



BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

July 10, 1979

TO: Federal Open Market Committee

FROM: Murray Altmann *M.A.*

President Balles has asked me to distribute the attached memorandum on the subject of the potential exchange-market impact of a lowering of the federal funds rate.

MEMORANDUM TO Federal Open Market Committee, July 10, 1979
Reserve Bank Presidents not on FOMC

FROM John J. Balles, President
Federal Reserve Bank of San Francisco

SUBJECT Potential exchange-market impact of a lowering of the
Fed-funds rate target

A major monetary policy concern now is over the likely impact on the dollar exchange rate of a decline in U.S. interest rates relative to those abroad. It is widely held that the recent weakness of the dollar has been due to a narrowing of the interest rate differentials between the U.S. and Europe. Hence, one fears that a reduction in the Fed-funds rate might send the dollar plummeting in the foreign exchange market.

How valid is that view? I asked my staff to examine whether there has existed in the past any systematic relationship between exchange-rate movements and international interest-rate differentials. Attachment 1 compares the changes in the dollar exchange rate in terms of four important foreign currencies, DM, Yen, Swiss Franc and UK Pound, (solid line) with the changes in a 3-month interest rate differential (U.S.-foreign) in the respective national money markets (dotted line). (Ignore the broken line for the time being.) The charts indicate that over the five years, 1974-78, in none of the four cases was there a systematic relationship between exchange-rate movements and changes in interest rate differentials. If anything, falling dollar exchange rates were mostly associated with rising interest rate differentials in favor of the U.S., exactly opposite to what the common view would suggest.

Attachment 2 compares exchange-rate movements with changes in interest rate differentials for three specific episodes. During the first episode, from September 1977 to October 1978, the dollar depreciations were in every case associated with widening, not narrowing, interest rate differentials in favor of the U.S. During the second episode, from October 1978 to May 1979, the dollar appreciations were in every case associated with narrowing, not widening, interest rate differentials. Only in the most recent one-month episode, from the end of May to the end of June, was there an association of dollar depreciations with narrowing interest rate differentials. The last, based on a one-month observation, appears to be an exception, not the rule.

While these data provide little support for the popular view of exchange-rate movements, they do accord remarkably well with an alternative view, which relates exchange-rate adjustments to relative changes in the money supply and demand conditions in the two countries concerned. In Attachment 1, the exchange-rate movements (the solid lines) are also compared with the changes in an index of the relative monetary ease abroad and in the U.S. (the broken lines) -- the latter being measured by a ratio of foreign to U.S. nominal-money growth rates adjusted by the growth in real-money demand in the respective countries. Thus a declining broken line indicates an easing of U.S. monetary condition relative to that in a foreign country. (Technical details are presented in an article by Michael Keran in the Spring, 1979 issue of the FRBSF's Economic Review.) The close parallelism

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between the solid line and the broken line in the charts suggests that, on the whole, exchange-rate movements in the last five years were more reflective of changes in relative monetary conditions in the various countries than of changes in interest rate differentials.

These findings are by no means fortuitous occurrences, but are amenable to simple economic interpretations. For instance, in 1976-78, an accelerated depreciation of the dollar coincided with rising interest-rate differentials in favor of the U.S., because a faster monetary growth (relative to money demand) in the U.S. than in the other major industrial countries added rising inflation premia to U.S. interest rates, while exerting increasingly large downward pressure on the exchange value of the dollar. Conversely, when the money-growth rates slackened in the U.S. relative to those abroad, as during October 1978-May 1979, inflation expectations declined in the U.S. relative to those abroad, resulting in reductions in interest-rate differentials in favor of the U.S., but simultaneous appreciations of the dollar. Thus, interest-rate differentials are not direct causes of exchange rates, as commonly assumed; instead, the two are jointly determined by differences in monetary conditions across countries that are linked together by trade and capital flows.

