This essay by Lewis E. Lehrman, a brilliantly successful businessman turned scholar-speculator, is long but lucid. We are publishing it because it explains so much of what is happening now in the complex interrelationship between Fed policy, inflationary expectations, the financial markets, and the price of gold. Its message is of ultimate importance. This essay presents among other things what could be the economic and political issue of the 1980s -- why the world must return to the disipline of the gold standard.

In any case, whether they agree with its conclusions or not, I hope all serious investors and concerned citizens will be stimulated by the analysis and the ideas presented in this work. Obviously, the opinions expressed are those of the author and not necessarily those of Morgan Stanley.

Barton M. Biggs
January 29, 1980

About the Author

Lewis E. Lehrman is president of the Lehrman Institute, an organization dedicated to economic research and public policy studies. He was formerly president of Rite Aid and is currently chairman of that corporation's executive committee. Born on August 15, 1938, Lehrman graduated in 1960 from Yale University with a B.A. in history and spent the following year at Yale as a Carnegie Teaching Fellow. He was awarded an M.A. in history and government from Harvard University in 1962 where he was a Woodrow Wilson Fellow.

MONETARY POLICY, THE FEDERAL RESERVE SYSTEM, AND GOLD

I. A Brief History of the Monetary System

II. The Economic Consequences of Central Bankers

III. Towards True Monetary Reform and a Sound Currency

January 25, 1980

I: A Brief History of the Monetary System

World War I ended the preeminence of the classical European states system. It also decimated the flower of European youth and destroyed the continent's unparalleled industrial productivity. No less significantly, on the eve of war, the gold standard -- the proven guarantor of one hundred years of price stability -- was suspended by the belligerents. The onset of war and the prospect of inflationary war finance made untenable the maintenance of currency convertibility into gold. In order to stem a run on the gold supplies of the central banks, the governments of Europe ceased to honor the gold clauses backing their currencies. Between 1914 and 1924, the monetary policies of the European central banks destroyed most national currencies. The Age of Inflation was upon us. Writing as early as 1919, while attending the Paris Peace Conference, John Maynard Keynes argued that there was no surer means of "overturning the existing basis of society than to debauch the currency." The process of inflation, he warned, "engages all the hidden forces of economic law on the side of destruction, and does it in a manner which not one man in a million is able to diagnose."

The suspension of the prewar gold standard in 1914 led, during the next decade, to the great paper money inflations in France, Germany and Russia -- among other European countries. The ensuing convulsions of the social order, and the virtual obliteration of the savings of the middle class, led directly to the rise of Bolshevism, Fascism and Nazism. Revolution, during and following the Great War, was closely associated with the ruination of inconvertible European paper currencies.

Over fifty years later, one observes -- at home and abroad -- the rapid disintegration of the value of the dollar. Inflation is again upon us; but today it is simplistically described as "too much money chasing too few goods." In fact, inflation represents a decline in the value of money. Similarly, the astronomical rise of the price of gold is merely the other side of the same coin -- i.e. the fall of the dollar. This entire process gradually got underway after the early phases of the Great Depression (1929-32), when Franklin D. Roosevelt abruptly terminated the domestic gold standard (1933) and subsequently (1934) reduced the value of the dollar by raising the price of gold from $20 to $35 per ounce. Constitutional questions arose over the authority of the President to violate the value of dollar contracts stipulated in gold. The doubtful power of the Congress subsequently to pass laws prohibiting gold clauses in U.S. contracts gave rise to landmark legislation. Congress was challenged in the Supreme Court, which then upheld Roosevelt and the legislature. Gold contracts were pronounced dead: they were declared by the Congress to be "against public policy." As a result, American citizens were prohibited by law from owning gold, a right recently restored in January 1975. The dollar was, as the phrase went, no longer "as good as gold." Rather, the dollar would in the future be a managed currency, whose value would be substantially determined by the opinions of the Board of Governors of the Federal Reserve Bank.

Ten years after Roosevelt's devaluation of the dollar, the Bretton Woods Agreement in 1944 codified the central bank decisions taken at the Monetary Conference of Genoa held in 1922. The gold-exchange standard had been confirmed in Genoa where the dollar and the pound sterling were

defined as de facto official reserve currencies. Gold was to be economized. To do so, dollars and pounds, instead of gold, were in the future to be exchanged by central banks to settle balance of payments deficits. The Bretton Woods Agreement merely reestablished the dollar as the post-World War II "official" reserve currency. Thereafter it would be the "numeraire" of all world monetary values. The values of foreign currencies were to be determined by their relationship to the dollar. In turn, the dollar derived its value, under the agreement, by virtue of its convertibility into gold -- for foreigners, but not for American citizens. Thus the Bretton Woods Agreement wrote into international law the "official" reserve currency status of the dollar which, as a practical matter, had prevailed for the preceding 22 years.

During the 1940s and 1950s the world lived through a "permanent dollar scarcity" as Europe struggled with its inflationary disorders. During this period the dollar remained the epicenter around which other fluctuating currency systems orbited. But after 1958, the western European governments restored the mutual convertibility of their currency systems. From that very day, when the once prostrate nations of Europe hardened the value of their national monies, the U.S. has experienced virtually a "permanent" balance-of-payments deficit. Overnight, the "permanent dollar scarcity" of the 1950s became "the permanent dollar glut" of the 1960s and 1970s.

Throughout the 1960s the external deficit of the dollar, generated by expansive U.S. monetary policies, led to annual foreign exchange crises. The Bretton Woods system groaned under the flood weight of

excess U.S. dollars, awash in financial markets abroad, where perforce they were accumulated in the official foreign exchange reserves of our trading partners. Since the U.S. dollar was now the primary reserve currency, foreign central banks were in effect required to purchase the excess dollars against the creation of their own monies. It was during this period that Special Drawing Rights (SDRs), so-called paper gold, were invented in order to avoid a "potential liquidity shortage" in world reserves. Indeed, it was argued that the SDR, an artificially created reserve asset allocated by the IMF, was necessary to finance growing world trade. But as one commentator remarked, the creation and allocation of the SDRs reminded him of irrigation plans during a flood.

More was to come. When President Johnson decided simultaneously to expand the Vietnam War and to build the Great Society, he moved, with the consent of Congress, to void the statutes which limited, by virtue of a stipulated gold cover, the amount of currency and credit which the Bank of Issue, the Federal Reserve System, could create. In a word, the gold cover for dollars was terminated. And, predictably, with the discipline of a legally-required gold cover brushed aside, the balance-of-payments crises intensified. The Federal Reserve System simply created the money to finance the President's war budgets and his Great Society deficits, now unimpeded by any statutory rule limiting the growth of the money supply.

Lyndon Johnson even put an end to the use of silver in the production of U.S. coins. The vast silver hoard of the U.S. Treasury, part of the patrimony of every American taxpayer, was liquidated in the market at

about 90¢ per ounce. Next, in March 1968, Johnson suspended the London Gold Pool. For almost a decade, the Gold Pool had underwritten the shaky Bretton Woods convertibility agreements by selling gold to redeem foreign dollars at the fixed $35 per ounce.

These dramatic changes were welcomed by the academic and policy-making communities. Gold and silver were "outdated," declared the "experts." Professional economists -- Keynesians and Monetarists alike -- proclaimed the coming of a new era of central bank "managed money." Monetarists promoted a steady growth in the money supply, a fixed "quantity rule" -- to be achieved through open market operations by the Fed in the buying and selling of U.S. government securities for the portfolio of the central bank. Keynesians offered "countercyclical" monetary management, a variable quantity rule, largely to accommodate their hyperactive fiscal policies. Within these same schools of thought, the Bretton Woods fixed exchange rate regime was also found wanting. But what both Monetarists and neo-Keynesians sought was not the reform of Bretton Woods, but rather, its demolition. They advocated managed currency, floating exchange rates and the demonetization of gold -- in a word, an end to fixed-exchange-rate regimes. These monetary doctrines soon became the fashionable credos propagated by academic economists and policy makers. Henry Reuss, Chairman of the House Banking and Currency Committee, went so far as to predict that when gold was demonetized, it would fall to $6 per ounce.

Nixon followed Johnson and gradually went through his own conversion to Keynesian economics ("We are all Keynesians now"). But he also

absorbed some of the teachings of the Monetarist School -- floating exchange rates in place of the Bretton Woods fixed rate system. On August 15, 1971, Nixon defaulted at the gold window: he refused to redeem excess dollars for gold as the British government had demanded a few days earlier. Thus Nixon globalized in 1971 the demonetization of gold, begun -- on the domestic front -- by FDR in 1934. The last vestiges of an official domestic and international gold standard had been abrogated by the undisputed leader of the free world.

Most of the conventional economic forecasts of the day predicted a secular fall in the gold price. Lenin had once observed that gold should henceforth adorn the floors of latrines. Since, according to the experts, gold was no more than a "barbarous relic," its value must decline. The price of gold remained below $40 until 1972. It rose to $200 in 1974 as Watergate, inflation and war upended the Nixon administration. In 1974, monetary policy was abruptly tightened: thereafter, gold gradually declined to a low of $106 in 1976. It then fluctuated under $150 as President Ford prepared to leave office and Jimmy Carter took over in the White House.

