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The Anatomy of the International Debt Crisis

by Gary S. Fissel*

"Neither a borrower nor a lender be."

William Shakespeare, *Hamlet*

Developing economies must look back with great longing to those halcyon days when foreign capital funds flowed freely into their countries, and commercial banks were the most generous of creditors.¹ At the end of 1982, \$313 billion in long-term debt, with a maturity greater than one year, was owed to commercial banks by the most severely-indebted developing economies. This represented 63 percent of their total long-term debt outstanding. Moreover, commercial bank loans accounted for approximately 79 percent of the increase in long-term debt outstanding from 1975 through 1982 for four of the largest developing country debtors (Brazil, Mexico, Argentina and Venezuela).

Developing economies rely upon foreign credit to assist in financing the investment projects that form the underpinnings for economic growth. This was the best, but certainly not the only, rationale for commercial banks worldwide to extend vast amounts of credit to developing economies in the late 1970s and early 1980s. However, by 1982, the heavily-indebted developing economies were

not realizing the growth that would support the weight of their accumulated debts. With many developing economies unable to fully service their debt obligations, commercial banks were left holding a large volume of assets of uncertain, and subsequently diminishing, value. These events were crystalized in the public eye by the Mexican debt moratorium in August 1982, and labelled "The International Debt Crisis."²

The international debt crisis has two intimately related facets: the creditor problem and the debtor problem. On the one hand, the debt crisis involves the many large commercial banks that hold sizable volumes of loans to debt-burdened developing economies. The uncertain value of these loans, combined with the large volumes of these assets on the balance sheets of many large banks, have the potential to make financial markets nervous about the financial condition of these institutions, thereby destabilizing these markets. This is the creditor problem. For example, at the end of 1982, the combined book value of loans outstanding from the nine largest U.S. commercial banks (hereafter referred to as the money-center banks) to the four largest Latin American debtors (Brazil, Mexico, Venezu-

ela and Argentina) was 143 percent of their solvency buffer or their combined stock of equity capital plus loan-loss reserves.³

On the other side of the debt crisis are the heavily-indebted developing economies that have been unreliable debtors but that remain reliant upon the foreign financing of worthy in-

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¹ The term "developing economies" in this paper will refer to middle-income developing economies, unless otherwise noted. The World Bank defines the criterion used to identify a middle-income developing economy that is based upon its *per capita* national income. This paper focuses on middle-income developing economies because of their more extensive access and use of private capital markets (*i.e.*, commercial bank loans), as compared to low-income developing economies.

² Of course, Mexico was not the only developing economy at the time that was being squeezed to make even the interest payments on its external debt.

³ The money-center banks are Bankers Trust, Chase Manhattan, Chemical, Citibank, Manufacturers Hanover, Morgan Guaranty, First Chicago, Bank of America and Continental Illinois.

vestment projects. This is the debtor problem. For these heavily-indebted economies, access to private credit markets effectively meant being able to receive credit from commercial banks.⁴ However, from 1982 to 1983, net flows or disbursements of credit minus principal repayments to the most heavily-indebted economies from commercial banks fell from \$20 billion to \$9.7 billion. By 1988, this figure was at \$347 million. In the context of the international debt crisis, the debtor and creditor problems are interrelated parts of the same whole. The dilemma is that these developing economies have been dependent upon credit that banks no longer have been as willing or able to provide, while the heavily-exposed banks have been weakened by the inability of these economies to otherwise service their debt.

A detailed look in the next section at the debtor problem shows that developing economies have a need for foreign financing, and that commercial banks have been an important source of private-sector funding in recent history for these economies. In addition, some specific macroeconomic factors that increased the heavily-indebted developing economies' needs for foreign financing, leading to the debt crisis, are discussed. The creditor problem is then examined. The analysis shows that the large commercial banks in the U.S., and most likely in many of the other large industrialized countries, have had significant exposures relative to capital and loan-loss reserves to the heavily-indebted developing economies. Balance sheet information on money-center banks' exposure to these loans is presented under a variety of assumptions about the amount of loan-loss reserves available to allocate to these loans, and liquidation values of the loans are estimated using secondary market prices.

The Debtor Problem

A defining characteristic of a developing economy is its need for foreign

credits to finance necessary investment projects for economic development and growth. This is denoted as the debtor problem. The private credits that sated many of these economies in the late 1970s and early 1980s became a nagging addiction after the onset of the debt crisis, as these economies became excessively reliant upon this inflow of foreign funds. The debtor problem will be examined using the national income and balance-of-payments frameworks, which provide the most objective basis to study the issue.

The analysis begins with a general review of the national income and balance-of-payments relationships.⁵ The national income identity for an open economy is:

$$(1) Y_t = C_t + I_t + G_t + (X_t - M_t),$$

where 'Y' is Gross National Product (GNP), 'C' is total domestic consumption expenditures, 'I' is domestic investment expenditures, 'G' is government expenditures, 'X' is total exports of goods and services, and 'M' is total imports of goods and services.⁶ Equation (1) states that national income is identically equal to the sum of domestic and foreign expenditures on goods and services produced by domestic factors of production. An open economy is, by definition, able to engage in foreign trade, and this external component is represented by the current account:

$$(2) CA_t = X_t - M_t.$$

The current account (CA) is important because it not only measures the net flow of goods and services between a country and the rest of the world, it also measures the net flow of assets (*i.e.*, capital). For example, if an economy has a current account deficit ($CA < 0$), it is buying more goods and services from foreigners than it is selling to them, and so it must finance this additional spending. The economy as a whole can finance this excess of imports over exports by borrowing from foreigners or using previously accumulated wealth such as international reserves or selling ownership rights to

domestic assets. Either way, a current account deficit results in an increase in the economy's net foreign liabilities, which is a decrease in its net foreign wealth. In the same way, an economy with a current account surplus is accruing assets against the rest of the world, resulting in an increase in its net foreign wealth. Therefore, an economy's current account surplus equals the change in its net foreign wealth. In the context of the current discussion the important point is that a current account deficit is directly tied to a need for inflows of foreign capital funds (or a decrease in net foreign wealth), which have been primarily in the form of commercial bank loans for most large developing economies.

Combining equations (1) and (2), and defining national saving, S, to equal $(Y - C - G)$, we get:

$$(3) CA_t = S_t - I_t.$$

Equation (3) states that an economy's current account surplus is identically equal to the difference between its national savings and net domestic investment expenditures. Therefore, it provides a direct link between an economy's national and international accounts. Greater understanding of equation (3) can be gained by expressing it as $S_t = I_t + CA_t$. This states that, in the aggregate, an open economy's saving is simply its net investment and its net accumulation of claims against foreigners.

Since the debtor problem is defined in terms of a developing economy's need for inflows of foreign capital funds, equation (3) allows us to

⁴ Other private credits include bonds and trade-related credits.

⁵ See Krugman and Obstfeld (1988) for a textbook treatment of these open economy macroeconomic relationships.

⁶ It should be noted that an identity refers to actual, not planned, values. An identity does not represent a behavioral relationship, and so, does not imply causality. Rather, an identity imposes a consistency requirement between its elements.

Table 1
(Average Annual Percentage of GNP)

| | Domestic Investment Expenditures | | | National Savings | | | External Financing Requirement ^a | | |
|---|----------------------------------|---------|---------|------------------|---------|---------|---|---------|---------|
| | 1965-73 | 1973-80 | 1980-88 | 1965-73 | 1973-80 | 1980-88 | 1965-73 | 1973-80 | 1980-88 |
| Latin America | | | | | | | | | |
| Argentina* | 19.7 | 23.4 | 14.4 | 20.1 | 22.6 | 10.0 | -0.4 | 0.8 | 4.4 |
| Bolivia* | 25.4 | 24.9 | 12.1 | 16.8 | 18.5 | 1.6 | 8.6 | 6.4 | 10.5 |
| Brazil* | 21.3 | 23.9 | 20.7 | 23.1 | 19.3 | 18.5 | -1.8 | 4.6 | 2.2 |
| Chile* | 14.3 | 17.3 | 17.5 | 11.9 | 12.1 | 8.9 | 2.4 | 5.2 | 8.6 |
| Colombia* | 18.9 | 18.8 | 20.2 | 15.8 | 19.0 | 16.7 | 3.1 | -0.2 | 3.5 |
| Mexico* | 20.6 | 24.2 | 23.5 | 16.5 | 20.2 | 21.9 | 4.1 | 4.0 | 1.6 |
| Peru* | 24.1 | 23.9 | 27.4 | 19.5 | 19.7 | 22.7 | 4.6 | 4.2 | 4.7 |
| Venezuela* | 31.1 | 34.2 | 22.5 | 31.9 | 35.8 | 24.2 | -0.8 | -1.6 | -1.7 |
| Average | 20.8 | 22.7 | 19.9 | 17.1 | 17.8 | 13.0 | 3.7 | 4.9 | 6.9 |
| Sub-Saharan Africa | | | | | | | | | |
| Cameroon | — | 21.8 | 21.6 | — | 17.0 | 16.9 | — | 4.8 | 4.7 |
| Ivory Coast* | — | 29.1 | 19.4 | — | 16.8 | 8.0 | — | 12.3 | 11.4 |
| Senegal* | — | 17.5 | 16.0 | — | 4.2 | 0.2 | — | 13.3 | 15.8 |
| Average | — | 25.6 | 23.8 | — | 12.1 | 12.4 | — | 13.5 | 11.4 |
| East Asia | | | | | | | | | |
| South Korea | 23.9 | 31.2 | 30.3 | 17.6 | 25.9 | 31.7 | 6.3 | 5.3 | -1.4 |
| Malaysia | 22.3 | 28.7 | 32.4 | 22.6 | 29.4 | 29.1 | -0.3 | -0.7 | 3.3 |
| Philippines* | 20.6 | 29.1 | 22.1 | 18.7 | 24.3 | 17.9 | 1.9 | 4.8 | 4.2 |
| Thailand | 24.3 | 26.9 | 25.6 | 20.5 | 21.9 | 21.4 | 3.8 | 5.0 | 4.2 |
| Average | 22.8 | 27.6 | 27.5 | 19.9 | 22.6 | 21.1 | 2.9 | 5.0 | 6.4 |
| Europe, Middle East & North Africa | | | | | | | | | |
| Algeria | 32.6 | 44.6 | 36.0 | 30.5 | 39.0 | 35.3 | 2.1 | 5.6 | 0.7 |
| Egypt | 14.0 | 29.3 | 27.7 | 9.3 | 18.2 | 15.6 | 4.7 | 11.1 | 12.1 |
| Morocco* | 15.1 | 25.9 | 26.1 | 13.6 | 16.8 | 19.8 | 1.5 | 9.1 | 6.3 |
| Turkey | 18.5 | 21.8 | 22.9 | 17.5 | 18.1 | 20.2 | 1.0 | 3.7 | 2.7 |
| Yugoslavia | 29.9 | 35.6 | 37.0 | 27.2 | 32.9 | 38.0 | 2.7 | 2.7 | -1.0 |
| Average | 22.2 | 31.2 | 29.5 | 19.3 | 24.7 | 25.7 | 2.9 | 6.5 | 3.8 |
| World | | | | | | | | | |
| Average | 21.5 | 25.6 | 24.0 | 18.1 | 19.2 | 17.4 | 3.4 | 6.4 | 6.6 |

Note: "*" indicates a severely-indebted developing economy as defined by the World Bank (1990 *World Debt Tables*).

a: The external financing requirement is also the current account deficit.

Source: 1990 *World Development Report*, World Bank.

examine this characteristic by looking at the relationship between the economy's national saving and domestic investment. In terms of the national accounts, if national saving is not sufficient to fund domestic investment (*i.e.*, $S < I$), then the economy must receive financing from abroad (*i.e.*, $CA < 0$). Table 1 shows the foreign current account deficits (which are also called the foreign financing requirements) of developing economies for three periods since 1965. We

see that the need for foreign capital inflows characterizes developing economies across time and region by virtue of their low saving relative to investment.

The foreign financing requirement for all middle-income developing economies increased from an average of 3.4 percent of GNP in the 1965-73 period, to 6.4 and 6.6 percent of GNP in the 1973-80 and 1980-88 periods, respectively. More specifically, the foreign financing require-

ment for each region is positive for all three periods. The average foreign financing requirement for the Latin American region, which contains the greatest number of heavily-indebted developing economies, increased from 4.9 percent of GNP in the 1973-80 period to 6.9 percent in the 1980-88 period. Interestingly, the foreign financing requirement increased despite a reduction in domestic investment expenditures because the region's saving declined by even more. That is, the Latin American region experienced a decrease of 2.8 percent of GNP in its average domestic investment expenditures between these two periods (*i.e.*, 22.7 to 19.9 percent of GNP) and a decrease of 4.8 percent of GNP in its national saving (*i.e.*, 17.8 to 13.0 percent of GNP). This illustrates the case in which foreign capital inflows are used to help finance domestic consumption.

