

A BUSINESS AND FINANCIAL REVIEW BY THE FEDERAL RESERVE BANK OF CHICAGO

March/April 1978

ECONOMIC PERSPECTIVES

Business insights
Banking insights
What is happening to
the U.S. dollar?
Loan commitments and
facility fees
Bank failures

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ECONOMIC PERSPECTIVES

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Business insights

Instalment credit—benefits and burdens

William R. Sayre and George W. Cloos

Consumption spending, led by autos and other durables, rose 11 percent in 1977. As in 1976, spending rose somewhat faster than disposable (after tax) personal income. As a result, the rate of savings—disposable income not spent on consumption—declined to 5.1 percent, the lowest ratio in 14 years. Many households would have been unable to manage purchases of cars, expensive vacations, medical bills, and college fees had it not been for the availability of instalment loans.

The rapid rise in consumption spending during the past two years has been accompanied by a much faster rise in consumer instalment debt. A question is posed as to the ability and willingness of consumers to continue to incur instalment indebtedness at the recent pace. Failure to do so could endanger the general expansion, now three years old, already a fairly respectable age for an uptrend.

This article examines the record of relationships between instalment credit extensions, liquidations, and outstandings with disposable personal income (DPI). Adjusted for changes in the way in which instalment credit is extended and liquidated, these ratios appear to have reached levels that signaled slower rates of advance in the past. The meaning of debt to income ratios, however, is not clear cut. The credit picture has become more complicated in recent years. Bank credit cards have emerged as a major factor in personal finance. Auto loan maturities have lengthened, with four-year loans now common. Mortgage credit is being used increasingly as a substitute for instalment credit, or supplement to it. The variety of goods and services financed by instalment credit has broadened markedly. Other developments defy statistical analysis, for example, the drive for

“equal credit opportunity,” new life styles and attitudes, and, perhaps most important, spiraling inflation.

Extensions and outstandings

Instalment credit extensions, including precomputed finance charges, totaled \$226 billion in 1977, up 17 percent from 1976, and twice the extensions in 1970. At year-end, outstandings were \$217 billion, also up 17 percent from the beginning of the year and twice the amount at the end of 1970. Instalment credit outstanding is about a third as large as outstanding one-to-four family mortgages, a relationship that has been fairly stable for years.

In the fourth quarter of 1977, extensions of consumer credit amounted to 17.4 percent of DPI. In only two earlier periods has this ratio been higher—in the first half of 1969 and the first half of 1973. Significantly, both these earlier periods were followed by a slowing in consumer purchases and, eventually, a business recession.

Instalment credit outstanding in the fourth quarter was 15.8 percent of DPI. That was equal to the all-time high reached in the fourth quarter of 1973, a period that marked the high point of the last expansion as measured by real GNP. The ratio of outstandings to DPI has been rising irregularly since World War II. It was 4 percent in 1947, 11 percent in 1957, and 15 percent in 1967. Since 1967, however, this secular uptrend appears to have been slowing.

Liquidations appear to lag

The burden of instalment credit payments on consumer budgets is often measured by the ratio of liquidations to DPI,

rather than by extensions or outstandings. Of course, averages of this sort need not apply to any particular household. At any time some households are deeply mired in instalment debt, while a much larger number are completely free of such debt. The "burden" of instalment credit usually shows up in substantially increased delinquencies only when a general recession brings layoffs and reduced compensation for affected households.

Instalment credit liquidations include regular payments of interest and principal, prepayments (often from the proceeds of new loans), and chargeoffs. Prepayments involve not only advance payments of principal but also lender "rebates" of precomputed finance charges.

Liquidations in 1977 totaled \$195 billion, up 13 percent from the year before and 60 percent in five years. Liquidations usually lag extensions by about a year. In 12 of the last 15 years, liquidations have been within 2 percent of extensions in the *preceding* year. In the other three years the relationship broke down when new extensions changed rapidly.

In 1968 and again in 1976, a surge in new instalment sales led to an increase in prepayments, and liquidations rose 5 percent above extensions in the preceding year. With the slowdown in instalment sales in 1974, particularly auto sales, lower prepayments held

liquidations 6 percent below 1973 extensions.

The liquidations ratio rose almost every year from the end of World War II through the 1960s, reaching a record 15.9 percent in 1969. Beginning with the 1970 recession, the ratio declined, but in 1973 it rose to 15.4 percent. It then declined again, reaching a low of 14.1 percent in the second quarter of 1975, which was near the low point of the last recession.

Despite rapidly rising extensions for the past two years, the liquidations ratio increased to only 15.1 percent in the fourth quarter of 1977. The sluggishness in liquidations relative to extensions is magnified in *net* extensions. In 1977 net extensions totaled \$31 billion, half again more than the previous high in 1976. Relative to DPI, net extensions in 1977 were 2.3 percent, the highest for any year on record.

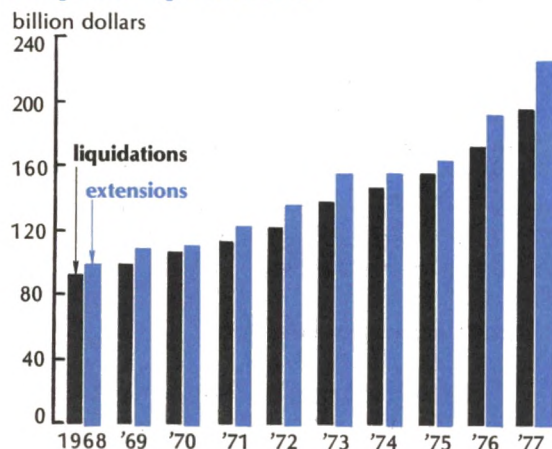
Three principal factors have limited the rise in liquidations of instalment credit in recent years: (1) increased use of revolving credit, (2) longer maturities on auto loans, and (3) use of mortgage credit to finance consumer outlays.

Revolving credit increases

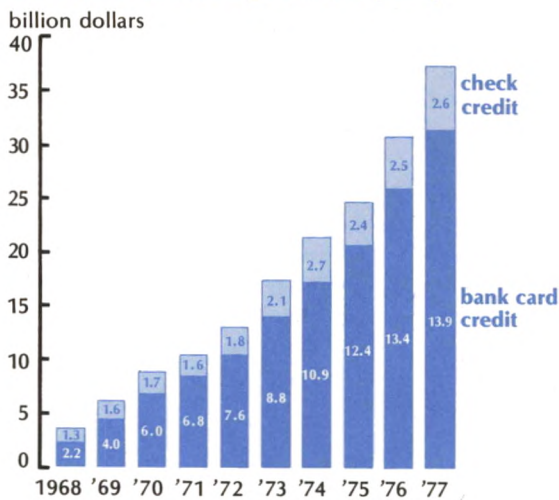
Instalment credit often takes the form of "revolving credit," a specified line that may be used repeatedly with periodic partial or total repayments, including interest charges. Some retail stores have offered revolving credits for years. In the 1970s the fastest growing types of consumer revolving credit have been loans from commercial banks.

Banks offer revolving credit to individuals through bank credit cards and check credit plans, the latter often in the form of overdraft privileges on regular checking accounts. These credits are used for a variety of purposes, including cash advances. In 1977 credit extensions on bank cards (virtually all by VISA and Master Charge) were \$31 billion, 21 percent more than in 1976 and three times as much as in 1972. Bank card extensions approached 14 percent of total instalment credit extensions, compared with 9 percent in 1973 and 4 percent in 1969. Check credit exten-

Instalment credit extensions outpace liquidations



Bank revolving credit extensions have grown rapidly



NOTE: Figures in bars refer to percent of total instalment credit extensions.

sions reached \$6 billion in 1977, compared with less than \$2 billion in 1969.

Beyond a regular minimum (usually monthly), the amount of revolving credit repayments is largely determined by the borrower. Therefore, in contrast to conventional instalment loans, revolving credit extensions include no precomputed finance charges, and liquidations include no prepayments or rebates of unearned interest. To the extent that revolving credit replaces conventional instalment loans, extensions and liquidations are understated in comparison with earlier periods.

Simple interest loans now offered by some banks, finance companies, and credit unions also involve no precomputed finance charges. Such loans, made practical by computers, allow borrowers to prepay part of the outstanding principal without interest penalties. The simple interest format is offered for personal loans and loans to finance autos and home improvements.

Auto loan maturities lengthen

Until 1955, few loans on new autos were written with maturities longer than 24 months. Then, the maximum was extended to

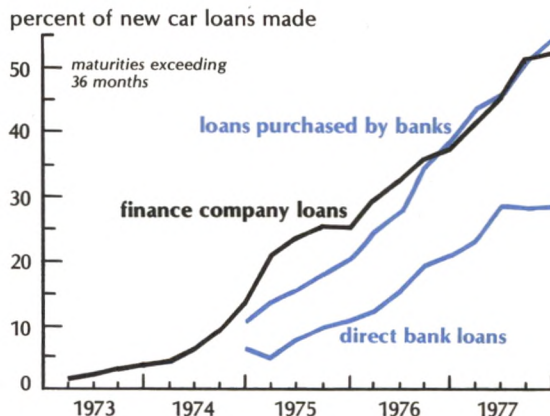
36 months, a limit that generally prevailed until the early 1970s. As recently as 1972, less than 1 percent of the new car loans at finance companies had maturities of more than 36 months.

In the fall of 1973, a decline in auto sales was associated with a new stretchout in loan maturities. In the fourth quarter of that year, 4 percent of the finance company loans (primarily from the Big Three "captives") were written with longer maturities, usually 42 or 48 months. The proportion has since increased to 14 percent in 1974, 25 percent in 1975, and 52 percent in the fourth quarter of 1977.

Other lenders also increased maturities. By late 1977, 54 percent of the new auto loans purchased by commercial banks carried maturities exceeding 36 months. Three years earlier only 11 percent had been for more than 36 months. For loans originated by banks, the proportion increased from 6 percent in 1974 to 28 percent in late 1977.

Longer maturities make auto sales easier by reducing monthly payments. In the case of a \$5,000 loan, which is about average, the monthly payment at 11 percent interest and 36 instalments is \$164. Increasing the maturity to 48 months, even with an interest rate of 13 percent, reduces monthly payments to \$134. Although the credit extension rises from \$5904 to \$6432, reflecting both the higher in-

Share of new car loans over 36 months increases



terest rate and the additional interest to be paid for another year of the contract, monthly payments are reduced 18 percent.

In the aggregate, auto credit liquidations are lagging extensions much more than usual after three years of recovery. Extensions in 1977 were \$72 billion, up 15 percent from a year earlier and 59 percent since 1974. Liquidations, on the other hand, were \$59 billion, up 12 percent from a year earlier and 31 percent from 1974.

