Voice

of the Federal Reserve Bank of Dallas

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Since You Asked

A fringe benefit of working at a Federal Reserve Bank is the frequent invitation to speak before various groups. And speeches inevitably generate questions. This is a brief response to the question asked most frequently following speeches during the past month.

Question: Given the tremendous inflation of farm and ranch land prices and the rising production costs, how can agriculture be assured its financing needs will be met in the 1980's?

Answer: Have faith in the market.

As we enter the 1980's, I recall that this question was also asked at the beginning of the 1970's. And agriculture was only one of many industries that feared their financing needs could not be met. But the presumed problems have not materialized, because financial institutions and markets for debt have been functioning effectively.

So long as banks, the Farm Credit Administration, and insurance companies continue to operate effectively, agriculture will be able to obtain the amounts of credit needed to finance production and marketing of agricultural commodities for domestic consumption and export. These financial institutions link agriculture in every area of the country to national (and international) money and capital markets and enable agriculture to compete effectively with all other users of credit for an appropriate portion of the total supply.

In most communities the flow of local savings and local credit demands will not balance off all the time. There are times when some of the local savings can obtain higher earnings if invested outside the community, and there are times when the local credit demand will exceed the local supply. Thus, machinery is needed to assure a free and easy flow of funds into and out of every community. This is accomplished through a complex network of financial institutions and money and capital markets. Farmers, ranchers, and agribusinesses should be keenly interested, therefore, in maintaining effective financial machinery. Then they need have no concern about whether an appropriate supply of credit will be available for agriculture in the 1980's.

—Ernest T. Baughman
President, Federal Reserve Bank of Dallas

Loans at District Banks Grow at Record Rate in 1979

By Mary G. Grandstaff

Loan demand at the 708 member banks in the Eleventh Federal Reserve District increased sharply through the first three quarters of 1979 and then virtually dried up early in the fourth quarter as interest rates reached record levels. Nevertheless, with the sharp increase in the first three quarters, total loans at these banks grew at a record rate last year.

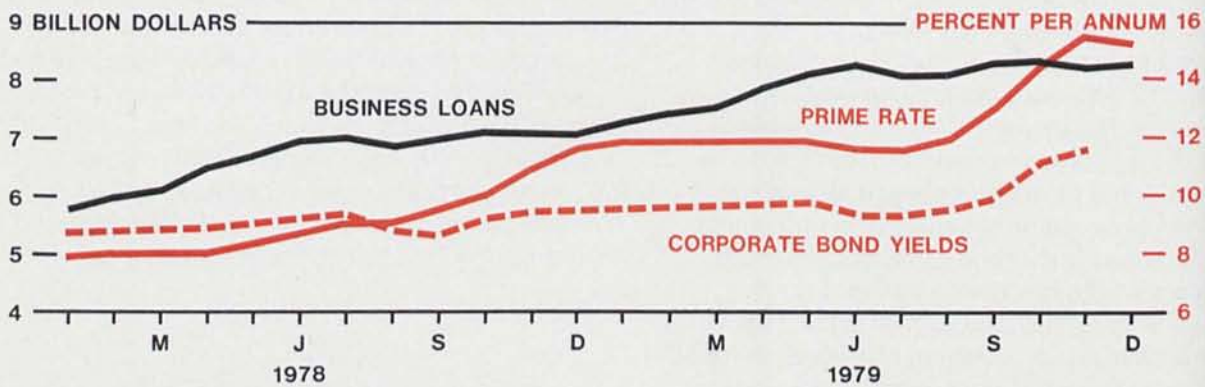
Loans at the 11 large weekly reporting banks in the District rose even more rapidly than at all member banks last year. The growth at the large banks, however, was well below the record annual growth rate of 30 percent in 1976. All major types of borrowers made substantial demand for bank credit in 1979, and most increased their bank indebtedness at record or near-record rates.

Business loans

Bank loans to businesses rose less rapidly th loans to other types of borrowers last year. Neve theless, the rate of growth in business loans w the second highest for such loans in recent years exceeded only by the record sharp growth a ye before. Most of the increase in business loans la year occurred in the first two quarters, largely response to a rise in inventories. Inventory a cumulation slackened in the last half of the ye

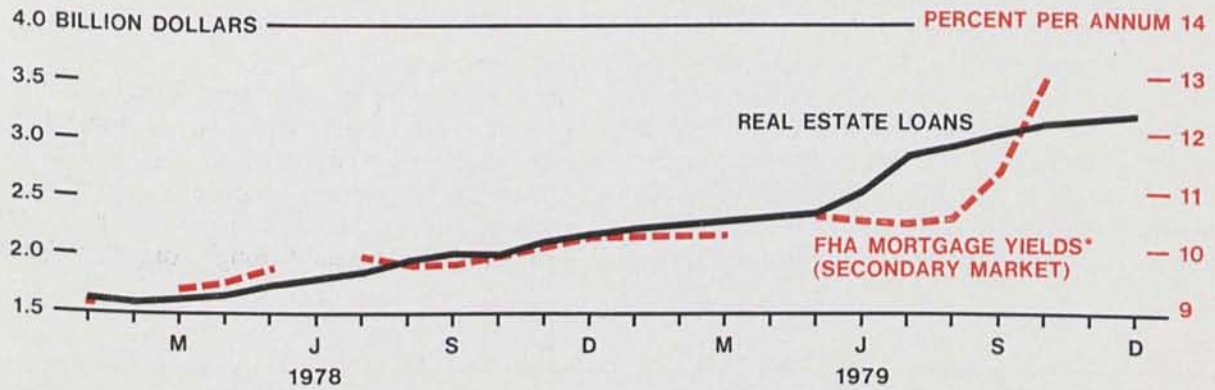
With widespread expectations of a cyclic downturn in the economy and perhaps some d cline in interest rates on long-term debt, business were more reluctant to lock in long-term debt prevailing rates in the first quarter of 1979. Man facturing concerns nationwide, for example, issu

Business loans at large District banks rose sharpest when the prime rate was relatively stable



SOURCES: Board of Governors, Federal Reserve System.
U.S. Department of Commerce.
Federal Reserve Bank of Dallas.

Real estate loans at the large banks rose at a record rate in 1979 but slowed markedly late in the year



*Gaps in data are due to periods of adjustment to changes in maximum permissible contract rates.

SOURCES: Board of Governors, Federal Reserve System.
Federal Reserve Bank of Dallas.

new securities totaling $229 million less during the first three months of 1979 than in the same period a year before. Bond yields moved slightly lower early in the second quarter, however, and many corporations stepped up their offerings substantially, apparently in expectation of no further decline in yields and perhaps even some rise in light of the overall strong demand for credit.

With the relatively high level of long-term rates apparently discouraging bond and equity offerings in the first quarter, businesses relied largely on short-term credit, particularly bank loans, to meet their financing requirements. In the second quarter, businesses continued to display heavy demands for short-term credit, despite the higher volume of bond offerings, because of sharply increased inventory accumulation and a boost in outlays for new plants and equipment.

Business demand for bank credit fell sharply in the third quarter of 1979, even though corporate bond offerings slowed as bond yields rose to near-record rates. Inventory accumulation grew at less than half the rate of the previous quarter. Despite the sluggish demand for business loans, the prime rate moved up to a record 13.5 percent by the end of the third quarter, as other borrowers continued to exert heavy demand for short-term credit.

The upward movement in interest rates received an additional substantial boost on October 6, when monetary authorities announced a series of complementary actions designed to curb the sharp growth of money and credit and, thus, dampen inflationary forces and strengthen the dollar abroad. Shortly thereafter, both short-term and long-term rates moved up to new highs, and the growth of bank credit began to slow appreciably. The higher cost of borrowing has undoubtedly helped to reduce demands for credit from all sectors, and demand from business borrowers apparently was no exception. The weak demand of the third quarter—prior to the actions of the Federal Reserve Open Market Committee—was at least

partially seasonal. These loans, however, usually pick up somewhat in the last quarter of the year; in 1979, business loans in December were virtually unchanged from their level at the end of the third quarter.

Real estate loans

Real estate loans at the large weekly reporting banks in the District rose at a record rate of 45.8 percent in 1979. These loans grew only slightly in the first five months as a result of some severe weather and usury ceiling constraints. Real estate loans began to rise more rapidly in June as mortgage yields started to recede slightly.