The most obvious example of this situation is Argentina. Argentina's average foreign financing requirement increased to 4.4 percent of GNP in the 1980-88 period from 0.8 percent in the 1973-80 period. This reflects the fact that while average domestic investment expenditures decreased by 9 percent of GNP between these two periods, average national saving decreased by 12.6 percent of GNP. This situation can be contrasted with that of Malaysia, a newly-industrialized economy in the East Asia region. Malaysia's average external financing requirement increased from -0.7 to 3.3 percent of GNP in the 1973-80 and 1980-88 periods, respectively. While Malaysia's national saving remained relatively large and constant over these two periods, its increased need for capital inflows can be traced to the increase in its domestic investment expenditures, which increased by 3.7 percent of GNP between the 1973-80 and 1980-88 periods.

The example provided by Malaysia best illustrates the point that developing economies generally do not have levels of national saving that are sufficient to finance the available do-

mestic investment opportunities, and so they must go to foreign markets to obtain the additional capital funds. On the other hand, Argentina is a case in which external capital (typically debt-creating) inflows are required largely to compensate for a high level of national consumption expenditures or low national saving. This exemplifies the point that an economy can develop an appetite for capital inflows that could have been replaced, in part, by greater domestic saving.

It will be useful to develop more fully the link between the current account and capital flows. Recall that under the balance-of-payments accounting framework, a current account surplus corresponds to an increase of net claims against foreigners. This amounts to a purchase of foreign assets, or a "net capital outflow." Similarly, a current account deficit entails an increase of domestic assets held by foreigners, or a "net capital inflow." These relationships can then be expressed as:

$$(4) CA_t + \text{Net Capital Inflows}_t = 0.$$

Capital inflows can be grouped into (i) debt-creating inflows (which are primarily loans from private and official foreign creditors, but also include bonds purchased by foreigners), and (ii) non-debt-creating inflows (such as foreign direct investment, official aid, and reserve decumulation). Net capital inflows are obtained by subtracting the exodus (or flight) of domestic capital.⁷ Using these categories we can rewrite equation (4) as:

$$(5) -CA_t = \text{Debt Inflows}_t + \text{Non-Debt Inflows}_t - \text{Capital Flight}_t.$$

Table 2 presents a breakdown of different types of capital inflows for Brazil, Mexico, Argentina and Venezuela. Columns (1) through (5) of Table 2 show two pictures of the distribution of the stock of total long-term debt outstanding (LDOD) among creditors. In 1982, commercial bank credits comprised 76.85 percent of the total long-term debt outstanding, with official credits amounting to 10.15 percent. By 1988, the commercial bank share had fallen to 69.64 percent of

LDOD and official credits had risen to 18.47 percent of LDOD.

Columns (6) through (10) in Table 2 show the capital flow breakdown over the 1981-88 period for Brazil, Mexico, Argentina and Venezuela. Comparing columns (6) and (7), debt inflows were generally much larger than non-debt-creating inflows as measured by net foreign direct investment over this period. For example, debt inflows were 6.7 times larger than non-debt inflows in 1981, 5.8 times larger in 1982, and 9.8 times larger in 1983. The only year in this period in which net non-debt inflows exceeded net debt inflows was 1988. As implied by the stock data, the flow data show that LDOD from official creditors generally increased over the 1981-88 period and LDOD flows from commercial banks were generally larger in the beginning than later in the period.

The evidence from Table 1 shows that developing economies generally have a need for financing assistance from abroad, and the evidence from Table 2 shows that in recent history debt-creating capital inflows, particularly from commercial banks, have been the dominant source of external inflows. Many developing economies have struggled in the past decade

⁷ A capital inflow is the net movement of capital funds controlled by nonresidents and capital flight (as explained later in this section) is the net outflow of capital funds controlled by residents.

Table 2
STOCKS

| | Total Long-Term Debt Stock (LDOD) ^a (\$ Billions) | Percent of LDOD from: ^b | | | |
|------|--|------------------------------------|-----------|-------------------|--------|
| | | Official Creditors | | Private Creditors | |
| | | Multilateral | Bilateral | Bonds | Banks |
| | (1) | (2) | (3) | (4) | (5) |
| 1982 | \$178.375 | 5.80% | 4.35% | 8.13% | 76.85% |
| 1988 | \$269.860 | 9.65% | 8.82% | 5.19% | 69.64% |

| | Net Foreign Direct Investment ^a (\$ Billions) | Total External Debt Net Inflows ^a (\$ Billions) | LDOD Net Inflows ^a (\$ Billions) | LDOD Net Inflows from: ^a (\$ Billions) | |
|------|--|--|---|---|----------|
| | | | | Official Creditors | Banks |
| | | | | (7) | (8) |
| 1981 | \$6.276 | \$41.926 | \$27.332 | \$1.644 | \$25.182 |
| 1982 | \$4.699 | 27.360 | 21.967 | 2.507 | 14.112 |
| 1983 | \$2.103 | 20.611 | 43.360 | 2.015 | 34.618 |
| 1984 | \$2.232 | 10.219 | 17.913 | 2.378 | 18.000 |
| 1985 | \$2.745 | 3.854 | 7.707 | 6.999 | -2.042 |
| 1986 | \$2.444 | 12.756 | 20.014 | 9.386 | 9.605 |
| 1987 | \$4.335 | 29.028 | 19.184 | 11.198 | 7.518 |
| 1988 | \$3.762 ^c | -6.561 | -16.693 | -0.237 | 16.845 |

Note: The Net Debt Inflow is calculated as the change in the stock of external debt. Therefore, this flow measure not only includes the net disbursement of new credits, but it also could include items such as interest payments arrears that have been added to principal.

a: Sum of values for Brazil, Mexico, Argentina and Venezuela.

b: Ratio of the sum of values for Brazil, Mexico, Argentina and Venezuela.

c: The value for Brazil is unavailable for 1988.

Sources: IMF, *Balance of Payments Statistics*; World Bank, *World Debt Tables*.

under their heavy debt-service obligations. Given that excessive debt, especially external debt, is a drag on their economies and that developing economies are generally predisposed to require foreign capital inflows, it is important to consider the factors that increased developing economies' requirements for foreign capital inflows. We examine this issue in the remainder of this section.

Capital flight can increase a developing economy's need for external capital inflows. As its name implies, capital flight involves the outflow of capital funds owned by domestic residents from the economy. There are different approaches to measuring capital flight that involve different categorizations of capital outflows.⁸ An expansive measure of capital flight (see World Bank (1985)) is used here. This approach defines capital flight as the acquisition of net foreign assets, with no distinction made on the type of asset, by domestic residents.⁹ The importance of capital flight can be seen in equation (5). For a given current account deficit, the larger is capital flight, the larger must be the offsetting capital inflows and, to the extent the economy relies on debt-creating capital inflows, the larger will be the accumulation of external debt.

The flight of domestic capital from an economy is an effect of underlying economic forces. An economy that generates relatively more uncertainty about investment returns induces greater capital flight. In an open economy with globally integrated capital markets, it is reasonable to expect that domestic savers will choose to keep some of their wealth at home and invest the remainder abroad in an at-

⁸ See Cumby and Levich (1987) for a discussion of the different definitions for capital flight and approaches to measuring capital flight.

⁹ Other approaches distinguish between the types of capital outflows — "normal" and "capital flight" — where the former type of capital outflow represents the acquisition of foreign assets by domestic residents through common financial instruments.

¹⁰ See Cumby and Levich (1987).

tempt to diversify their portfolios. This is all the more true in developing economies with relatively undeveloped domestic capital markets. Therefore, developing economies are particularly susceptible to capital flight as their economies tend to generate greater uncertainty for potential investors, both domestic and foreign. For example, in economies where inflation erodes the real returns of assets and their residents' real wealth, or when the domestic currency is overvalued and significant exchange-rate devaluations are expected, investors in these economies have strong incentives to seek foreign markets and currencies in order to preserve the purchasing power of their investments.¹⁰ As macroeconomic condi-

tions within an economy become more unstable, the incentives to move wealth outside of the country increase.

Table 3 illustrates the magnitude of capital flight for Brazil, Mexico, Argentina, Venezuela, and South Korea. Brazil, Mexico and Argentina each had an average current account deficit during both the 1973-80 and 1981-88 periods. The resulting need for foreign capital inflows was exacerbated by capital flight. For example, Table 3 shows that although Brazil's current account deficit decreased as a percentage of GNP in each period from 1981 through 1987, its capital flight as a percentage of GNP increased in each period. Therefore, while Brazil's net capital inflows decreased, capital

Table 3

| | ('%' indicates an average annual percentage of GNP) | | | | | |
|-----------------------------------|---|---------|----------|----------|--------------------|---------|
| | 1973-80 | 1981-82 | 1983-84 | 1985-86 | 1987-88 | 1981-88 |
| Brazil | | | | | | |
| Current Account Deficit | 4.62% | 5.50% | 1.75% | 0.90% | 0.46% ^a | 2.39% |
| Capital Flight | 0.94% | 0.57% | 0.96% | 2.07% | 3.64% ^a | 1.55% |
| Total Debt Stock (\$ Billions) | \$38.96 | \$86.43 | \$100.91 | \$108.32 | \$119.23 | — |
| Mexico | | | | | | |
| Current Account Deficit | 3.67% | 5.26% | -3.19% | 0.36% | 0.58% | 0.46% |
| Capital Flight | 2.79% | 3.35% | 5.02% | 3.70% | 4.96% | 4.26% |
| Total Debt Stock (\$ Billions) | \$28.02 | \$82.12 | \$93.89 | \$98.88 | \$105.43 | — |
| Argentina | | | | | | |
| Current Account Deficit | 0.25% | 6.47% | 3.77% | 2.71% | 3.40% | 4.09% |
| Capital Flight | 3.58% | 13.54% | 2.55% | 1.49% | 2.48% | 5.02% |
| Total Debt Stock (\$ Billions) | \$12.65 | \$39.65 | \$47.39 | \$51.66 | \$58.68 | — |
| Venezuela | | | | | | |
| Current Account Deficit | -2.46% | 0.19% | -6.85% | -1.83% | 5.07% | -0.86% |
| Capital Flight | 4.00% | 7.16% | 8.16% | 2.15% | -0.45% | 4.25% |
| Total Debt Stock (\$ Billions) | \$11.14 | \$32.09 | \$37.49 | \$34.90 | \$34.93 | — |
| South Korea | | | | | | |
| Current Account Deficit | 5.07% | 5.33% | 1.80% | -1.75% | -8.03% | -0.66% |
| Capital Flight | 1.64% | 0.59% | 1.02% | 4.53% | 3.13% | 2.32% |
| Total Debt Stock (\$ Billions) | \$13.44 | \$35.16 | \$41.26 | \$46.94 | \$38.81 | — |

Note: Capital Flight is calculated as follows:

$$(\text{Capital Inflows}) - [(\text{Current Account Deficit}) + (\text{Increase in Official Reserves})],$$

where Capital Inflows = (Increase in External Debt) + (Net Foreign Direct Investment). This is the "World Bank" definition that is given in Cumby and Levich (1987).

a: The estimate includes only 1987.

Sources: IMF, *Balance of Payments Statistics* and *International Financial Statistics*.

flight increased its total need for capital inflows. As Brazil has primarily relied upon debt-creating capital inflows, its total debt stock increased from 1981 through 1987. Venezuela experienced an average current account surplus from 1981 through 1988. It also had positive capital flight in every period except 1987-88. Venezuela illustrates a case in which capital flight can more than offset an economy's current account surplus, resulting in an accumulation of debt. For example, in the 1983-84 period Venezuela had an average current account surplus and capital flight equal to 6.85 and 8.16 percent of GNP, respectively. As its capital flight was greater than its current account surplus, Venezuela also increased its total debt stock by over \$5 billion from the 1981-82 period. Overall, the average annual current account deficit for these Latin American economies was 1.52 percent of GNP over the 1981-88 period and their average annual capital flight was 3.77 percent of GNP.

South Korea, which experienced a robust economic expansion over the 1980s, saw capital flight increase from 0.59 percent of GNP in 1981-82 to 4.53 percent of GNP in 1985-86, and decline slightly to 3.13 percent of GNP in 1987-88. Even with the increase in capital flight over the 1980s, South Korea's strong export sector neutralized the negative effects that capital flight could have potentially had on its need for capital inflows and on its ability to service and reduce its stock of external debt. The situation was much different for the Latin American economies cited. With an already heavy debt burden to carry, greater capital flight often meant that a greater share of their investment expenditures had to be financed with foreign capital funds, and investment projects that could not be financed were not undertaken. In most cases, the foreign capital continued to be mainly in the form of external debt.

It has been argued that developing economies require inflows of foreign capital that derive from a fundamental relationship between the amount of national saving and the amount of profitable investment opportunities. Moreover, an economy's need for foreign capital inflows is increased by capital flight. However, it would be difficult to explain the depth of the debt crisis in terms of these two factors alone. While capital flight was a contributing factor, we can isolate some more specific causes for the international debt crisis; namely, a series of macroeconomic events that dramatically increases the external financing requirements of the heavily-indebted developing economies. These will be surveyed below.

