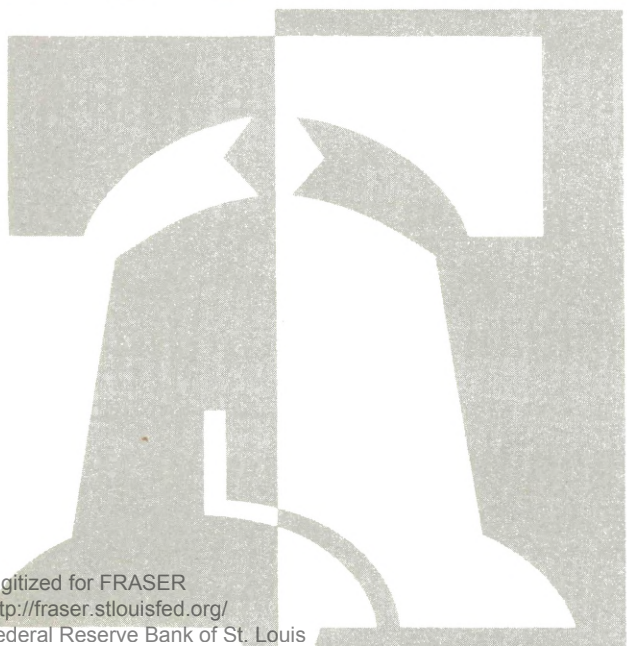


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FEDERAL RESERVE BANK OF PHILADELPHIA

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AN APPROACH TO MONETARY POLICY FORMULATION

by **Albert R. Koch***

There has been renewed interest in monetary theory, monetary processes, and monetary policy in the past decade. This has been worldwide and not national in character—witness the work of the Radcliffe Commission in England, the Royal Canadian Commission in Canada, and the Commission on Money and Credit and the Committee on Financial Institutions in this country.

Reasons for this renewed interest in monetary matters are numerous, but I would put in the forefront the lack of complete satisfaction with economic performance in general, and monetary performance in particular. In the United States, there has been also the re-emergence of a balance-of-payments problem and a number of important structural and institutional economic and financial changes, including the sharp and sustained growth in nonbank financial institutions and the development of a number of new money and capital market instruments.

This renewed interest in monetary matters has prompted a number of significant academic contributions to the literature, including a monumental analysis of post-Civil War monetary developments in the United States by Friedman and Schwartz, the large number of valuable papers prepared for the Commission on Money

and Credit, and some thought-provoking works by academic contributors to hearings and publications of the House Banking and Currency Committee, particularly those of Meltzer and Brunner.

I intend to focus my remarks this morning on two of the most challenging criticisms of recent monetary policy raised by these critics, first, that the System has “money market myopia,” that is to say, that it puts too much stress on short-term money market conditions as a guide to monetary policy formulation, and, second, and even more important, that it does not have a satisfactory theoretical framework upon which to base its monetary operations. To put it another way, these criticisms question the nature and validity of current objectives of and guides to monetary policy.

Before I get into substantive comments, let me stress that the views I express today are my own and not necessarily those of all of my colleagues at the staff or the policy-making level of the Federal Reserve. Having said this, however, let me add that I think that as a whole these views can probably be said to represent the most common ones held within the System. I say this because you are, of course, more interested in what might be termed the “official” Federal Reserve view than of one member of its staff. But I think it is probably impossible to express adequately such an official view.

* Mr. Koch, Associate Director of the Division of Research and Statistics, Board of Governors of the Federal Reserve System, presented this paper at a Monetary Seminar of the Federal Reserve Bank of Philadelphia on December 12, 1964.

This is true for two main reasons. First, as the story unfolds, you will see that it suggests a complicated rather than a simple answer to the monetary policy formulation problem, and one that involves much individual judgment as well as quantitative measurement. In such a situation, there are bound to be gradations of viewpoint. Secondly, there are a score of policy makers within the System and even more economic advisers. It would be strange, indeed, if they all had the same views on *any* subject, much less on one as complicated as monetary policy formulation.

“Money Market Myopia”

Turning now to the substantive issues at hand, and taking up first the recent criticism that accuses the Federal Reserve of “money market myopia,” it is true that the System uses what is commonly referred to as “money market conditions” as day-to-day guides to policy. But the reason for this is not that such conditions are ends or objectives in and of themselves, but rather that the *effects* of Federal Reserve actions are most immediately and clearly reflected in them.

I can perhaps explain this best by describing briefly the first steps in the transmission process between Federal Reserve actions and basic economic and financial developments. The most common and usual method by which the Federal Reserve influences the economy is through buying and selling U.S. Government securities in the open market.* In a sense, one can say that the *only* variable over which the Federal Reserve has complete control in its open market transactions is its holdings of such securities.

* The Federal Reserve also has certain other general powers to influence credit conditions, mainly the powers to set reserve requirements and discount rates, but these are changed only infrequently.

But in buying and selling U.S. Government securities, the Federal Reserve creates or absorbs bank reserves. Under our system of requiring banks to hold specified percentages of their deposits in the form of legal reserves, that is, in vault cash or deposits at the Federal Reserve Banks, the Federal Reserve thus influences the outstanding volume of bank credit, bank deposits and the money supply. The process by which changes in bank reserves affect deposits involves the way in which banks that are members of the Federal Reserve System manage their liquidity positions, that is, their holdings of money market assets. This, in turn, affects the ability of such banks to make loans and acquire longer-term investments. This transmission process can be illustrated by the diagram on the following page.

Contrary to some critics, the Federal Reserve does not assess money market conditions solely, or even mainly, on the basis of judgment. There is a set of quantitative measures that have been found to convey accurately the state of the money market. No one of these indicators in and of itself tells the whole story, but the entire family of them conveys quite a clear and reasonably accurate picture of conditions.

One of these indicators of money market conditions is the reserve position of the banking system and this is usually measured by the outstanding volume of free or net borrowed reserves available in the system, that is, the excess reserves of member banks less their borrowings from the Federal Reserve Banks. Since the relationship between free or net borrowed reserves and more basic monetary and banking developments varies over time with the intensity of both the demand by bank customers for credit and the demand of banks for excess reserves, it is best used as an indicator of short-run changes

in bank reserve availability. As such, the free reserves concept is exceedingly useful, partly because data on it are available so promptly.

