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## MARCH 27, 1998

## Monetary Policy Alternatives

Prepared for the Federal Open Market Committee
by the Staff of the Board of Governors of the Feoeral reserve Sistem

## MONETARY POLICY ALTERNATIVES

## Recent Developments

(1) Interest rates exhibited little reaction to the Committee's expected decision at its February meeting to leave the intended level of the federal funds rate unchanged. Intermediate-term interest rates have risen about 30 basis points since then, on balance, while rates further out the yield curve have increased much less (chart 1). Lingering expectations of policy ease were largely eliminated by the Chairman's Humphrey-Hawkins testimony, which gave a more balanced assessment of the risks to the economy and inflation than the markets had anticipated. While subsequent data on economic activity were generally firmer than the market had expected and rates rose somewhat further on balance, market reactions were mostly muted. Long-term yields seemed to be held down by declines in oil prices and also perhaps by lower term premiums, as implied volatility of bond prices registered a sharp decline over most of the intermeeting period, possibly owing to less uncertainty about the interest rate outlook. An improving picture for the federal budget deficit, reflected in market discussions of potential future shortages of Treasury securities, likely provided a further, albeit modest, counterweight to evidence of robust private spending. In recent days, however, the weight of accumulating evidence of strong private demand seemed to have affected market sentiment more visibly, raising implied volatility and boosting intermediate- and longterm interest rates as many as 10 basis points. Judging from the behavior of rates on indexed notes, higher inflation expectations accounted for little of the net increases in nominal interest rates. Despite the rise in interest rates and some deterioration in market analysts' outlook for

near-term profits, equity prices rose considerably over the intermeeting period; currently, both equity prices and price-earnings ratios are near record levels.
(2) The dollar traded in a relatively narrow tange against the currencies of other industrial countries, rising against the yen, depreciating against the Canadian dollar and the British pound, and remaining basically unchanged against othet major currencies. In Japan, disappointment about prospects for fiscal stimulus and concerns about Asian crises worked to damp long-term interest rates, which, however, retraced a part of their declines on Thursday and Friday in reaction to a proposal by Japan's ruling party of a large but still incompletely specified fiscal package. In other industrial countries, interest rates were down, in part on softer oil prices and other good news on inflation. Short-term rates declined significantly in Italy, Spain, and Portugal, as expectations coalesced around the view that short-term rates in the countries likely to initiate Europe's monetary union at the beginning of next year would converge at or just a bit above the current German level. The Bundesbank's monetary policy remained on hold during the period. Financial market conditions in the troubled emerging Asian economies improved somewhat during the period, and their currencies generally firmed against the dollar. Progress in reforming economic policies and financial and commercial practices was evident in most of these countries; an exception was Indonesia, where uncertainty continued over President Suharto's commitment to such reforms.
, and the Desk did not intervene.
(3) The broad monetary aggregates have expanded more rapidly than had been expected at the time of the February FOMC meeting. M2 accelerated to a $91 / 4$ percent rate in

February and is estimated to have maintained that pace in March, putting its growth rate since the fourth quarter of last year at $81 / 4$ percent (chart 2). On a quarterly average basis, M2 is estimated to have increased at an 8 percent rate in the first quarter, suggesting a decline in velocity at around a $31 / 2$ percent rate, based on current staff estimates of nominal GDP (chart 2). This decline cannot be explained by the conventional measure of opportunity costs (based only on short-term market interest rates), which remained flat. The velocity drop would be considetably more rapid than those registered in the second half of 1997, which themselves reversed what appeared to be a slight upward trend in velocity that had persisted beyond the period of substantial velocity shifts in the early 1990s.
(4) A part of the strength of M2 this year appears to reflect the heavy pace of mortgage refinancing, because monies used to prepay existing mortgages often must temporarily be held in liquid deposits. In addition, some part of the most recent growth in M2 is perhaps tax-related, reflecting both balances received as refunds and balances being accumulated to pay nonwithheld tax liabilities generated, in part, by substantial capital gains last year. But such special factors explain only a small portion of the recent strength in M2, and even less of the surprise, since they had been largely anticipated by the staff in January. Some of the greater demand for M2 assets may reflect the reduced attractiveness of longerterm fixed-income investments owing to the decline in intermediate- and long-term rates since last spring; with the yield curve flat, savers are sacrificing relatively little current return to obtain the liquidity of money market deposit accounts and money markets mutual funds. Within M2, nearly all the growth has been in its liquid deposit and MMMF components, with small time deposits growing slowly in the second half of 1997 and diminishing slightly in

