## Maintaining Price Stability: A Proposal

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The Neal Resolution would make price stability the dominant goal of monetary policy. This paper proposes giving the Fed and Fed-watchers a measure of whether ongoing policy is consistent with this goal. This measure would require the Treasury to issue two kinds of bonds at each maturity:

A Standard Bond: As presently issued, interest and principal are paid in current dollars. The yield equals a real (inflation-adjusted) yield plus the inflation expected by the market.

An Indexed Bond: On this new bond, interest and principal payments would be adjusted by changes in a price index; thus payments would be of constant purchasing power. Because of this indexing, the yield would be a straight real yield, incorporating no inflation premium. The difference in yields on the two kinds of bonds would offer a measure of expected inflation over the life of the bonds.<sup>1</sup>

Investors holding fixed-income securities have an incentive to forecast inflation accurately; their

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<sup>&</sup>lt;sup>1</sup> This proposal is similar in spirit to one made by Alan Greenspan (1981), who advocated issuance of a five-year Treasury note with interest and principal payable in gold. Milton Friedman (1974) has long advocated indexing of all government bonds on ethical grounds. He objected to the experience of the 1960s and 1970s in which the government issued bonds that promised to pay dollars in the future and then inflated away the real value of the promised dollars. Assar Lindbeck (1989, p. 498, fn. 4) has proposed the issuance of indexed bonds in order to permit observation of changes in money growth on ex ante, as opposed to realized, real rates of interest. Humphrey (1974) discusses earlier proposals for indexed bonds, for example, proposals made by Keynes in 1924, Bach and Musgrave in 1941, and Friedman in 1951.

consensus forecast, however, is not signalled clearly by market rates because these rates embody a changing estimate of the expected real yield. Comparing the yields on standard and indexed bonds would costlessly and continuously indicate the inflation expected by investors.

The market's reaction to monetary policy actions would be reflected in the yield spread between standard and indexed bonds. The advantage of such a measure can be seen in the publicity accorded the exchange rate in relatively small, open economy countries. Headlines in a recent edition of the *Financial Times* of London (1/31/90, p. 3) read: "Canada Puts Brakes on Interest Rates Fall: dollar plunge brings caution to easing up on inflation fight." The article states:

An unexpected plunge in the Canadian dollar has strengthened the view that an abrupt fall in domestic interest rates earlier this month will not be sustained.... The tumble in the Canadian dollar caused by the relatively small fall in interest rates reinforces a widely-held view that the Bank of Canada's watchword is likely to be caution. The central bank responded to the sudden weakness in the currency by pushing short-term rates up. By Tuesday this week, the yield on three-month Treasury bills had climbed back at 12.3 percent, compared with 11.9 percent when the bank sent its initial signal that it was ready to relax its interest-rate policy.

As this article shows, the Canadian central bank is constrained by the behavior of the exchange rate. Investors holding fixed-income assets denominated both in U.S. dollars and in Canadian dollars make portfolio decisions based in part on the expected difference in inflation between the U.S. and Canada. If these investors believe that a reduction in the Bank of Canada's discount rate will raise Canadian inflation (relative to U. S. inflation), given the prevailing interest rate differential, they will attempt to move out of Canadian assets and into U.S. assets-the Canadian dollar will fall immediately against the dollar. Moreover, because imports comprise about a third of the basket of commodities in the Canadian consumer price index, the fall in the exchange rate will appear quickly in inflation figures. This swift association between the actions of the Bank of Canada and price indices thus acts as a check on inflationary policy actions.

Because imports are still only a relatively small fraction of U. S. consumption, the U. S. public is not sensitive to the foreign exchange value of the dollar. Also, changes in the foreign exchange value of the dollar do not solely measure changes in expected domestic inflation. Particularly over the 1980s, the preponderance of changes in the foreign exchange value of the dollar have reflected changes in the real terms of trade caused by capital flows. For these reasons, the exchange rate does not exercise the kind of constraint in the U. S. that it exercises in smaller, more open economies. The role the exchange rate plays in these countries, however, does indicate the advantages of creating a measure of expected inflation.

