

FEDERAL RESERVE BANK OF KANSAS CITY

# Economic Review



September/October 1990

Policy Dilemmas of Eastern European Reforms:  
Notes of an Insider

Summary of Bank's 1990 Economic Symposium

Small and Large Bank Views of Deposit Insurance:  
Today vs. the 1930s

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<b>Policy Dilemmas of Eastern European Reforms: Notes of an Insider</b>	<b>5</b>
By Vaclav Klaus	
<b>Summary of Bank's 1990 Economic Symposium</b>	<b>9</b>
By Gordon H. Sellon, Jr.	
<b>Small and Large Bank Views of Deposit Insurance: Today vs. the 1930s</b>	<b>23</b>
By William R. Keeton	
<b>U.S. Foreign Exchange Operations</b>	<b>37</b>
By Kristina Jacobson	
<b>Bank Credit Commitments: Protection from a Credit Crunch?</b>	<b>51</b>
By Donald P. Morgan	

# Economic Review

Federal Reserve Bank of Kansas City

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# Contents

September/October 1990

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## **Policy Dilemmas of Eastern European Reforms: Notes of an Insider** 5

By Vaclav Klaus

It is becoming more and more clear to all East Europeans, and to Czechs and Slovaks in particular, that the only practical and realistic way to improve their living standards is through "hard core" economic reform. Such an approach must include totally abolishing institutions of central planning; dismantling price and wage, exchange rate, and foreign trade controls; and radically transforming property rights. Each of these goals is currently under discussion and preparation by Czechoslovak economists and politicians.

Czechoslovakia must face, however, many obstacles while trying to realize such an ambitious reform goal in a very short period of time. Many serious technical issues must be solved. In addition, it will be an enormous task to explain the advantages of the "invisible hand of the market" and its accompanying effects to the public and politicians.

## **Summary of Bank's 1990 Economic Symposium** 9

By Gordon H. Sellon, Jr.

Within the past year, the Soviet Union and other countries in Eastern Europe have begun a radical transformation from centrally planned to market-oriented economies. As part of this process, these countries have initiated comprehensive economic reforms, including the creation of independent central banks and the development of new financial markets and institutions.

To assist policymakers in these countries, the Federal Reserve Bank of Kansas City sponsored a symposium on "Central Banking Issues in Emerging Market-Oriented Economies," August 23-25, 1990. At this conference, officials from the Soviet Union, Poland, Czechoslovakia, Hungary, Yugoslavia, Bulgaria, and Romania exchanged views with western experts on the role of central banks during and after the transition to market-oriented economies.

## **Small and Large Bank Views of Deposit Insurance: Today vs. the 1930s** 23

By William R. Keeton

Increased bank failures in recent years have spurred intense debate among banks over the level of protection for depositors. Current law limits deposit insurance coverage to \$100,000 per account. But the FDIC's method of handling bank failures often protects deposits above this limit, especially at large banks. Small and large banks have recently advanced very different proposals for changing

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the level of protection for depositors. Small banks favor covering all deposits regardless of the amount. In contrast, large banks prefer imposing some loss on large deposits when a bank fails.

Small and large banks have not always differed so sharply on deposit insurance. In the 1930s, both small and large banks opposed the adoption of deposit insurance.

Keeton explores why small banks now reject proposals by large banks to reduce coverage but joined in opposing deposit insurance in the 1930s. He finds that small banks have always needed deposit insurance more than large banks and opposed the idea in the 1930s only because of special factors.

## **U.S. Foreign Exchange Operations**

**37**

By Kristina Jacobson

The volume of U.S. foreign exchange operations has grown substantially in recent years. The goals and methods have also changed, reflecting the evolving nature of U.S. exchange rate policy over the postwar period.

During the Bretton Woods system of fixed exchange rates, the primary goal of U.S. operations was to maintain the dollar price of gold. With the shift to floating exchange rates in the early 1970s, the focus of U.S. operations has been to counter disorderly conditions, primarily through direct intervention in the market.

Jacobson discusses how the goals and methods of U.S. foreign exchange operations have changed over time.

## **Bank Credit Commitments: Protection from a Credit Crunch?**

**51**

By Donald P. Morgan

Concern has grown in recent months over signs that banks have tightened lending standards. Some analysts fear such actions could lead to a significant curtailment of bank lending, similar to episodes in the past in which banks dramatically slowed their lending. These past episodes, or credit crunches, have been associated with economic recessions.

Bank credit commitments may provide some protection from such a crunch. During a credit crunch banks may ration loans by tightening lending terms, scaling back loan amounts, or even denying loans altogether. Since commitments obligate banks to lend at predetermined terms, commitment holders are shielded from such rationing. But how broad is this shield?

To answer this question, Morgan examines the role of credit rationing during credit crunches. He argues that bank credit commitments cannot fully protect the economy from a crunch because the firms most at risk of rationing during a crunch, small businesses, often do not hold commitments.

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# Policy Dilemmas of Eastern European Reforms: Notes of an Insider

By Vaclav Klaus

**I**t is becoming more and more clear to all East Europeans, and to Czechs and Slovaks in particular, that the only practical and realistic way to improve their living standards is the total abolition of institutions of central planning, the dismantling of price and wage, exchange rate and foreign trade controls, and the radical transformation of property rights. This approach represents the "hard core" of the reform project of Czechoslovak economists and politicians which is currently under discussion and preparation.

We have to face, however, many obstacles (Klaus 1990b) while trying to realize such an ambitious reform goal in a very short period of

time. There are many serious technical issues which must be solved, but the most pressing obstacle is the ideological prejudice against the market and its side effects, the dreams of "muddling through" based on minor improvements of the existing system, and rational or irrational fears of crossing the tolerance limits of the population or, better to say, of some powerful organized groups with their well-defined vested interests.

We have to argue with 1968's reformers who believed then, and still believe now, in a possibility to improve the performance of our inefficient economy by introducing some minor elements of the market into it, and who explicitly or implicitly consider the market to be an overcome, obsolete, and inefficient economic coordination mechanism. They are supported by western intellectuals who visit our countries nowadays and who preach obsolete, long forgotten ideologies they are not able to sell at home.

We have to fight quasi-radical anti-bureaucratism whose adherents do not criticize

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Vaclav Klaus is Minister of Finance for Czechoslovakia. The article is based on the luncheon address at the symposium on "Central Banking Issues in Emerging Market-Oriented Economies," sponsored by the Federal Reserve Bank of Kansas City at Jackson Hole, Wyoming, August 23-25, 1990. The views expressed in this article are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of Kansas City.

the system of central planning as such, but particular people in it. It unfortunately becomes an extremely unproductive and nihilistic approach which blocks any far-reaching and deeply rooted social change.

At the same time we have to oppose the arguments of very loud and very self-confident technocrats who stress the superiority of technical knowledge, who do not understand the systemic explanation of social events, and who believe in social engineering and in "rationalistic constructivism."

We have, therefore, an enormous task to explain the advantages of the "invisible hand of the market" as well as its accompanying effects and to sell these ideas to the public and to the newly born politicians. It takes time which is necessary for the search for difficult solutions of pressing economic issues of the reform and its sequencing.

Historic events are unfolding before our eyes and with all necessary fears and risks, we have to move forward very quickly. In Czechoslovakia in the first eight months of 1990, we proceeded in a parallel fashion with institutional restructuring, with legislative measures, and with changes in economic policy.

- (1) The monobank was dismantled and the two-tier banking system was introduced;
- (2) several institutions, so characteristic for the traditional command economy, like the State Planning Commission and the State Price Board, were abolished;
- (3) new legislation, supporting the private sector and defining the rules of the game, was initiated;
- (4) restrictive monetary policy was implemented with the target for the rate of growth of the money supply in 1990 around zero;
- (5) fiscal policy goes together with monetary policy and the state budget was transformed from deficit to surplus;
- (6) the Czechoslovak crown was signifi-

cantly devalued (not to the equilibrium level, but the change was in the right direction);

- (7) subsidies both to consumers and producers were cut, and especially food prices were increased when "negative turnover tax" was abolished;
- (8) foreign trade was to some degree liberalized.

On the other hand, the Parliament has not yet discussed the so-called "Transformation Act" which provides an original scheme for rapid and widespread privatization. The prices (and foreign trade and exchange rate) have not yet been liberalized. We know that we have to act rapidly because gradual reform provides a convenient excuse to the vested interests, to monopolists of all kinds, to all beneficiaries of paternalistic socialism to change nothing at all. We are well aware of the fact that losing time means losing everything. Losing time means falling into the "reform trap" of high inflation and economic, social, and political disintegration we see in some other countries. We feel that history will not forgive us if we miss our unique chance. We plan to implement all crucial reform measures at the beginning of 1991.

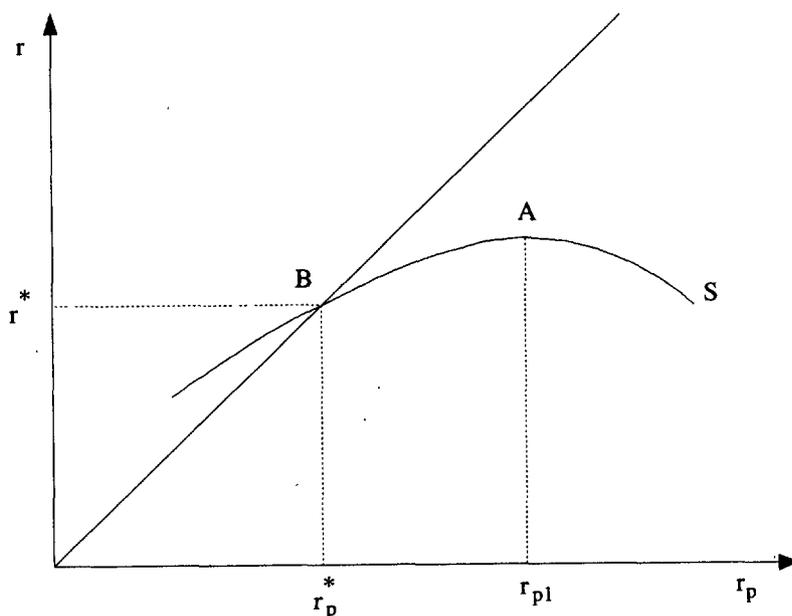
The microeconomic restructuring (privatization and price liberalization) has its macroeconomic aspect, which is—at least in Czechoslovakia—fiercely debated under the title "restrictive versus expansionary macroeconomic policy." The reformers stress the need for restrictive policy (Klaus 1990a) because

— they are afraid of inflation and its debilitating impacts upon economic decision making and resource allocation;

— they are very pessimistic about the short-term growth potential of the unreformed economy as well as about the rapidity of the supply response of a reforming economy;

— they want to squeeze out the most inefficient parts of the economy as soon as possible, which is not possible to achieve with excess

Figure 1



demand and easy sales of any products;

- they want to start the real restructuring without being tied up with a burden of repayment of a “reform neutral” foreign debt.

The anti-reformers, on the contrary, criticize the restrictive policy and call for expansionary policy because

- either they are principally against the reform or they do not believe the reform can bring about an improvement of the situation in the foreseeable future;

- they believe in the efficiency of interventionistic industrial policy, in the ability of the government to orchestrate science and large-scale innovation, to organize foreign assistance, and to coordinate all kinds of “progressive solutions;”

- they are more optimistic about the block-

ing effects of various structural constraints on economic growth because they underestimate how structurally deficient the economy really is and will be when the oil crises will be felt;

- they do not want, in principle, to stop unprofitable business activities because they want to give everybody another chance.

We can demonstrate this issue with the help of the diagram, depicting the so-called S-curve which is a locus of feasible combinations of planned, intended rate ( $r_p$ ) of economic growth and of real rate ( $r$ ) of growth (Ickes 1990).

The position and the shape of the S-curve depend on

- the growth potential of the economy at the aggregate level

- structural defects, non-homogeneity of the economy, and bottlenecks.

The critical point is that the second factor is closely connected with the quality of the economic systems, to the type of its coordinating mechanism, to its incentive structure, and so forth.

The diagram suggests that only at point *B*, both rates equal, is the economy in macroeconomic equilibrium. Slightly higher  $r_p$  than  $r_p^*$  accelerates growth (with accelerating inflation), but after reaching point *A*, the real rate of growth goes down and inflation accelerates ever further. The economic strategy, therefore, depends crucially on the assumptions about the position and shape of the S-curve, especially about the location of point *A*.

The implicit assumptions of the Czechoslovak government economists can be summarized as follows:

- (1) the prevailing long-run tendency in our economy was and still is  $r_p > r_p^*$  with the secular open, hidden, and repressed inflation as a result;
- (2)  $r_p^*$  is permanently—because of deep structural defects, price rigidities, and low supply response—lower than the natural rate of growth based on aggregate input data. This is documented by declining total productivity (according to standard growth accounting methodology) in the past two decades;

- (3) short-run effects—both from abroad (collapse of Comecon and current oil crises) and from inside (uncertainties connected with systemic transformation)—shift the S-curve lower than it used to be in past years.

We do not possess sufficient data for drawing the S-curve, but our analysis shows that the short-run  $r_p^*$  is probably very close to zero if not below. We are aware of the fact that macroeconomic mistakes would be extremely costly. Even if the major challenges for the reform process are microeconomic in nature, sound macroeconomic policy is essential if the reform process is to succeed. We are, therefore, convinced that restrictive, and not expansionary, monetary and fiscal policies are the precondition for any successful economic reform. In a structurally rigid and deficient economy, expansionary policy cannot provoke a positive supply response.

The pursuit of our monetary and fiscal targets is difficult now and will prove to be even more difficult in the near future, but we cannot afford the risks of entering the forthcoming intricate reform phase with a large monetary latitude and excessive aggregate demand. The initial transitory costs of such a policy will be nontrivial, but the benefits to be gained will be well worth the effort.

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# Summary of Bank's 1990 Economic Symposium

By Gordon H. Sellon, Jr.

**W**ithin the past year, the Soviet Union and other countries in Eastern Europe have begun a radical transformation from centrally planned to market-oriented economies. As part of this process, these countries have initiated comprehensive economic reforms, including the development of new financial markets and institutions and the creation of independent central banks.

To assist policymakers in these countries, the Federal Reserve Bank of Kansas City sponsored a symposium on "Central Banking Issues in Emerging Market-Oriented Economies," at Jackson Hole, Wyoming, on August 23-25, 1990. At the conference, officials from the Soviet Union, Poland, Czechoslovakia, Hungary, Yugoslavia, Bulgaria, and Romania exchanged views with western experts on the role of central banks during and after the transi-

tion to market-oriented economies.

This article highlights the issues raised at the symposium. The first section provides an overview of the challenges facing policymakers in the newly liberalized economies and identifies the main issues discussed at the conference. The following four sections summarize the viewpoints of the program participants and their policy recommendations.

## I. Overview

The purpose of the Bank's symposium was to open a dialogue between policymakers in the East and West. As part of the exchange of information and ideas, policymakers in the Soviet Union and Eastern Europe described economic and financial reforms currently underway in their countries and identified problems to be overcome. In response, western experts discussed the role of central banks in market-oriented economies and suggested possible solutions to these problems.

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Gordon H. Sellon, Jr. is an assistant vice president and economist at the Federal Reserve Bank of Kansas City.

## **Challenges in emerging market-oriented economies**

Policymakers in the Soviet Union and Eastern Europe have a common goal—to transform their economies from a system in which resources are allocated by central planning to a system in which resources are allocated by prices established in competitive markets. Reaching this goal will require considerable institutional changes. Legal systems will have to be altered to establish individual property rights, state ownership of resources will have to be transformed into private ownership, and accounting systems will have to be introduced to accurately determine the financial status of business. Most importantly, households and firms will have to adapt to a world in which they gain the economic freedom to choose but lose the protection of the state against job loss and bankruptcy.

A key element of the reform process in each of these countries is the development of financial markets and institutions. Under central planning, commercial banks and other private financial intermediaries played no role in the allocation of savings and investment. Moreover, the state or central bank served only to channel funds to state-owned enterprises according to the central plan and to finance state deficits by printing money. Currently the Soviet Union and countries of Eastern Europe are in the process of establishing a commercial banking system, money markets, and capital markets. These countries are also attempting to establish central banks separate from the commercial banking system and independent of the financing operations of the government.

In each of these countries, serious roadblocks lie in the path of economic reform. While some of the obstacles are political, many are economic. In several of the countries, deficit spending financed by money creation has led to a severe problem of inflation. In these countries, restrictive policy measures to curb inflation add

to the economic costs of reform.

A related problem in some countries is the so-called monetary overhang, the accumulation by households of large currency balances that could not be spent because of shortages of consumer goods. Unless neutralized, these balances could cause an upsurge in domestic inflation or an increase in imported goods that would drain foreign exchange reserves.

Finally, some of the countries have severe external and internal debt problems that may hinder the reform process. Those countries with large foreign debts are faced with diverting resources from domestic development to repay these loans. Other countries have firms and financial institutions that, because of past losses, are technically insolvent. These institutions either must be closed or recapitalized if they are to play a role in a market-oriented economy.

## **Central banks and economic reform**

At the symposium, western experts stressed that central banks can play a key role in the reform process currently under way in the Soviet Union and Eastern Europe. In the course of the discussion, broad agreement emerged on three issues: first, the primary focus of central banks should be to maintain price stability; second, central banks should play a role in developing and supervising new financial markets and institutions; and third, central banks should support the establishment of currency convertibility early in the reform process.

Many participants viewed inflation as a serious threat to the reform effort. A burst of inflation early in the reform process could undermine the credibility of the program. Moreover, without overall price stability, firms and households would have difficulty responding correctly to relative price signals. In this situation, newly developed markets might not allocate resources efficiently.

Government deficits and the monetary

overhang were seen as the biggest obstacles to price stability. Western experts agreed that budget deficits in the Soviet Union and other countries should be reduced or eliminated. They also stressed that central banks should have a degree of independence from the treasury or finance ministry so that deficits would not continue to be monetized. To reduce the inflationary potential of the monetary overhang, western authorities suggested a variety of solutions including the sale of state assets as part of a privatization process, the creation of new savings instruments, and currency reform.