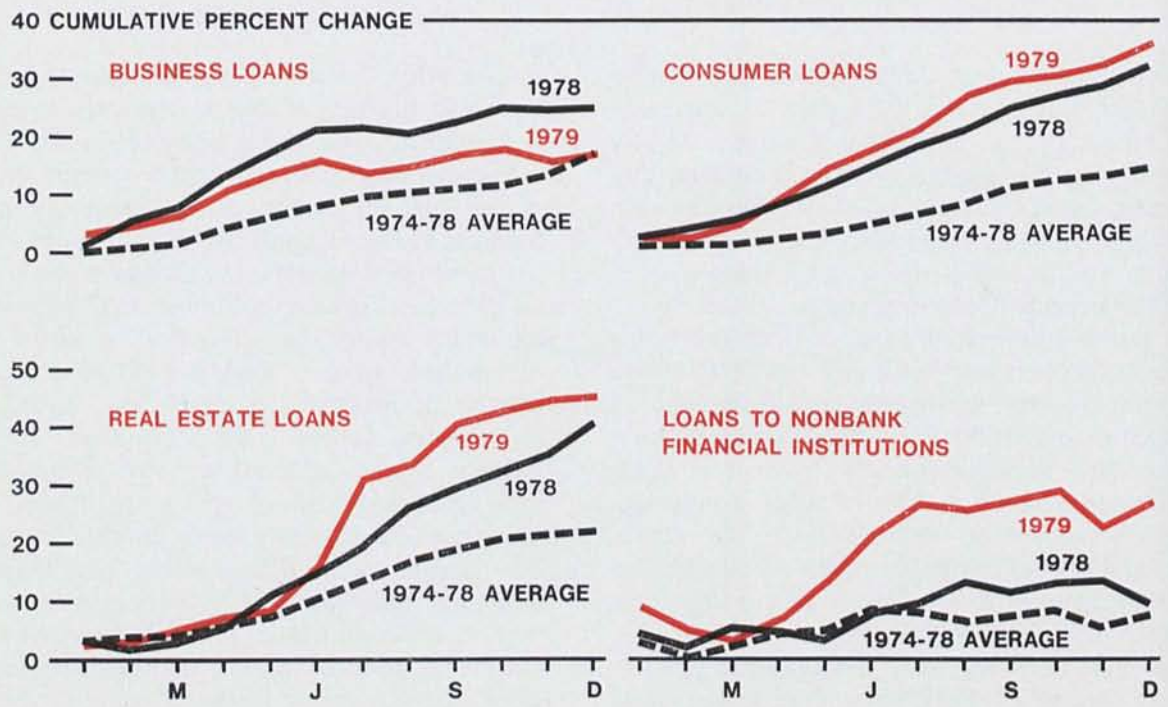
Effective August 27, the Texas Legislature replaced the state's 10-percent usury ceiling with a new ceiling. The new usury ceiling is to float 2 percentage points above the rate (adjusted to constant maturities) on 10-year U.S. Treasury notes and bonds that prevails two months before a loan is made and is to be rounded to the nearest quarter of a percentage point up to a maximum of 1 percent. By September, mortgage yields were sur ing upward.

In late September, mortgage yields again we constrained by the new maximum Texas usu ceiling of 12 percent, and the growth in real esta lending by District banks tapered considerabl With such loans becoming increasingly unattra tive, most lenders were making few, if any, ne commitments for mortgage loans. The slig growth in these loans in the final quarter of 19 probably largely represented the extension credit under prior commitments.

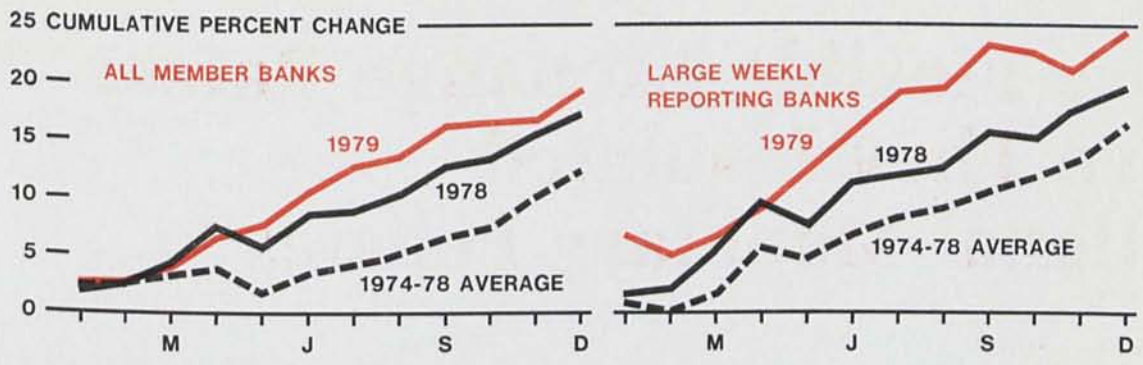
Consumer loans

Consumer loans at the large District banks al rose at a record rate last year. Demand for the loans was seasonally weak during the first quart but began to increase sharply by the start of t second quarter. The strong consumer demand f bank credit continued through August, as increas

Most types of borrowers stepped up their use of credit at the large banks to record or near-record rates



The growth in loans at District banks in 1979 was unusually sharp, especially at the larger banks



residential construction activity in the District expanded the demand for major appliances and housefurnishings—high-priced items that are often purchased through the use of credit.

Growth in bank loans to consumers tapered sharply the remainder of the year, however, as automobile sales moved substantially lower. Gasoline lines reduced the demand for large cars, and supply constraints deterred potential buyers of some small cars. Rising costs of available funds also caused banks to become somewhat more restrictive in their lending, particularly following the October 6 credit-tightening actions of the Federal Reserve. Consumer loans rebounded rather strongly late in the year. Much of the growth apparently reflected greater use of bank credit cards.

Loans to nonbank financial institutions

Nonbank financial institutions, on balance, relied heavily on credit at District banks in 1979, especially in the second quarter and early in the third quarter. Loans to these borrowers were somewhat sluggish in the first quarter, largely because finance companies were using proceeds from bond sales to reduce the recent sharp increase in their short-term debt. In the second quarter, finance companies continued to sell a substantial volume of bonds, but many turned to commercial banks for funds as well. Savings and loan associations also made heavier credit demands on District commercial banks in the second quarter, as mortgage lending recovered somewhat and savings inflows weakened.

Loan demand from nonbank financial institutions slowed in the final quarter of 1979. Mortgage lending by savings and loan associations essentially dried up late in the year, and higher credit costs reduced the demand for funds by finance companies.

More Flexible Exchange Rates: Have They Insulated National Monetary Policies?

By Leroy O. Laney

Traditionally, one of the most frequently cited advantages of floating exchange rates over fixed exchange rates has been the increased ability of countries to pursue independent monetary policies. The intervention required of a central bank in fixing or manipulating the foreign exchange rate affects bank reserves and, therefore, the money supply in the country. From this standpoint, when monetary authorities buy or sell foreign exchange, the effect is the same as when they buy or sell domestic securities. If the goals of exchange rate management and domestic monetary policy conflict, obviously the monetary authorities can be presented with a dilemma.

For some relatively open economies the foreign exchange operations required in achieving an exchange rate target can be quite large relative to the effects of domestic money management tools, so that achievement of an independent monetary policy can be difficult. Under a completely clean float of the exchange rate, by definition no central bank intervention occurs. Authorities are freed of the exchange rate constraint, and domestic monetary policy can be conducted without the influence of changes in international reserves.

In general, however, exchange rate policies throughout the post-World War II period have never functioned at either of the two extreme an absolutely and immutably fixed exchange ra on the one hand versus a totally free float on th other. The adjustable peg system established Bretton Woods, New Hampshire, in 1944 was n a completely fixed rate system. Under this arrang ment the U.S. dollar was pegged to gold, and oth countries fixed their currencies within a relative narrow band to an established dollar parity. B abrupt changes in the rate, usually accompani by speculative capital flows, occurred when th rate was not consistent with balance-of-payme equilibrium.

And the managed floating system to which i dustrialized countries converted in the early 197 is by no means a free float. Several countries, su as those participating in the European joint flo still adhere to some institutionalized form of fix exchange rates. Even for those countries who currencies float independently, intervention h often been massive relative to the economical less turbulent 1960's.

Nevertheless, the move toward greater flexibili in exchange rates has had some effect in insulati national monetary policies. In an empirical app cation to the Federal Republic of Germany, a cou try often analyzed for its monetary openness und

fixed exchange rates, it is found in this article that more flexible rates have imparted some greater monetary independence. Because there is still widespread official intervention in exchange markets, however, monetary insulation is not complete.

Offsets to an attempted independent domestic monetary policy

Monetary authorities of a given country, in their pursuit of a monetary policy tailored to some set of domestic variables, may find that attempts to maintain an exchange rate target thwart achievement of desired money growth. This can be seen with respect to the total reserves of commercial banks held on deposit at the central bank, which along with currency and coin in circulation, constitute the monetary base of a country. It is possible to divide the monetary base into an international component (the net monetized domestic-currency value of official international reserves) and a domestic component (the total monetary base less the international component).[1]

Assume, for example, that monetary authorities undertake to expand the supply of money at a greater rate than national output increases. As this excess money is substituted—domestically and internationally—for goods, services, and financial assets, the domestic price level is driven up and the balance of payments is moved toward deficit. Since this puts downward pressure on the exchange rate, the maintenance of an exchange rate target requires sale of official foreign exchange, reducing the international component of the base and offsetting the original expansion in money.