Mortgages and instalment debt

The median price of existing homes sold in December 1977 was \$44,200, an increase of 13 percent over a year earlier and 63 percent in five years. These figures, reported by the National Association of Realtors, show inflation in home prices has given most homeowners substantial appreciation in their equities—appreciation that can be used as collateral for new borrowings.

Many homeowners have chosen to cash in these capital gains by (1) refinancing their homes with larger mortgages, (2) taking out second mortgages, and (3) trading up, using the increased equity as downpayments on more expensive properties. Funds raised out of capital gains are sometimes used to pay off consumer debts. Even when added mortgage debt does not substitute directly for instalment credit, it may do so indirectly by providing funds for outlays that might otherwise have been financed with instalment credit.

Because national income accounting procedures do not recognize capital gains (realized or unrealized), as income, homeowners that cash in capital gains add to spending power without adding to disposable income. That at least part of this spending power was used to buy consumer goods is consistent with the reduced rate of personal

savings in the past two years. As mortgage credit is used more to finance consumption spending, instalment credit outstanding rises less rapidly than would otherwise be the case.

Combining instalment credit and home mortgage credit provides a more comprehensive measure of household debt than a look at instalment credit alone. These types of household debt totaled \$870 million at year-end 1977, 17 percent above a year earlier and up 74 percent in five years. This total rose from 21 percent of DPI in 1947 to 46 percent in 1957 and 60 percent in 1967. In 1977 this total surpassed 66 percent of DPI, well above the previous record of 62.6 percent in 1973 and 1976.

A slower rise ahead?

In the first quarter of 1978, consumer spending was dampened by severe weather, and the impact, actual and potential, of the prolonged coal strike. Most observers believe that spending will rebound with the coming of spring. Nevertheless, it is probable that consumption spending will rise less this year than last, particularly for passenger cars. This suggests significantly slower growth in instalment credit. Housing starts are expected to decline, mainly because higher interest rates have been diverting funds from the thrift institutions.

Instalment and mortgage debt have reached relatively high levels, compared to disposable personal income. But income continues to rise at a rapid pace. Moderation in the growth of consumption spending will provide individual households, which may have become overextended, with an opportunity to adjust their financial positions. If a general business recession can be avoided in 1978, and few forecasters predict such a development, no serious retrenchment in the household sector is anticipated.

Banking insights

Trends in capital at District banks: 1965-76

Anne Weaver

Capital-to-asset ratios and growth rates of capital are often used as quantifiable measures of the health of the banking industry and of individual bank soundness. The question of what constitutes adequate levels of these measures has been of concern to bank regulators for some time. The problem of bank capital assumes greater importance during periods when bank profits are depressed, both because capital is more likely to be called upon to cushion losses on assets during such periods and because additions to capital in the form of retained earnings do not keep pace with asset growth. The result is an erosion of capital-to-asset ratios, which can be exacerbated if bank assets continue to grow rapidly.

The recent decline in capital ratios

The past decade has witnessed an exceptionally rapid rate of increase in bank assets. Bank assets in the five states of the Seventh Federal Reserve District grew at an average annual rate of over 10 percent between 1965 and 1970 and almost 12 percent between 1970 and 1976. Capital, on the other hand, grew at a much slower rate. As a consequence, capital-to-total asset ratios declined slightly in four of the five states over the 11 years, from an average of almost 9.0 percent in 1965 to close to the 8.5 percent level at the end of 1976.

Although the significance of this decline in capital ratios is not easy to assess in view of the simultaneous changes that have occurred in bank portfolios, access to borrowed funds, external economic conditions, and other elements of banks' total exposure to risk, there is reason to believe that it reflects a real deterioration in the soundness of the banking system. Fortunately, bankers generally re-

cognize this and are taking serious steps to rebuild their capital positions and liquidity and to eliminate excessive risk from their portfolios.

Components of bank capital

The broad decline in capital-to-asset ratios from 1965 to 1976 masks the divergent behavior of the components of bank capital. Equity, which consists of common stock, preferred stock, surplus, undivided profits, and capital reserves, declined as a proportion of total capital over the period, a reflection both of greatly reduced bank earnings during the 1973-75 recession and the depressed market for bank stocks. Nevertheless, it remains the most important component of bank capital, constituting over 95 percent of bank capital in each of the five District states at year-end 1976.

The role of preferred stock, long the least important part of equity capital, remains minimal. Use of preferred stock is limited basically because the dividend is paid after taxes, making the explicit cost of preferred stock to the firm higher than for debt.

Capital notes and debentures were substituted for the generally more costly equity account throughout these 11 years, growing even faster in the 1970 to 1976 period than in the previous period. Even so, the average annual growth rate of debt capital was less than .75 percent in all five states.

That debt is still a relatively small portion of total capital can be explained in terms of several intrinsic disadvantages of debt relative to equity. Unlike equity, debt must ultimately be retired according to the terms of the indenture. Debt also carries a fixed interest rate, and interest must be paid whether earnings

are positive or negative. Most importantly, while debt is a substitute for equity as a long-term source of funds, it does not serve the crucial role of equity as a cushion against declines in asset values.

Capital by size of bank

Important differences are discernible in the behavior of capital ratios by size of bank over the entire period 1965 to 1976. In

Changes in assets and capital accounts

	Illinois		Indiana		Iowa		Michigan		Wisconsin	
	1965-70	1970-76	1965-70	1970-76	1965-70	1970-76	1965-70	1970-76	1965-70	1970-76
Equity										
Percent change										
Group 1	45.64	89.85	57.50	107.83	43.85	87.67	49.06	80.52	50.99	78.74
Group 2	64.83	95.18	70.60	104.19	52.17	91.12	62.38	95.83	57.41	76.63
Group 3	53.55	49.25	49.27	55.31	41.89	30.40	51.18	75.57	27.01	37.7
Yearly avg.	8.96	11.42	10.26	12.70	7.82	11.11	9.33	11.13	8.83	10.08
Preferred stock										
Percent change										
Group 1	-.34	n.a.	0.00	0.00	-.42	-.42	0.00	0.00	0.00	0.00
Group 2	-.49	-.20	0.00	n.a.	0.00	-.89	-3.18	-1.27	-.61	-.61
Group 3	0.00	0.00	0.00	0.00	0.00	-.57	2.08	-12.50	0.00	0.00
Yearly avg.	-.08	-.01	0.00	0.00	-.01	-.02	-.31	-0.22	-.04	-.03
Capital notes										
Percent change										
Group 1	0.00	-.37	-.55	1.65	n.a.	.40	n.a.	n.a.	n.a.	-.64
Group 2	1.01	9.29	-.59	7.58	n.a.	5.82	.56	6.51	-.78	9.32
Group 3	3.24	13.94	-10.13	-10.70	0.00	4.39	13.21	10.54	-.83	-5.77
Yearly avg.	.09	.62	-.07	.71	0.00	.11	.20	.65	.09	.39
Total assets										
Percent change										
Group 1	59.44	106.42	61.72	109.96	49.68	107.70	52.66	86.14	59.84	84.26
Group 2	72.71	94.41	66.36	100.97	57.34	105.23	79.08	87.15	75.86	79.97
Group 3	41.50	58.96	52.94	84.34	44.85	85.76	61.27	47.41	44.91	53.42
Yearly avg.	10.47	12.31	10.38	12.70	8.65	12.89	10.80	10.76	10.48	10.58
Total capital/ Total assets										
Percent change										
Group 1	-2.21	-5.39	-.45	1.19	-2.27	-8.03	-1.16	.19	-3.30	-.05
Group 2	3.25	4.51	4.25	3.39	.00	-5.54	-3.14	7.63	-1.67	1.07
Group 3	10.30	-.43	-3.27	-12.26	-1.53	-12.64	.23	13.30	-14.26	-7.36
Yearly avg.	.04	-.15	.37	.33	-.35	-1.21	-.42	.78	-.42	.06

NOTE: Group 1 commercial banks have total assets between \$0-24.9 million; Group 2 banks have total assets between \$25-299.9 million; Group 3 banks have total assets over \$300 million.

SOURCE: Report of Condition data December 31, 1965, 1970, and 1976. All assets for grouping purposes were as of December 31, 1976. Only banks from the five states of the Seventh Federal Reserve District in existence in their original form from 1965 to 1976 are included in the sample. This eliminates de novo, dissolved, or organizationally altered banks that would involve a change in the FDIC bank identification number. This leaves 1,004 banks from Illinois, 383 from Indiana, 622 from Iowa, 298 from Michigan, and 530 from Wisconsin for a total of 2,837 banks. All figures are averages of individual bank data.

Total capital is broken down into three categories for analysis. The equity category consists of common stock, surplus, undivided profit and reserves for capital accounts and loan losses. The second category consists of preferred stock, and the third of capital notes and debentures.

general, equity capital grew faster at medium-sized (group 2) banks than at either the largest (group 3) or smallest (group 1) banks, although this varied somewhat between the two subperiods. No pattern by size of bank was readily visible in the trends for other components of bank capital.

Total assets generally grew faster at small banks, followed by medium-sized banks and

large banks in that order, a pattern that was most pronounced in the more recent subperiod. Nevertheless, as of the end of 1976, small banks still had the highest ratios of total capital to total assets, while large banks in three of the five District states had the lowest ratios.

Whether this pronounced difference in the capital-to-asset ratios of large and small

banks indicates a lesser degree of soundness on the part of large banks is not clear. Some economists maintain that the lower capital ratios of large banks are justified by their greater diversification of assets and superior access to funds. Others, skeptical of this explanation, postulate that it reflects the inability of regulators to contain the level of risk-taking by these banks. Many bankers, particularly those managing large banks, would point to superior management as the factor enabling such banks to get by with less capital per dollar of assets. Whatever the actual case, regulators will be closely monitoring the capital ratios of both large and small banks either until they are restored to historically more normal levels or until it is determined that changed circumstances have rendered traditional capital standards irrelevant to the soundness of the banking system.

Composition of capital accounts

	<u>Illinois</u>	<u>Indiana</u>	<u>Iowa</u>	<u>Michigan</u>	<u>Wisconsin</u>
Average percent of equity to total capital					
1965	99.72	99.58	99.87	98.26	99.58
1976	97.48	98.30	99.58	95.67	96.91
Average percent of preferred stock to total capital					
1965	.07	0.00	.13	.68	.12
1976	.12	.04	.07	.18	.04
Average percent of capital notes and debentures to total capital					
1965	0.21	.42	0.00	1.05	.31
1976	2.40	1.67	1.35	4.15	3.05
Average percent of total capital to total assets					
1965	9.25	8.30	9.68	8.61	9.09
1976					
Group 1	8.71	8.56	8.63	8.98	8.72
Group 2	8.00	8.16	8.14	8.17	8.02
Group 3	8.16	7.49	8.33	7.75	7.17
State average	8.41	8.33	8.52	8.48	8.49

NOTE: Same as table on page 8.

