losses by selling large certificates of deposit to all other sectors—in this example, $4 billion worth—limiting the net deposit loss to $1 billion.[6] To cover this net outflow, thrifts borrow $1 billion at the discount window and thus need not sell mortgages at a loss.[7]

Loans to the thrifts take the form of newly created deposits at the Federal Reserve and show up as an increase in assets of all other sectors after MMMFs purchase short-term securities with the funds. To induce these sectors to trade the interest-bearing securities for the non-interest-bearing deposits, prices (interest rates) of the securities would have to rise (fall). Because deposits at the Federal Reserve are depository-institution reserves, the net increase in deposits would result in additional reserves of the same amount.

However, under the current operating procedure for monetary policy, the Federal Reserve controls the supply of reserves as the primary means of achieving targets for growth of money and credit. By adjusting the supply of reserves through the purchase and sale of short-term securities in the open market, the Federal Reserve limits growth of the monetary aggregates.[8] Other things equal, a $1-billion increase in deposits with the Federal Reserve would represent an undesired expansion of bank reserves that the Federal Reserve would immediately offset. As shown below the dotted line in figure 2, the Federal Reserve offsets the $1 billion of reserves created by extended credit by simultaneous open-market sales of short-term securities from its own portfolio. These sales increase all other sectors' holdings of short-term securities and reduce holdings of deposits at the Federal Reserve by $1 billion. Thus, as demonstrated in this hypothetical T-account framework, undesired monetary-policy effects of extended credit can and would be sterilized by equal and offsetting open-market operations with no effect on interest rates or money growth.

6. Although it has been assumed that all other sectors purchased the CDs, MMMFs could also purchase them without affecting the results discussed in this section.

7. For the week ended September 2, 1981, extended credit averaged $191 million.

8. More precisely, the Federal Reserve chooses short-run target paths for both total and nonborrowed reserves that are believed to be consistent with the desired short-run money path. As noted above, when the Federal Reserve increases reserves by lending to the thrifts through the extended credit program, it simultaneously reduces the supply of reserves by selling government securities in the open market. In the context of the operating procedure, the Federal Reserve reduces its targeted level of nonborrowed reserves by the amount of the increase in reserves attributable to extended credit.

Caveats

In actuality, relative interest rates could be affected. Different sectors may have different portfolio preferences. The securities that MMMFs want to purchase will not necessarily match the securities sold by the Federal Reserve. Specifically, the Federal Reserve trades primarily in obligations of the U.S. government, while MMMFs trade in the whole spectrum of short-term securities. Thus, if MMMFs buy negotiable CDs and commercial paper, for example, rates on these securities would tend to fall relative to those on government securities.

Another way of viewing the relative interest-rate impact of extended credit is to compare it with what would have happened in the absence of any program. Presumably, many thrifts would have been forced to sell mortgages at a loss, as shown in figure 1. To induce all other sectors to hold additional mortgages, mortgage yields must rise. Thus, the program helps stabilize mortgage markets, preventing mortgage rates from rising as much as they would have.

On a related point, the Federal Reserve cannot sterilize an unlimited amount of extended credit. At any point in time, it has a limited stock of assets (dollar-denominated) that it can sell in the open market for this purpose. In June 1981, for example, the Federal Reserve Banks' portfolio included $128.7 billion of such assets. However, roughly $110.5 billion of these assets was pledged as collateral behind Federal Reserve notes, leaving $18.2 billion available for open-market sales. Additional assets could have been available for open-market sales if the Federal Reserve had pledged its assets denominated in foreign currencies as collateral, making a total of $24.6 billion available for open-market sales.

It is conceivable that some of the assets used to secure the extended credit could be pledged behind the notes. Thus, as the volume of extended credit grows, so could the Federal Reserve's ability to sterilize the reserve impact of extended credit with open-market sales. There is no guarantee, however, that distressed thrifts would, or even desire to, pledge assets that would qualify as collateral behind the notes. However, it seems unlikely that, with other programs to aid the thrifts, the upper limit to a sterilization effort would be tested.

Conclusion

The thrift industry is currently under seige, and a number of programs have been developed to bolster the industry. Under the authority of the Monetary Control Act, the Federal Reserve stands ready to play an active part if needed as a lender of last resort, assuring the liquidity to solvent thrifts that is the cornerstone of their continued viability.

The extended credit program will not force any retreat from the disinflationary monetary-policy program of the Federal Reserve that eventually would allow interest rates to recede to pre-inflationary levels. Credit extended by the Federal Reserve increases the availability of reserves. But because the Federal Reserve focuses on controlling reserves to implement monetary policy, any undesired changes in reserves resulting from the program would be offset through open-market sales of government securities.

