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

Loans to the thrifts take the form of newly created deposits at the Federal Reserve, and the Federal Reserve makes additional reserves available by selling government bonds of equal maturity. Thus, as demonstrated in this hypothetical T-account framework, undesired monetary-policies effects of extended credit can and would be sterilized by equal and offsetting open-market operations, to no effect on interest rates or money growth.

Caves

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 those sold by the Federal Reserve. Specifically, the Federal Reserve would choose to purchase those reserve assets that serve as collateral, leaving $9.7 billion available for open-market sales. There is no guarantee, however, that distressed thrifts would, or even desire to, pledge assets that would qualify as collateral. For example, 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 siege, 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 would not force any thrifts into liquidation. Credit extended by the Federal Reserve increases the availability of reserves. Yet because the Federal Reserve focuses on offsetting open-market sales of government securities.

The program helps stabilize mortgage markets, preventing mortgage rates from rising as much as they would have. In addition, the Federal Reserve cannot sterilize an unlimited amount of extended credit. At any point in time, it has a limited stock of assets (dollars-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 were 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 would have been 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. More precisely, the Federal Reserve chooses to purchase those reserve assets that serve as collateral, leaving $9.7 billion available for open-market sales.

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rates exceed effective yields on the mortgage portfolios of thrifts. 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 abounded, 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 financial problems 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 are widely recognized. Proposals to aid the thrift-industry problem in an extreme sense, 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.

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Another program is designed to strengthen S&L asset portfolios. Beginning on October 5, 1981, the Federal Home Loan Mortgage Corporation (FHLMC) will purchase large CDs 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 participations certificates will be at least 25 basis points below that of the swapped mortgage, liquidity is bolstered because 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 Savings and Loan Act of 1981, the Federal Savings and Loan Insurance Corporation (FSLIC) and the Federal Home Loan Bank System (FHLB). 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.

Figure 1 shows the resulting net changes in terms of T-accounts. To acquire the funds to cover the $5 billion of deposit sales, thrifts must sell mortgage assets 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 other sectors. These sectors in turn absorb the mortgages sold by the thrifts. Thus the portfolio of all other sectors shows $5 billion in increased mortgage shares and mortgages and $5 billion in reduced deposits and other assets and liabilities. 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.

Figure 2 shows the order of magnitude change 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, the Federal Reserve 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.

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 MMMFs. If 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 balances.

### 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 $5 billion of funds deposited at thrifts and acquire higher-yielding money-market-mutual-fund (MMMF) shares of the same amount. Suppose the average maturity of the MMMMF holdings 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.

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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 nonpersonal time deposits or reservable transactions accounts—demand deposits, negotiable certificates of deposit (NOW), 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 times of deposit loss.

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 balances.

In addition, collateral for extended credit must be held by the Federal Reserve Bank.
rates exceed effective yields on the mortgage portfolios of thrifts. 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 and savings and loan associations fell $12.8 billion during the first seven 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 financial problems 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 regulatory purposes.

Another program is designed to strengthen S&L asset portfolios. Beginning on October 5, 1981, the Federal Home Loan Mortgage Corporation (FHLMC) will purchase 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 mortgage, liquidity is bolstered because participation 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 Savings and Loans Act of 1981, 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. 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 some thrifts. 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.

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 household withdrawals of $5 billion of funds deposited at thrifts and acquire higher-yielding mortgage–mutual-fund (MMMF) shares of the same amount. Suppose also that refinancing of existing mortgages 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. Figure 1 shows the resulting net changes in terms of T-accounts:

<table>
<thead>
<tr>
<th>T-Account Effects of Extended Credit Millions of dollars</th>
<th>Thrifts</th>
<th>All other sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgages</td>
<td>$6</td>
<td>-5</td>
</tr>
<tr>
<td>Personal deposits</td>
<td>-5</td>
<td>-5</td>
</tr>
<tr>
<td>Capital account</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>MMMF shares</td>
<td>-5</td>
<td>-5</td>
</tr>
<tr>
<td>Short-term securities</td>
<td>+5</td>
<td>+5</td>
</tr>
<tr>
<td>Shares</td>
<td>+5</td>
<td>+5</td>
</tr>
<tr>
<td>a. Includes households, commercial banks, and corporate and noncorporate firms.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In this Economic Commentary, T-accounts are used to illustrate net changes in balance sheet results from portfolio shifts.

Personal time deposits or reservable transactions accounts demand deposits, negotiable certificates of deposit (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 times of deficit loss. 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 fund 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 personal 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.

McDonalds’s Policy

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, thereby the extended credit program helps maintain investor confidence, many of the solvent thrifts can recapitulate at least part of their deposits.
losses by selling large certificates of de-
posit to all other sectors--in this example, $4 billion worth--limiting the net deposit to $1 billion. 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 Re-
serve and show up as an increase in assets of all other sectors after MMMFs purchase short-term securities with the funds. To in-
duce 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). Thus, as demonstrated in this hypo-
thetical T-account framework, undesired monetary-policy effects of extended credit can and would be sterilized by equal and opposite open-market operations, with no effect on interest rates or money growth.

Caveats

In actuality, relative interest rates could be affected. Different sectors may have dif-
ferent portfolio preferences. The securities that MMMFs want to purchase will not nec-
essarily match the securities sold by the Fed-
eral Reserve. Specifically, the Federal Re-
serve 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 in-
terest-rate impact of extended credit is to com-
pare 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 addi-
tional mortgages, mortgage yields must rise. Thus, the program helps stabilize mortgage markets, preventing mortgage rates from rising as much as they would have.

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1. Thrift institutions include savings and loan as-
sociations, mutual savings banks, and credit unions, many have borrowed heavily from their regulatory agencies. Federally insured savings and loan associations, for example, borrowed an additional $113 billion during the first eight months of 1981 from Federal Home Loan Banks (FHLBs).

Most institutions have been able to com-
pare 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 in-
dustry'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...
Economic Commentary

September 7, 1981

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 accounts and people who wish to borrow mortgage funds. 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, 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 drain 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 (ARPs). 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 assets, in addition to those on government securities.

NOTE: No Economic Commentary was published on August 24, 1981.

Federal Reserve Bank of Cleveland

John Carlson and K.J. Kowalewski are economists with the Federal Reserve Bank of Cleveland.

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