M2


Jul. Aug. Sept Oct Nov. Dec. Jank Feb. Mar. 1997

Ratio Scale


- Two-quarter moving average.


M2 Growth and Nominal GDP Growth(Q4 to Q4)

1998. Substantial nun-offs of noncompetitive tenders at Treasury note auctions over the latter months of 1997 supported the hypothesis that some flows into liquid M2 were being diverted from securities markets as well. But an easing of the runoff in noncompetitive tenders in 1998 and a strong pickup of flows into bond mutual funds have cast at least some doubt on this explanation for the acceleration in M2 this year.
(5) To be sure, nominal GDP growth in the first quarter could be significantly more rapid than estimated in the Greenbook, given labor market indicators and a more optimistic view of productivity. But the current rapid pace of M2 growth instead may constitute further evidence that its velocity retains a considerable unpredictable element, especially on a quarterly basis. Thus, the implication for spending of strength in M2 is far from clear. When looked at on an annual basis, growth in M2 led that of nominal GDP much more tightly in the 1960s and 1970s than it has since the mid-1980s (chart 2). In the last three years, M2 has appeared to track contemporaneous GDP more closely than it has future GDP, reflecting the largely unchanged opportunity costs and relatively damped movements in velocity (chart 2 ).
(6) A surge in large time deposits at banks sustained M3 growth over the last two months at an average rate of $11 / 4$ percent. Banks' heavy deposit issuance has been spurred by continued strong loan demand, one aspect of the persisting and widespread strength in debt growth in the early months of this year. To finance an estimated widening gap between retained eamings and expenditures, as well as a hectic pace of mergers and acquisitions, businesses have been tapping the bond and commercial paper markets in volume, in addition to borrowing heavily from banks. Household borrowing remains fairly robust. Mortgage
debt expansion appears to be maintaining the strong pace of late last year, reflecting the considerable vigor of the housing market and heavy refinancing activity, which has spawned a pickup in debt consolidation and contributed to a futther slowing in consumer debt. Quality spreads on debt instruments and anecdotal evidence suggest that credit appears to remain readily available both to businesses and to most households. Robust tax inflows have kept seasonally adjusted federal debt unchanged. Total debt has been growing at about a 6 percent rate in recent months, up about one percentage point from last year.

## MONEY, CREDIT, AND RESERVE AGGREGATES

(Seasonally adjusted annual rates of growth)

|  | Jan. | Feb. | Mar. | $97: Q 4$ <br> to <br> Mar. |
| :--- | :---: | :---: | :---: | :---: |
| Money and Credit Aggregates |  |  |  |  |
| M1 | -3.0 | 2.8 | 6.7 | 3.6 |
| Adjusted for sweeps | .2 .6 | 6.2 | 9.1 | 6.9 |
| M2 | 7.2 | 9.3 | 9.3 | 8.3 |
| M3 | 10.7 | 8.5 | 14.1 | 11.3 |
| Domestic norinancial debt |  | 5.9 | 6.4 | n.a. |
| Federal | 0.0 | -0.8 | n.a. | 6.2 |
| Nonfederal | 7.9 | 8.7 | n.2 | 0.3 |
| Bank credit | 13.9 | 8.3 | 11.3 | 11.3 |
| Adjusted ${ }^{1}$ | 10.8 | 9.9 | 12.4 | 11.2 |