Central bankers from western countries also focused on the difficulties of conducting monetary policy in the transition period. Without financial markets and with only a rudimentary banking system in the emerging market-oriented economies, the traditional channels of monetary policy are not operational. Moreover, because of the difficulty of defining and measuring monetary aggregates, central banks may not have short-run guides to the effectiveness of policy. In these circumstances, many participants felt central banks would have to rely on quantitative credit controls and discount window credit to conduct policy. To implement a restrictive monetary policy, some participants suggested controlling the total amount of central bank credit. Others advocated pegging the exchange rate to a country with a low inflation rate as a method of importing a restrictive monetary policy.

Western experts also agreed that central banks could play a leading role in developing new financial markets and institutions in the Soviet Union and other emerging market-oriented economies. They stressed the importance of establishing stable, safe, and efficient systems of monetary payments and financial intermediation. To this end, central banks should help develop money and capital markets and create a modern payments system. More importantly, central banks should develop a system of prudential supervision and regulation

that encourages financial intermediaries to make fair and accurate judgments about the creditworthiness of firms and households.

There was also a broad consensus reached at the symposium on the issue of currency convertibility. Participants agreed that current account convertibility should be established relatively early in the reform process. Opening up domestic markets to foreign goods has several benefits for the emerging market-oriented economies. First, convertibility provides a benchmark for market prices of goods that is missing in centrally planned economies. That is, convertibility provides the guidance of prices already established on world markets. Second, convertibility introduces the discipline of world competition, forcing domestic producers to become more efficient or fail. Third, convertibility provides consumer goods to households previously accustomed to shortages and rationing. In addition, with the appropriate exchange rate, convertibility may boost exports, providing both a stimulus to the domestic economy and increased foreign currency reserves. Most participants felt, however, that because of the danger of capital flight, full currency convertibility should be postponed until later in the reform process.

Despite broad agreement on these three issues, significant differences of opinion emerged in other areas. One controversial issue was the choice of a fixed or flexible exchange rate system. Supporters of fixed rates cited the monetary policy advantages of pegging the domestic currency to that of a country with a strong commitment to price stability. They also emphasized the use of foreign prices as a benchmark for establishing a domestic price system. Proponents of flexible rates focused on the large resource adjustments that would take place in the reform process. In their view, a fixed nominal exchange rate placed too much of the adjustment burden on real exchange rates and on the prices of domestic, non-traded goods. In addi-

tion, if a country had too few foreign exchange reserves, it would be difficult to set and maintain a credible fixed exchange rate.

Differences of opinion also surfaced on the speed of the reform process and the sequencing of reforms. For example, a number of participants argued that the creation of money and capital markets should occur early in the reform process. Other participants suggested that banking reform should have priority. While there were a number of proponents of the rapid or "Big Bang" approach to reform such as occurred in Poland, other attendees favored a more gradual reform process. However, most participants felt that the timing and sequencing of reforms would probably differ from country to country depending on the severity of current economic problems and on the degree of domestic political consensus.

## **II. Issues and Options**

Four presentations at the symposium surveyed the major issues and outlined the policy options for central banks in emerging market-oriented economies. In his keynote address, Paul Volcker provided an overview of the role that central banks play in a market economy. John Crow then examined the difficulties of maintaining price stability and monetary confidence during the transition to a market economy. E. Gerald Corrigan focused on the role of central banks in establishing an efficient, safe, and sound financial system. In the final presentation, C. Fred Bergsten and John Williamson explored the issues of currency convertibility and the choice of an exchange rate system.

### **The role of central banks**

Although central banks can play a variety of roles in a market economy, Paul Volcker emphasized the importance of price stability to the reform efforts under way in the Soviet Union

and Eastern Europe. While noting that central banks are not the only way to maintain price stability, he felt the establishment of a strong, independent central bank was likely to enhance the credibility of the reform effort.

Volcker also identified other responsibilities of a central bank. Central banks can promote the stability of the financial system through supervision and the provision of liquidity facilities. Central banks are also a natural focus for efforts to improve the payments system. Given the enormous need for economic training in these countries, Volcker suggested that the central bank could provide technical expertise and act as a focal point for international contact and interaction.

In Volcker's opinion, the transition from central planning to a market-oriented economy poses especially difficult problems for monetary policy. Because of problems in interpreting interest rates, prices, and monetary aggregates, central banks might not be able to implement discretionary policies. In this event, he suggested that a convertible currency and a fixed exchange rate system might be a useful way to anchor expectations about price stability.

### **Central banks and the control of inflation**

While price stability is an important goal in mature market economies, John Crow emphasized that it is an equally important objective in the reform process under way in the Soviet Union and other countries in Eastern Europe. Without overall price stability, he argued, it is difficult for firms and households to correctly interpret market price signals. Thus, in his opinion, price stability and monetary confidence are central to the reform process.

According to Crow, there are three basic ways the central bank might establish price stability: a fixed exchange rate system, a restrictive policy guided by domestic indicators, and a wage or incomes policy. In Crow's opinion,

each option has some limitations. A fixed exchange rate system promises to enhance domestic credibility only if people believe there is a long-term commitment to the system. This commitment may be difficult to maintain because of the large resource adjustments required during the reform process. Monetary aggregates and other domestic economic indicators used by western central banks may be unreliable because of institutional changes during the reform process. Wage or incomes policies may serve to anchor the inflation rate in the short run but are inconsistent with market-determined prices over the longer run.

Crow also stressed the importance of building financial markets and institutions so that central banks can conduct policy through market-based means. The central bank may want to take a lead role in establishing a money market similar to what occurred in Canada. The development of a money market would not only open channels for monetary policy, but would also allow government deficits to be financed without money creation. Because weak financial institutions can pose a constraint on monetary policy, Crow also argued for a system of prudential supervision.

According to Crow, the newly emerging market economies face three immediate challenges to establishing price stability and monetary confidence. First, fiscal reform is necessary to remove the inflationary force of budget deficits. Second, a privatization program, currency reform, or other means must reduce the inflationary consequences of the monetary overhang. Finally, positive real interest rates must be established to provide incentives for saving and to allow credits to be differentiated on the basis of risk.

### **Central banks and the financial system**

In his presentation, Gerald Corrigan advocated that central banks play a key role in devel-

oping financial markets and institutions. In Corrigan's view, stability of the banking and financial system is crucial to the stability of the overall economy. Financial stability, in turn, requires public confidence in both the banking system and the central bank.

The banking and financial system has two important functions: to mobilize and channel savings to productive investments and to provide a safe and reliable payments mechanism. According to Corrigan, the central bank can improve the efficiency of the financial intermediation process and promote public confidence through a system of prudential supervision and through active involvement in the development of the payments mechanism.

In the reform process, Corrigan suggested giving priority to the development of the banking system. In his view, policymakers need to ensure that the banking system is independent from both the government and central bank. This implies that the banking system should be privately owned or, at the minimum, privately managed. In addition, the central bank should be independent of government financing operations and should not be required to subsidize inefficient financial or nonfinancial enterprises.

Once the banking system is established, Corrigan would give priority to developing a government securities market. This market would assist in government financing operations, open a channel for monetary policy, and could also serve as a model or catalyst for the development of capital markets.

### **Central banks and currency convertibility**

As the Soviet Union and other countries in Eastern and Central Europe move toward freer markets, currency convertibility and exchange rate systems will become important policy issues. In their symposium presentation, C. Fred Bergsten and John Williamson examined convertibility

options open to policymakers, the selection of an exchange rate system, and the pace of currency and exchange rate reform.

Bergsten and Williamson favored introducing current account convertibility early in the reform process. In their view, current account convertibility is necessary to integrate the domestic economy into the world trading system. Convertibility also allows world prices to be used as a benchmark for developing a domestic price system. Because of the danger of capital flight, however, the authors suggested that capital account convertibility be deferred. They also argued that convertibility should be established with other currencies rather than with gold.

In the early stages of the reform process, Bergsten and Williamson advocated the use of a fixed exchange rate system with domestic currencies pegged to those of major western trading partners. They argued that in the transition period it will be difficult to conduct monetary policy under a flexible exchange rate system. They also believed floating rate systems can become severely misaligned. At the same time, they recognized that changes in par values will be necessary over a longer period as markets and industries are restructured. As to the problem of choosing an initial exchange rate, the authors recommended the domestic currency be devalued to the extent necessary to stimulate a competitive export sector.

Bergsten and Williamson also examined the appropriate speed of currency and exchange rate reform. They noted that, historically, gradual approaches to convertibility have been favored in Western Europe and elsewhere. Given the serious economic problems in the Soviet Union and some other countries, however, the authors suggested a more rapid approach may be preferred.

### **III. Policymakers from Eastern Europe and the Soviet Union**

Policymakers from Czechoslovakia, Poland, Bulgaria, Yugoslavia, the Soviet Union, Romania, and Hungary outlined economic reform programs in their countries and discussed the role of central banks in the restructuring process.

#### **Recent developments in Czechoslovakia**

In his luncheon address, Vaclav Klaus discussed the current status of reforms in Czechoslovakia and examined political obstacles to reform. According to Klaus, a number of institutional and economic policy changes were made in the first eight months of 1990. Important measures included: abolishing state planning agencies, creating a two-tier banking system, adopting restrictive monetary and fiscal policies, devaluing the currency and liberalizing trade, reducing subsidies to consumers and producers, and enacting legislation to support the creation of a private sector. At the beginning of 1991, the government plans to introduce a privatization program, price reform, and currency convertibility.

In Klaus' view, there are many political obstacles to the reform movement in Czechoslovakia. Some groups in Czechoslovakia are hesitant to embrace a pure market economy. Other groups continue to believe in a modified planned economy. Thus, debate continues over the extent and pace of economic reform.

Josef Tosovsky provided a more detailed look at currency convertibility in the Czechoslovakian reform program. According to Tosovsky, policymakers favor a rapid implementation of current account convertibility once two preconditions are met. First, a restrictive monetary and fiscal policy must be firmly in place to curtail inflationary pressures. Second, the domestic price system must be liberalized

parallel to the introduction of convertibility. When convertibility is introduced in 1991, policymakers plan to devalue the currency and maintain a fixed rate with either the deutsche mark or the ECU.

### **Recent developments in Poland**

Poland has moved very rapidly along the reform path. As described by Wladyslaw Baka, the Polish program has two objectives: to curb inflationary pressures and eliminate goods shortages, and to make the institutional changes necessary to create a market economy. To accomplish the first goal, policymakers introduced restrictive monetary and fiscal policies, curbed wage increases, adopted currency convertibility and a fixed exchange rate, and liberalized domestic prices. As a result of these measures, inflation has fallen dramatically and a growing trade surplus has increased foreign exchange reserves. At the same time, however, production, consumption, and employment have declined much more than anticipated.

In addition to monetary policy, the National Bank of Poland is involved in restructuring the banking system and in creating new financial markets. According to Baka, commercial banking functions have been separated from the central bank. Privatization of the large, state-owned commercial banks is handicapped, however, by a lack of capital. The central bank is also involved in developing a modern payments system, in creating a money market, and in establishing new accounting and supervisory standards. According to the new banking law, the central bank in Poland is prohibited from financing budget deficits of the state or state enterprises.

### **Recent developments in Bulgaria**

Ivan Dragnevski discussed financial and banking reforms in Bulgaria and examined some of the problems facing policymakers during the

transition period. According to Dragnevski, the first steps toward banking reform were taken in 1989 with the creation of a two-tier banking system. Fifty-nine new commercial banks were created from branches of the national bank. These banks are permitted to make business and mortgage loans and to accept deposits from individuals. However, these institutions continue to be owned by the state and must compete with larger state-owned financial institutions.

Dragnevski also described policy measures to promote price stability. To reduce the inflationary consequences of a large monetary overhang, he suggested that interest rate ceilings will have to be removed. In addition, since the beginning of the year, a system of credit restraints has limited the lending activities of commercial banks.

### **Recent developments in Yugoslavia**

According to Mitja Gaspari, policymakers in Yugoslavia have concentrated on halting inflation as a prerequisite for undertaking fundamental structural changes in the economy. Emergency measures to curb accelerating inflation include: restrictive monetary and fiscal policies, currency reform, an incomes freeze, elimination of indexation, and currency convertibility.

Thus far, the Yugoslavian program has had mixed results. On the positive side, inflation has come down dramatically, and a large trade surplus has led to increased foreign exchange reserves. However, industrial production has fallen sharply. In addition, wage growth continues to be strong, and a lack of federal control over republic spending raises prospects of renewed budget deficits.

Gaspari also described some of the structural reforms under way in Yugoslavia, including the transformation of banks and other firms to profit-oriented entities. In his view, the large amount of nonperforming loans on bank balance sheets is a serious constraint on the reform process.

## **Recent developments in the Soviet Union**

Victor Gerashchenko viewed inflation as a serious impediment to the development of a market-oriented economy in the Soviet Union. Part of the inflationary pressures are due to the accumulation of large state deficits in recent years. According to Gerashchenko, there are also "price push" pressures on prices. The decentralization of industrial decision-making has allowed some enterprises with monopoly power to raise prices considerably.

To deal with monetary overhang in the Soviet Union, Gerashchenko also advocated increased production of consumer goods, housing reform, and an expansion of investment opportunities for consumers. In his opinion, liberalizing interest rates to permit positive real rates is a necessary step to get households to increase savings voluntarily. He also stressed that the central bank must be freed of responsibility for financing the government deficit if it is to pursue a successful anti-inflation program.

## **Recent developments in Romania**

In his presentation, Mugur Isarescu described the reform process in Romania. In his view, the transition from central planning to a market-oriented economy in Romania involved three steps: dismantling central planning institutions and creating market institutions, converting property from state to private ownership, and establishing a social safety net. Under new legislation, three-quarters of state enterprises have been transformed into commercial companies and are to become fully privatized over time. Other bills encourage private entrepreneurship and relax regulations on foreign investment. Legislation is currently being drafted to restructure the banking system.

On the issue of currency convertibility, Isarescu characterized Romanian policy as "rapid gradualism." That is, convertibility is to

be introduced in stages starting with exporters being able to retain an increasing fraction of their foreign exchange earnings. A system of foreign exchange auctions will then permit companies to trade foreign exchange. The intent is to raise the retention rate over time until full current account convertibility is achieved.

## **Recent developments in Hungary**

Imre Tarafas commented on the difficulty of conducting monetary policy during the transition to a market economy. In Hungary, two factors limiting the effectiveness of monetary policy are the underdeveloped banking system and the lack of financial discipline at firms. The latter problem has made it difficult for the central bank to implement an anti-inflation program. Without hard budget constraints, firms continue to spend when policy is tightened and so place upward pressure on prices.

According to Tarafas, monetary policy in Hungary is currently focused on the current account. Restrictive policy has led to a sizable improvement in the trade balance and foreign exchange earnings over the past year. Because of the price pressures stemming from firms, the central bank has had to devalue the currency. For this reason, Tarafas suggests that a fixed exchange rate system is not feasible for Hungary in the transition period.

## **IV. Western Discussants**

Western experts examined central banking issues in the reform process in the Soviet Union and Eastern Europe and proposed solutions to some of the problems identified by policymakers in these countries.

### **Central banks and the control of inflation**

Martin Feldstein focused his remarks on the

problem of controlling inflation in the Soviet Union. According to Feldstein, a prerequisite to market reform in the Soviet Union is a sound monetary and fiscal program aimed at eliminating budget deficits and absorbing the rouble overhang. Principal methods of cutting the budget deficit include: increased tax revenues, lowered subsidies, and reduced spending on heavy investment and the military. To reduce the rouble overhang, Feldstein preferred voluntary approaches, such as the creation of attractive savings instruments for consumers.

Lawrence Kudlow described some of the problems hindering the movement of western capital into Eastern Europe. Kudlow argued that currency risk must be reduced before western investors will be willing to commit funds. Thus, he emphasized the need for currency convertibility and the use of fixed exchange rates or other methods of reducing exchange rate risk. He also noted that bureaucracy and excessive state regulation made it difficult for western investors to function in Eastern Europe.

Allan Meltzer emphasized the importance of price stability in the reform process. He argued that overall price stability is necessary if relative prices are to act correctly as signals for resource allocation. Price stability, in turn, requires fiscal and price reforms. The central bank will not be able to establish credibility in its commitment to price stability unless it is free of requirements to finance deficits of the state and state enterprises. In addition, an efficient market economy requires price flexibility. Thus, Meltzer cautioned that once market prices are established, governments must resist pressures to cushion the impact of wage and price changes.

Georg Rich also saw price stability as important for newly developed markets to play their proper allocative role. To maintain price stability, Rich suggested the central bank choose a monetary anchor at the beginning of the reform process. This step is necessary to create

stable price expectations and to ensure that the central bank is removed from deficit financing requirements. Rich indicated a fixed exchange rate might provide a useful short-run monetary anchor. Over the longer term, however, he thought the central bank might switch to a domestic monetary or credit aggregate to allow the exchange rate to shield the economy from external shocks.

Niels Thygesen commented on the merits of fixed exchange rate systems for promoting price stability. In his view, the European Monetary System provided a useful guide to central banks in Eastern Europe. According to Thygesen, the EMS has led to convergence toward lower inflation rates within the European Economic Community. Thus, he suggested that Eastern European countries should consider fixed rate systems with their main trading partners in Western Europe.

### **Central banks and the financial system**

Andrew Crockett argued that reform of the financial system in Eastern Europe and the Soviet Union is crucial to the success of the overall reform effort. Specifically, a reliable payments system is central to the development of an efficient system of resource allocation. And, an effective system of financial intermediation is essential for savings to be allocated to the most productive investment opportunities. Crockett identified four steps toward financial reform. First, commercial banking activities must be removed from the central bank to create a decentralized, competitive banking system. Second, effective settlement and clearing systems must be introduced. Third, reforms must extend beyond the banking system to the development of money markets. Finally, the central bank must develop a system of prudential supervision and regulation.