SOURCE: Same as table on page 8.

What is happening to the U.S. dollar?

Excerpts from an address by Robert P. Mayo, President, Federal Reserve Bank of Chicago, at the meeting of the International Trade Club of Chicago, February 9, 1978.

Last year the dollar depreciated by about 18 percent in value relative to the Swiss franc and Japanese yen, about 11 percent relative to the German mark, and about 10 percent relative to the British pound. It gained against some others, as for example, the Canadian dollar. Using an aggregate measure of the change in the exchange value of the dollar that takes into consideration the movement in the exchange rate in terms of currencies of our 15 major trading partners weighted by their relative importance, we find the dollar has depreciated by about 4½ percent over the past year.

The supply and demand

The movements in the value of the dollar took place within the framework of the floating exchange rate system in effect since 1973. In that system the exchange rates of individual currencies are permitted to move relatively freely in response to the forces of supply and demand. An important source of demand for, and the supply of, a country's currency in a free-market economy is the myriad of transactions that individuals and corporations residing in a country engage in, day-in and day-out, with residents of other countries. In the case of the U.S. dollar, foreigners who buy our products, services, and our securities need dollars to make payments to us; they represent a source of demand for dollars on the foreign exchange markets. On the other side, there are U.S. residents who purchase foreign goods, services, investments, and securities, and pay for them in dollars; they are a source of supply of dollars on the foreign exchange markets.

Other sources of supply and demand derive from the special position of the dollar in international finance. The U.S. dollar has been for many years an "international currency." It has been used as a currency of settlement for transactions between many countries outside the United States and as an official reserve asset. This role has led to a large demand on the part of official institutions, as well as private individuals and corporations abroad, for dollars to be held for transactions purposes as well as a storehouse of value. This foreign demand for dollars has been motivated by market-oriented considerations but also by psychological, political, and expectational factors. The occasional "hoarding" and "dishoarding" of privately held dollars abroad has been, at times, an important element influencing the supply of, and the demand for, dollars on the foreign exchange markets—and thus the movements of the exchange rate of the dollar in terms of other currencies.

Trade deficit as a source of excess supply

Over the past three years we experienced the development of a major imbalance in our international accounts, as our trade account shifted from a \$9 billion surplus in 1975 to a deficit of \$9 billion in 1976 and to more than a \$31 billion deficit in 1977 on the balance-of-payments basis. This deficit in trade in goods was partially offset by our trade in services (which includes return on our investment abroad), but it still left us with some \$18 billion deficit on the so-called current account. Translated into the supply and demand relationship, this meant that we have supplied \$18 billion more to the foreign exchange markets through payments for these transactions than was demanded by foreigners to pay for similar transactions engaged in by them. The trade deficit thus represented one impor-

tant known element of the excess supply that was experienced by the exchange markets.

In overall terms the underlying cause of our burgeoning trade deficit has been a faster growth in our imports than in our exports: while our imports were up by almost 22 percent in 1977, our exports increased by less than 5 percent. This rapid rate of growth in imports was particularly keenly felt in certain sectors of our industry as foreign products such as steel, shoes, television sets, and cars made deeper inroads into our domestic markets. As a result, we have witnessed a growing pressure for import restrictions as a means of solving the problems of the affected industries, as well as of our growing deficit. Our government used and is using existing channels developed through U.S. laws and international treaties to deal with legitimate complaints of individual industries against unfair foreign competition. But we must not permit ourselves to act unilaterally in regard to our import problems by the imposition of arbitrary import restrictions! Few, if any, nations would tolerate such measures! They would retaliate; protectionism invites more protectionism. And the spread of import restrictions that would follow would do a great damage to the U.S. economy as well as to our worldwide national interests! If we want to find a lasting solution to our trade problems, we must look deeper into the underlying causes and seek the solutions there.

Expanding U.S. economy draws in imports

Probably the most important underlying cause of the rapid expansion in our imports relative to our exports has been the recent wide variation among the free world nations in economic performance. Our economy has been healthier, and has been growing considerably faster, than the economies of our major trading partners taken as a group. This expanding U.S. economy has been drawing in imports more rapidly than the sluggish economies abroad have been increasing their demand for our products. There are two possible remedies for the imbalance in our trade arising from this source.

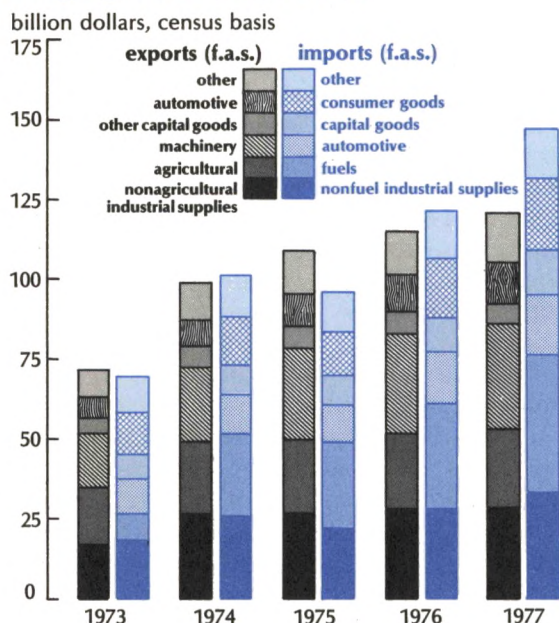
We could slow down our imports by slowing down our economy, or we could hope for acceleration of our exports as a by-product of improvement in economic growth in major industrial countries abroad.

The first alternative we cannot accept. We need more growth, not less, so that we can make further inroads on unacceptably high levels of unemployment, and so that we can continue to provide stimulus to economic expansion worldwide by our own economic advances. Obviously, the second alternative is preferable, from the world's viewpoint, as well as our own. With this in mind, our government has consistently used international meetings—such as the economic summit of the heads of major states last year, the ministerial meetings of the Organization for Economic Cooperation and Development, and many other formal and informal channels—to nudge our friends abroad into economic expansionary action that would benefit them in reducing their record-high unemployment, benefit the developing countries of the world by providing further stimulus to their economic growth, and benefit us by improving markets for our exports.

The oil deficit

Another underlying cause of our rapid growth in imports—and of our trade deficit—has been our voracious appetite for imported oil. Last year our oil import bill came to about \$45 billion—up from \$36 billion in 1976 and up from less than \$5 billion as recently as 1972. That \$45 billion figure has become a millstone around the neck of the floating dollar! What can be done? In the final analysis, we must take our own energy bull by the horns! We cannot continue to live in a fool's paradise where, for example, the *real* price of gasoline is now about 16 percent lower, and natural gas and electricity is some 44 percent lower, than it was some 30 years ago. We need an effective national energy policy so that we can make decisive progress toward diminishing our reliance on imported sources of energy.

Surging trade deficit . . .



The exchange rates and international competitiveness

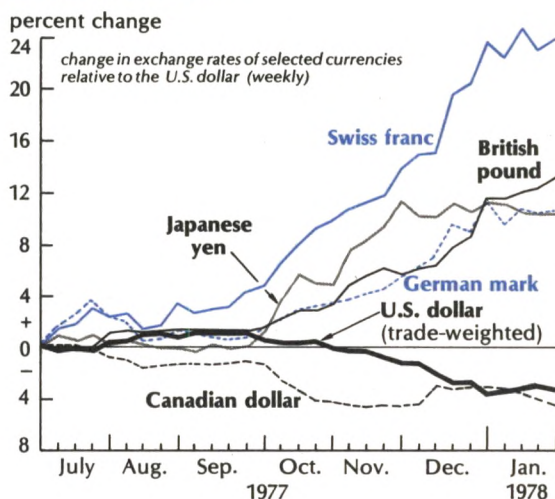
Another underlying cause of our deficit may have been a gradual erosion of the competitiveness of U.S. goods on the world markets. Competitiveness of any country's goods on the world markets is generally determined by the quality of its products, delivery promptness, and follow-up services—but above all, it is determined by the prices of its products. The final prices of a country's products on the world markets as they confront foreign buyers of these products are determined through a two-tier process. The first tier relates to the rate of price changes—the rate of inflation—which determines the prices of the country's goods in its own currency. Next, it is the movement of exchange rates through which specific domestic prices are “translated” into specific international prices. This constitutes the second tier through which international competitiveness is determined. On the “first tier” the domestic wholesale prices of manufactured goods rose by almost 7 percent in the

United States, in Germany by 3 percent, in Japan by 2 percent, and in Switzerland they actually declined by almost 1 percent between the end of 1976 and late 1977. Obviously, our competitive position against these countries in terms of domestic prices eroded during the year, and the movements in the exchange rates of these currencies relative to the dollar—the second-tier process—may be viewed as compensating for the trends on the first tier. If we weigh the changes in the exchange rate of the dollar with respect to the currencies of Japan and 13 major European countries by the volume of trade, and adjust these weighted changes for the inflation in prices of manufactured goods experienced domestically by these countries, we find that although the dollar depreciated by about 10 percent in 1977 against these currencies taken as a group, the U.S. competitive position (as determined by the two-tier process) in respect to our 14 major trading partners was almost precisely the same at the end of 1977 as it was in 1973!

The capital account

To sum up, our current deficit may have been caused at least in part by our relative loss of competitiveness during the earlier part of

. . . contributes to the dollar's decline



the 1973-77 period, and the observed movements in the exchange rate of the dollar relative to major currencies has been a part of the lagged process by which markets have tended to reestablish that competitiveness.

Data for 1977 on the supply and demand for dollars on the foreign exchange markets arising from money and capital transactions between the United States and countries abroad are available only through September. They indicate that the demand for dollars in the capital account amounted to about \$29 billion, while the supply of dollars (arising from acquisition of foreign assets and investments by U.S. residents) came to about \$13 billion. This, on the surface, would appear to be a rather "favorable" constellation of the supply and demand forces. However, a close look at the figures indicates that three-quarters of that observed "demand" for dollars was actually a "residual demand," representing acquisition of dollars by foreign official institutions as they intervened in the foreign exchange markets in their efforts to moderate the rise of their currencies relative to the dollar! Private foreign demand for dollars appeared to have fallen quite short of supply in the money and capital transactions, particularly in the last few months of the year.

In part, the causes of this trend were "economic" in origin; in part, they were a reflection of prevailing market psychology. On the economic side, the trend reflected continued excess of our corporate long-term investment abroad over foreign investments in the United States. It also reflected the activities of U.S. banks and others in accommodating demand for credit around the world in the form of loans and purchases of foreign securities. It was largely the presence of adverse "psychological" factors in the market that resulted in reduced demand for dollars on the world's money markets.

