

Research Department  
Federal Reserve  
Bank of  
San Francisco

April 27, 1984

## World Money

Traditional monetarism prescribes that each nation best guarantees economic stability by keeping its national money stock growing along a steady, non-inflationary path. In recent years, this view has been challenged by the "world money" hypothesis which states that the worldwide money stock is the single most important determinant of prices and output for each nation.

Unlike conventional monetarists, advocates of the world money view do not believe that control over the growth of domestic money aggregates is sufficient to stabilize a national economy. They argue instead that tight control of world money growth is the only means of achieving stability in both individual national economies and the international economy. To this end, several world money advocates have proposed close monetary coordination among major central banks with the hope of stabilizing exchange rates. This *Letter* critically evaluates the world money hypothesis and its policy prescriptions.

### Portfolio shifts

There are several variants of "world monetarism", but two basic approaches may be identified. The first approach holds that *demand* for an individual country's money is highly unstable in a floating exchange rate regime, with increases in money demand associated with countries whose currencies are appreciating and decreases with countries whose currencies are depreciating. This tenet presumes that the demand for money in each country is heavily influenced by international investors' preferences for holding assets in particular national currencies, and that these preferences are speculative and unstable. Furthermore, it assumes that shifts in money demand across countries offset each other, leaving aggregate money demand, or world money demand, stable.

To take an illustrative example, a rise in inflationary expectations abroad may lead foreign investors to desire more U.S. assets, and less of their own, at given interest rates and exchange rates. This could increase the demand for U.S. money directly. Demand for U.S. money also could increase indirectly because the increased foreign demand for U.S. securities bids up their prices and lowers interest rates. Lower interest rates, in turn, increase the demand for U.S. money balances.

The result of the portfolio shift toward U.S. assets creates an excess demand for money in the United States and raises the value of the U.S. dollar in the foreign exchange market as investors sell off foreign assets and purchase dollar assets. Associated with the portfolio shift toward U.S. assets is a corresponding shift away from foreign assets that results in excess money supply abroad and foreign currency depreciation. World money demand remains stable, however.

Hence, world money advocates argue that demand for individual national monies is very unstable and is negatively correlated across countries because of the alleged predominance of erratic and frequent investor portfolio shifts. Unstable demand for individual national monies, in turn, undercuts the traditional monetarists' argument that steady growth in the national money stock will ensure economic stability.

### World money

The second basic approach taken by world money advocates holds that the nature of the present international monetary system necessarily links the U.S. money supply with that abroad, in effect, coordinating and exacerbating swings in business cycles across countries. This arises because the United States has the largest economy in the system and because the U.S. dollar is the primary reserve currency used by foreign

F RB S F Weekly Letter

Research Department  
Federal Reserve  
Bank of  
San Francisco

Opinions expressed in this newsletter do not necessarily reflect the views of the management of the Federal Reserve Bank of San Francisco, or of the Board of Governors of the Federal Reserve System.

---

central banks to intervene in the foreign exchange market.

Consider again a portfolio shift toward U.S. assets that induces an appreciation of the dollar. If foreign central banks attempt to prevent the dollar from appreciating, they would sell U.S. Treasury securities for dollars (foreign central bank reserves employed in exchange market intervention operations are primarily held in U.S. government securities) and purchase their own currency with the receipts. This process drains commercial bank reserves abroad and lowers the money supply of foreign countries, but it leaves the U.S. money supply unchanged. (This assumes that foreign central banks are either unwilling or unable to offset the effects of foreign exchange market intervention operations on their own money supply.)

Therefore, in the world money view, dollar appreciation is assumed to cause a decline in the composite average growth of various national money supplies—so-called world money growth—and to produce a deflationary effect on the world economy. Depreciation of the dollar, in contrast, leads to an increase in the rate of world money growth and has an inflationary effect on the world economy.

In sum, advocates of the world money hypothesis believe that the present managed-floating, dollar-standard exchange rate system is inherently unstable because monetary disturbances and erratic portfolio shifts affecting the dollar exchange rate are transmitted abroad, linking and coordinating business cycles across countries while exacerbating their deflationary or inflationary effects on the world economy. To achieve stable world money growth and, presumably, both national and international economic stability, they propose that major central banks fix national money growth trends individually at rates consistent with domestic price stability, and then adjust national money growth around those trends

to stabilize exchange rate parities. Countries feeling downward pressure on their exchange rates would slow money growth and countries feeling upward pressure would accelerate money growth. Monetary authorities would thereby accommodate portfolio shifts that create money demand disturbances across countries. World money growth would be stabilized as a result.

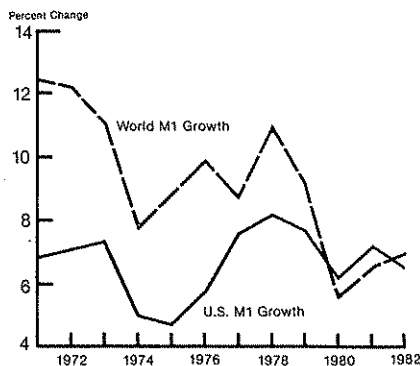
#### **Facts and fiction**

At first pass, certain aspects of the world money hypothesis appear quite plausible. Market commentaries seem to support the view that investor portfolio preferences readily shift and appear unstable in our present exchange rate regime. In addition, as the chart illustrates, swings in world money growth seem to be coordinated with U.S. money growth and to magnify that growth.

Empirical support for these points is difficult to find, however. First, there is little evidence to suggest that national money demand instability is related to shifts in the preferences of international investors. Moreover, empirical studies have found no compelling evidence that the currencies of the major industrial countries are highly substitutable for one another.