This brief history is important for several reasons. Neo-Keynesians and Monetarists, if they concurred on nothing else about monetary policy agreed (1) on the superiority of a central-bank-managed currency (a quantity rule, variable or fixed) over a currency with a fixed real value (a price rule); (2) on the superiority of a floating exchange rate system over a fixed rate system; and, finally, (3) in an era of modernity, they agreed on the irrelevance of old-fashioned gold to contemporary

monetary theory and policy.

II: The Economic Consequences of Central Bankers

Our present predicament resembles the last act of an unfolding drama which has been underway for two generations.

During the past three years, President Carter, Secretary of the Treasury William Miller, and Chairman of the Federal Reserve Board Paul Volcker have become the principal actors on the stage of monetary history. The actors posture and declaim their intentions to control the price level, but their policies and deeds are, it appears, without substance and effect. The nation is engulfed by inflation. No policy seems to work.

President Carter inaugurated his administration in 1977 with an appeal to the rhetoric of austerity -- pledging, among other things, to balance the federal budget. The price of gold promptly rose to over $150. A year later Carter replaced Arthur Burns with William Miller as Chairman of the Federal Reserve Board. But by the autumn of 1978 the dollar had collapsed and gold was approaching $250. Then, on November 1, 1978, new policies -- designed to control the money supply and to arrest the fall of the dollar -- were announced. Gold fell to $200 within 30 days. But by the middle of 1979 gold was once again rapidly rising to $300, and into the summer the dollar continued to fall on foreign exchange markets.

Thereupon, and amid much fanfare, Paul Volcker was summoned from

the New York Fed to replace Miller, as Fed Chairman Miller in turn replaced Michael Blumenthal at the Treasury. Surely, said the experts, this change would work. After all, Paul Volcker was a "conservative Democrat" and a professional central banker. Nevertheless, speculation dominated all the financial and commodity markets during August and September 1979. Gold vaulted to $450 in September. Volcker returned from the International Monetary Fund meeting at Belgrade in time to announce new monetary guidelines on October 6, 1979. The new rules, acclaimed by many as truly "conservative," included, it was said, a tight monetary policy and dramatic new operating procedures sufficient to achieve a stable dollar, slow the rate of money and credit growth, and stop commodity speculation in general and gold speculation in particular.

Three months later, as the gold price touched $850 on January 18, 1980, Henry Wallich, a former Yale Economics professor and now a Fed Governor, reaffirmed the new Fed policies in an article appearing in the Journal of Commerce:

> The core of the Federal Reserve's Oct. 6 1979 measures, more important than the rise of the discount rate and the imposition of marginal reserve requirements, is the new technique of controlling the money supply. Basing this control upon the supply of bank reserves (my emphasis) gives the Federal Reserve a firmer grip on the growth of the monetary aggregates....The Federal Reserve's only lasting and fundamental power over interest rates is through the effect of its policies upon inflation.

Chairman Volcker himself stated at the National Press Club in early January that he had not changed his principal policy goals -- which were: (1) to reduce unhealthy gold, commodity, and takeover speculation; (2) to operate more to control bank reserves at the Fed and less to control interest rates; (3) to generate a steady growth of money at a lower rate; (4) to insure stability in the foreign exchange markets; and, (5) of course, to reduce the inflation rate.

At that same meeting Volcker observed that the gold market was going its own way and had little to do with the Fed's monetary policies. The gold market is but "a side show," added Henry Wallich, while Secretary Miller allowed that the Treasury would sell no more gold during these "uncertain and uncharacteristic times." (Presumably this meant that whereas over half the vast U.S. gold stock had been a "good sale" at prices ranging between $35 and $200, now, in the manner of the proverbial odd-lotter, the Secretary considered gold a "strong hold" at $800.)

To recapitulate: between October 6, 1979, and January 18, 1980, the price of gold had catapulted from approximately $440 to $850. Moreover, on January 18, long-term U.S. Treasury bonds -- i.e., pure interest risk securities most sensitive to inflation expectations -- collapsed to all time lows, even below those prices prevailing in the demoralized Treasury markets following the October 6, 1979, monetary policy changes.

On January 21 Henry Wallich observed in The Journal of Commerce:

"To the extent that interest rates are determined by inflation expectations, which is highly plausible at least for medium and long term rates, the expectation of its continuance would become directly operative as a factor holding up interest rates." Between January 21 and Friday, January 25, the medium and long term U.S. government bond market was shattered, falling to prices unmatched in the history of U.S. government securities markets.

If we use Mr. Wallich's long term interest rate indicators, as defined above, it would appear that inflationary expectations have risen to unprecedented levels not quite four months after the announcement of the Fed's October 6 stabilization policies.

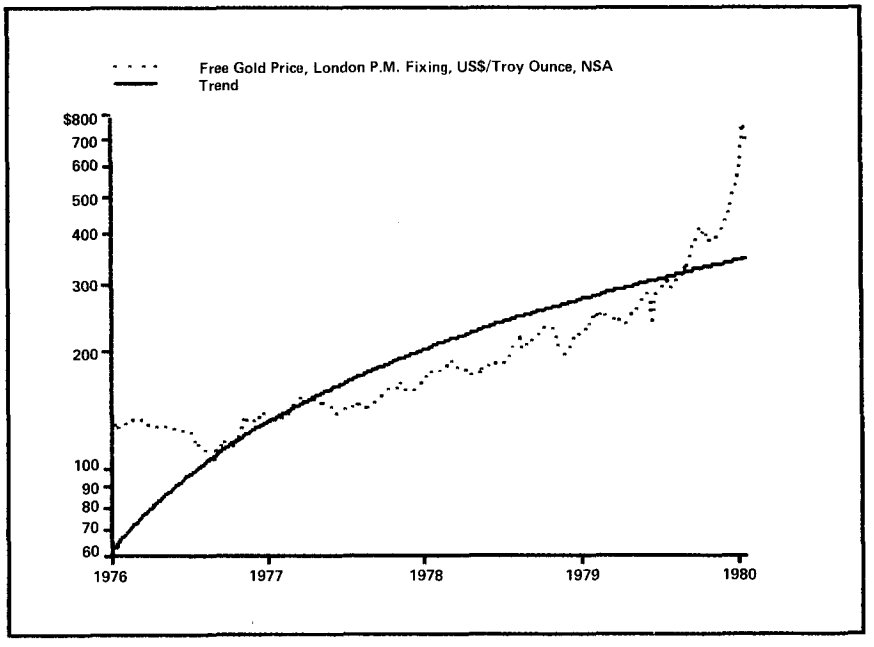
Finally, also on January 18, commodity futures prices, following the gold lead, closed at a record high index of 290.0 -- up from 280.2 a week earlier, and up 25% (from 232.6) since one year ago. (It should be noted that the Commodity Research Bureau's index of future prices does not include gold among its 27 farm and industrial commodities.) On January 25, the gold price stood at $634 and the CRB index was 287.6.

What caused the exponential rise and the violent fluctuations of the price of gold and the simultaneous collapse of the U.S. government securities market between early December 1979 and January 25, 1980? Indeed, the surging prices for asset-based equities and commodities suggest that the new monetary policy proclaimed on October 6 has intensified rather than quelled speculation. The contradiction between goals announced and results achieved requires explanation.

To begin with, can it really be true that the Fed's monetary policy has little or nothing to do with the gyrations in the gold market?

Let us start by considering some pertinent statistical information:

Figure I shows the fluctuations in the price of gold during the past few years.



