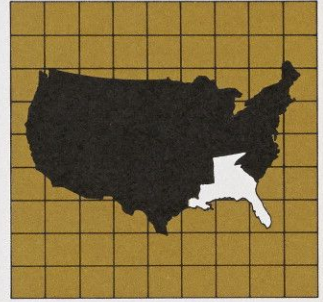


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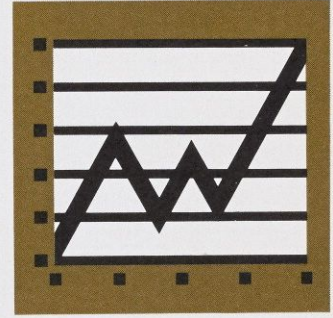
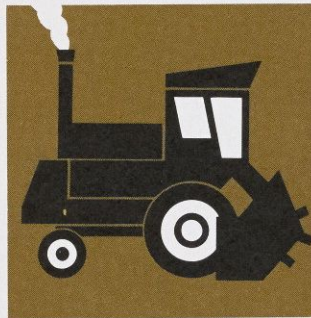
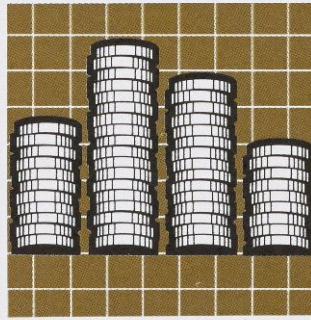
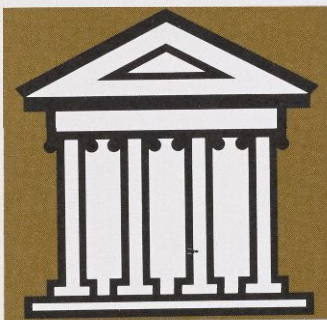
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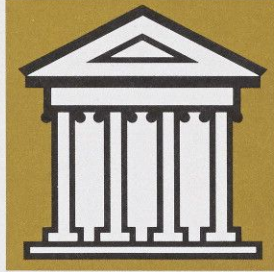
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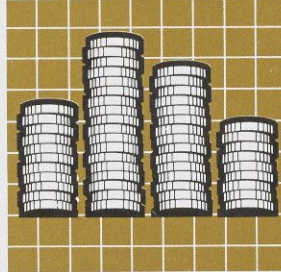
UNDERGROUND The Hidden Economy



The purpose of the *Economic Review* is to inform the public about Federal Reserve policies and the economic environment and, in particular, to narrow the gap between specialists and concerned laymen. For more specialized readers, the *Review* also summarizes our basic research projects, which are available in complete form in our Research Paper and Working Paper series.



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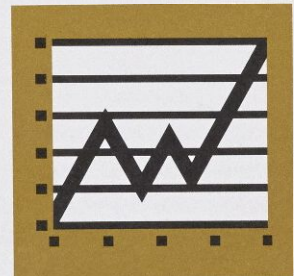
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Banking Act Makes Major Changes

On March 31, 1980, President Carter signed into law H.R. 4986, the "Depository Institutions Deregulation and Monetary Control Act of 1980." Although the Act itself goes into effect six months after signing, some of its provisions take effect at different times (noted below). Here is a summary of the Act's major points.

Permits Nationwide NOW Accounts

All depository institutions (after December 31, 1980) may offer NOW accounts (interest-earning checking accounts) to individuals and nonprofit organizations. The Act also allows banks to provide automatic

transfer services from savings to checking accounts, permits S&Ls to use remote service units, and authorizes all federally insured credit unions to offer share draft accounts, effective immediately.

Phases Out Deposit Interest Rate Ceilings

Congress declares that interest rate ceilings on deposits discourage saving and create inequities for depositors, especially those with modest

savings. The Act therefore sets up machinery to phase out interest rate ceilings on deposits over a six-year period.

Eliminates Usury Ceilings

State usury ceilings on first residential mortgage loans are eliminated (as of March 31, 1980) unless a state adopts a new ceiling before April 1, 1983. Credit unions may increase their loan rate ceiling from 12 percent to 15 percent and may raise the ceiling higher for periods up to 18 months.

The Act also preempts state usury ceilings on business and agricultural loans above \$25,000 and permits an interest rate of not more than 5 percent above the Federal Reserve discount rate, including any surcharge, on 90-day commercial paper. This provision expires on April 1, 1983 or earlier if the state reinstates its ceiling.

Increases Level of Federally Insured Deposits

The Act increases Federal deposit insurance at commercial banks, savings banks,

S&Ls, and credit unions from \$40,000 to \$100,000, effective immediately.

**Requires Reserves
On All Transactions
Accounts At
Depository
Institutions**

The Act specifies that any reserve requirement will now be uniformly applied to *all* transactions accounts at *all* depository institutions. Transactions accounts include demand deposits, NOW accounts, telephone transfers, automatic transfers, and share drafts. Specifically, all banks, savings banks, S&Ls, and credit unions will have to maintain reserves in the ratio of 3 percent for that portion of their transactions accounts below \$25 million and 12 percent (the Board can vary this between 8 and 14 percent)

for the portion above \$25 million. They also must maintain reserves of 3 percent (or within a range of 0 to 9 percent) against their non-personal time deposits and must report (directly or indirectly) their liabilities and assets to the Federal Reserve.

The Act provides for an eight-year phase in of reserve requirements for depository institutions which are not Federal Reserve members and a four-year phase down of previous reserve requirements for member banks.

**Permits Board
To Impose
Supplemental
Reserves**

The Act permits the Federal Reserve Board, in "extraordinary circumstances," to impose an additional reserve requirement on any depository

institution of up to 4 percent of its transactions accounts. If it were imposed, this supplemental reserve would earn interest.

**Provides Access
To Discount Window**

Any depository institution issuing transactions accounts or nonpersonal time deposits will have the same discount

and borrowing privilege at the Federal Reserve as member banks, effective immediately.

**Establishes Fees For
Fed Services**

The Federal Reserve is required to establish fees for its services, such as currency and coin services, check clearing and collection, wire transfers, and automated

clearing house services. The fees will take effect by October 1, 1981, and the Board must publish a proposed fee schedule by October 1, 1980.

**Expands Power Of
Thrift Institutions**

The Act authorizes Federal credit unions to make residential real estate loans. It also gives S&Ls greater lending flexibility and higher loan

ceilings, expands their investing authority, permits them to issue credit cards, and gives them trust powers.

**Simplifies Truth In
Lending Disclosures
And Financial
Regulations**

The Act reduces the number of disclosures that must be made under truth in lending (TIL) requirements and eliminates agricultural credit from

TIL coverage. It also requires the use of "simple English phrases" to describe key terms in such disclosures, effective March 31, 1982. **ER**

The Discount Rate Under the Federal Reserve's New Operating Strategy

by Harry Brandt

The discount rate is one of three main instruments the Federal Reserve uses to implement monetary policy. The others are open market operations (i.e., purchases and sales of U. S. Government securities in the open market) and changes in reserve requirements. Under the Federal Reserve Act, the directors of each Reserve Bank establish the discount rate, subject "to review and determination" of the Board of Governors.