Other quantities or relationships that are of particular use in measuring the state or condition of the money market include: (1) the level of Treasury bill rates, particularly that on 3-month maturities, (2) the level of the Federal funds rate relative to the discount rate of the Federal Reserve Banks, (3) the volume of Federal fund flows, particularly through the New York market, and (4) the volume of, and rates charged on, New York commercial bank loans to dealers in U.S. Government securities. In addition, daily projections of the bank reserves likely to be absorbed or provided by such market factors affecting reserve availability as float, currency flows, gold flows, and Treasury balances with the Federal Reserve Banks are made by the Federal Reserve for several weeks ahead.

You will note that most of these quantitative measures of money market conditions focus on conditions in New York City. The reason for this is that New York is the focal point of pressure or ease in bank reserves throughout the country, regardless of the origin of such pressure or ease. Even if the pressure or ease originates in isolated areas, local banks make their reserve adjustments in part through their correspondent banks in financial centers other than New York, which banks in turn make their adjustments in part through the New York money market.

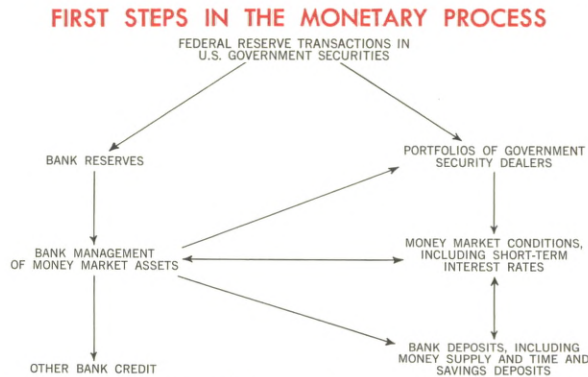
The activities of dealers in U.S. Government securities are particularly important in this adjustment process since Government securities are one of the main money market instruments through which banks, other financial institutions and business corporations normally make day-to-day adjustments in the reserves or short-term funds available to them.

Having said that money market conditions are the guide to day-to-day Federal Reserve operations and explaining it mainly on the ground that the money market is the *first point* in the transmission process between Federal Reserve action and economic activity, let me add that the System's day-to-day objective

is normally to prevent sharp changes in money market conditions in the short run. The System contributes to significant changes in such conditions only when it seeks a change in the more basic monetary or bank credit developments.

The short-run objective of smoothing out sharp changes in money market conditions is an old one. It was in fact one of the original purposes for establishing central banks. This was because of the belief that short-run, erratic fluctuations in interest rates and money market conditions disturb basic trade and financial flows.

In seeking to avoid instability in money market conditions as a short-run objective of monetary policy, the Federal Reserve does tend to offset some market influences on financial behavior that might give clues as to developing changes in underlying financial conditions. How-



ever, the Federal Reserve's short-run interest rate objective is avoidance of instability and not pegging. It still permits some fluctuations in rates and other money market terms to occur and through them hopes to detect significant changes in the demands for and supplies of short-term funds.

It is also true that in striving to avoid day-to-day instability in money market interest rates and other terms the Federal Reserve allows *short-run* changes in the public's desires for money and bank credit to be accommodated. This is as it should be. The demands for money and bank credit have much short-run volatility and reflect changes of a seasonal, temporary and random nature. They should be accommodated. Hence we look to relatively stable money market conditions as a *proximate* short-run guide to policy because we know of nothing better. The supply of bank credit and money comes to be adjusted in conformity with the longer-run objectives of Federal Reserve policy.

Money supply, bank credit, and interest rates

Let me turn now to a discussion of a set of more basic financial variables on which some Federal Reserve critics suggest that the System should put major, if not exclusive, emphasis in determining monetary policy. These would include such variables as the money supply, variously defined, bank credit and longer-term interest rates.

These variables are often termed "intermediate" in character, not because they are intermediate in *importance* but rather because they are intermediate in the over-all *transmission process* between Federal Reserve action and economic activity. In terms of importance and relevance to current monetary policy formation,

they are of *major* importance because, on the one hand, they are more closely related to real economic developments than money market conditions, the day-to-day operating guides to Federal Reserve policy, and, on the other hand, they are more closely subject to Federal Reserve influence than the *ultimate* objectives of policy like employment, production and purchasing power, which I shall come to a bit later.

Having said that these intermediate objectives were of major importance in the determination of monetary policy, let me say that most of us in the Federal Reserve probably consider them important *as a group and not in isolation*. This is essentially because we have not yet found a simple or unchanging set of transmission processes among financial variables themselves or among financial variables and economic activity. Earlier, I noted briefly the connections between Federal Reserve action and money market developments, bank credit and money. The connections from there on out to other financial variables and then on to real economic developments are *much* more complex. In addition, problems of feedbacks and interactions among the various variables begin to become more important.

In essence, though, the most common view within the System is that changes in the money supply, in the cost and availability of bank credit and in money market conditions do, after a time lag, affect the capital markets, and the ability and desires of consumers and businesses to finance expenditures and to acquire financial and real assets. These effects occur as a result of, first, changes in the availability and cost of bank credit and then changes in the prices and yields of various marketable financial assets, relative both to each other and to the prices of goods

and services. The flow of funds to and from nonbank financial institutions are also soon affected by these changing yield, price and availability relationships among various types of loans and investments. It is in these changing relationships among all types of assets, both financial and real, and from money to the most illiquid of fixed investments, that we feel that monetary policy has its impact on the real economy.

At the risk of gross oversimplification, I have tried my hand at a simple diagram of these transmission processes. It sketches the main influences and feedbacks among major categories of financing and the real economic world.

Perhaps the major question economists would raise about this diagram concerns the inclusion of an element entitled, "the rate and quality of monetary and credit expansion." This is an aspect of the financial system that people in central banking, and in the financial world in general, seem to emphasize more than academic economists. I identified it separately in the diagram not so much because of its independent importance, but rather because of the limitation some people in the System feel that it puts on the use of monetary policy as an instrument of economic stabilization.