Source: Chase Econometric Associates Data Base

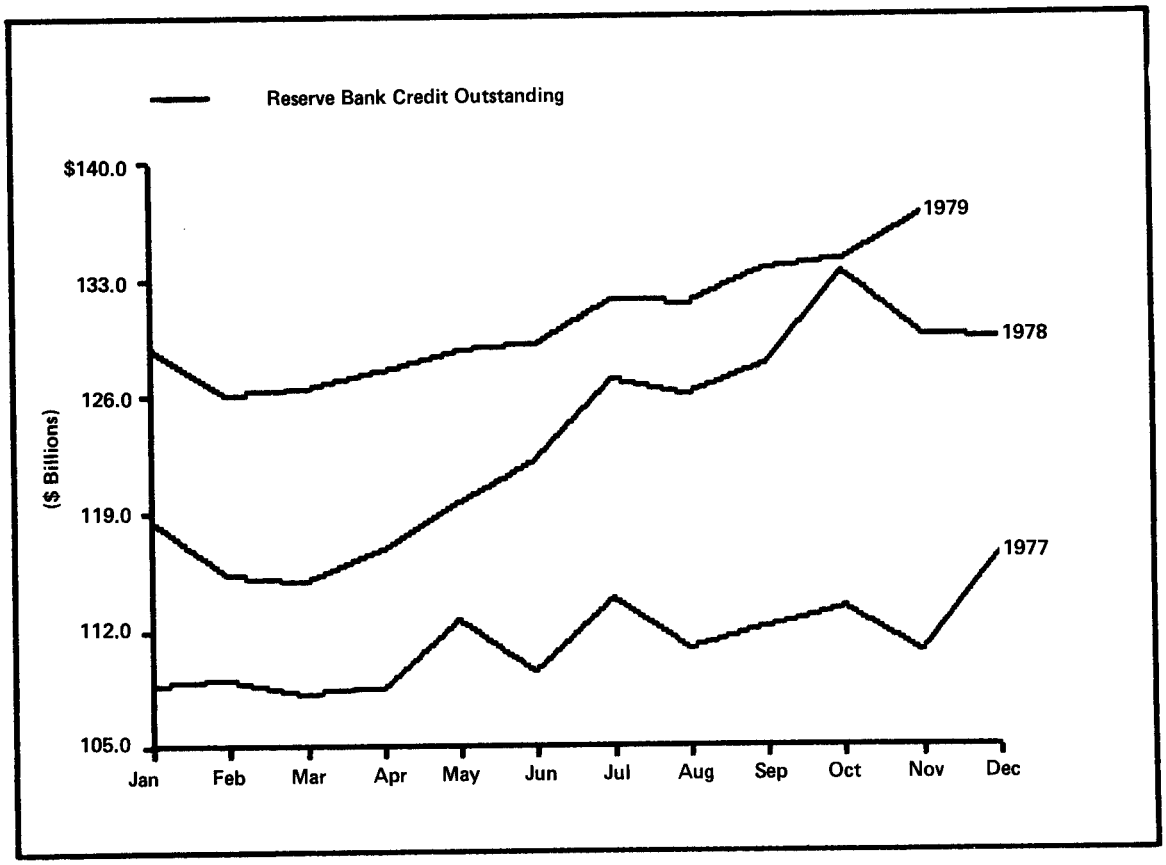
Figure II shows the annualized rates of growth of certain monetary aggregates during the past 18 months.

	7/5/78 to 7/4/79	7/4/79 to 10/3/79	10/3/79 to 1/2/80	12/5/79 to 1/2/80
Monetary Base	7.7	11.8	7.8	10.7
Bank Reserves*	3.0	11.1	11.7	19.5
Currency	9.9	12.2	6.1	7.0
Federal Reserve Credit*	8.3	13.6	11.7	13.7
M-1	4.8	10.6	2.7	7.0

*Adjusted

Source: Merrill Lynch

Figure III shows the rate of growth of Federal Reserve bank credit in 1977, 1978 and 1979, in billions. (Note that the curve rises even more rapidly toward year-end, after October 6, 1979, under Volcker than it did under Miller after November 1, 1978.) The numerical points on the curve are the averages of daily figures of the last week of the month, as published in the Wall Street Journal.



Source: Chase Econometric Associates Data Base

Figure IV shows the average weekly growth in total Federal Reserve Bank credit from August 1979 to January 1980, roughly coterminous with Volcker's tenure. The second column shows the magnitude of growth over the comparable week of the preceding year. The next column gives the average monthly figures for total FRB credit during 1976.

Date	FRB Credit*	Annual Change from Preceding Year*
8/29/79	$131/926	+$4,077
9/5/79	$133,126	+$7,008
9/12/79	$131,823	+$7,921
9/19/79	$133,799	+$6,950
9/26/79	$134,244	+$1,852
10/3/79	$135,472	+$2,689
10/10/79	$133,231	+$1,492
10/17/79	$135,424	+$1,150
10/24/79	$135,321	+$1,233
10/31/79	$135,949	+$2,453
11/7/79	$134,508	+$5,497
11/14/79	$135,412	+$8,416
11/21/79	$138,651	+$8,234
11/28/79	$138,114	+$7,460
12/5/79	$137,906	+$8,463
12/12/79	$138,552	+$12,855
12/19/79	$139,100	+$9,456
12/26/79	$141,458	+$10,151
1/2//80	$143,528	+$10,850
1/9/80	$140,979	+$12,062
1/16/80	$139,663	+$10,044
1/23/80	$138,077	+$10,361

* In millions
** In billions

1976	FRB Credit**
January	$100.2
February	$101.4
March	$101.3
April	$100.3
May	$103.0
June	$103.1
July	$104.8
August	$105.4
September	$105.9
October	$107.3
November	$106.5
December	$107.8

Source: Federal Reserve Bank of New York

Figure V shows a typical summary of the basic Federal Reserve balance sheet, as it is published in the Wall Street Journal every Friday. A different format is published by the New York Times on the same day. Both lack the necessary detail to analyze precisely the weekly operations of the central bank. The detail may be obtained on Friday directly from the New York Federal Reserve Bank.

Changes in weekly averages of member bank reserves and related items during the week and year ended 1/16/80*

RESERVE BANK CREDIT	1980	CHANGES FROM WEEK ENDING 1/15/80	1/9/79
U.S. Government Securities			
Bought outright	118,713	- 76	+11,582
Held under repurchase Agreement	...	...	...
Federal agency issues:			
Bought outright	8,216	...	+ 324
Held under repurchase agreement	...	...	...
Acceptances (bought outright)			
Held under repurchase agreement	...	...	...
Member bank borrowings	1,149	+ 478	+ 351
Seasonal bank borrowings	74	+ 13	- 24
Float	6,192	-1,461	- 3,162
Other Fed Assets	5,319	- 309	+ 933
Total Reserve Bank credit	139,663	-1,355	+10,004
Gold stock	11,172	- 51	- 437
SDR certificates	1,800	...	+ 500
Treasury currency outstanding	12,973	+ 17	+ 1,109
Total	165,608	-1,286	+11,176
Currency in circulation	123,375	-1,469	+10,776
Treasury cash holdings	440	+ 10	+ 193
Treasury deposits with Federal Reserve Banks	3,281	+ 469	- 21
Foreign deposits with Federal Reserve Banks	283	- 89	+ 6
Other deposits with Federal Reserve Banks	321	- 111	- 465
Other Federal Reserve liabilities			
ities and capital	5,012	+ 271	+ 522
Total	132,712	- 919	+11,011
Member bank reserves with Federal Reserve Banks	32,896	- 368	+ 165
Cash allowed as reserve	13,506	+2,147	+ 1,515
Total reserves held	46,573	+1,766	+ 1,713
Required reserves	45,988	+1,420	+ 1,532
Excess reserves	585	+ 346	+ 181
Free reserves	-564	- 132	+ ...

* In millions of dollars

Source: Wall Street Journal

Figure VI shows the long term bond yields since the October 6, 1979 measures.

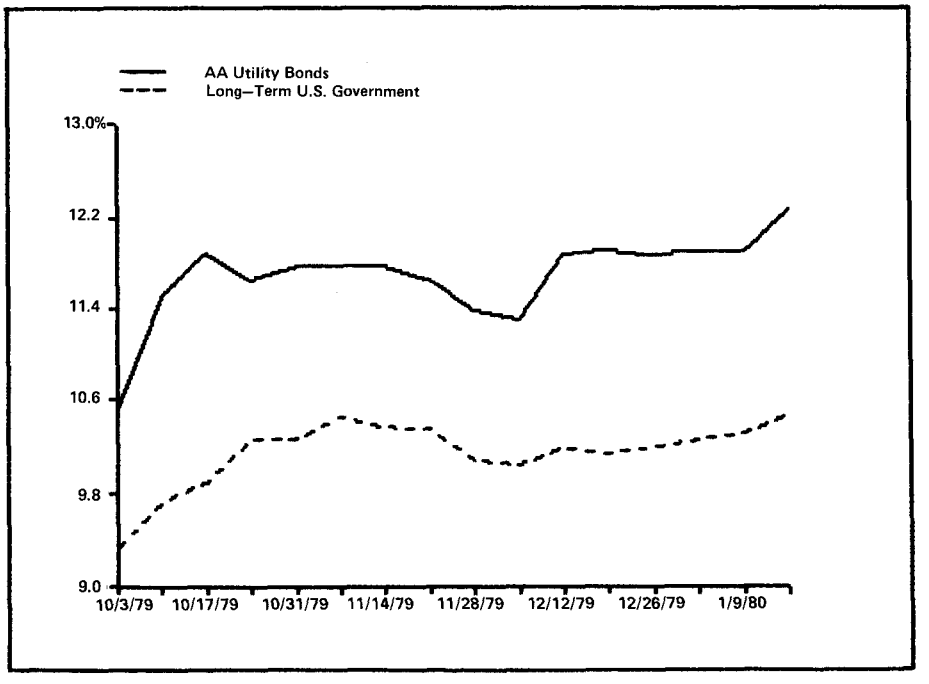
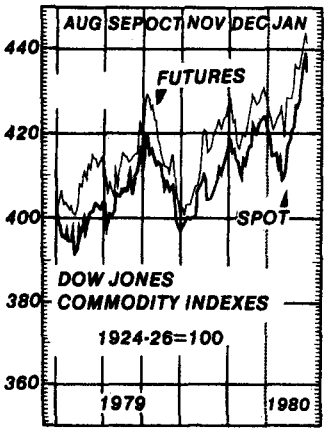
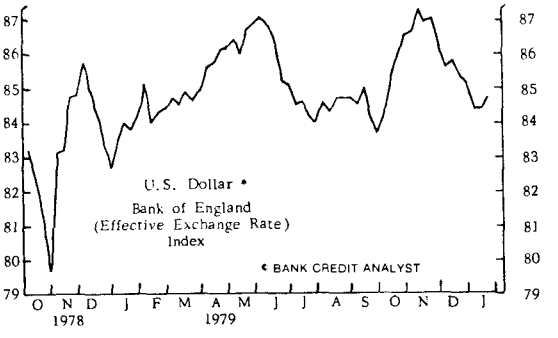


Figure VII shows the Commodity Market's direction since Volcker's appointment as Chairman.