Market psychology

The impetus toward reversing the adverse capital flows affecting the dollar must come from improvements in the "psychology" of the international financial

markets. We have to restore the apparently shaken confidence of foreign investors—as well as U.S. investors. In our ability to reduce inflationary dangers, we must resolve national policy uncertainties in respect to our energy and tax policies.

There is no easy answer, and no easy solution, to what has been happening to the U.S. dollar. An improvement in the position of the U.S. dollar will require systematic progress on many fronts. We are on the right road. Our actions and our economic policies are evolving with the integrity of the dollar in mind. We are not practicing a policy of "benign neglect" in respect to the dollar as some of our friends abroad have accused us just because we have not intervened more heavily in the foreign exchange markets! Our policy of limited official intervention has proved to be very constructive thus far, particularly as it has tended to throw speculators off guard. Intervention is a management strategy, albeit a very valuable one; it is not a cure.

Conclusion

In perspective, our policies in respect to the dollar must be guided by two broad principles. One such principle derives from our existence as a viable member of the trading community of nations. That viability is largely predicated on our ability to maintain a healthy, noninflationary economy, and on our ability "to pay our way"—to see to it that our international accounts are kept in a reasonable balance. No nation, just like no individual, can go on spending forever more than it earns! The other principle comprises considerations involving the viability of the entire world trading system. That viability is predicated on the proposition that all trading nations must sacrifice certain self-serving objectives for the benefits they derive from a free international exchange of goods: no nation can expect to build economic benefits for itself by heaping adversities on others.

As long as we, as well as other nations, adhere to these principles of national and international responsibility, I am convinced that the future of the dollar will be secure.

Loan commitments and facility fees

Randall C. Merris

Commercial banks in recent years have begun to reevaluate their policies toward loan commitments—agreements in which banks obligate themselves to lend, upon customer demand, up to specified dollar limits over predetermined future time periods. These reappraisals have been prompted in part by concern on the part of both bankers and the monetary authorities over the high activation rates and large dollar volumes of loans extended under outstanding commitments during periods of tight credit.

The most recent such episode was in 1974 when tight money-market conditions and strong loan demand led major banks to boost the prime rate—the interest rate charged on business loans to banks' most creditworthy customers—to an unprecedented 12 percent. The monetary authorities' concern was that loan commitments made during earlier periods, when banks had easy access to funds, would require large-scale bank lending in 1974, hampering Federal Reserve efforts to restrict the growth of bank credit. Bank regulators were concerned that the high costs attached to honoring these commitments could threaten profitability and capital positions of some commercial banks.

Although bank loan commitments are not new financial instruments, these agreements have grown dramatically in dollar magnitudes and have assumed an increasingly critical position in bank management since World War II. Of special importance has been the growth of fee-based commitments—contracts for which customers pay explicit bank charges called commitment facility fees (or simply facility or commitment fees). These fee-based commitments differ from credit lines, which are the traditional and still prevalent type of bank loan commitment. In

place of explicit fees, credit line agreements typically require the customer to maintain compensating balances—minimum average checking account balances.

Growth of fee-based commitments has been spurred by a number of major banking developments since the early 1960s. A primary factor has been the increased reliance of commercial banks on open-market sources of funds to meet loan demands arising from commitments. The greater variability in the costs of these managed liabilities, compared with the relatively stable cost of traditional deposit sources of funds, has introduced additional uncertainties into bank management of loan commitments. At the same time fluctuations in interest rates applied to loans under commitments (i.e., takedowns) have been considerably greater in the post-1965 period. Increased variability of both bank costs and revenues has prompted many banks to analyze in detail the profitability of individual customer accounts and to make greater use of explicit pricing of loan commitments and other bank services.

For a long time loan commitments of commercial banks were viewed as a rather minor service performed as an adjunct to the actual loan contract. Nearly all loan commitments were in the form of credit lines related in a rather mechanical way to the volume of business loans. Largely as a consequence of the greater turbulence of financial markets in recent years, however, loan commitments have gained recognition as a distinct and separable service of commercial banks. This new view of commitments focuses on the financial advantages accruing to a business firm from assurance of future credit availability, a service that commands a price even if the commitment remains unused.

In general terms, loan commitments are

viewed as insurance policies for which firms should be willing to pay a "premium"—either in the form of a facility fee or through compensating balances. Banks maintain some, but not complete, control over policyholder claims by reserving the right to vary interest rates applied on commitment takedowns in most of these contracts. It is extremely unlikely, in normal times, that all holders will decide to draw down their commitments simultaneously. As a result, banks are able to pool risks and forecast loan usage for commitments in much the same way that insurance companies use contingency tables to estimate claims.

Unlike claims under most forms of insurance, however, takedowns under loan commitments are not independent events ruled by accident or nature. Because takedowns occur at the discretion of business firms which are affected by tight credit conditions at about the same time, the possibility exists that a large proportion of commitment holders will turn to their banks for funds simultaneously. During periods of especially tight credit, such as in 1969 and 1974, takedowns were increased sharply enough by a sufficiently large number of commitment holders to engender concern.

Commitment features

Loan commitment is a term loosely applied to a variety of agreements varying from informal understandings to legally binding contracts between commercial banks and their customers. A loan commitment may be negotiated between the parties and tailored to specific operating policies of the bank and particular credit needs of the customer. All major banks and many smaller ones have detailed operating policies regarding commitments. Any one bank frequently uses several standard types of commitments and further customizes these agreements to individual customers.

Even commercial banks are not always in agreement as to what constitutes a loan commitment. Some banks consider all or nearly all short-term business loans to arise from com-

mitments, even if the bank has had no contact with the loan customer prior to the loan application. At the other extreme are banks that view themselves as making no commitments whatever. Fortunately, most banks' commitment policies are better defined and managed than either of these extreme views might suggest. Nevertheless, differences in terminology regarding commitments persist.

Loan commitments typically include four major elements—disclosure of the commitment to the customer, the dollar limit on loans under the agreement, interest rates on takedowns, and the time period during which the agreement is effective. While some banks have adopted internal guidelines for use in screening customer loan requests, these guidelines typically are not considered loan commitments unless they have been communicated to customers. Thus, terms such as "disclosed credit lines" or "confirmed lines" often are used to distinguish commitments from internal guidelines. Although all credit commitments involve disclosure to the customer, either orally or in writing, their treatment of the other major elements varies widely. Confirmed credit lines include lending limits but do not detail other terms and conditions of usage. Credit lines sometimes are open indefinitely or until further notice from the bank, but most often are on an annually renewable basis.

On the other hand, formal loan commitments, sometimes called "firm" commitments, include all four major elements of commitment agreements. Not only dollar loan limits, but also lending rates and the period for which the agreement is in force, are stated in writing. The lending rate is usually specified to bear a fixed relationship to the prime rate. The period during which formal commitments are in force is normally one to three years, depending on the purpose of the borrowing. There is usually a clause requiring a bank to show cause for not honoring a formal commitment, and proviso clauses stipulating that the customer must maintain minimum adequate working capital, limiting the customer's reliance on nonbank external financing, or imposing other controls on the

firm's operations sometimes detail the conditions under which the bank may be released from its obligation to lend.

Two of the most important types of formal commitments are revolving credits and term loan commitments. A revolving credit entitles the customer to take down and repay loans repeatedly during the time the agreement is in effect, so long as the total loans outstanding at any time do not exceed the dollar limits of the commitment. Banks may require that a revolving credit be repaid in full for some part of each year. Term loan commitments are for bank loans having original maturities exceeding one year. Some commitments apply directly to term loans, whereas other commitments begin as revolving credits and allow conversion to term lending during the life or upon expiration of the revolving credit agreement. Revolving credits and term loan commitments are two principal types of commitments on which banks often charge explicit fees.

Another major category of formal commitments is the standby commitment, which is used to back an issuance of commercial paper—promissory notes issued by large corporations and used as a close substitute for bank loans. Although collateral is not required on commercial paper, investors typically require some assurance that issuers will be able to repay or refinance the debt upon maturity. Under standby commitments banks promise to provide refinancing through bank loans when the commercial paper matures. Corporations sometimes find bank refinancing less expensive than commercial paper, and take down large amounts of standby commitments. At other times, when commercial paper is relatively less expensive, standby commitments remain unused and serve only as credit assurance. In many instances a large corporation will have loan commitments outstanding from dozens of banks to cover its commercial paper. The fees charged for these commitments are referred to as standby fees.

Credit lines traditionally have been a major component of "customer relationships"—longstanding cooperative arrangements by

which a bank provides total packages of bank services to business customers. Standing ready to provide loans, especially in times of tight credit, is vital to maintaining the loyalty of the customer and the long-run profitability of his account to the bank.

Advance commitment of funds also may serve as an important part of the loan approval mechanism used in major banks. So long as total loans to a given borrower remain within the dollar limits of the commitment, pre-approved lending reduces administrative costs for a bank loan department by eliminating the need to review and approve each loan separately.

Knowing both the overall dollar volume of commitments and the totals for separate commitment categories, senior bank management is better able to forecast loan demand. However, knowledge of the usage rates of various types of commitments is also necessary.

Usage rates

Usage rates (i.e., the percentages of commitments taken down at any given time) vary significantly among credit lines, revolving credits, term loan commitments, and other types of commitments. Usage rates tend to be highest for formalized agreements, especially for fee-based commitments. Thus, term loan commitments and revolving credits have higher usage rates on average than confirmed credit lines.

Usage rates also display more cyclical variability for some categories of commitments than for others. Credit lines and revolving credits are designed to meet both foreseen and unforeseen short-term borrowing needs and so have more cyclical and seasonal usage than term loan commitments.

Nonbank financial institutions, especially finance companies, are major users of commitments, either directly or as backing for commercial paper, and are often treated as a separate commitment category. These commitments are most similar in form and usage to the revolving credits issued to commercial and industrial borrowers.

Banks also issue construction-loan and

mortgage-loan commitments for loans secured by real estate, collectively called real estate commitments. Ultimate usage rates are near 100 percent for real estate commitments. A construction commitment is tied directly and formally to a specific construction project and includes a date for total takedown or a timetable for periodic takedowns increasing to 100 percent usage during the construction period. Similarly, a mortgage commitment is tied to a particular commercial or residential property as of a closing date. Real estate commitments are a totally separate entity and normally are not discussed along with "regular" commitments because the bank's uncertainty about usage rates, which is substantial for credit lines, revolving credits, and term commitments, is not as important for real estate commitments.