These effects may take some time to occur, but it is important to recognize the role of expectations in foreign exchange markets. If, for example, market participants perceive money growth to be in excess of future money demand and react by shifting funds out of the domestic currency, essentially discounting predicted future inflation, it is possible for the exchange market to show the effects before prices move higher in more slowly adjusting domestic goods markets. Relatively volatile short-term private capital flows can then pressure the exchange rate enough to induce an offsetting change in official foreign reserves before the excess money growth affects domestic inflation and the longer-term balance-of-payments accounts.[2]

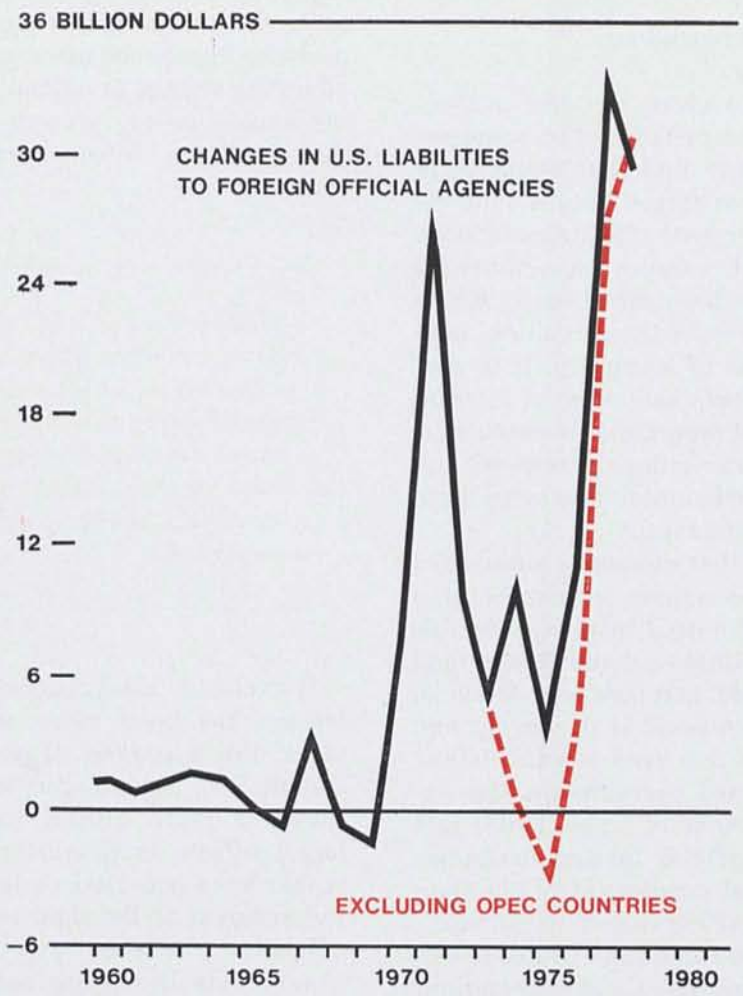
If temporary periods of exchange rate pressure, up or down, can be weathered by allowing wider swings in the rate rather than forcing automatic changes in the monetary base, then smaller international reserve offset effects in response to given domestic monetary policy shocks would be expected.

If exchange market reaction to changing expectations has been more sensitive under flexible rates, the response of monetary authorities to smooth out rate fluctuations might conceivably result in more official reserve movements and larger offsets to domestic monetary policy than would have occurred under fixed exchange rates. But removal of the rigid requirement to intervene officially whenever preestablished narrow exchange rate limits are reached allows exchange rate movements that would otherwise automatically dictate intervention. If temporary periods of exchange rate pressure, up or down, can be weathered by allowing wider swings in the rate

1. Much of this discussion draws on literature covering "the monetary approach to the balance of payments," contributions to which have been numerous in recent years. It is not possible here to survey such literature or to develop its tenets adequately and then compare this approach to international adjustment with others. For a relatively brief development of the approach, see Harry G. Johnson, "The Monetary Approach to the Balance of Payments: A Nontechnical Guide," *Journal of International Economics*, August 1977. For a relatively recent survey of the literature, see Mordechai E. Kreinin and Lawrence H. Officer, *The Monetary Approach to the Balance of Payments: A Survey*, Princeton Studies in International Finance, no. 43 (Princeton: Princeton University, Department of Economics, International Finance Section, 1978).

2. The impact of these expectations has received much attention in recent years, as has a flexible exchange rate variant of a monetary approach to international adjustment that views the external value of a country's currency as being determined in an immediately adjusting asset market. This view appropriately shifts emphasis to exchange rate determination, as opposed to the fixed rate version focusing on balance-of-payments determination, with official international reserve gains or losses equated to balance-of-payments surpluses or deficits. But so long as these official reserve flows continue to occur under managed floating, some elements of the fixed rate approach remain.

Buildups in official reserves did not cease with the advent of managed floating in 1973



SOURCE: Board of Governors, Federal Reserve System.

rather than forcing automatic changes in the monetary base, then, on balance, smaller international reserve offset effects in response to given domestic monetary policy shocks would be expected.

In empirical work on fixed exchange rates, the magnitude of the offset effect has frequently been measured by an "offset coefficient," which gauges the response of private international capital flows or official international reserve movements to exogenous changes in the domestic component of the monetary base. An offset coefficient that is statistically insignificant or is significant statistically b close to zero in value might be taken as evidenc other things equal, of a high degree of monetar independence. As the estimated offset coefficie approaches −1 in value, however, an effective a sence of monetary independence is indicated.

Sterilization of unwanted international reserve flows

From the other direction, outside shocks to

country's international reserves, originating abroad or in nonmonetary developments at home, can be neutralized to some extent if so desired by the monetary authorities. The "sterilization" of unwanted international reserve flows, forced upon a country by intervention to fix or smooth fluctuations in the exchange rate, may be accomplished by active central bank policy, such as opposite domestic open market operations or changes in reserve requirements or the discount rate.[3]

If the monetary authorities systematically find it difficult to sterilize undesired changes in their international reserves, they may find it more practical to manage their money supply by manipulation of the balance of payments rather than by use of domestic tools. Export subsidies, import tariffs and quotas, or capital and exchange rate controls are examples of such balance-of-payments devices.

If a country places a priority on amassing a high level of international reserves, it may sterilize increases in them by decreases in the domestic component of the base but not neutralize reductions in them with increases in the domestic component, thus reacting asymmetrically depending on whether the balance of payments is in surplus or deficit. And the desired sterilization may also vary with the stage of the business cycle.

Some of these considerations suggest that the extent of sterilization is likely to depend at least as much on the motivation of a country to sterilize as it does on the country's ability to sterilize. They also suggest that empirically estimated "sterilization coefficients" may be less stable over time than similar measures of the offset relationship.

A sterilization coefficient close to or not significantly different statistically from zero, other things equal, indicates passive accommodation of foreign reserve flows into the monetary base; but as the coefficient approaches –1, greater neutralization is indicated. A high degree of sterilization can also be taken as evidence of monetary independence. One would therefore look for a sterilization coefficient to rise in absolute value rather than fall, as the offset coefficient does, in the move to floating if greater monetary insulation is hypothesized under the current system.

If it is assumed that greater flexibility in exchange rates has resulted in smaller international reserve flows because of less intervention, an assumption of greater sterilization under floating, other things equal, might be warranted. But external shocks increased markedly for most countries over the past decade, and intervention increased rather than fell coincident with the floating of exchange rates.

This is indicated in the accompanying chart, which depicts changes in U.S. liabilities to foreign offical agencies, or their official reserves held in the United States, over the past two decades. After relatively small changes in the 1960's, there was a surge in the early 1970's, associated with an overvalued U.S. dollar and greater pressure on foreign monetary authorities to acquire dollars rather than see their currencies rise against the U.S. unit. This episode was instrumental in toppling the Bretton Woods system, but the chart shows that even after its demise, international reserve buildups did not cease. Excluding the official dollar accumulations of oil-producing countries, which were not related to U.S. dollar weakness, downward pressure on the U.S. currency in 1977-79 again forced its acquisition by stronger-currency countries concerned about the international trade implications of their rising exchange rates.

Unimportance of these effects for the reserve center . . .

The United States is not a very good choice for testing the above channels of monetary insulation under fixed versus flexible exchange rates, since it has been and remains the world's major reserve currency country. Balance-of-payments surpluses or deficits of the United States have typically been reflected in changes in this country's liabilities to foreign monetary authorities rather than in changes in the country's own monetary base.