First of all, a ready measure of the real (inflationadjusted) rate offered by the indexed bond would lessen pressure for inflationary monetary policy by eliminating public confusion over market rates and real rates. Public perception that increases in market rates necessarily indicate increases in real rates creates pressures for stimulative monetary policy. If, for example, new statistics indicated higher expected inflation than previously forecast, a higher funds rate would be necessary to keep real interest rates unchanged. Such an increase in the funds rate, however, has often been seen by the public as causing an increase in real rates and, thus, as a "tightening" of policy. With the yield on indexed bonds measuring the real rate, the Fed can easily dispel the perception that all increases in the funds rate are increases in real rates. Furthermore, the public will easily be able to see how little leverage the Fed can exert over real rates through allowing monetary acceleration.<sup>2</sup>

A measure of expected inflation would also provide a direct check to monetary policy actions (or inactions) judged inflationary by the market-such actions would produce an immediate rise in the yield on standard bonds and in the differential yield between standard and indexed bonds. The rise in the yield on standard bonds would impose a capital loss on the holders of these bonds. Holders of variablerate mortgages with yields tied to the yield on standard bonds would incur higher interest payments. Indeed, all creditors receiving payment in dollars in the future would feel their financial interests threatened. A readily available measure of expected inflation that rose in response to monetary policy actions judged inflationary by the market would make it easier for creditors to counteract pressure on the Fed to trade off price stability for short-term output gains.

In the U. S., the long lag between monetary policy actions and changes in prices means that it is difficult to associate particular policy actions with inflation.

<sup>&</sup>lt;sup>2</sup> Numerous economists have documented the virtual end of the liquidity effect whereby an increased rate of growth of money is associated with a fall in the real rate of interest. See, for example, Mehra (1985).

As a result, inflation does not provide an adequate check to pressures by government officials to keep rates "low." If an exhortation by a government official to lower the funds rate produced an immediate rise in the yield differential between standard and indexed bonds, however, this rise would embarrass the official. Officials would also realize that such pressures are counterproductive. The Fed, concerned about an adverse reaction in the expected inflation measure, would be very reluctant to lower the funds rate after an exhortation for easy money.

Finally, the coexistence of standard and indexed bonds would encourage the Fed to find ways of committing itself to a noninflationary policy in order to eliminate a yield differential arising from a risk premium. Even with a return to price stability, a positive yield differential would appear in the two kinds of long-term bonds if the public feared a future lapse in the commitment to price stability. The Fed would have an incentive to find ways to commit itself to a monetary policy of price stability.

There is a lack of agreement over specific ways to constrain decision-making by the Federal Reserve in order to achieve price stability. The proposal made here leaves the operational details of achieving price stability to the Fed. It provides, however, for a continuously available assessment of the consequences for inflation of Fed actions. The assessment would be provided by individuals who have a financial interest in monitoring Fed success in achieving price level stability. The resulting constraint placed on inflationary monetary policy would rest on the most effective check available in a democracy—public awareness.

## REFERENCES

- Friedman, Milton; Charles Walker; Robert J. Gordon; and William Fellner. "Indexing and Inflation." American Enterprise Institute Round Table held on July 17, 1974, Washington: American Enterprise Institute, 1974.
- Greenspan, Alan. "Can the U. S. Return to a Gold Standard?" The Wall Street Journal, September 1, 1981.
- Humphrey, Thomas. "The Concept of Indexation in the History of Economic Thought." Federal Reserve Bank of Richmond *Economic Review* 60 (November/December 1974), 264-277.
- Lindbeck, Assar. "Remaining Puzzles and Neglected Issues in Macroeconomics." Scandinavian Journal of Economics 91(2), 1989, 495-516.
- Mehra, Yash. "Inflationary Expectations, Money Growth, and the Vanishing Liquidity Effect of Money on Interest: A Further Investigation." Federal Reserve Bank of Richmond *Economic Review* 71 (March/April 1985), 23-35.

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