Lending under commitments

Estimates from the latest available Federal Reserve survey of bank lending, covering loans contracted in the first full week of November 1977, indicate that slightly over 40 percent of the dollar amounts of short-term business loans (i.e., loans with maturities less than one year) and over 48 percent of long-term business loans were contracted through commitments. In general, the largest banks originate a larger proportion of their business lending through commitments than smaller banks. For example, 54 percent of the dollar volume of short-term business loans of the 48 largest banks in the November 1977 survey were made under commitments, compared to 33 percent of the same category of lending by other banks. Over 62 percent of the long-term business lending by the 48 largest banks was under commitments, compared to about 32 percent for other banks.

Generally, large loans are more likely to originate from commitments than are smaller loans. In the November 1977 survey, for example, only 19 percent of the dollar amount of short-term business loans in the \$1-99 thousand size category arose from commitments, compared with 50 percent of short-term lending in the \$100 thousand and over

size category. Similarly, about 37 percent of the dollar amount of long-term loans in the \$1-99 thousand category were made under commitments, compared to over 53 percent for the loans of \$100 thousand and over. The prevalence of commitments for large loans is explained in part by the lead time for advance planning afforded by a loan commitment, which is especially critical when the loan represents a sizable portion of the bank's total lending and is to be outstanding for a long time.

Pricing commitments

Facility fees, like interest rates, are quoted as annual percentage rates and are paid either in full when the commitment begins or at regular intervals during the life of the contract. Some banks use a base fee to which are added, depending on the customer, supplementary facility fees or compensating balance requirements related to the dollar amounts of the commitments or the takedowns.

During the 1950s and most of the 1960s, the basic facility fee was $\frac{1}{4}$ percent per annum on the unused dollar amount of the commitment but at times was increased by some banks to $\frac{1}{2}$ percent on the unused amount.

The major purpose of the facility fee on commitments is to pay for the credit-assurance services provided by the bank. Like prices of other goods and services, facility fees serve as an economic rationing device. They can be varied by the bank as a means of controlling the dollar volume of loan commitments. Increases in facility fees, other factors unchanged, will result in a reduction in dollar amounts of commitments demanded by new and existing customers.

Commercial banks change their basic facility fees very infrequently. One reason for the "stickiness" of these fees is that banks have other methods available for influencing the volume of commitments. Commercial banks can change the availability of the funds borrowed under commitments by altering compensating-balance requirements when applicable or can vary other elements of the

commitment agreement. Interest and non-interest terms on the loans assured by the agreements also can be modified in lieu of changing the facility fee. For example, a business firm previously qualifying for loans at the prime rate might terminate the agreement or carry a smaller commitment when faced with a higher loan rate—say, prime plus one percent.

Inflexibility of facility fees also results from the manner in which fee charges influence loan demand, especially when the fee is applied to unused portions of commitments. The effects on loan demand are illustrated best by looking at changes in facility fees during two recent episodes of tight credit and strong loan demand.

- In the spring of 1969 several large New York City banks raised their facility fees from $\frac{1}{4}$ percent to $\frac{1}{2}$ percent per annum on unused portions of new commitments and renewals of existing ones.

- In the fall of 1974 several major money-center banks imposed a $\frac{1}{4}$ percent fee on total dollar amounts of new and renewed commitments in addition to the $\frac{1}{2}$ percent fee already levied against unused segments of their commitments.

Levying facility fees against the unused portions of commitments has significantly different implications for loan demand than placing fees on total commitments. The fee increase in 1969 was aimed at reducing the amount of outstanding commitments and thereby stemming the growth of business lending. However, increasing the fee only against unused commitments provided an offsetting incentive to commitment holders to increase the usage of the commitments that remained in force.

Given the size of the commitment, an increase in the fee on the unused portion amounts to a decrease in the effective loan rate on takedowns. Consider a commitment carrying a $\frac{1}{4}$ percent fee on the unused portion in early 1969 and obligating the bank to lend at the $7\frac{1}{2}$ percent prime rate quoted from mid-March to early June 1969. The effective, or marginal, interest rate on loans under this commitment is $7\frac{3}{4}$ percent rather than $7\frac{1}{2}$

percent because of the $\frac{1}{4}$ percent facility fee on unused commitment amounts. The borrower pays only $7\frac{1}{4}$ percent more by taking down the commitment since the $\frac{1}{4}$ percent fee is “saved” on each dollar of commitments used.

Now suppose that after the facility fee increase in 1969 from $\frac{1}{4}$ percent to $\frac{1}{2}$ percent, the commitment holder chose to renew his commitment. With the prime rate still at $7\frac{1}{2}$ percent, the new effective rate on takedowns would be 7 percent—the $7\frac{1}{2}$ percent prime minus the $\frac{1}{2}$ percent fee on unused commitment amounts. Thus, an increase in the commitment fee would result in a reduction in the effective cost of takedowns and probably would have the undesired effect of encouraging greater usage of commitments during a tight money situation.

It is noteworthy that the prime rate was increased in June 1969 from $7\frac{1}{2}$ percent to $8\frac{1}{2}$ percent—the largest single movement in the prime in modern history. This prime rate increase occurred soon after the $\frac{1}{4}$ percentage point increase in facility fees on unused commitments by some major banks. Some part of this hike in the prime rate may be explained by the need to adjust the loan rate to the new facility fee schedules.

Indirect evidence that banks learned a lesson in facility fee policy from the 1969 episode is provided by the experience of 1974. Banks that increased fees in 1974 avoided simultaneously decreasing effective loan rates on takedowns. Since the additional $\frac{1}{4}$ percent fee (or more in some cases) was placed on the total amount of new and renewed commitments, the commitment holder could not reduce the fee charge by simply taking down the commitment. From the banks' viewpoint the additional fee on total commitments had the advantage of reducing the dollar volume of commitments without stimulating an offsetting increase in takedowns.

Even when applied to total commitments, higher fees tend to increase observed usage rates because these agreements become a higher-cost financial resource. This is because the higher commitment fees lead holders to

economize on the volume of unused commitments, resulting in higher observed usage rates.

Regulation

It has been suggested on occasion that bank loan commitments should be subject to public regulation, either by placing reserve requirements on commitments or by limiting overall dollar volumes. Each of these alternatives, however, presents serious problems owing to the rather special nature of commitments—namely, that these contracts are contingent claims on the banking system. Because no transaction involving the actual transfer of funds is made until the commitment is taken down, commitments do not appear on bank balance sheets. Thus, regulation of commitments would not operate directly on an item appearing on the balance sheets of commercial banks.

If reserve requirements were placed on loan commitments, however, banks would need to alter accounts which do appear on their balance sheets—liquidating loans and investments or attracting additional deposits—in order to obtain funds to meet these requirements. By absorbing loanable funds, reserve requirements against loan commitments could prove a heavy burden on banks. The probable result would be that some banks would eliminate loan commitments (formal commitments at least) from the list of bank services provided. Many banks probably would impose additional compensating balance requirements, facility fees, and higher loan rates on commitment takedowns. In this way, the implied costs of reserve requirements against commitments would be shifted onto banks' credit customers.

The establishment of ceilings on dollar volumes of outstanding loan commitments would cause serious regulatory problems. Restrictions on loan commitments would have to be extended to entire business loan portfolios of commercial banks. Otherwise, banks simply could shift large volumes of lending from formal commitment status to lending without prior commitment or to

agreements sufficiently informal as to avoid, at least technically, the official definition of a commitment. Unless all business lending and commitments were regulated in the same way, a reversal in the trend toward formal commitments would enable banks to circumvent quantitative controls on commitments.

If different quantitative restrictions (or reserve requirements) were imposed on different categories of business loans and loan commitments, the consequence would be bank credit allocation with its multitude of regulatory costs and inequities.

Despite the monetary authorities' occasional concern over the pro-cyclical effects of loan commitment usage, the need for regulatory control over loan commitments has not been clearly demonstrated. The fee revisions in 1969 and 1974 have shown that banks' control over outstanding formal commitments can be maintained during tight credit periods. Some firms holding bank credit lines in 1974 sought to convert them to fee-based commitments. While assuring customers that confirmed lines would be honored as readily as formal commitments, banks balked at converting these informal lines.

It should be remembered that commitment agreements expire and must be renegotiated. Even if many large, unused commitments accumulate during a period of slack loan demand, many of them expire as business credit demand recovers. After that occurs, and before credit pressures of the recovery have mounted, banks have several options. They can reduce the sizes of commitments, raise facility fees and compensating balance requirements, or alter other interest and non-interest terms on loans. Moreover, commitment holders have little incentive to accumulate commitments in anticipation of a credit crunch if the agreements are expected to expire before credit stringency appears.

Indeed, the otherwise minor difficulties that some banks encountered from loan pressures in 1974, as well as the resulting concern on the part of the monetary authorities, were exacerbated by efforts of public officials to hold bank lending rates—particularly the prime

Information on commitments

Mellon Bank NA, headquartered in Pittsburgh, has been a leader in developing specific procedures for managing commitments and has been collecting detailed data on dollar amounts of formal commitments and credit lines since 1959. The Board of Governors of the Federal Reserve System has gathered data on loan commitments since the late 1960s and since January 1975 has compiled a Monthly Survey of Loan Commitments showing amounts of unused commitments and loans made under commitments by 136 large banks. Some information on commercial banks' commitment policies is available also from *Changes in Bank Lending Practices* and the *Survey of Terms of Bank Lending*, both published by the Federal Reserve System.

This information provides a useful starting point for developing generally accepted terminology regarding loan commitments and refining bank commitment policies.

Federal Reserve survey*

	<u>Monthly survey of loan commitments</u>	<u>Terms of lending at commercial banks</u>	<u>Changes in bank lending practices</u>
Banks included	136 weekly reporting banks, accounting for about 85 percent of commercial and industrial loans, 95 percent of nonbank financial loans, and 75 percent of real estate loans of all weekly reporting banks	About 340 banks selected to represent all sizes of banks	About 120 selected large banks
Reporting period	End of each month beginning with January 1975	Quarterly sample for the first full business week of each February, May, August, and November—beginning with February 1977	Quarterly sample for mid-month of each February, May, August, and November—beginning with February 1967
Source	Federal Reserve Statistical Release G. 21	Federal Reserve Bulletin and Federal Reserve Release G.14	Federal Reserve Bulletin
Description	Federal Reserve Bulletin, April 1975	Federal Reserve Bulletin, May 1977	Federal Reserve Bulletin, April 1968
Information on commitments	Outstanding amounts of unused commitments and loans made under commitments. Major commitment categories include formal commitments, disclosed credit lines, and commitments to nonbank financial firms.	Percentages of amounts of loans made under commitments for various size classes of loans. The sample contains separate strata for 48 large banks and the other banks in the sample. The data are classified as short-term business loans, long-term business loans, construction and land development loans, and loans to farmers.	Essentially qualitative information from senior bank lending officers about changes in their lending practices since the previous reporting period. Information concerns changes in review procedures for credit lines of non-financial business customers and establishment of new or larger credit lines by finance companies.