Reserve Measures

| Nonborrowed reserves $^{2}$ | -18.4 | -10.3 | 13.9 | -1.9 |
| :--- | ---: | ---: | ---: | ---: |
| $\quad$ Total reserves | -21.2 | -14.2 | 13.3 | -3.3 |
| $\quad$ Adjusted for sweeps | -4.6 | -2.0 | 15.5 | 5.2 |
| $\quad$ Monetary base | 5.8 | 3.5 | 13.7 | 8.4 |
| $\quad$ Adjusted for sweeps | 6.9 | 4.3 | 14.0 | 9.0 |

Memo: (millions of dollars)

| Adjustment plus seasonal borrowing | 210 | 58 | 36 | - |
| :--- | ---: | ---: | ---: | ---: |
| Excess reserves | 1780 | 1518 | 1373 | - |

1. Adjusted to remove effects of mark-to-market accounting rules (FIN 39 and FASB 115).
2. Includes "other extended credit" from the Federal Reserve.
3. For nonfinancial debt and its components, 97:Q4 to February.

NOTE: Monthly reserve measures, including excess reserves and borrowing, are calculated by prorating averages for two-week reserve maintenance periods that overlap months. Reserve data incorporate adjustments for discontinuities associated with changes in reserve requirements.

## Policy Alternatives

(7) The economy is facing a number of countervailing influences on inflation. Pressures on labor markets are intense and are anticipated to abate little in the staff forecast at the current funds rate. Over the next few quarters, domestic demand in the staff forecast will continue to be bolstered by generally accommodative financial conditions, but a drag from the external sector-stemming from the downturn in Asia and the effects of the substantial appreciation of the exchange value of the doilar in the last few years--should work to offset this strength, holding the expansion of output to a bit less than the growth rate of its potential. While the external drag is expected to diminish over time, another important influence on spending-the stock market-will cease to provide stimulus in 1999, as eroding profit margins begin to take their toll on share prices. Even though labor resources will continue to be stretched thin through the forecast period, nominal wage increases are expected to be restrained by subdued inflation expectations, stemming in part from the effects on near-term inflation of recent declines in oil prices and the ongoing downward trend of import prices. Measured inflation is expected to be damped by technical revisions to the CPI, but it is projected to accelerate somewhat when adjustment is made for those effects. Responding to stronger-than-expected incoming data on domestic demand and to ebullient equity prices, the staff projections of real growth and resource use are somewhat higher than in the January Greenbook. As a consequence, inflation should be a little faster through the end of the forecast period than in the previous Greenbook and would be poised to pick up further in 2000.
(8) The unchanged federal funds rate of alternative $\mathbf{B}$ might be favored if the Committee saw the staff forecast as a likely outcome and one that appropriately balanced the goals of restraining inflation and sustaining expansion over the next few years, or, at a minimum, if it viewed the risks of substantially different and less desirable outcomes on either side of the staff forecast as about equal at the current federal funds rate. Even if the Committee suspected that the odds were tilted a bit either toward a stronger economy and greater price pressures or toward a weaker economy and more disinflation than desired, awaiting additional evidence to indicate better the direction of the economy might not be too costly in current circumstances. For example, if underlying pressures in labor markets intensify, the effects of lower import prices should damp inflation and inflation expectations for a time, permitting the Committee to tighten before significantly higher inflation becomes embedded in wage and price decisions. Conversely, in the event of greater drag from Asia than anticipated in the staff forecast, the underlying strength of domestic demand appears to be strong enough to sustain economic expansion for a while until an easier policy is adopted and has time to take hold.
(9) Because financial markets are placing very low odds on a change in policy in the near term, the choice of alternative $B$ would likely have little immediate impact on domestic financial markets or the exchange value of the dollar. However, were incoming data on the economy to confirm that growth is moderating appreciably while inflation remains subdued, as in the staff forecast, market participants might again build in greater odds on a policy easing, perhaps on the view that the high real funds rate does indicate a restrictive policy stance. If so, intermediate- and long-term rates, along with the dollar, could edge
lower. In the stock market, prices could come under some downward pressure even if interest rates drift down, as generally bad news on earnings come to be seen not as a one-time hit from the higher dollar or a temporary drop in demand from Asia, but rather as the precursor of narrowing profit margins in a less robust economy. The softer earnings picture could also prompt a little more caution on the part of creditors and some widening of quality spreads. The implementation of policy may be complicated for a time after the mid-April tax date by high, though uncertain, Treasury deposits at the Federal Reserve, which might require outsized reserve injections and extraordinary amounts of collateral to be pledged to the Federal Reserve by primaty dealers. But any added volatility in the funds rate would be temporary and should have little, if any, effect on interest rates further out the yield curve.
(10) If the Committee saw substantial risks of a significantly weaker economy than in the staff forecast, it might want to move promptly to ease policy, perhaps by lowering the federal funds rate ${ }^{1 / 4}$ percentage point, as in alternative A. Such a risk to aggregate demand might arise not only from greater Asian effects than currently anticipated, but also from weaker domestic demand. Some of the recent robust expansion in the latter may be temporary, owing importantly to the net decline in oil prices since last fall and to the drop in intermediate- and long-term interest rates prompted by expectations of impending weakness from Asia. The rate declines and robust economy, in turn, have bolstered business and consumer confidence and the stock market. As restraint from the external sector is felt more fully, especially if it appears to be more severe or prolonged than the public now expects, the unwinding of buoyant psychology and the drop in equity prices could cause a more pronounced damping of domestic demand than the staff anticipates. The Committee may see