But it is certainly worth noting on the subject of national monetary independence under different exchange rate systems that the reserve center can be constrained in the conduct of its monetary policy at least as much under floating rates as it

3. To some extent, this sterilization may also be automatic, caused by the reaction of commercial banks to the foreign exchange operations of the central bank. When the central bank sells foreign assets and depletes its international reserves, commercial banks experiencing a concomitant decline in their reserves may step up borrowing from the central bank rather than constrict lending to the domestic economy. Likewise, when the central bank buys foreign assets, causing an increase in official international liquidity, the accompanying rise in the commercial banks' reserves may simply induce them to repay their debt to the central bank rather than increase domestic lending.

is under fixed rates. A reserve currency country can export its monetary policy to the rest of the world under fixed rates by forcing a buildup of its liabilities to other countries, but under floating rates a depreciation of the reserve currency can also cause concern among foreign holders and encourage their search for other stores of international liquidity. The conduct of U.S. monetary policy during 1978 and 1979, when the dollar was under pressure in exchange markets, is a good example of the operation of this international constraint under flexible exchange rates.

The reserve center can be constrained in the conduct of its monetary policy at least as much under floating rates as it is under fixed rates. The conduct of U.S. monetary policy during 1978 and 1979, when the dollar was under pressure in exchange markets, is a good example of the operation of this international constraint under flexible exchange rates.

. . . but potential significance for a country such as West Germany

Among countries for which it is possible to inspect offset and sterilization relationships under fixed versus flexible rates, West Germany is a good choice. The international sector of the German economy is large in relation to overall economic activity, and international reserves are a substantial part of the total monetary base. The German mark, moreover, is an important speculative currency, often subject to volatile international capital flows, and there has been periodic mention of international liquidity effects on German monetary policy under both fixed and flexible exchange rates. More extensive and reliable statistical data are available for Germany than for most other industrialized nations, and the country has been the subject of more studies of monetary independence under fixed exchange rates than perhaps any other.[4]

The econometric model detailed in the accompanying Appendix was used to test for shifts in offset and sterilization relationships in the move to more flexible exchange rates for a number of countries with relatively important currencies and comparatively well developed capital markets. As is frequently pointed out, simply finding a negative relationship between the foreign and domestic components of the monetary base reveals little about the size of either the offset or the sterili

4. Empirical investigations for West Germany that report some form of monetary offset relationship or sterilization relationship, or both, include: Manfred Willms, "Controlling Money in an Open Economy: The German Case," *Review*, Federal Reserve Bank of St. Louis, April 1971; Michael G. Porter, "Capital Flows as an Offset to Monetary Policy: The German Experience," *International Monetary Fund Staff Papers*, July 1972; Pentti J. K. Kouri and Michael G. Porter, "International Capital Flows and Portfolio Equilibrium," *Journal of Political Economy*, May/June 1974; Victor Argy and Pentti J. K. Kouri, "Sterilization Policies and the Volatility in International Reserves," in *National Monetary Policies and the International Financial System*, ed. Robert Z. Aliber (Chicago: University of Chicago Press, 1974); Pentti J. K. Kouri, "The Hypothesis of Offsetting Capital Flows: A Case Study of Germany," *Journal of Monetary Economics*, January 1975; Paul De Grauwe, "The Interaction of Monetary Policies in a Group of European Countries," *Journal of International Economics*, August 1975; Jacques R. Artus, "Exchange Rate Stability and Managed Floating: The Experience of the Federal Republic of Germany," *International Monetary Fund Staff Papers*, July 1976; William H. Branson, Hannu Halttunen, and Paul Masson, "Exchange Rates in the Short Run: The Dollar-Deutschemark Rate," *European Economic Review*, December 1977; Richard J. Herring and Richard C. Marston, *National Monetary Policies and International Financial Markets* (Amsterdam: North-Holland Publishing Company, 1977); Manfred J. M. Neumann, "Offsetting Capital Flows: A Reexamination of the German Case," *Journal of Monetary Economics*, January 1978; Donald J. Rousslang, "Short-Term International Capital Flows and the Effectiveness of Monetary Policy in an Open Economy: The German Case," *Kredit und Kapital*, 1978, no. 3; Bert G. Hickman and Stefan Schleicher, "The Interdependence of National Economies and the Synchronization of Economic Fluctuations: Evidence from the LINK Project," *Weltwirtschaftliches Archiv*, 1978, no. 4; and Harvey A. Poniachek, *Monetary Independence Under Flexible Exchange Rates* (Lexington, Mass.: D. C. Heath and Company, Lexington Books, 1979).

Results vary among these investigations, depending on methodologies and intervals focused on, but most are concerned exclusively with the fixed rate interval. Hickman-Schleicher include data for both intervals but do not distinguish between them, and Artus, Branson-Halttunen-Masson, and Poniachek concentrate on the flexible rate interval. The last author does compare the two intervals, finding greater sterilization but not much change in the offset effect for flexible rates through the end of 1976.

Table 1

ASPECTS OF MONETARY INDEPENDENCE FOR WEST GERMANY UNDER FIXED VERSUS MORE FLEXIBLE EXCHANGE RATES

Period	Estimated coefficients					
	Monetary base offset		Short-term private capital flow response		Monetary base sterilization	
	Under fixed rates	Under flexible rates	Under fixed rates	Under flexible rates	Under fixed rates	Under flexible rates
Current quarter	-.48 (-5.31)***	-.35 (-2.59)***	-.25 (-3.00)***	-.17 (-1.59)*	-1.09 (-9.76)***	-.77 (-5.04)***
Previous quarter	-.18 (-1.93)**	.03 (.29)	-.12 (-1.94)**	.16 (2.08)	-.56 (-5.44)***	-.60 (-5.50)***
Sum of quarters...	-.66 (-3.97)***	-.32 (-1.43)*	-.37 (-3.25)***	-.01 (-.06)	-1.65 (-11.47)***	-1.37 (-8.31)***

NOTE: Figures in parentheses are *t* statistics: * indicates the coefficient is significant statistically from zero at the 90-percent level, using a single-tail test of the hypothesis that the coefficient is signed as theorized; ** indicates significance at the 95-percent level, and *** at the 99-percent level.

Joint significance for coefficient sums was measured by:

$$t = (\hat{\beta}_i + \hat{\beta}_j) \Big/ \sqrt{\left[s^2_{\hat{\beta}_i} + s^2_{\hat{\beta}_j} + 2 \text{ est. } \operatorname{cov}(\hat{\beta}_i, \hat{\beta}_j)\right]},$$

where $\hat{\beta}_i$ and $\hat{\beta}_j$ are estimated coefficients and symbols under the radical are estimated variances and covariances for the estimated coefficients.

tion effects, since contemporaneous changes in the two components are simultaneous functions of each other.

This short-run model includes two equations that describe the reaction of the central bank in managing the monetary base. Contemporaneous changes in the international and domestic components of the base are determined simultaneously in these equations. Because a money supply reaction function also includes other basic variables, several of which have been subject to large fluctuations over the period of this analysis, other arguments are necessary in these reaction equations. In addition, the model includes a simple money demand equation and an equation explaining international short-term private capital movements, which are usually the most important source of exchange rate pressure in the short run.

The model contains an offset effect, measuring the reaction of the international component of the monetary base to concurrent and previous-quarter changes in the domestic component. Also included is another possible source of offset pressure, measuring the response of short-term private capital flows to concurrent and previous-quarter changes in the domestic component of the base. But a larger response of private capital flows to shocks in the domestic component of the base under flexible rates cannot be taken alone to indicate less monetary insulation. This depends on the response of the central bank to resulting exchange rate pressure. A sterilization coefficient is also estimated, measuring the reaction of the domestic component of the monetary base to concurrent and previous-quarter changes in the international component.

Some results for West Germany

The offset and sterilization coefficient estimates for West Germany are presented in Table 1. The computed *t* statistics measuring their individual statistical significance from zero, plus the joint significance of the sums, are given in parentheses. Except for the previous-quarter flexible rate offset and the sum for the short-term capital flow response under flexible rates, all coefficients are significant at some level of confidence. Previous-quarter effects are always lower in absolute value than current-quarter effects.

The estimated coefficients for both the monetary base offset and the short-term private capital flow response generally decline in moving from fixed to floating rates—an indication of greater monetary insulation under floating. The two-quarter sum for the monetary base offset under floating rates is

less than half its size under fixed rates, and the previous-quarter flexible rate offset is negligible.