Source: Wall Street Journal

Figure VIII shows the fluctuations in the exchange rate of the dollar. Compare the rise and fall in the value of the dollar with the rise and fall in total Federal Reserve Bank credit. With modest leads and lags there is an unmistakable association between the movements of the two curves.



Source: © Bank Credit Analyst, BCA Publications, Ltd.
1010 Sherbrook St. West, Montreal, Canada H3A 2R7

A more detailed analysis of this statistical evidence yields some interesting comparisons.

Let us look first at the curves of Figure III which show the direction and rate of growth of total Federal Reserve Bank (FRB) credit. FRB credit is the amount of government securities, acceptances, advances, float, and other financial assets owned by the Fed. FRB credit (the Fed's financial assets) is essentially the counterpart of the monetary base, i.e., commercial bank reserves and currency (the financial liabilities of the Fed). The balance sheet of the central bank is not unlike that of any other bank. Its financial assets consist primarily of gold certificates, loans or advances (to commercial banks), and securities. The central bank's liabilities are its capital accounts, its "promissory" notes (currency) and its deposit liabilities (so-called bank reserves, which are the cash balances maintained by commercial banks). Now if the Fed intends to achieve its October 6 goal of restraining the growth of credit, presumably the Fed should begin with what it can directly control, namely the amount of credit it extends to the commercial banking system.

The point to be made is that total FRB credit accelerated, as Figure III shows, during the last few months of 1979 compared to the same period of 1978. And so did the price of gold. But is this the only correlation one observes in the charts, between the rise in total Federal Reserve Bank credit and the rise in the price of gold? Let us go back to 1976 and look. During 1976 total FRB credit remains steady at about $100 billion during the first four months. Note that the gold

price is steady to falling. But between May 1976 and December 1978, total FRB credit rises to over $107 billion. With a short lag the gold price stops falling at $106 per ounce and starts up, reaching $135 by year-end. FRB credit peaks at year-end and then remains steady, oscillating around $110 billion during the first half of 1977. Similarly, in the summer of 1977, the gold price is only a little above where it was at 1976 year-end. During the second half of 1977 total FRB credit rises toward the $120 billion mark. Up goes gold toward $175. Fed credit peaks at year-end and, with a short lag, so does the gold price in late winter. In March 1978, total FRB credit starts up again, this time to reach over $130 billion at year-end. The gold price rushes upwards to $250. FRB credit peaks after the Miller monetary policy changes of November 1, 1978 and so does the price of gold. FRB credit declines and stabilizes through the winter of 1978-1979 and so does the gold price, remaining under $250 from November 1978 to early spring of 1979.

Beginning in April of 1979 total FRB credit advances rapidly from just over $125 billion, reaching $143.5 billion during the week ending January 2, 1980. During this same period FRB credit is steady for only six short weeks, between October 3, 1979 (immediately before the Volcker moves) until November 14 (just about the time of the Iranian deposit freeze). Between November 14 and January 2 total FRB credit rises from $135 to $142 billion. In parallel, and after a short pause, the gold price takes off from $250 in the spring of 1979, tops out at $450 with the October 6 Volcker moves, declines and steadies under $450 for a few weeks in October and early November (at a low of $372) and then vaults to $850 by January 15. Total FRB credit then declines for two weeks

from its peak of $143.5 billion on January 2, 1980 to $138,077 during the week ending January 23, 1979. On January 25, at the time of this writing, the gold price has declined to $634.

I do not claim that the lagged correlation between the rise of total FRB credit and the rise in the gold price is perfect. But there is a compelling association of the two. Indeed, almost every reacceleration of FRB credit between January 1976 and January 1980 tends to be accompanied, after a varying but short lag, with a logarithmic acceleration of the rise in the price of gold. Indeed, this more than proportional rise in the gold price may be explained by the increasing sensitivity and reaction speed of market participants to information which suggests that the Fed is expanding credit, rather than, as the chairman of the Fed says, contracting or stabilizing credit. This increasing sensitivity of market participants suggests a confirmation of the much discussed theory of inflationary expectations. That is, in response to each new injection of Fed credit, individuals and businesses move ever more decisively to protect themselves against inflation in general. Each successive protective move gives rise to disproportionate rises in the prices of the protective mechanism in particular, in this case gold, the ultimate hedge against credit inflation from time immemorial.

Next, a look at Figure II shows that M-1 (currency plus demand deposits) exploded upward at a 10.6% rate during the six months before October 6, 1979. So did the price of gold (see Figure I).

This raises a very simple question. Does one observe in the more

conventional monetary aggregates, say M-1 and bank reserves, any correlation with gold price variations? In fact, after October 6, M-1 growth slowed down for several weeks. The price of gold stabilized during that exact same period. Similarly, during the last six weeks of 1979, M-1 growth accelerated noticeably. And the price of gold doubled.

Now one might conceivably argue that the rate of change in M-1 and the rate of change in the price of gold are only approximately correlated and are therefore not entirely convincing. Perhaps larger positive variations in monetary magnitudes are required to explain the gold price changes. Let us, therefore, observe the rate of change in bank reserves. After all, Chairman Volcker and Fed Governor Wallich have remarked that these reserves are now directly the target of central bank operating techniques. Therefore, the trend growth of bank reserves should indicate changes in Federal Reserve operating policies, as they are actually implemented by the open-market desk at the N.Y. Fed.

To begin with, it can be seen in Figure II that bank reserve rates of gain accelerated almost four-fold, from 3% to 11.1%, during the 13 weeks before October 6. During the steady 3% growth period -- from the summer of 1978 until the late spring of 1979 -- the price of gold oscillated in the modest range (at least by today's standards) between $200 and $250. As bank reserve growth accelerated from 3% to 11% between July and September 1979, the gold price curve, with only a short term lag, arched exponentially toward $450. This rise then stopped, coterminously with the October 6, 1979 announcements.

For about two months, bank reserve growth seemed to have stabilized --and so did the price of gold -- below $450. Then, once again, bank reserve growth rates almost doubled, from 11.7% to 19.5% during December 1979. At that point, the price of gold headed into the wild blue yonder -- toward $800.

Focusing on the bank reserve component of the monetary base makes sense because market participants largely determine the volume of the other component of the monetary base -- namely, currency. The users of money in the market demand the quantity of currency they desire to hold, while the central bank, through open market operations and the discount window, substantially determines the level of bank reserves at the margin.

The change in composition in the monetary base during the past six weeks, i.e., the decline in currency accompanied by rapid bank reserve growth, is especially alarming. As we know, bank reserve growth has a much more dynamic impact on the potential growth of credit and of the money supply. Moreover, by the Fed's own declarations since October 6, 1979, it tends to indicate the direction of Federal Reserve monetary policy.

Imagine for a moment a foreign gold speculator who has read the various Volcker and Wallich statements as well as the October 6 "prospectus" and who has also been observing recent bank reserve growth rates. Certainly he would conclude that one should not look at how a U.S. central banker moves his lips, but rather how he moves his feet.

In this particular case he would watch the growth in the "footings" of the central banker's balance sheet. After all, the foreign gold operator may also operate in the foreign exchange market. Consider Figure VIII which charts the movement of the dollar on foreign exchange markets. There, too, one sees that the value of the dollar, on a trade-weighted basis, had been falling before October 6, 1979 paralleling the rapid growth in bank reserves. The fall of the dollar terminated abruptly following the Fed announcements on October 6. The dollar then rose in foreign exchange markets by approximately 3.25% during the next six weeks, a period corresponding precisely with the steadiness of Total Federal Reserve Bank Credit (at around $135 billion) during October and early November (see Figure IV, October 3 to November 14). But as "total federal credit" expanded once again, beginning in the third week of November, the dollar resumed its decline and fell approximately 2.75% by early January. Since January 2, 1980, total Federal Reserve Bank credit has fallen from $142 billion to $138 billion at January 23. During the market week ended January 25, the dollar stabilized and began to rise modestly on the foreign exchanges.