the current relatively low inflation rate as justifying a more forceful and prompter reaction to this possibility than might have been appropriate at higher inflation rates, especially in light of the tendency to overpredict inflation over the past few years. Inflation has declined by more than the Committee or the staff had expected, raising the prospect that, should those disinflationary forces persist and be overlaid by an unexpected shortfall in aggregate demand, inflation could fall farther than the Committee would find desirable.
(11) The 25 basis point reduction in the federal funds rate under alternative A would translate to nearly comparable reductions in other short-term rates. In the market for intermediate- and long-term securities, rates could decline appreciably if the easing were viewed as confirmation that the Federal Reserve saw a pronounced slowdown resulting from the Asian crises, making further reductions more likely. The dollar could fall on foreign exchange markets, and lower interest rates would help the stock market hold close to its recent record level.
(12) Alternative $\mathbf{C}$ would tend to be favored to the extent that the Committee saw the risks as more heavily weighted toward a pickup in inflation. Data becoming available since the last meeting have suggested considerable economic strength and a tighter labor market. The attractive conditions in financing markets, the exceptionally high level of stock valuations, and rapid growth in money and debt may be viewed as corroborating the strong financial thrust in the economy, which would support domestic demand going forward. These factors have led the staff to revise up its own inflation forecast. While Conmittee members may have anticipated some of this strength in demand over the intermeeting period, enough may have been a surprise so as to elevate or validate concerns about the prospects for a
pickup in inflation. With the unemployment rate already likely below its sustainable level, this additional demand could lead to a steeper upward track for underlying inflation that would require more substantial and disruptive restraint the longer it is delayed.
(13) Short-term rates would rise by the full amount of the 25 basis point tightening of policy under alternative $C_{\text {, which }}$ is unanticipated in the market. Intermediate- and longerterm real interest rates would also rise substantially as markets reassessed their view of the Federal Reserve's forecast and, perhaps, intentions, and the dollar could come under upward pressure. Stock prices could well decline, especially if investors saw the tightening as worsening the outlook for corporate earnings as well as raising the rate of discount applied to future earnings, and such a decrease would be one element of the necessary restraint on aggregate demand. The generally healthy state of financial institutions in the United States would seem to suggest that the domestic financial system would be resilient to any fall in asset values that were to accompany such a policy tightening. Most likely, financial markets in troubled emerging economies would not be greatly affected if the action were seen as limited and not portending a more generalized upward movement in rates in industrial economies.
(14) Under the conditions of altemative $B$, the moderating pace of spending in the staff forecast should be accompanied by considerably slower growth in debt and money. The bulk of the slowdown in nonfederal debt growth will likely be accounted for by the business sector; the financing gap is not projected to increase any further in coming quarters, and borrowing in recent months has been well above staff assessments of needs to cover mergers and acquisitions and the shortfall of internal funds from capital outlays. While some new
caution by lenders is likely to surface as economic growth slows and profits soften, this shift in attitudes is expected to have only a marginal restraining influence on business credit growth. In the household sector, growth of debt is projected to continue to be well maintained--outpacing that of disposable personal income-led by brisk mortgage borrowing as housing markets remain strong and as refinancing is associated with some further equity extraction. By September, debt of domestic nonfinancial sectors is projected to have grown at a $51 / 2$ percent rate from its fourth quarter 1997 base, above the midpoint of its 3 to 7 percent annual range.
(15) The moderation in the growth of the broad monetary aggregates under alternative B owes in part to a slowdown in GDP and bank credit as business lending and acquisitions of securities slacken and banks become less aggressive in seeking funding. Nonetheless, M3 is projected to grow at a $61 / 4$ percent annual rate over the March-toSeptember period as depository credit growth still stays fairly brisk. As a consequence, M3 would stand $91 / 2$ percent above its fourth-quarter base in June and $81 / 2$ percent above that base in September. Growth in M2 is projected to slow to a $3 / 4$ percent annual rate over the March-to-September period. We are projecting that, in the absence of changes in opportunity costs, M2 growth in an underlying sense will return to a pace close to that of GDP in the period ahead. Nevertheless, V2 is expected to decrease in the second quarter because of the effects on liquid balances of the current heavy pace of mortgage refinancing, as well as the high levels of tax refunds and anticipated April tax payments; in the third quarter, however, V2 is likely to rise somewhat, as those refinancing and tax effects on deposit levels are removed. The deceleration in M2 brings growth from the fouth quarter of 1997 to June to a
$61 / 2$ percent pace, still above the 1 to 5 percent annual range for M 2 , and to a $5 \%$ percent pace by September.