It is felt that it has a limiting nature for two reasons. In the first place, rates of credit and monetary expansion can be unsustainable. For example, for some years now we have had rates of credit or debt expansion in several of the

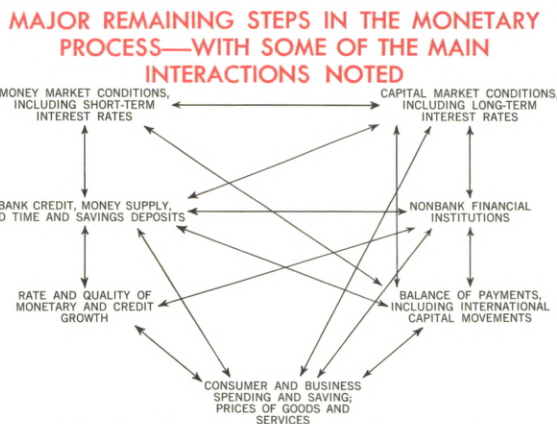
major sectors of the economy considerably more rapid than that in the real GNP. Such rates of increase could probably be sustained for a very long time, theoretically indefinitely, if interest rates tended downward more or less continuously, but there are practical limitations to such a downward drift of interest rates in a key currency country like the United States. Monetary policy cannot do the entire job of ensuring full utilization of the economy's resources. This is particularly true if the economy is plagued by more basic, structural problems, for example, a cost and price structure that is incompatible with full resource utilization or a distribution of income that is not conducive to sustained high-

level consumption.

In recent years this country has also experienced a fairly rapid rate of rise in liquid assets, to some extent a counterpart of the debt expansion. This rise has been desirable, as it has meant a channeling of more

funds from savings, as well as from the banking system, into investment and consumption of durable goods. But the resultant large volume of liquid asset holdings outstanding does pose a *potential* inflationary threat if the holders of such assets would decide to spend them in large volume. Of course liquid assets have to be converted into money before they are spent and the Federal Reserve has some control over this conversion process. But the exercise of such control could pose serious practical difficulties.

Secondly, there is the question of the *risk* character of lending and investing activities.



Available evidence suggests the terms of many types of loans and investment have been progressively relaxed in recent years. Actual default and foreclosure experience have also risen in some lines. There is also the *potential* additional loss problem in case of economic recession.

Another aspect of this credit question that has concerned some in the System in recent years has been the growing practice of borrowing short and lending long. This process is, of course, in a sense the heart of banking and it has been with us since at least the beginning of banking. When widespread, however, and involving both large holders of volatile funds and many small individual savers, it poses the possible restrictive effects of sudden and large withdrawals of funds on long-term interest rates, the capital markets and investment generally. This could also mean financial failures, on the one hand, or inflation, on the other hand, if the demands for liquidity were met by the Federal Reserve.

Many economists argue that credit quality should not be a concern of central bankers, but rather should be left to the judgment of individual lenders and borrowers acting in the market place. But history shows that lenders and borrowers can be sheep, and that a central bank that completely disregards credit quality does so at great risk.

The foregoing discussion of what many of us in the Federal Reserve consider to be the main relationships, linkages or transmission processes between monetary action and economic activity is the basic answer to the second major criticism of the System that has been raised in recent years, namely, that it has no acceptable theoretical or analytical framework and, therefore, that it has no real basis upon which to formu-

late policy. Admittedly, the System has no *simple quantitative guide* to policy nor any *invariant model* of the functioning of the economy, but it does have in mind both a *set of objectives* and a *set of transmission processes* through which policy takes effect.

In this connection, it is relevant to note that the Federal Reserve has not had the benefit of any analytical framework of monetary policy that is *generally* accepted by monetary economists; for there is none. Moreover, there are also varying degrees of importance attached to monetary policy as compared with fiscal policy as an instrument of economic stabilization.

Most monetary economists, both in this country and abroad, probably fall into one of two schools of thought as to the principal ways in which policy affects the economy. The first school stresses the causal importance of liquidity, including but not necessarily confined to the money supply, variously defined. The second stresses the cost and availability of financing, mainly of longer-term borrowed funds, including but not exclusively those supplied by commercial banks.

The more vocal school—which stresses a simple, elegant and, on its face, most appealing theory—at the moment appears to be the liquidity school. In this country, stress is put mainly on the strategic importance of the money supply, but not consistently defined. In England, on the other hand, many economists tend to downgrade the importance of the money supply *per se* and stress rather the total liquidity of the economy, rarely, however, very specifically defined. In this country, we also have numerous economists who stress credit and capital market conditions generally and the level of longer-term interest rates rather than the money supply as the set of variables most related to real economic

developments and, therefore, the most pertinent guides to the formulation of monetary policy.

However strong the differences in view of economists are as to the strategic factors in monetary policy formation, I find the most recent views of the various proponents as to the *transmission processes* between policy and economic activity fairly similar, and, for that matter, quite similar to the transmission processes I traced out a bit earlier. This is a step forward. If we can agree on the transmission processes, we may be able to affect those processes by influencing not necessarily one but a number of its elements. For example, the Federal Reserve puts considerable stress on the course of aggregate bank reserves in policy formulation, in large part because it is reserves, more specifically, nonborrowed reserves, that the System affects most immediately and most directly. A given level of reserves is not sought in and of itself but because through it the System can achieve certain effects on such factors as bank credit, the money supply and interest rates, effects which, it should be noted, are neither precise nor unvarying.

If one accepts essentially the transmission processes I mentioned earlier, the question of whether one should focus on money supply and liquidity, or on the cost and availability of credit as the key intermediate objectives for monetary policy also becomes less significant. This is because in this view of the transmission processes money and liquidity affect spending in large part through their effects on interest rates and on credit availability, although they are in turn, of course, affected by the cost and availability of credit as well as by such other factors as transactions, precautionary and speculative needs for cash balances.

I do not want to leave this subject before

saying something about the problem of defining terms, because I think it is more than just a matter of semantics. It is important mainly because if a monetary theorist has a problem in defining his terms, he is also likely to have a problem with his basic theory.

Let me illustrate my thought with the word "money." Friedman now defines money, for example, to include time and savings deposits at commercial banks as well as currency and demand deposits. But when he defines money to include an item other than that which can be used as a medium of exchange, it seems to me that he opens up a Pandora's box. Why not, for example, include as part of the money concept, savings and loan shareholdings which you and I hold as close substitutes for demand deposits, and Treasury bills which corporations hold for similar purposes? It is not satisfactory to answer this question simply by saying that the observed past relationship between changes in the money supply defined in a particular way and changes in economic activity is closest. A more convincing *rationale* is needed.

Ultimate objectives

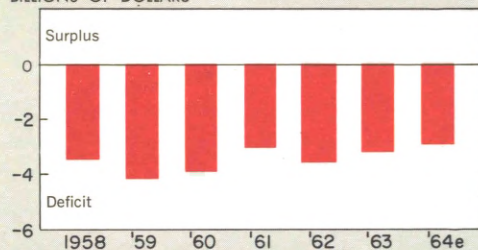
Thus far I have talked solely of the role of *financial* variables in the formulation of monetary policy, starting with a discussion of day-to-day money market guides to action and then going on to discuss the relationships of these very short-run developments to changes in what I have called "intermediate" factors like bank credit, money and interest rates. But, as I noted earlier, these intermediate financial variables are only steps in the process of influencing the ultimate economic objectives of policy. Now what are these ultimate objectives?