Wide interdistrict interest rate differentials, however, are unrealistic in an interdependent economy. Therefore, national considerations have long determined uniform discount rate setting, although in the early history of the System each Reserve Bank set its discount rate according to its District's banking conditions. The usual practice, in recent years, is for the Reserve Banks to initiate a discount rate change, subject to the Board of Governors' approval.¹ Sometimes, however, the Board of Governors will inform the Banks, indicating its readiness to approve a discount rate change if a request is forwarded. This chain of events typically takes place when

the Board of Governors wants to couple a discount rate change with a reserve requirement change or another significant monetary policy action.

Once a discount rate change anywhere in the System goes into effect, the rate soon becomes uniform for all Reserve Banks—usually within a few days. The interval depends on the various Boards of Directors' meeting schedules or time to set up telephone meetings.

The last time a split discount rate was in force for an extended period was in the spring and early summer of 1956. San Francisco and Minneapolis raised their discount rate from 2½ to 3 percent, while the other ten Banks went only to 2¾ percent. This split lasted four months, after which the ten brought theirs to Minneapolis and San Francisco's level.

The Board of Governors does not approve all the rate requests it receives. In 1978 (the last full year for which published figures are available), the Board of Governors approved 7 Systemwide discount rate increases and, on 14 separate occasions, disapproved a total of 25 requests (including 4 from Atlanta).

Under what circumstances will the discount rate be changed? The only policy directive in the Federal Reserve Act is that discount rates should be established "with a view of accommodating

¹Even if the rate is not changed, Reserve Banks must establish the discount rate every 14 days "or oftener if deemed necessary by the Board." It should also be noted that, while the discussion is in terms of the discount rate, there are actually four different rates related to special provisions in the Federal Reserve Act.

Although the discount rate, once considered the Federal Reserve's only policy tool, has gradually been surpassed as a policy instrument by open market operations and changes in reserve requirements, it still serves an important function in making technical adjustments and policy announcements. In the Fed's new operating procedure (announced on October 6, 1979), the Board indicated that the discount rate would be managed flexibly to discourage excessive member bank borrowing.

commerce and business." When the Federal Reserve was first organized, some Fed officials felt that, in order to discourage member bank borrowing for profit, the System should follow the Bank of England's policy of making the discount rate a penalty rate; i.e., setting it higher than what commercial banks charge their customers. The Federal Reserve, however, rejected the penalty notion, thinking that a penalty rate would not be a real deterrent to member bank borrowing at the discount window.

The guiding principle the Federal Reserve followed in its early days was to set the discount rate low enough to permit member banks to meet legitimate credit demands and high enough to discourage borrowing for speculative purposes. Fine in theory, this principle broke down in practice. The Federal Reserve concluded, especially during the stock market speculation of the Twenties, that a discount rate high enough to curb speculation would hurt legitimate business and agriculture.

Federal Reserve officials also learned—as early as the 1921 recession—that during recessions (when private credit demands are weak) discount rate reductions do not cause member banks to increase their borrowing. This explains, starting in the early Twenties, why the Federal Reserve

turned increasingly to open market operations, which—unlike discount borrowing—are at the initiative of the Federal Reserve rather than the member banks.² (Another motive was a desire to boost Federal Reserve earnings.) Therefore, while the discount rate was initially considered the Federal Reserve's only policy tool when the Federal Reserve System was organized, open market operations surpassed it in importance by the mid-Twenties.³ Changes in reserve requirements were not available until the Federal Reserve Act was amended in 1933 and 1935.

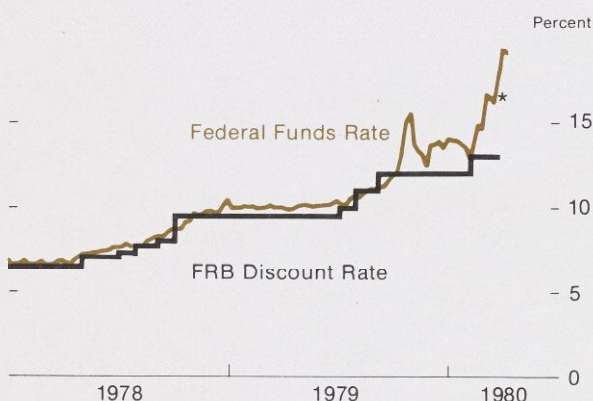
In recent years, the discount rate has been changed for two principal reasons. One is a technical adjustment; the second is for its announcement or signal effect. A technical adjustment is when the discount rate is changed to bring it into line with short-term market interest rates, especially the Federal funds rate (i.e., the rate that commercial banks pay to borrow short-term funds mainly from each other and overnight). When the Federal funds

²Open market operations and discounting both impact on the volume of bank reserves. When the Federal Reserve buys securities in the market, it creates bank reserves that banks can use to lend or invest. When the Federal Reserve lends at the discount window, reserves are also created. However, these reserves have to be repaid to the Fed by the borrowing banks, but reserves created through open market operations do not.

³Discounting, which accounted for three-fifths of Reserve Bank credit between 1920 and 1927, accounted for less than 2 percent between 1970 and 1978.

rate moves up sharply but the discount rate stays unchanged, member banks are encouraged to borrow from Reserve Banks. It then helps to increase the discount rate in order to encourage banks to use alternative sources for covering their temporary needs.⁴ For example, as the Federal funds rate moved up during most of 1978, the discount rate moved up more or less in tandem, but with a lag (see Chart 1).

Chart 1



*3% surcharge on frequent borrowings by large banks.

Discount rate followed funds rate closely in '78

The Board of Governors approved a total of 13 discount rate changes since 1978 (see Table 1). One-half were for technical or mainly technical reasons (i.e., to adjust the discount rate to other interest rates). Three rate changes involved major announcements: the 1-percent increase in November 1978, the 1-percent increase in October 1979, and the 3-percent surcharge on borrowings by large banks in March 1980. The November 1978 discount rate change was part of a broad Treasury-Federal Reserve

⁴Individual banks actually come to the window for two reasons. Some are motivated by profit—i.e., the cost of borrowing at the window versus the cost of borrowing by other means; others, by need. The banking system's need to borrow can be reinforced through open market operations.

TABLE 1
DISCOUNT RATE CHANGES

| Effective Date | New Rate % | Change % | Type of Change |
|----------------|------------|----------|--------------------|
| 1978 | | | |
| January 9 | 6½ | ½ | Signal |
| May 11 | 7 | ½ | Technical |
| July 3 | 7¼ | ¼ | Technical |
| August 21 | 7¾ | ½ | Signal |
| September 22 | 8 | ¼ | Mainly Technical |
| October 6 | 8½ | ½ | Mainly Technical |
| November 1 | 9½ | 1 | Major Announcement |
| 1979 | | | |
| July 20 | 10 | ½ | Mainly Technical |
| August 17 | 10½ | ½ | Signal |
| September 19 | 11 | ½ | Technical |
| October 8 | 12 | 1 | Major Announcement |
| 1980 | | | |
| February 15 | 13 | 1 | Signal |
| March 14 | * | * | Major Announcement |

*Three percent surcharge to borrowings by banks of \$500 million or more for more than one week or for more than four weeks in any calendar quarter. Basic rate was not changed.

program announced at the White House to strengthen the dollar in foreign exchange markets. It was one of several measures, including Treasury actions, to counter the decline in the dollar in the foreign exchange markets. The October 1979 discount rate change was part of a major Federal Reserve package to counter the excessive money and credit growth, while the surcharge imposed in March was among many fiscal-monetary actions, which included a wide ranging formal restraint program on business and consumer credit. Four other discount rate increases, classified as "signals," were timed to coincide with a tightening in open market policy.