Mervyn King emphasized the responsibility of the central bank for ensuring financial stabil-

ity. He noted that, in the West, central banks emerged after the development of financial markets. Their primary responsibility was to provide stability and prevent financial crises. In Eastern Europe, the challenge is reversed—how to create a system of privately owned commercial banks from a centralized system. According to King, central banks in these countries will be faced with the conflicting responsibilities of promoting competition while maintaining safety and stability.

Philippe Lagayette suggested there are important linkages between central bank responsibilities for monetary policy and financial stability. Because central banks must move interest rates to conduct monetary policy, the financial system must be strong enough so that financial crises do not result when policy is changed. To ensure financial stability, Lagayette argued that the central bank must have responsibilities for supervision and regulation.

### **Central banks and currency convertibility**

Richard Cooper focused on the role of currency convertibility in the Soviet Union. In his view, current account convertibility would have a number of beneficial effects including: introducing effective competition, aligning Soviet prices with world prices, providing more consumer goods, and stimulating export industries. As preconditions for convertibility, Cooper emphasized that enterprises must have hard budgets and that an antiinflationary macroeconomic policy must be in place. In these circumstances, he favored establishing convertibility at a fixed exchange rate.

Jacob Frenkel also emphasized the importance of current account convertibility. For convertibility to be successful, however, Frenkel argued that four preconditions must be met. First, an appropriate exchange rate must be in place. Second, adequate international reserves

must be available. Third, macroeconomic stability must be established, including the elimination of budget deficits and the monetary overhang. Finally, the price system must be reformed and state enterprises must be privatized or become profit-oriented.

Arnold Harberger viewed currency reform in Eastern Europe from the perspective of similar reforms in Latin America. While favoring current account convertibility and fixed exchange rates, Harberger noted that the speed of reform and the choice of exchange rate systems depend upon a country's economic situation. Thus, in some circumstances in Latin America, gradual movements to convertibility using currency auctions have been quite successful. For a rapid or "Big Bang" approach to work, Harberger argued that macroeconomic stability must be established prior to convertibility.

### **V. Overview Panelists**

In his summary of the issues raised at the symposium, Leonhard Gleske emphasized the importance of price stability and currency convertibility to the reform programs in Eastern Europe and the Soviet Union. According to Gleske, monetary stability is vital if market prices are to provide correct signals for resource allocation. Domestic monetary stability is also a prerequisite for establishing current account convertibility.

Gleske also observed that monetary stability is not sufficient to ensure real growth in these economies over the longer term. Equally important are structural policies aimed at increasing the supplies of goods and services. To be effective, Gleske argued that structural policies must change both institutions and attitudes. By improving the supply response of the economy, structural policies will promote price stability.

In his closing remarks, Alan Greenspan examined the differences in the roles played by financial institutions in centrally planned and

market-oriented economies. He noted that the key function of commercial banks in a market economy is the reduction of financial risk through diversification. If successful, banks can reduce real interest rates, increase investment, improve productivity, and raise standards of living. Central banks can assist in this effort by providing liquidity facilities, supervision, and payments system services.

## **VI. Conclusion**

The process of economic reform is well under way in Eastern Europe and the Soviet

Union. The move from a centrally planned to a market-oriented economy requires fundamental changes in the legal, economic, and financial systems of these countries.

Participants at the Federal Reserve Bank of Kansas City's 1990 symposium agreed that central banks can make important contributions to the reform efforts. Central banks can promote a stable macroeconomic environment and can play a role in developing new financial markets and institutions. By supporting the establishment of currency convertibility, central banks can also assist in the integration of these countries into the world economic system.

## **Central Banking Issues in Emerging Market-Oriented Economies**

A symposium sponsored by the Federal Reserve Bank of Kansas City  
August 23 - 25, 1990

### *Moderators*

LORD GORDON RICHARDSON, Chairman, Morgan Stanley International  
JEAN GODEAUX, Former Governor, National Bank of Belgium

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#### *The Role of Central Banks*

PAUL A. VOLCKER, Former Chairman, Board of Governors of the Federal Reserve System

#### *Monetary Policy and the Control of Inflation*

JOHN W. CROW, Governor, The Bank of Canada

#### *Central Banks and the Financial System*

E. GERALD CORRIGAN, President, The Federal Reserve Bank of New York

#### *Currency Convertibility in Eastern Europe*

C. FRED BERGSTEN, Director, Institute for International Economics

JOHN WILLIAMSON, Senior Fellow, Institute for International Economics

### **Policymakers from Eastern Europe and the Soviet Union**

#### *Policy Dilemmas of Eastern European Reforms: Notes of an Insider*

VACLAV KLAUS, Minister of Finance, Czechoslovakia

#### *Recent Developments in Poland*

WLADYSLAW BAKA, President, National Bank of Poland

#### *Recent Developments in Bulgaria*

IVAN DRAGNEVSKI, President, National Bank of Bulgaria

#### *Recent Developments in Yugoslavia*

MITJA GASPARI, Deputy Governor, National Bank of Yugoslavia

#### *Recent Developments in the Soviet Union*

VICTOR V. GERASHCHENKO, Chairman of the Board, State Bank of the U.S.S.R.

*Recent Developments in Romania*

MUGUR ISARESCU, First Secretary, Economic and Monetary Affairs,  
Embassy of Romania

DECEBAL URDEA, Governor, National Bank of Romania

*Recent Developments in Hungary*

IMRE TARAFAS, First Deputy President, National Bank of Hungary

*Recent Developments in Czechoslovakia*

JOSEF TOSOVSKY, President, National Bank of Czechoslovakia

**Western Discussants**

*Monetary Policy and the Control of Inflation*

MARTIN FELDSTEIN, President, National Bureau of Economic Research

LAWRENCE A. KUDLOW, Chief Economist, Bear, Stearns & Co., Inc.

ALLAN H. MELTZER, Professor, Carnegie-Mellon University

GEORG RICH, Director, Economics Division, Swiss National Bank

NIELS THYGESEN, Professor, University of Copenhagen

*Central Banks and the Financial System*

ANDREW D. CROCKETT, Executive Director, Bank of England

MERVYN A. KING, Professor, London School of Economics

PHILIPPE LAGAYETTE, First Deputy Governor, Bank of France

*Currency Convertibility in Eastern Europe*

RICHARD N. COOPER, Professor, Harvard University

JACOB A. FRENKEL, Economic Counselor and Director of Research, International  
Monetary Fund

ARNOLD C. HARBERGER, Professor, University of California at Los Angeles

**Overview Panelists**

LEONHARD GLESKE, Former Member of the Directorate, Deutsche Bundesbank

ALAN GREENSPAN, Chairman, Board of Governors of the Federal Reserve System

## **Central Banking Issues in Emerging Market-Oriented Economies**

Within the past year, the Soviet Union and other countries in Eastern Europe have begun a radical transformation from centrally planned to market-oriented economies. To assist policymakers in these countries, the Federal Reserve Bank of Kansas City hosted a symposium on "Central Banking Issues in Emerging Market-Oriented Economies," at Jackson Hole, Wyoming, on August 23-25, 1990. The symposium proceedings discuss the role of central banks during and after the transition to market-oriented economies.

For a copy of the current or past symposium proceedings, please write:

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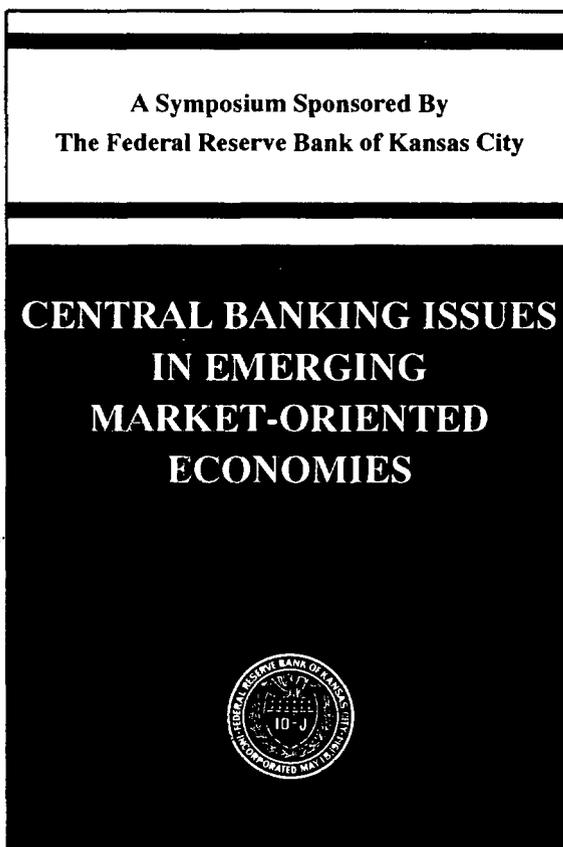
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# Small and Large Bank Views of Deposit Insurance: Today vs. the 1930s

By William R. Keeton

The increase in bank failures in recent years has spurred intense debate among banks over the level of protection for depositors. Current law limits deposit insurance coverage to \$100,000 per account. But the FDIC's method of handling bank failures often protects deposits above this limit, especially at large banks. Small and large banks have recently advanced very different proposals for changing the level of protection for depositors. Small banks favor covering all deposits regardless of the amount. In contrast, large banks prefer imposing some loss on large deposits when a bank fails.

Small and large banks have not always differed so sharply on deposit insurance. In the 1930s, large banks strongly opposed the adoption of deposit insurance. Proponents tried to convince small banks it was in their interest to

support deposit insurance. But most small banks ignored this advice and sided with large banks against the plan.

Why is it that small banks now reject proposals by large banks to reduce coverage but joined in opposing deposit insurance in the 1930s? This article argues that small banks have always needed deposit insurance more than large banks and opposed the idea in the 1930s only because of special factors. The first section suggests small banks need deposit insurance more than large banks because the lack of diversification of small banks makes them more vulnerable to local economic shocks. The second section argues that this difference in need for deposit insurance explains why small banks now disagree with large banks over the level of coverage. The third section shows small banks also had more to gain from deposit insurance in the 1930s but nevertheless joined large banks in opposing the measure. The fourth section resolves the paradox, identifying the special factors that made small banks less sympathetic to deposit insurance in the 1930s than today.

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William R. Keeton is a senior economist at the Federal Reserve Bank of Kansas City. James LeVoir, a research associate at the bank, assisted in the preparation of the article.

## **I. Why Deposit Insurance Benefits Small Banks More Than Large Banks**

Under the deposit insurance system in effect since the 1930s, the FDIC guarantees or “insures” each bank deposit up to a specified limit. To cover the potential costs of honoring the guarantee, the FDIC also charges each insured bank a premium proportional to the bank’s deposits. Such an arrangement benefits small banks more than large banks because small banks are less diversified and, thus, more vulnerable to local economic shocks.

### **Vulnerability of small banks to local economic shocks**

Small banks tend to have less diversified loans and deposits than large banks. Large banks can lend to a wide variety of businesses, either by setting up branches in different regions or using their size and reputation to attract national firms. Large banks can also use their branch networks or their size and reputation to attract deposits from a wide area. Most small banks have no branches, no outside reputation, and too few resources to meet the needs of national firms. Thus, in contrast to large banks, small banks must lend mainly to local businesses and raise funds mainly from local depositors. Moreover, small banks tend to be located in rural areas and smaller cities. In such areas, the local economy is also likely to be undiversified, that is, dependent on a single industry such as agriculture or energy.

Because small banks are undiversified, they face a greater risk of failure from local economic shocks. A downturn in the local economy makes it harder for local businesses and households to repay their loans. Thus, a small bank is more likely to suffer an unexpected increase in loan defaults than a large bank that lends to a wide variety of borrowers. Also, when

the local economy slows, a net outflow of funds may occur to other more prosperous regions. As a result, a small bank is more likely to suffer an unexpected deposit drain than a large bank with deposits collected over a wide area. Such deposit drains can force a bank to sell perfectly sound assets at a heavy loss. Thus, even if a small bank could survive the increase in loan defaults caused by a local economic downturn, the bank could fail because it was unable to meet deposit withdrawals.

### **How vulnerability to local economic shocks hurts small banks**

Vulnerability to local economic shocks can hurt small banks by making it harder for them to attract risk-averse depositors. A risk-averse depositor is one who prefers a certain return on his investment to an uncertain return. Without deposit insurance, the dependence of small banks on the local economy would make the return on their deposits more uncertain. If the local economy prospered, a small bank could afford to pay higher deposit rates than a larger, more diversified bank. But if the local economy soured, the bank could fail and depositors could receive nothing. In principle, a depositor could reduce this uncertainty by spreading his deposits over banks in many different regions. But such diversification would be inconvenient for most depositors. Thus, to attract risk-averse depositors in the absence of deposit insurance, small banks would have to pay much higher deposit rates than large banks. Because of these higher rates, small banks would tend to earn lower profits than large banks.<sup>1</sup>

Vulnerability to local economic shocks can also hurt small banks by increasing the chance of bank runs. Runs occur when depositors become worried about the safety of their funds and withdraw their money quickly to avoid a loss. Without deposit insurance, depositors of a small bank would have more reason to worry

about the safety of their funds than depositors of a large bank. In particular, depositors of a small bank would realize that local economic shocks could cause the bank to fail due to a large increase in loan losses or heavy drain in deposits. Having more reason to worry about the safety of their funds, depositors of a small bank would be more likely to panic and run, forcing the bank to sell its assets at a loss.<sup>2</sup> Thus, without deposit insurance, the shareholders of a small bank would risk losing some or all of their investment in the bank due to a run. And because runs increase the chance of failure, small banks would have an even harder time competing with large banks for deposits.

### **How deposit insurance limits these adverse effects**

Deposit insurance enables small banks to compete with large banks for risk-averse depositors despite their greater vulnerability to local economic shocks. With deposit insurance, the return on deposits is guaranteed. Thus, depositors bear no more uncertainty at small banks than at large banks. In effect, deposit insurance shifts the uncertainty of returns at each small bank onto the FDIC, which can diversify away the risk of local economic shocks by insuring banks throughout the nation.<sup>3</sup>

Deposit insurance also eliminates runs by panicky depositors. Because depositors are certain of receiving the full return on their investment with deposit insurance, they have no reason to withdraw their money to avoid a loss. Thus, deposit insurance reduces the likelihood of small banks having to sell their assets at a heavy loss to meet sudden withdrawals. Of course, large banks also benefit from the elimination of bank runs. But since small banks would be more susceptible to runs than large banks without deposit insurance, the benefit to small banks is greater.

## **II. The Current Controversy**

After many years of wide acceptance, the deposit insurance system has come under growing attack. A crucial issue is how much protection depositors should receive. The S&L debacle and the sharp increase in bank failures since the early 1980s have been cited as evidence that the overall level of coverage is too high to restrain bank risk-taking. And most observers agree that coverage is greater at large banks than small banks, putting small banks at an unfair disadvantage. The controversy over coverage provides a good test of the argument in the previous section. In particular, if small banks need deposit insurance more than large banks, they should favor greater protection for depositors than large banks.

### **Current levels of coverage**

Under the current system, the effective level of coverage depends on two factors—the statutory insurance limit and the way the FDIC handles bank failures. The deposit insurance law guarantees all domestic deposits up to \$100,000. However, in recent years, the FDIC has handled failures in ways that protect uninsured deposits as well as insured deposits, especially at large banks.<sup>4</sup>

The FDIC can handle bank failures in three ways: payoffs, purchase and assumption (P&A) transactions, and open-bank assistance. In a payoff, the FDIC lets the bank fail and then pays off the bank's insured deposits.<sup>5</sup> Under this approach, uninsured depositors suffer at least a partial loss, because they must share the proceeds from the bank's remaining assets with the FDIC. In a P&A, the FDIC pays a healthy bank to assume all the failed bank's deposits. This method prevents uninsured depositors from suffering any loss whatsoever. Finally, under certain conditions, the FDIC can provide open-bank assistance to a failing bank—financial aid to keep

the bank open. The terms of the agreement usually require the bank's shareholders to take a substantial loss. As in a P&A, however, uninsured depositors are fully protected.<sup>6</sup>

At small banks, the FDIC has applied these methods in a way that partially protects deposits above the statutory limit. In recent years, the FDIC has used P&As and open-bank assistance to handle the majority of small bank failures. Thus, large depositors at small banks have a good chance of being paid in full in the event of failure. But the FDIC sometimes uses payoffs to resolve small bank failures. Over the 1984-89 period, for example, the FDIC used payoffs in 23 percent of the failures of banking organizations under \$1 billion in assets. Consequently, large depositors at small banks cannot be sure their funds are safe.

At large banks, the FDIC's procedures have fully protected all deposits. The FDIC has relied solely on P&As and open-bank assistance to handle failures of banks with more than \$1 billion in assets. For some large banks, such as Continental Illinois and First Republic, the FDIC has even promised in advance that no depositor will suffer any loss. Thus, under the current system, large depositors enjoy greater protection at large banks than at small banks. This preferential treatment of depositors at large banks is often described as the "too big to fail" policy. But the term is inaccurate because the FDIC does not mind letting a large bank fail and then doing a P&A to protect large depositors. A more accurate term would be "too big to default."

The current system has been attacked on two grounds. First, critics argue that the high overall level of coverage encourages excessive risk-taking. According to this argument, depositors at both small and large banks are too well protected from loss to care what banks do with their money. As a result, banks can take greater risk without depositors demanding higher rates.<sup>7</sup> Second, critics argue that the system unfairly discriminates against small banks.