An economy's external financing identity, given in equation (5), posits that a current account deficit must be financed with funds from abroad. Therefore, any event that increases an economy's expenditures for imports relative to export revenues will increase its current account deficit, and its external financing requirement. With this in mind, we focus briefly on the left-hand-side of equation (5). The current account surplus (CA) can be broken into (i) the noninterest current account surplus (NICA), which includes all trade in goods and services except interest payments on external debt, and (ii) interest payments on external debt, where interest payments enter as a negative since they are payments for the services rendered by capital funds from abroad (net of interest receipts on loans made abroad). This can be written as:

$$(6) \quad CA_t = NICA_t - \text{Interest Payments}_t.$$

Combining equations (5) and (6), and rearranging so that we can focus on interest payments, we have:

$$(7) \quad \text{Interest Payments}_t = NICA_t + (\text{Debt Inflows}_t + \text{Non-Debt Inflows}_t - \text{Capital Flight}_t).$$

Equation (7) states that an economy can finance the interest payments on its external debt with a noninterest current account surplus and/or net capital inflows such as loans from foreign commercial banks or multilateral agencies, foreign direct investment, *etc.*. The difference between Interest Payments and NICA is an economy's foreign financing requirement (or its current account deficit). Given that an economy is in need of foreign capital inflows, the identity states that the shortfall on its interest payment obligations must be met by net capital inflows. In addition, the more an economy uses debt-creating capital inflows as a funding source, the larger will be the basis for its interest payments in future years.

Let us consider the balance-of-payments relationship given in equation (7) more carefully. Suppose that an economy is currently just able to make the full interest payments on its external debt, and an adverse change in any one of the components of equation (7), holding all of the other components constant, leaves some interest payments unfunded, leading to a debt-financing problem. In particular, these changes and their effects include:

- holding net capital inflows and NICA constant, any increase in the interest payment obligations on external debt increases the foreign financing requirement above the level of capital inflows;
- holding net capital inflows and interest payment obligations constant, the decrease in NICA because of improper domestic macroeconomic policies, a worsening terms-of-trade or a decrease in export demand will also increase the economy's required level of capital inflows;
- holding interest payment obligations and NICA constant, any decrease in net capital inflows, such as a decrease in new credits from commercial banks, means that the available capital inflows fall below that which is required to make the full interest payments on its external debt. Similarly, an increase in capital flight

that is not offset by capital inflows will leave the economy without sufficient funds to make its interest payments.

Any one of these changes, holding everything else the same, will leave an economy with insufficient funds to fully service the interest payments on its external debt. While the effects of the individual components are important for analytical purposes, the balance-of-payments identity given in equation (7) imposes a consistency relationship upon the collective behavior of these components. For example, an economy's external financing requirement could increase from one year to the next because its interest payment obligations increased and/or its NICA becomes smaller. If the economy is able to obtain additional net capital inflows (say, from commercial bank creditors), then the interest payments can be made and a debt-financing problem averted, albeit temporarily in this case. However, events combined in the early 1980s to increase the foreign financing requirements of the heavily-indebted developing economies while reducing the capital inflows available to these economies, resulting in their inability to fulfill their external debt-service obligations.

The confluence of events that precipitated the debt crisis can be analyzed separately according to the division given in equation (7). Next, we consider the factors that increased interest payments on external debt. Table 4, column (2) shows that the total interest payments on external debt by Brazil, Mexico, Argentina and Venezuela increased dramatically in the 1981-82 period. Starting at \$19.3 billion in 1980, total interest payments on long-term external debt increased to \$26.7 billion in 1981 and to \$29.8 billion in 1982. Interest payments can increase either because an economy is paying interest on a larger stock of debt or because they hold adjustable-rate debt that is tied to a rising interest-rate index. To the dismay of developing economies and

Table 4

| | Long-Term Debt Outstanding (LDOD) ^a (\$ Billions) | Interest Payments on LDOD ^d (\$ Billions) | 6-mo. LIBOR Interest Rate ^b | Adjustable Rate LDOD to Total LDOD ^c | NICA ^a (\$ Billions) | Index of Export Unit Value ^d (1985 = 100) | Index of Industrial Production ^e (1985 = 100) |
|------|--|--|--|---|---------------------------------|--|--|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| 1980 | \$129.076 | \$19.318 | 13.9% | 76.0% | -\$4.285 | 122.6 | 91 |
| 1981 | 156.408 | 26.727 | 16.7 | 80.2 | -1.781 | 123.4 | 91 |
| 1982 | 178.375 | 29.802 | 13.6 | 77.5 | 0.585 | 114.9 | 88 |
| 1983 | 221.735 | 27.839 | 9.9 | 83.8 | 28.396 | 109.4 | 90 |
| 1984 | 239.648 | 27.588 | 11.3 | 85.4 | 33.900 | 106.5 | 97 |
| 1985 | 247.355 | 27.624 | 8.6 | 83.5 | 31.229 | 100.0 | 100 |
| 1986 | 267.369 | 23.502 | 6.9 | 82.0 | 12.195 | 88.0 | 101 |
| 1987 | 286.553 | 22.540 | 7.3 | 80.5 | 19.716 | 87.6 | 104 |
| 1988 | 269.860 | 28.231 | 8.1 | 81.4 | 23.279 | — | 110 |

a: Total of Argentina, Brazil, Mexico and Venezuela.

b: Annualized rate on U.S. dollar deposits.

c: Average of Argentina, Brazil, Mexico and Venezuela.

d: Average of developing economies in Western Hemisphere, expressed in terms of U.S. dollars.

e: Average of industrial countries.

Sources: IMF, *International Financial Statistics*; World Bank, *World Debt Tables*.

their creditors, both of these factors existed. In general, developing economies that relied on credits from commercial banks had the interest payments for a major portion of these debts pegged to a world interest rate such as the LIBOR rate. Under this arrangement, developing economies assumed most of the risk for world interest-rate increases.

Table 4, column (1) shows that the total long-term external debt outstanding (LDOD) for Brazil, Mexico, Argentina and Venezuela increased throughout the 1980-1987 period. The stock of LDOD for these economies was 38.2 percent greater in 1982 than it was in 1980. In addition, column (4) shows that, in 1982, 77.5 percent of the total LDOD for these countries had an adjustable rate. This ratio would exceed 80 percent in each year from 1983-88. Clearly, the largest Latin American debtors held most of the interest-rate risk on their external debts. Therefore, when world interest rates were at high levels over the 1980-82 period, the interest obligations on the LDOD for these countries were correspondingly high. Column (3) shows the 6-month LIBOR rate on U.S. dollar deposits. This annualized LIBOR rate peaked

in 1981 at 16.7 percent, and it remained at a relatively high level through 1982 at 13.6 percent. Therefore, the increased stocks of external debt, the large percentage of this debt that was held with an adjustable rate and the high world interest rates of the early 1980s combined to increase the interest payments of heavily-indebted developing countries by 1982.¹¹

Next, we examine factors that limited the extent that any noninterest current account surpluses could be counted on to finance interest payments on external debt. Table 4, column (5) shows the total NICA (surplus) for the four largest Latin American debtors. Over the 1980-82 period, interest payments far ex-

¹¹ Debt-service on external debt was generally paid in a "market" currency such as the U.S. dollar, British pound or Deutsche mark. Another factor that results in a greater cost for interest payments on external debt is the appreciation of the currency in which debt is to be serviced relative to the debtor's currency. For example, the Mexican peso depreciated from 26.2 pesos per U.S. dollar at the end of 1981 to 96.5 pesos per U.S. dollar at the end of 1982. This 368 percent decrease in the value of the peso relative to the U.S. dollar means that the cost to Mexico of servicing the debt increased in direct proportion to the amount of debt it held that had to be serviced in U.S. dollars.

ceeded the NICA. In fact, the NICA was negative and required external financing in 1980 and 1981, and it was only marginally positive in 1982. While it is expected that these countries would accumulate increased external debts for the period in which interest payments are greater than the NICA, we also see from Table 4 that these countries were adding to their debt stocks when the NICA was larger than interest payments. The latter can largely be explained by capital flight.

Two macroeconomic events can explain most of the weakness in the NICA for Brazil, Mexico, Argentina and Venezuela in the early 1980s. First, the industrial economies were undergoing a period of stagnation as shown by Table 4, column (7), where the index of industrial production for the industrial economies proxies as a measure of economic activity in these economies. We see that the index levels off at 91 in the 1980-81 period and drops to 88 in 1982. The resulting effect for developing economies was a decreased demand for goods exported from their economies by the industrial economies.¹²

The related macroeconomic phenomenon that weakened the NICA for developing economies in the early 1980s was a reduction in their export prices. Table 4, column (6) shows that

¹² A reasonable, but not perfect, measure for the change in real exports from developing economies to the industrial countries is the annualized percentage change in the value of imports to industrial countries from developing countries minus the annualized percentage change in the index of export unit values (prices) for the non-oil developing countries, with the underlying elements for both terms expressed in U.S. dollars. In 1979 and 1980, real exports from developing to industrial countries increased at an annual rate of 17.1 and 14.5 percent, respectively. However, this measure of real exports decreased by 1.4 percent in 1981, 6.1 percent in 1982, and 3.9 percent in 1983.

¹³ Mexico was the only country whose export revenues differed from this pattern by rising, albeit slightly, in 1982, after relatively large increases in 1980 and 1981.

the index of export prices for Latin American developing economies decreased in every year over the 1982-88 period. The combination of weak demand and lower prices for the exports of developing economies over the 1980-82 period in general meant stagnant, if not reduced, export revenues. For example, the aggregate export revenue for Brazil, Mexico, Argentina and Venezuela was \$62.7 billion in 1980, rose to \$72.5 billion in 1981, fell to \$65.4 billion in 1982, and remained relatively even at \$66.6 billion in

opening economies and were reluctant to roll-over the old credits, that is, banks were unwilling to delay the repayment of principal any further. Table 2, column (10) shows that the aggregate LDOD flow to Brazil, Mexico, Argentina and Venezuela decreased to \$14.1 billion in 1982 from \$25.2 billion in 1981, and then increased to \$34.6 billion in 1983. The inflow measure used here includes such items as interest payment arrears that are added to the principal of the debt outstanding, and therefore is not

Table 5

| | Flows from Commercial Banks to: | | | |
|------|---------------------------------|---|--------------------------------|---|
| | Brazil | | Mexico | |
| | Disbursements (\$ Billions) | Net Flows ^a (\$ Billions) | Disbursements (\$ Billions) | Net Flows ^a (\$ Billions) |
| 1980 | \$8.082 | \$2.685 | \$10.075 | \$5.880 |
| 1981 | 13.566 | 7.796 | 13.753 | 9.878 |
| 1982 | 11.944 | 6.660 | 8.675 | 5.322 |
| 1983 | 4.592 | 2.524 | 5.283 | 2.651 |
| 1984 | 6.940 | 4.483 | 5.293 | 1.596 |
| 1985 | 0.296 | -0.528 | 2.998 | 0.093 |
| 1986 | 0.221 | -0.538 | 2.150 | -0.549 |
| 1987 | 0.046 | -0.860 | 5.515 | 3.382 |
| 1988 | 3.086 | 2.429 | 3.306 | -0.394 |

a: Net Flows = Disbursements - Principal Repayments.

Source: World Bank, *World Debt Tables*.

1983.¹³ We can see that the decrease in aggregate export revenue in 1982 coincides with the decrease in export prices of Latin American developing economies and the decrease in the index of industrial production for industrial economies (columns (6) and (7), respectively). Therefore, the weakness in the export sector of the largest debt-burdened developing economies, particularly in 1982, lessened the extent to which the NICA could be used to finance the increasing interest payments on external debt.

Lastly, we look at factors that involve a reduction in the net capital inflows to heavily-indebted developing economies. Capital flight has already been discussed. In addition, in 1982, commercial bank creditors began to curtail the amount of new credits that were extended to devel-

a measure of the new money that banks provided these countries. A better measure of net debt inflows is the "net flows" which are defined as the disbursements of credit minus principal repayments.

Table 5 shows disbursements and net flows from commercial banks to Brazil and Mexico over the 1980-88 period. The disbursement of new credits decreased dramatically over the 1982-83 period for both countries, with a corresponding drop in net flows. This decreased flow of new credits is indicative of commercial banks' reluctance to increase their exposures to heavily-indebted developing economies as bank regulators in industrialized economies began to voice some concerns about their large exposures. The more-conservative lending approach by banks was an unwelcome change for developing econ-

omies as the latter became more hard-pressed to bridge the financing gaps that existed between their interest-payment obligations and the resources that could be extracted from their economies to service this debt.

The need for foreign capital inflows is shown to be a characteristic of developing economies over time and across regions. Using the national income accounting framework, we have identified this foreign financing requirement as an imbalance between domestic investment expenditures and national saving, where a developing economy is typically unable to generate sufficient national saving to fund its investment projects. We have shown how the flight of domestic capital from these developing economies increased their needs for capital inflows. We have argued that a series of adverse macroeconomic factors in the early 1980s increased the gap between these economies' interest obligations and the NICA, combined with the decreased flows of credits from commercial banks, precipitated the events that we now recognize as the international debt crisis.