What effect does a discount rate change have? Some still interpret a discount rate increase to be tantamount to a general increase in interest rates, and vice versa. In principle, a technical, market-following change in the discount rate in itself should have little or no

direct effect on other short-term interest rates (such as Federal funds, Treasury bills, the prime rate, etc.). However, if market participants view the change as signaling a shift in monetary policy, market rates may well increase or decrease following a discount rate change, especially if the new discount rate is reinforced by other Federal Reserve tightening or easing actions.⁵ The direct result of a discount rate change is to raise or lower the cost of borrowing at the discount window. But this affects relatively few member banks, since there is still a fairly strong tradition against borrowing—especially among smaller banks. Last year, for example, only 22 percent of member banks in the Sixth District borrowed from this Bank (and much of this was for only one or two weeks); nationally, the percentage was slightly higher.

In sum, much of the effect of a discount rate change is probably psychological. It puts the public, banks, and foreigners on notice about monetary policy intentions. Sometimes it is a signal that the Federal Reserve is about to tighten or ease credit through other means. In many instances, however, the change is merely an adjustment to market rates and has no policy implications.

The Federal Reserve's New Operating Strategy and Its Relationship to Discount Rate Setting

In the series of actions announced last October 6, the one announcement that received most of the attention and discussion was the adoption of a new open market operating strategy. The October 6 Federal Reserve press release announced:

“... a change in the method used to conduct monetary policy to support the objective of containing growth in the monetary aggregates. . . . This action involves placing greater emphasis in day-to-day operations on

the supply of bank reserves and less emphasis on confining short-term fluctuations in the federal funds rate.

The press release went on to explain:

“Under the new procedures adopted . . . for the conduct of open market operations . . . wider day-to-day or week-to-week fluctuations in the federal funds rate may occur . . . Over recent years, the FOMC has fixed a relatively narrow range for the federal funds rate. To help achieve better control over the reserve base, it will now be necessary—within broad limits—to permit wider fluctuations of that rate if so determined by market forces.”

Remember that open market operations involve the buying or selling of U. S. Government securities in the open market by the New York Federal Reserve Bank (through its Trading Desk). And in simple terms, a purchase of securities increases the level of bank reserves, while a sale of securities reduces bank reserves.

What the Federal Open Market Committee (FOMC), in effect, said on October 6 was: The bottom line is money growth.⁶ We have been setting money growth targets and telling the Trading Desk to supply the reserves needed to hit our money growth targets but to use the Federal funds rate as its day-to-day operational guide.⁷ In a different setting this technique might have kept monetary growth within our targets. But in a period of high interest rates and high inflation, our operating technique may have contributed to excessive supplies of money and credit. (Many had been saying all along that the Federal Reserve could not hit its monetary objectives under the

⁵The financial community sometimes interprets a discount rate change to mean it is the forerunner of other policy actions; therefore, a discount rate change may be followed by a change in the prices and yields of securities.

⁶The Federal Open Market Committee (FOMC) is the Federal Reserve's principal monetary policymaking group and consists of the seven members of the Board of Governors and five Federal Reserve Bank Presidents. The other seven Bank Presidents also attend the FOMC meetings regularly.

⁷Bank reserves affect the ability of banks to expand deposits by expanding loans and investments.

TABLE 2
OPEN MARKET OPERATIONS POLICY*

| FOMC Meetings | M₁ Target (Or newly defined M1-A) | | Fed Funds Constraint |
|----------------------|--|------------|-----------------------------|
| | % | | % |
| 1979 | | | |
| February 6 | 3-7 | Feb./Mar. | 10 |
| March 20 | 4-8 | Mar./Apr. | 9¾-10½ |
| April 17 | 4-8 | Apr./May | 9¾-10½ |
| May 22 | 0-5 | May/June | 9¾-10½ |
| July 11 | 2½-6½ | July/Aug. | 9¾-10½ |
| August 14 | 4-8 | Aug./Sept. | 10¾-11¼ |
| September 18 | 3-8 | Sept./Oct. | 11¼-11¾ |
| October 6 | 4½ | Sept./Dec. | 11½-15½ |
| November 20 | 5 | Nov./Dec. | 11½-15½ |
| 1980 | | | |
| January 8-9 | 4-5 | Dec./Mar. | 11½-15½ |
| February 4-5 | 4½ | Dec./Mar. | 11½-15½ |

*The FOMC also sets longer run monetary targets, not shown, and short-run targets for M2 (and more recently M1-B).

than originally planned, and vice versa. In other words, the idea is to supply just enough reserves to support a volume of deposits that will achieve whatever money growth rate the FOMC wants. This approach concentrates on controlling bank reserves and reduces the previous emphasis on the Federal funds rate by allowing it to fluctuate within a much wider range.⁹

How does the new strategy relate to discount rate setting? The answer, at this point, is not clear-cut. The Federal Reserve's October 6 press release said:

"The Board indicated that, within the general framework of existing policies regarding the administration of the discount window, the discount rate would be managed flexibly to discourage excessive member bank borrowing."

⁹Under the new procedure, the funds rate has become a by-product of the supplying of reserves, and member bank reserve needs are no longer automatically accommodated by the Desk within a narrow range of Federal funds rate movements.

This seemed to suggest the discount rate would be changed frequently in the future and raised to discourage excessive borrowing. However, the discount rate actually remained unchanged from October 6 to February 15, although member bank borrowing averaged at higher levels since October 6 than last summer and the spread between the discount rate and Federal funds rate widened.

The Board of Governors, until mid-February, felt no further rise in the discount rate was needed since the money supply slowed substantially in November and December and banks were making adjustments such as tightening lending terms.¹⁰ Money growth, however, picked up slightly in January and accelerated in February, while credit growth accelerated in the first two months of 1980. So, on February 15, the Board of Governors raised the discount rate another full percentage point to show Federal Reserve resolve in the face of accelerating inflation figures. The Board of Governors in its announcement indicated its special concern that the latest oil price increases "may lead to further destabilizing pricing decisions" and that these developments reinforced the need to keep money and credit under firm control.

The most recent discount rate change occurred on March 14. Although the basic rate stayed at 13 percent, large banks using the window frequently were subject to a 3-percent surcharge on their borrowings. This first surcharge ever was imposed after discount borrowings had climbed above \$3 billion and the Federal funds rate, above 16 percent. The discount rate change took a back seat, however, to the many new credit restraint measures under the Credit Control Act of 1969. A study is now under way at the Board of Governors to evaluate the relationship between the new open market operating procedures and the discount rate.



¹⁰February 11, 1980, letter from Chairman Volcker to Senator Proxmire.

Home Building in the Early 1980s

by B. Frank King

Though we are well into 1980's second quarter, we still await the "Recession of 1979." Many analysts have seen the unexpectedly strong residential construction activity of 1979 as a partial explanation for the unexpected strength in the overall economy. After all, sharp declines in residential building have foreshadowed each recent recession and have accounted for substantial chunks of lost real output during those recessions.

Lately, however, signs of weakness in housing have dominated. Housing starts have dropped sharply since last October. Their fourth-quarter level of 1.6 million (at an annual rate) was 15 percent below the third-quarter rate and 30 percent below the fourth-quarter 1978 rate. By February, starts were down another 12 percent from December to a 1.3 million annual rate. Recent further increases in mortgage rates have dramatically slowed mortgage borrowing, and home sales are down sharply. Will declines in this pivotal sector continue, or will it snap back in 1980 for a good year? An examination of home building seems in order.