Uninsured funds are a much smaller share of total funds at small banks than at large banks. Critics claim the "too big to fail" policy prevents small banks from competing for such funds by making them safer at large banks.<sup>8</sup>

### **Small and large bank views**

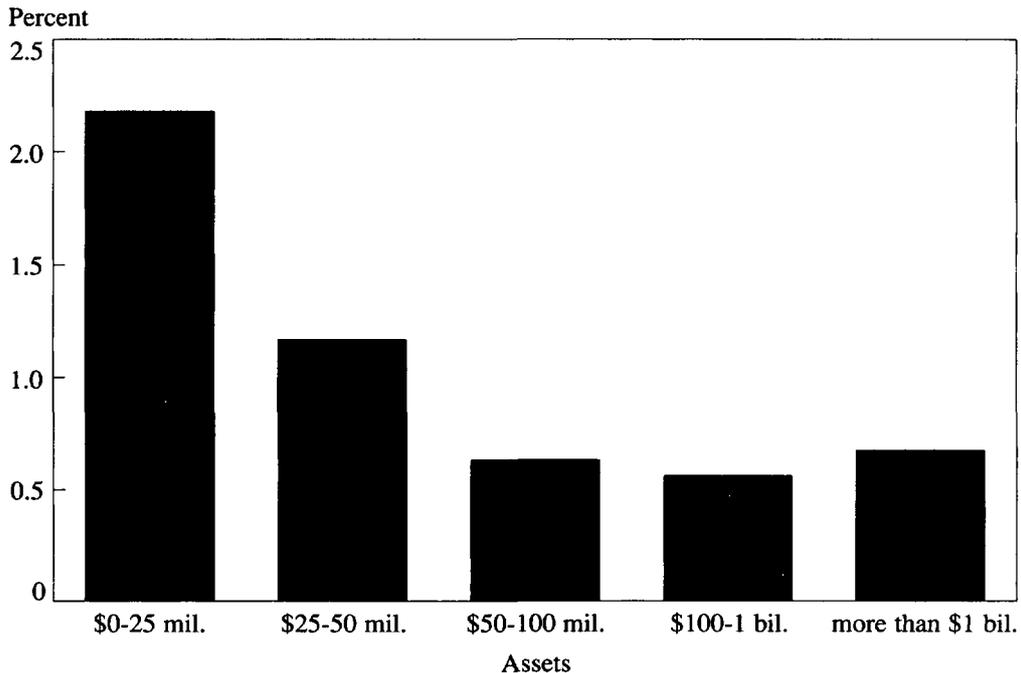
Small and large banks agree the current system needs to be changed, but they differ sharply on how to do it. The Treasury Department recently requested comments on deposit insurance reform for a study mandated by Congress. In response, large banks have recommended a decrease in coverage, while small banks have urged an increase.

Large banks believe depositors should be exposed to greater loss. The Association of Reserve City Bankers (ARCB), the major trade association representing large banks, has not yet advanced a specific proposal for changing insurance coverage. However, the group urges a return to "the original intent of only insuring small deposits" (ARCB 1990). According to the ARCB, the statutory limit should never have been raised to \$100,000 and should under no circumstances be raised further. Furthermore, deposits above the statutory limit should be unprotected at banks of all sizes.<sup>9</sup>

Small banks believe all depositors should be fully protected from loss. The major trade association for small banks is the Independent Bankers Association of America (IBAA). The IBAA wants Congress to eliminate the \$100,000 statutory limit on domestic deposits and to fully insure all foreign deposits (IBAA 1990). This approach would formalize the de facto coverage of large domestic deposits and foreign deposits at large banks. More importantly, it would extend the same coverage to small banks.

The American Bankers Association (ABA), representing the industry as a whole, has advanced a plan closer to the large bank view than the small bank view. Specifically, the ABA

Chart 1  
**Average Failure Rate, 1984-89**  
 By Size of Banking Organization



Note: The failure rate for each category is the average number of failures per year divided by the average number of organizations at midyear. Open-bank assistance is counted as a failure. Also, banks belonging to the same holding company are treated as a single organization. In a few cases, some banks in a multibank organization failed while others did not. In such cases, the organization was considered to have failed if the failed banks accounted for most of the organization's banking assets.

Source: FDIC and Reports of Income and Condition.

proposes that the degree of protection be reduced by forcing uninsured depositors to take a partial loss, or haircut, whenever a bank fails (ABA 1990). The haircut would be the same percentage at all banks, regardless of size, and would be set just high enough to allow the FDIC to break even over the long run. Based on the FDIC's past recovery rate on failed banks' assets, the ABA estimates the haircut would have to be somewhere between 5 and 15 percent.<sup>10</sup>

### **Why small banks disagree with large banks**

Why do small banks favor greater protec-

tion for depositors than large banks? The main reason, as suggested earlier, is that small banks need deposit insurance more than large banks to offset their lack of diversification. The recent pattern of failures tends to confirm that small banks today face greater risk of local economic shocks than large banks. The increase in bank failures since the early 1980s has been associated with large disparities in economic performance among regions and industries (Bovenzi and Nejezchleb 1985). As Chart 1 shows, banks under \$50 million in assets have failed at higher rates than larger banks during this period. With the advent of interstate banking, large banks will be able to diversify further, increasing their edge

over small banks.<sup>11</sup> Thus, faced with a choice between fully covering deposits at all banks or partially covering deposits at all banks, small banks have more reason than large banks to favor full coverage.

Two other factors reinforce this difference of opinion over the level of coverage. First, large banks could benefit greatly if a reduction in coverage curbed bank risk-taking. If risk-taking fell, Congress would be more likely to grant new powers like securities underwriting—powers large banks are more eager to obtain than small banks. Second, small banks worry that any reduction in coverage would apply only to them. According to this view, regulators would be too worried about disrupting the financial system to let depositors at large banks suffer losses. Instead, they would find ways to prop up large banks and keep them from failing.

### **III. The 1930s Controversy**

Today's controversy over deposit insurance is not the first. In the early 1930s, there was a heated public debate about whether to adopt deposit insurance. How did small and large banks view the issue? If small banks indeed need deposit insurance more than large banks, they should have supported the proposed law more than large banks, just as they favor higher coverage than large banks today. Paradoxically, however, small banks joined large banks in opposing the legislation.

#### **Background of the original law**

Although federal deposit insurance had been proposed before the 1930s, it began to be considered more seriously after the upsurge in bank failures in the early years of the Great Depression. The principal advocate in Congress was Representative Henry Steagall. In the spring of 1932, Steagall persuaded the House to approve a plan for federal deposit insurance. But

key senators like Carter Glass opposed the idea, preferring a plan that would pay off depositors more quickly without protecting them against loss. Thus, the Steagall bill died.

Pressure for a deposit insurance bill increased in early 1933 when a banking panic spread throughout the country. Upon assuming office in March, President Roosevelt declared a nationwide banking holiday to halt the panic. But Roosevelt strongly opposed federal deposit insurance as a solution to the nation's banking problems. In May, Representative Steagall and Senator Glass introduced companion bills to reform the banking system. Glass reluctantly accepted Steagall's deposit insurance plan, believing it was the only way to pass other more necessary reforms. But given Roosevelt's strong opposition, prospects for the plan were highly uncertain. Pressure from the public and key advisers finally convinced Roosevelt to go along with the idea. As a result, a modified version of Steagall's plan was included in the Banking Act of 1933, which was signed into law in June.

The 1933 act established both a temporary plan to begin in six months and a permanent plan to go into effect later. The temporary plan guaranteed deposits up to \$2,500. In contrast, the permanent plan fully guaranteed deposits up to \$10,000 and partially guaranteed deposits above that amount. Premiums were to be proportional to total deposits under the permanent plan. Also, banks could be assessed as much as necessary to cover the FDIC's costs. Finally, all banks belonging to the Federal Reserve System had to participate, and other banks could participate only if they joined the System within a specified period.

The law was hotly debated. On the one hand, the public demanded a program to protect their deposits from further bank failures. Some public officials and economists were also convinced deposit insurance was needed to revive stagnant bank lending and lift the economy out of the Depression.<sup>12</sup> On the other hand, many

officials and economists believed deposit insurance would encourage excessive risk-taking and force sound banks to subsidize reckless banks. Some also feared enactment of deposit insurance would divert attention from other more fundamental reforms—reforms ranging from interstate banking to nationalization of the industry.

### **Small and large bank views**

Some researchers have suggested that large banks in the 1930s opposed deposit insurance while small banks supported it. According to one author, “The small banks wanted federal deposit insurance. The large banks, particularly those in the money centers, didn’t need deposit insurance” (Benston 1982). Comparing Steagall’s plan to insure deposits with Glass’s plan to merely pay off depositors faster, another author writes,

In these two versions of the bill lay the alignment of large and small banks . . . Glass’s program, the more conservative, would win whatever support was available from the big banks [while] Steagall’s bill represented the broader guarantee position of the small-bank men. (Kennedy 1973)

And another author claims that “the driving force behind the deposit insurance legislation . . . was the overwhelming support from community bankers throughout the nation” (Golembe 1990).

This interpretation of small and large bank views is only partially correct. It is true that large banks opposed federal deposit insurance. It is also true that some small banks supported the idea. Contrary to the conventional wisdom, however, most small banks opposed the plan.<sup>13</sup>

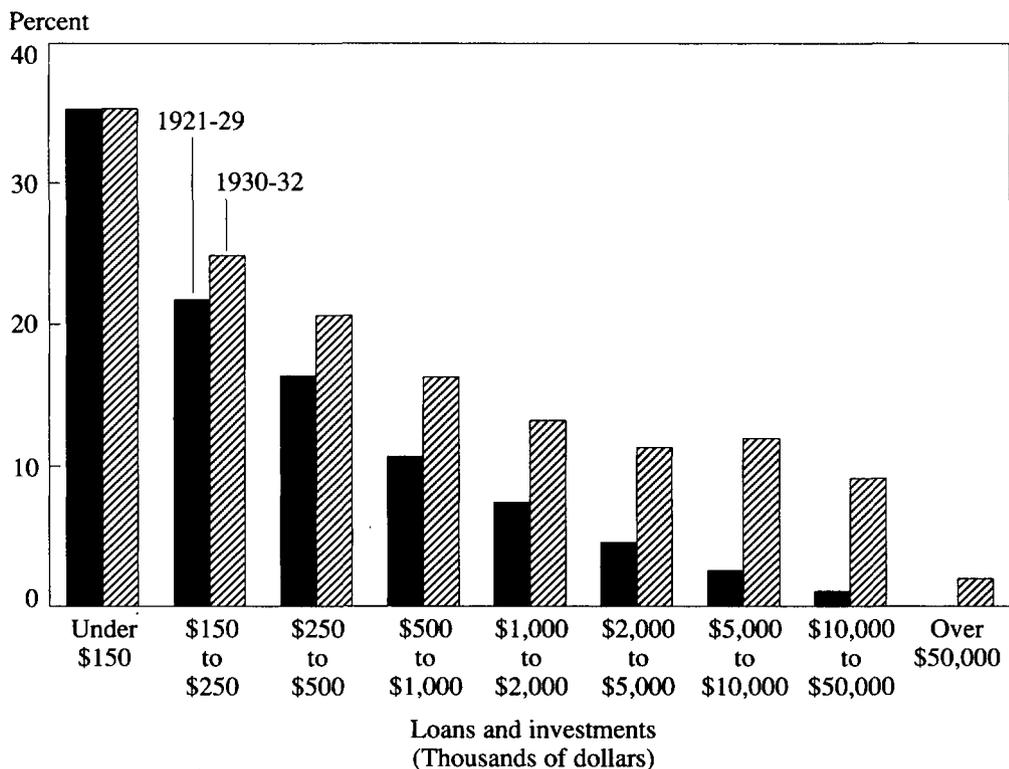
Large banks were especially vocal in their opposition to federal deposit insurance. As today, the leading trade association for large banks was the ARCB. The ARCB strongly opposed the deposit insurance provisions of the Banking Act of 1933 and sent a telegram to President Roosevelt expressing their disap-

proval (ARCB 1933; Schroeder 1962). Also, throughout 1932 and 1933, many representatives of large banks spoke out against federal deposit insurance in magazine articles, public hearings, and letters to politicians.<sup>14</sup>

Because small banks did not have an established trade group in the 1930s, their views on deposit insurance must be gleaned from other sources. The strongest evidence of small bank opposition to deposit insurance is the position taken by banking associations in states with many small banks. Kansas, Missouri, and Oklahoma were three such states. While the Banking Act of 1933 was before Congress, the associations of all three states expressed strong opposition to federal deposit insurance (Hubbard and Davids 1969; Kansas Banker 1933; and Oklahoma Banker 1933).<sup>15</sup> Further evidence of small bank opposition to federal deposit insurance comes from informal surveys conducted in 1933 in Texas and Nebraska, two other states dominated by small banks. All but 11 of the 628 banks responding to the Texas survey opposed federal deposit insurance (Grant and Crum 1978). And two-thirds of the banks polled in Nebraska were against the idea (Hughes 1956).

Small bank opposition to deposit insurance also surfaced at the annual meetings of the ABA, the trade association for the entire banking industry. Throughout the 1930s debate, the ABA took a strong stand against federal deposit insurance. The group passed resolutions against the plan at its annual meetings in 1932 and 1933 and urged Roosevelt to veto the legislation (Commercial and Financial Chronicle 1932 and 1933; FDIC 1984). Because the ABA represented both small and large banks, its actions do not prove that small banks opposed deposit insurance. But the ABA’s state-chartered banks, which were mostly small banks, passed a strong resolution of their own against deposit insurance (Commercial and Financial Chronicle 1933).<sup>16</sup> And an observer of the 1933 meeting of the ABA reported that opposition to the recently enacted

Chart 2  
**Total Failure Rate, 1921-29 and 1930-32**  
 By Size of Bank



Note: The failure rates for each category equal total failures in the two periods divided by the number of banks in June 1920 and June 1930, respectively.

Source: Federal Reserve Committee 1933b and Federal Reserve Bulletin 1937.

deposit insurance plan was as “marked among country bankers as among those in metropolitan cities” (Burns 1974, p. 125).

### Why the small bank view is so surprising

The fact that small banks need deposit insurance more than large banks suggests that small banks should have supported the plan in the 1930s instead of joining with large banks in opposing it. The opposition of small banks is all the more surprising because several factors should have made the plan especially appealing to them.

First, small banks had failed at much higher rates than large banks in the 1920s and early 1930s, underscoring their vulnerability to local economic shocks and bank runs. Chart 2 shows total failure rates by size of bank for the 1920-29 and 1930-32 periods. The inverse relationship between size and failure rate is especially strong for the 1920s, when agriculture was in depression but the nation as a whole was prospering. The relationship is not quite as strong for 1930-32, when the economic downturn was nationwide. But even in this period, some industries and regions suffered much more than others, putting particular strain on undiversified banks.

Thus, the failure rate for 1930-32 still decreases steadily with size up to \$2 million.<sup>17</sup>

A second reason small banks should have favored deposit insurance was that it appeared likely to reduce public pressure for branch banking (Golembe 1960). In the 1930s, most states still prohibited or severely restricted branching. The high failure rate of small banks in the 1920s and early 1930s had convinced many experts that the only way to make banks safe was to allow them to branch over a wider area—within Federal Reserve districts or even nationally. That way, it was claimed, banks could grow larger and diversify their loans and deposits more easily. Small banks strongly opposed branching, believing they would be unable to compete with large branch banks. Key supporters of deposit insurance like Henry Steagall argued that a big benefit of deposit insurance to small banks would be to satisfy the public's demand for safety, thereby reducing demands for branching.<sup>18</sup>

A third reason small banks had for strongly supporting deposit insurance was that the cost was to be subsidized by large banks. Under the permanent plan, the amount each bank had to pay to cover FDIC losses depended on its total deposits. But since large banks had more customers with accounts over the insurance limit, a smaller percentage of their total deposits would be insured than of small banks' deposits (Emerson 1934). Also, unlike today, there was no reason to believe the FDIC would provide de facto coverage of large banks' uninsured deposits. Thus, the effect of the plan was to force large banks to pay a higher premium per dollar of insured deposits than small banks. This difference in effective premium rates should have further increased small banks' support for the plan.

#### **IV. Resolving the Paradox**

The benefits of deposit insurance to small

banks appear to have been at least as great in the 1930s as today. Why is it, then, that small banks favor higher levels of coverage than large banks today, but sided with large banks against deposit insurance in the 1930s?

One reason so many small banks might have opposed federal deposit insurance in the 1930s was that the original law required all insured banks to join the Federal Reserve System within three years. At the time, most small banks were state-chartered banks outside the Federal Reserve System.<sup>19</sup> Some of these banks feared they would not meet the financial qualifications for Federal Reserve membership and would be denied insurance. A bank in this situation would be sure to lose most of its deposits to insured banks, ending up worse off than without the plan. Other state-chartered banks were clearly strong enough to join the Federal Reserve but did not want to join. These banks preferred to remain under state banking laws and supervision and avoid all federal control.<sup>20</sup>

This reason for opposing federal deposit insurance is no longer relevant because Congress soon dropped the requirement to join the Fed. Many banking experts believed that forcing state nonmember banks into the Federal Reserve System would reduce the rate of failures by improving bank supervision and regulation. But there was great political support for maintaining a dual banking system where banks could choose between state or federal regulation. As a result, Congress postponed the deadline for joining the Fed and finally eliminated the requirement altogether in 1938.

A second factor that might have helped turn small banks against deposit insurance was that the original plan was to be self-financed. Although the U.S. government made an initial contribution, it was under no obligation to bail out the FDIC in hard times. Instead, insured banks were subject to unlimited assessments to cover FDIC losses. These provisions of the law caused both small and large banks to worry they

would have to pay for the excesses of a reckless minority. With depositor discipline weakened, reckless banks would be able to take excessive risks. Such risk-taking could cause the FDIC to suffer heavy losses, requiring burdensome assessments on sound banks. Small bank concern on this score was reinforced by the unfavorable experience of state insurance plans. Following a wave of bank failures in 1907, eight states mostly in the Midwest and Southwest adopted their own deposit insurance plans for state-chartered banks.<sup>21</sup> When the rate of bank failures surged in the 1920s, most of the state plans suffered heavy losses and subjected healthy banks to stiff assessments (White 1983). Supporters of deposit insurance argued that the federal plan would be more successful due to greater diversification and closer supervision of insured banks. But the poor performance of the state plans made such a bad impression that many small banks were unconvinced.