Basically, the ultimate objectives of monetary
(Continued on Page 12)

THE CASE OF THE VANISHING METALS

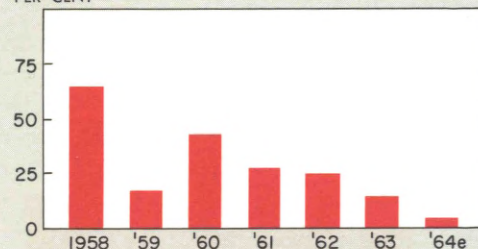
GOLD

BILLIONS OF DOLLARS



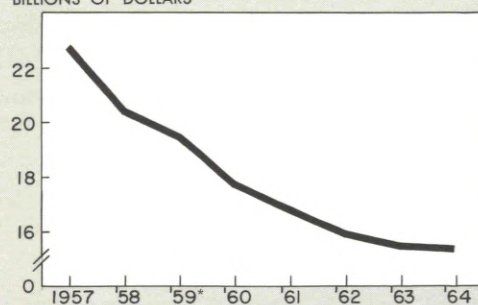
Since 1958, the United States has been experiencing substantial deficits in its regular balance of international payments.

PER CENT



The deficits have been settled in both gold and dollars. Although the percentages of gold to the deficit have been declining, gold sales to foreigners continue and will increase this year.

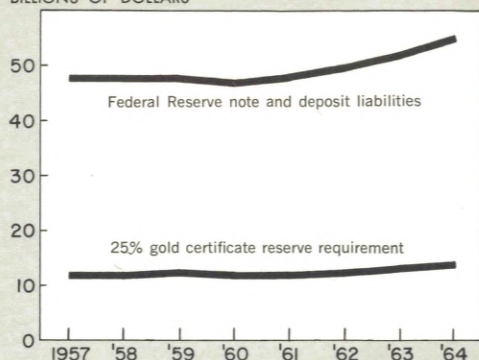
BILLIONS OF DOLLARS



* Includes payment of \$344 million to I.M.F.

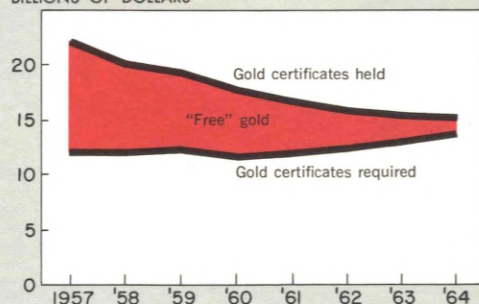
As a result of the gold sales, the gold stock of the Treasury has declined and promises to continue to fall.

BILLIONS OF DOLLARS



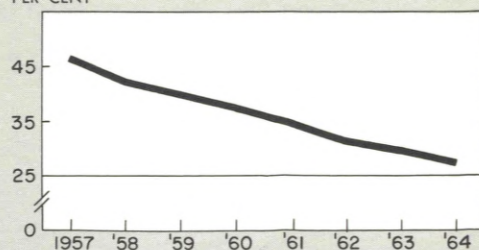
For some time, while the gold stock has been dropping, the dollar volume of Federal Reserve note and deposit liabilities has been rising. Consequently, there has been an increase in the gold certificate reserve required to back them.

BILLIONS OF DOLLARS



With the gold certificate required reserves going up and gold certificates actually held by Federal Reserve Banks going down, the amount of "free" gold certificates (that not held as reserves) has declined steadily.

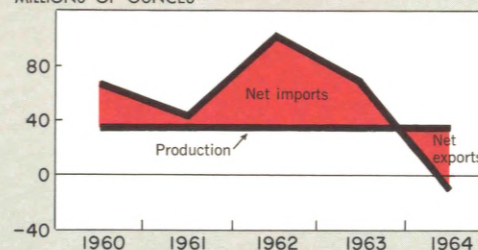
PER CENT



As a result, the ratio of gold certificates to Federal Reserve note and deposit liabilities has approached the 25 per cent legal minimum, thus calling for measures to relieve the situation.

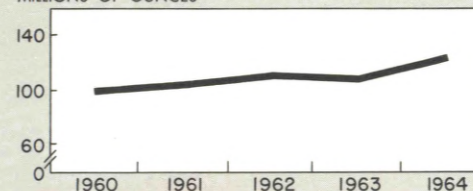
SILVER

MILLIONS OF OUNCES



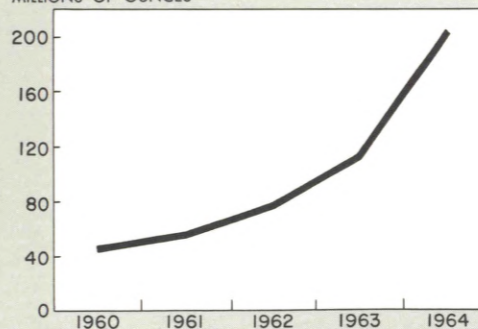
Not only has new production of silver in the United States been stable for years, but our Nation was a net exporter of the metal in 1964 for the first time since World War II.

MILLIONS OF OUNCES



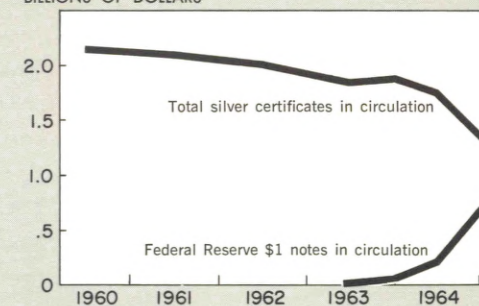
At the same time, industrial consumption has risen and outstripped new production. Further increases in non-monetary demand appear certain because of the continued growth of users such as the electronics, photography and missile industries.

MILLIONS OF OUNCES



Along with increased industrial demand, the use of silver for coinage zoomed as the Treasury sought to satisfy what seem to be the insatiable demands of the economy, especially vending machines, numismatists and hoarders.