## Directive Language

(16) Presented below is draft wording for the operational paragraph that inciudes the usual options for Committee consideration.

## OPERATIONAL PARAGRAPH

In the implementation of policy for the immediate future, the Committee seeks conditions in reserve markets consistent with maintaining/INCREASING/DECREASING the federal funds rate $a t / T O$ an average of around $\qquad$ 5-1/2 percent. In the context of the Committee's long-run objectives for price stability and sustainable economic growth, and giving careful consideration to economic, financial, and monetary developments, a SOMEWHAT/ slightly higher federal funds rate or a SOMEWHAT/slightly lower federal funds rate WOULD/might be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with some CONSIDERABLE moderation in the growth in M2 and M3 over coming months.

## Alternative Growth Rates for Key Money and Credit Aggregates

|  | M2 |  |  | M3 |  |  | Debt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Alt. A | It. | lt. | Alt. | Alt. | AlE, C | All Alternatives |
| Monthly Growth Rates |  |  |  |  |  |  |  |
| Dec-97 | 6.8 | 6.8 | 6.8 | 11.2 | 11.2 | 11.2 | 6.2 |
| Jan-98 | 7.2 | 7.2 | 7.2 | 10.7 | 10.7 | 10.7 | 5.9 |
| Feb | 9.3 | 9.3 | 9.3 | 8.5 | 8.5 | 8.5 | 6.4 |
| Mar | 9.3 | 9.3 | 9.3 | 14.1 | 14.1 | 14.1 | 6.3 |
| Apr | 8.2 | 8.0 | 7.8 | 8.8 | 8.7 | 8.6 | 4.5 |
| May | 0.9 | 0.5 | 0.1 | 4.7 | 4.5 | 4.3 | 4.2 |
| Jun | 3.6 | 3.2 | 2.8 | 6.3 | 6.1 | 5.9 | 4.5 |
| Jul | 2.8 | 2.5 | 2.1 | 5.9 | 5.8 | 5.6 | 5.0 |
| Aug | 3.0 | 2.7 | 2.5 | 5.9 | 5.8 | 5.7 | 5.7 |
| Sep | 2.9 | 2.7 | 2.5 | 5.9 | 5.8 | 5.7 | 5.7 |
| Quarterly Averages |  |  |  |  |  |  |  |
| 97 Q3 | 5.4 | 5.4 | 5.4 | 8.1 | 8.1 | 8.1 | 4.2 |
| 97 Q4 | 6.8 | 6.8 | 6.8 | 9.9 | 9.9 | 9.9 | 5.8 |
| 9881 | 7.9 | 7.9 | 7.9 | 10.9 | 10.9 | 10.9 | 6.2 |
| $98 \quad 22$ | 6.5 | 6.3 | 6.1 | 8.8 | 8.7 | 8.6 | 5.1 |
| 98 Q3 | 2.8 | 2.5 | 2.2 | 5.8 | 5.7 | 5.6 | 5.0 |
| Growth Rate |  |  |  |  |  |  |  |
| From To |  |  |  |  |  |  |  |
| Mar-98 Sep-98 | 3.6 | 3.3 | 3.0 | 6.3 | 6.2 | 6.0 | 5.0 |
| 97 Q4 Mar-98 | 8.3 | 8.3 | 8.3 | 11.3 | 11.3 | 11.3 | 6.3 |
| 97 Q4 Jun-98 | 6.6 | 6.5 | 6.3 | 9.4 | 9.4 | 9.3 | 5.5 |
| 97 Q4 Sep-98 | 5.5 | 5.3 | 5.2 | 8.5 | 8.4 | 8.3 | 5.6 |
| 95 Q4 96 Q4 | 4.6 | 4.6 | 4.6 | 6.9 | 6.9 | 6.9 | 5.3 |