Today small banks have less need to worry about paying for the excesses of reckless banks. In 1935, before the permanent plan went into effect, Congress set a maximum annual premium of 1/12 of 1 percent of deposits. With that change, banks no longer face unlimited liability for FDIC losses.<sup>22</sup> Another important difference from the 1930s is that the U.S. government now stands firmly behind the FDIC. Congress removed any doubts in 1982 when it pledged the "full faith and credit" of the government to protecting insured deposits. This guarantee further reduces the chances that sound banks will have to pay for the excesses of reckless banks. As the S&L bailout makes clear, taxpayers now bear most of that risk.

A final reason small banks might have looked less favorably on deposit insurance in the 1930s was that the plan represented a radical change. During the hearings, one Congressman suggested bankers opposed deposit insurance because they are "essentially a conservative people . . . and are just naturally opposed to a

change in the status of things" (U.S. House of Representatives 1932, p. 213): Whether or not this characterization was fair, the 1933 law clearly represented a leap into the unknown for most small banks. After 50 years of experience with federal deposit insurance, small banks have much less reason to fear a move to full coverage. Such a change would not constitute a sharp break with the past, but rather, one more step in the steady expansion of the program.

## V. Conclusions

This article contends it is rational for small banks to favor deposit insurance more than large banks. Deposit insurance makes up for small banks' vulnerability to local economic shocks, making it easier for them to compete with large banks for risk-averse depositors who want a certain return. Deposit insurance also eliminates bank runs, which are more of a problem for small banks because their uninsured depositors have more reason to worry about the safety of their funds.

Small banks' greater need for deposit insurance helps explain the current split between small and large banks over the level of coverage. Both sides agree that reform is needed. But small banks would fully insure deposits at all banks, while large banks would force all large depositors to bear some risk. This difference in views is exactly what one would expect, given the greater vulnerability of small banks to local economic shocks.

Since small banks were just as vulnerable to local economic shocks and bank runs in the 1930s, they should also have favored deposit insurance more than large banks then. Surprisingly, however, small banks joined large banks in opposing deposit insurance. Some of this opposition may have reflected uneasiness about the revolutionary nature of the plan. But small banks also objected to two key provisions of the plan that were later dropped—compulsory

membership in the Fed and unlimited liability for FDIC losses. Today deposit insurance no longer poses any threat to the dual banking system. Moreover, banks can rest assured they will not have to pay most of the bill if the FDIC

gets into trouble. Thus, on closer examination, small banks may have good reason to look more favorably on deposit insurance now than they did in the 1930s.

## Endnotes

<sup>1</sup> In economic jargon, vulnerability to local shocks forces small banks to pay a "risk premium" on their deposits. The risk premium is the additional expected return risk-averse depositors require to compensate for uncertainty in the return.

<sup>2</sup> Another reason depositors of small banks may have more concern about the safety of their funds is that the banks' assets tend to be less liquid. Most of their loans are to local borrowers with no outside reputation, making the loans hard to sell in a hurry to raise cash. As a result, small banks are more likely to fail than large banks if, for whatever reason, a large fraction of depositors suddenly decide to withdraw their money.

<sup>3</sup> In other words, deposit insurance eliminates the risk premium that small banks would otherwise have to pay on their deposits. This effect would benefit small banks more than large banks even if small banks had to pay the FDIC a higher premium per dollar of insured deposits to compensate for their greater risk of failure from local economic shocks.

<sup>4</sup> For more thorough treatments of the FDIC's methods of handling bank failures, see FDIC 1989 and Secura Group 1989.

<sup>5</sup> Instead of paying off insured deposits directly, the FDIC sometimes pays another bank to take over the deposits. Such transactions are called insured deposit transfers but are essentially the same as payoffs.

<sup>6</sup> The three methods also affect the degree of protection to creditors other than depositors. In payoffs and open-bank assistance, such creditors are treated the same as uninsured depositors. Thus, they are unprotected by payoffs and fully protected by open-bank assistance. Until very recently, general creditors were also fully protected by P&As because the acquiring bank had to assume the failed bank's nondeposit liabilities as well as its insured and uninsured deposits. However, in the Financial Institutions Reform and Recovery Act (FIRREA) passed last year, Congress authorized "pro rata" P&As in which the acquiring bank assumes only the failed bank's deposits. In such transac-

tions, uninsured depositors are fully protected but general creditors are not.

<sup>7</sup> Although a few studies have found that risky banks have to pay higher rates on large uninsured deposits than safe banks, the evidence is controversial and the difference in rates is small at best (Gilbert 1990). Large depositors do sometimes withdraw funds from banks that appear on the verge of failure, such as Continental Illinois in 1984. But critics of the current system argue that such withdrawals come too late to deter banks from taking risk.

<sup>8</sup> Adding to the inequity, according to some critics, is that large banks pay no premiums on their foreign deposits—deposits that are fully protected under the "too big to fail" policy. Under this system, small banks pay a higher premium per dollar of true coverage than large banks. The critics believe this difference in effective premiums is too large to be justified by any difference in the two groups' risk of failure.

<sup>9</sup> Individual large banks have also put forth plans to enforce the statutory limit more strictly. See, for example, Huertas and Strauber 1986, which gives the Citicorp view.

<sup>10</sup> The same haircut would be applied to general creditors as to uninsured depositors. Also, the settlement with uninsured depositors and general creditors would be final. In other words, if the FDIC recovered more than average from a failed bank's assets, it would keep the surplus. And if the FDIC recovered less, it would absorb the loss. After applying the haircut, the FDIC would choose the least costly way to dispose of the bank—whether that be a payoff, a P&A, or a capital infusion to let the bank reopen.

<sup>11</sup> Many states will soon allow holding companies from anywhere in the nation to set up bank subsidiaries, and bills have been introduced in Congress to permit nationwide branching. Note also that if the FDIC imposed losses on all large deposits, large banks would have more incentive to exploit their opportunities for diversification so as to reduce their risk. Thus, the gap in diversification between small and large banks would probably widen.

<sup>12</sup> According to this view, the economy was locked in a

vicious circle only deposit insurance could break. As long as people feared for the safety of their funds, they would keep their money out of banks. And as long as people kept their money out of banks, banks would be unable to lend. The most prominent economist endorsing this view was Irving Fisher (U.S. House of Representatives 1932, pp. 143-54).

<sup>13</sup>For another example of the conventional interpretation, see White 1982 and 1983. All the authors cited offer little or no evidence to back their claim that small banks supported federal deposit insurance. In the most thorough study of bankers' views to date, Burns 1974 emphasizes the widespread nature of bank opposition without trying to distinguish between small and large banks. During the 1930s debate, supporters of deposit insurance contributed to the impression that only large banks opposed the idea, in an effort to exploit popular sentiment against large banks.

<sup>14</sup>Among the more prominent large bankers who spoke out against deposit insurance were Percy H. Johnson of the Chemical Bank and Trust Company of New York (Burns 1974, p. 67), Winthrop W. Aldrich of the Chase National Bank (Burns 1974, p. 87), and Guy Emerson of the Bankers Trust Company (Emerson 1934).

<sup>15</sup>In principle, the three banking associations could have opposed deposit insurance because the largest banks in each state imposed their wishes on smaller banks. However, this possibility seems unlikely, given that all three associations had previously endorsed the small bank view against branch banking.

<sup>16</sup>In 1930, 68 percent of all state-chartered banks in the nation had loans and investments less than \$500,000, while only 36 percent of all national banks were that small (Federal Reserve Committee 1933b). Corresponding figures for state and national banks in the ABA are not available, but there is no reason to believe the relative sizes were different.

<sup>17</sup>The role of local economic shocks in the 1930-32 bank failures is discussed by Chandler 1970. He argues that deposit drains from the most depressed regions to other

regions account for many of the failures. It is possible that some small banks in rural communities were unconcerned about their high risk of failure because they faced less outside competition for local deposits than small banks today. However, the 1932 hearings on the Steagall bill contain many references to depositors steadily shifting funds from small rural banks to large city banks in search of greater safety (U.S. House of Representatives 1932).

<sup>18</sup>For the same reason, prominent advocates of branching like Comptroller of the Currency John Pole strongly opposed deposit insurance. It should be noted, however, that preserving small banks was not the only reason Steagall and other politicians supported deposit insurance. During the Congressional hearings and debates, supporters of deposit insurance stressed mainly the need to stimulate the economy by restoring confidence in the banking system (U.S. House of Representatives 1932 and Congressional Record 1933).

<sup>19</sup>Of the 13,315 banks in 1930 with loans and investments under \$500,000, 78 percent were state nonmember banks, 20 percent were national banks, and 2 percent were state member banks (Federal Reserve Committee 1933a and 1933b). Membership in the Federal Reserve has always been compulsory for national banks.

<sup>20</sup>Some small banks and their political allies were so strongly opposed to any form of federal control that they also opposed the original House version of the plan. That version did not require state nonmember banks to join the Fed but did require the FDIC to certify that they were sound enough to become insured.

<sup>21</sup>The states were Kansas, Nebraska, South Dakota, North Dakota, Oklahoma, Texas, Mississippi, and Washington.

<sup>22</sup>In passing FIRREA last year, Congress raised the premium to 0.15 percent of deposits and authorized the FDIC to increase the rate still further if the insurance fund fell below a designated level. However, under no circumstances can the premium exceed 0.33 percent of deposits or go up more than 0.075 percentage points in one year.

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# U.S. Foreign Exchange Operations

By Kristina Jacobson

**T**he volume of U.S. official foreign exchange operations has grown substantially in recent years. In 1989, the total volume of U.S. transactions in the exchange market was over \$20 billion, the highest ever. At the same time, because recent U.S. operations have usually involved the purchase of foreign currency, U.S. foreign currency balances have grown to record levels, reaching nearly \$45 billion in December 1989.<sup>1</sup>

Such changes in U.S. foreign exchange operations reflect the evolving nature of U.S. exchange rate policy over the postwar period. During the Bretton Woods system of fixed exchange rates, which lasted from 1947 to 1973, the primary goal of U.S. operations was to maintain the dollar price of gold, chiefly through official transactions with foreign authorities. With the shift to floating exchange rates in the

early 1970s, the focus of U.S. operations has been to counter disorderly conditions, primarily through direct intervention in the market.

This article describes how the goals and methods of U.S. foreign exchange operations have changed over time. The first section reviews the institutional framework for U.S. foreign exchange operations. The second section discusses the role of the United States in the Bretton Woods system of fixed exchange rates and U.S. exchange rate policy goals and methods during that time. The third section discusses the goals and methods of U.S. operations during the floating-rate regime.

## I. Framework for Operations

The U.S. Treasury and the Federal Reserve System cooperate in formulating and implementing U.S. exchange rate policy. In a broad sense, because foreign economic policy falls under the Treasury's domain, the Treasury is ultimately responsible for exchange rate policy. However, the Fed consults with the Treasury on deciding

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exchange rate policy and directly implements that policy.

The foreign exchange desk at the Federal Reserve Bank of New York conducts all U.S. foreign exchange operations, using Treasury and Federal Reserve funds. Since 1978, the Fed and the Treasury have generally shared equally in financing operations. The Treasury pays for its portion of operations with its Exchange Stabilization Fund (ESF).<sup>2</sup> The Federal Reserve System pays for its operations with an account owned by all 12 Federal Reserve banks. The Federal Open Market Committee (FOMC), the Fed's principal policymaking body, regulates operations for the Fed's foreign exchange account.<sup>3</sup>

The Treasury reports the U.S. foreign exchange policy goal in general terms to the International Monetary Fund (IMF). The IMF is an international organization designed to promote cooperation in international monetary and payment issues. Currently, the goal of U.S. foreign exchange operations as reported to the IMF is to counter disorderly market conditions or to act when "otherwise deemed appropriate" (International Monetary Fund 1986). The Federal Reserve recognizes the Treasury's goal and ensures that operations for the System foreign exchange account will follow the Treasury's commitment to the IMF.

The FOMC manages the System account through three formal documents: the Foreign Currency Directive, the Authorization for Foreign Currency Operations, and the Procedural Instructions. These documents require that Fed operations be "conducted in close and continuous consultation and cooperation with the United States Treasury" (Board of Governors 1989). The documents also provide guidelines on financing arrangements between the Fed and foreign authorities or the U.S. Treasury. The FOMC also formally and informally monitors the size of System foreign currency balances. For any operations not falling within the guidelines, the foreign desk must seek approval from the

entire FOMC or a delegated subcommittee of the members.

Each day, the foreign desk must decide whether and how to intervene within the guidelines agreed upon with the Treasury. To provide the desk with up-to-the-minute information, staff members at the New York Fed continuously watch the 24-hour, worldwide foreign exchange market and convey significant developments to the Treasury and the Fed's Board of Governors in Washington, D.C. Treasury and Board staffs also study the market, but the New York Fed follows developments most closely. Each morning, New York staff members call various commercial banks to obtain the latest exchange rate quotes and to get a "feel" for the market. New York staff members may also call foreign central banks to coordinate foreign exchange operations. If the desk plans to conduct operations, the manager of the foreign desk determines exactly when and how to act. In making intervention decisions, the manager consults officials at the Treasury and the Board.

The rest of this article reviews the goals and methods of U.S. foreign exchange operations, first during the fixed-rate regime and then during the floating-rate regime.

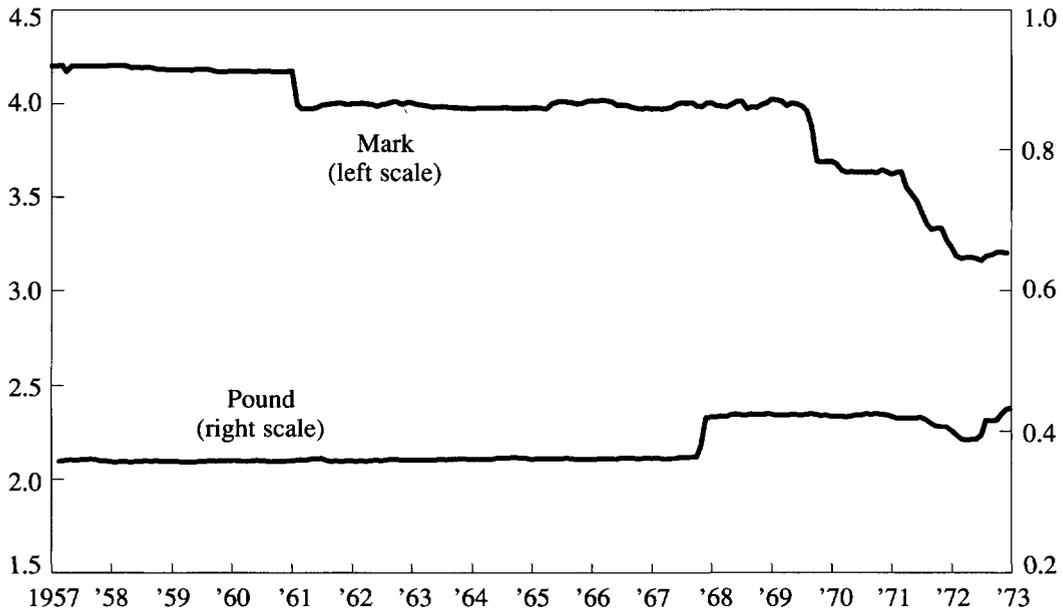
## **II. Fixed-Rate Regime: Goals and Methods**

The Bretton Woods system of fixed exchange rates lasted from 1947 to March 1973. The U.S. dollar was the center of the system and the value to which other countries pegged their currencies. The role of foreign authorities was to intervene in the foreign exchange market to maintain the value of their currency relative to the dollar. For example, if it was deemed necessary to cause the pound to rise against the dollar, British authorities bought pounds, increasing the demand for the pound and pushing up its price. Alternatively, to cause the pound to fall against the dollar, British authorities sold pounds,

Chart 1

### The Bretton Woods Period: Foreign Exchange Value of the Dollar

(Foreign currency units per dollar)



Source: *Federal Reserve Bulletin*, various issues.

increasing the supply of pounds and pushing down the pound's price.

In contrast to the role of foreign authorities, the role of the United States was to maintain the dollar price of gold at \$35 an ounce. The United States stood ready to sell gold to foreign authorities who wished to convert dollars acquired through foreign exchange operations. The annual U.S. notification of its exchange rate goal to the IMF stated this commitment.<sup>4</sup>

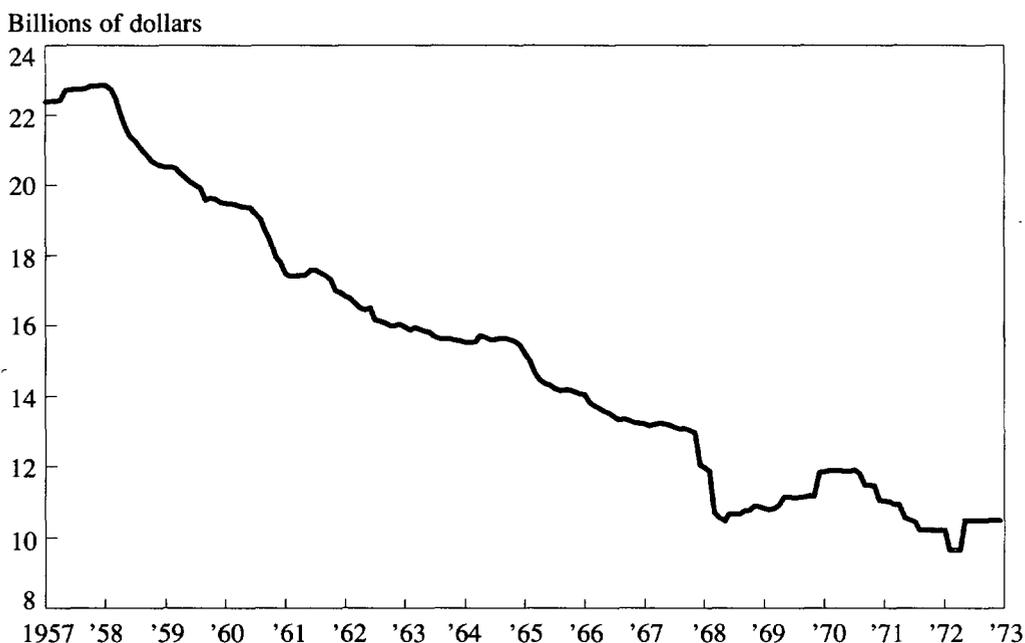
The allowable limits of exchange rate fluctuation were small during the fixed-rate regime, except for occasional currency devaluations or revaluations.<sup>5</sup> For example, in the mid-1960s, the pound was frequently under downward pressure in part because of a large British trade

deficit. The downward pressure continued despite efforts of global monetary authorities to maintain the currency's value. Consequently, in 1967, British authorities devalued the pound (Chart 1).