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Thrifts, Extended Credit, and Monetary Policy

by John B. Carlson and K.J. Kowalewski

The thrift industry primarily serves as an intermediary between people who wish to save in relatively liquid deposits and people who wish to borrow mortgage funds.[1] When long-term interest rates on mortgages are greater than short-term interest rates on deposits, thrifts generally can depend on a relatively stable supply of deposits and earn profits, retaining some of them in capital or net-worth accounts that are used to support additional mortgage lending. However, when short-term interest rates are higher than long-term rates, as they have been in 1981, many depositors withdraw funds from their savings accounts to buy higher-yielding assets. If net deposit outflows are large enough, then some thrifts may exhaust their liquidity and be forced to sell mortgage assets at a loss; if the loss is large enough, some thrifts could be forced out of business.

According to statistics compiled by the Board of Governors of the Federal Reserve System, the thrift industry experienced an unprecedented $27.2-billion net savings deposit outflow during the first eight months of 1981. The liquidity of many thrifts has been squeezed by this deposit loss, and many have borrowed heavily from their regulatory agencies. Federally insured savings and loan associations, for example, borrowed an additional $13 billion during the first eight months of 1981 from Federal Home Loan Banks (FHLBs).

Most institutions have been able to compensate for their savings deposit outflow by selling small-denomination time deposits, large-denomination time deposits, including negotiable certificates of deposit (CDs), and retail repurchase agreements (RPs). In fact, the thrift industry sold $29.9 billion of these instruments from January through August 1981, more than compensating for the industry's savings deposit drain. However, the interest rates that thrifts must pay on these instruments, as well as on borrowing from both regulatory agencies and private sources, far exceed the maximum savings deposit rate that Regulation Q allows; in most cases the

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1. Thrift institutions include savings and loan associations, mutual savings banks, and credit unions.

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rates exceed effective yields on the mortgage portfolios of thrifts.[2] As a result, cash flow and net income have fallen drastically. In fact, net worth at many thrifts actually declined, and the net worth of all federally insured savings and loan associations fell $2.8 billion during the first eight months of 1981.

The troubles of the thrift industry are widely recognized. Proposals to aid the industry abound, and at least four new programs will be in place by early October 1981. One of the programs is designed to buttress net-worth ratios of very large savings and loan associations (S&Ls) that are experiencing severe liquidity pressures owing to deposit drains. The Federal Savings and Loan Insurance Corporation (FSLIC) plans to aid such S&Ls with capital injections in return for special equity securities. These equity securities are essentially agreements to pay back the FSLIC's loans with interest when and if the distressed S&Ls can do so, but the securities would be counted as net worth for FHLB regulations.

Another program is designed to strengthen S&L asset portfolios. Beginning on October 5, 1981, the Federal Home Loan Mortgage Corporation (FHLMC) will allow thrifts and other home lenders to swap at book value their old, low-rate mortgages that conform to FHLMC requirements for equal amounts of FHLMC participation certificates. Although earnings are lowered, mainly because the yield of the participation certificates will be at least 25 basis points below that of the swapped mortgages, liquidity is bolstered because the certificates can be used as collateral for sales of retail RPs and sold to institutional investors. In addition, a favorable ruling by the Internal Revenue Service permits participating S&Ls to maintain the book value of their asset portfolios after the swap.

A third and perhaps the most widely known program was authorized by the All Savers' Act, effective October 1, 1981. Originally designed to boost deposit flows of thrifts, this act later was broadened to aid commercial banks and the housing industry. The act permits thrifts and commercial banks to offer, until December 31, 1982, tax-exempt certificates with one-year maturities at interest rates equal to 70 percent of the annual investment yield on the latest one-year Treasury note.[3]

The fourth program is the Federal Reserve's extended credit facility, which is available as part of the discount window. This program allows solvent depository institutions experiencing liquidity problems to borrow from the Federal Reserve Banks. The Federal Reserve's extended credit program provides an alternative to forced mortgage sales with attendant capital losses and thereby reinforces investor confidence in solvent thrifts. Some analysts fear that this program will impair the Federal Reserve's ability to conduct monetary policy. This *Economic Commentary* discusses the Federal Reserve's new extended credit program and how it affects the implementation of monetary policy.

2. As of December 31, 1980, interest-rate ceilings on thrift time deposits varied from 6 percent to 8 percent, depending on maturity. During July 1981 rates on six-month money-market certificates averaged 14.7 percent; rates on two and one-half year small-saver certificates were fixed at 12 percent; rates on large CDs and retail RPs varied around the three-month Treasury bill auction rate of 14.7 percent; and rates on FHLB advances varied from 16.25 percent for five-year fixed-rate loans to 20.5 percent for short-term variable-rate loans. By contrast, interest earned on mortgages held by FSLIC-insured S&Ls as a percent of average mortgage balances was 9.44 percent during the second half of 1980.