The two-quarter sum for the short-term capital flow response drops from −.37 under fixed rates to almost zero under floating. Interestingly, the positive and statistically fairly robust previous-quarter coefficient here almost exactly cancels in value the current-quarter flexible rate coefficient. This finding suggests that short-term capital flows in one direction in a given quarter, in response to an autonomous change in the domestic component of the German monetary base, are matched by compensatory reflows in the subsequent quarter. Given the volatility of capital movements into and out of the German mark during the 1970's, this is entirely reasonable, but the net effect can be a stabilizing influence on the exchange rate. The quite small and statistically insignificant previous-quarter monetary base offset in the table suggests that not much of the effect of the private capital reflow on the exchange rate is countered by official intervention.

The current-quarter fixed rate sterilization coefficient is close to minus unity, suggesting complete neutralization of autonomous changes in the international component of the base with domestic monetary policy. But this coefficient falls to −.77 in the interval of more flexible rates, indicating less sterilization in that interval. Lagged-quarter sterilization is also significant under both fixed and more flexible rates, but these estimated coefficients do not change very much. The two-quarter sums actually exceed −1 under both intervals, pointing to complete sterilization under both, but the flexible rate coefficient sum remains lower than the fixed rate sum.[5]

5. The fact that the previous-quarter coefficients are approximately the same under both intervals, combined with evidence of a high degree of sterilization in the current quarter and the occurrence of an observable shift in the current period, raises the possibility that lagged international reserve changes proxy some systematic factor not included in the model. It is feasible to attribute to this the two-quarter sums that are relatively high in absolute value, suggesting that current-period coefficients alone may be more indicative of actual sterilization effects under fixed or more flexible rates. Previous sterilization estimates for Germany vary, but both Willms and Herring-Marston report sterilization estimates close to −1 for fixed rates, and the current-quarter flexible rate estimate in Table 1 is quite close to that of −.745 found by Artus, using monthly concurrent data for April 1973 to July 1975.

Table 2

t STATISTICS MEASURING SIGNIFICANCE OF SHIFTS IN COEFFICIENTS REFLECTING THE TRANSITION BY WEST GERMANY TO MANAGED FLOATING EXCHANGE RATES

Period	Monetary base offset	Short-term private capital flow response	Monetary base sterilization
Current quarter	(1.21)	(.71)	(2.32)**
Previous quarter ...	(2.47)**	(3.07)**	(−.38)
Both quarters	(2.09)**	(2.13)**	(1.46)

NOTE: The symbol ** indicates a significant shift at the 95-percent level, using a two-tail test.
For computation of *t* statistics measuring joint significance, see note with Table 1.

The magnitudes of these estimates are interesting for what they indicate about German monetary insulation under fixed and more flexible rates, but previous research attests that the coefficients can depend on econometric methodology, model specification, data choice, and time intervals taken. Of greater interest here is the direction in which the coefficients move in the transition to more flexible exchange rates and whether such shifts are statistically significant.

Table 2 presents computed *t* statistics measuring the significance of this movement. A two-tail test for significance was applied on the assumption that both offset and sterilization coefficients, as well as the short-term private capital flow response, might move in either direction. The *t* statistics measuring significance of the downward shift in both the monetary base offset relationship and the private capital flow response are relatively weak for the current quarter but are acceptable at the 95-percent confidence level for the lagged quarter and for both quarters jointly. The downward movement in the current-quarter sterilization estimate is also significant at the 95-percent level, but that for the lagged quarter is not and the *t* statistic for both periods jointly is weaker.

Conclusions

On balance, these outcomes support a conclusion that for West Germany, more flexible exchange rates have resulted in greater monetary independence with respect to the extent to which induced official international reserve changes offset domes-

tic monetary policy actions. The short-term private capital flow response to changes in the domestic component of the monetary base also is less under flexible rates, and the flows that do occur tend to be reversed in the subsequent quarter.

There is some indication that less sterilization of international monetary flows by opposite domestic monetary policy has occurred under flexible exchange rates than previously under fixed rates, but the extent of sterilization is found here to be relatively great in both intervals. And it is not possible to conclude, even where less sterilization is found, that this results from inability to sterilize. It may simply reflect a lack of desire to do so in some periods and the relative compatibility of domestic and international monetary policies.

On balance, these outcomes support a conclusion that for West Germany, more flexible exchange rates have resulted in greater monetary independence with respect to the extent to which induced official international reserve changes offset domestic monetary policy actions.

These findings cannot necessarily be generalized to other countries. Factors such as the depth of domestic capital markets relative to foreign exchange intervention, institutional arrangements, and the targets and objectives of basic monetary policy vary too much across countries for this to be the case. Preliminary investigations of other industrialized nations, using a model similar to that detailed in the Appendix, indicate, for example, that offset effects are generally smaller under floating rates than under adjustably pegged rates for countries floating independently. But usually the offset coefficients do not fall for participants other than West Germany in the joint float of European currencies.

Appendix

A Short-Run Monetary Model of an Open Economy

The equations for the model utilized here to analyze monetary independence for West Germany, under fixed and more flexible exchange rates, and a schematic flow diagram of the model are presented in the accompanying boxes. Variables are defined and described in terms of data specification.

The model is a very short-run description of the monetary sector of an open economy, since such factors as domestic nominal income, the government budget balance, and the current and long-term capital accounts in the balance of payments are taken to be exogenous. The model consists of four behavioral equations and includes four endogenous variables. The number of endogenous variables included in each equation less 1 is equal to the number of predetermined variables in the system excluded from that equation, as required for identification. As constructed, the model has the additional advantage of allowing estimation in its structural form by means of two-stage least squares.

Description

The first two equations define supply reaction functions for the central bank in its management of the monetary base. In equation 1 the change in the international component of the base supplied is specified to be partly a function of its own change in the previous period plus current-period and previous-period changes in the domestic component of the base; coefficients a_2 and a_3 measure the monetary base offset relationship. In equation 2 the domestic component of the base supplied is specified to be partly a function of its own previous change plus current- and previous-period changes in the international component of the base; coefficients b_2 and b_3

A Monetary Independence Model

Base money supply reaction functions:

$$(1)\ \Delta R_t^s = a_0 + a_1\Delta R_{t-1} + a_2\Delta D_t + a_3\Delta D_{t-1} + a_4 NMBP_t + a_5\Delta Y_t + a_6\Delta i_t^G$$
$$(a_1 < 0;\ a_2, a_3 < 0;\ a_4 > 0;\ a_5 > 0;\ a_6 \lessgtr 0)$$

$$(2)\ \Delta D_t^s = b_0 + b_1\Delta D_{t-1} + b_2\Delta R_t + b_3\Delta R_{t-1} + b_4 B_t + b_5\Delta Y_t + b_6\Delta i_t^G$$
$$(b_1 < 0;\ b_2, b_3 < 0;\ b_4 > 0;\ b_5 > 0;\ b_6 \lessgtr 0)$$

Base money demand function:

$$(3)\ \Delta R_t^d + \Delta D_t^d = \Delta M_t^d = c_0 + c_1\Delta D_{t-1} + c_2\Delta R_{t-1} + c_3\Delta Y_t + c_4\Delta i_t^G + c_5\Delta i_t^f$$
$$(c_1, c_2 < 0;\ c_3 > 0;\ c_4 < 0;\ c_5 < 0)$$

International short-term private capital flow equation:

$$(4)\ STC_t = d_0 + d_1\Delta D_t + d_2\Delta D_{t-1} + d_3 NMBP_t + d_4\Delta Y_t + d_5\Delta i_t^G + d_6\Delta i_t^f$$
$$(d_1, d_2 < 0;\ d_3 < 0;\ d_4 > 0;\ d_5 > 0;\ d_6 < 0)$$

VARIABLE DEFINITION AND DATA CHOICE

Endogenous variables

ΔR_t = current-quarter change in the international component of the monetary base. Defined as the monetized change in net external assets of the German Federal Bank. Millions of German marks.

ΔD_t = current-quarter change in the domestic component of the monetary base. Defined as $\Delta D_t = \Delta M_t - \Delta R_t$, where M is total reserve money; ΔM_t is adjusted for changes in required reserves by adding the quantity $\Delta RR_t = (r_{t-1} - r_t)L_{t-1}$, where ΔRR is the change in required reserves, r is the average reserve requirement ratio, and L is the period's average of total liabilities at commercial banks subject to reserve requirements.[1] Millions of German marks.

Δi_t^G = current-quarter change in the domestic interest rate. Defined as the average call money rate in the last month of the quarter less the average for the last month of the previous quarter. Percent per annum.

STC_t = current-quarter short-term private capital flows in the balance of payments. Millions of German marks.

Predetermined variables

ΔR_{t-1} = previous-quarter change in the international component of the monetary base. Defined as above.

ΔD_{t-1} = previous-quarter change in the domestic component of the monetary base. Defined as above.

$NMBP_t$ = current-quarter nonmonetary balance-of-payments flows: current account plus exogenous long-term capital flows and other items. Defined as $NMBP_t = \Delta R_t - STC_t$. Millions of German marks.