Although exchange rate fluctuations were generally small during the fixed-rate period, exchange rate pressures surfaced in other ways. Because authorities used their reserves to intervene in the market to maintain fixed exchange rates, pressure on exchange rates was evident through changes in the size of official reserves, such as dollar holdings of foreign officials and the U.S. gold stock. For example, the U.S. gold stock dropped substantially during the 1960s, as the United States upheld its obligation to sell gold

Chart 2

## The Bretton Woods Period: U.S. Gold Stock



Source: Data Resources, Inc.

for dollars obtained by foreign authorities through their foreign exchange operations (Chart 2). In addition, as a result of exchange rate pressures, governments sometimes changed monetary and fiscal policy.<sup>6</sup>

### Operations to protect the U.S. gold stock

The convertibility of dollars into gold was the foundation of the Bretton Woods regime. Foreign authorities were willing to hold dollars because the United States assured their convertibility into gold at a fixed price. During the 1960s, however, the fixed-rate system showed signs of strain. The dollar was under downward pressure, largely because of the U.S. current account deficit. To counter downward pressure on the dollar, foreign authorities bought dollars

in the market and consequently built up large dollar reserves. As foreign authorities exchanged their excess dollar balances for gold and the U.S. gold stock fell, concern grew about whether the United States could continue to convert dollars into gold. Early in the decade, with downward pressure on the dollar intensifying, the United States began to act to protect its gold stock and the global monetary system. Four basic methods were used in this effort.

First, the United States borrowed foreign currency through a swap network. The swap network is a mechanism through which U.S. and foreign authorities may temporarily exchange domestic and foreign currency. The swap network consists of a series of reciprocal credit agreements between U.S. and foreign authorities.<sup>7</sup> In effect, each country agrees to exchange

its currency for foreign currency on demand, up to an agreed-amount. The country initiating the exchange is the borrower; the other country is the creditor. The borrower purchases foreign currency from the creditor and agrees to sell the currency back at the same exchange rate on a specified date, usually in three months. The borrower may extend the swap if both parties agree.<sup>8</sup>

During the fixed-rate regime, the United States borrowed through the swap network primarily to relieve exchange rate risk on dollars held by foreign authorities. Because the dollar was frequently under downward pressure, foreign authorities holding large amounts of their reserves in dollars were at risk that the dollar would be devalued, causing their reserves to lose value. Through the swap network, the United States borrowed foreign currency to purchase a portion of the dollars held by foreign authorities, decreasing the dollar holdings of the foreign authorities. In this way, U.S. authorities hoped to limit the amount of dollars foreign authorities converted into gold. By absorbing some of the dollars foreign authorities did not want, the United States hoped to buy time for exchange market conditions to stabilize.

The United States also loaned dollars to foreign authorities through the swap network. For example, with the pound under downward pressure in the mid-1960s, the United States loaned dollars to the Bank of England so it could intervene to maintain the pound's value.

A second method U.S. authorities used during the fixed-rate regime was to sell foreign-currency-denominated bonds, called "Roosa bonds," to foreign authorities.<sup>9</sup> These bonds served as a source of foreign currency to purchase the dollar reserves of foreign authorities and to repay swap debt. For example, in May 1963, the United States sold \$30 million equivalent of Belgian-franc-denominated bonds to the Belgian authorities and used the proceeds to buy surplus dollars held by the Belgian authorities. Also, in August 1963, the United

States sold a \$50 million two-year mark bond to the West German authorities and used the proceeds to repay earlier U.S. borrowing of marks through the swap network. In this way, the United States limited how long a swap remained outstanding (Coombs 1963).

The third method used to protect the gold stock involved drawing on the U.S. reserve position in the IMF. The United States and other IMF members pay quotas, or membership fees, to the IMF. These quotas provide most of the resources the IMF lends to member countries in pursuit of its goals. The United States drew down from its reserve position at various times during the Bretton Woods period. For example, in 1965, the United States drew foreign currency to buy excess dollars from foreign authorities and to pay off swap borrowing. Paying off swap borrowing by drawing from the IMF provided another way to limit how long a swap was outstanding.

Finally, as a fourth method to protect the U.S. gold stock, U.S. and foreign authorities cooperated to keep the market price of gold from rising above the official \$35 rate. The United States was concerned that a high market price for gold would induce foreign authorities to exchange their dollar reserves at the U.S. gold window. To keep the market price of gold from rising above the official price, the United States and other nations formed an organization called the gold pool, which sold gold in the London market from 1961 to 1968. However, this effort met with limited success.

### **Operations in the foreign exchange market**

Although the chief role of the United States during the fixed-rate period was to maintain the fixed price of gold, U.S. authorities also on rare instances intervened directly in the foreign exchange market. At times, the intervention was undertaken to reduce pressure on foreign authorities to buy dollars—by limiting the

number of dollars bought and held by foreign authorities, the United States hoped to decrease the amount of gold it would have to sell. At other times, the intervention was undertaken to calm financial markets. For example, after the assassination of President Kennedy in 1963, U.S. authorities entered the exchange market to counter speculative pressures and provide assurance that U.S. international financial policy had not changed. Two other notable episodes of U.S. intervention came in 1965 and in 1967, both in response to downward pressure on the British pound. In these episodes, the United States purchased pounds to help British authorities maintain the value of the pound.

Although U.S. intervention was infrequent during the fixed-rate period, U.S. authorities did undertake various types of intervention. In conducting its direct intervention, the desk had several choices on how to approach the market, depending on exchange market conditions and the goal of the intervention. For example, the desk at times dealt directly with a commercial bank. The commercial bank in turn was free to inform other market participants as it saw fit. The market may have interpreted such operations as a signal about how U.S. officials viewed exchange rates.

At other times, the desk preferred to approach the market indirectly by asking a commercial bank to act on its behalf. The commercial bank would act just as it would act for any other customer and would be precluded from revealing on whose behalf it was acting. Also, the desk on occasion chose to act passively, responding to an offer privately placed in the market rather than initiating an operation at a certain rate. The desk might have used this approach when trading was thin in order to restrain the impact that an aggressively pursued transaction might have had on the market.

Intervention by the foreign desk, no matter what the approach, has had implications for the operations of the domestic desk at the Federal Reserve Bank of New York. The domestic desk

automatically offsets, or sterilizes, the effect of any U.S. exchange market intervention on the U.S. money supply. It does so by buying or selling U.S. Treasury securities as part of its "open market operations."<sup>10</sup> For example, when the foreign desk sells dollars for foreign currency to counter upward pressure on the dollar, the U.S. money supply increases as the dollars enter the U.S. banking system. To offset this intervention, the domestic desk sells Treasury securities to drain the dollars created by the intervention.

Because the United States sterilizes all of its intervention, the end result of a U.S. exchange market intervention is a change in the relative supplies of U.S. and foreign bonds held by the public. In the above example, the domestic desk's sale of Treasury securities adds to the supply of Treasury securities held by the public; hence, the relative supply of U.S. Treasury securities increases as a result of the sterilized intervention.

Sterilized intervention is generally thought to affect exchange rates less than nonsterilized intervention does. Nonsterilized intervention changes the size of the U.S. money supply because no offsetting purchase or sale of Treasury securities occurs. A change in the U.S. money supply directly affects the exchange rate because the supply of dollars relative to foreign currency changes. Also, a change in the U.S. money supply may influence U.S. interest rates and U.S. economic activity, which in turn may affect the exchange rate. Sterilized intervention, on the other hand, does not change the size of the U.S. money supply. However, to the extent investors regard foreign and domestic bonds as imperfect substitutes, the change in relative bond supplies may cause some exchange rate adjustment. In addition, sterilized intervention may influence the exchange rate by signaling a change in U.S. economic policy.<sup>11</sup> Nevertheless, most research suggests that sterilized intervention—in the absence of a fundamental change in U.S. economic policy—probably does not have a lasting effect on the foreign exchange value of the dollar.<sup>12</sup>

### III. Floating-Rate Regime: Goals and Methods

Despite efforts by U.S. and foreign authorities, the Bretton Woods system remained under pressure in the 1960s and early 1970s. This pressure resulted mainly from imbalances in international payments positions of several countries. Concern about U.S. ability to maintain convertibility of the dollar also persisted. In 1971, the U.S. Treasury suspended converting dollars into gold and foreign currency. Although efforts to maintain the Bretton Woods regime continued over the next two years, the fixed-rate system collapsed by March 1973. Fixed exchange rates between the dollar and most major currencies no longer were in effect, and exchange rates moved in response to market forces.<sup>13</sup>

During the floating-rate regime, from March 1973 to the present, the United States has conducted foreign exchange operations primarily to counter disorderly markets. The U.S. report to the IMF has reflected this goal.<sup>14</sup> At times, U.S. authorities have interpreted the objective narrowly, focusing market operations on efforts to counter short-term market disorder. At other times, U.S. authorities have interpreted the objective more broadly, acting to adjust exchange rates considered out of line with economic fundamentals. In 1985, the United States officially broadened its foreign exchange market goal to include both countering disorderly markets and entering the market when "otherwise deemed appropriate" (International Monetary Fund 1986). During the floating-rate regime, the focus of U.S. operations has been direct intervention in the foreign exchange market in response to movements in exchange rates. The dollar's value has varied substantially over the period (Chart 3). This section reviews the changes in U.S. foreign exchange market goals and methods during the floating-rate regime.

### Narrow interpretation: 1973 to 1977

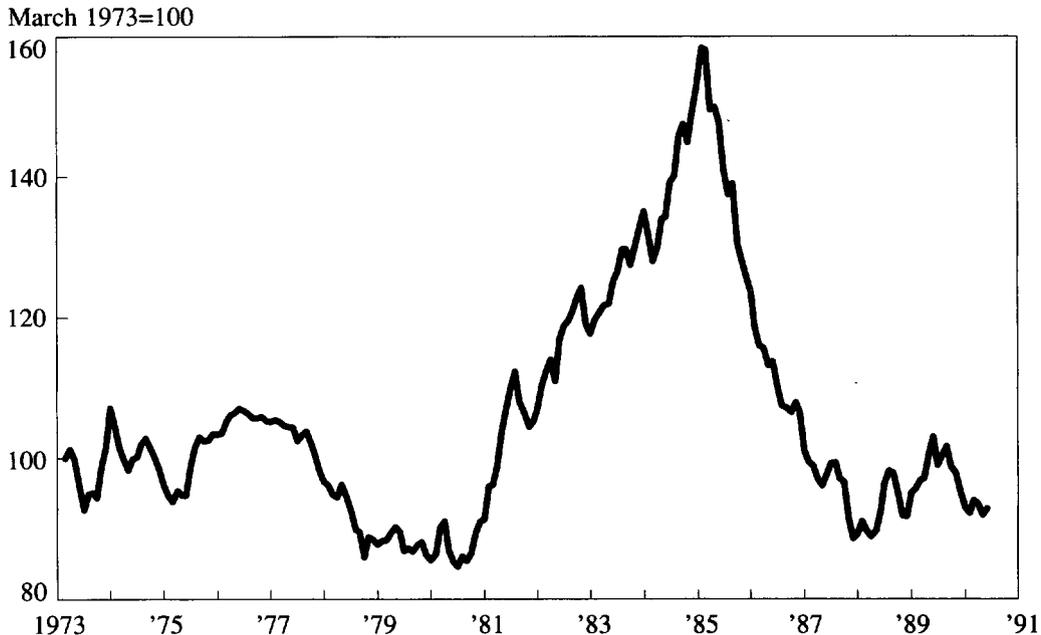
In the years immediately after the Bretton Woods system broke down, the United States directed most of its foreign exchange market intervention toward countering disorderly markets in the narrow sense. Narrowly defined, characteristics of a disorderly market include sharp exchange rate movements, thin trading, and wide spreads between the rates at which market participants are willing to buy (bid rates) and the rates at which they are willing to sell (ask rates). The volume of U.S. intervention from 1973 to 1977 was relatively small. The dollar rose and fell during these years in response to changing market perceptions of economic fundamentals. When the dollar fell sharply, U.S. authorities frequently bought dollars to stabilize market conditions. The United States paid for these purchases by using its foreign currency reserves and by borrowing through the swap network. To accommodate this borrowing, U.S. authorities expanded swap lines with several countries. During periods when the dollar rose, U.S. authorities took the opportunity to purchase foreign currency to repay debts.

An example of U.S. operations during this period was the purchase of dollars in July 1973 to "assist the market in finding solid footing" (Coombs 1973). At the time, the dollar was under downward pressure, in part because of rising interest rates in Europe and market concern about inflationary pressures in the United States. The foreign exchange market showed signs of disorder, including wide bid-ask spreads and thin trading. Trading became so disorderly at times that some New York banks withdrew from the market.

Another notable episode of U.S. intervention was in February 1975, when the United States, Germany, and Switzerland purchased dollars in the first major concerted intervention during the floating-rate period. The dollar was falling because of a severe U.S. recession, a

Chart 3

### The Floating-Rate Period: Trade-Weighted Value of the Dollar



Source: Board of Governors of the Federal Reserve System.

decline in U.S. interest rates relative to foreign rates, and rising inflation in the United States relative to several other countries. These developments had a strong impact because the market doubted whether U.S. economic policy could contain inflationary pressures.

#### **Broad interpretation: 1978 to 1980**

In the late 1970s, the dollar declined sharply, prompting authorities to act more forcefully. The trade-weighted value of the dollar declined 20 percent from June 1976 to October 1978, largely because of market concern about economic imbalances among major industrial nations (Chart 3). The U.S. economy was experiencing

rising inflation and a worsening current account deficit. In contrast, other countries, such as Japan and Germany, were experiencing weak economic growth and substantial current account surpluses. Initially, U.S. authorities purchased dollars "to deal . . . with the disorder in the exchange market" (Holmes 1978).

The United States began a series of steps to stop the dollar's fall in 1978. In January, the Federal Reserve and Treasury began to participate equally in financing intervention. This was a notable change in tactics because most intervention had previously been for the Fed account. In addition, the Treasury and the Bundesbank agreed to set up a swap arrangement, augmenting U.S. resources for foreign exchange inter-

vention. Over the following months, the Treasury borrowed under this agreement, obtaining marks to use for dollar purchases in the market. During 1978, the Federal Reserve also tightened domestic monetary policy, which increased U.S. interest rates and helped strengthen the dollar.

On November 1, 1978, U.S. authorities announced a major plan to halt the dollar's decline. This plan included, among other efforts, the purchase of dollars in the exchange market. The United States had decided the dollar's decline "had gone beyond what could be justified by underlying economic conditions" (Holmes 1979, p. 67). The plan was the first major departure from a narrow interpretation of the U.S. exchange rate objective. Increases in Federal Reserve swap agreements with various central banks helped finance the intervention, and tighter monetary policy bolstered the move. The United States also used several financing arrangements to increase the Treasury's resources for intervention.

The Treasury drew on the resources available from the IMF. For example, in 1978, the Treasury drew from its position at the IMF to obtain foreign currency to purchase dollars. The Treasury also obtained foreign currency by selling Special Drawing Rights (SDRs) to foreign authorities. An SDR is an international reserve asset the IMF began creating in 1970 to supplement other world reserve assets like the dollar and gold. IMF member nations receive SDR allocations according to the size of their quotas. In 1978, the Treasury sold SDRs for marks, yen, and Swiss francs.

The Treasury also issued foreign-currency-denominated securities, or "Carter bonds." In contrast to the Roosa bonds sold to foreign authorities during the fixed-rate regime, the Carter bonds were sold to the public. The Treasury issued nearly \$2.8 billion equivalent of Carter bonds by January 1979 and ultimately issued over \$6 billion equivalent before it began redeeming the bonds in 1981 (Holmes 1979, p.

203, and Cross 1981). In addition, the Treasury increased gold sales to obtain foreign currency.

The Treasury also made use of financing arrangements with the Federal Reserve. Warehousing, for example, is a method of exchanging dollars in return for foreign currency not needed at the time. The Fed buys foreign currency from the Treasury and simultaneously agrees to sell the currency back at the same exchange rate as in the purchase at some specified date in the future. The FOMC regulates System warehousing of foreign currency for the Treasury and in 1978 the FOMC broadened its warehousing authorization, allowing the System to warehouse foreign currency for the general Treasury account as well as for the ESF.<sup>15</sup> In this way, the System could warehouse the foreign currency proceeds of the Carter bonds until the Treasury used them.<sup>16</sup>

### **Narrow interpretation: 1981 to 1984**

With the arrival of the Reagan Administration in 1981 and a more hands-off approach to government, U.S. authorities once again interpreted the goal of countering disorderly markets narrowly. From 1981 to 1984, the United States rarely intervened in the foreign exchange market. This policy stance reflected the view of the Treasury during the first Reagan term that the market should determine exchange rates. The new policy limited intervention to extreme circumstances, such as after the shooting of President Reagan in March 1981. Furthermore, the administration questioned whether intervention could have much effect on the exchange rate.<sup>17</sup>

The dollar rose dramatically during the early 1980s (Chart 3). This rise has been attributed to the strong U.S. economy, large budget deficit, tight U.S. monetary policy, and high real interest rates relative to the rest of the world. From July 1980 to its peak in February 1985, the dollar's value increased over 85 percent. As the dollar rose, the domestic business community began to

complain that the dollar's strength limited the competitiveness of U.S. products against foreign competitors.