Like any commercial bank, the central bank largely determines the volume and composition of its particular financial assets, i.e., total Federal Reserve credit, even if it influences only indirectly the monetary aggregates, M-1 and M-2, in general. Between November 14 and January 2 observe the path of growth of total FRB credit indicated in Figure IV. Figure II (above) shows acceleration to a 13.7% rate of growth in total Federal Reserve credit between December 4, 1979 and January 2, 1980. Taken together with the 19.5% growth of bank reserves

during December (and even considering seasonality requirements), one may deduce from these rates of growth an alarming inconsistency with the stated goals of Chairman Volcker's October 6 monetary policy. It appears that hyperactive open market operations by the Fed only succeeded in amplifying substantially its portfolio of securities, thereby expanding credit at a varying but escalating rate until January 2, 1980.

Several other indicators of Federal Reserve policy should also be noted. First, note the discount rate which stands today at 12% (where it has been since October 6, when it was raised 1%). The discount rate is, of course, the rate at which the central bank lends reserves ("discounts") to commercial banks in order for the banks to meet their statutory reserve requirements. Upon these "loaned" reserves, the banks expand credit. During the week of October 10, 1979, right after the Volcker announcement, these "discounts at the window" (loans) to the commercial banks averaged $938 million (including seasonal). Yet on the weekly settlement day, January 16, 1980, these same loans to commercial banks had expanded to $1.718 billion, having risen to approximately 4% of all the required reserves of the banking system.

Consider what it means that the discount (or central bank lending) rate is still at 12% (January 26). But the prime rate is 15¼%. Commercial paper rates are over 13%; 6 month CD rates are over 13% in the after market. Coupon equivalent yields on 6 month U.S. Treasury bills are close to 13%. Bankers acceptances, prime financial assets, are over 13%. Now, compare these rates in the market to the discount rate at the central bank. We conclude that, in effect, the Federal Reserve system

is subsidizing the commercial banks -- with taxpayers' dollars -- by loaning them money at 12%, which the banks then relend at 15% and more, at different levels of risk. Indeed, if the banks desire no loan risks, they can still maintain and increase their government securities portfolios which yield more than a subsidized marginal borrowing rate, i.e., 12% (the discount rate) at the Federal Reserve System. If a banker can make a profit on a government subsidy, he will -- he would be foolish not to do so. Thus, the government, while proclaiming tight money, is subsidizing the expansion of credit by maintaining the discount rate, on marginal borrowings by the banks, below market rates of interest.

One should keep another set of relations in mind: the central bank lends to the commercial banks at 12%; the commercial banks lend to market participants at 15¼%. But the annualized inflation rate in December was about 14%. Now, the "real" rate of interest is the market rate minus the inflation rate. Therefore, the real prime rate of interst is about 1¼%, 15¼% minus 14%. At this price, 1¼% interest, there is a surfeit of borrowers who think they can earn more than the cost of new credit. Ineluctably, they borrow and credit expands.

The fact that the Fed raised the discount rate to 12% on October 6 was an empty gesture. The new rate is still a subsidy to credit expansion. Indeed, the Fed's discount rate policy is perverse. It gives rise to increasing credit creation, the consequences of which are diametrically opposed to the stated goals of the Federal Reserve Bank as proclaimed by its Chairman on October 6.

Moreover, the Fed's November 1, 1978, and October 6, 1979, policies of raising marginal reserve requirements on incremental sources of commercial bank funds have also proved to be ineffectual. By raising the cost of funds to domestic banks, the Fed has merely succeeded in driving more of our banking system offshore or into the hands of foreigners.

In sum, the Fed's discount rate policy is a non-starter. It is a subsidy to credit expansion. The higher reserve requirement policy is ineffectual. The higher cost of funds may decrease the demand for credit, but the Fed has not reduced the supply. Moreover, increasing marginal reserve requirements causes the export of the U.S. banking system to lower cost banking centers. Surely, open market operations have failed. They have not stabilized the growth in bank reserves according to the October 6 goal. Rather, open market operations have merely added to the central bank's portfolio of securities, thereby creating excess cash balances in the market which intensify the rise in the price level at home and the fall of the dollar abroad.

Furthermore, if the point of the Fed's dramatic announcement on October 6 was to underline its intention to shift policy from interest rate targeting to a supply-side control of bank reserves, then we can draw only one of several conclusions: (1) Chairman Volcker had good goals and noble intentions in mind, but he does not actually know how to achieve them. (2) The Chairman believes in the goals he announces, but the Federal Open Market Committee (FOMC) staff and the staff at the N.Y. Federal Reserve Bank open market desks are pursuing different goals. (3) The Chairman does not study his own balance sheets. Therefore, the

central bank is a ship at full sail with no rudder: the helmsman has no compass; he does not know where he is headed. (4) The Chairman is about to change course and will actually achieve his original objectives in the coming months, even though the evidence suggests he has failed during the past 15 weeks. (5) The Chairman has been dissimulating all along. I rule out opinion (5) because I know and respect Paul Volcker. Any one -- or a combination of all four -- of the other options might be correct. About (4) especially we can only speculate; one can go long, short, or stay out of the bond market. To guess wrong is to suffer losses.

There have been many plausible "political" interpretations of the rise in speculation in markets for commodities, stocks and gold during 1979. U.S. policy-makers especially have attributed the "side show" of the gold price rise to, among other things, the Iranian deposit freeze, fear of global war, and additional oil price rises. But the truth is that, by itself, the prospect of serious confrontation with Russia and/or Iran and OPEC would not necessarily intensify inflation -- in the absence of an expansive U.S. monetary policy. But, naturally, worrisome international events do cause the owners of dollars in world markets to focus ever more closely on the monetary policies of our central bank and of our commercial banks. Reading the balance sheets of our banks, they observe only relentless credit expansion even while -- on November 1, 1978, and October 6, 1979 -- our leaders proclaimed new policies of credit restraint. Dollar owners will also reason that, if President Carter amplifies defense budgets and other vote-buying expenditures, then these new federal budgetary demands, superimposed on the existing

deficit and accommodated by an already expansive credit policy at the Federal Reserve, will raise inflation and inflationary expectations to a new and higher level.

Thus, the speculation in gold originates in fundamental financial considerations. The exponential rise in the price of gold has been a function of accelerating rates of credit growth, as shown in the Fed's own balance sheet. War scares, oil price hikes and Iranian asset freezes are merely the proximate events which trigger new advances in the price of gold. If these proximate causes did not exist, but the same credit policies prevailed, there would still be other plausible events to trigger the same advance in the price of gold and to provide convenient rationalizations to policy makers who ignore the price revolution going on before their very eyes.

The incredible rise in the price of gold is no "side show." On the contrary, it is the main event. It symbolizes defective U.S. leadership in the areas of monetary, economic and foreign policy. The mutation in the gold-dollar relationship is a concrete economic event; it is also a metaphor for the decline of U.S. prestige in general, and of its currency at home and abroad.

Caught up in the specious present, U.S. policymakers ignored the fact that gold is the oldest money of civilized man. Today, gold price calculations still dominate large segments of the global trading system. Until a mere generation ago, gold was at the core of the fractional reserve banking system of all of Occidental civilization. The defi-

nitive rupture of this gold-backed monetary system in 1971 can be closely related to the price inflation of the past 10 years. The thirty to forty-fold rise in the price of gold since 1932 is sufficient commentary on the effectiveness of the experts who ushered in the era of central bank-managed currencies. It bespeaks the termination of the fahionable monetary doctrines of our age, preeminently the age of inflation.

There is now one crucial economic issue before us: What monetary policies must we embrace in order to restore sound money to our children and to our children's children?

III: Towards True Monetary Reform and a Sound Currency*

First, some general observations on central bank policy and the measures of money supply.

The Federal Reserve System does not determine the money supply, all superstition to the contrary notwithstanding. It influences indirectly the volume and composition of the total money stock; but the central bank does not determine it. The money users -- consumers and producers -- are sovereign. Consumers and producers demand currency and bank deposits in the market; the central bank and commercial banks supply them. M-1, M-2 (and all the other M's which bankers and economists use

* This entire section draws its inspiration and some of its basic definitions from the works of R. G. Hawtrey, Walter Bagehot, and especially from those of Jacques Rueff.

to measure the money supply) are, at best, first approximations of the money stock. Moreover, definitions of the M's change, as the staffs and chairmen of the Fed change. The statistical data, used to define the M's, are unreliable, as we know from experience, and subject to constant and substantial revisions. Even after defining the money stock and revising the data, one must cope with the variable relationship between the quantity of the money stock, M-1, and the rate at which it turns over in order to finance a given volume of economic transactions at a specified price level. The rate of turnover of money, its velocity (V), is as much beyond the control of the Fed as the money stock itself. Finally, all the M's have a supply and a demand side. These M's are thereby only in varying degrees influenced by (supply-oriented) central bank exhortations, open market operations, reserve requirements, and discount rate policies. Ultimately, the demand for money is determined in the market by the users of money.