To begin, we can narrow our scope. A major part of multifamily residential building for the past couple of years has been either government-subsidized, low income apartments, or multi-unit condominiums. Only a small increase in the government-subsidized units is presently budgeted. The multi-unit condos are subject to much the same set of influences as single-family home building because both types of housing are

owner occupied. Other multifamily building may fluctuate, but it makes up a relatively small portion of residential construction. So the search for forces that lead to changes in residential construction can be concentrated on single-family home building.

An analogy may aid in examining home building in detail. In looking at housing demand, it helps to make a distinction much like that generally made between climate and weather. Climate generally refers to more or less stable long-run influences; weather changes rapidly around the long-term trend. The climate of Georgia, for example, is usually described as subtropical, but when a winter storm comes down from the northern plains, Georgia weather can be downright arctic.

The climate for new home demand and output is principally provided by four elements: household formations; age distribution of additional households; loss of housing units through destruction, conversion, or dilapidation; and income growth. These together determine the number of separate households that need separate housing units, the proportion of these households that normally want single-family units, the part of the housing stock that must be replaced in each period, and the amount of income households have for acquiring these units. To be complete, one would add the single-family vacancy rate to the list of factors in the climate, but this rate is and is likely to continue to be so low and stable that

Home building activity was unexpectedly strong in 1979, but starts have fallen sharply since last October. Household formations, the age distribution of new households, loss of units, and income growth, the major factors which determine long-term demand for new homes, promise healthy home building for the next several years. But short-term factors, such as mortgage rates and sharply reduced income growth, are strong enough to temporarily halt the long-term trend.

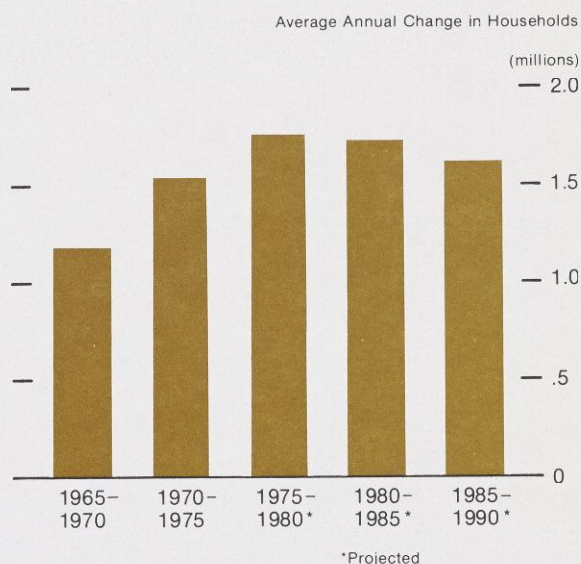
it has minimal significance. Those elements are not entirely independent of one another or of weather fluctuations, but they are very much under the influence of long-run demographic, social, and economic trends.

A second group of factors make up housing's weather. They vary fairly widely over short periods. Similar to short-term variations in weather, large variations in these factors may overcome the long-run climate and cause floods and droughts in residential construction. In assessing short-term housing variations, one generally looks first at credit flows or mortgage rates. The latter is more relevant today because improvements in financial markets allow anyone who is willing and able to pay the market rate to get housing credit without exceptional trouble. Short-term variations in real income, housing costs themselves, and expected capital gains from housing assets are also important short-term influences on housing output.

As we enter the 1980s, what does the housing climate look like? Among the long-term factors, household formations should push housing demand strongly for several years. Additional households are likely to have greatest impact on single-family units. Lower destruction rates and slower income growth should counteract some of the strength provided by household formation.

Long-term factors are favorable. New households have been forming at a high rate for several years. The annual rate

was around 1.2 million in the late 1960s but jumped to over 1.7 million in the late 1970s. It is expected to stay there in the early 1980s.¹ A large jump in the number of single-person households and the



Household formations are booming

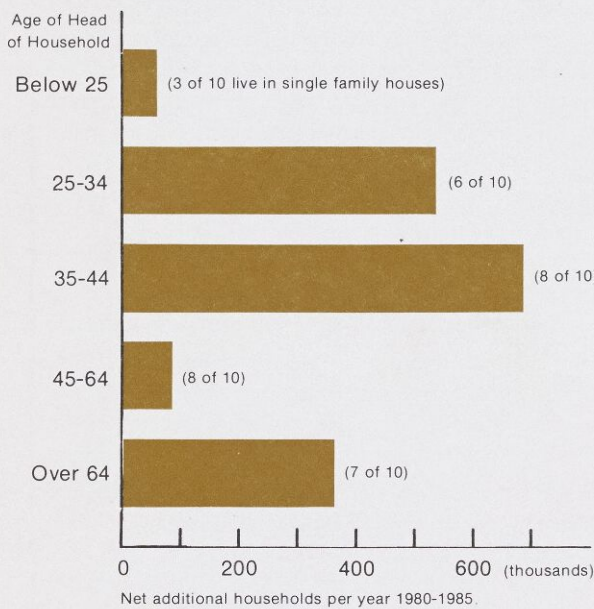
movement of baby boom members into their 20s account for this household formation bulge. The bulge is not likely to run its course for a while because both basic factors behind it are continuing.

As members of the baby boom move into their late 20s and 30s, they enter

¹Household formation projections used in this analysis are from projections series B found in the U. S. Bureau of the Census, "Projections of the Number of Households and Families, 1979 to 1995," **Current Population Reports**, Series P-25, No. 805, Washington, D. C., May 1979.

the age group that normally goes to market for a single-family house. Patterns observed in both 1960 and 1970 censuses indicate that about 3 out of 10 households in the under 25 age group live in single-family houses. But 6 of 10 in the 25-34 age group and 8 of 10 in the 35-44 group live in these units.² In these days, it is not necessarily (indeed, not often) a new house that younger families buy, but their purchases of existing houses often start the upgrading process that results in older families' purchases of new housing.

The movement of the baby boom generation into its late 20s and 30s partially



Additional households will boost single family demand

accounts for the jump in the share of single-unit houses from around 55 percent of newly built residential units in the early 1970s to around 70 percent during the past 3 years. This distribution will most likely hold stable as more than 70

²An analysis of these tendencies is found in Thomas C. Marcin, "The Effects of Declining Population Growth on the Demand for Housing," U. S. Forest Service, General Technical Report NC-11, Washington, D. C., 1974.

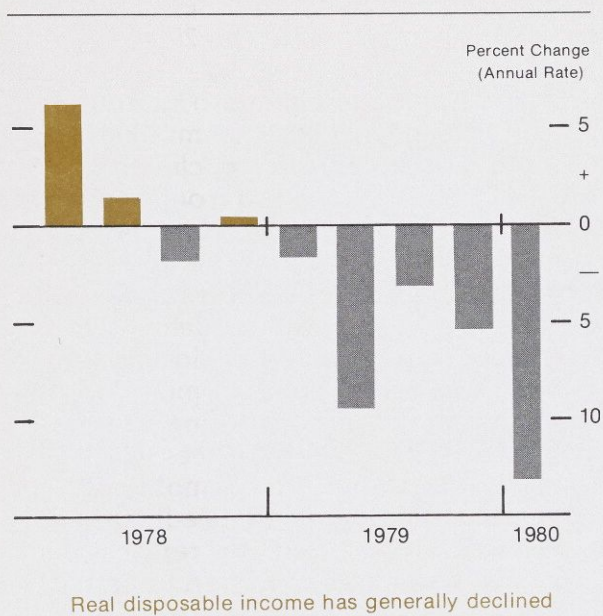
percent of net change in households over the next 5 years occurs in the 25-44 age group.