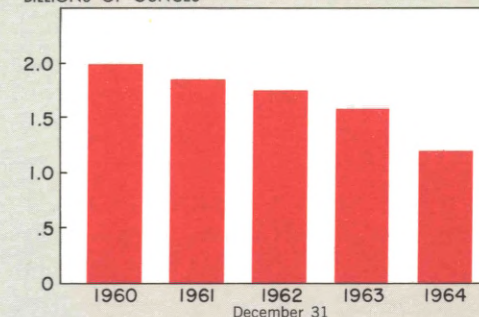
BILLIONS OF DOLLARS



* November 1964.

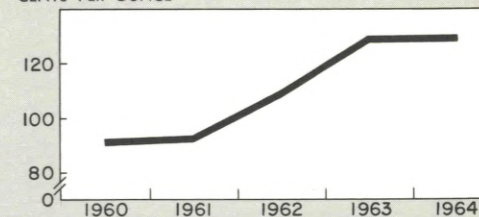
The Government has taken steps in recent years to make available for coinage the silver held in the silver certificate reserve account. Retirement of \$5 and \$10 silver certificates was ordered in 1961. In addition, the Treasury is now retiring \$1 silver certificates and Federal Reserve notes in \$1 denomination are being issued in their place.

BILLIONS OF OUNCES



To fill the ever-widening gap between supply and demand, the Treasury has been drawing on its silver stock. Although its holdings are still large, the growing rate of depletion in recent years and prospects for continuation have stimulated thinking as to what might be done.

CENTS PER OUNCE



The release of Treasury silver stocks to help meet the shortfall of production relative to consumption in the United States as well as the world has had a stabilizing effect on silver prices. Quotations for prompt delivery in New York have been at 129.3 cents per troy ounce since the fall of 1963.

Source: Handy & Harman.

(Continued from Page 9)

policy are no different from those of other Governmental economic policies. Essentially, they are those embodied in the Employment Act of 1946, that is to say, monetary policy is to contribute to the fullest to the achievement of maximum employment, production and purchasing power. Most interpreters of the Employment Act, including most of us in the System, have come to define purchasing power as involving the need to maintain reasonable price stability. Two additional basic objectives have become accepted parts of Governmental economic policy, including monetary policy, since the enactment of the Employment Act, namely, maximum economic growth and balanced international payments.

On this general question of the ultimate objective of monetary policy, however, there remain some fundamental points of disagreement. Among the most important of these I would put (1) the *ranking* of objectives in case of conflict, and (2) the question as to whether monetary policy can most effectively be used contracyclically or only to achieve longer-run growth.

As for possible conflicts among the ultimate goals, many of us in the System feel that most, if not all, of the goals are inextricably intertwined. This means that some progress must be made toward achieving *all* of them in order to achieve any *one* of them. For example, we feel that reasonable price stability and balanced international payments are essential if maximum employment and production are to be achieved. There is also the argument, but one to which most of us in the System would not subscribe, namely, that monetary policy can appropriately pay more attention to prices and the balance of payments, while fiscal policy concerns itself more with employment and economic growth.

With this view of the close relationship in the achievement of *all* of the various ultimate objectives of monetary policy, the trade-offs among possible conflicting objectives become somewhat less of a problem. While fully recognizing that the *ultimate* of objectives of monetary and all other Governmental economic policies is a contented and full life for all the people, which includes the ability to find work as well as to finance and enjoy leisure, we have not yet found it practicable either to assign weights to the various objectives noted earlier or to measure their interrelationships. More research is badly needed on this subject. In the meantime, it is probably fair to say that when actual conditions get far out of line with any *one* of the broad objectives, it tends to get priority attention.

Nor do we find we can go directly to one or all of these ultimate objectives as a guide to day-to-day monetary policy formulation. Let me illustrate this point. An academic friend of mine dropped into the office some time ago to complain that current monetary policy was too restrictive. I asked him why he thought this was so. His answer was direct and simple—the unemployment rate was too high. Granted, I said, but what does that mean as to how many Government securities the Federal Reserve should buy or how many bank reserves it should supply *today*. His second and following answers were just as direct and simple as his first. Buy more Governments and provide more bank reserves today than was done yesterday, and if the unemployment rate continues too high, buy more the day after tomorrow than tomorrow, and keep doing this until the unemployment rate drops to the desired level.

When I questioned my friend as to the possible effects of this course of action on such aspects of economic and financial life as the bal-

ance of payments, the gold outflow, interest rates, stability of financial markets, prices, wages and the like, he also had ready answers. But these answers did not seem adequate to me because they failed to assess properly the significance of economic developments other than the unemployment rate.

Those of us on the firing line do not feel that we can accept with equanimity, for example, substantial price increases, wage settlements in excess of productivity gains, disorderly financial markets, and large gold outflows. Therefore, we do not feel we can use a measure like the unemployment rate as a single, simple guide to monetary policy formulation.

Moreover, we have only a limited number of general policy tools to deal with these varying economic and financial problems, and there are interrelationships among the responses that keep us from solving the problems in strict econometric style. Most of us in the System are not very sanguine about the effectiveness over any extended period of time of trying to achieve any significant part of our objectives by selective or direct controls. Of course, the Federal Reserve has regulated stock market credit for many years and an interest equalization tax on foreign security issues is now in existence, but these are the only selective credit controls now in effect and they only deal with a relatively small part of total credit flows.

This lack of reliance on selective credit controls is another reason why the formulation of general monetary policy has to take into consideration all, and not just one, of the objectives of such policy. There is, of course, the possibility of varying to some extent the composition of our available limited set of *general* tools, for example, the monetary policy-fiscal policy mix.

Let me turn now to the question as to whether

monetary policy is best used as a counter-cyclical economic instrument or one better designed to achieve longer-run objectives. The answer to this question hinges essentially on one's view as to the lags involved in the monetary process. The most important lag concerns the time between the *taking* of a monetary policy action and *spending*, whether it be for consumer or capital goods. There are other lags, for example, between the *need* for a policy action and its *recognition*, and between *recognition* and *action* by the Federal Reserve, but most observers feel that these lags are quite short now or could be made so.

As for the lags between policy action and spending, much useful research on this subject has been done in recent years but much more remains to be done. Friedman, for example, finds the lags long and variable and, therefore, concludes that monetary policy has little to contribute as a contra-cyclical economic policy instrument. Kareken, Solow, Brown, Ando and most other economists who have studied this problem find the lags shorter and, contrary to Friedman, feel that monetary policy can profitably be used to moderate cyclical fluctuations.

