It possesses a long-run natural equilibrium value of unity determined by the arbitrage condition that the real price of goods must be everywhere the same so that there exists no advantage to buying in one market over another. Because commodity arbitrage is not instantaneous, however, transitory departures from real exchange rate equilibrium may occur from time to time. In particular, exogenous real disturbances to the balance of payments—e.g., crop failures, unilateral transfers, war and the associated military expenditures abroad—may cause the real exchange rate to deviate temporarily from its long-run normal equilibrium level. But such deviations will be automatically self-correcting by the feedback effect of the real exchange rate on exports and imports. Thus a shock to the balance of payments that depreciates the real exchange rate will, by raising the relative real price of goods abroad and lowering it at home, act to stimulate exports and check imports thereby equilibrating the balance of payments and restoring the real exchange rate to its equilibrium level.

Nominal Exchange Rate In contrast to the real exchange rate is the bullionists' concept of the nominal exchange rate or purchasing power parity. A purely nominal variable that has no effect on real economic variables, the nominal exchange rate consists of the ratio of nominal general price levels expressing the relative purchasing power of the two currencies as determined by relative demand-adjusted money stocks. Given the foreign price level and the domestic demand for money, the nominal exchange rate varies solely with changes in the domestic money stock. Unlike the real exchange rate, which is self-correcting, the nominal exchange rate can remain permanently depreciated as long as the domestic money stock is excessive. Therefore, persistent exchange rate depreciation is a sure sign of an excess issue of currency. As summarized by the prominent bullionist writer William Blake in 1810,

The *real* exchange depends on the proportion between the foreign payments which a country has to make, and the payments it has to receive. The *nominal* exchange depends on the comparative value of the currencies. The *real* exchange has an immediate effect on exports and imports. The *nominal* exchange, whether favorable or unfavorable, has no effect whatever upon exports and imports. The *real* exchange cannot be permanently favorable or unfavorable, whatever be the state of the currency. The *nominal* exchange may continue for any length of time favorable or unfavorable

provided the value of the currency continues to be depreciated. Now the *computed* exchange depends upon the combined operation of the *real* and *nominal* exchange.¹

Blake's analysis can be summarized by the equation

$$(1) E = RN$$

that expresses the actual observed exchange rate *E* as the product of its real (*R*) and nominal (*N*) components, both of which contribute to exchange rate movements in the short run. In the long run, however, the real exchange rate is self-correcting (i.e., returns to its equilibrium level) and cannot be the source of persistent exchange rate depreciation. Only the nominal exchange rate can remain permanently depreciated. And since the nominal exchange rate is determined by the money stock, it follows that persistent exchange rate depreciation is a sure sign of an excess issue of currency.

Policy Analysis Having developed the real/nominal exchange rate framework, the bullionists employed it in their policy analysis. Two versions of the framework were utilized. The strict version fixed the real exchange at its equilibrium level so that only the nominal component contributed to exchange rate movements. By contrast, the moderate version permitted temporary movements in the real component of the exchange rate. On the basis of these frameworks the bullionists reached at least six conclusions relevant to current exchange rate debates.

Monetarist Policy Conclusions First, the fall of the paper pound following the move to floating exchange rates was due entirely to excessive note issues by the Bank of England. Real disturbances to the balance of payments played at best a temporary role, producing transitory deviations of the exchange rate from its purchasing power parity path dictated by the nominal exchange rate. Although the bullionists were referring to such real shocks as (1) extraordinary food imports occasioned by domestic crop failures, (2) overseas military expenditures, and (3) remittances to foreign governments, they undoubtedly would have reached the same conclusion regarding the effect of petroleum imports and OPEC wealth transfers on the depreciation of the dollar. They would have argued that, in the long run at least,

¹ William Blake, *Observations on the Principles Which Regulate the Course of Exchange and on the Present Depreciated State of the Currency* (London, 1810; reprint ed., New York: Burt Franklin, 1969), pp. 86-88.

these real shocks wash out and the exchange rate returns to its nominal path. That is, they would have pointed out that only the nominal component of the exchange rate can be continually depreciated. And since that component itself is determined by the money stock, it follows that the persistent depreciation of the currency, whether the U. S. dollar in the 1970's or the British pound in the early 1800's, is basically due to excessive monetary growth.

The bullionists' second policy conclusion was that monetary contraction was the only way to strengthen the pound. Accordingly, they advocated monetary restriction roughly in proportion to the depreciation of the exchange rate. If the pound was depreciated five percent relative to its pre-Napoleonic war level, this was a sure sign that the money stock was five percent in excess of what it would have been under the gold standard and should be contracted. Monetary contraction was all that was needed to restore the pound to its prewar level. Nonmonetary policies aimed at improving the real exchange by encouraging exports and discouraging imports are useless, they thought. The real exchange rate is automatically self-correcting and cannot be the source of persistent exchange rate depreciation. Only the nominal exchange rate can remain depreciated. Therefore, only the nominal exchange rate requires correction by the policy authorities. And this can be accomplished by reducing money growth to a rate consistent with a zero rate of inflation. Were they alive today, the bullionists would advocate a permanent reduction in the rate of growth of the domestic money stock as the means of strengthening the dollar.

Currency Depreciation and the Trade Balance

The bullionists' third conclusion was that exchange rate depreciation has no lasting effect on the trade balance. Only deviations of the real exchange rate from its equilibrium level can influence the trade balance and these deviations are bound to be temporary. The self-correcting real exchange rate invariably returns to equilibrium. And when it does, actual observed exchange rate movements merely reflect changes in the nominal price level and have no effect on the real trade balance. In short, while deviations from purchasing power parity can affect the trade balance, movements along the purchasing power parity path itself have no such effects. The nominal exchange rate (i.e., the purchasing power parity) is neutral in its impact on real economic variables.