If the Federal Reserve does not alone determine the level of M-1 and M-2, it determines, within limits, as do all enterprises, the amplitude of its own balance sheet. A balance sheet has assets and their counterpart, equal liabilities. The Fed largely determines the volume and composition of its own financial assets, the monetary counterparts of which are, among others, commercial bank deposits and currency, that is to say, the Fed's liabilities. The Federal Reserve is, first and foremost, a "bank." It is not the experimental laboratory of the Department of Economics at Yale University. Nor is it a classroom at the University of Chicago. More precisely it is the "Bank of Issue." It has a balance sheet and it has an income statement. As a banking in-

stitution it can perform no magic. It buys assets with the resources provided by its liabilities. Within limits, the central bank varies the composition of its financial assets, Federal Reserve Credit, as it pleases. Unlike the M's, there is nothing imprecise about Federal Reserve credit. It is a fixed and measurable item to be determined in the footings of the balance sheet.

In these respects, the central bank is just like every other bank. But it is unique in that, among other things, it is the clearing bank for commercial bank members. It is the Bank of Issue for legal tender currency which it supplies upon demand. Moreover, it has certain monopoly powers delegated to it by the Congress under the Constitution. These monopoly powers are euphemistically referred to as "regulatory authority over the banking system."

During the past twenty years, the relationship between the Federal Reserve, the rate of inflation, and the variations in the money stock has engendered much discussion. It is generally agreed by modern bankers and economists that the quantity of money and the rate of inflation are related. In various forms,they resurrect the classical quantity theory of money. If M is the quantity of money (or M-1, or M-2), it is generally argued that its rapid increase leads to inflation. But M is not a measure only of the supply of money. What of the demand for money? During part of 1978 the quantity of money in Switzerland grew approximately 30% while the price level rose only about 1%. Even if inflation rates in Switzerland have accelerated with a lagged effect, inflation persisted at a modest fraction of the growth in the quantity

of money. In the U.S. in 1979 the quantity of money, M-1, grew about 5% while the CPI inflation rate rose 13%.

Now, what kind of close correlation between the growth of the money stock, M, and the price level, P, do these dramatically opposed examples provide, even if one assumes a monetarist lag? Certainly too loose a correlation to use for forecasting accurately. And especially too loose to gauge with precision the crude operating techniques of the central bank which intervenes in the market for cash balances to bring about results which can only be known one to two years in the future under new and different circumstances. Under these conditions, reserve requirement adjustments, hyperactive open market operations, or other central bank operating techniques geared to the monetary aggregates, M-1 or M-2, may achieve results. But only fortuitiously. The Swiss and U.S. examples, among others, show that they do not produce a specific level of money supply growth consistent with a predictable inflation rate. One observes in the real world, with or without lags and during whichever short or long intervals chosen, substantial variations between a certain quantity of money, M, and a price level, P.

Accordingly, one can have little faith in the ability of the Federal Reserve to determine the quantity of money in circulation. This is no criticism of the Fed. On the contrary, it is merely to acknowledge the limits of the human mind and the paucity of precise and ready information. This problem of imperfect and rapidly changing information illustrates the problem of monetary policy and central banking. To conduct the operations of the central bank, there must be a goal. If

the goals are both price stability and a certain supply of money, M, one must know, among many other things, not only the magnitude of the supply of money but also the volume of demand for money in the market. If individuals, businesses and other entities largely generate the demand for money, the Fed must have providential omniscience to calculate correctly, on a daily or weekly basis, the total demand for money, even if it could gather reliable statistical information and even if its definitions of money were correct and constant.

The fundamental problem can be stated quite simply. Because the money stock cannot be controlled effectively by the Fed, the goals of the Fed's monetary policy must not be to control them. The Fed simply cannot determine accurately the demand for money. Neither does the Fed possess the information, the operating techniques or the perfect foresight to bring about a certain level and rate of growth of M. As we know from experience, open market operations are blunt instruments. Moreover, no stipulated level of M during a specific market interval -- in the U.S., Switzerland, Germany, or elsewhere -- is necessarily correlated with a specified rate of inflation, or deflation; nor is it with price stability.

Yet we do know that the Fed does determine the footings of its own balance sheet. By purchasing securities or by providing discounts (advances), it does increase credit to the commercial banks. Now if these open market operations unwittingly create excess cash balances in the market, the price level will thereby rise. But if the goal of the central bank were price stability, then the Fed must promptly reduce the

volume of credit it has made available to the commercial banks. As credit contracts, so does the money stock. As a result, excess cash balances will be absorbed until the level of actual cash balances is strictly equal to the amount of desired cash balances. At that moment excess demand, created by undesired cash balances, will dissipate and the price level will gradually stabilize.

In this context, one defines cash balances in the market as currency and checking account deposits, i.e., the money held by participants in the market. Consider now that new cash balances, under the present monetary system, can be provided only from "outside" the market. In concrete terms, it is the commercial banks and the central bank, given our existing set of monetary institutions, which create new money for the market. In this specific sense banks are financial institutions outside the market, as it were, away from the market participants holding existing cash balances. One distinguishes therefore between the bank rates of interest outside or away from the market and the interest rates in the money market, namely, the interest rates for commercial paper or banker's acceptances among others. Under changing conditions of supply and demand, the intersection and divergence of the bank rates and the rates in the money market first join and then disengage the rates in the money market and the rates at the banks. When joined to the rates in the market, the bank rate may be conceived as the threshold rate outside the market, at which level the market participants may gain access to new cash balances.

As I have argued, if the goal of the central bank is price

stability the operating target of monetary policy at the central bank must always be to make the supply of cash balances equal to the demand for cash balances -- demand as it is determined in the market place at prevailing interest rates. To achieve this goal, the central bank must simply hold the discount rate above the market rate when the price level is rising, providing money and credit only at the discount rate, as it is demanded. This is the correct target of monetary policy. It is a correct policy because it can succeed. If the target of Fed policy is the money stock, then as we have seen, it fails, because the Fed cannot determine the supply and the demand for money. It can only determine its own assets. But to supply only the new cash balances demanded by the market (our correct Fed policy) means simply that the Fed adds new assets to its portfolio (securities and discounts) while simultaneously it increases equally its liabilities (bank reserves and currency). Under the rigorous new target of monetary policy, the Fed will supply those bank reserves and currency in an amount which is strictly equal to the demand for them from the market. Now, if the supply of cash balances is strictly equal to the demand for cash balances, the price level must tend toward stability. That is to say, there can be no excess cash balances. If there are no excess cash balances, there is no inflation.

Such a remobilized discount rate is an artful instrument, properly proportioned to the limited knowledge and intelligence of mortal man. Its effective use requires little discretion on the part of central bankers and economists. Moreover, the discount rate merely requires for its effective use the limited information available to all participants in the market for cash balances. To oversimplify but to briefly demon-

strate this point, consider that the discount rate is a bank rate. It is the threshold level at which some buyers of cash balances (in this case, the banks) may gain access to new money "outside" or away from the market (that is, at the central bank).

Now, in a given market period, if actual cash balances are equal to desired cash balances, market interest rates must be stable. If in a subsequent period the demand for cash balances exceeds their supply in the market, money market interest rates on bankers' acceptances and commercial paper begin to rise toward the level of the bank rate outside the market. If the demand for cash balances in the market remains unsatisfied, money users will eventually gravitate to the bank, when the market rate finally intersects with the bank rate. If the demand for money persists, then the bank rate will begin to rise in tandem with the market rate. But under a correct monetary policy, the discount rate hovers slightly over the bank rate, as the bank rate itself hovers slightly over the market rates. As soon as the banks exhaust their ready cash balances, the commercial bank rate itself will levitate toward the discount rate of the central bank. At the point where the commercial bank rate intersects with the central bank discount rate, creditworthy commmercial banks may then cross the critical threshold. Thereby, they gain access to new cash balances at the central bank outside the market. The central bank's willingness to discount eligible paper as the "banker of last resort" provides the necessary cash balances still demanded but previously unavailable in the money market outside the banks. There is still no inflation, because the banking system, as a whole, supplies a quantity of money strictly equal to the amount

demanded in the market. The money stock goal is met, because market participants obtain all the money they need.

In the context of the new Fed target, as defined above, reserve requirements are therefore inocuous and may be abandoned. More importantly, one terminates open market operations because the central bank cannot know all the data in the market and therefore cannot know in what precise volume and at what precise interest rate it should supply credit by buying and selling securities. Open market operations are a crude intervention; and, as experience has shown, generally result in a surfeit or paucity of cash balances supplied to the market. As a result, open market operations in the past have tended to cause unpredictable variations in the price level. In fact, history shows that open market operations lead to secular extension of credit and a sustained rise in the price level. Is there really so great a difference between neo-Keynesian fiscal fine tuning -- through tax and budget policy - and Monetarist fine tuning -- through continuous open market operations in the market for cash balances? What are continuous open market operations if not an effort to fine tune the money stock, according to a predetermined rule, a rule which may or may not give rise to an equilibrium level of cash balances during a given market period?