The basic demographic push to housing demand in the early 1980s seems likely to get some resistance from a declining rate of loss of housing units and from slow income growth. The rate at which housing units were taken out of the housing stock slowed in the 1970s. This rate seems likely to slow further as remodeling and rehabilitation become more widespread. Travel cost increases put a premium on close-in locations where housing already exists. Many units in these places will be refurbished rather than demolished and replaced. Thus, a further reduction in the loss rate and the need for replacement units seem likely. Further, typical projections indicate slow growth in labor force, in capital investment, and in productivity in the early 1980s. This adds up to slow real income growth. Both of these forces would somewhat retard but not overcome the influence of high household formations. The climate still seems likely to be conducive to housing demand similar to that of 1977 and 1978, when housing starts were in the neighborhood of 2 million units.

But the current weather is terrible.

Short-term influences appear, on balance, to provide strong resistance to housing output. Credit costs have climbed despite the vastly improved channels for mortgage availability. Mortgage rates finally climbed above the inflation rate in October, after being lower through most of 1979. They have continued to climb this year. These phenomena can be expected to cut down the number of housing units demanded.

Income growth has dropped below its long-term trends, making it less likely that people will feel that they can afford to buy houses. Real disposable income was down in each quarter of 1979 and dropped sharply again in the early part of this year. Slower income growth, combined with higher mortgage rates, makes



it less likely that potential home buyers can qualify for loans, even if they are willing to take the plunge.

At the same time, however, the rates of increase in prices of both new and existing homes went negative in the fourth quarter of 1979 before rebounding somewhat in January. Ordinarily, one would think that slower rates of increase in the prices of homes would support demand for new housing units. But in today's economy, part of the motivation for purchasing housing is expected capital gains. Lower rates of price increase may also reduce expectations of capital gains and work against new single-family and condominium demand. All this leaves the influence of recent slowing in the inflation of housing prices in a fog, but the opposing forces involved may come close to cancelling each other. Recent slowing in housing inflation probably will have little impact on the number of new homes or apartments built for a while.

Government programs are not currently a depressant. On the other hand, they are not much of a stimulus in the single-family sector. The status of plans for

housing support this year is in limbo. Recent increases in mortgage rates have brought many calls for massive support. At the same time, the move of the Congress and the Administration toward a balanced budget limits enthusiasm for more housing support spending on that front. There are even recent indications that some home building trade groups are ready to support restrictive fiscal policy at the expense of housing support.

Where does that leave housing production? A strong underlying demographic push is likely to be only somewhat mitigated by slower-than-usual long-term income growth and reduced losses from the housing stock. However, short-term forces are now overwhelming this strong push. When the short-term weather improves, when mortgage rates fall, and income growth rebounds, the slowdown we are now experiencing is likely to be followed by a rebound to 1977 and 1978 levels of starts in real residential construction spending. Early this year, the consensus forecast saw 1.4-1.5 million starts in 1980, with a slow first half and a rapid rebound in the second. These forecasts generally assumed that interest rates would reach their peak early in the year and that income growth would increase late in the year.

We already know that the early interest rate peak has not taken place. Most forecasters now see less strength late in the year than they previously did. Housing production, in all probability, will slow more than previously expected; the slowdown will continue longer, and the rebound may be less sharp than expected, particularly if efforts to balance the Federal budget fail and advances in defense spending induce larger deficits and continued upward pressure on interest rates. It looks more and more as if starts in 1980 will be below the earlier consensus range, and the rebound that is waiting in the wings will stay there until very late in the year if it comes at all during 1980.

ER

Basic Questions on Food Prices

with Gene D. Sullivan

Q What happened to food prices last year?

A In the first half of the year, food prices were jumping at a 12- to 15-percent annual rate. That primarily reflected the rapid run-up in meat

prices that accompanied a reduction in beef output. By midyear, however, other meats had become more plentiful and food price increases were held below 7 percent during the second half of 1979. For the year as a whole, the rate averaged 10.7 percent.

Q How does our current diet translate into actual dollars spent?

A Meats, poultry, and fish account for the major portion of food expenditures, and that portion has increased in recent years. Soft drinks and prepared desserts showed the sharpest increase. Eggs, fats, and sugars declined the most in percent of actual expenditures, possibly reflecting consumer concern about the healthfulness of these products.

| | Percent of Total Food Expenditures | |
|--------------------------------|---------------------------------------|-------------|
| | 1965 | 1977 |
| Meat, poultry, and fish | 32.7 | 34.3 |
| Dairy products | 12.6 | 12.3 |
| Vegetables | 12.2 | 11.9 |
| Grain products | 12.3 | 11.9 |
| Fruits | 7.4 | 7.7 |
| Eggs, dry legumes, and nuts | 5.2 | 4.3 |
| Soft drinks, punches, desserts | 3.1 | 3.8 |
| Alcoholic beverages | 3.7 | 3.7 |
| Fats and oils | 3.5 | 2.9 |
| Sugar, syrup, jelly, and candy | 3.1 | 2.6 |
| Other foods | 4.1 | 4.6 |
| | <hr/> 100.0 | <hr/> 100.0 |

After a 10.7 percent increase in 1979, food prices will probably rise more slowly this year. Beef prices may continue to climb, with the breeding stock still in the rebuilding process. Supplies of most foods should be plentiful, but escalating marketing costs (especially energy costs) will likely prevent an actual downturn in retail prices.

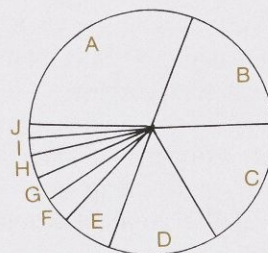
Q Are there any signs that our diet is changing and if so, how is the food industry adjusting?

A In general, we have been eating fewer sweets, fats, starches, and eggs and more fruits, green leafy vegetables, meats, nuts, and beverages.

At the same time, consumers have included more ready-prepared and fast food items in their diet. Most observers associate this trend with smaller families and more working housewives who have less time for preparing traditional home-cooked meals.