| $96 \mathrm{Q4} 97 \mathrm{Q4}$ | 5.6 | 5.6 | 5.6 | 8.7 | 8.7 | 8.7 | 4.9 |
| 1998 Annual Ranges: |  | to |  |  | 0 to 6 |  | 3.0 to 7.0 |

## Actual and Projected M2



## Actual and Projected M3



## Actual and Projected Debt


(percent)

 to that, they rellect an average of oflering rates placad by several leading dealers. Columns 13 and 14 are 1 -day quotes for Friday or Thursday, respecilvely, Column 14 is the Bond Buyer revenue index, Column 15 is
 year, adjustable-rate morigages (ARMs) at major Institutional lenders ollering both FRMs and ARMs with the same number el discount points.
$p$-proiminary dáa


1. Debt data are on a monthly average basis, derived by averaging end-of-month levels of adjacent months, and have been adjusted to remove discontinuities.

P preliminary
pe preliminary estimate

NET CHANGES IN SYSTEM HOLDINGS OF SECURITES ${ }^{1}$
CLASS II-FOMC


[^1]4. Rellects net change in redemptions $(-)$ of Treasury and agency securities.
5. Includes change in RPs ( + ), matched sale-purchase transactions ( - ), and matched purchase sale transactions ( + )
6. The levels of agency issues were as follows:

| within <br> 1 year | $1-5$ | $5-10$ | over 10 | total |
| ---: | :---: | ---: | ---: | ---: |
| 0.2 | 01 | 0.2 | 00 | 05 |


[^0]:    ${ }^{1}$ In some cases, original copies needed to be photocopied before being scanned into electronic format. All scanned images were deskewed (to remove the effects of printer- and scanner-introduced tilting) and lightly cleaned (to remove dark spots caused by staple holes, hole punches, and other blemishes caused after initial printing).
    ${ }^{2}$ A two-step process was used. An advanced optimal character recognition computer program (OCR) first created electronic text from the document image. Where the OCR results were inconclusive, staff checked and corrected the text as necessary. Please note that the numbers and text in charts and tables were not reliably recognized by the OCR process and were not checked or corrected by staff.

[^1]:    1. Change from end-of-period to end-of-period

    2 Outright transactions in market and with foreign accounts.
    3 Outright transactions in market and with foreign accounts, and short-term notes acquired
    in exchange for maturing bills. Excludes maturity shifts and rollovers of maturing issues