Thus, both in theory and on empirical grounds, I cannot accept the popular view that U.S. interest rate declines would necessarily result in a falling dollar. In my view, it would be an unfortunate mistake to tie our hands on the Fed-funds rate target out of a misguided concern over the dollar exchange rates. In view of the cyclical downturn which now seems to be underway, an excessively tight monetary policy and accompanying high interest rate could well spell a deeper recession down the road. The market apparently believes from past experiences that the deeper the recession, the more expansionary the subsequent monetary policy, and hence the greater the eventual inflation threat. The net result would be larger, not smaller, dollar depreciations. On the other hand, a moderate and stable monetary policy that helps avoid deep recessions will help promote confidence in the dollar.

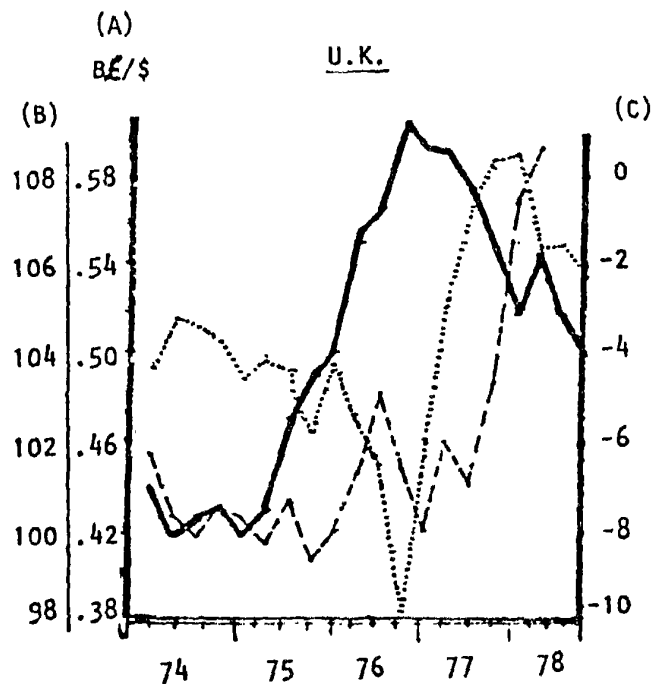
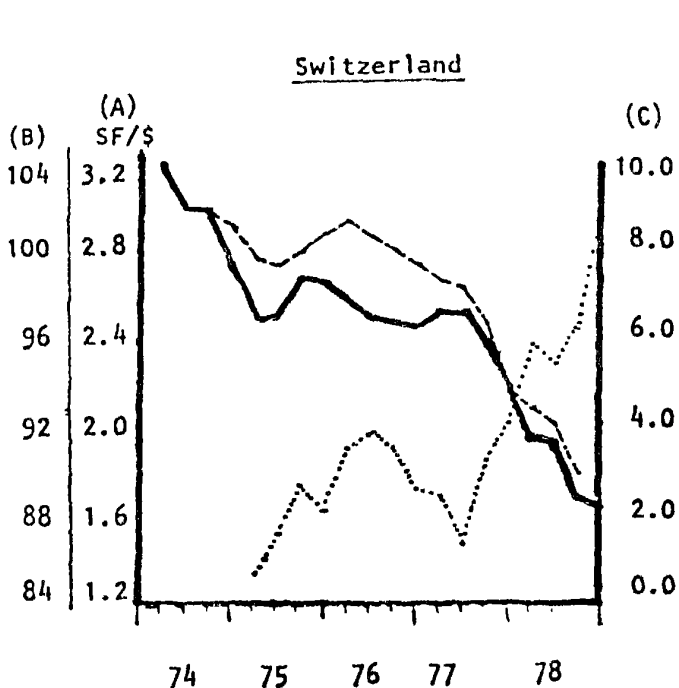
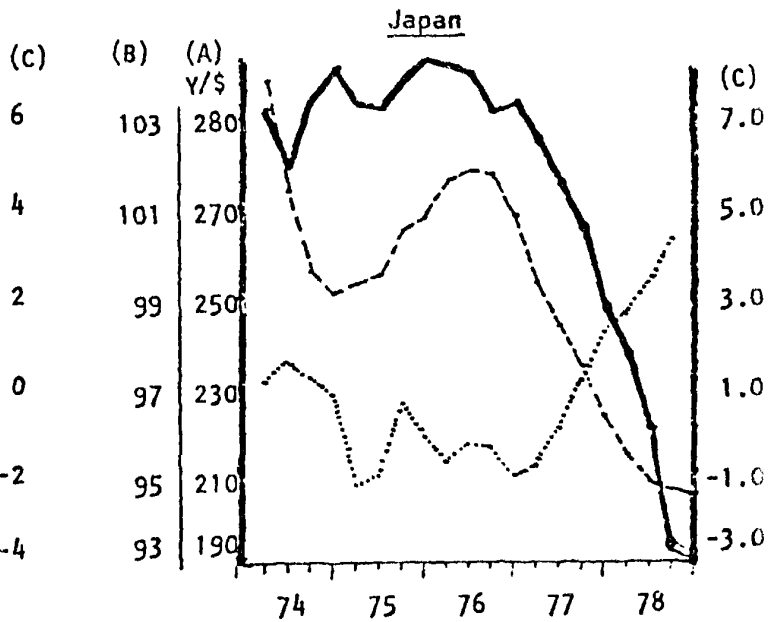
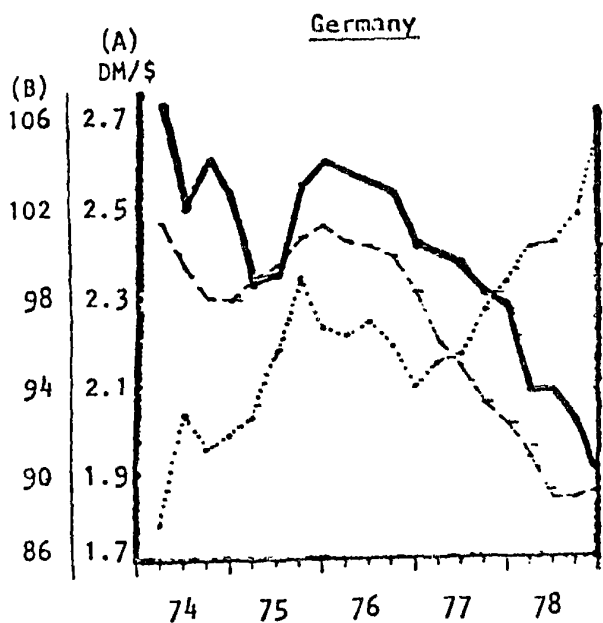
Attachments