The food industry has responded to this change by including more processing, packaging, and convenience in items sold at grocery stores. Fast food establishments, of course, have proliferated. Since fast food restaurants generally specialize in less expensive types of meat (hamburger, chicken, pork), the consumption of higher priced meat (steak, lamb) has declined. In fact, we may be in the midst of a more permanent shift in demand from steak to poultry, pork, and lower priced beef.

| | Food Consumption Per Person (in Percent) | |
|---------------------------------------|--|-------|
| | 1965 | 1977 |
| A. Dairy products | 30.1 | 28.3 |
| B. Vegetables | 18.4 | 18.2 |
| C. Meat, poultry, and fish | 15.8 | 17.0 |
| D. Fruits | 12.8 | 14.1 |
| E. Grain products | 9.1 | 7.7 |
| F. Alcoholic beverages | 2.3 | 3.4 |
| G. Eggs, dry legumes, and nuts | 3.8 | 3.2 |
| H. Sugars, syrup, jelly, and candy | 3.9 | 3.0 |
| I. Fats and oils | 2.9 | 2.5 |
| J. Soft drinks, punches, and desserts | 0.9 | 1.2 |
| | 100.0 | 100.0 |



National Diet by Food Groups, 1977

Q

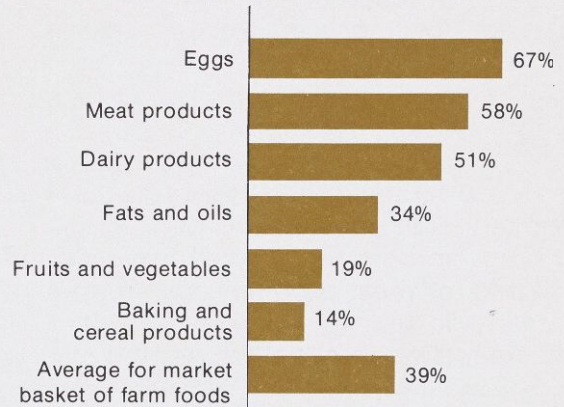
How much of what we pay for food goes for the raw product?

A

The supply of raw products influences food prices most in cases where marketing charges are relatively low, as in eggs, meats, and dairy products. So even though consumers spend only one-fourth as much on eggs as on vegetables in the average weekly food budget, an increase in egg prices would have nearly as much impact on food prices as a comparable increase in vegetable prices because of the larger share of the farm value in the retail price for eggs.

For the same reason, an increase in wheat prices has far less direct impact on retail food prices than a comparable rise in meat prices. Grain products, of course, also make up a much smaller proportion of the total expenditures on food. Grain supplies, however, exert their greatest influence indirectly through their impact on supplies of meats and

Farm Value as a Percent of Retail Food Price, 1978



livestock products. A shortage of grains can make feed costs so expensive that livestock production is reduced, thereby indirectly affecting a component of the diet that accounts for nearly half of the total food expenditure. The chart shows the proportion of the "farm value" (raw product price) in the retail price for various foods.

Q

What makes up the "marketing spread" (the difference between the farm value and the retail price of food), and how does it compare with farm product prices in contributing to total food price inflation?

A

Basically, marketing spread consists of processing, packaging, shipping, and various merchandising expenses. The largest component in these expenses is labor cost. Marketing spread, on average, accounts for 60 percent of total food expenditures. These costs range from as much as 80 percent for cereals and bakery products to as low as 35 percent for eggs. Since it comprises such a large portion of the total, marketing spread clearly is the major factor in determining food prices. The

Q If the price of the raw product depends largely on supply, what factors influence how much farmers produce?

A Weather variations are a major factor, but they are largely unpredictable and outside the control of farmers. But farmers can influence the amount of land they plant for crops and the numbers of livestock available for meat production, and they regularly do so in response to their own assessments of potential for profit. For crop producers, these decisions are made once for the whole year, in most cases, and cannot be quickly adjusted, even though prospects may change markedly during a production cycle. If the price of corn drops sharply after the crop is planted, for example, farmers are limited in the adjustments they can make to

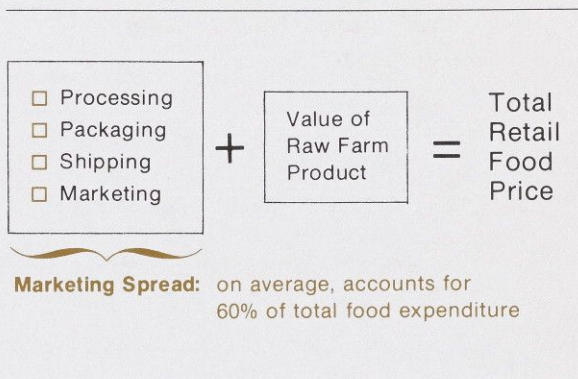
change that particular crop. Similarly, if prices rise abruptly, farmers must wait until next year to increase their production by planting more acres.

January surveys showed that farmers, influenced by higher prices at year-end planned to make the following changes in 1980 plantings (compared to 1979):

| | |
|-------------|------|
| Barley | +11% |
| Wheat | +10% |
| Sorghum | + 5% |
| Corn | + 4% |
| Rice | - 1% |
| Sugar beets | - 3% |
| Oats | - 5% |
| Sunflowers | -10% |

After expanding 11 percent in 1979, planned acreage of soybeans, an important source of livestock feed, is unchanged, but total grain supplies will increase this year if farmers carry out their intentions.

40 percent which consists of the farm value is, of course, heavily influenced by supply fluctuations. These fluctuations tend to deliver scattered, cyclical jolts to food prices, as in early 1978, for example, when a severe freeze destroyed a large portion of the vegetable crop, and in 1974, when a major drought sharply reduced grain production. The marketing sector, on the other hand, produces more widespread, continuous changes that are keyed to costs of labor, energy, and inventory financing.



Q The Soviet grain embargo was expected to substantially increase U.S. grain stocks and push prices downward, thus possibly discouraging production. Why, then, have grain prices remained relatively strong following the embargo?

A Although the embargo interrupted the export of a large quantity of grain, brisk international demand has supported grain prices.

In spite of recent gains, the dollar's value during January and February remained below its year-earlier level against most of the currencies of important customers for U. S. grain. So in the world market, U. S. grain continued to be relatively cheap. Some international demand reflects rising income levels in developing countries, and some is undoubtedly attributable to overall uncertainty accompanying the current international tension. If this tension escalates in the future, it could threaten world access to grain supplies.

Q I see that cattle production is beginning to pick up, but pork and poultry are slowing down. Aren't they all equally dependent on grain prices? What factors cause the difference in production rates?

A The year-end inventory of cattle shows an increase in young beef breeding stock, but it will be another two years before the calf crop grows. That means that cattle production will not increase in 1980, thereby keeping upward pressure on meat prices.

Responding to this shortfall in beef supplies, pork and broiler producers have filled the void with all the product the market will take at price levels that remain profitable. But the rise in grain prices since mid-1979 will discourage further expansion of pork and poultry unless they also rise in price. Already broiler production has slowed from the 12- to 15-percent growth in 1979 to a 2- to 6-percent increase.

Pork producers had planned to expand output further in 1980, but increased

Q And what about livestock production? Is it just as inflexible as crop output?

A Livestock producers have more options for reducing output on short notice, since all forms of livestock have salvage value if slaughtered

at nearly any stage of the production process. Options to expand output are much more limited, however, since actual expansion of animal numbers requires periods ranging from several months for poultry up to five or six years in the case of cattle.

marketings of breeding stock suggest that recent hog prices as much as 30 percent below year-ago levels are causing some producers to reconsider their intentions for expansion. Producers will be watching grain and pork prices carefully in the coming months to guide pork production levels during the rest of 1980.

Increased grain prices generally affect pork and poultry more than cattle. Even though hogs and poultry are more efficient grain users than cattle, cattle can consume forages that hogs and chickens cannot. Beef of somewhat lower quality can be produced without any grain at all. Thus, some beef can and will continue to be produced even if grain should become too expensive to use for animal feed.

Beef:

Young breeding stock increasing, but another 2 years before calf crop grows much

Pork:

30% price drop causes reconsideration of increased marketing

Broiler:

Rate of increase has slowed

Increased grain prices generally affect pork and poultry more than cattle.