ΔY_t = current-quarter change in mass incomes. Millions of German marks.

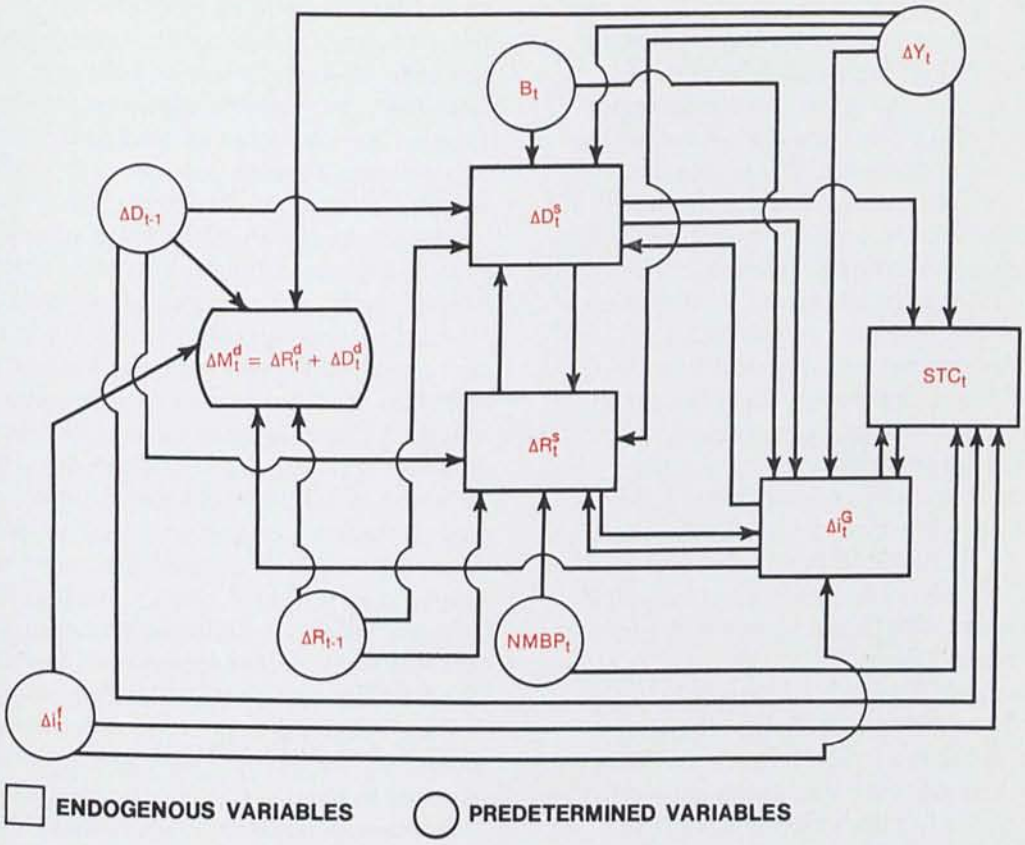
B_t = current-quarter national government deficit (+) or surplus (−). Millions of German marks.

Δi_t^f = current-quarter change in foreign interest rates. Proxied by the covered Eurodollar interest rate (London); the average for the last month of the quarter less the average for the last month of the previous quarter. Percent per annum.

1. Since 1975, West Germany has set annual targets for "central bank money," defined as cash in circulation plus required reserves on banks domestic liabilities at constant reserve ratios.

SOURCES: German Federal Bank.
International Monetary Fund.
Federal Reserve Bank of Dallas.

Flow Diagram of the Model



measure the monetary base sterilization relationship.

Inclusion of a lagged dependent variable in both equations 1 and 2 accounts for the fact that monetary authorities reasonably react to prior movements in $\triangle R$ and $\triangle D$ as well as independently defined pressures. Adding the lagged term for the opposite component of the base in the two equations recognizes the possibility of lagged offset and sterilization responses, but any lagged response to changes before the previous quarter is not included because of the short-run nature of the model and the following method of testing for shifts in the relevant coefficients. (The use of quarterly data rather than higher-frequency data does at least account for the lagged effects over a longer time span.)

Exogenous balance-of-payments flows, *NMBP*, naturally influence changes in official reserves, so the reasoning behind the inclusion of this variable in equation 1 is likely obvious. The government budget balance, *B*, is included in equation 2 not just because of the pressure that government deficits can exert on interest rates, forcing central bank financing, but more importantly to capture the influence of fiscal policy in general on domestic monetary actions, since coordination is not unusual.

Finally, changes in nominal domestic income, Y, and the domestic interest rate, i^G, are entered in both reaction function

equations. It may be assumed that the authorities accommodate transactional demand for money balances and rising prices to an extent, as well as allow money market conditions to enter their reaction function; but with respect to overall management of the monetary base, it is not clear that these variables should enter the reaction function for the domestic component of the base any more than for the international component. The more open an economy is in this sense, the simpler it may be for authorities to conduct monetary policy by managing the external balance, or the supply of international reserves, rather than the supply of domestic reserves. (Official reserve changes can respond positively to income changes, moreover, if capital account effects dominate the current account effect; and higher domestic interest rates, other things equal, may also cause capital inflows in the balance of payments.) In both equations 1 and 2 the domestic interest rate may enter negatively, rather than positively, if it incorporates a significant premium for inflationary expectations.

Although no foreign exchange rate itself appears in equation 1 explicitly, the equation can be taken as specifying an exchange rate management function under controlled floating as well as under fixed rates. The fact that more continuous adjustment in the rate is possible under managed floating, however, is a basic reason for expecting the response of ΔR_t to ΔD_t or ΔD_{t-1} to be less.

Regarding both equations 1 and 2, it is also relevant to note with respect to this application to West Germany that changes in the domestic component of the base are adjusted for changes in required reserves, which can be an important tool of German monetary policy. The use of open market operations in the traditional sense is much less prevalent in West Germany than in the United States.[1]

1. The German central bank has recently moved toward introducing a broader range of money market operations appropriate for reversible and short-term adjustment. During 1979, for example, one instrument utilized involved the initiation of foreign exchange swaps with commercial banks. By expanding or contracting high-powered money on a short-term basis through use of this tool, the central bank could sterilize some effects of foreign exchange intervention if desired.

Equation 3 represents a money demand function corresponding to these supply reaction functions. Quite simply, the change in the demand for nominal base money is specified to depend on prior changes in the domestic and international components of the base, changes in nominal income, and changes in the yield on nonmoney assets, proxied by domestic and foreign interest rates. In equilibrium, base money demand is equated to base money supply.

The remaining equation (4) is an expression to explain induced short-term private capital flows in the balance of payments. These flows are specified to depend in part on current and lagged changes in the domestic component of the monetary base, providing the model with another measure of possible international monetary dependence—the private capital flow response. Coefficients d_1 and d_2 measure this effect. These capital flows automatically trigger intervention under fixed rates, so that d_1 and d_2 can also be labeled "offset coefficients" under such a system. But it is less appropriate to refer to them by this name under floating rates, since induced changes in the international component of the base may not occur. Also entered in the equation are nonmonetary balance-of-payments flows, *NMBP*; changes in domestic income, Y; and change in domestic and foreign interest rates, i^g and i'.

Rather than specifying the same model for both fixed and flexible exchange rates, and testing for a shift in coefficients along the following lines, some might consider it more appropriate to construct fundamentally different models for the two systems. That approach was eschewed here for the sake of simplicity and because of the possible bias that might be introduced into the estimation of relevant parameters.