Second, although U.S. and world money growth rates are correlated, it is not clear that this link is caused by massive foreign exchange market intervention operations that are allowed to influence domestic money supplies. In fact, most studies show that foreign central banks generally do *not* allow exchange market intervention operations to affect their domestic money significantly. It appears more likely that major central banks face a common set of problems, e.g., oil price shocks, unemployment cycles, inflation, and so on, and react in similar ways to produce common cycles in money growth. Thus, world money advocates are correct in pointing out the undesirable consequences of coordinated business cycles that result when central banks follow

U.S. and World Money Growth



similar policies. They err, however, in their analysis of the process by which these policies are linked.

**Evaluation**

It therefore appears premature to propose an internationally coordinated monetary policy designed to stabilize exchange rates on the basis of the world money hypothesis. Admittedly, the rigid exchange rates favored by world money advocates will tend to insulate the domestic economy better than flexible rates in the face of large and erratic portfolio shifts across currencies. If the premise of unstable investor preferences for individual currencies were correct, greater exchange rate stability may well be preferable to our current managed floating regime. But, if the shocks come substantially from other sources, a system with greater exchange rate flexibility may be better.

For example, consider our present circumstances. Most economists believe that the exchange value of the dollar remains strong because of high U.S. real interest rates associated with the large credit demands of the federal government. This is a "real" disturbance and not necessarily a portfolio shift. Under the modified fixed exchange rate regime proposed by world money advocates, the Federal Reserve would purchase Treasury bills and expand the monetary base to finance government debt. In the short term, this expansionary policy may well hold down U.S. nominal and real interest rates and the value of the dollar in exchange markets. But this short-term gain likely would be bought at the expense of overheating the economy and would eventually cause higher domestic inflation. In this case, the exchange rate alone provides a misleading signal to the monetary authorities. Dollar appreciation is a result of credit market conditions and not a shift in money demand. Therefore, increasing the money supply to lower the dollar's value is the wrong policy response. In short, in the face of fiscal shocks, exchange rate flexibility will probably maintain stability in both prices

and real output better than stable exchange rates.

Indeed, nominal exchange rate flexibility is preferable to stable rates under a wide variety of circumstances, including other "real" shocks to the economy (e.g., a permanent oil price hike faced by a country heavily dependent upon oil-imports). The choice over the degree of exchange rate flexibility therefore will depend crucially on what types of shocks dominate the international economy, and this remains an unresolved empirical question.

These arguments do not deny that it is important for central banks to remain aware of each other's policies, and to coordinate their actions to some extent, in order to avoid exacerbating world business cycles. However, they do shed doubt on the desirability of the exchange rate as the sole indicator of monetary policy, and on the desirability of limiting exchange rate flexibility.

Beyond these theoretical and empirical concerns, the practical aspects of the world money proposal must be questioned. Namely, how likely is it that the world's major central banks would be willing to give up discretionary national monetary policy and employ a policy rule fixed to a world standard? The recurring financial crises that eventually led to the breakdown of the Bretton Woods system of fixed exchange rate parities suggests that economic shocks that cause national policies to diverge are not uncommon. The historical record does not encourage optimism toward the world money prescriptions.

**Michael M. Hutchison**

FIRST CLASS

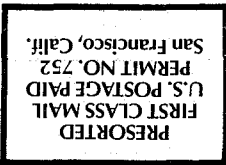
Alaska • Nevada • Oregon • Utah • Washington  
 Idaho • Arizona • California • Hawaii

San Francisco

Bank of

Federal Reserve

Research Department



**BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT**

(Dollar amounts in millions)

Selected Assets and Liabilities	Amount Outstanding 4/11/84	Change from 4/4/84	Change from 12/28/83	
			Dollar	Percent Annualized
<b>Large Commercial Banks</b>				
Loans, Leases and Investments <sup>1 2</sup>	177,391	- 582	1,366	2.6
Loans and Leases <sup>1 6</sup>	157,420	- 556	2,065	4.6
Commercial and Industrial	46,949	- 98	986	7.4
Real estate	59,551	- 10	652	3.8
Loans to Individuals	27,602	45	951	12.3
Leases	5,007	- 4	56	- 3.8
U.S. Treasury and Agency Securities <sup>2</sup>	12,313	72	194	- 5.3
Other Securities <sup>2</sup>	7,658	- 99	505	- 21.4
Total Deposits	189,866	794	1,131	- 2.0
Demand Deposits	46,639	895	2,598	- 18.2
Demand Deposits Adjusted <sup>3</sup>	31,253	2,194	78	- 0.8
Other Transaction Balances <sup>4</sup>	12,932	- 101	157	4.2
Total Non-Transaction Balances <sup>6</sup>	130,295	0	1,310	3.5
Money Market Deposit Accounts—Total	40,638	- 90	1,041	09.1
Time Deposits in Amounts of \$100,000 or more	38,042	81	123	- 1.1
Other Liabilities for Borrowed Money <sup>5</sup>	17,208	88	5,799	- 87.3
<b>Two Week Averages of Daily Figures</b>	Period ended 4/9/84	Period ended 3/26/84		
<b>Reserve Position, All Reporting Banks</b>				
Excess Reserves (+)/Deficiency (-)	273	188		
Borrowings	53	44		
Net free reserves (+)/Net borrowed(-)	220	144		

<sup>1</sup> Includes loss reserves, unearned income, excludes interbank loans

<sup>2</sup> Excludes trading account securities

<sup>3</sup> Excludes U.S. government and depository institution deposits and cash items

<sup>4</sup> ATS, NOW, Super NOW and savings accounts with telephone transfers

<sup>5</sup> Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources

<sup>6</sup> Includes items not shown separately

Editorial comments may be addressed to the editor (Gregory Tong) or to the author . . . . Free copies of Federal Reserve publications can be obtained from the Public Information Section, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.