Q If we finally have a recession, what will happen to food prices? How do they usually behave during contractions and expansions of the economy?

A Traditionally, recessions have caused consumers to conserve on food expenditures by shifting to lower priced foods (from beef to potatoes and beans, for example, or at least to pork and chicken). Currently,

however, pork and chicken consumption is already high as a result of the beef shortage. Also, the government assistance programs now available to the poor and unemployed effectively buffer the shifts that these groups were forced to make before these programs. If a person receives a fixed food stamp allotment each month, for instance, he need not curtail beef or meat consumption during a recession. Hence, the swings in food consumption are not nearly as erratic during recent business cycles as they have been in the past.

Q Some early forecasts called for lower food prices in 1980. Why? Does this still seem likely?

A A lower rate of increase is most likely. At the outset of 1979, it was evident that beef production would decline sharply as herd liquidation ceased and as some young animals were withheld from markets for herd rebuilding. At that time, pork production had not yet expanded much, and it was questionable if the poultry production capability could be expanded fast enough to avert an overall meat shortage.

A year later, the numbers of hogs and chickens have been expanded sufficiently to provide an ample supply for foreseeable demand. Farmers harvested a bumper grain crop in 1979, and indications are that they will expand plantings of most grains in 1980. Supply prospects are considerably brighter than in 1979. If this situation continues, then, we can expect to see some lowering, at least in

prices of raw food products. However, the rapid escalation in energy costs (a large component of the marketing spread) could prevent most of that downturn from reaching the retail level.

The major unknown in this equation is the extent of increased food demand

Unanswered Equation for 1980:

| | | | | | | |
|----------------------------------|---|--------------------------------------|---|---|---|--|
| Good Supply (but) | + | Energy Costs (rising) | + | International Conditions (uncertain) | = | Food Price <input type="checkbox"/> slowdown? <input type="checkbox"/> acceleration? |
|----------------------------------|---|--------------------------------------|---|---|---|--|

that may result from unsettled international conditions. As I mentioned earlier, uncertainty created by international tensions and threats of military actions tends to support commodity prices, especially grains. The threat of an outbreak of military hostilities between major world powers could so escalate the demand for food and fiber commodities that prices would really soar. **ER**

Thoughts on the Underground Economy

by Charles J. Haulk

Unmeasured, untaxed economic activity may be growing faster than the “regular” economy. If so, and if it was as large as 15 percent of national GNP by 1978, this “underground economy” could be significantly distorting the economic models used for forecasting. As a result, fiscal and monetary policy makers run the risk of thinking they are restricting the economy when they may actually be overstimulating it.

Because of the fascination and infatuation of the public and the economics profession with official statistics about the economy, we have had our heads set spinning with the numbers released over the past several months. Productivity growth has come to a halt, consumers have virtually stopped saving, and we are faced with horrendous inflation at a time when the unemployment rate is high by historical standards. Real growth creeps along, and our potential for growth seems increasingly limited. And yet despite all the negative news and the predictions of recession, the economy shows amazing resilience in the face of lower real incomes, high debt burdens, and rising taxes.

Why have so many highly skilled, well-intentioned students of the economy decided to modify their recession forecasts? Primarily because it is becoming increasingly obvious that the official statistics used in the economic analysis understate growth levels of output and income and overstate the degree of

hardship due to unemployment. The reason for the distortion, many economists believe, is the existence of a large and evidently growing underground economy.

What is the Underground Economy?

The “underground economy” is economic activity that avoids official detection or measurement. Income from this activity is unreported, unmeasured, and

Underground Economic Activity Includes:



- Gambling
- Smuggling
- Prostitution
- Drugs

- Unreported Cash-Only Sales
- Unreported Tips
- Barter

untaxed. Persons engaged in producing illegal goods or services, such as book-making, smuggling, prostitution, illegal drugs, etc., earn incomes which must be hidden in order to prevent detection of the illegal activity. Crimes, such as robbery, fraud, or embezzlement, are essentially redistributive and do not add to total output.

Persons engaged in otherwise legal production of goods and services but who can in some way cover up part or all of their income and thereby reduce their taxes are also part of the underground economy. Restaurant owners who don't ring up cash sales, the friends who help each other remodel their homes, the painter who paints for cash only and reports whatever income he thinks fit, and the mechanic who fixes his neighbor's car for cash are all examples of underground economic activities.

The underground economy which is accounted for by illegal activity is, by admission of law enforcement officials, a *growing* sector. Whether the sector is growing faster than the measured economy is not provable. However, much of the activity provided by this sector is services whose demands increase as incomes rise. In that regard, it seems reasonable to argue that income earned from these illicit activities is growing *faster* than the overall economy.

The underground economy which is accounted for by production of legal goods and services but is done so that income is hidden is probably due to the desire to increase after-tax income. There may be instances of a person hiding income so that a spouse or other interested party would not know the full extent of that person's income.

The income and product in the underground economy generated in the tax-avoiding sector are arguably growing faster than the overall economy. In the simplest economic terms, a person's willingness to participate in the underground economy and thereby engage in

the illegal act of under-reporting income is based on his perceptions of the benefits and costs of such an act. When the benefits in terms of after-tax income gained from not reporting income are greater than the costs, then the temptation to underreport income becomes stronger.

The Benefits and Costs of Participating

The benefits are obvious—a higher standard of living with no increase in work effort or considerable gains in wealth can be achieved by more work effort when the tax rate is zero on the income thus earned. The benefits of underpaying taxes will grow relative to income as the tax rate increases. The cost of underpaying taxes is the probability of being caught and convicted multiplied by the punishment for violating the tax laws. Since much of the cost of being caught is the shame and embarrassment of the arrest and trial, that cost is virtually independent of the amount of tax underpayment. As a result, an increase in tax rates as income rises will increase benefits much faster than costs.

Another element that has contributed to an increase in the benefits of underpaying taxes relative to the costs has been a lowering of the public's assessment of the benefits it derives from government spending. This is particularly true in the area of transfer payments (subsidies, aid to the needy, etc.).

Government spending for national security, public safety, public health, and, to a lesser degree, education is almost universally accepted. When a large share of tax dollars is used for transfer payments, the degree of taxpayer support dwindles. Because individuals perceive a smaller benefit from growing government spending, their willingness to pay taxes is further reduced.

Evidence of the growing incentive to cheat the tax collector is abundant. In 1950, 25 percent of personal income minus transfer payments went to pay income taxes, sales taxes, etc. By 1960,

that figure was 33 percent; in 1970, 41 percent. As of 1979, taxes paid by individuals amounted to 45 percent of personal income minus transfer payments. Granted transfer payments recipients do pay some taxes, however, the rise from 25 to 45 percent has been borne mainly by persons who receive no financial assistance from the government. Although not as much as in Great Britain or Sweden, the U. S. taxpayer is increasingly saddled with higher tax rates.

Because it is nearly impossible to avoid property taxes and because not all citizens are property owners, most people who avoid taxes do so primarily by not reporting income. Sales taxes can be avoided, but probably to a much lesser extent, in terms of the total dollars involved than income taxes.

How Do We Know It's There?

Economic theory very clearly suggests the existence of a growing underground economy. What evidence do we have to support the contention? The fact that participants in the underground are trying to escape detection means that measuring income and product will be extremely difficult and frustrating. Nonetheless, several attempts have been made and other work continues toward that end.