The dilemma that underlies the debtor problem is that the heavy debt-service obligations that have weakened many developing economies have, at the same time, increased their need for external capital inflows to provide the basis for future growth. The growth of a more diversified economy with a strong export sector is a key determinant of the prospect for debt repayment to creditor banks. The likelihood of repayment is enhanced if these heavily-indebted developing economies are able to maintain access, even if limited, to foreign capital markets and if policymakers in these economies make efficient use of the resources that are made available to them. Commercial bank credits have been an important source of external funds for these economies, and play a significant role in the debt crisis. We now turn to the creditor problem.

The Creditor Problem

The creditor problem is the threat to the capital of large commercial banks posed by the volume and uncertain values of their loans to heavily-indebted developing economies, and the resulting potential for instability in financial markets. Since commercial banks have been the primary external funding source for middle-income developing economies in recent history, banks amassed significant exposures to these debt-burdened countries by the beginning of the debt crisis. The importance of the creditor problem is directly related to the extent to which these exposures impair a bank's capital. For example, if a bank holds loans to debt-burdened countries that exceed, on a book-value basis, its buffer (*i.e.*, capital plus loan-loss reserves), and there exists uncertainty in financial markets over the true value of these loans, there is also likely to be uncertainty over the bank's financial well-being, and ultimately its solvency. Such concerns have the potential to become a source of instability in financial markets.

The international debt crisis followed on the heels of a period of generous lending practices by banks to developing economies. At the end of 1982, the nine largest commercial banks in the U.S., that is, the money-center banks, were all heavily exposed to debt-burdened developing economies. Money-center bank loans to heavily-indebted developing economies totaled approximately \$64 billion, for an average exposure of 239.6 percent of equity capital plus loan-loss reserves, ranging from a minimum of 153.4 percent to a maximum of 392.9 percent.^{14,15} While loans to heavily-indebted developing economies were concentrated primarily in the money-center banks, in the early 1980s many loans had been purchased by regional and smaller banks in the U.S. At year-end 1982, money-center banks held 65 percent of the total U.S. bank exposures to these economies, with the bulk of the remaining \$34.5

billion being distributed among the regional banks.¹⁶

Commercial bank lending to debt-burdened developing economies was not limited to the U.S. By year-end 1982, non-U.S. commercial banks held approximately \$169 billion in loans to heavily-indebted developing economies.^{17, 18} This is 63.2 percent of total commercial bank loans (*i.e.*, U.S. and non-U.S.) to these economies. By the end of the 1980s, non-U.S. banks increased their exposures to heavily-indebted developing economies, while U.S. banks decreased their exposures in absolute terms. The exposures of the non-U.S. banks to these heavily-indebted developing economies increased to \$255.5 billion

¹⁴This measure of loan concentration underestimates the actual degree of concentration since reserves must be allocated for other assets on the balance sheet as well. An alternative measure which overstates the degree of exposure is the ratio of loans to equity capital. For this measure in 1982, the average value for money-center banks was 275.3 percent, with a minimum of 184.7 percent and a maximum of 449.9 percent.

¹⁵The heavily-indebted developing economies are those whose debt generally sold at below par on the secondary market over the 1986-89 period. These countries include: Argentina, Bolivia, Brazil, Chile, Costa Rica, Ecuador, Honduras, Hungary, Ivory Coast, Mexico, Morocco, Nicaragua, Peru, Philippines, Poland, Senegal, Uruguay, Venezuela, Algeria, Colombia, Dominican Republic, Jamaica, Yugoslavia, Panama, Nigeria and Zaire.

¹⁶On the one hand, the purchase of these loans by regional banks spread the risk on developing country debt over a number of banks; however, it also spread the bad effects that these loans had on asset quality over a broader segment of the banking industry in the U.S.

¹⁷The group of total reporting creditor banks are located in Austria, Belgium, Luxembourg, Canada, Denmark, France, Germany, Ireland, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States (including branches of U.S. banks in the Bahamas, the Cayman Islands, Panama, Hong Kong and Singapore).

¹⁸Although we have no data available, we can estimate that the individual non-U.S. bank exposures are significant given that these countries have banking industries that are typically made up of relatively few large banks.

by the end of 1989. In contrast, the exposures of the money-center banks and the other U.S. (primarily regional) banks decreased to \$46.8 billion and \$14.1 billion, respectively. Given the lack of relevant bank-specific data for non-U.S. banks and the fact that the creditor problem relates primarily to the large banks, the analysis in the remainder of this section will focus on U.S. money-center banks.

An important question is the extent of the largest U.S. banks' exposure to developing-economy debt relative to capital and available loan-loss reserves. Two aspects of the international debt crisis in the 1980s are relevant here. First is the ability of U.S. banks to reduce their exposures to the debt-burdened developing economies and to build additional capital and reserves beneath the debts that remain on their balance sheets.¹⁹

Table 6 presents a simple average for money-center banks, excluding Continental Illinois, (hereafter known as the average money-center bank) of relevant balance sheet components over the 1982-89 period.²⁰ For the average money-center bank, exposure (total and nontrade) to debt-burdened developing economies did not begin to decrease in absolute terms until 1985, while loan-loss reserves increased in every year throughout the 1982-89 period except for 1988. Equity capital increased in every year from 1982 through 1986, but decreased in 1987 and 1989 as money-center banks made large additions to their loan-loss reserves.

The significance of a bank's exposure to heavily-indebted developing economies is best measured relative to the buffer that is available to protect against the deterioration in the quality of these assets and still remain comfortably solvent. The bottom half

of Table 6 shows the nontrade exposure of the average money-center bank relative to the two extreme measures of this solvency buffer — (1) equity capital is the minimum buffer a bank would have, assuming that the bank does not use any loan-loss reserves to protect against deteriorating asset-quality in its nontrade exposure to debt-burdened developing economies, and (2) equity capital plus total loan-loss reserves is the maximum buffer, assuming that the bank uses its total stock of loan-loss allowances for its nontrade exposure. Nontrade exposures are used because trade financing by banks has traditionally not suffered from the same debt-service difficulties as has nontrade debt, and

so trade debt would not be subject to the same, if any, discounts. The ratio of nontrade exposure to equity capital has fallen in every year over the 1982-1989 period, except for 1987 when the ratio rose to 244 percent. However, the average money-center bank shows a large provision to reserves in 1987. Therefore, the ratio of nontrade exposure to the maximum buffer decreases in every year over the 1982-89 period.

Second, although the exposures of large U.S. banks to heavily-indebted developing economies have decreased relative to capital and reserves, there also has been a coincident deterioration in the values of these debts as perceived by the

Table 6
A. Average Money-Center Bank^a (\$Millions)

| | Total Assets (1) | Total Exposure ^b (2) | Nontrade Exposure ^b (3) | Equity Capital ^c (4) | Total Reserves ^d (5) |
|------|---------------------|------------------------------------|---------------------------------------|------------------------------------|------------------------------------|
| 1982 | \$68,341 | \$7,590 | \$6,816 ^e | \$2,764 | \$379 |
| 1983 | 67,746 | 7,823 | 6,966 ^e | 3,026 | 427 |
| 1984 | 70,115 | 8,066 | 7,194 ^e | 3,332 | 513 |
| 1985 | 74,154 | 7,808 | 7,027 ^e | 3,529 | 681 |
| 1986 | 75,696 | 7,426 | 6,841 | 3,793 | 874 |
| 1987 | 74,198 | 7,109 | 6,620 | 3,119 | 2,138 |
| 1988 | 72,199 | 6,627 | 6,262 | 3,675 | 2,049 |
| 1989 | 61,803 | 5,698 | 5,307 | 3,305 | 2,536 |

B. Nontrade Exposure as a Percentage of:

| | Total Assets (6) | | | Equity Capital (7) | | | Equity Capital + Reserves (8) | | |
|------|---------------------|------------|------------|-----------------------|------------|------------|----------------------------------|------------|------------|
| | Min (a) | Avg (b) | Max (c) | Min (a) | Avg (b) | Max (c) | Min (a) | Avg (b) | Max (c) |
| 1982 | 7.1 | 10.2 | 13.7 | 203 | 260 | 382 | 176 | 227 | 334 |
| 1983 | 7.8 | 10.4 | 13.5 | 176 | 240 | 314 | 152 | 209 | 275 |
| 1984 | 8.2 | 10.4 | 12.7 | 167 | 225 | 306 | 142 | 193 | 259 |
| 1985 | 7.7 | 9.7 | 12.5 | 150 | 205 | 281 | 123 | 170 | 230 |
| 1986 | 6.9 | 9.1 | 13.2 | 126 | 185 | 283 | 103 | 147 | 219 |
| 1987 | 7.0 | 9.0 | 13.4 | 142 | 244 | 423 | 96 | 130 | 191 |
| 1988 | 5.8 | 8.8 | 13.7 | 108 | 181 | 292 | 79 | 110 | 161 |
| 1989 | 4.8 | 7.6 | 12.1 | 104 | 174 | 263 | 56 | 91 | 132 |

a: This sample excludes Continental Illinois.

b: These exposures are loans outstanding to developing economies whose debt is selling below par on the secondary market.

c: Or net worth.

d: This is defined as loan-loss allowances plus transfer-risk reserves.

e: This is an estimated value using the average ratio of nontrade to total exposures during the 1986-89 period.

¹⁹ The regional and smaller U.S. banks have, for the most part, been able to remove most of these debts from their balance sheets.

²⁰ Continental Illinois is excluded from the group of money-center banks in the remainder of this section since a resolution transaction was made with the FDIC in 1984.

market. This reflects the inability of the developing economies to achieve growth rates that would enable them to fully service their debts. The average secondary market price for the nontrade debt owed by developing economies was \$0.60 per dollar of original debt in 1986, \$0.48 in 1987, \$0.37 in 1988 and \$0.33 in 1989. The decreasing average price of this debt in the secondary market illustrates a general market perception of its decreasing value.

Objections have been raised about using the secondary market prices for developing-economy debt as a measure of the market values for these assets, including the relative "thinness" of the market.²¹ This market can generally be characterized as one with few players and volatile prices. The entry into the market of a major buyer or seller of developing-economy debt could significantly affect the quoted transaction price for the debt with no change in the net realiz-

²¹ A "thin" market means that individual actions are able to affect market prices. In contrast, a competitive market yields prices that are, in general, impervious to actions by individuals. While competitive pricing is the theoretical objective when referring to market pricing, we find few examples of this in the real world. While secondary market prices may not reflect the "true" value of loans to debt-burdened developing economies, they do reflect a market perception of these bank assets.

²² This is not a discount rate in the sense of an interest rate, but rather, as a fraction of value.

²³ The critical discount rate (denoted as $\bar{\alpha}$) can be calculated as follows:

$$\text{Solvency Buffer} - \bar{\alpha} * (\text{Nontrade Exposure}) = 0,$$

where $\bar{\alpha} * (\text{Nontrade Exposure})$ is the market loss on the bank's nontrade exposure to debt-burdened developing economies, the Solvency Buffer is equity capital plus the portion of reserves that can be used for losses on its nontrade developing-economy loans, and $\bar{\alpha}$ is the discount rate. Therefore, the critical discount rate is simply the ratio of a bank's Solvency Buffer to its Nontrade Exposure.

²⁴ The transfer-risk reserves are reserves that U.S. bank regulators require their banks to set aside for loans outstanding to particular developing economies. Only one of the money-center banks provisioned any reserves to this account, while the others charged off these amounts. Therefore, the impact of transfer-risk reserves in this calculation is rather small.

Table 7
Average Money-Center Bank^a

| | Critical Discount Rate ($\bar{\alpha}$ = Buffer/Nontrade Debt) | | | | | | | | | | |
|------|---|------------|--|---|------------|--|---|------------|--|--|------------|
| | $\bar{\alpha}_1$ where Buffer ^b = Equity Capital + Specific Reserves + .9* (General Reserves) (1) | | | $\bar{\alpha}_2$ where Buffer ^b = Equity Capital + Specific Reserves + .5* (General Reserves) (2) | | | $\bar{\alpha}_3$ where Buffer ^b = Equity Capital + Specific Reserves + .1* (General Reserves) (3) | | | α = Discount Rate ^{c,d} (per dollar of nontrade debt) (4) | |
| | Min (%) | Avg (%) | No. of Banks $\alpha > \bar{\alpha}_1^e$ | Min (%) | Avg (%) | No. of Banks $\alpha > \bar{\alpha}_2^e$ | Min (%) | Avg (%) | No. of Banks $\alpha > \bar{\alpha}_3^e$ | Avg (%) | Max (%) |
| 1982 | 29.6 | 45.3 | — | 28.1 | 43.0 | — | 26.5 | 40.8 | — | — | — |
| 1983 | 35.9 | 48.8 | — | 34.1 | 46.2 | — | 32.3 | 43.7 | — | — | — |
| 1984 | 38.0 | 52.6 | — | 35.6 | 49.6 | — | 33.3 | 46.6 | — | — | — |
| 1985 | 42.8 | 60.1 | — | 39.6 | 55.8 | — | 36.4 | 51.4 | — | — | — |
| 1986 | 46.3 | 72.4 | 0 | 42.1 | 66.6 | 0 | 37.9 | 60.8 | 0 | 29.9 | 31.2 |
| 1987 | 51.4 | 80.5 | 0 | 39.5 | 66.3 | 1 | 27.6 | 52.2 | 3 | 41.1 | 42.4 |
| 1988 | 61.7 | 95.3 | 0 | 50.1 | 81.0 | 1 | 38.5 | 66.7 | 3 | 55.1 | 56.9 |
| 1989 | 71.8 | 112 | 0 | 56.8 | 90.7 | 1 | 41.8 | 69.7 | 4 | 62.0 | 64.2 |

a: This sample excludes Continental Illinois.

b: Specific Reserves are the reserves that banks are required to set aside for particular loans to heavily-indebted developing economies (*i.e.*, "Allocated Transfer-Risk Reserves" on the Report of Condition and Income).

c: The discount rate for each bank is a weighted average of the secondary market discounts on nontrade debt to the heavily-indebted developing economies, with the weights being the share of loans outstanding to a particular economy relative to the total stock of nontrade debt outstanding.

d: The secondary market prices were obtained from Salomon Brothers, Inc.

e: This is the number of banks for which the discount rate in column (4) exceeds the critical discount rate in this column.

able value of this debt. Therefore, the net realizable values of loans to heavily-indebted developing economies may be very different from their secondary market prices. That is, these loans may be worth more or less if held to maturity than if they were sold immediately at secondary market prices.