* Statistical releases mentioned in this table can be obtained from Publication Services, Division of Administrative Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.

rate—below the level dictated by market forces. To the extent that banks yielded to pressures to restrain rate increases, they denied themselves the use of a major method for controlling commitment usage—raising the price of borrowings.

Though formal controls appear unwarranted, commitments nevertheless pose problems that merit the attention of bank management and supervisory authorities. Some banks still have fairly informal commit-

ment policies and could benefit from specific guidelines and better internal data on loan commitments. Consideration should be given to uniform disclosure of dollar amounts of loan commitments, at least formal agreements, as addenda items on all bank balance sheets. Disclosure would enable investors to evaluate the impact of loan commitments on individual banks' risk positions, and also could contribute to more consistent and effective bank examination procedures.

Bank failures

Chayim Herzig-Marx

Public interest in bank failures has been renewed recently as a number of multi-million dollar banking firms have been declared insolvent. Legislators, who share the concern, have asserted that “the existing structure of regulation of banking institutions under Federal law . . . is incapable of insuring the safe and sound operation of the commercial banking system of the nation.”¹ Regulators have responded with increased bank surveillance and with “early warning systems” to guard against further failures.

When banks fail, investors and sometimes depositors sustain losses; society bears some costs as well. However, the dollar magnitude of such losses is far less than one might expect, and the actual amount of losses sustained is to some extent dependent upon the manner in which regulatory authorities dispose of the failed bank. Yet the mechanics of handling bank failures remain a mystery to most people.

Historical background

Waves of bank failures have recurred throughout American history. During the panic of 1893 nearly 500 banks suspended operations, out of only 9,500 banks then in existence. During the monetary crisis of 1913, 105 banks failed and in each of the next two years, over 150 banks failed.

In the 1920s an average of 588 banks failed each year.² Between 1930 and 1933, the last four years prior to the establishment of the Federal Deposit Insurance Corporation (FDIC), 9,100 banks suspended operations in this country—an average of 43 banks per

week. During these four years depositors sustained losses of \$1.3 billion. These failures prompted extensive legislation aimed at preventing a recurrence of such disastrous numbers of insolvencies. Banks were barred from paying interest on demand deposits and from engaging in certain activities, such as stock underwriting, on the grounds that these practices had proved excessively risky. While the wisdom and effectiveness of these restrictions has been questioned, the establishment of the Federal Deposit Insurance Corporation in 1933 did indeed bring about the long sought-after stability in the banking system. By guaranteeing the safety of depositors' funds, federal deposit insurance effectively put an end to banking panics. A potential insolvency at one bank no longer threatened deposits at other banks in the same economic region, putting an end to the domino effect which had always plagued American banking.

Federal deposit insurance, however, does not stand as the only bulwark against banking panics. Monetary and fiscal policies of the government are aimed at preventing economic depression, whether due to severe contractions of the money supply or to other causes. The ability and willingness of the Federal Reserve System to provide liquidity to the banking system also helps to insure that the public will not lose faith in bank deposits as a safe and sound means of holding money balances.

The effectiveness of federal deposit insurance in reducing numbers of bank failures is readily seen. During the first four years of FDIC experience, only 249 banks failed, of which 180 were insured. Losses to depositors of insured banks were only \$717,000, while losses to depositors of uninsured banks were \$6.7 million and losses to the FDIC were just under \$9 million. The establishment of deposit insurance thus has had two effects. First, the number of failing banks has been

¹U.S. Senate, *A Bill to Establish a Federal Bank Commission*. . . , S. 2298, 94th Congress, 1st Session, 1975, p. 2.

²Data on bank suspension prior to 1934 are not wholly comparable with data from later years. Some suspended banks subsequently reopened.

Table 1
Basic data on frequency and disposition of bank failures, by year, 1934-1976

Year	Number of failed banks		Deposits in failed banks		Failure rate (per 10,000 banks)		Disposition of insured failed banks	
	Insured	Noninsured	Insured	Noninsured	Insured	Noninsured	Deposit payoff	Purchase and assumption
			(thousands)					
1934	9	52	\$ 1,968	\$ 35,364	6.4	287.8	9	0
1935	26	6	13,405	583	18.3	32.4	24	2
1936	69	3	27,508	592	48.9	16.6	42	27
1937	77	7	33,677	528	55.2	40.1	50	25
1938	74	7	59,684	1,038	53.7	41.8	50	24
1939	60	12	157,772	2,439	44.3	135.3	32	28
1940	43	5	142,430	358	32.0	58.8	19	24
1941	15	2	29,717	79	10.4	23.5	8	7
1942	20	3	19,185	355	15.0	25.3	6	14
1943	5	0	12,525	0	3.8	0.0	4	1
1944	2	0	1,915	0	1.5	0.0	1	1
1945	1	0	5,695	0	0.8	0.0	0	1
1946	1	1	347	147	0.7	14.5	0	1
1947	5	1	7,040	167	3.7	12.8	0	5
1948	3	0	10,674	0	2.2	0.0	0	3
1949	5	4	6,665	2,552	3.7	55.6	0	5
1950	4	1	5,513	42	3.0	14.5	0	4
1951	2	3	3,408	3,056	1.5	46.2	0	2
1952	3	1	3,170	143	2.2	16.0	0	3
1953*	4	1	44,711	390	3.0	17.6	0	2
1954	2	2	998	1,950	1.5	37.3	0	2
1955	5	0	11,953	0	3.8	0.0	4	1
1956	2	1	11,330	360	1.5	22.5	1	1
1957*	2	1	11,247	1,255	1.5	23.5	1	0
1958	4	5	8,240	2,173	3.1	125.3	3	1
1959	3	0	2,593	0	2.3	0.0	3	0
1960	1	1	6,930	1,035	0.8	28.4	1	0
1961	5	4	8,936	1,675	3.8	123.8	5	0
1962	1	2	3,011	1,220	0.8	64.9	0	1
1963	2	0	23,444	0	1.5	0.0	2	0
1964	7	1	23,438	429	5.2	36.5	7	0
1965	5	4	43,861	1,395	3.7	152.1	3	2
1966	7	1	103,523	2,648	5.2	42.6	1	6
1967	4	0	10,878	0	3.0	0.0	4	0
1968	3	0	22,524	0	2.2	0.0	0	3
1969	9	0	40,134	0	6.7	0.0	4	5
1970	7	1	54,821	423	5.2	54.1	4	3
1971	6	0	132,152	0	4.4	0.0	5	1
1972	1	2	20,480	79,304	0.7	97.1	1	0
1973	6	0	971,296	0	4.3	0.0	3	3
1974	4	0	1,575,832	9	2.8	0.0	0	4
1975	13	1	339,574	1,004	9.0	38.3	3	10
1976	16	1	864,859	800	11.1	36.4	3	13

*"Disposition of insured failed banks" and "Number of insured failed banks" do not agree because some insured failed banks subsequently reopened.

reduced dramatically. Second, for banks with deposit insurance, the risk of financial loss has shifted from depositors to the FDIC's insurance fund, accumulated from premiums paid by insured banks. To understand how the FDIC shifts risk from depositors to itself, it is necessary to understand what happens when a bank fails. A discussion of general provisions governing bankruptcy proceedings will help to clarify the role of the FDIC.

Bankruptcy in general

Bankruptcy is a legal proceeding in which a financially distressed firm is placed under the supervision of a court. The court appoints one or more trustees to oversee the operations of the firm during adjudication. Any creditor failing to receive timely repayment of amounts due him may sue to initiate bankruptcy proceedings against the debtor firm. Firms owing amounts in excess of their abilities to repay may themselves file for bankruptcy to obtain protection from their creditors pending resolution of their indebtedness. In a typical bankruptcy proceeding, creditors present their claims against the failed firm. If the creditors can agree to a debt restructuring, usually involving extended debt maturities as well as some debt "forgiveness," the firm may continue in operation. Otherwise, the assets of the firm are liquidated and the creditors are compensated from the proceeds.

The determination of how much each creditor is paid becomes crucial. Most creditors share in the liquidation proceeds in proportion to their financial claims on the firm. These are called "general creditors." Some creditors are able to establish a prior claim to the liquidation proceeds. Called "preferred creditors," they must be paid in full before any distribution can be made to the general creditors. The benefit of establishing a credit preference is evident (lawsuits over assertions of preferences are common), making the validation of preferences one of the most important aspects of bankruptcy proceedings.

Bankruptcy in banking

Like any other business, a bank can voluntarily place itself in bankruptcy or can be sued by creditors who are refused repayment. These events rarely occur, however, because the banking industry is subject to extensive public regulation. In particular, a bank can be placed in receivership (the equivalent of bankruptcy) by a regulatory authority, but only by the authority issuing its charter.³ This is an important distinction between banks and other commercial businesses since in banking the chartering agency, which represents neither the business itself nor creditors of that business, has the power to force the firm into bankruptcy proceedings.

Fairly wide latitude is granted to bank supervisors in determining whether a bank should be placed in receivership. If a bank is insolvent, if its capital is impaired, if it is engaging in practices that are likely to result in substantial financial loss to depositors, or if it is about to engage in such practices, the supervisor is justified in taking control of the bank and placing it in receivership. A bank is insolvent when its assets, even though liquidated in an orderly and prudent manner, would not suffice to pay off its noncapital liabilities. A bank's capital is "impaired" when charges against the capital account (e.g., to write off losses or uncollectable debt) exceed the sum of contingency reserves, undivided profit, and surplus. Because of supervisors' wide latitude, a bank is usually closed long before it actually defaults on its debts.

Once a bank is declared insolvent, it is taken over by regulatory authorities and closed to all business. The Comptroller of the Currency or state bank supervisor places the bank in the hands of a court with jurisdiction in such matters (usually a federal district court). The court appoints and oversees a receiver, whose job is to examine the books and accounts of the bank and to verify assets and liabilities. The receiver is also responsible

³The Federal Reserve and the Federal Deposit Insurance Corporation, although they are both heavily involved in bank supervision and regulation, lack the legal power to close a financially distressed bank.

for collecting interest and principal due on outstanding loans and investments. Public notice is given, usually for about three months, for all creditors of the failed bank to present proof of their claims. The receiver judges the validity of all claims presented.

