FRBSF Weekly Letter
March 7, 1986

The Great Discovery

During World War I, helping to finance burgeoning government deficits at low rates of interest became the overriding objective of Federal Reserve "credit policy", and Treasury Secretary William McAdoo, in his capacity as ex *officio* member (and Chairman) of the Federal Reserve Board exerted a strong influence. This *Letter* reviews the System's wartime credit policy and subsequent developments during the decade of the 1920s. These include its efforts to deal with the initial post-war inflation and recession, a reversion to the falacious "real bills" doctrine which underlay the original Federal Reserve Act, and the Federal Reserve's "great discovery" — that purchases and sales of securities in the open market influence the level of economic activity.

Accommodating the Treasury

The Fed's initial three years coincided with the period of neutrality prior to America's entry into the World War in April 1917. During that time, demand deposits and currency increased by about 40 percent largely in response to an influx of gold from Europe. This influx, combined with war-related demands, raised wholesale prices at a comparable rate. Following America's entry into the war, government spending rose dramatically — from less than $2 billion in 1917 to almost $19 billion in 1919. However, the jump in spending was financed to only a small extent by a rise in tax revenues; the rest was financed by borrowing.

Treasury Secretary William McAdoo was ex *officio* Chairman of the Federal Reserve Board, and under his urging, accommodation of the Treasury's war financing requirements became the overriding objective of the Fed's "credit policy". Federal Reserve Bank discount rates were kept relatively low to encourage member banks to borrow to buy more government debt and to increase their loans to individuals and businesses for the same purposes. To further this objective, the Federal Reserve Act was amended in 1917 to reduce member bank reserve requirements.

The resulting rise in bank lending helped finance an increase in government debt from $1 billion to $25 billion by mid-1919, an increase which was accompanied by an additional 35 percent rise in the money supply and a 40 percent increase in prices within a two-year period.

Back to normalcy

The economic boom continued for a year and a half following the Armistice in November 1918, and was accompanied by continued growth in member bank borrowing from the Reserve Banks and continued rapid growth in the money supply and prices. The Reserve Banks strongly favored an increase in their discount rates to curb inflation and growing speculation. However, through its key influence and position on the Federal Reserve Board, the Treasury late in 1919 successfully opposed an increase on the grounds that its "Victory Loan" refunding operations were not complete.

Nevertheless, the monetary basis of inflation did receive tacit recognition at the Board as well as at the Reserve Banks. In January 1920, Board member A. C. Miller warned that "prices will go up as long as the increase in the supply of money proceeds at a faster rate than the supply of goods." He also noted that "excessive borrowing by the government has been the main cause of the excessive increase in the volume of purchasing media."

Following the resignation of Carter Glass (who had replaced William McAdoo as Treasury Secretary and Board Chairman) to accept appointment as a Senator early in 1920, the Treasury advised the Board that Fed policy no longer need be directed at accommodating Treasury debt operations. As a result, System (essentially Reserve Bank) policy turned to implementing the single policy objective stipulated by the Federal Reserve Act — namely, setting discount rates with a view to "accommodating commerce and business."

This meant limiting new credit extensions through the discount window to "productive" uses, that is, the discounting of "self-liquidating" and "eligible" commercial, industrial and agricultural paper. However, as events were to prove, this "real bills" doctrine and the "accommodation" objective which governed the thinking in the Federal Reserve Act falaciously assumed that funds derived from the discounting of "eligible paper" would be used only for "productive" purposes.

In response to their growing concern over the "unprecedented orgy of extravagance, mania for speculation and overextended business" which

they attributed to "the wartime policy of abnormally low rates," the Reserve Banks, with Board approval, raised their discount rates early in 1920 and generally maintained them at a 6½ - 7 percent level through the middle of 1921, when they were gradually reduced to 4½ - 5 percent in the fall.

In the spring of 1920, a recession began as commodity speculation and prices broke sharply, partly in response to dramatic readjustments throughout the world, including a sharply reduced demand for American farm products. Wholesale prices fell by about 40 percent through 1921, accompanied by declines of 30 percent in Fed economic indices (among the first to be developed) of "business volume" and "manufacturing volume." A 75 percent drop in government spending from its wartime inflated level in 1919 also contributed strongly to the economic recession.