Testing for changes in coefficients

In order to measure direction, magnitude, and statistical significance of the movement in the relevant coefficients in the transition to managed floating, the following procedure was utilized. A dummy variable, *F*, was created and set equal to zero under adjustably pegged rates and equal to plus unity under managed floating.[2] The variables $(\Delta D \times F)_t$ and $(\Delta D \times F)_{t-1}$, where ΔD in the former

Table 3

ECONOMETRIC RESULTS FOR THE MONETARY INDEPENDENCE MODEL

	Dependent variables	Estimated equations, 1960-Q1 through 1979-Q2
Equation 1 . . .	$\Delta R_t^s =$	$207.52 - .21\,\Delta R_{t-1} - .48\,\Delta D_t + .13\,(\Delta D \times F)_t - .18\,\Delta D_{t-1} + .21\,(\Delta D \times F)_{t-1}$ (.56) (-2.16)** (-5.31)*** (1.21) (-1.93)** (2.47)** $+ .38\,NMBP_t + .52\,\Delta Y_t - 123.80\,\Delta i_t^G + 4{,}998.0\,SP$ (3.97)*** (5.07)*** (-.42) (6.11)*** $\bar{R}^2 = .72$; D-W = 1.77; SE = 1,987.3; rho = .12.
Equation 2 . . .	$\Delta D_t^s =$	$859.12 - .52\,\Delta D_{t-1} - 1.09\,\Delta R_t + .32\,(\Delta R \times F)_t - .56\,\Delta R_{t-1} - .04\,(\Delta R \times F)_{t-1}$ (2.03)** (-6.70)*** (-9.76)*** (2.32)** (-5.44)*** (-.38) $+ .24\,B_t + .55\,\Delta Y_t - 221.50\,\Delta i_t^G + 1{,}838.2\,SP$ (2.20)** (3.62)*** (-.62) (1.82)* $\bar{R}^2 = .73$; D-W = 1.87; SE = 2,458.1; rho = .07.
Equation 3 . . .	$\Delta M_t^d =$	$854.30 - .49\,\Delta M_{t-1} + .88\,\Delta Y_t - 233.49\,\Delta i_t^G - 540.03\,\Delta i_t^f$ (1.97)* (-6.29)*** (6.29)*** (-.60) (-2.12)** $\bar{R}^2 = .64$; D-W = 2.01; SE = 2,753.0.
Equation 4 . . .	$STC_t =$	$-417.69 - .25\,\Delta D_t + .08\,(\Delta D \times F)_t - .12\,\Delta D_{t-1} + .28\,(\Delta D \times F)_{t-1} - .51\,NMBP_t$ (-1.26) (-3.00)*** (.71) (-1.94)** (3.07)*** (-5.21)*** $+ .60\,\Delta Y_t + 504.63\,\Delta i_t^G - 1{,}038.04\,\Delta i_t^f + 5{,}119.0\,SP$ (5.44)*** (1.43)* (-4.11)*** (6.55)*** $\bar{R}^2 = .55$; D-W = 1.75; SE = 2,109.8; rho = .13.

NOTE: Figures in parentheses are *t* statistics of the regression coefficients: * indicates significance at the 90-percent level; **, at the 95-percent level; and ***, at the 99-percent level. A single-tail test, of the hypothesis that the variable is signed as theorized, was applied in all cases except for constants, the shift variables, and the speculative vector in equation 2; for these, a two-tail test was utilized since the variable might be signed positively or negatively.

$\bar{R}^2$ is the multiple correlation coefficient adjusted for degrees of freedom. D-W is the Durbin-Watson autocorrelation test statistic. SE is the standard error of the regression. Rho is the computed first-order autocorrelation coefficient for cases in which a Cochrane-Orcutt procedure was used.

term represents fitted values from the first stage of the two-stage least squares process, were then created and added to equations 1 and 4. And $(\Delta R \times F)_t$ and $(\Delta R \times F)_{t-1}$, where ΔR in the former term is a product of the first stage in the two-stage process, were also created and added to equation 2.

This procedure is the equivalent of dividing each relevant variable into two separate series, one for fixed rates and one for managed floating. But the test used here has the advantage of allowing observation of only one *t* statistic in judging significance of a change in coefficients, that on the newly created shift variables, rather than requiring computation of a *t* test on the difference between two coefficients.

Thus, equations 1, 2, and 4 become:

$$(1a)\quad \Delta R_t^s = a_0 + a_1\Delta R_{t-1} + a_2\Delta D_t + a_2'(\Delta D \times F)_t + a_3\Delta D_{t-1} + a_3'(\Delta D \times F)_{t-1} + a_4 NMBP_t + a_5\Delta Y_t + a_6\Delta i_t^G,$$

$$(2a)\quad \Delta D_t^s = b_0 + b_1\Delta D_{t-1} + b_2\Delta R_t + b_2'(\Delta R \times F)_t + b_3\Delta R_{t-1} + b_3'(\Delta R \times F)_{t-1} + b_4 B_t + b_5\Delta Y_t + b_6\Delta i_t^G,$$

and

$$(4a)\quad STC_t = d_0 + d_1\Delta D_t + d_1'(\Delta D \times F)_t + d_2\Delta D_{t-1} + d_2'(\Delta D \times F)_{t-1} + d_3 NMBP_t + d_4\Delta Y_t + d_5\Delta i_t^G + d_6\Delta i_t^f.$$

2. The German mark was pegged to the U.S. dollar through May 1971 and then floated briefly until after the Smithsonian Agreement in December that year. It was then repegged to the U.S. unit until March 1973, when generalized floating actually began. The dummy variable was set equal to 1 for the last three quarters of 1971 and from the second quarter of 1973 forward; zero otherwise.

In equation 1a the coefficient a_2 measures the current-quarter monetary base offset under fixed rates, and $(a_2 + a'_2)$ measures it under floating. The lagged-quarter fixed rate coefficient is a_3, while $(a_3 + a'_3)$ is the floating rate coefficient. And $(a_2 + a_3)$ is the two-quarter sum under fixed rates, while $(a_2 + a'_2 + a_3 + a'_3)$ is the corresponding value under floating. Similar computations apply to b_2, b'_2, b_3, and b'_3 in equation 2a and to d_1, d'_1, d_2, and d'_2 in equation 4a. The t statistics on a'_2, a'_3, b'_2, b'_3, d'_1, and d'_2 indicate whether the relevant shifts are statistically significant, and t statistics on sums of coefficients can be computed separately.

The two-stage least squares empirical results of fitting this model are presented in Table 3. Quarterly data were taken over the longest inclusive period for which all series were available. In the base money demand function of equation 3, the international and domestic components of the base were aggregated.

In the final estimation of the model, a speculative vector, *SP*, was added to equations 1, 2, and 4 to capture the effects of extraordinary capital flows associated with discrete exogenous events.[3] Inclusion of this vector ensures better specification by abstracting from such exceptional episodes.

Estimations of the coefficients under fixed rates and the size and significance of shift variables, as summarized in Tables 1 and 2 in the article, are apparent in the model. All other variables, except the domestic interest rate in the first three equations, are statistically significant at some designated level.

3. Nonzero values for this vector have been assigned to those periods for which some special occurrences were documented, not determined inductively by simply inspecting actual observations or residuals of equations without the vector. Often, exceptional capital flows in one period are associated with exceptional reflows in a subsequent period.

The values are: 1967-Q4 = +1 (inflows to the German mark associated with devaluation of the U.K. pound); 1969-Q2 = +1, 1969-Q3 = +1, 1969-Q4 = −1 (inflows and reflows associated with revaluation of the mark); 1973-Q1 = +1 (inflows to the mark just prior to the final break with the U.S. dollar and the end of the Bretton Woods system); 1976-Q1 = +1, 1976-Q2 = −1 (inflows and reflows associated with extreme pressures within the European joint float as "weak" currencies progressively weakened further and "strong" currencies, primarily the mark, became even stronger. The subsequent reversal of these trends was frequently cited in the aftermath as an example of "vicious" or "virtuous" circle overadjustment); and 1978-Q4 = +1, 1979-Q1 = −1 (inflows and reflows just before and after announcement of the November 1, 1978, Federal Reserve-U.S Treasury dollar support package).

For substantiation, see the articles on Treasury and Federal Reserve foreign exchange operations that are published periodically in the *Federal Reserve Bulletin*.

New national member banks

Mercantile National Bank of Arlington, Arlington, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business January 14, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of $1,000,000 and surplus of $1,000,000. The officers are: David L. Moritz, Chairman of the Board; James E. Herrington, President; and Dwight G. Coker, Cashier.

First State Bank, Hearne, Texas, located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, converted to a national charter under the title of College Station Bank, N.A., College Station, Texas, and, as such, became a member of the Federal Reserve System January 16, 1980. The bank is now located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas. The new member bank has capital of $253,090, surplus of $646,909, and undivided profits of $203,112. The officers are: Vincent D. Kickerillo, Chairman of the Board; Don A. Hoffman, Chief Executive Officer; James E. Scamardo, President; Jimmie F. Payne, Vice President (Inactive); J. Byron Burrows, Jr., Vice President and Cashier; Charline Moore, Assistant Vice President; and Cathy Underwood, Assistant Cashier.

First City Bank—Westheimer, N.A., Houston, Texas, a newly organized institution located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business January 21, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of $750,000 and surplus of $750,000. The officers are: Edwin E. Finn, Chairman of the Board; Starr Kealhofer, III, President; Maurice J. Potts, Senior Vice President; and Richard E. Barker, Cashier.

First National Bank, Sherman, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business January 24, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of $625,000 and surplus of $626,000. The officers are: Herman Baker, Chairman of the Board; David Wyatt, President; and Tim T. Becker, Vice President and Cashier.

First National Bank of Sulphur Springs, Sulphur Springs, Texas, a newly organized institution located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business January 28, 1980, as a member of the Federal Reserve System. The new member bank opened with capital of $1,000,000 and surplus of $1,000,000. The officers are: Walter L. Helm, Chairman of the Board; Ricky L. Palmer, President and Chief Executive Officer; and Glenda L. Shelton, Cashier.