The fourth conclusion reached by the bullionists was that persistent undervaluation of the currency is impossible. This conclusion involved direct applica-

tion of the concept of the self-correcting real exchange rate. When the real exchange returns to its equilibrium, the actual observed exchange rate accurately reflects the domestic purchasing power of the currency, i.e., the external and internal values of the currency coincide. Because the exchange rate tends to conform to the purchasing power parity path dictated by economic fundamentals—i.e., the underlying monetary conditions in each country—there is little need for policy intervention aimed at preventing undervaluation. Some extreme bullionist writers (David Ricardo, John Wheatley) even denied that the currency could *ever* be over- or undervalued, even in the short run. According to these writers the real component of the exchange rate is always in equilibrium. Therefore the exchange rate itself is always at the purchasing power parity and no corrective intervention is ever warranted. This argument, it should be noted, implies that the exchange rate plays no role in the balance of payments adjustment process. Indeed, the strict bullionists argued that international adjustment in response to real shocks is achieved via shifts in demand and alterations of income and expenditure without affecting the exchange rate.

Rising Price of Gold The bullionists' fifth conclusion referred to the rising price of gold that accompanied the depreciation of the pound following Britain's 1797 move to floating exchange rates. They concluded that the cause of the rise in the sterling price of gold was the Bank of England's inflationary overissue of notes, the same factor responsible for the rise in the paper pound price of all goods and foreign currencies. They pointed out that under floating exchange rates the price of gold is determined by the quantity of paper money bidding for that precious metal. Thus the rise in the paper pound price of gold meant that a larger quantity of pound notes was bidding for the fixed world stock of gold. They were careful to note, however, that gold was not selling at a premium abroad. In particular, they pointed out that while the sterling price of gold had advanced sharply, its price in terms of stable (noninflated) Dutch guilders had remained relatively flat. They used this argument to refute the Bank of England's contention that the rising sterling price of gold had nothing to do with overissue of notes but instead reflected a shortage of gold caused by an increasing world gold demand for a fixed world gold supply. The Bank's contention, which implied a universal rise in the price of gold, was effectively refuted by the bullionists who presented evidence of a

largely unchanged foreign currency price of gold. Thus the rise in the domestic- but not the foreign-currency price of gold reflected an overissue of paper pounds rather than a world shortage of gold. From this, the bullionists concluded that money growth in Britain had been excessive relative to money growth abroad. Were the bullionists alive today, they undoubtedly would point out that although the price of gold in dollars has skyrocketed, its price in terms of stable Swiss francs has until very recently remained relatively flat. And they would conclude from this that money growth in the U. S. has been excessive relative to money growth in Switzerland.

Indicators of Monetary Policy Finally, the bullionists concluded that the state of the exchanges and the price of gold together constituted the best existing indicators of the ease or tightness of monetary policy. Exchange depreciation and a rise in the price of gold signified that money was excessive and should be contracted. Conversely, exchange appreciation and a falling price of gold signified tight money. Although the bullionists considered other potential indicators of monetary policy, they rejected them as inferior to the exchange rate and the price of gold. For example, they rejected the general price level as an indicator on the grounds that it was not readily measurable (price index numbers being little known at the time). Similarly, they rejected the money stock as an indicator on the grounds that money stock information was incomplete, inaccurate, and unavailable, and moreover, that it failed to capture the money demand factor influencing inflation and therefore was an inadequate measure of monetary policy. By contrast, the exchange rate and the price of gold are both readily available and embody all the monetary conditions producing inflation. As such, they were accepted as the best existing indicators of how well the monetary authorities were doing.

This conclusion has relevance today when financial innovation and interest rate ceilings are distorting the monetary aggregates in unknown ways, thereby making it difficult to judge whether monetary policy is tight or easy. In such situations, when the monetary aggregates are giving conflicting and confusing signals, the authorities might well consider watching the exchange rate and the price of gold.

Current Relevance of Bullionists' Doctrines The preceding has examined the exchange rate doctrines of the early 19th century bullionist writers. What were they trying to tell us and how do their doctrines apply today? Their main message was that persistent exchange rate depreciation is primarily a monetary phenomenon. Temporary real shocks have at best a transitory impact on the exchange rate while permanent real shocks are likely to be dominated by monetary disturbances. Persistent exchange rate movements are for the most part dictated by monetary factors determining the nominal exchange rate rather than by real factors determining the real exchange rate. If the bullionists' analysis is at all correct, then it follows that the post-1976 fall of the dollar stems primarily from monetary causes and requires a monetary cure, namely putting the domestic money stock on a permanent noninflationary path. On this point the bullionists were in perfect agreement with their modern monetarist counterparts.

Monetary Approach to Exchange Rates That the bullionists advocated monetarist policy prescriptions is not surprising considering that they anticipated much of the modern monetarist analysis of exchange rates. This is not to say, however, that the older and modern versions are identical. On the contrary, the modern version contains a crucial element missing from the older version, namely an analysis of exchange rate expectations, generally regarded as a major determinant of exchange rate movements in the short run. The bullionists also lacked sophisticated empirical techniques to rigorously test their theories. Nevertheless they did develop, refine, and coordinate the essentials of the modern monetarist analysis of exchange rates. Consisting of the quantity theory of money, the purchasing power parity doctrine, and the concept of the self-correcting real terms of trade, these essentials provide a powerful analytical framework capable of accounting for a large part of exchange rate movements. Moreover, the bullionists applied their analysis to policy problems much like those facing us today. For these reasons their advice may still be useful. Finally, it is worth noting that, although they were unable to rigorously test their doctrines, recent empirical work offers some support for their theories.