From a balance sheet perspective, if the market value of these debts decreases by more than a bank can increase its buffer, a bank's balance sheet is clearly weakened and the likelihood of insolvency is increased. It will be useful to define a measure of a bank's ability to absorb losses on developing-economy loans. This measure will be called the critical discount rate, which is the maximum discount on the stock of nontrade debt to

debt-burdened developing economies that a bank is able to absorb without becoming insolvent.²² Therefore, any actual discount rate above the critical value would leave the institution insolvent and *vice versa*.²³

Table 7 shows the critical discount rate for the average money-center bank under different assumptions about the solvency buffer. Columns (1), (2) and (3) assume that the buffer for loan-quality problems on developing-economy debt is equal to equity capital plus reserves for specific loans to developing economies (*i.e.*, transfer-risk reserves) plus 90, 50 and 10 percent of general loan-loss reserves, respectively.²⁴ As we see in columns (1), (2) and (3) of Table 7, the more reserves that can be allocated to de-

veloping-economy debt, the greater is the critical discount rate. For example, at the end of 1989, if the average money-center bank was able to allocate 90 percent of its loan-loss reserves for developing-economy debt, it would have been impossible for the average bank to become insolvent from this loan exposure alone since the critical discount rate was above 100 percent. However, if it could use only 50 percent of its loan-loss reserves, the critical discount rate falls to 88.4, and it decreases to 68.9 percent if it could use only 10 percent of its loan-loss reserves for nontrade-developing-economy debt.

Insight into the extent of bank reserving for losses on loans to heavily-indebted developing economies can be gained by computing the ratio of the "market" expectation of loss on these loans that a bank holds on its balance sheet to its general loan-loss reserve. This market expectation of loss is derived directly from secondary market prices, and is adjusted for each bank's specific reserves or transfer-risk reserves. The ratio of this estimate of loss to the general loan-loss reserve is the "market" expectation of loss on loans to heavily-indebted developing economies per dollar of loan-loss reserve. For the average money-center bank, the ratio of its secondary market loss to general reserves is 2.47, 1.21, 1.60 and 1.29 for each year in the 1986-89 period.

The reserves that banks need for their exposures to heavily-indebted developing economies depend upon

²⁵ The increasing volume of general loan-loss reserves (*i.e.*, general loan-loss reserves plus transfer-risk reserves) was due, almost always, to increases in the general loan-loss reserve component.

²⁶ Since the money-center banks were not required to disaggregate their nonperforming commercial and industrial loans between those to U.S. and non-U.S. addressees before 1987, the nonperforming U.S. commercial and industrial loans for the 1983-84 period were estimated using the average ratio of nonperforming U.S. commercial and industrial loans to total commercial and industrial loans over the 1987-89 period.

the amounts they ultimately charge off their balance sheets. Clearly, the average money-center bank has reserved far less than what is suggested by the discounts established in the secondary market, as these reserves are needed also for asset-quality problems in other areas of the bank's portfolio as well. It must be noted, however, that the secondary market prices for the debt of heavily-indebted developing economies are "liquidation values" prevailing in a thin market as defined earlier. These liquidation values may not be an accurate indicator of net realizable values.

As the preceding discussion has highlighted, an important issue is the share of loan-loss reserves that can be allocated to various parts of the portfolio, including nontrade-developing-economy debt. We see in Table 6, columns (4) and (5) that the average money-center bank made large provisions to the loan-loss reserve in 1987 and 1989 at the expense of equity capital.²⁵ While a definitive statement cannot be made about the distribution of these reserves among the various parts of the portfolio, it is known that declines in asset quality have occurred in money-center banks' portfolios outside of their loans to heavily-indebted developing countries, placing additional demands upon loan-loss reserves. The most notable area in recent years is in their portfolio of real-estate assets. For example, the sum of the money-center banks' nonperforming real-estate, consumer, and domestic commercial and industrial loans (none of which contain developing-economy loans, and so will be referred to as non-developing-economy nonperforming loans) averaged 0.81 percent of the sum of gross loans in the 1983-84 period, and the average ratio increased to 1.71 percent in the 1987-89 period.²⁶

A calculation can be made to derive a benchmark measurement for the allocation of loan-loss reserves to a bank's loans to heavily-indebted developing economies by dividing the

bank's nontrade loans to these economies by the sum of these nontrade loans and the non-developing-economy nonperforming loans. For the average money-center bank, this benchmark ratio was 88.4 percent of loan-loss reserves in 1989, 91.1 percent in 1988, 89.3 percent in 1987, and 92.1 percent in 1986. Therefore, the benchmark ratio remained in the area of 90 percent throughout the 1986-89 period. This ratio represents the share of loan-loss reserves that a bank can apportion to its nontrade loans to heavily-indebted developing economies, given that certain assumptions are accepted. One assumption is that the asset categories in the denominator of the ratio capture, for the most part, all of the troubled loans that the bank holds on its balance sheet. If significant asset-quality problems exist in other areas of a bank's portfolio, then the ratio would be lower. A second assumption is that the loss experiences on all asset categories are equal. A relative increase in losses as a percentage of the book value for non-developing-economy nonperforming loans as compared to nontrade-developing-economy debt would require more reserves to be used in the former area, and so would lower the benchmark ratio.

The discounts derived from secondary market prices on the existing nontrade debts owed by debt-burdened developing economies to money-center banks increased steadily during the 1986-89 period. Table 7, column (4) shows the secondary market discount on nontrade debt (weighted by exposure) rose from \$.299 per dollar of original debt in 1986 to \$.62 per dollar of original debt in 1989. It is of interest to analyze the effect on the average money-center bank of marking to market its developing-economy debt at current prices. In the present context, if α , the secondary market discount rate, is greater than $\bar{\alpha}$, the critical discount rate, a bank would be insolvent as a result of this marking to market; con-

versely, if $\alpha < \bar{\alpha}$, the bank would remain solvent.

Table 7, column (1) is the scenario in which the bank has the largest buffer since it is able to allocate 90 percent of its general loan-loss reserves to developing-economy debt; therefore, the critical discount rate ($\bar{\alpha}_1$) is the largest. When this critical discount rate and the secondary market discount rate are derived and compared for each bank, there were no cases in which the market rate exceeded the critical rate for money-center banks during the 1986-89 period.

For a 70 percent reserve case, the average money-center bank would have had an equity capital ratio of 2.1 percent at the end of 1989, with no institutions having negative equity capital but three banks having less than a two percent equity capital ratio. Table 7, column (2) shows another scenario in which a bank's buffer includes 50 percent of its reserves. There was one case in each year during the 1987-89 period in which $\alpha > \bar{\alpha}_2$. At the end of 1989, equity capital for the average money-center bank was 1.4 percent of total assets, with four of the eight banks having an equity capital ratio below two percent and one of these banks having negative equity capital.

As discussed above, the benchmark measure of the share of general loan-loss reserves that can be allocated to nontrade-developing-economy debt was around the 90 percent level during the 1986-89 period. From Table 7, column (1) we know that under this benchmark scenario, no money-center bank would have negative equity capital in any year during the 1986-89 period as a result of marking its developing-economy debt to secondary market liquidation values. In the 90 percent reserve case at the

end of 1989, the average money-center bank would have had a ratio of total equity capital to total assets of 2.8 percent as a result of this marking to market, with one bank under two percent.

Summary and Conclusions

In this article, the international debt crisis is characterized as two interrelated problems — the debtor problem and creditor problem. The debtor problem centers on the heavily-indebted developing economies that have been weakened by the weight of their debt-service obligations while they continue to rely on inflows of foreign capital to help finance the investment projects that form the foundation for future economic growth. Their needs for foreign capital are increased by the outflows of domestic capital from their economies. In addition, at the beginning of the 1980s these heavily-indebted developing economies faced macroeconomic shocks that simultaneously increased their interest payments and decreased their income from the trade of goods and services. When these events combined with a reduction in capital inflows, the debt crisis was at hand.

The creditor problem focuses on the large commercial banks whose significant exposures to heavily-indebted developing economies is a potential source of instability in the international banking system. Two main conclusions emerge from this analysis. First, given plausible assumptions about the amount of loan-loss reserves that a money-center bank could allocate to its loans to heavily-indebted developing economies, all money-center banks would have positive equity capital as a result of marking these loans to market using secondary market prices; the average money-center bank would

have an equity ratio of just under three percent. Second, the deteriorating values on the secondary market of the money-center banks' loans to these developing economies have highlighted an area of significant weakness on the banks' balance sheets. To the extent that this weakness is viewed by financial markets as a serious threat to the money-center banks' financial well-being, it also serves as a source of financial market instability. This analysis is in no way intended to suggest that current secondary market prices are the "correct" values. These prices are liquidation values prevailing in a thin market, and the values of loans to heavily-indebted developing economies may be more or less than the prices suggested in the secondary market. In general, the money-center banks have held fewer reserves than the discounts implied by secondary market prices.

The prospects for the future repayment of debt by the heavily-indebted developing economies to the commercial banks remain uncertain. However, it is certain that repayment will not occur without growth in their economies, which in turn will require that they have access to foreign capital markets. The strength of the banking system will be enhanced when the values of these "old" loans to the heavily-indebted developing economies are stabilized. In sum, the international debt crisis presents a situation in which "neither a borrower nor a lender be" makes sense, at least to the degree we have witnessed in this crisis. Nevertheless, the fact that there have been many excesses in the past does not preclude the possibility that commercial banks and developing economies can have a mutually beneficial relationship in the future.

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Resolution Costs of Thrift Failures

by Joseph B. Blalock, Timothy J. Curry and Peter J. Elmer*

On August 9, 1989, the Resolution Trust Corporation (RTC) was created by the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) to resolve the savings and loan (S&L) crisis. Prior to the RTC, the Federal Savings and Loan Insurance Corporation (FSLIC) had primary responsibility for resolving insolvent S&Ls. An analysis of the costs of FSLIC resolutions provides insight into the nature of past S&L insolvencies, as well as useful background information for assessing the likely costs of future resolutions.

Previous studies of the determinants of thrift failures, such as Kormendi *et al.* (1989), Barth, Bartholomew, and Bradley (1989), and Barth, Bartholomew, and Elmer (1989), have been limited to examining pre-resolution cost estimates because the actual resolution costs are not known until after an institution is closed and all of the assets have been sold. However, since a large number of FSLIC resolutions were completed in the mid-1980s, it is now possible to analyze many FSLIC resolutions on an actual cost basis.¹

This paper examines the resolution costs of S&Ls resolved by FSLIC during the mid-1980s. The goal is to explain losses as a function of the

quality of S&L assets and other factors that may have influenced the value of insolvent S&Ls during the mid-1980s. The primary finding is that the asset mix of an insolvent S&L is the primary predictor of actual resolution costs. The costs of resolving S&Ls with large amounts of high-risk assets and low core deposits are found to be significantly higher than the costs of resolving "traditional" S&Ls that primarily fund single-family mortgages with core deposits. Other factors that explain resolution costs are the granting of tax benefits and the extent to which an S&L's assets have below-market yields.

Background on FSLIC Resolution Policies

Modern experience with resolving insolvent S&Ls began approximately in 1980, then progressed in two phases: the first involved high interest rates during the 1980-83 period, and the second involved asset-quality problems after 1983. As the nature of S&L problems changed, and as FSLIC's cash reserves were depleted, FSLIC resolution policies also changed.