Throughout the downturn in 1920 and notwithstanding the higher level of discount rates, member bank borrowings from the Reserve Banks rose sharply, as did the volume of Federal Reserve notes in circulation. However, member banks, concerned over their substantial debt to the Fed, began repaying their borrowings late in 1920, and substantial reductions occurred in 1921 in spite of a lowering of discount rates.

Throughout these events, the Fed demonstrated an essentially passive view of its functions (within the general constraints of the gold standard), namely, "accommodating commerce and business." The Federal Reserve Board's 1921 *Annual Report* noted that an increase or decrease in volume of member bank borrowings and of Federal Reserve notes in circulation "is not the result of any pre-ordained policy (but) depends entirely upon the activity (demands) of business." It added that the System "cannot, however skillful its administration may be, prevent periods of depression, although it can do much to modify them." John Perrin, the Chairman of the San Francisco Fed, argued that "deflation for the sake of correcting injustices wrought by inflation is not one of the purposes of the Federal Reserve System."

"A conspiracy that didn't occur"

As a result of the 1921 recession, the System was accused of a deliberate conspiracy — "a conspiracy that didn't occur," in the words of Carter Glass — to raise interest rates in order to force a deflation. To this day some Fed critics assert that a depression was deliberately programmed at a "secret meeting" of Board and Reserve Bank officials and Directors on May 18, 1920. However, the published minutes of the meeting and a statement of Governor W.P.G. Harding of the Federal Reserve Board refute this view. Governor Harding noted that "a sensible and gradual liquidation (of speculative credit) will result in a permanent improvement . . . but any attempt at radical or drastic deflation will result in very serious consequences."

A Congressional investigating committee subsequently supported the System's actions, but criticized it for not having acted independently of the Treasury more quickly.

The great discovery

There were other results of the System's efforts to help the nation (in President Harding's words) "get back to normalcy." The huge wartime increase in government debt caused Fed officials to become increasingly aware of the implications of their actions — and those of the Treasury — for the economy. In 1922, the Reserve Banks organized a committee — without representation of the Federal Reserve Board — to centralize and coordinate their individual purchases and sales of government securities in the open market through the New York Fed. They did this upon discovering that their so-called open market operations, which were undertaken *separately* simply to provide them with a source of earnings, were exerting perceptible effects upon interest rates and economic activity.

Using the reserve position of member banks and the call-loan rate as barometers, a policy gradually developed to use both the discount "window" and open-market operations to offset "seasonal" swings in business activity.

The following year, the Board, exercising its supervisory authority over the Reserve Banks' "open market operations" as provided for by the Federal Reserve Act, reorganized the Reserve Banks' "Open Market Investment Committee" over the strong objections of other Reserve Bank officials. Committee membership was limited to the New York, Boston, Philadelphia, Cleveland and Chicago Reserve Banks, under Board supervision that involved formal approval of the Committee's policy recommendations.

The basic System objective continued to be the purchase and sale of government securities and commercial paper "with primary regard to the accommodation of commerce and business." However, it was still left to *individual* Reserve Banks, including those that were not members of the Committee, to decide whether to participate in operations decided upon by the Committee.

Smoke gets in your eyes
As the System's knowledge of policy tools and mechanisms broadened in the 1920s, so did its effectiveness in using these tools to stabilize the economy. From 1921 to 1929, the money supply grew about 5 percent a year (the policy focus was on credit conditions, not on the money supply as such) and was accompanied by a 35 percent growth in the nation's real (inflation-adjusted) income in the context of virtual price stability — an achievement unmatched in any comparable period before or since.

These achievements, however, masked some serious underlying weaknesses that became increasingly evident as the decade progressed. These weaknesses included the continued loss of foreign markets for American farm produce, mounting bank suspensions, especially in rural areas (some 5,000 banks failed during the 1920s prior to the Crash), and the growing reluctance of private lenders to continue to lend abroad. This situation culminated in numerous defaults as foreign borrowers, including governments, found it increasingly difficult to raise funds to service their large wartime and post-war borrowings from the U.S.

Between the devil and the deep blue sea
The principal policy dilemma faced by the System was how to provide for the "legitimate" and "productive" credit needs of the economy without at the same time financing "nonproductive" uses. Nonproductive uses included speculation in the stock market, which began in 1924 and saw stock prices almost quadruple prior to the Crash in 1929. This dilemma prompted one Reserve Bank Governor in 1924 to comment to a Congressional Committee that the System was caught "between the devil and the deep blue sea."