### **Broad interpretation: 1985 to present**

In 1985, against the backdrop of a very strong dollar, the Treasury during the second Reagan term returned the United States to a broad interpretation of its exchange rate policy goal. Since then, the United States has intervened both to calm disorderly markets and to correct apparent inconsistencies between exchange rate levels and economic fundamentals. In pursuit of its goals, the United States has intensified cooperation with foreign authorities on international economic policy. Also, in contrast to operations during most of the postwar period—which had largely consisted of dollar purchases—recent U.S. intervention has consisted mostly of dollar sales, resulting in record U.S. holdings of foreign currency.

During 1985, the United States intervened more heavily than it had for several years. From January to March 1985, U.S. authorities sold over \$650 million in the foreign exchange market. These actions were taken to prevent a further rise in the dollar's value, thus reflecting a broader interpretation of U.S. intervention goals. During 1985, official intervention goals as reported to the IMF were broadened to include intervening "to counter disorderly conditions in the exchange markets or when otherwise deemed appropriate" (International Monetary Fund 1986). The major episode of U.S. intervention in 1985 occurred after the meeting of the five industrialized G-5 nations at the Plaza Hotel in September.<sup>18</sup> At this meeting, G-5 officials agreed that appreciation of foreign currencies was desirable because exchange rates did not reflect economic fundamentals. Officials were also concerned about the threat of rising protectionism in the United States. In the weeks after the Plaza Accord, the United States sold dollars in the largest U.S. intervention since the late

1970s. Foreign authorities also sold substantial amounts of dollars. The volume of U.S. intervention from September to October exceeded \$3 billion, nearly five times the volume of the U.S. intervention earlier in the year. As the dollar continued to fall throughout the rest of 1985 and 1986, further U.S. intervention became unnecessary.

By early 1987, the dollar had fallen to its lowest level in seven years. The weak dollar reflected a growing U.S. trade deficit and signs of a weakening U.S. economy. At a meeting in February at the Louvre in Paris, G-7 officials decided that exchange rates reflected economic fundamentals.<sup>19</sup> As a result, these officials decided to "cooperate closely to foster stability of exchange rates around current levels" (Bank for International Settlements 1987). This agreement, the Louvre Accord, has guided international cooperation in exchange rate policy to the present. The Louvre Accord also signaled a shift in U.S. policy from encouraging the appreciation of foreign currencies to fostering exchange rate stability.

During the rest of 1987, the dollar generally fell and U.S. intervention consisted primarily of dollar purchases. The dollar's continued decline reflected in part large U.S. trade deficits. The October stock market crash and the associated easing of monetary policy by the Federal Reserve also placed downward pressure on the dollar. In 1987, the United States conducted an even higher volume of intervention than in 1985. This intervention largely consisted of dollar purchases to stop the dollar's slide. Foreign officials cooperated with the U.S. effort and in December 1987, G-7 officials restated their Louvre commitment to cooperate in the foreign exchange market. In an effort to calm the market, these officials also announced that "either excessive fluctuation of exchange rates, a further decline of the dollar, or a rise in the dollar to an extent that becomes destabilizing to the adjustment process, could be counterproductive by damaging

growth prospects in the world economy'' (U.S. Department of the Treasury 1987).

The next major increase in the volume of U.S. intervention came in 1989. This intervention again was consistent with the G-7 commitment to exchange rate stability. The bulk of U.S. intervention in 1989 was during the first half of the year. For example, the dollar came under upward pressure at times during the spring and summer because of political uncertainty abroad and interest-rate differentials favorable to the dollar. In response, U.S. authorities sold dollars.<sup>20</sup> Also, after their September 23 meeting, G-7 officials issued a communique stating that the dollar's rise was inconsistent with longer run economic fundamentals (Bank for International Settlements 1989). During the last months of the year, upward pressure on the dollar subsided and the dollar fell.

Recent U.S. intervention has resulted in the largest U.S. holdings of foreign currency ever. Total holdings of the Federal Reserve and the Treasury combined have risen from \$8 million in 1973 to nearly \$45 billion in December 1989.<sup>21</sup> The growth of these balances reflects the fact that recent intervention has usually involved dollar sales.

#### IV. Summary

The goals and methods of U.S. foreign exchange operations have changed over time. Under the Bretton Woods regime, the role of the United States was to convert officially held dollars into gold. In the 1960s, concern for the U.S. gold stock grew, as foreign monetary authorities accumulated large amounts of dollars. To protect the gold stock, the United States borrowed foreign currency to buy dollars from foreign authorities. The United States also on rare occasions intervened directly in the foreign exchange market.

The primary objective of U.S. exchange rate policy during the floating exchange rate period has been to counter disorderly market conditions. Over time, U.S. authorities have interpreted this objective both narrowly and broadly. Major episodes of U.S. intervention occurred in the late 1970s, in 1985, and from 1987 to the present. In the late 1970s, U.S. authorities intervened to support the weak dollar and, in 1985, to counter the strong dollar. From 1987 to the present, U.S. operations have been mixed, with the underlying goal to maintain exchange rate stability. Direct intervention was particularly heavy in 1989, totaling over \$20 billion, the highest volume ever.

## Endnotes

<sup>1</sup> Data on the size of U.S. foreign currency holdings in 1989 were obtained from Board of Governors of the Federal Reserve System 1990a. Data on the volume of U.S. transactions in the foreign exchange market were taken from various issues of the Federal Reserve Bank of New York's *Quarterly Review*.

<sup>2</sup> The ESF fund was established by the Gold Reserve Act of 1934 to be operated by the Treasury to stabilize the exchange value of the dollar. The Treasury maintains its ESF and its general accounts at the Federal Reserve, which acts as the government's banker.

<sup>3</sup> The FOMC is made up of seven members of the Board of Governors and five of the 12 district Federal Reserve Bank presidents.

<sup>4</sup> During the fixed-rate regime, the United States was committed to buying gold at \$35 an ounce "for settlement of international balances and other legitimate monetary purposes" (International Monetary Fund 1967).

<sup>5</sup> During the fixed-rate regime, the foreign exchange value of a country's currency was officially set by that country's government. Countries occasionally revalued (officially raised) or devalued (officially lowered) their currencies against the dollar. For more information, see Federal Reserve Bank of New York 1983.

<sup>6</sup> For example, in the early 1960s, the United States undertook "Operation Twist," which was designed both to limit outflows of short-term capital by keeping short-term interest rates high and to foster economic growth by keeping long-term interest rates low (Salvatore 1983).

<sup>7</sup> The Bank for International Settlements (BIS) also may participate in swaps.

<sup>8</sup> The Federal Reserve conducts most swaps for the United States. The Treasury has conducted swaps infrequently for relatively small amounts. The FOMC monitors Federal Reserve swap arrangements and in 1963 decided the Fed should not extend its borrowing through the swap network for more than one year.

<sup>9</sup> These bonds were named after Robert Roosa, Undersecretary for Monetary Affairs, U.S. Treasury, 1961-64.

<sup>10</sup> For a discussion of open market techniques, see Roth 1986.

<sup>11</sup> These two ways that sterilized intervention may affect the exchange rate are more formally called the portfolio balance channel and the signaling channel. The portfolio balance channel operates if interest rates and the exchange rate adjust to reestablish equilibrium in the bond market because foreign and domestic bonds are not perfect

substitutes. In the example in the text, for instance, market participants initially may not want to hold the additional U.S. Treasury securities added to the market by the sterilization. But, if the dollar's value falls, market participants may become willing to purchase the new "cheaper" dollar-denominated securities. If domestic and foreign bonds are perfect substitutes, however, sterilized intervention (operating through the portfolio balance channel) is ineffective. The signaling channel operates if the intervention signals the market about a change in macroeconomic policy, which obviously would affect the exchange rate. For further discussion, see Edison 1990.

<sup>12</sup> A 1983 G-7 study, for example, found that from 1973 to 1981, sterilized intervention "did not generally have a lasting effect, but that intervention in conjunction with domestic policy changes did have a more durable impact" (Jurgensen 1983). For a discussion of other studies, also see Edison 1990, and Frenkel 1990.

<sup>13</sup> During a floating-rate regime, currencies either appreciate or depreciate in response to market forces. The terms revalue and devalue apply only in fixed-rate systems. For more information, see Federal Reserve Bank of New York 1983.

<sup>14</sup> During the floating-rate regime, the goal of U.S. policy has generally been "to counter disorderly conditions in the exchange markets" (International Monetary Fund 1988).

<sup>15</sup> For information about the effect of warehousing on the money supply and for information about other aspects of U.S. foreign exchange operations, see Meulendyke 1989.

<sup>16</sup> Another type of financing arrangement between the Fed and the Treasury is for the Fed to monetize SDRs and gold. If the ESF wishes to supplement its dollar balances, it may ask the Fed to monetize SDRs. The Fed does this by purchasing SDRs from the ESF for dollars. More precisely, the Fed purchases SDR certificates, which represent the Fed's claim on a specified amount of SDRs. If the ESF wishes to use monetized SDRs, it must first repurchase them from the Fed. Monetizing gold is similar to monetizing SDRs except, instead of SDR certificates, the Fed purchases gold certificates, representing the Fed's claim on a specified amount of the Treasury's gold.

<sup>17</sup> Beryl Sprinkel, then Chairman of the President's Council of Economic Advisers, expressed this view in his 1981 Congressional testimony, saying that he was "not at all certain that intervention in a market as massive as our dollar exchange market can have much effect, certainly not in the longer run" (International Economic Policy 1981).

18 The G-5 includes the United States, Japan, West Germany, France, and the United Kingdom.

19 The G-7 includes members of the G-5 plus Canada and Italy.

20 Over time, the ESF has increased the amount of SDRs it has asked the Federal Reserve to monetize. In 1989, the ESF increased the amount of SDRs monetized by the Federal Reserve to \$8.5 billion, a 70 percent increase over the year before, to supplement its resources for foreign currency operations. These figures were taken from various issues of the *Federal Reserve Bulletin*.

21 Over time, the FOMC has increased the limit on the

amount of foreign currency the Federal Reserve may hold. The current maximum, approved at the March 1990 FOMC meeting, is \$25 billion. The Federal Reserve also continues to warehouse foreign currency for the Treasury to supplement the Treasury's resources for foreign currency operations. At its March 1990 meeting, the FOMC increased the amount of foreign currency the Fed may warehouse for the Treasury to \$15 billion. The previous increase in the limit was from \$5 billion to \$10 billion in September 1989. Such increases reflect the Treasury's need of dollars for foreign currency purchases rather than foreign currency for dollar purchases (Board of Governors 1990b).

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# Bank Credit Commitments: Protection from a Credit Crunch?

By Donald P. Morgan

Concern has grown in recent months over signs that banks have tightened lending standards. Some analysts fear such actions could lead to a significant curtailment of bank lending, similar to episodes in the past in which banks dramatically slowed their lending. These past episodes, or credit crunches, have been associated with economic recessions.

The situation today differs from past credit crunches in several ways. Absent today are two factors that aggravated past credit crunches: interest rate ceilings and credit controls. More prevalent today is a factor that may help alleviate a credit crunch: bank credit commitments. A bank credit commitment is a promise by a bank to a business to lend up to some limit, for some fixed amount of time, at predetermined terms.

Bank credit commitments may provide some protection from a credit crunch. During a

credit crunch banks may ration loans by tightening lending terms, scaling back loan amounts, or even denying loans altogether to prospective borrowers. Since commitments obligate banks to lend at predetermined terms, commitment holders are shielded from such rationing.

But how broad is this shield? This article argues bank credit commitments cannot protect the entire economy from a credit crunch. In arriving at this position, the first section of the article examines recent credit crunches and the role of credit rationing during such times. The second section shows that bank credit commitments cannot fully protect the economy from a crunch because the firms most at risk of rationing during a crunch, small businesses, often do not hold commitments.

## I. Credit Crunches and Rationing

Banks extend credit to businesses for many purposes: to stock inventories, finance new plant and equipment, and start new businesses. When banks dramatically reduce the supply of

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credit, interest rates rise, rationing increases, and the economy suffers a *credit crunch*.

## Past credit crunches

The economy experienced credit crunches in 1966, 1969-70, 1973-74, and 1978-81.<sup>1</sup> These crunches resulted from a confluence of factors that operated to reduce the supply of bank credit.<sup>2</sup>

An important factor contributing to the crunches in the 1960s and 1970s was regulated ceilings on bank deposit rates. Although ceilings were imposed in the 1930s, deposit rates did not bump against the ceilings until market rates reached record heights in 1966. When market rates rose still higher, savers withdrew deposits from banks and thrifts to invest in higher yielding market assets. The loss of deposits, called disintermediation, forced banks and thrifts to slow their lending. Disintermediation also figured in the crunches of 1969-70 and 1973-74 after market rates again rose above deposit rate ceilings.

Legal and regulatory ceilings on loan rates also reduced the supply of bank credit in some of these crunches. Ceilings on loan rates prevent borrowers from competing for loans, just as ceilings on deposit rates prevent banks from competing for funds. For example, a prime rate ceiling of 6 percent was imposed briefly during the 1973 crunch.<sup>3</sup> After market rates topped this ceiling, banks were unable to make profitable loans.

Direct prohibitions against lending also have been a contributing factor in crunches. For example, during the 1966 crunch the Federal Reserve discouraged banks from excessive lending in hope of controlling inflationary pressure. More formal credit controls, enforced briefly in 1980, aggravated the 1978-81 credit crunch.

Deterioration in the financial condition of banks probably also contributed to past

crunches. When the loan portfolio of a bank deteriorates, the bank must slow lending to set aside more capital for loan losses. Banks may also reduce lending if their capital-asset ratios decline. To increase their ratios banks may shrink their assets by selling existing loans and by not making new loans. Deteriorating loan quality and declining capital-asset ratios are commonly mentioned in explaining recent tightening in lending standards.<sup>4</sup>

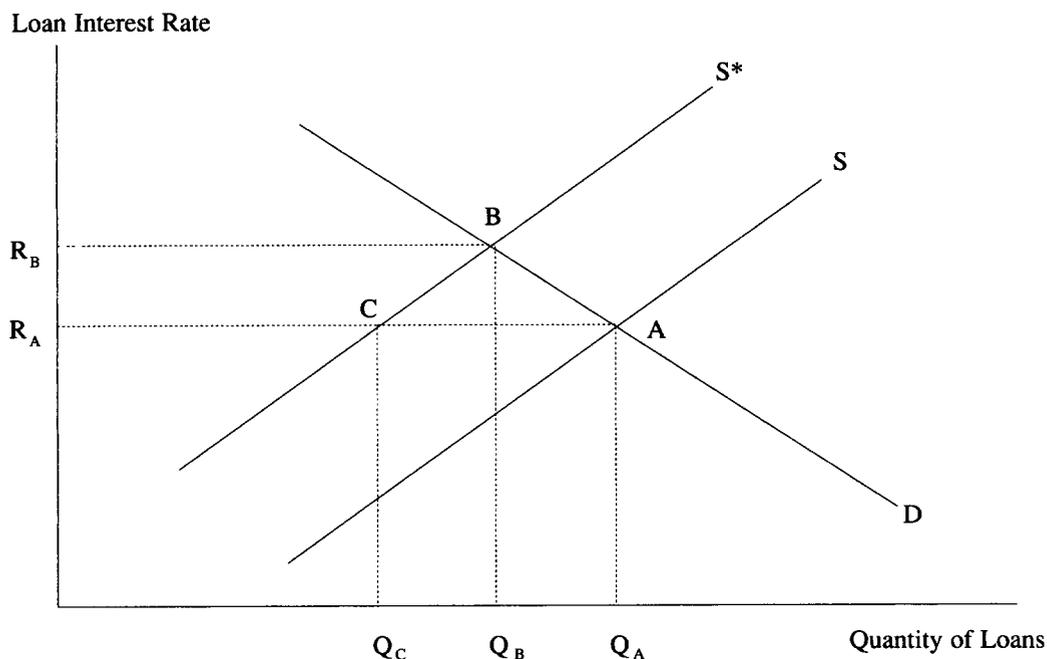
## Rationing during credit crunches

Borrowers may experience a credit crunch through two distinct channels: higher loan rates and rationing. These channels can be illustrated with Figure 1, which represents the market for bank loans. The curve labeled *D* is a demand curve relating the quantity of loans demanded by borrowers to the interest rate on loans. The demand curve slopes downward because borrowers will want to take out more loans at lower lending rates. The other side of the loan market is represented by the supply curve, labeled *S*. The supply curve relates the quantity of loans banks are willing to make to the interest rate on loans. The supply curve slopes upward because banks will lend more only at higher loan rates, in part because banks themselves must pay higher rates to depositors to attract funds to lend. The market for bank loans is said to be in "equilibrium" at point *A*, where supply equals demand.

Next, suppose banks take action to reduce their lending, perhaps because some past loans appear to be unprofitable. The reduction in the supply of credit would appear in Figure 1 as a leftward shift in the supply curve from *S* to *S\**. Banks are now willing to supply fewer loans at the same interest rate.

Borrowers initially feel the crunch through the loan rate channel as banks begin to charge higher loan rates. As the loan rate rises toward *R<sub>B</sub>*, borrowers reduce their borrowing from

Figure 1  
Market for Bank Loans



quantity  $Q_A$ . All else equal, banks would raise the loan rate all the way to  $R_B$ , causing the new equilibrium quantity of loans to fall  $Q_B$ . In this case the crunch would operate only through the loan rate channel.

But all else is not equal because higher loan rates may increase the risk of borrower bankruptcy. Bankruptcy occurs when a firm's assets are less than its obligation to lenders and its other liabilities. Higher loan rates increase bankruptcy risk by increasing a firm's obligation to lenders.<sup>5</sup> If higher loan rates threaten to increase bankruptcy risk too much, banks will refuse to lend instead of raising interest rates. And even though firms may offer to pay higher interest rates to obtain credit, lenders will refuse the offer.