Previous experience in the market gives one little confidence in central bankers who, even following a fixed quantity rule, have the monopoly power to manipulate -- on a day-to-day basis -- the interventionist tool of open market operations. First, each market period is unique. Does the Open Market Committee know enough about the peculiar

origins of disturbances in the market for cash balances in a given market period? Second, financial information is neither perfect, nor is it instantaneously available. Nor are the causes and effects of the variations in the demand for cash balances, in any one market period, sufficiently well-known. Open market operations, even in the hands of intelligent men of good will, are at best nothing more than poorly educated guesses and at worst rank speculations. These guesses are hardly the stuff of a responsible monetary policy. They will not give rise to an "efficient tool" for the implementation of monetary goals, even if the rule or goal itself is efficient and simple.

Therefore, the correct policy prescription is to cease open market operations and to require the Treasury to finance its cash needs in the market, away from the banks, except for authentic self-liquidating tax anticipation bills of less than a year's maturity, made eligible thereby for rediscounting. As a result, monetary regulation in the banking system would henceforth be achieved through the supremacy of the central bank discount rate. If we wish to avoid the evils of an overly "managed currency," then it is uniquely the discount rate mechanism, alone among the tools of central banking, which achieves this goal. The discount rate is a tool scaled to the wit of men. It requires little of central bank "currency managers" who might otherwise desire to fine tune the money stock growth, according to a quantity rule, with the full panoply of their powers. The monetary policy of the future will therefore distinguish between ends and means, calibrating the latter to the former.

If we seek an end to inflation, then we seek a stable price level. We do not seek a specified quantity of money. But if the supply of money equals the demand for money at prevailing interest rates, then the price level must remain stable, and people and businesses will have all the money they desire -- because, in a free and open society, the demand for money is determined by the sovereign users of money, the consumers and producers. How many solvent consumers in a market economy make a demand for money which is not supplied? None. The participants in the market create the demand for money. The commercial banks and the central bank, by guiding the bank rate and the discount rate and deftly hovering over the market, must simply be prepared to supply creditworthy borrowers without limit; and, in extremis, to be the banker of last resort.

As a result of this new policy target, the supply of cash balances in the market must always be gradually adjusted to the demand for them. Then there can be no inflation. The reason being that since the quantity of actual cash balances supplied is made strictly equal to the amount of money desired, the market for cash balances as a whole will be stable. Excess cash balances, the cause of inflation, have been ruled out. The money market, under these conditions will tend toward equilibrium; and, under the new operating target, will tend to remain there. The consequences of such a monetary policy will have pervasive effects throughout the economy. Since the supply of cash balances tends to equal the demand for them, no one in the market will desire to make a purchase with existing cash balances until he first produces a new sale in exchange for additonal cash balances. In a word, no one will demand

without first making a supply. When the market for cash balances tends toward equilibrium, no one will consume anything more unless he first produces something more. Under such conditions the price level will vary moderately around unity. That is to say, there will be no inflation arising from excess cash balances created by the central banking system through open market operations, since the banks will supply only the money which is demanded in the market.

As defined here, such a monetary policy comes to grips with, indeed it modifies, Say's Law of Markets and the inadequate Quantity Theory of Money. One reformulates: aggregate demand is equal to the value of aggregate supply, augmented (+/-) by the difference between the supply of actual cash balances and the level of desired cash balances.*

The new monetary doctrine for a sound currency is now clear: First, Fed open market operations must cease. Second, the discount rate of the central bank must be remobilized so that it ceases to be a subsidy rate, which in the past gave rise to credit expansion, excess cash balances, and inflation. The discount rate becomes instead a market-related rate and generally hovers, during periods of economic growth, above the bank rate, thus providing no profit (or subsidy) incentives to commercial banks to expand cash balances (credit) beyond the demand for them.

* This formulation of the quantity theory of money expresses the basic theorem of Jacques Rueff's monetary economics.

To be sure, Monetarists would claim to fix the total quantity of money, through a specified money stock rule, in order to regulate the government monopoly (the Federal Reserve Board) which supplies cash balances to the market. Yet the simpler, market-related technique would be to make the value of a unit of money equal to a weight unit of gold, in order to regulate the same monopoly. Some would argue that such a monetary "regulator" absorbs an excess of real resources, namely the laborious process of gold production, in order to sustain it, and is therefore, in social and economic terms, too costly. Whatever the minor incremental social cost of a convertible currency, it is nevertheless a superior stabilizer and a more efficient regulator of price stability in the long run. One test is history, and Roy Jastram's scholarship proves, in The Golden Constant, that convertible currencies yield price stability in the long run. For that matter, the goal of an enduring social order, unlike that of the individual, must not be to maximize welfare in the short run, but rather, in the long run. It is not an excessive cost to society to allocate a minor share of its real resources to the regulating mechanism of its money supply. Nothing else will assure the indispensable virtue of long run trust in its monetary unit.

Therefore, in order to bring about long-run stability in the market for cash balances, the dollar must be defined in law as equal to a weight unit of a real commodity, such as gold, at a statutory convertibility rate which insures that nominal wage rates do not fall. Nothing less will yield a real fiduciary currency. Such a gold convertibility plan at a fixed rate is virtually a constitutional guarantee of the purchasing power of money and therefore of the future value of savings.

The legal framework of a convertible currency makes of money an enduring political institution. As the U.S. has the oldest written political constitution, it is now time to offer the world a real money, underwritten by the constitutional guarantee of gold convertibility.

As a result, no bank, not even the central bank, could expand credit beyond the demand for it in the market. An excess supply of money would cause the general price level to rise, but the gold convertibility price would remain the same. Therefore, the fixed gold price would fall relative to the rising general price level. Elasticity of demand for the relatively cheap gold would create an increasing demand for a limited supply of it in exchange for the excess cash balances now offered for gold to commercial banks and the central bank. The failure to redeem these excess dollars for gold would, under convertibility rules, threaten the bankruptcy and dissolution of a commercial bank. A default by the Federal Reserve System would result in the breach of a solemn legal obligation and therefore violate the Constitution of the U.S. Depreciation of the currency would follow, and inflation would be a direct result. Constrained, therefore, by law to redeem excess dollars with specified weight units of gold, the central bank, as the price level rose, would have to reduce the growth of credit and money -- until once again it supplied no more money than the market demanded. As the banks contracted credit, excess cash balances would be reabsorbed, and demand for gold at the banks would cease. Convertibility would prevail. And, the threat of bankruptcy would be forestalled. The price level would descend; inflation gradually would end. Stable prices would now prevail, even though the banking system, in

order to increase profits, may have wanted to expand money and credit faster than the rate of growth of production.

At all times these institutional arrangements under the new monetary regime will assure that the supply of cash balances will be made equal to the demand for cash balances, at varying interest rates determined by participants in the market for cash balances. What matters is that the level of cash balances and the level of interest rates is determined in the open market, not in the Open Market Committee of the Federal Reserve System. So long as the discount rate hovers above the bank rate, and the bank rate above the market rate for eligible paper, the market for cash balances will yield in any given period a closely related cluster of interest rates. The variations in these market rates, as they intersect with and disengage from the bank rates, will tend to create an equilibrium level of the money stock. There is little need in such a market for trying to fine tune the money stock through continuous open-market operations. An efficient money market, and simple institutional rules governing banking system discount rates, will tend to give rise to the necessary rate of growth in the supply of cash balances. Above all, this growth rate would be consistent with the rate of real economic growth (say 4%) and with changes in the velocity of money as determined by economic activity and the technology of the payments mechanism -- because the new target of monetary policy is to supply only the quantity of money demanded in the market. As the target is hit, the goal of monetary policy will be fulfilled: namely, a stable price level.

* *

In sum, the present inflationary impasse requires a number of specific remedies: (1) Remobilize the discount rate. (2) Admit that the central bank cannot control the money supply, even though it can control Federal Reserve Credit. (3) Therefore, abandon hyperinterventionist open market operations, as they cannot achieve a stable money supply. (4) Stand ready at the central bank to supply, at an unsubsidized rate, all the money demanded by solvent commercial banks: (5) After achieving the first four goals, herald the restoration of dollar convertibility (in 12 to 18 months) at a fixed rate, to be determined over time largely in the market; but at a level which, under no circumstances, will reduce nominal wage rates. (6) Finally, convoke an International Monetary Conference, under the leadership of the U.S., with the goal of establishing a true gold standard, one which would rule out the special privilege of official reserve currencies and thus remedy the most profound defect of the Bretton Woods exchange-rate regime.