Probably most of us in the Federal Reserve share this latter view. Quantitative studies underplay the psychological and expectational effects of a change in monetary policy on spending in general. Moreover, the effects of changes in policy on such factors as spending plans, new ordering and the like are probably quite prompt. Thus, we feel that monetary policy does have an important role to play in evening out the cycle.

As for the appropriate place of economic growth in the set of ultimate objectives of monetary policy, many of us in the System have concluded that it is probably not very fruitful to

think of it as an *independent* objective of policy. That is, we feel that maximum, sustainable economic growth can probably be most likely achieved if the Federal Reserve concentrates on helping to achieve maximum employment, production and purchasing power, implying as these objectives do, a moderation of cyclical fluctuations.

It would take me about as long to support this proposition as I have talked already—and I have already talked too long. Essentially though, it boils down to the fact that we think that the rate of economic growth depends much more on nonmonetary than monetary factors, factors like the allocation of income between spending and saving, and the rate of development of new human skills and technical processes. Monetary policy does affect to some extent, of course, the formation of capital. But the importance of the *differential* effects of monetary policy on various types of spending and debt—for example, on consumption versus investment or on housing versus business debt—are not clear.

Thus, I am by no means certain about the practical importance of the commonly expressed dichotomy that suggests that easy monetary policy favors investment over consumption and easy fiscal policy consumption over investment. Moreover, this line of thinking abstracts completely from possible problems raised by continuing easy money on the international financial area.

Concluding comments

In conclusion, let me try to summarize what I have tried to say today. I have taken as my text two frequently expressed criticisms of the Federal Reserve, first, that it has “money market myopia,” that is, that it is unduly concerned with day-to-day fluctuations in money market

conditions, and, second, that it has no acceptable framework or model as to how monetary policy affects the general economy, that is, that it has no basis for knowing what kind of policy is most appropriate at any given time.

In addressing myself to these criticisms, I have tried to be constructive rather than destructive. In stating why I feel these criticisms represent a false view of Federal Reserve thought and action, I hope I have spelled out some of the dimensions of a framework for policy that the System *does* have in mind.

This framework, unfortunately, is neither simple nor precise. This is no doubt due in part to inadequate information and to limited analytical powers, but I think it is also due to the very *nature* of the problem with which we are dealing. We live not only in a very complex, relatively free market economy but also in one that is very dynamic in its nature.

Having said this, let me reaffirm the fact that the Federal Reserve does have a set of objectives for monetary policy constantly in view, as well as some ideas about the transmission processes through which System action seeks to achieve, or at least helps to achieve, these objectives. However, our knowledge of these processes, changeable as they may be, is extremely poor. We very much need a stepped-up program of empirical work to study and assess the many processes, linkages and relationships involved in the vast areas between Federal Reserve action and over-all economic activity. We are eagerly seeking “models” of the economy based on observed relationships that can help us to decide appropriate monetary policy at given times and under given circumstances and to assess the results of policy actions once taken. We in the Federal Reserve, as well as you in the universities, have done

far too little of this type of work in the past.

But, finally, let me express a word of caution about work in this field. Let us be extremely careful about trying to fit a complex world into an oversimplified mold, and let us be modest about implying immutability to past relationships we may discover. More data, improved

statistical techniques, and closer observed relationships will help us formulate a better monetary policy in the future, but I suspect they will never completely eliminate the need for considerable doses of judgment—both value and empirical judgment—on the part of our monetary policy makers.

RETURN TO THE CITY— FACT OR FANCY?

It was a big day for the Scotts. The clothes were packed, telephone disconnected, furniture and rugs all ready for the movers. The Scotts were leaving their ten-year-old ranch-type house, their uphill struggle with the lawn, and the hours spent getting to and from work, shopping centers, and Boy Scout meetings to hardier pioneers with more patience and greener thumbs. The Scotts were moving back to the city.

Off to the suburbs

Ten or fifteen years ago the Scotts' type of move was unheard of. Mass exodus from the cities to the promised land of suburbia was then in full swing. During the 1950's, over a quarter of a million more people moved out of the City of Philadelphia than into it while the outlying counties experienced phenomenal growth. All over the nation, city dwellers by the millions eagerly answered real estate advertisements. Sunshine and fresh, clean air; trees and grass; open space for the children; and the pride of owning a home were all possible in a suburban

development. Rising incomes and the availability of long-term mortgages enabled suburbia to fit into more and more family budgets. The widespread ownership of cars made commuting practical; no longer were residential areas circumscribed by bus routes or railroad tracks.

Along with the people came shopping centers of all sizes and descriptions complete with branches of well-known department stores, variety stores, and specialty shops. The city was not only losing its population, but its hold on the shopping dollar was seriously threatened. As if this were not enough, industry, too, began to harken to the call of the suburbs. Land was cheaper and more readily available; nearby housing developments could provide the labor and in some cases the market for production; firms were able to combine utility and beauty in architecturally attractive, one-story plants.

The city was rapidly disintegrating. Natural processes of decentralization were not the only problems. Many neighborhoods were deteriorating into slum or semi-slum conditions; over-

crowding was an unpleasant fact; community facilities were outdated. These conditions did nothing to curb the suburban stampede; in fact, they persuaded many on the fringe of blighted areas to get out while they could.

Some of those who were left behind stayed not by choice but of necessity. Moving requires money. Even with low down payments and easy credit terms, numbers of unskilled workers were tied to the city by lack of funds. Older families faced with the prospect of decreased earnings were often unwilling to take on new financial burdens. It is not surprising, therefore, that city residents tend to be older, have less education and lower incomes than suburbanites.

The changing city

The city of the past was rapidly becoming obsolete. Where deterioration and overcrowding were present, solutions were obvious but expensive. Decentralization posed a different problem, for to some extent it was natural and unavoidable. The city had to adjust to the inevitable by actively developing its assets as a center for markets, administrative and head offices, theaters, and all sorts of cultural and recreational facilities. With these services, the city should be able to attract and hold a substantial resident population, and bring in nonresidents to buy and sell, to coordinate business activity, and to enjoy more fully their leisure time. The city would become an indispensable service center for a widely diffused urban area.

Responsible citizens sought to hasten this metamorphosis. Federal and state governments provided aid. Planning commissions were established. Urban renewal and redevelopment projects were undertaken. Philadelphia's program is a good example; its goals include slum clearance, the revitalization of center city, aid

in the expansion of hospitals and universities, industrial development, and the preservation of good neighborhoods.