3. The first $1,000 ($2,000 for joint returns) is exempt from federal income tax.

Portfolio Effects

To appreciate the potential role of the extended credit program, it is useful to examine the possible portfolio implications of the thrift-industry problem in an extreme case. Consider a hypothetical example in which households withdraw (net) $5 billion of funds deposited at thrifts and acquire higher-yielding money-market-mutual fund (MMMF) shares of the same amount. Suppose that the liquidity of the affected thrifts has deteriorated to the point that they no longer have access to the money markets, lacking both liquid assets to sell and an established basis for marketing large CDs. Suppose also that these thrifts, while solvent, are unable or cannot afford to borrow from industry sources (e.g., Federal Home Loan Banks). The only alternative then is to sell some of their mortgage assets, and they must be sold at a loss from book value because current market interest rates are higher than the mortgage contract rates. Assume this loss is $1 billion of the first $6 billion of mortgages sold.

Fig. 1 The Thrift Problem: An Illustration
Billions of dollars

Thrifts

Mortgages	–6	Personal deposits	–5
		Capital account	–1

MMMFs

Short-term securities	+5	Shares	+5

All other sectors[a]

Personal deposits	–5		
MMMF shares	+5		
Short-term securities	–5		
Mortgages	+5		

a. Includes households, commercial banks, and corporate and noncorporate firms.

Figure 1 shows the resulting net changes in terms of T-accounts.[4] To acquire the funds needed to cover the $5 billion of deposit loss, thrifts must sell mortgages with book value of $6 billion, writing the $1-billion loss off the capital account. Money-market-mutual funds use the monies gained through share sales to acquire short-term assets from all other sectors. These sectors in turn absorb the mortgages sold by the thrifts. Thus the portfolio of all other sectors shows $5-billion increases in MMMF shares and mortgages and $5-billion reductions in short-term assets and thrift deposits. Also note that all other sectors must be induced to hold more mortgages and fewer short-term assets. Mortgage rates thus would tend to rise relative to short-term rates, suggesting that the thrift write-off per dollar of mortgage sales would rise with the scale of thrift-deposit outflows.[5]

The order of magnitude chosen for the net deposit loss in this example is $5 billion, but the potential net outflow of funds is much greater. If it appeared that thrifts had no effective means of coping with deposit outflows, confidence in the thrift industry might be weakened, making it difficult for thrifts to roll over large-denomination time deposits and term RPs as they mature. In August, these liabilities at thrifts totaled about $64 billion.

4. A T-account reflects a change in a balance sheet, typically as a result of a single transaction. In this *Economic Commentary*, T-accounts are used to illustrate net changes in balance sheets resulting from portfolio shifts.

5. Although not shown in the T-accounts, thrifts have been experiencing earnings losses that also are written off the capital account and absorb liquidity.

Extended Credit Program

The Depository Institutions Deregulation and Monetary Control Act of 1980 authorizes Federal Reserve Banks to extend credit to depository institutions that offer non-personal time deposits or reservable transactions accounts—demand deposits, negotiable order of withdrawal (NOW) accounts, and automatic transfer service (ATS) accounts. Under the Federal Reserve's Regulation A, extended credit can be made available to accommodate the needs of depository institutions that may be experiencing difficulties adjusting to changing money-market conditions over a longer period, particularly at times of deposit loss.

Fig. 2 T-Account Effects of Extended Credit
Billions of dollars

Thrifts

		Personal deposits	–5
		Large CDs	+4
		Discount window borrowing	+1

MMMFs

Short-term securities	+5	Shares	+5

Federal Reserve

Discount window borrowing	+1	Deposits	+1
Short-term securities	–1	Deposits	–1

All other sectors

MMMF shares	+5		
Personal deposits at thrifts	–5		
Large CDs at thrifts	+4		
Short-term securities	–5		
Deposits at Federal Reserve	+1		
Short-term securities	+1		
Deposits at Federal Reserve	–1		

In general, to be eligible for extended credit, an institution must demonstrate that it is not in severe financial distress and is experiencing sustained liquidity pressures (such as loss of deposits) despite reasonable efforts to maintain funds flows from their usual credit sources, including special industry sources. Once it has been determined that an institution has a liquidity problem, credit could be granted for a period of time up to 12 months. Borrowing institutions are expected to trim their holdings of cash equivalents, such as federal funds sales, to minimum levels consistent with operating needs, and to refrain from new security investments and expansion of loan portfolios except under special circumstances. The rate structure for the extended credit program requires borrowers to pay 14 percent for the first 60 days, 15 percent for the next 90 days, and 16 percent thereafter on their outstanding balance. In addition, collateral for extended credit must be held by the Federal Reserve Bank.

Monetary-Policy Implications

The mechanics of the extended credit program are illustrated in figure 2. Again, suppose that households withdraw $5 billion in thrift deposits to purchase MMMF shares. However, because the extended credit program helps maintain investor confidence, many of the solvent thrifts can recoup at least part of their deposit