"Fed Quotes"

Brief Excerpts from Recent Federal Reserve Speeches, Statements, Publications, Etc.

"The need to consider carefully the international environment when examining the needs of the U.S. economy would exist even if one could identify a single objective at which policy should be aimed. Of course, we have a long list of such objectives, including price stability, high employment and a reasonable balance in our external accounts. At times in the past, and maybe at times in the future, conflicts among our objectives may appear. It is my view that, at least at the present time, this is one problem we do *not* have. Our overriding concern must be to get the inflationary forces now at work in our economy under control."

"Fundamentally, I think our new approach should be judged by the extent to which we are able over time to reduce the rate of growth of relevant monetary and credit aggregates and, thereby, to reduce inflation rates. As these rates of increase come down, interest rates can also come down and in a context of sustainable economic growth. I firmly believe that we must resist the tendency to overinterpret the very latest data or react to each twist and turn in the economy and instead must maintain a longer-term view of the needs of the economy. Such a steady approach will, I believe, advance, not postpone, the day when significant and sustained declines in interest rates will be possible and will be consistent with a healthy U.S. economy."

Frederick H. Schultz, Vice Chairman, Board of Governors of the Federal Reserve System (At the NAM International Economic Affairs Committee Meeting, Washington, D.C., December 13, 1979)

"The Board has long been concerned about the adverse impact that usury ceilings can have on the availability of funds in local credit markets, and has frequently stated its opposition to such artificial constraints. In general, regulatory limits on loan charges tend either to have little or no effect (when market-determined rates are at or below the ceiling) or to be counterproductive (when market-determined rates are above the ceiling). When nominal market interest rates are high, as at present, usury ceilings typically distort credit flows by inducing lenders to channel funds into assets or geographic areas less affected by ceilings. Nonprice lending terms in restrained markets may be tightened severely to compensate for the relatively low nominal interest rates that can be charged, and credit may become totally unavailable except to the most highly qualified borrowers."

Frederick H. Schultz, Vice Chairman, Board of Governors of the Federal Reserve System (Before the Committee on Banking, Housing, and Urban Affairs, U.S. Senate, December 17, 1979)

"In looking back at events since October 6, I cannot help but be encouraged by the understanding and broad base of support for our actions that has emerged. In one sense, of course, policies of restraint are never calculated to win popularity contests. All of us would like to see interest rates as low as possible. But what is impressive to me is the growing understanding that the exceptionally high levels of interest rates are ultimately an outgrowth of the inflationary process itself. We are learning that money creation cannot substitute for the productivity, savings, and resources we need to support economic growth but rather, in excess, will only impair prospects for sustained growth. Indeed, I am acutely conscious that the question I receive most frequently is not why did you do it, but rather, 'Will the Fed stick with it?'

"My own short and simple answer to that question is yes.

"I do not intend to qualify that answer."

Paul A. Volcker, Chairman, Board of Governors of the Federal Reserve System (Before the National Press Club, Washington, D.C., January 2, 1980)

Member Banks Use Seasonal Borrowing Privilege

Fifty-nine member banks borrowed from the Federal Reserve Bank of Dallas during 1979 under its seasonal loan program. Since the start of the seasonal loan program in 1973, the number of banks using the facility each year has averaged 40. The program is available to member banks that normally experience strong seasonal flows in deposits and loans. The amount and duration of credit under the program are determined by the bank's seasonal fluctuations in loans and deposits.

Usually, member banks located in agricultural or resort areas have the greatest need for the seasonal borrowing privilege, because their communities have fluctuating liquidity needs and the local banks may not have ready access to national money markets. Member banks with total deposits under $500 million may qualify.

A member bank interested in obtaining detailed information regarding seasonal credit or finding out whether it is eligible for this type of Federal Reserve credit should contact the loan officer at its Reserve Bank or Branch. The seasonal credit can be prearranged.

Regulatory Briefs and Announcements

Fed Shifts Emphasis on Bank Holding Company Debt

The Board of Governors of the Federal Reserve System has proposed liberalizing standards for the formation of small one-bank holding companies by relaxing the full-payment-of-debt requirement and shifting its attention to the relationship between debt and equity at the parent holding company.

The proposed policy statement of the Board of Governors would free the small bank holding company from the obligation of having to pay all acquisition debt in 12 years. Under the proposed policy, the Board requests that the applicant only demonstrate that the holding company's ratio of debt to equity would decline to 30 percent within 12 years after consummation of the acquisition.

The Board has not favored the use of acquisition debt in bank holding company formations because of the question that arises as to the probable effect on the financial condition of the company and its subsidiary bank or banks. The Board believes that a high level of acquisition debt impairs the ability of a bank holding company to come to the aid of its subsidiary bank in times of need. However, the Board has recognized that the transfer of ownership of small community banks and the maintenance of local ownership in such banks often require the use of acquisition debt, and approval of applications has been given on the condition that the small one-bank holding companies demonstrate the ability to service the acquisition debt without straining the capital of their subsidiary banks. To ensure that the capital of a subsidiary bank is not strained, the Board is also proposing that the amount of acquisition debt should not exceed 75 percent of the purchase price of the bank to be acquired.

In addition to the shift in debt standards, the Board is considering a new policy with regard to dividend restrictions. The proposed policy states that the bank holding company is not expected to pay any corporate dividends until its debt-to-equity ratio is below 30 percent.

In acting on applications filed under the Bank Holding Company Act, the Board continues to maintain the cardinal principle that bank holding companies should serve as a source of strength for their subsidiary banks. Public comments on the proposed policy statement were accepted through January 31, 1980.

Fed Forms Routing Number Group

The overabundance of routing numbers in the banking system, plus the multitude of checks being processed daily, is creating delays in check presentment, processing, and collection. Thus, an administrative group has been formed by the Federal Reserve System to control the amount of routing numbers, with emphasis on speeding cash item processing.

Routing numbers

On each check is located a nine-digit routing number that identifies the payer financial institution and the Federal Reserve office through which cash items are to be routed for payment. For this reason, financial institutions—mostly commercial banks—are assigned individual routing numbers to service the check processing and payments mechanism operation.

As the volume of checks used increases, so does check processing. Approximately 35 billion checks were processed by the banking industry last year, and the figure has been increasing at an annual rate of 8 percent. As the volume of items increases, the processing becomes encumbered.

Routing Number Administrator Group

To streamline the routing number system and try to unburden check processing, the Federal Reserve System has formed the Routing Number Administrator Group, with the goal of reducing the amount of numbers to one per presentment point—a location, designated by the paying institution, where cash items are delivered for payment. The group is composed of one representative from each of the 12 Federal Reserve districts and will work with the American Bankers Association (ABA) to administer the present policy.

In the future, an institution that needs a routing number should contact Rand McNally and Company, agent for the ABA, in order to reserve a number. Federal Reserve banks will be responsible for reviewing and approving the numbers as well as policy-related matters. Routing numbers that do not meet the criteria for continued usage will be discontinued .

New institutions, banks that reorganize, consolidate, or merge, and banks that implement a presentment-point change are most likely to be affected by this new routing number procedure. In addition, an institution that is absorbed by another must contact Rand McNally, since the absorbed institution generally will be required to use the routing number of the surviving institution.

In the Eleventh Federal Reserve District, questions may be referred to Denny C. McCormick, Routing Number Administrator, (214) 651-6283.

New state member bank

Alief Alamo Bank, Houston, Texas, located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, was admitted January 17, 1980, as a member of the Federal Reserve System. The bank has a capital structure of $1,200,000, consisting of capital stock of $500,000, surplus of $500,000, and undivided profits and reserves of $200,000. The officers are: Charles R. Vickery, Jr., Chairman of the Board; G. Warren Coles, Jr., Vice Chairman of the Board; John H. Garrett, Sr., President; Frank L. Law, Executive Vice President; Merri-lyn Schmalz, Vice President and Cashier; Richard Torres, Assistant Vice President; and Yolanda Walters, Assistant Cashier.

New nonmember banks

The Early Bank, Early, Texas, a newly organized insured nonmember bank located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business January 10, 1980.

Allied Mission Bend Bank, Houston, Texas, a newly organized insured nonmember bank located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business January 12, 1980.

Allied Nederland Bank, Nederland, Texas, a newly organized insured nonmember bank located in the territory served by the Houston Branch of the Federal Reserve Bank of Dallas, opened for business January 17, 1980.

First State Bank of Hewitt, Hewitt, Texas, a newly organized insured nonmember bank located in the territory served by the Head Office of the Federal Reserve Bank of Dallas, opened for business January 28, 1980.

FEDERAL RESERVE BANK OF DALLAS
STATION K, DALLAS, TEXAS 75222

ADDRESS CORRECTION REQUESTED

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