A large body of case law exists dealing with preferences in bank failures.⁴ Most transactions with a bank arise out of a debtor-creditor relationship. For example, one who deposits money with a bank is a creditor, and the bank stands as a debtor to him. In order to establish a preference in a bank failure case, one must demonstrate that his relationship with the bank was not simply that of a creditor, but rather that the relationship was one of principal and agent or that the bank was acting in a trust capacity. Banks often act as agents for municipal governments or other political subdivisions in the collection of taxes. The political units thereby achieve the preferred status of a principal with respect to the tax deposits rather than that of a creditor. Another situation establishing a preference occurs when money is deposited in a bank with the express stipulation that the funds are to be used to purchase certain securities. The bank then acts as the agent for the depositor, and his claim on the bank takes priority over that of other depositors. Pledging assets to secure deposits also establishes a preference. Depositors who are not preferred creditors are merely general creditors of failed banks. General creditors share *pro rata* in all liquidation proceeds, but only after preferred and secured creditors have been compensated.

At federally insured banks, the Federal Deposit Insurance Corporation relieves depositors of financial risk by entering into the bankruptcy proceedings. When an in-

sured bank fails, the FDIC guarantees to each depositor the amount of his account, up to the current insurance limit (now generally \$40,000). The FDIC then becomes subrogated to the rights of depositors to the extent of insurance payments; that is, each depositor's claim to liquidation proceeds passes to the FDIC for the amount by which the FDIC reimbursed the depositor. The FDIC then becomes a general creditor of the failed bank and shares in liquidation proceeds *pro rata* with other general creditors.

Claims of capital investors in failed banks rank below those of general creditors. There are three classes of capital investments: capital notes and debentures, preferred stock, and common stock. In order to be exempt from interest rate ceilings and reserve requirements, capital notes and debentures must be explicitly subordinated to all deposits. They are also, therefore, subordinated to all creditors' claims that rank on a par with deposits. Thus, holders of capital notes of a failed bank will not receive any recovery on their investment until all preferred and general creditors recover the full amount of their investments.

If any funds remain after holders of capital notes have been paid off in full, stockholders may receive something. In cases in which the failed bank had both preferred and common stock outstanding, preferred stockholders have priority.

The Federal Deposit Insurance Corporation thus plays a key role in settling depositors' claims against failed banks. In fact, in the vast majority of failure cases, the Corporation is appointed receiver for the failed bank and for failed national banks must be appointed receiver. Regardless of the method of disposition chosen, substantial monetary outlays on the part of the FDIC will normally be required.

Disposing of failed banks

The FDIC has several options for disposing of failed banks. Unlike other business failures, which can be wound up only by a debt restructuring or by a liquidation, bank

⁴Most state banking laws do not deal specifically with preferences. Among Seventh District states only Iowa makes explicit the order of payment of creditors of failed banks. Section 524.1312 of the Iowa Code specifies that, in the event that liquidation proceeds are not sufficient to pay off all creditors in full, the order of distribution is, first, all costs of the receiver; second, all preferred claims (in full or *pro rata* if proceeds are not sufficient to compensate all preferred creditors); third, depositors; fourth, all other general creditors; fifth, holders of capital notes and debentures. The Iowa code thus elevates depositors above other general creditors.

failures can be handled in five distinct ways: (1) by "purchase and assumption"; (2) by "deposit payoff"; (3) by chartering a Deposit Insurance National Bank; (4) by providing financial aid; (5) by reorganizing. Only reorganizing does not involve the FDIC.

Purchase and assumption. The FDIC is empowered to dispose of failed banks by arranging a merger with a sound bank (which may be newly chartered for that express purpose). In a "purchase and assumption" negotiations are entered into between the FDIC and sound banks interested in acquiring the business of the failed bank. Acquiring banks must assume all deposit liabilities of the failed institution and may choose to assume other liabilities as well. In the typical case the assuming bank acquires all matured liabilities with the exception of long-term debt. Contingent liabilities are usually not assumed.⁵

The assuming bank will acquire some, but not all, assets of the failed bank. Many of the failed bank's assets will not be sound, making them undesirable for purchase. If the bank failed through defalcation, some assets may be fictitious. Undoubtedly, some loans will have been classified.⁶ Typically, therefore, the assuming bank will acquire a smaller dollar amount of assets than liabilities. The difference is made up by a cash payment from the FDIC to the acquiring bank.

Potential assuming banks bid competitively for the opportunity to acquire the sound and ongoing business of the failed bank. Each competing bank submits a bid to the FDIC, which includes a promise to pay to the Corporation a specified sum of money, called a "premium," if the bid is accepted. Usually the FDIC will accept the bid that

carries the highest premium. The premium is "paid" in the form of a lower cash advance from the FDIC. That is, the FDIC pays out to the winner of the bidding enough cash to make up the difference between liabilities assumed and assets taken plus premium. In this transaction the FDIC gains title to all the assets not specifically selected by the assuming bank (hence the term, "premium," in that the FDIC gains title to certain assets without any corresponding liabilities). The size of the premium and the FDIC's ability to collect interest and principal on the assets it receives govern the chances that the failed bank's stockholders will recover their investment.

In addition to administering the exchange of assets and liabilities and paying the cash advance, the Corporation sometimes makes long-term loans to beef up the assuming bank's capital position.

Deposit payoff. The FDIC is seen most clearly in its role as guarantor of deposits when a bank failure is handled by the liquidation or "deposit payoff" method.

When a failed bank is paid off, the FDIC (assuming it has been appointed receiver) assesses the validity of depositors' claims against the failed bank. Secured or preferred depositors, such as political subdivisions, are paid first out of the failed bank's assets. Other depositors who have valid claims receive the value of their deposits from the FDIC, up to the insured maximum. Usually, the FDIC disburses funds in the form of deposits in another bank. If a depositor has received a loan from the failed bank, the amount of the loan may be offset against his deposit.

In exchange for paying depositors the value of their deposits, the FDIC acquires legal claims against the failed bank's assets and becomes a general creditor of the failed bank in the depositors' stead.

As the assets of the bank are liquidated, creditors are compensated from the proceeds. The FDIC shares *pro rata* with other general creditors, such as depositors whose accounts exceeded the insurance maximum, suppliers of business forms or office equipment, and similar other parties to whom the bank owes money.

⁵For an exhaustive definition of contingent liabilities, see Glenn G. Munn, *Encyclopedia of Banking and Finance*, 7th edition, 1973, pp. 222-3. In general, contingent liabilities are obligations not expected to fall due. Some examples in banking are letters of credit, acceptances, accommodation endorsements, liabilities resulting from pending or possible litigation, and futures contracts to deliver foreign exchange. Matured liabilities are those whose incurrence is definite and accomplished, such as deposits, capital notes, and rental charges for space and equipment.

⁶Classified assets are those a bank examiner believes unlikely to repay all interest and principal.

Deposit Insurance National Bank. Infrequently, the FDIC sets up a new bank in place of the failed bank for a temporary time, normally two years. Chartered in effect by the Comptroller of the Currency, with no capital, the bank is titled Deposit Insurance National Bank (DINB) and is automatically granted deposit insurance. The bank makes no loans, holds only U.S. Treasury securities or other securities guaranteed as to principal and interest by the U.S. government or cash assets, and conducts basically a payments business only. All insured deposits in the failed bank are transferred to accounts in the Deposit Insurance National Bank.

Failures handled as DINBs are classified as deposit payoffs, since depositors can withdraw the amount of their deposits. This method is used only where no other banking facilities are available in a community, in the hope that local people will be encouraged to organize a permanent bank for themselves. The FDIC can, if it wishes, sell the business of the DINB by accepting bids to capitalize the bank.

Financial aid. A bank may become insolvent before any actual default on obligations occurs. The FDIC is empowered to make long-term loans to a distressed bank if the FDIC and the chartering regulator agree that continuance of the insolvent bank is necessary to the economic well-being of the community or is desirable because the demise of the bank would bring about excessive concentration of banking resources. Such loans, coupled with close supervision and perhaps mandatory changes in operating personnel and procedures, can help restore a distressed bank to a sound condition. The most notable occurrence of this type of assistance involves the Bank of the Commonwealth of Detroit, which has received loans totaling \$35.5 million from the FDIC.

Reorganization. State banking laws and the National Bank Act provide that a failed bank can be reorganized, presumably with reduced capital and other liabilities to reflect the reduced market value of its assets. Intervention by the FDIC is not required.

Reorganization is especially useful when

liquidation of the bank will result in large losses for all classes of creditors. To invoke such a procedure, therefore, requires the concurrence of creditors holding claims to a large fraction of the bank's nonequity liabilities, typically 75 or 80 percent.

Of the five methods of disposing of failed banks, legal reorganization is used least frequently—virtually never. Financial aid is used more often to prevent actual failure than to dispose of a failed bank. Deposit Insurance National Banks are used infrequently and are really only an alternative means of paying off depositors. The great majority of failed banks are handled either by purchase and assumption or direct payoff.

The FDIC seemingly has gone through cycles in which it preferred first one method of dealing with failures and then another. From 1934 to 1944 both payoff and assumption methods were extensively used. Between 1945 and 1954, however, every bank failure was handled as a purchase and assumption transaction. Then, from 1955 through 1964, almost all failures were paid off. Since 1965 both payoffs and assumptions have been used.

Data on numbers of bank failures are understated, just as numbers of business bankruptcies are also understated. Besides the possibility of financial aid from the FDIC to keep a distressed bank afloat, emergency mergers are sometimes consummated before the acquired bank actually fails. Occasionally, the merger takes place with the blessings of the federal bank regulatory agencies but without any financial assistance. The most prominent example of this occurred in 1975, when the Security National Bank of Hempstead, New York, was acquired by Chemical Bank. Had the merger not taken place, Security, with deposits of \$1.3 billion and assets of \$1.7 billion, would have become the second largest bank failure in U.S. history.

In other cases, the FDIC has used direct financial assistance to facilitate mergers. In 1975 the FDIC assisted in the merging of a newly organized bank with the Palmer First National Bank and Trust Company of Sarasota, Florida, after receiving assurances

that such assistance was necessary to bring about the acquisition and to avert the failure of Palmer First National. These are but two instances in which failures have been preempted by mergers. It is not known how many insolvencies have been prevented this way.

Normally, the FDIC chooses the method that minimizes the loss to the insurance fund. The distribution as well as the total amount of losses to creditors are strongly influenced by the method chosen by the FDIC. It is possible that one method—usually deposit payoff—may result in a somewhat smaller loss to the insurance fund while generating much larger losses to other creditors than any alternative method. However, when a large bank fails, the FDIC is under great pressure to handle the case by a purchase and assumption. Although possibly more costly to the insurance fund, a purchase and assumption guarantees that depositors, whether fully insured or not, will suffer no losses.

What do bank failures cost?