The effects of true monetary reform would appear immediately. The price of gold would fall to its equilibrium level, emptied of a value based on inflationary expectations. The price level would stabilize rapidly. Long term interest rates would fall 700-800 basis points. At lower interest rates there would be a vast demand for investment capital. With a stable price level, a stable dollar, and lower relative tax rates the sluice-gates would open and a flood of savings would flow into the market. Equity and debt capital would once again pour into business enterprise. The nation's productive plant would be rebuilt. Therefore the demand for labor would rise. Unemployment would decline.

The true onset of the "American Century" will have arrived, coincident with the end of inflation in the Western World.

LEWIS E. LEHRMAN

MEMORANDUM

February 19, 1980

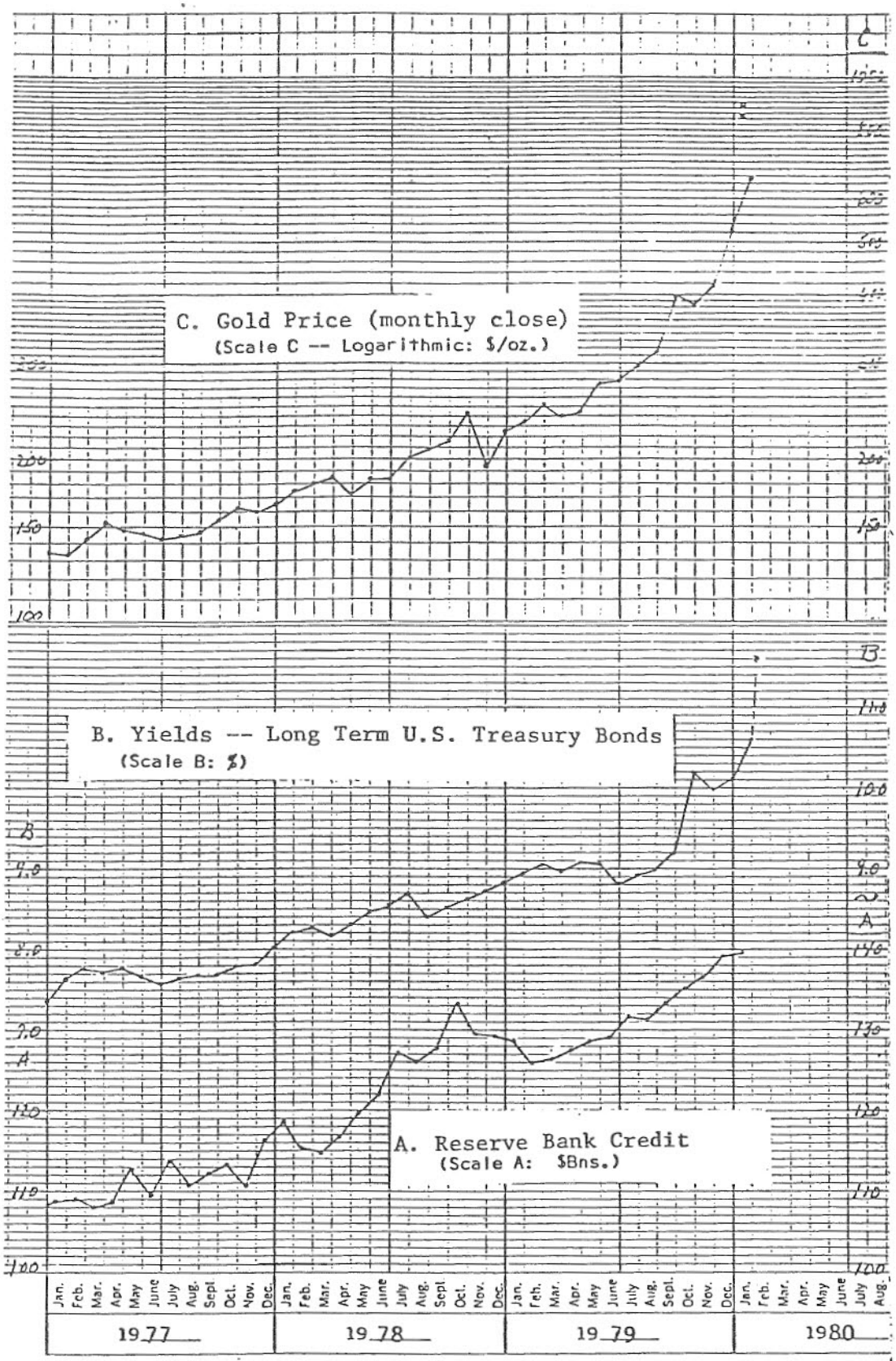
Attached are four new figures. New Figure I combines old Figure I, old Figure III and old Figure VI of the Morgan Stanley manuscript. I wish I would have had the time to create these new ones for the Morgan Stanley manuscript. They show the unmistakable relationships far more graphically than the separate charts of mine in the original manuscript. Note also that new Figure IV correlates FRB Credit and a log scale of the Gold Price from September 1979 to February 6, 1980. As a result, this new Figure IV gives pictorial substance to the original table in old Figure IV of the Morgan Stanley manuscript. The new Figure II on the yellow sheet brings the Fed figures up to date. New Figure III on the yellow sheet is a table showing 20 years of Fed credit expansion.

Lewis E. Lehrman

P.S. One more erratum in the manuscript on page 18. At the top, where the sentence begins, "But Between May 1976 and December 1978..." it should be "December 1976."

641 Lexington Avenue, New York, New York 10022 • (212) 759-8534

FIGURE I



Source: C F Management

FIGURE II

Date	FRB Credit*	Change from Preceding Year*
8/29/79	$131/926	+$4,077
9/5/79	$133,126	+$7,008
9/12/79	$131,823	+$7,921
9/19/79	$133,799	+$6,950
9/26/79	$134,244	+$1,852
10/3/79	$135,472	+$2,689
10/10/79	$133,231	+$1,492
10/17/79	$135,424	+$1,150
10/24/79	$135,321	+$1,233
10/31/79	$135,949	+$2,453
11/7/79	$134,508	+$5,497
11/14/79	$135,412	+$8,416
11/21/79	$138,651	+$8,234
11/28/79	$138,114	+$7,460
12/5/79	$137,906	+$8,463
12/12/79	$138,552	+$12,855
12/19/79	$139,100	+$9,456
12/26/79	$141,458	+$10,151
1/2//80	$143,528	+$10,850
1/9/80	$140,979	+$12,062
1/16/80	$139,663	+$10,044
1/23/80	$138,077	+$10,361
1/30/80	$135,842	+$9,176
2/6/80	$134,984	+$9,176

* In millions

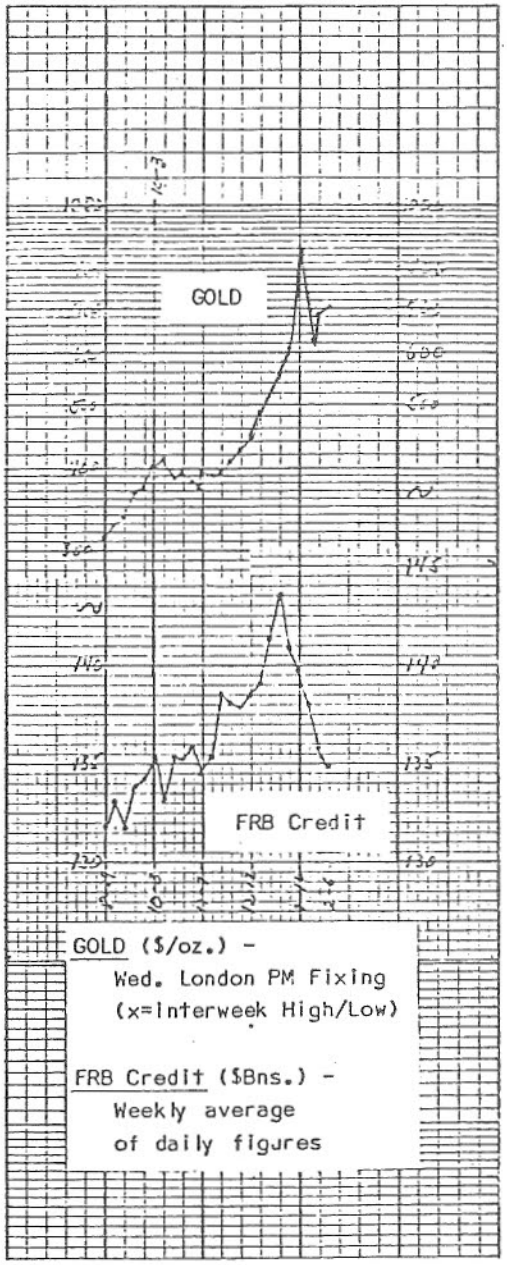
Source: Federal Reserve Bank of New York

FIGURE III

Total FRB Credit Expansion*	
1960-65	8.6%
1965-70	8.8%
1970-75	8.4%
1974-79	8.7%

* Average annual compound rates

FIGURE IV



1251 AVENUE OF THE AMERICAS
NEW YORK, NEW YORK 10020
(212) 974-4000