1980-83 Period

During the 1980-83 period the primary cause of S&L failures was high interest rates which raised S&L fund-

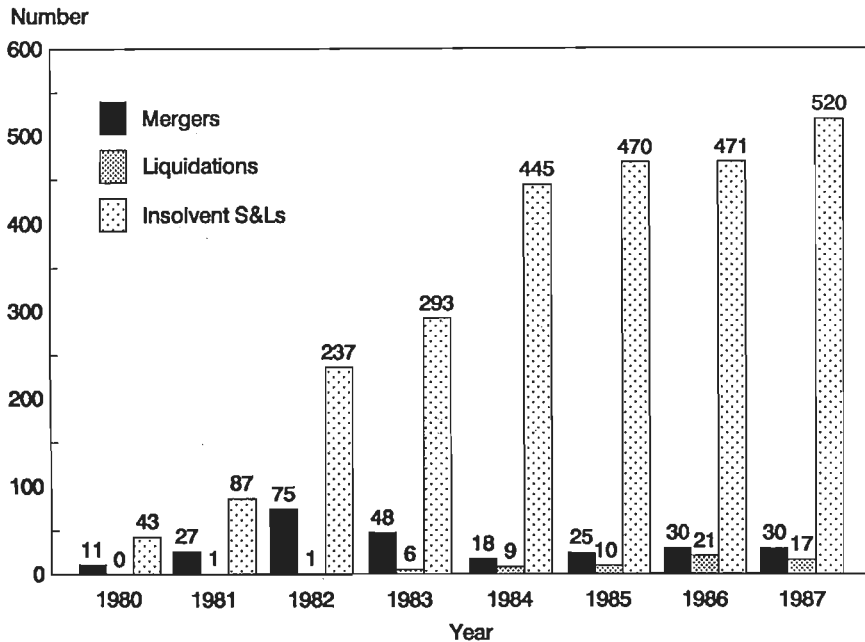
ing costs but had little effect on income from long-term mortgage assets. This resulted in enormous operating losses for a large portion of the thrift industry.² As operating losses continued, the market value of S&Ls' net worth eroded and FSLIC's backlog of unresolved S&Ls quickly increased. As shown in Figure 1, the number of GAAP-insolvent S&Ls increased from 87 in 1981, to 237 in 1982, and to

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¹ As of the end of our sample period, most assets had been sold from the sample of resolved S&Ls. For the unsold assets, we used the most recent estimates of anticipated loss. As described later, this estimated component of the total cost is sufficiently small that we feel justified in using the term "actual cost."

² See Kane (1989), Brumbaugh (1988) or White (1991) for more complete analysis of the forces that shaped the thrift crisis.

Figure 1
FSLIC Resolutions vs. the Number of Insolvent S&Ls: 1980-1987



Note: All data are from FSLIC records and Barth, Bartholomew, and Bradley (1989).

445 in 1984.³ While FSLIC resolutions increased in 1981 and 1982, they slowed in 1983 and lagged significantly the backlog of insolvent S&Ls throughout the remainder of the 1980s.

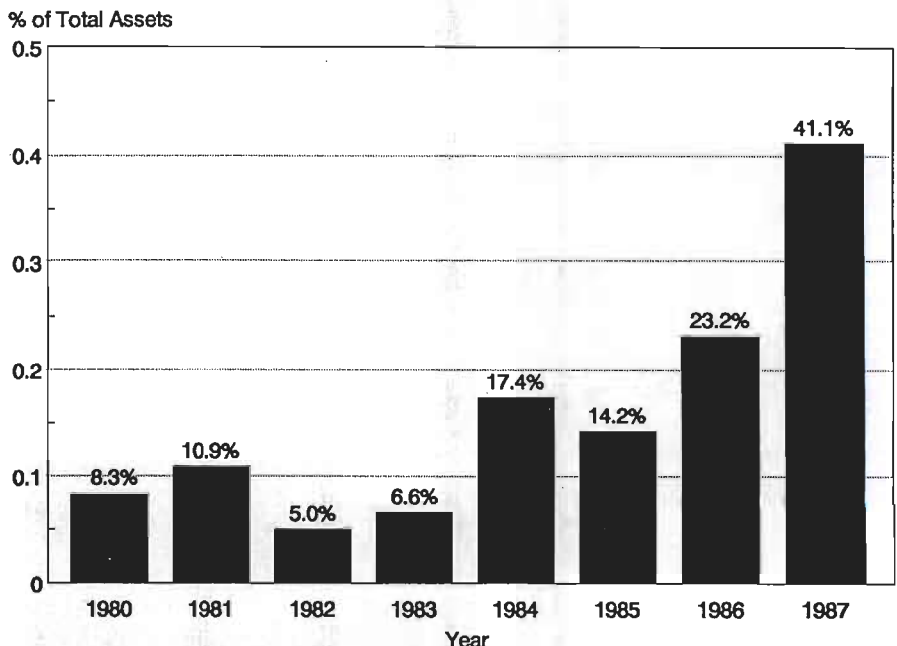
Although S&L failures increased during the 1980-83 period, they were relatively "clean" and reasonably inexpensive to resolve. Because the primary problem was below-market yields on assets, a cash infusion from FSLIC was often all that was needed to resolve the insolvency. Most assets had relatively low default risk, which reduced uncertainty over asset qual-

ity for acquirers. An early, relatively simple subsidy that was developed, which was called a yield subsidy, typically was used to enhance the yield of assets that had good credit quality (performing 1-4 family mortgages), but below-market yields. In the absence of uncertainty over asset qual-

ity, acquirers were willing to purchase entire institutions, liquidations of institutions were rarely necessary, and FSLIC was not burdened with asset-management problems after resolution. Low default risk also helped to keep resolution costs relatively low, in the range of five to ten cents per dollar of assets (Figure 2).⁴

As FSLIC reserves declined, and the backlog of insolvent S&Ls mounted, FSLIC began experimenting with assistance agreements that required less cash to the acquirer. "Yield maintenance" was developed to guarantee acquirers a market yield on nonperforming assets and other assets of questionable credit quality. Unlike the earlier yield subsidies, yield maintenance was used often to mitigate credit-quality problems. Yield maintenance often was used in conjunction with guarantees against capital losses ("capital loss coverage"). A series of "capital support" programs also were started, often requiring little cash from the acquirer. For example, net worth certificates and income capital certificates were created as tools for supporting an institution's capital while providing

Figure 2
FSLIC Resolution Costs as a Percent of Total Assets: 1980-1987



Note: All data are from FSLIC records and Thrift Financial Reports, 1980-1987.

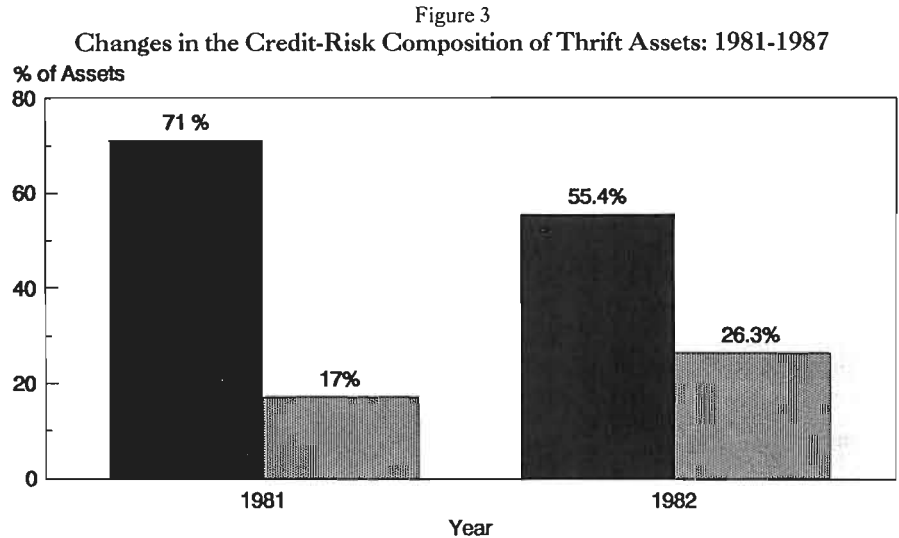
³ Note that the insolvency data in Figure 1 are measured on a book value basis. As recognized by Kane (1985) and others, the number of insolvent thrifts on a market value basis was much larger than the book value basis used in Figure 1. The book value data are important because they suggest that, even by relatively liberal standards, FSLIC was overwhelmed with insolvent S&Ls by 1983.

⁴ Since actual resolution cost data are not calculated prior to 1984, the cost data used in Figure 2 are FSLIC estimates made prior to resolution. While the FSLIC estimates are generally not as accurate as the actual cost data used later in this paper, the estimates nevertheless provide a useful basis for comparing aggregate costs over time.

FSLIC with a share of future profits.⁵ FSLIC reduced its immediate cash requirements by backing many capital support arrangements with long-term promissory notes. Other less costly guarantees, such as indemnification for legal expenses, also became common.

1984-87 Period

S&Ls were increasingly plagued with asset-quality problems starting in approximately 1984. Deregulation of S&L assets and liabilities in 1980 and 1982, coupled with accessibility of brokered funds, enabled S&Ls to move away from relatively low-risk, low-yield, single-family mortgages (1-4s), and into higher-risk assets. As shown in Figure 3, S&Ls reduced their holdings of assets with low credit risk (1-4s and mortgage-backed securities) from 71 percent of assets in 1981, to 55 percent in 1987. During the same period, the percentage of assets invested in higher-risk assets (land loans, commercial, and multi-family mortgages) increased from 17 to 26 percent. While the new investments increased short-term yields, they also increased default-related losses and other credit-quality problems. Thus, it is not surprising that the percentage of S&L assets comprised of repossessed real estate and delinquent mortgages, shown in Fig-



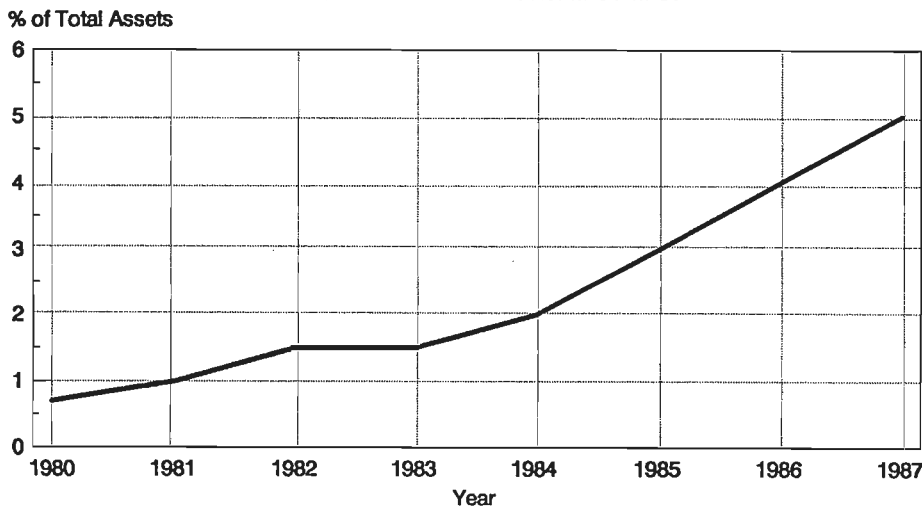
Note: All data are from Thrift Financial Reports, 1981-1987. Low credit risk is 1-4 family mortgages plus mortgage-backed securities. High credit risk is multi-family mortgages, land loans, construction loans, non-mortgage loans, service corporation investments and real estate held for investment.

ure 4, rose continuously after 1983. Increasing credit problems also help to explain the enormous growth in the number of insolvent S&Ls every year after 1983 (Figure 1), as well as the fact that declining interest rates from 1982 to 1986 failed either to reduce insolvencies or to revive the S&L industry.

The shift from interest-rate to credit-related problems significantly complicated FSLIC's resolution process. Asset-quality problems are more difficult to resolve than interest-rate spread problems owing to greater un-

certainty over the value of assets. If asset-quality problems are significant, it is difficult for acquirers to evaluate credit risk and thus difficult for the deposit insurer to arrange "whole bank" assisted acquisitions that transfer all assets to the acquirer. The need to liquidate institutions thereby increases as acquirers avoid the exceptionally high risks associated with severely distressed institutions. Asset-quality problems therefore ef-

Figure 4
Real Estate Owned and Delinquent Mortgages as a Percent of Total Assets: 1980-1987



Note: All data are from Thrift Financial Reports, 1980-1987.

⁵ Income capital certificates (ICCs) were first issued to FSLIC in September 1981. ICCs represented a hybrid instrument incorporating elements of debt and equity securities. The issuing association received either cash, a note, or some combination, from FSLIC. FSLIC typically received variable-rate interest payments from the issuing association, if the association had any earnings, with payments to FSLIC capped at a fixed portion of the association's net income each year. Net Worth Certificates (NWCs) were authorized by the Garn-St Germain Act of 1982 to provide capital assistance to institutions that suffered low earnings as a result of home mortgage lending. NWCs differed from ICCs in that they were a form of "open-bank assistance" that did not involve acquisitions of insolvent S&Ls. Institutions with capital greater than zero, but less than or equal to three percent of assets, were authorized to issue NWCs to either FSLIC or FDIC in exchange for promissory notes. More detailed discussion of ICCs and NWCs can be found in Faucette and Kneipper (1981) and McIntosh *et al.* (1983).

fectively forced FSLIC to develop more complex forms of assistance.

