Research Department

Federal Reserve Bank of San Francisco

April 2, 1982

Underlying Inflation

Recently the inflation outlook has been improving. Consumer prices rose at just a 3.0-percent annual rate during the January-February period, compared with a 5.5-percent rate in the prior two months and 8.4 percent over the past 12 months as a whole. Some analysts fear that the good news will not last, since inflation had fallen sharply last spring, only to rise in the fall by more than it had declined. This time, however, the prospects are good that the current break in inflation will last for some time. Indeed, the seesawing pattern in prices appears to be around a declining trend, with the peak having been reached in the first half of 1980.

Underlying and actual inflation

We may distinguish here between the actual and underlying rate of inflation. The former may be measured by any number of indexes, for example, the consumer-price index estimates the average price of items consumers purchase —while the GNP implicit deflator provides a more inclusive measure, since it includes items produced not only for households but for other sectors as well. Actual rates of inflation are often quite volatile because of sharp, short-term changes occurring in specific items, such as agricultural and energy prices.

The underlying rate is basically a measure of trend movements in the actual index, and therefore does not exhibit the sharp, transitory changes of the actual measure. It provides a clearer picture of basic movements in prices, which are often obscured by transitory price shocks.

What are the forces generating price trends? Some analysts emphasize average movements in factor costs—for example, Harvard's Otto Eckstein measures the "core" rate as the trend of unit labor and capital costs. Another view emphasizes trend movements in the money supply as the basic force determining underlying inflation. Here we

have estimated the underlying inflation rate on the basis of changes in the M-1 money supply (currency and checking-type deposits).

This raises the question—what is the appropriate measure of the money supply? Recently, a number of institutional and financial innovations have occurred—such as a phenomenal increase in the use of moneymarket mutual funds and the nation-wide introduction of NOW accounts—and these have led the public to change the traditional proportions of their money holdings relative to their income and to market interest rates. Some evidence suggests that the two types of changes have roughly offset each other, and that M-1 growth (fully adjusted for such innovations) grew at approximately the measured rate of 5 percent in 1981. Hence, we make this assumption in our inflation estimates.

Divergence in late 1970s

The inflationary problem can be illustrated by comparing our estimated underlying rate with the actual rate (as measured by the GNP implicit deflator). In 1975, for example, both actual and underlying inflation declined after the earlier shocks created by food and energy pressures plus wage-and-price decontrol. However, with the recovery from these shocks, the actual inflation rate diverged sharply from the underlying rate, falling twice as rapidly between the first half of 1975 and the first half of 1976. From late 1976 through 1977, in contrast, food and energy prices were exceptionally stable, so that actual and underlying inflation moved in parallel during that time.

But trouble was on the way. In the next several years, inflation worsened substantially by any measure. The sawtoothed path of the actual rate reflected sharp increases in food prices in 1978, plus major energy price jolts in 1979 and 1980. Measured inflation moved from 6.0 percent in 1977 to 9.7

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percent in 1980. Over the same period, the underlying rate also soared, but not quite so high—from about 5.5 percent to 8.5 percent.

Influence of money growth

This buildup in the underlying inflation rate can be traced to a steady increase in monetary growth after allowing for a two-year lag between monetary and inflation changes. The M-1 money supply increased from 5.0 percent in 1975 to 8.2 percent in 1978—roughly equal to the rise in underlying inflation in the 1977-80 period.

In 1981, we again experienced sharp gyrations in measured inflation with a dip to an 8.0-percent rate in the first half followed by a jump to a 9.7-percent rate in the last half of the year. Most of the sharp decline and bounceback was due to the special factors of oil and food price movements. Currently we are seeing another big drop in inflation, reflecting lower energy prices. And again, we may see some rebound in the inflation indexes—but a smaller rebound this time because underlying forces are exerting strong downward pressures.

The underlying rate indeed appears to have peaked during the first half of 1980. In 1982 and 1983, the downward movement could become more pronounced because of an appreciable slowdown in money growth. The growth rate of the M-1 money supply decelerated from an 8.0-percent rate in the 1978-79 period to a 6.0-percent rate in the 1980-81 period —and the top of its target range this year is 5½ percent. With no major commodity-price shocks, the actual and underlying rates could again be as close together as they were in the 1976-1977 episode.

From the labor-cost standpoint, the near-term outlook also appears promising. The deceleration of consumer prices is now tempering inflation expectations, which in turn are acting to dampen wage demands. The agree-

ments of the Teamsters, Ford and General Motors workers—with their emphasis on wage concessions—are especially important since these contracts largely set the trend for smaller unions.