President Coolidge declared that speculation on the stock market was not cause for apprehension. But, to heighten awareness of the situation, the Reserve Banks began publishing data on member bank broker loans in 1926. In 1928, it began to curtail lending to member banks that already had a large volume of funds in the stock market, even though such financing, including stock underwriting, was then legal. In 1928, discount rates were raised and a large amount of government debt sold in an unsuccessful effort to dampen renewed speculative fever.

However, as the San Francisco Fed noted in its 1929 *Annual Report* to the Federal Reserve Board, this tack could not forestall major sources of stock market lending, including direct lending by corporations with large cash balances and lending by non-member banks. Even member banks could escape Fed control simply by bypassing the Reserve Banks and purchasing federal funds (reserves of other banks) to increase their broker loans.

The Fed at that time did not have authority to vary member bank reserve requirements or to impose stock margin requirements. (There was no Securities and Exchange Commission until 1934.) And many observers concluded that reserves acquired by the banking system as a result of open-market purchases inevitably found their way into the stock market.

Early in 1929, several of the Reserve Banks requested Board approval of increases in their discount rates, and the New York Fed pleaded for permission to raise its discount rate by several increments to 10 percent, if necessary, to brake speculative fever. However, a majority of the Federal Reserve Board balked at the request on the grounds that it was not the System's right to act as "an arbiter of security speculation or values" or to "regulate the stock exchange," and that increases were not warranted by underlying economic conditions. It was not until August that the Board reluctantly approved an increase in the New York Fed's discount rate from 5 to 6 percent. It was the last increase before the Crash.

Conclusion
While the decade of the "Roaring Twenties" was thus marked by some notable economic achievements, including a significant evolution in the System's awareness of the means by which it could influence the economy, it ended as it had begun, inauspiciously. As a rapidly falling economic barometer was to prove, stormy weather was on the way. A future *Letter* will discuss developments during the 1930s.

Verle B. Johnston, Legislative Analyst

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.
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 Department, Federal Reserve Bank of San Francisco, P.O. Box 7702, San Francisco 94120. Phone (415) 974-2246.

Research Department
Federal Reserve
Bank of
San Francisco

Alaska Arizona California Hawaii Idaho
Nevada Oregon Utah Washington

BANKING DATA—TWELFTH FEDERAL RESERVE DISTRICT

(Dollar amounts in millions)

Selected Assets and Liabilities Large Commercial Banks	Amount Outstanding 2/12/86	Change from 2/5/86	Change from 2/13/85 Dollar	Change from 2/13/85 Percent[7]
Loans, Leases and Investments[1 2]	200,246	−1,136	12,347	6.5
Loans and Leases[1 6]	180,914	−1,233	11,150	6.5
Commercial and Industrial	52,149	− 424	− 7	0.0
Real estate	66,192	105	3,860	6.1
Loans to Individuals	38,573	− 96	6,026	18.5
Leases	5,682	55	391	7.3
U.S. Treasury and Agency Securities	11,020	100	− 139	− 1.2
Other Securities[2]	8,312	− 3	1,334	19.1
Total Deposits	198,892	−2,293	5,747	2.9
Demand Deposits	46,184	−1,941	1,897	4.2
Demand Deposits Adjusted[3]	32,135	77	2,651	8.9
Other Transaction Balances[4]	14,930	− 297	2,036	15.7
Total Non-Transaction Balances[6]	137,778	− 55	1,815	1.3
Money Market Deposit Accounts—Total	45,683	− 22	2,055	4.7
Time Deposits in Amounts of $100,000 or more	38,394	− 7	− 667	− 1.7
Other Liabilities for Borrowed Money[5]	24,066	− 953	4,495	22.9

Two Week Averages of Daily Figures	Period ended 2/10/86	Period ended 1/27/86
Reserve Position, All Reporting Banks		
Excess Reserves (+)/Deficiency (−)	81	15
Borrowings	10	64
Net free reserves (+)/Net borrowed(−	71	− 48

[1] Includes loss reserves, unearned income, excludes interbank loans
[2] Excludes trading account securities
[3] Excludes U.S. government and depository institution deposits and cash items
[4] ATS, NOW, Super NOW and savings accounts with telephone transfers
[5] Includes borrowing via FRB, TT&L notes, Fed Funds, RPs and other sources
[6] Includes items not shown separately
[7] Annualized percent change