Given insufficient reserves for the increasing backlog of cases, FSLIC assistance agreements during the mid-1980s sought to resolve asset-quality problems with as little cash as possible. Institutions often were sold with all troubled assets remaining in the institution. FSLIC began agreeing to cover future capital losses for troubled assets that were passed to the acquirer. FSLIC also began covering the cost of funding troubled assets if the asset's yield was below some specified level. Non-cash benefits were granted, such as future tax benefits and regulatory forbearances.

Limited funds also were stretched by selecting certain types of S&Ls for resolution. Insolvent S&Ls with relatively small losses and/or substantial franchise value were sold quickly. More-distressed S&Ls often remained unresolved for several years. Some were placed in a kind of regulatory limbo, with management closely

⁶ A special program, the Management Consignment Program (MCP), was created in April 1985, to take control of S&Ls that posed the greatest threat of further deterioration. S&Ls placed in the MCP were not formally closed, but were allowed to continue operations under a new board of directors and management, thereby effectively postponing resolution for years. For example, the first S&L placed in the MCP, Beverly Hills Savings Bank, was not resolved until December 1988, 32 months after it was placed in the MCP. More detailed discussion of the MCP can be found in Horvitz (1987) and Bisenius, Brumbaugh, and Rogers (1986).

⁷ S&Ls resolved after 1987 are not considered because insufficient time has elapsed to obtain reasonably complete cost data.

⁸ Another reason for beginning the study in 1984 is that financial reporting requirements changed in 1984, thereby causing data compatibility problems with pre-1984 resolutions. Thrifts resolved in the first quarter of 1984 were excluded from the sample because their last financial report was from December 1983, and thus incompatible with the rest of the database. Cost and reserve data were collected as of August 1989, so that at least 18 months of data were available for resolutions performed in late 1987. Two or more years of actual cash flows are available for most resolutions.

controlled by regulators but otherwise having little hope for recovery.⁶

The decision to either liquidate or perform an assisted acquisition also changed during the 1984-87 period. On the one hand, asset-quality problems made it almost impossible to merge unusually distressed S&Ls without large amounts of cash and/or guarantees. On the other hand, the heavy cash requirements of liquidation (see Box 1 in the Appendix) made it difficult to fund liquidations in light of FSLIC's grossly inadequate reserves and borrowing capacity. The result was to reserve liquidation for the most distressed institutions, *i.e.*, those with exceptional asset-quality problems and little or no core deposits. In contrast, the cash and funding capacity made available by FIRREA enabled the RTC to develop very different resolution techniques starting in 1989 (see Box 2 in the Appendix).

The Data

The advent of asset-quality problems during the 1984-87 period make it an especially useful study period for current policy purposes. In particular, institutions resolved from 1984 to 1987 are characterized by the same types of asset-quality problems as S&Ls currently being resolved by the RTC.⁷

Several factors complicate the analysis of FSLIC loss experience from 1984 to 1987. First, the available data are from accounting records that reflect losses on a cash basis, which ignores the time value of money. For example, a \$10 million capital loss payment is recorded as a \$10 million

expense, regardless of whether the payment was made two days, or two years, after resolution. A present value calculation therefore is needed to adjust all cash flows for the value of payment delays.

Second, FSLIC accounting records often can not be used to track or value acquisition costs for resolutions involving many of FSLIC's complex subsidiaries and guarantees. Some involved promises to support acquired institutions with special interest-rate subsidies, while others made arrangements for FSLIC to share in future profits. Still others involved long-term loans or securities that are difficult to value.

Finally, thrift financial reports prior to resolution are often of poor quality because some insolvent S&Ls failed to maintain accurate financial reports immediately prior to resolution.⁸ Thrift financial data were often reported in error if the institution was closed near a quarterly reporting date.

In light of the above data contamination issues, we omitted resolutions for which complete data are not available. Omitted resolutions include those with reporting errors in the last Thrift Financial Report prior to resolution, those with missing and/or unreliable cost data, and those whose actual resolution cost can not be calculated for other reasons. For example, resolutions that involved NWCs, ICCs, subordinated debt, preferred stock, or loans from FSLIC are omitted because the value of these arrangements can not be readily assessed. Acquisitions requiring no

Table 1
Actual vs. Estimated Costs of Resolving
97 Insolvent S&Ls from 1984 to 1987
(\$ in Billions)

| | Liquidations | Assisted Acquisitions | Total |
|----------------|--------------|--------------------------|---------|
| Actual Cost | \$ 5.29 | \$ 1.94 | \$ 7.23 |
| Predicted Cost | \$ 3.91 | \$ 1.83 | \$ 5.74 |
| % Difference | 35.3% | 6.0% | 26.0% |

Note: The actual cost of resolution is described in the text. The predicted cost was calculated by FSLIC immediately prior to resolution.

Table 2
Characteristics of S&Ls Resolved by FSLIC
During the 1984:2 to 1987:4 Period

| | Liquidations | Assisted Acquisitions | Total Sample | Excluded from Sample |
|--|--------------|--------------------------|-----------------|-------------------------|
| Total Number of Resolutions | 46 | 51 | 97 | 57 |
| Total Assets (\$ billions) | \$11.0 | \$13.6 | \$24.7 | \$19.8 |
| Average Per Resolution (\$ millions) | | | | |
| Total Assets | \$240.0 | \$267.5 | \$254.5 | \$375.1 |
| Deposits and Borrowed Money | 243.0 | 271.2 | 257.9 | 379.9 |
| Present Value Resolution Cost | 114.9 | 38.1 | 74.5 | N/A |
| Negative Tangible Net Worth | 35.5 | 32.8 | 34.1 | 44.7 |
| Present Value Loss on Assets | 79.4 | 5.3 | 40.5 | N/A |
| Asset Mix (% of gross assets) | | | | |
| Cash and Securities | 9.1% | 12.2% | 10.7% | 14.6% |
| Mortgage-Backed Securities | 4.9 | 6.8 | 5.9 | 6.2 |
| 1-4 Family Mortgages | 26.1 | 42.3 | 34.6 | 38.6 |
| 5+ Family and Community Mortgages | 17.9 | 13.5 | 15.6 | 10.8 |
| Construction Loans | 7.4 | 2.7 | 4.9 | 4.2 |
| Land Loans | 9.0 | 1.4 | 5.0 | 2.9 |
| Real Estate Owned | 9.3 | 4.8 | 7.0 | 9.4 |
| Non-Mortgage Loans | 10.3 | 7.3 | 8.7 | 6.0 |
| Other Delinquencies (% of gross assets) | 20.0% | 7.9% | 13.6% | 9.5% |
| Annualized Operating Expenses (% of gross assets) | 6.8 | 2.7 | 4.6 | 2.2 |
| Annualized Cost of Funds (% of int.-costing liabs.) | 9.0 | 8.6 | 8.8 | N/A |
| Annualized Earning Asset Yield (% of gross performing assets) | 12.3 | 11.0 | 11.6 | N/A |

Note: All asset classifications are calculated gross of loss reserves but net of unamortized yield adjustments and loans in process. The annualized cost and earnings figures in the "other" section are calculated as the most recent complete quarterly cost or yield data, multiplied by four. N/A (not available) is shown for a number of items relating to resolutions excluded from the sample due to data problems described in the text.

FSLIC assistance are omitted also since other factors, such as regulatory forbearances, may account for a zero resolution cost. The final sample contains 97 of 154 resolutions completed between the second quarter of 1984 and the fourth quarter of 1987. The sample contains 46 liquidations and 51 assisted acquisitions.

The key variable, the actual cost of resolving an insolvent S&L, is constructed from FSLIC income and expense records from the resolution date to August 1989. The present value cost is calculated by discounting

all cash flows back to the date the institution was closed.⁹ The cost of assisted acquisitions is simply the present value of the cash assistance paid by FSLIC through the August 1989, cutoff. FSLIC loss reserves as of August 1989 are used to recognize costs anticipated after August 1989.¹⁰ The cost of liquidations is calculated as the cash FSLIC paid when the thrift was closed, less the present value of cash returned to FSLIC from the liquidating receivership (liquidating dividends) prior to August 1989. If any assets remained in the receiver-

ship as of August 1989, their net realizable values are used as a proxy for the final sales proceeds. Net realizable value is the present value of anticipated collections (sale income, rents, etc.), net of disposition expenses.

Table 1 compares the resolution cost calculated for this study to the predicted (estimated) cost data used in previous studies. The cost of the sample of 97 resolutions is \$7.23 billion, which is about 26 percent higher than the \$5.74 billion cost initially predicted by FSLIC. The FSLIC estimates for liquidations are 35.3 percent below the costs estimated in this study.¹¹ The FSLIC estimates are six percent lower for assisted acquisitions. These figures clearly indicate that actual resolution costs have tended to be considerably higher than the FSLIC's predicted costs. Actual cost data necessarily provide a much better basis for studying the determinants of resolution costs than predicted costs.

Table 2 provides detailed cost and other characteristics of the resolution sample along with data from resolutions excluded from the sample. The total assets of all sample resolutions (gross of reserves) are \$24.7 billion, of

⁹ A 12.5 percent discount was chosen to approximate the discount that would be required by a thrift investor. The discount is estimated as an investor's weighted average cost of funds, equal to 0.8 multiplied by a nine percent cost of debt, plus 0.2 times a 25 percent cost of equity, which reflects a need to hold more equity than is typically held by a financial institution.

¹⁰ Because several years of data are available for most resolutions, reserves for remaining losses are small for assisted acquisitions as well as liquidations. Remaining losses are less than ten percent of the total loss for almost all resolutions in the sample.

¹¹ A portion of the difference between FSLIC estimates and the estimates made for this study may be explained by the use of discount rates in the seven to nine percent range by FSLIC, which are considerably below the 12.5 percent rate used in this study. A higher discount is used in this study in an effort to reflect the private sector's valuation of S&L assets.

which about 55 percent are from assisted acquisitions and 45 percent from liquidations. Excluded resolutions had about 80 percent as many assets (\$19.8 billion) as resolutions included in the sample. The average assisted acquisition in the sample (\$267.5 million) is slightly larger than the average liquidation (\$240.0 million). The average excluded resolution (\$375.1 million) is considerably larger than either the average sample liquidation or the average sample assisted acquisition.

Table 2 also illustrates differences between S&Ls resolved as liquidations and those resolved as assisted acquisitions. The present value cost of the average liquidation included in the sample, about 48 cents per dollar of assets, is over three times the 14 cent cost of the average assisted acquisition in the sample. Liquidated S&Ls have much higher levels of

high-risk assets (real estate owned, construction loans, and land loans), and lower levels of low-risk assets (cash, mortgage-backed securities, and 1-4 family mortgages), than S&Ls resolved as assisted acquisitions. The delinquency, operating expense, and cost of funds ratios are also much higher for liquidations than for assisted acquisitions. Finally, Table 2 shows that the average FSLIC resolution in our sample had only 40 percent of its assets in 1-4 family mortgages and mortgage-backed securities, which is much less than the 55 percent shown in Figure 2 for all S&Ls.

Determinants of Resolution Costs

As a starting point, it seems reasonable to assume that the cost of resolving an insolvent S&L is primarily determined by the credit quality of assets. Other important factors affecting cost are the yield on earning assets

relative to the "market" yield, franchise value, tax benefits granted to acquirers, and regional economic effects. Variables measuring these factors constitute the determinants of S&L resolution costs.

Asset quality is measured by grouping S&L assets on the basis of similar credit-risk characteristics. Five asset classes are considered. The first class is real estate owned (REO), which includes real estate acquired through foreclosure as well as direct investments. At first blush, REO appears to have little risk of loss because S&Ls are generally required to "book" REO at "fair market value." However, in spite of the recommended accounting treatment, experience has shown a widespread tendency for troubled S&Ls to incur unreserved losses on REO. This tendency suggests that REO contains substantial risk of loss.

Table 3
Variable Definitions, Means, and Standard Deviations
for Sample of 97 Resolutions

| Variable | Definition | Mean | Standard Deviation |
|----------|--|-------|--------------------|
| NETLOS | The present value loss for the entire institution, net of negative tangible net worth, existing prior to either merger or liquidation, divided by gross assets. NETLOS is the dependent variable in all regressions. | 0.144 | 0.226 |
| REO | Real estate owned, real estate held for investment, divided by gross assets. | 0.070 | 0.078 |
| LANCON | Land and construction loans, net of loans in process, divided by gross assets. | 0.099 | 0.122 |
| COMMORT | Commercial and multifamily mortgage loans, and accrued interest receivable, divided by gross assets. | 0.156 | 0.104 |
| NMORTS | Consumer and commercial non-mortgage loans, divided by gross assets. | 0.087 | 0.073 |
| OTHER | Single (1-4) family mortgages, mortgage pass-through securities, equity in service corporations, cash and investment securities, and other tangible assets, net of unamortized yield adjustments, divided by gross assets. | 0.476 | 0.177 |
| TRAD | Dummy variable taking the value of one if the institution has over 40 percent of gross assets in 1-4 family mortgages and core deposits to gross assets ratio over 60 percent, and zero otherwise. | 0.351 | 0.480 |
| TAX | Dummy variable taking the value of one if the acquirer received tax benefits, and zero otherwise. | 0.227 | 0.421 |
| YLDCOV | The estimated yield on performing assets less the three-month average FHLMC commitment rate for the corresponding quarter. | 0.002 | 0.046 |

Note: Gross assets are calculated gross of loss reserves but net of unamortized yield adjustments and loans in process.