Regardless of the distribution of losses among creditors, bank failures impose costs upon society. Resources must be devoted to what is essentially the unproductive task of disposing of the failed bank, collecting interest and principal from the failed bank's assets, and compensating creditors of the failed bank—tasks performed by the receiver and by the FDIC as insurer. Labor and other resources may be idled if the bank's demise results in a lack of credit in the community. If the payoff route is chosen, deposits are not immediately available to depositors. Thus, there is an opportunity cost due to the temporary sterilization of working capital. This cost does not arise in purchase and assumption cases. Those resources that had been allocated to businesses that failed (i.e., to defaulting debtors of the failed bank) and that could have been channeled to more productive uses represent wealth that, aside from any liquidation value that may remain, is permanently lost to society. The potentially most important social cost of bank failures is that

they might lead to a rapid contraction of the money supply, possibly inducing a period of economic depression. This is the cost that is the primary concern of bank regulation and deposit insurance. Finally, chronic failures might lead to a loss of faith in the payments mechanism. If people become disenchanted with "bank money," they will be induced to hold more currency. The fact that most money is presently held in the form of demand deposits at commercial banks indicates that people generally prefer this form of money. Thus, the occurrence of a situation in which people are driven by uncertainty to hold more currency and less demand deposits than usual would impose a social cost.

Even when bank failures do not result in net losses to society, they bring about transfers of wealth among individuals. Wealth has been transferred from creditors of banks—stockholders, other investors, and sometimes uninsured depositors—to debtors of banks—those whose failures to repay their borrowings brought about the insolvency. Under theoretically ideal conditions—accounting practices that correspond exactly with economic and financial theory and instantaneous liquidation of a failed business—the dollar amount of wealth transfers from bank creditors to bank debtors will exceed the overall cost to society. This is true because bank debtors receive a net benefit from the amounts they borrowed and never repaid. Under real-world conditions, the estimates will likely diverge even farther. The major creditors of failed insured banks, in dollar terms, are depositors, the FDIC, bondholders, and stockholders. Estimating losses to these creditors will give a good indication of the upper bound of the cost to society from bank failures.

Depositors. According to FDIC data,⁷ 99.6 percent of the amount of deposits in banks failing from 1934 to 1976 has been paid or made available to depositors. Since in deposit assumption cases all deposits are immediately available, losses to depositors arise only in deposit payoff cases. The vast majority

⁷Annual Report of the Federal Deposit Insurance Corporation, 1976, tables 125 and 127.

of deposits in paid-off banks has already been made available to depositors, mostly by direct payments from the FDIC (i.e., a demand deposit in another bank), but partly through offset against outstanding loans, through security or preference, or through the proceeds of asset liquidation. The FDIC expects eventually to repay about 96 percent of deposits in failed banks handled as deposit payoffs, leaving a loss of less than \$20 million over the entire 1934-76 period. Thus, even though large deposits are not fully covered by deposit insurance, depositors of insured banks cannot be said to have sustained major losses from bank failures. On the other hand, losses in the form of opportunity costs (interest foregone while deposits are unavailable) may be quite large but are extremely difficult to calculate.

FDIC. The Federal Deposit Insurance Corporation estimates that, based upon all its activities undertaken to protect depositors of failed banks, its total loss from banks failing between 1934 and 1976 will be just over \$285 million. This loss covers not only disbursements in payoff and assumption cases but also amounts advanced to protect assets, net losses on purchases of assets from operating banks, defaulted principal on loans made to operating banks to avert failure, and other similar expenditures. Thus, it is obvious that federal deposit insurance operates to shift the burden of risk from depositors to the Federal Deposit Insurance Corporation's insurance fund.

Bondholders. Long-term capital notes and debentures are securities that have become relatively popular only in recent years. Thus, most losses to bondholders have occurred in the decade of the 1970s.

Stockholders. Recoveries by stockholders are infrequent. The FDIC last published a study of stockholder recoveries in its 1958 Annual Report. The overall finding was that in only 91 out of a total of 436 failures did stockholders recover any part of their investment.

The method used by the FDIC to dispose of the bank influences the likelihood of recoveries by stockholders. Stockholder

recoveries are less likely in payoff cases because the class of general creditors is augmented by uninsured depositors. In purchase and assumption cases stockholders have on occasion received stock in the continuing bank, especially when two failing institutions were merged into a single sound bank or when a failing bank was merged into a newly chartered bank. In a few other scattered cases, stockholders of assumed banks also recovered a small fraction of their investment.

It would appear that everyone seems to come out at least as well off when the deposit assumption route is chosen as when the FDIC pays off depositors directly. If so, why does the FDIC ever use the payoff method?

There are several reasons. An assuming bank requires indemnification against legal actions that may arise as a result of the closing of a bank. In certain cases the uncertainty surrounding a bank failure may be so great that such indemnification could prove expensive in terms of legal and court costs. In unit banking states finding a suitable merger partner can be quite difficult since the failed bank cannot be operated as a branch. Thus, the assuming bank, if it were not newly chartered, would have to be quite close by. Then, too, the FDIC could estimate that the total cost of paying off depositors could be less than arranging a merger. Even in the assumption cases, the FDIC is saddled with some assets of the failed bank, normally the worst credit risks. Negotiation costs can be avoided if the FDIC takes over the entire portfolio. And all the purchase bids received by the Corporation could turn out to be negative numbers!

Basically, while the FDIC was instituted to protect depositors in case of bank failures, it has a responsibility to dispose of failed banks with minimum cost to itself.

Estimating losses in the 1970s

Losses are incurred by depositors only in payoff cases. Some failures handled as payoffs in the 1970s have involved banks whose depositors were fully insured. In other payoff cases, the percentage recovery by general

creditors (and therefore that of uninsured depositors) is known. In those payoff cases where the ultimate status of depositors' recoveries is not known, losses to depositors are estimated at 3½ percent of total deposits. This figure is slightly higher than historical average losses in payoff cases.

Losses to bondholders are estimated from information supplied by the Federal Deposit Insurance Corporation. The assumption is made that bondholders of failed banks will lose the entire principal amount of their investments. No component is included for lost interest.

Losses to the FDIC are the Corporation's estimates.

Losses to stockholders are the most difficult to estimate. The ratio of the market value of common stock to the book value of equity for banks and bank holding companies whose equities are widely traded can be formed and applied to the book value of equity for banks that failed. Applying the ratio to book value of equity two years before failure should correct for the large losses sustained by failing banks prior to their closing. The assumption is made that stockholders lose the entire amount of their investment in banks that fail. Data on stockholders' equity are taken from the December Report of Condition two years prior to failure.

Several banks failing in recent years have been owned by bank holding companies. Since the banks comprised the bulk of the

holding companies' assets, in all probability those holding companies will also file for bankruptcy. Because some of the holding companies themselves had long-term bonds outstanding, it is reasonable to assume that holders of those bonds will suffer losses. Since they are as yet unknown, these losses are not included in Table 2 but could easily exceed \$100 million.

Losses to the four major categories of creditors of failed banks totaled over \$673 million for the seven years, according to the estimates in Table 2. Of this sum 60 percent represents losses to stockholders and another 31 percent represents losses to the FDIC. Depositors' losses are less than 1 percent of the total amount lost. Thus, it appears that federal deposit insurance accomplishes its major goal: insulating depositors from loss in the case of bank failure.

Losses to debtholders, insignificant before 1973, are beginning to take on sizable proportions. This reflects both the increasing popularity of debt capital and the greater size of the banks that have failed in recent times. Since 1973 nearly 9 percent of total losses have been incurred by holders of capital notes and debentures. Franklin National Bank of New York had an especially large volume of capital notes outstanding, accounting for the large loss to bondholders in 1974.

Losses to the FDIC tend to be considerably larger than losses to depositors except in the years in which the deposit payoff

Table 2
Estimated losses due to bank failures

Year	Number of failures	Disposition:		Estimated losses to creditors			FDIC	Total
		Deposit payoff	Purchase and assumption	Depositors	Debtholders	Stockholders		
(thousands)								
1970	7	4	3	\$ 585	\$ 0	\$ 8,572	\$ 825	\$ 9,982
1971	6	5	1	3,541	0	31,124	1,215	35,880
1972	1	1	0	713	0	1,863	4,000	6,576
1973	6	3	3	0	15,000	56,097	150,269	221,366
1974	4	0	4	0	29,600	167,243	4,100	200,951
1975	13	3	10	1,138	2,600	49,103	35,045	87,886
1976	16	3	13	649	7,038	88,191	15,308	111,186
Total	53	19	34	\$6,626	\$54,246	\$402,193	\$210,762	\$673,827

technique was relied upon most heavily. Thus, in 1970 and 1971 losses to depositors exceeded losses to the FDIC. The FDIC's largest expected loss resulted from failures in 1973. Interestingly, the FDIC's losses expected from 1974 failures, including Franklin National Bank, should be quite small, while losses to stockholders will be extremely large.

Thus, despite public and legislative concern that an inordinately large number of banks have failed in recent years and that society has paid a heavy price in lost wealth, the evidence shows that bank failures are still relatively rare events and losses are borne, not by depositors, but by capital investors and the federal deposit insurance fund. Since insured banks themselves contribute insurance premiums out of their earnings, one can justifiably conclude that the banking system is fully capable of safeguarding the stock of bank money against all but the most drastic contingencies. Protecting against such extreme contingencies, however, is properly the province of monetary and fiscal policy.

Moreover, that losses in bankruptcies be borne by capital investors is fitting. Indeed, stockholders and bondholders should be fully aware of the risks they take in making investments in banks or in any other firm. Since they enjoy whatever return their investment brings, they should properly bear the risks.

Summary

- Two important legal distinctions separate bank failures from other business failures. In banking, the chartering authority, which is neither a creditor of nor an investor

in a bank, is empowered to declare the firm insolvent; in other businesses, only creditors or the firm itself can initiate bankruptcy proceedings. While but two means of resolving a bankruptcy proceeding are available for most businesses, five methods can be used in banking. The two most commonly used methods are deposit payoff (liquidation) and purchase and assumption (merger into a sound institution).

- Deposit insurance operates to reduce the number of bank failures and to minimize the financial impact of failures on small depositors. The FDIC accomplishes this by inserting itself in the legal proceedings between depositors and the failed bank, substituting a guaranteed reimbursement of the insured amount of an account for an uncertain claim against the assets of the failed bank.

- Because of its prominent role in disposing of a failed bank, the FDIC is typically appointed receiver. The Corporation then serves in two roles: as guarantor of deposits, the FDIC is potentially a general creditor of the failed bank; as receiver, the FDIC is responsible for evaluating assets and liabilities and validating claims and preferences.

- Bank failures generate costs, part of which can be thought of as wealth transfers and part of which represent net wealth losses to society. Wealth is transferred from creditors of banks to debtors of banks.

- Estimates of losses to creditors of banks that failed from 1970 to 1976 reveal that stockholders and the Federal Deposit Insurance Corporation bear the brunt of the costs, accounting for 91 percent of all losses sustained.