Deficits and inflation

The outlook has been darkened, however, by the issue of deficits and inflation. According to the Administration's February estimates, Federal budget deficits will reach \$98.6 billion and \$91.5 billion in 1982 and 1983, respectively. But with the worsening economy, according to Treasury Secretary Regan, those deficits will be somewhat greater than first estimated.

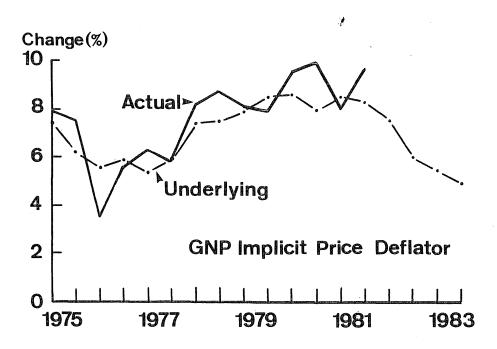
Large deficits during recession periods largely reflect cyclically-related reductions in tax revenues and increased expenditures for programs such as unemployment compensation. As such, the increased deficit results from weakened demand and is generally associated with reduced inflationary pressures. Once the recovery is underway, the bulge in the deficit largely disappears. Unfortunately, the current budget problem is one of continued deficits even as private demands recover.

But do deficit increases necessarily lead to increases in inflation? According to one view, deficits tend to be inflationary because the Federal Reserve often acts to smooth interestrate movements rather than money-supply movements. In other words, when deficits place upward pressure on interest rates, the Federal Reserve tends to increase the money supply, thereby creating future inflationary pressures. Some economists have found evidence of such trends in the historical record of the 1960s and 1970s. Nonetheless, the association which was relevant in the past several decades may not be valid for the 1980s. The Fed, in other words, need not ease its policy in the face of substantial deficits. Indeed, since October 1979, the Fed has held firmly to its announced intentions to improve its control of monetary growth and to seek

reduced rates of monetary expansion. Subsequently, monetary growth has declined from 7.2 percent in 1980 to 5.0 percent in 1981. With the continuation of the Fed's

present policy, then, the historical inflationary impact of deficit financing should not be as evident in the 1980s as it was in earlier decades.

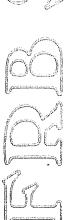
Rose McElhattan



Underlying inflation for 1982-83 period estimated on basis of M-1 money growth of between 4 and 5.5 percent.







FIRST CLASS

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding	Change from		Change from year ago	
	3/17/82	3/10/82	Dol		Percent
Loans (gross, adjusted) and investments*	157,649	-1,384	10	,644	7.2
Loans (gross, adjusted) — total #	136,518	-1,440	11	,993	9.6
Commercial and industrial	41,824	- 58	5	,325	14.6
Real estate	56,493	70	5	,093	9.9
Loans to individuals	23,446	56	_	3	- 0.0
Securities loans	2,076	- 220		666	47.2
U.S. Treasury securities*	6,221	50	l –	555	- 8.2
Other securities*	14,910	6	-	773	- 4.9
Demand deposits — total#	39,000	- 58	- 2	2,093	- 5.1
Demand deposits — adjusted	27,165	- 299	- 1	,621	- 5.6
Savings deposits — total	30,635	- 39	1	583	1.9
Time deposits — total#	91,310	- 634	13	3,990	18.1
Individuals, part. & corp.	81,813	- 280	13	3,539	19.8
(Large negotiable CD's)	34,863	- 756	4	1,959	16.6
Weekly Averages	Week ended	Week ended		Comparable	
of Daily Figures	3/17/82	3/10/82		year-ago period	
Member Bank Reserve Position					
Excess Reserves (+)/Deficiency (-)	35	63		18	
Borrowings	107	10	2	13	
Net free reserves $(+)$ /Net borrowed $(-)$	- 73	- 40		5	

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

San Francisco, Calif. PERMIT NO. 752

DIA9 U.S. POSTAGE

FIRST CLASS MAIL

(Dollar amounts in millions)

Savings deposits — total	30,033	- 39	303	1.9	
Time deposits — total#	91,310	- 634	13,990	18.1	
Individuals, part. & corp.	81,813	- 280	13,539	19.8	
(Large negotiable CD's)	34,863	- 756	4,959	16.6	
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^{*} Excludes trading account securities.

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[#] Includes items not shown separately.