In 1965 a Philadelphia Rip Van Winkle would have difficulty recognizing his old city. Even ten years ago there was no Penn Center, no Independence Hall Mall, no Park Towne, and no modern Food Distribution Center. Over 35,000 new housing units were authorized by building permits since 1960. Playgrounds, parks, malls, office buildings, apartment houses, and modern housing developments are all part of the face-lifting.

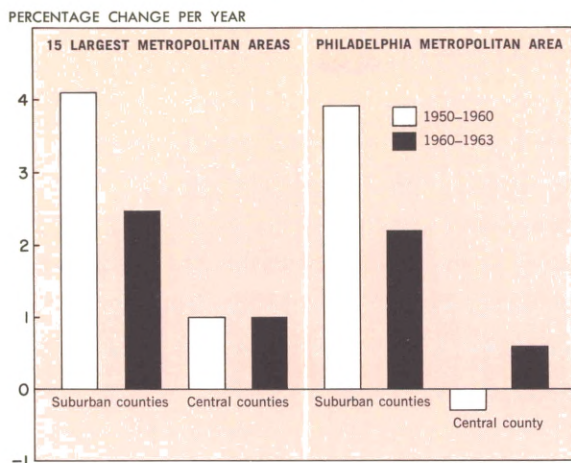
Back to the city?

Recent population estimates do not suggest improved growth in most large cities, but they do indicate a change for the better in Philadelphia. The population of Philadelphia County decreased by 3 per cent between 1950 and 1960; from 1960 to 1963, it increased by 2 per cent. The central counties of the fifteen largest metropolitan areas, however, had the same rate of population increase after 1960 as in the 1950's—1 per cent per year.¹ As the chart shows, the suburbs continued to out-gain the central counties in population. Between 1950 and 1960, suburban counties grew about four times as fast as central counties. From 1960 to 1963, this growth differential was reduced to two-and-a-half to one in favor of the suburban counties.

These figures must be interpreted carefully for two reasons. The classification of a metropolitan area into central and suburban counties may conceal almost as much as it reveals. The central county in the majority of areas includes not only the central city but additional land and

¹ The fifteen largest metropolitan areas in terms of the 1960 population are New York, Chicago, Los Angeles-Long Beach, Philadelphia, Detroit, Boston, San Francisco-Oakland, Pittsburgh, St. Louis, Washington, D.C., Cleveland, Baltimore, Newark, Minneapolis-St. Paul, and Buffalo.

URBAN VS. SUBURBAN—POPULATION GROWTH



people, which for our purposes should be grouped with the suburbs. The extreme example of this is Los Angeles-Long Beach where the central county and the metropolitan area are one and the same. In cases such as this, it is difficult to know whether the growth in a central county's population has occurred in the city portion or in the outlying area of the county. During the fifties, the outlying portions of central counties gained population faster than did the cities themselves; central counties in nine of the fifteen metropolitan areas gained population while only one central city did so. If the 1950-1960 growth pattern has not altered greatly in the last few years, the outlying areas of the central counties would once again have been expected to grow faster than the cities. Therefore, the population growth we observed in central counties from 1960-1963 may still not be taking place downtown.

These population changes are subject to another qualification: they reveal little if anything about the nature of the growth. An increase in population occurs for one or both of the following reasons: more people are born than die, or

more people come into an area than leave it. An increase in population mainly from natural increase tells us nothing about an area's relative attraction as a place to live. To know more about this, we must look at net migration. Positive net migration (that is, more people moving into an area than out) usually is interpreted as a healthy sign that people favor a particular community in which to live and raise a family.

All in-migration, however, may not benefit an area. A community of any size prefers those persons who possess the skills, educational attainments, and economic means to contribute to the general well-being. In past years, non-whites, out-of-work coal miners, and farmers came to big cities such as Philadelphia. Lacking industrial skills, they often could not readily find employment and become productive members of the community.

Today this type of migration probably is less of a factor than formerly in Philadelphia. For one thing, populations now are smaller in many hard-hit farming and mining areas. Also, the worst period of adjustment is over in most such areas. Furthermore, big cities like Philadelphia no longer offer many jobs to attract unskilled in-migrants. Philadelphia already has a considerable surplus of unskilled labor seeking such employment.

A July, 1962, study by the Pennsylvania Economy League indicates that non-whites moved into Philadelphia, largely from the South, at decreasing rates as the nineteen fifties progressed. The annual net in-migration during the forties was approximately 9,000; during the fifties this dropped to 6,500, and most of this was in the earlier half of the decade.

The latest available estimates of migration are for the years 1960-1962. In-migration did exceed out-migration in the central counties of

three areas: New York, Los Angeles-Long Beach, and San Francisco-Oakland. But, except for Philadelphia and three other central counties, the outflow in other areas has not even shown a tendency to slow down since the 1950's. Therefore, although the trend in seven areas indicates some improvement, most suburbs are continuing to enjoy the benefits of in-migration while most cities are not.

Once again these figures should be interpreted carefully. At best, they are only gross approximations of central and suburban movements. These statistics include nothing on the origin of in-migrants or the destination of out-migrants. It is possible that a large proportion of migration represents not intra-metropolitan area movements, but inter-state or even inter-sectional shifts. For example, over the years, California suburbs have had a substantial number of in-migrants which came not only from California cities but from all over the country.

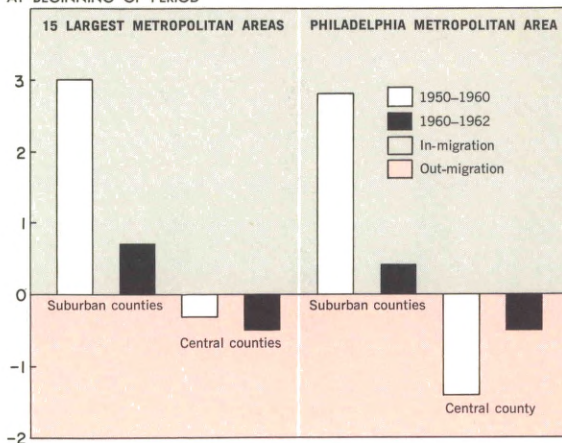
Crude as these estimates are, they do provide a clue to central population changes since 1960. They do not indicate much of a return to the city. In both the fifties and the sixties, central populations increased little. Furthermore, out-migration from central counties has continued unabated in total, although in a few areas it has slowed down or stopped.

What of the future?