The IRS has made a "direct" estimation of unreported income in 1976 through the use of results obtained on the Taxpayer Compliance Audits, which are far more thorough than the normal audit.¹ Their results indicate that unreported income in 1976 was between \$100 and \$135 billion, or about 10 percent of measured personal income that year.

The IRS admits, however, that their more rigorous audit cannot track down income for which there are no records kept. Nor is there any good way to estimate the income of nonfilers. Their

limited data also did not permit any strong conclusions about trends in noncompliance.

Several writers have tried to estimate the size of the underground economy through indirect means. The first widely publicized attempt by Peter Gutmann² was based on certain assumptions about the growth in the use of currency. Gutmann argues that the rapid increase in the amount of currency in circulation relative to the amount of money in checking accounts is indicative of increased use of underground transactions. Gutmann's estimate for 1976 put unmeasured output and income close to 11 percent of measured output.

Continued rapid growth of currency relative to demand deposits since 1976 would make the 1980 underground larger than 11 percent of the measured economy under Gutmann's assumptions. Edgar Feige³ obtains estimates of total currency and checking account transactions in the economy and, by making certain assumptions regarding the growth in checking account transactions for purely financial purposes, estimates the size of the underground economy. Feige asserts that the unmeasured output in 1976 was as high as 19 percent of total output and, by 1978, was up to 27 percent of total output. His procedure would predict further growth in 1979.

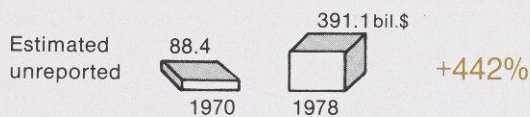
Using a more conservative procedure than Feige, we have estimated that the underground economy grew from 9 percent of reported GNP in 1970 to at least 15 percent of GNP in 1978 (see Appendix). Our procedure assumes that all underground activities are done with cash; Feige does not. None of the estimates mentioned attempts to estimate the role of increased use of barter.

If the underground economy were an unchanging proportion of GNP, we

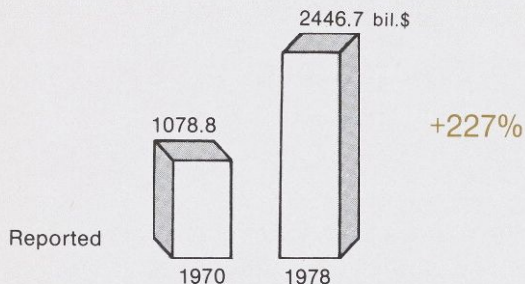
²Peter Gutmann, "The Subterranean Economy," *Financial Analyst Journal*, November/December 1977.

³Edgar Feige, "The Irregular Economy: Its Size and Macroeconomic Implications," Working Paper 7916, Social Systems Research Institute.

¹Estimates of Income Unreported on Individual Tax Returns, Department of the Treasury, Internal Revenue Service, Publication 1104(9-79).



Estimated unreported activity grew much faster than reported GNP.



would not need to be terribly concerned with it because it would not distort relationships between important aggregate economic variables (output, income, spending, etc.) over time.

Because our estimates and others show the underground economy to be growing relative to the regular or measured economy, we would expect changes in the measured variables (GNP, income, and employment) to be smaller than the true changes. The effects of the unmeasured forces, then, are expanding.

Effects of the Underground Economy on the Regular Economy

What important effects does the underground economy have on the regular economy, and what are the implications for economic policy?

First, a large and rapidly growing underground economy means that actual income and employment are larger than official statistics show and that resources are more fully utilized than unemployment rates indicate.

Second, because tax is avoided in the underground economy, initially, a lower price will be established for goods and services produced in the underground economy, drawing activity away from the regular economy, a shift unintended by policymakers and perhaps detrimental to long-run economic growth.

Third, those who produce in both the regular and underground economy are likely to be relatively more efficient in their underground pursuit because the after-tax reward is higher per hour of work effort. This would imply that productivity might be higher in an underground industry than in the same field in the regular economy.

Fourth, the fact that a much larger volume of final transactions is being carried out than the GNP figures show means that the estimates of money velocity and velocity increases are too low.⁴

Fifth, a disproportionate share of the tax burden is borne by those who are not engaged in the underground economy.

Sixth, if the share of unmeasured income going to investment or net exports is increasing, it would mean a rise in the savings rate in the unmeasured economy. In turn, this would be consistent with a decline in the measured savings rate while the true overall savings rate was unchanged or fell less than the published figure.

Seventh, because there is no price index for unmeasured activity, we cannot be sure what the inflation rate is in that sector. If the inflation rate is lower in the underground economy, then the rates of inflation reported for the measured economy would substantially overstate real earnings losses.

Finally, all of this suggests that the economic models used for forecasting may well be technically and theoretically deficient.

Policy Implications

These developments clearly have substantial implications for economic policy. To the extent that fiscal and monetary policy is expected to reduce unemployment and raise living standards in the long run, those policies could be massively overstimulative if measured income

⁴Because money velocity (the average number of times a given monetary unit is spent during a given time period) is based partly on the total amount of spending activity.

and employment are understating the true levels. If growth is measured low, in other words, economic policies are likely to be aimed too high—in pursuit of growth which is thought to be missing but is merely unmeasured. Stimulation of aggregate demand would then worsen inflation at a time when resources are, for all practical purposes, fully employed.

Monetary policy might also be deluded into maintaining an overstimulative stance. The setting of money growth rate targets is based on certain assumptions about the way money growth and nominal GNP growth are related. These assumptions are based largely on past performance. A rapid growth in the underground economy would mean that a given rate of money growth is supporting a much larger growth in activity than the monetary policymakers believe. In other words, money growth which policymakers would view as slow enough to



restrain growth could, in fact, not be restrictive at all.

What can be done? In the absence of hard data for the underground economy, it would be difficult to try to take it into account precisely in policy formulation. It may be that monetary and fiscal policy will have to focus more on prices and interest rates directly, since data on income, output, and spending have become less reliable.


APPENDIX

In order to estimate the underground economic activity, we start with the assumption that all underground activity uses cash. We then obtain turnover rates for currency, using the Feige assumption that each unit of currency is used, on average, 125 times before it has to be destroyed because it is unfit for circulation. The annual turnover rate is estimated by dividing the average length of the life of currency into 125 to get the number of transactions per bill annually. We then multiply the turnover rate by the outstanding currency in each denomination to obtain the value of total currency transactions.

From 1950 to 1965, the ratio of currency to GNP fell at a rate of 2.9 percent per year. After 1965, the rate of decline was 0.9 percent per year. The decline in currency per dollar of GNP in the 1950s was due to several factors, including

growth in the use of demand deposits by consumers. However, with the massive growth in charge cards and other technological advancements, one would expect that the need for currency would continue to decline relative to GNP, at least at the 1950-65 rate.

To estimate illicit transactions involving currency, we calculate the excess of currency in years after 1965 by assuming that without illicit demands for currency, the ratio of currency to GNP would have continued to fall at 2.9 percent annually. The transactions carried out through the use of the excess currency are assumed to be underground activity.

This procedure is very conservative in that it puts underground activities at zero in 1965, which is very doubtful. But our purpose in this article is to show the trend of underground economic growth, so we are not concerned with the absolute levels per se. Using more liberal assumptions, we would get higher levels and faster growth rates. 

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