Attachment I

Exchange Rates, Excess Money Supply, and Interest

Rate Differentials: U.S. versus Other Major Countries, 1974-78 (Quarterly)

- (A) Exchange Rates (value of U.S. dollar in terms of foreign currencies)
- - - (B) Ratio of excess money supply (Index: 1975=100), measured by ratios of national nominal-money growth rates adjusted for changes in real-money demand.
- (C) 3-month Interest-rate differentials (Percent)



Attachment 2

Changes in Exchange Rates and Interest Rate

Differential: Three Recent Episodes

	<u>DM</u>	<u>J¥</u>	<u>SF</u>	<u>BE</u>
(End of periods)				
(I) <u>September 1977 to October 1978</u>				
Dollar Exchange Rate (% change)	-31.8	-47.8	-57.5	-19.0
Interest Rate Differential: U.S.-Foreign (change in % points)	3.4	4.0	5.3	-1.8
(II) <u>October 1978 to May 1979</u>				
Dollar Exchange Rate (% change)	9.5	23.2	16.5	1.4
Interest Rate Differential: U.S.-Foreign (change in % points)	-1.3	-0.3	-0.7	-0.5
(III) <u>May to June 1979</u>				
Dollar Exchange Rate (% change)	-3.3	-1.8	-5.8	-4.4
Interest Rate Differential: U.S.-Foreign (change in % points)	-0.6	-0.8	0.7	-2.2