The suburbs may continue to be favored as home locations in the sixties, but it is too early to be sure. A freshly created supply of good housing in a renewal area may not immediately generate a group of eager buyers on the doorstep. Location changes are major decisions for any family, and as such they will be made over a period of time. Later in the sixties we may

URBAN VS. SUBURBAN—NET MIGRATION

AVERAGE YEARLY MIGRATION AS PERCENTAGE OF POPULATION AT BEGINNING OF PERIOD

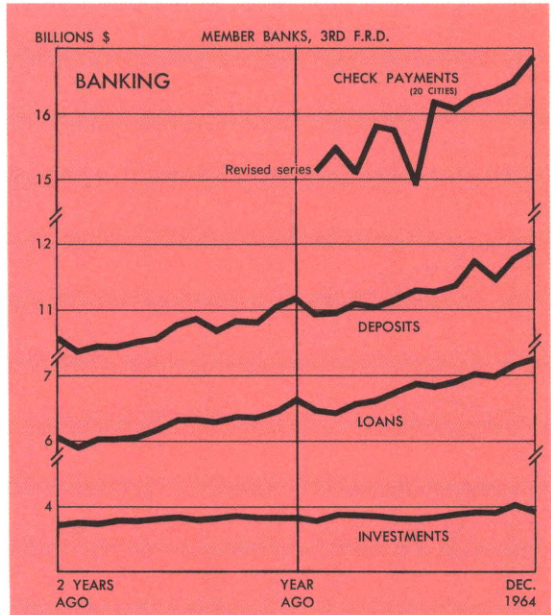
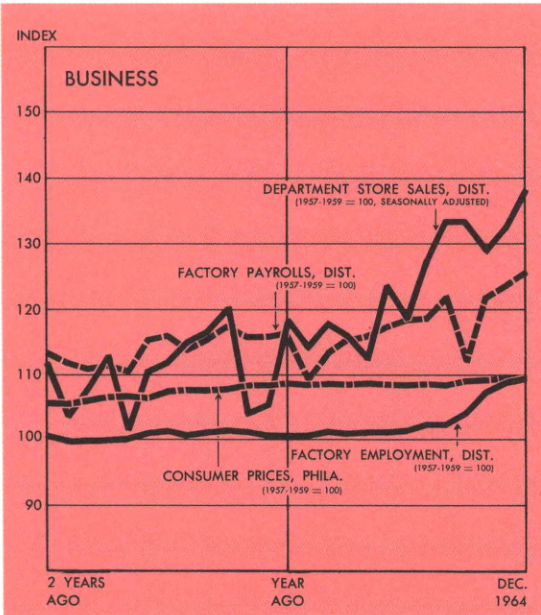


well see a return to the city by many disillusioned suburbanites, although population and migration data as yet show little evidence of it.

City growth should benefit somewhat by expected trends in population. The most rapid expansion is in the young adult group; during the decade of the sixties, this group is expected to increase by more than 50 per cent. The population over 65 is expected to gain an additional 3 million during the same period. These two age groups are prime candidates for city life. Population in central cities has a higher proportion in these two groups than it does in the suburbs. Within central cities, young adults and senior citizens account for one in six of the population. In contrast, these two groups constitute one in eight of the suburban population.

To attract these potential in-migrants and to keep its present population, the city must accept and promote its role as the metropolitan area's center for business, recreation, and culture. This, plus its inherent convenience in ease of living, are its best selling points for the sixties.

FOR THE RECORD...



SUMMARY

	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	Dec. 1964 from		12 mos. 1964 from year ago	Dec. 1964 from		12 mos. 1964 from year ago
	mo. ago	year ago		mo. ago	year ago	
MANUFACTURING						
Production.....	.....	.....	.....	- 1	+ 8	+ 6
Electric power consumed.....	0	+ 9	+ 8	.....	.....	.....
Man-hours, total*.....	+ 1	+ 6	- 1	.....	.....	.....
Employment, total.....	0	+ 9	+ 3	.....	.....	.....
Wage income*.....	+ 2	+ 8	+ 3	.....	.....	.....
CONSTRUCTION**	-57	-14	+13	- 4	+ 5	+ 4
COAL PRODUCTION	-20	- 7	+14	- 7	+ 3	+ 2
TRADE***						
Department store sales.....	+ 4	+ 4	+10	.....	.....	.....
Department store stocks.....	.....	.....	.....	.....	.....	.....
BANKING						
(All member banks)						
Deposits.....	+ 2	+ 6	+ 6	+ 3	+ 9	+ 7
Loans.....	+ 1	+ 8	+ 9	+ 3	+13	+12
Investments.....	- 2	0	+ 2	0	+ 2	+ 1
U.S. Govt. securities.....	- 3	- 5	- 5	0	- 2	- 6
Other.....	- 1	+11	+15	+ 1	+10	+13
Check payments.....	+16†	+12†	+ 6†	+20	+12	+10
PRICES						
Wholesale.....	.....	.....	.....	0	0	0
Consumer.....	0†	+ 1†	+ 2†	0	+ 1	+ 1

*Production workers only.
**Value of contracts.
***Adjusted for seasonal variation.

†20 Cities
‡Philadelphia

LOCAL CHANGES

	Factory*				Department Store†		Check Payments	
	Employment		Payrolls		Sales		Check Payments	
	Per cent change Dec. 1964 from		Per cent change Dec. 1964 from		Per cent change Dec. 1964 from		Per cent change Dec. 1964 from	
	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago
Lehigh Valley...	- 3	+ 2	- 2	+ 9	.....	.....	+ 7	+ 5
Harrisburg.....	- 2	+ 2	0	+11	.....	.....	+10	- 8
Lancaster.....	0	+ 4	0	+11	+ 5	+ 4	+ 1	+21
Philadelphia.....	0	+ 2	+ 3	+ 6	+10	+ 4	+18	+ 8
Reading.....	0	+ 1	+ 2	+ 1	- 3	+ 2	+16	+13
Scranton.....	0	+ 3	- 2	+ 3	0	+ 2	+ 9	+13
Trenton.....	+ 1	+ 2	0	+ 1	+10	+ 1	+ 6	- 5
Wilkes-Barre...	0	+ 5	- 2	+ 2	- 3	+ 4	+11	+12
Wilmington...	0	+ 6	+ 2	+14	+ 4	+ 4	+20	+36
York.....	- 1	+10	- 1	+19	- 2	+11	+ 8	+55

*Not restricted to corporate limits of cities but covers areas of one or more counties.
†Adjusted for seasonal variation.