The rationing channel of a crunch operates when banks do not raise the loan rate all the way to  $R_B$ . In the extreme case where banks do not raise their rates at all, the crunch is felt only through the rationing channel. In that case, the loan rate remains at  $R_A$  and the quantity of credit supplied declines to  $Q_C$ . But since the loan rate does not rise, the demand for credit does not decline. Thus, banks must ration the reduced amount of credit,  $Q_C$ , among borrowers who in aggregate demand the larger amount of credit,  $Q_A$ .

Banks can ration credit in several ways.<sup>6</sup> They may deny loans altogether to some prospective borrowers or may lend smaller amounts than borrowers desire. Alternatively, banks may substitute higher collateral require-

ments for higher interest rates, granting loans only to the safest borrowers with the most collateral.

There is evidence that some amount of rationing occurs at all times. For example, research suggests that heavily indebted firms are subject to rationing because of high bankruptcy risk. In a study of 325 firms from 1973 to 1986, Whited (1990) found that firms with heavy debt burdens often postponed profitable investments. This finding suggests these firms were unable to borrow additional funds to finance the investment. In contrast, firms with low debt burdens were more inclined to undertake the investments immediately.

There is also evidence that rationing intensifies during credit crunches. King (1986) estimated aggregate loan supply and demand curves resembling the hypothetical curves in Figure 1. His results suggest that rationing increases substantially during crunches. During the 1973-75 crunch, for example, the demand for loans exceeded the supply of loans by more than 10 percent.<sup>7</sup>

## **II. Bank Credit Commitments and Rationing**

In recent years, a growing number of businesses have been able to insulate themselves from rationing with bank credit commitments. This section first explains how bank credit commitments operate, and then answers the question: Can commitments protect the entire economy from a credit crunch?

### **Bank credit commitments**

The defining feature of a bank credit commitment is that it promises the holder a loan for some length of time. Apart from that common feature, the contracts can vary along several dimensions, including the degree of formality, the maturity, and the pricing.

The majority of credit commitments are revolving credit agreements. These are formal, long-term contracts committing the bank to lend to the holder for several years. The revolving feature permits the holder to borrow and repay repeatedly—much like a credit card. Fees are usually levied against the unused portion of the commitment, the total amount committed, or both. These contracts contain covenants that must be satisfied before loans are made. For example, borrowers are usually required to maintain a minimum level of collateral and working capital. If a covenant is violated, the bank may cancel the agreement and refuse to lend. The interest rate on a revolving credit agreement may be either a fixed or floating rate. Most are floating rate contracts, charging a fixed markup over a base rate, such as the prime rate.

Confirmed lines of credit are another, less common type of commitment. These are informal, short-term agreements, usually for less than a year. Fees are not usually charged on confirmed lines of credit.<sup>8</sup> The interest rate on confirmed lines of credit can be either a floating or fixed rate.

Businesses obtain credit commitments for various reasons. For firms that borrow frequently from banks, obtaining a commitment is simply more convenient than reapplying for credit each time they need a loan. This reason was most frequently cited by senior loan officers in explaining why firms obtain commitments (Board of Governors 1988). But even firms unsure if they will need credit might obtain commitments. These firms want assurance that credit will be available if needed—even in a credit crunch. Senior loan officers viewed protection from rationing during a credit crunch as the second most common reason why firms obtain commitments.

## Protection from rationing

As noted in the previous section, rationing can take three forms. Banks may simply refuse to lend to a business, they may lend less than the firm needs, or they may tighten credit standards so severely that a once creditworthy business no longer qualifies for a loan.

Commitments protect against each type of rationing. Commitment holders cannot be denied loans altogether, of course, because by definition commitments are a promise by the bank to provide a loan. For example, a bank cannot deny loans because its own balance sheet has deteriorated. Nor can a bank deny loans due to a lack of deposits, as occurs during disintermediation—a bank without sufficient deposits would need to borrow in the more expensive federal funds market to fund the loan. Similarly, commitment holders are protected from loan rate ceilings that may cause banks to curtail lending to borrowers without commitments.<sup>9</sup>

Commitments also protect against rationing in the form of a loan that is too small. This protection arises because the loan limit on a commitment is chosen in advance by the business. The business then has the right to borrow up to that limit as long as the contract is in effect.<sup>10</sup>

Finally, commitment holders are protected if banks begin rationing credit through tighter credit standards, such as higher collateral requirements. Commitments protect against such an event because the contract specifies credit standards beforehand. Thus, tighter credit standards can constrain only borrowers without commitments.

Are there features of commitment contracts that limit the protection provided to borrowers? Commitments do specify a loan limit, so commitment holders may be rationed if they need to borrow more than the limit. Such a limitation does not appear to be significant, though, because the proportion of commitments actually

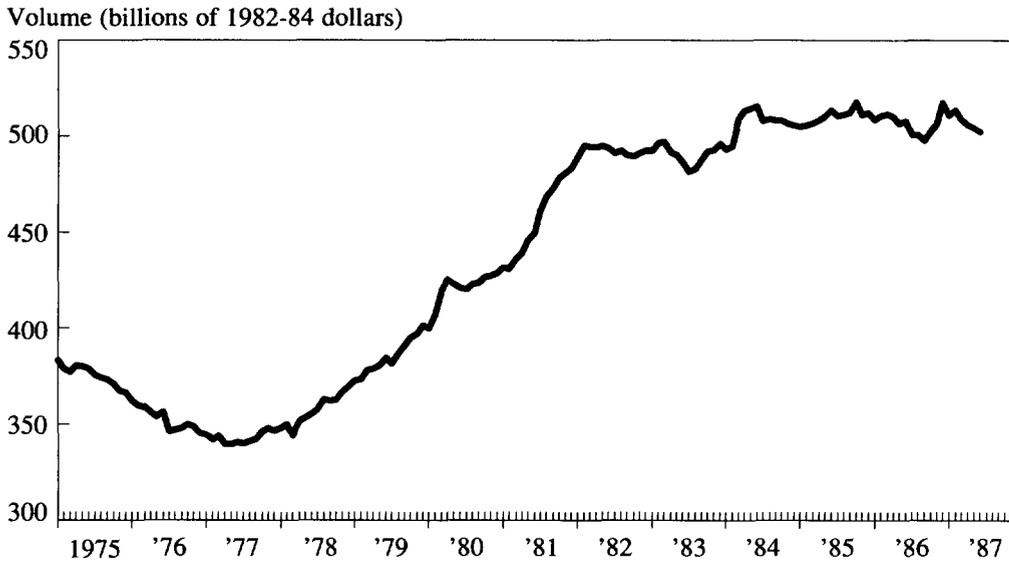
borrowed rarely exceeds 50 percent even during credit crunches (Hanweck 1982). Commitment holders may also be rationed if any of the commitment covenants are violated. In a recent study, however, it was found that only 2 percent of the businesses sampled lost a commitment because a covenant was violated (Lummer and McConnell 1989). Commitment holders might also be rationed if their commitment expires during a crunch. Most credit commitments, though, are long-term contracts spanning several years, which reduces the risk that commitment holders will lose their protection in the midst of a crunch.

## Commitments cannot protect the entire economy

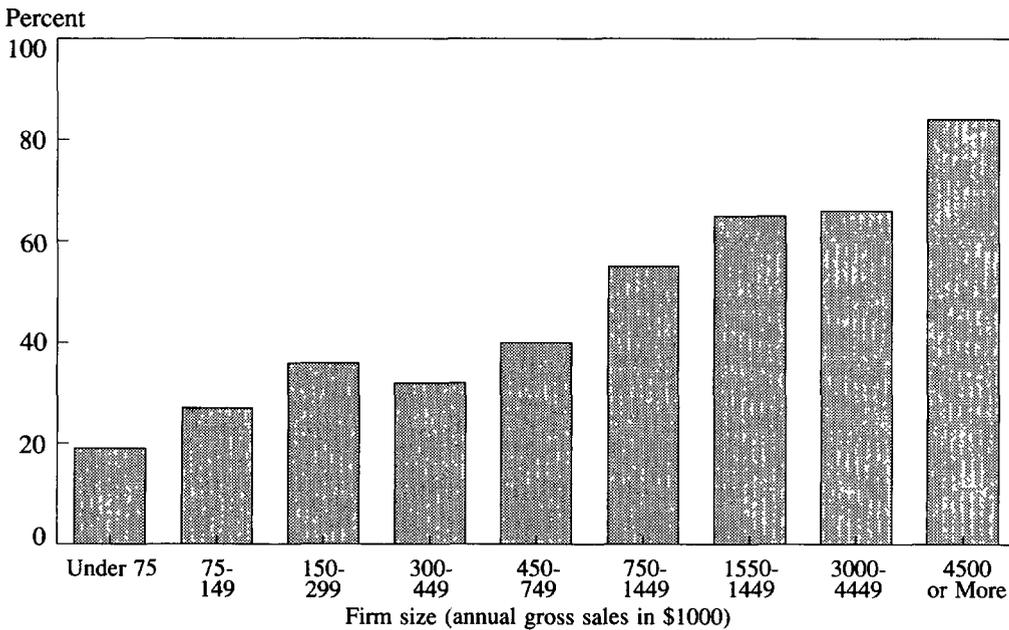
The market for commitments has grown since the late 1970s. The volume of commitments at 113 large commercial banks grew from about \$350 billion in 1977 to about \$500 billion in 1987 (Chart 1).<sup>11</sup> As a result of this growth, commitment lending is now more prevalent in commercial bank lending to business. Specifically, the percentage of commercial and industrial bank loans made under commitment increased from about 50 percent in the 1970s to about 70 percent in the 1980s.<sup>12</sup>

With such broad coverage against credit rationing, one might believe the economy may be protected from a credit crunch. The degree of protection is limited, though, in part because commitments are relatively rare among smaller borrowers. From 1984 to 1990, only about a third of the volume of loans under \$100,000 were made under commitment, and about 56 percent of the volume of loans from \$100,000 to \$500,000 were made under commitment.<sup>13</sup> In contrast, larger loans were much more likely to be made under commitment: About 70 percent of the volume of loans from \$500,000 to \$1 million were made under commitment, and over 80 percent of the loans of \$1 million or more were

**Chart 1**  
**Loan Commitments at Large Commercial Banks**



**Chart 2**  
**Percent of Firms with Credit Commitments, 1988**



Source: Chart 1, Federal Reserve Board. "Commercial and Industrial Loan Commitments at Selected Large Commercial Banks" various issues.

Source: Chart 2, Dennis, Dunkelberg, and Hulle 1988.

made under commitment (Board of Governors 1984-90). To the extent smaller businesses are the recipients of smaller loans, these numbers are evidence that smaller businesses are less likely to own commitments.

More direct evidence comes from a survey of small businesses (Dennis, Dunkelberg, and Van Hulle 1988). The survey revealed smaller firms were less likely than larger firms to have a bank credit commitment (Chart 2). Perhaps small firms are less likely to have commitments because banks are reluctant to grant them commitments. After surveying senior loan officers about commitments, Duca (1988) concluded banks extend commitments primarily to larger, safer borrowers.

Fewer small firms owning commitments would not necessarily mean a great deal for the economy during a credit crunch, provided that small firms were less likely to be rationed. Recent research, however, suggests smaller firms are more likely to be rationed. For example, Fazzari, Hubbard, and Petersen (1987) compared the investment spending of smaller and larger firms from 1970 to 1984.<sup>14</sup> They found investment spending of smaller firms depended more on cash flow than on the profitability of the investment projects. In contrast, investment of larger firms was driven more by the profitability of the projects and less by cash flow.<sup>15</sup> This finding suggests the smaller firms could not borrow to finance some worthwhile projects and were forced to rely on cash flow for financing.

Other evidence also suggests smaller firms are more likely than larger firms to be rationed during a credit crunch. A survey of small and medium-sized firms during the 1966 credit crunch revealed that 26.7 percent of the small firms in the sample were denied their initial loan request. In contrast, only 19 percent of the medium-sized firms were refused credit the first time they applied.<sup>16</sup> Moreover, Gertler and Hubbard (1988) discovered investment by smaller

manufacturing firms declined more than investment by larger firms during the 1966 crunch.

Small firms without commitments thus appear to be vulnerable to rationing. But is the output of small firms without commitments enough to have much impact on the overall economy? Data on the share of output contributed by such firms is, unfortunately, not available. However, it is easy to dispel the view that small businesses as a whole do not matter to the economy. The most recent data showed that in 1976 nearly half of the economy's output originated at small businesses defined as those with fewer than 500 employees (Popkin 1980). Indeed, in the construction, wholesale trade, and service industries, fully 80 percent of the output originated at small businesses.

Other, more recent measures also indicate small businesses are a vital force in the U.S. economy. For example, firms with fewer than 500 employees accounted for over half of employment and 45 percent of all sales in 1986 (Gertler and Hubbard 1988). Even firms with fewer than 100 employees accounted for a third of total sales in 1986 (Brock and Evans 1986). These numbers show clearly that the role of small firms in the economy is substantial.

Of course, not all small firms would be rationed in a credit crunch. According to a quarterly survey conducted by the National Federation of Independent Businesses, about two-thirds of small businesses do not borrow regularly from banks. That leaves one-third of small businesses who borrow regularly—and may be without bank credit commitments. It is these businesses that remain most vulnerable to rationing during a credit crunch.

### III. Summary

Credit crunches have gripped the economy several times in recent decades. During these episodes, bank lending slowed dramatically as banks raised loan rates and rationed credit.

Some observers fear the present weakened financial condition of some banks, brought on by high loan losses and rising capital requirements, may end in a credit crunch. If so, businesses with loan commitments will be protected from rationing. But bank commitments cannot

protect the entire economy because the smaller firms most likely to be rationed in a crunch are the least likely to own commitments. Thus, policymakers must remain alert to signs of a credit crunch.

## Endnotes

<sup>1</sup> Eckstein and Sinai (1986) date these crunches by year and quarter: 1966:1 to 1966:2, 1969:1 to 1970:1, 1973:1 to 1974:3, 1978:2 to 1980:1, and 1981:1 to 1981:4. For a historical accounting of these crunches and surrounding financial events, see Wojnilower 1980.

<sup>2</sup> In identifying credit crunches, the focus is on the supply of credit, not the demand. A crunch occurs when a reduction in the supply of credit forces firms to reduce their spending. Such a situation is fundamentally different from one in which the supply of credit stays constant but firms reduce their demand for funds because of a desired reduction in spending. Bank credit, in particular, is emphasized because banks may be the only source of credit for smaller businesses without access to the capital markets.

<sup>3</sup> The ceiling was enforced from February to April 1973 by the Committee on Interest and Dividends, a vestige of the wage and price controls of the early 1970s.

<sup>4</sup> In the May 1990 Federal Reserve Survey of Senior Loan Officers, deterioration in loan quality and inadequate capital were among the most frequently cited reasons for tighter loan standards on small and medium-sized firms.

<sup>5</sup> Jaffe and Russell (1976) argue that raising interest rates could also increase bankruptcy risk by driving honest borrowers from the market, leaving relatively more dishonest borrowers in the market with little intention of actually repaying such high loan rates. If lenders are uncertain of borrowers' character, such a shift may force them to ration credit. A recent survey by the National Federation of Independent Business (NFIB) supports this possibility. The survey revealed that collateral and credit availability were more of a problem for urban borrowers than for rural borrowers. Rural borrowers, on the other hand, were more concerned with interest rates than were urban borrowers. These differences suggest that rural bankers are better acquainted with their borrowers and can allocate credit with interest rates, while urban bankers lend to relative strangers and thus may be forced to ration credit.

<sup>6</sup> The term rationing here describes any nonprice criteria

for allocating credit.

<sup>7</sup> For his sample period from 1955 to 1979, King found the demand for loans often exceeded the supply. However, he found the level of bank credit did not help predict output after taking into account the level of demand deposits, leading him to conclude that rationing does not play a significant macroeconomic role. This conclusion has been disputed by Lown (1988). Using techniques for treating lags and trends developed after King's research, Lown found that bank credit does help predict output over the period studied by King.

<sup>8</sup> Firms with confirmed lines of credit may be required to hold compensating balances at the bank.

<sup>9</sup> Indeed, commitment holders benefitted from the prime rate ceilings in early 1973 as banks were forced to make loans to these borrowers at below-market rates. Federal Reserve Chairman Burns mentioned this issue in testimony to Congress, published in the *Federal Reserve Bulletin* in April 1973.

<sup>10</sup> Nonusage fees on commitments may also entitle businesses to larger loan limits. With a nonusage fee, if the firm happens to borrow only a small amount the bank will profit from the high fee. The expectation of earning this fee compensates the bank for the risk of making unprofitably large loans (Boot, Thakor, and Udell 1987; and Morgan 1990). Recent surveys of lenders and borrowers support this idea (Duca 1988; and Dennis, Dunkelberg, and Van Hulle 1988).

<sup>11</sup> The volume of commitments is measured in 1983 dollars. The Federal Reserve discontinued the commitment survey in 1987.

<sup>12</sup> These data are derived from the Federal Reserve's Survey of Terms of Bank Lending.

<sup>13</sup> In fact, the volume of loans under \$500,000 represents only a small fraction of the total volume of bank lending. However, such loans represent a much larger fraction of the total volume of credit available to small businesses.

<sup>14</sup> Actually, the researchers compared firms according to their dividend-to-income ratios. The comparison is based on the assumption that rationed firms would retain all their dividends to overcome the fact that they could not borrow as much as needed. As it happened, the firms with the lowest dividend-to-income ratio were also the smallest firms, while the largest firms had the highest dividend-to-income-ratios.

<sup>15</sup> Strictly speaking, this research provides evidence not of credit rationing, but rather evidence of information prob-

lems that may result in credit rationing. The evidence suggests information problems seem to plague even relatively large, publicly traded firms studied in this research. The implication is that smaller firms may face more severe information problems, and thus be more likely to be rationed.

<sup>16</sup> The smallest firms owned an average of \$1 million to \$1.5 million in assets. The larger firms owned an average of \$21.4 million to \$49.8 million in assets. For a further description, see Jaffe 1971.

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