A second class of assets, land and construction loans (LANCON), also has substantial risk of loss due to a very high likelihood of default. For example, Table 4 shows that land and construction loans have the highest delinquency and default rates of three major classes of thrift assets. The high natural default risk was exacerbated by the fact that S&Ls in the 1980s were often new lenders in the land and construction loan markets. As new lenders, S&Ls tended to attract a higher-risk clientele of borrowers than established lenders. These factors imply that LANCON should be one of the most important explanatory variables of S&L resolution costs.

Two classes of assets are assumed to have less risk of loss than either REO or LANCON, but nevertheless substantial risk of loss. One class, commercial and multifamily mortgage loans (COMMORT), is shown in Table 4 to have delinquency and foreclosure rates less than half the rates for LANCON, but much higher rates than for a relatively low-risk asset, 1-4 family mortgages. The other class, consumer and commercial non-mortgage loans (NMORTS), is shown in Table 4 but is expected to have default risk characteristics similar to those of COMMORT. As with LANCON, the natural default risk of COMMORT and NMORTS is exacerbated by the fact that S&Ls were often new lenders in these markets.

A final class of assets contains 1-4 family mortgages, mortgage-backed securities, and other assets with relatively low credit risk (OTHER). To the extent that these assets contain credit risk, it is limited and generally not sufficient to cause bankruptcy. Thus, we expect OTHER to explain only a small amount of resolution costs.

¹² See Kormendi *et al.* (1989) or Barth, Bartholomew, and Elmer (1989) for evidence of the impact of tax effects on the cost of FSLIC's 1988 assisted acquisitions.

¹³ See Barth, Bartholomew, and Bradley (1989).

Table 4
Delinquency and Foreclosure Rates
by Type of Loan, 1987

| | 1-4 Family Mortgages | Commercial and Other Real Estate | Construction and Land |
|--------------------------------|-------------------------|-------------------------------------|--------------------------|
| Delinquency Rate (60+ Days) | 2.23% | 9.27% | 17.65% |
| Foreclosure Rate | 1.34% | 3.94% | 8.12% |

Note: All data are published by the Office of Thrift Supervision for all S&Ls reporting in 1987.

Aside from asset-quality problems, insolvent S&Ls often have substantial assets with below-market yields owing to a tendency of thrift managers to sell high-yield (premium) assets to enhance earnings. The effect of below-market yields is measured with YLDCOV, defined as the difference between the annualized yield on interest-bearing assets in the last full quarter reported and the three-month average FHLMC commitment rate for 30-year mortgages during the corresponding quarter. If this difference is small (large), then asset yields are expected to be relatively close to (far from) market yields, and resolution costs low (high). Thus, YLDCOV serves as an index of the degree to which S&L assets are "underwater," and is expected to be negatively related to the resolution costs.

Several studies have found that tax benefits significantly affected the cost of FSLIC's 1988 assisted acquisitions.¹² In general, acquirers are expected to reduce the amount of assistance required from FSLIC if they were permitted to utilize tax benefits from the acquired S&L. For example, required assistance should be less if an acquirer was permitted to "carry forward" prior tax losses of the insolvent S&L to shelter taxable income. To capture the impact of tax effects, a dummy variable, TAX, is introduced that distinguishes resolutions that granted acquirers tax benefits from those that did not. TAX is expected to be negatively related to resolution costs.

In addition to tax benefits, thrift acquirers were most interested in purchasing a viable, profitable franchise.

While core deposits are the primary component of franchise value, acquirers also sought attributes such as good market share, an established customer base, or an effective structure for originating loans. These attributes are found most often in "traditional" S&Ls that emphasized raising funds from core deposits and investing in 1-4 family mortgages. Therefore, a dummy variable, TRAD, is created to measure franchise value by recognizing "traditional" S&Ls. Specifically, TRAD is set equal to one if an S&L has significant core deposits (over 60 percent of assets) and 1-4 family mortgages (over 40 percent of assets), and equals zero otherwise. Thus, institutions with TRAD equal to one may be viewed as relatively traditional S&Ls and expected to have lower resolution costs than nontraditional S&Ls.

A final factor, regional economic variation, is noted here but is omitted from the statistical tests due to data limitations. The proliferation of failed S&Ls in the Southwest region is often cited as evidence that a large portion of the thrift crisis is attributable to the distressed Southwest regional economy. For example, approximately 20 percent of FSLIC's resolutions during the 1980 to 1988 period, representing almost 50 percent of all resolved assets, were in Texas.¹³ Unfortunately, only two of the resolutions in our sample are located in Texas. Also, information is not available regarding the location of assets held by S&Ls, so institutions with losses from out-of-state assets can not be identified. These problems suggest that insufficient data are avail-

able to accurately test for regional problems.

In summary, it is expected that resolution costs are high when an S&L holds large amounts of high-risk assets, mark-to-market losses are high, franchise value is small, and no tax benefits are granted to the acquirer. The importance of regional economic variation is not tested due to data limitations.

Results

The determinants of S&L resolution costs are tested using ordinary least-squares regression analysis (OLS). The dependent variable, NETLOS, is calculated by subtracting the book value negative net worth "hole" that existed at the time of resolution from the total present value cost of the resolution calculated in this study, then dividing by the book value of total assets. When the net worth "hole" is subtracted, the result is the loss on assets remaining in the S&L at the date of resolution, net of any premium the acquirers may have paid (explicitly or implicitly) for franchise value, tax benefits, or other subsidies. Since reserves are added to all variables, the loss variable, NETLOS, is measured gross of reserves, as are all asset variables used to explain NETLOS.¹⁴

The summary statistics in Table 2 show that about 46 percent (\$34.1 billion divided by \$74.5 billion) of the total loss was booked as negative net worth prior to resolution, whereas the remaining 54 percent is from additional losses on assets and liabilities that remain in the S&L at resolution.

The following equation provides the best model of the cost of resolving an S&L based on the determinants previously discussed:

$$\begin{aligned} \text{NETLOS} = & 0.69\text{REO} + 0.73\text{LANCON} + 0.47\text{COMMORT} + 0.48\text{NMORTS} \\ & (3.00)^* \quad (5.38)^* \quad (3.24)^* \quad (2.15)^{**} \\ & - 0.06\text{OTHER} - 1.08\text{YLDCOV} - 0.09\text{TRAD} - 0.13\text{TAX}. \quad (1) \\ & (-0.80) \quad (-2.36)^{**} \quad (-2.03)^{**} \quad (-3.35)^* \\ R^2 = & 0.63 \\ \text{Standard error} = & 0.16 \\ \text{F-statistic} = & 21.54 \end{aligned}$$

The analysis omits a constant term based on the notion that an S&L should have no losses in excess of its net worth "hole" if its right-hand-side variables all equal zero. The coefficients indicate the extent to which the cost of a resolution varies with the asset mix and other factors (t-statistics are in parentheses). For example, the 0.69 coefficient on REO indicates that a one percentage point increase in the percentage of total assets held as REO raises the cost of resolution, as a percent of total assets, by 0.69 percent. A single asterisk next to the REO t-statistic indicates that it is significant at the 99 percent confidence level, which is the highest confidence level typically applied to regression coefficients.

The remaining asset-quality variables perform largely as expected. The loss on the second high-risk asset class, LANCON, is only slightly higher than the REO variable and is significant at the one percent level. The coefficients for the two medium-risk assets, COMMORT and NMORTS, are significant, about the same magnitude (0.47 and 0.48, respectively), and much lower than either of the high-risk asset coefficients, REO and LANCON. The last asset-type coefficient, OTHER, is not significant and very close to zero, -0.06. This suggests that low-risk assets may make little, if any, contribution to losses once market interest-rate effects are accounted for by YLDCOV.

The coefficient for the asset-yield variable, YLDCOV, is significant at the 95 percent level (**), and indicates that a 100 basis point rise in the yield on earning assets reduces resolution costs, as a percent of assets, by 1.08 percent. The coefficient for the traditional S&L variable, TRAD, also has the anticipated sign and is significant at the five percent level. The 0.09 coefficient indicates that the loss on assets, as a percent of assets, is about nine percent smaller in "traditional" S&Ls.

The final variable, TAX, has the anticipated sign and is significant at the one percent level. The coefficient of -0.13 indicates that FSLIC resolution costs, as a percent of assets, were reduced approximately 13 percent in cases where tax benefits were granted to the acquirer. Thus, the analysis suggests that FSLIC appears to have obtained substantial value from the granting of tax benefits. While data were not available on the amount of tax benefits granted, the results nevertheless serve to confirm evidence from Barth, Bartholomew, and Elmer (1989) that FSLIC obtained considerable value from granting tax benefits for resolutions performed in 1988.

The results in equation (1) are generally consistent with the primary hypotheses regarding the determinants of S&L resolution costs. In particular, the results show that asset quality, asset yield, franchise value and tax effects are significant determinants of S&L resolution costs. Assets with small amounts of credit risk (1-4 family mortgages, etc.) fail to explain significant amounts of losses in addition to the amounts explained by the remaining variables.

The equation (1) regression was performed for several sub-samples of resolutions, based on whether the resolution was a liquidation or an assisted acquisition. The results are shown in the first two columns of Table 5, which also shows

¹⁴ The use of gross balances for the NETLOS and asset variables eliminates contamination due to inconsistent reserve policies among S&Ls.

Table 5
Regression Results

| | Liquidation Sub-Sample (1) | Assisted Acquisition Sub-Sample (2) | All Sample Resolutions (3) |
|------------------------------|----------------------------------|--|----------------------------------|
| Independent Variables | | | |
| REO | 0.59 (1.54) | 0.92 (4.06)* | 0.69 (3.00)* |
| LANCON | 0.69 (3.61)* | 0.53 (1.75)*** | 0.73 (5.38)* |
| COMMORT | 0.67 (2.97)* | 0.03 (0.19) | 0.47 (3.24)* |
| NMORTS | 0.47 (1.26) | 0.43 (1.96)*** | 0.48 (2.15)** |
| OTHER | -0.13 (-0.83) | 0.04 (0.62) | -0.06 (-0.80) |
| YLDCOV | -1.00 (-1.34) | -1.02 (-2.12)** | -1.08 (-2.36)** |
| TRAD | 0.04 (0.40) | -0.14 (-4.59)* | -0.09 (-2.03)** |
| TAX | N/A | -0.10 (-3.51)* | -0.13 (-3.35)* |
| Regression Statistics | | | |
| R ² | 0.65 | 0.52 | 0.66 |
| Standard error | 0.21 | 0.09 | 0.16 |
| F-statistic | 13.34 | 7.90 | 21.54 |

Note: The numbers in parentheses below the regression coefficients are t-statistics. A single, double, or triple asterisk indicates that a regression coefficient is significant at the 1-, 5-, or 10-percent level, respectively.

equation (1) as column 3. In general, the sub-sample regressions are consistent with equation (1), but nevertheless exhibit weaker statistical properties. The coefficients for the liquidation sub-sample (column 1) have the same sign and approximately the same magnitude as the coefficients of the combined sample (column 3), but only two are significant. In the assisted acquisition sub-sample (column 2), six of the eight coefficients are significant, but the commercial mortgage variable (COMMORT) is unreasonably low (0.03) and the real-estate variable (REO) unreasonably high (0.92). In contrast, all but one coefficient in the combined sample (column 3) are sig-

nificant and all have reasonable magnitudes.

A final attempt to check the results in equation (1) focused on recognizing a problem, known as sample selection bias, that may affect data on FSLIC resolutions. Sample selection bias occurs when a sample deviates systematically from the true population due to the sample selection criteria. Since FSLIC resolved only a small portion of the backlog of insolvent S&Ls during most of the 1980s (see Figure 3), it is possible that FSLIC's selection criteria bias our results. The possibility of selection bias is therefore important because our goal is to ensure that the results obtained from our sample of S&Ls are

representative of the larger population of all insolvent S&Ls.

A test for sample selection bias is provided in Box 3 in the Appendix. In spite of the more advanced nature of the additional tests, the results do not appear to be qualitatively different from the results presented above. That is, the more advanced techniques used in the Appendix primarily reaffirm the results shown in equation (1). This suggests that, had FSLIC resolved more insolvent S&Ls, and had those S&Ls been included in our sample, the results would not have been materially different than those shown in equation (1).

Conclusions

An asset-based model of S&L resolution costs is developed and applied to a sample of insolvent S&Ls resolved between 1984 and 1987. The model contains five asset classes representing varying levels of credit risk, a variable measuring the relative yield on assets, a variable showing the impact of tax effects, and a franchise variable that distinguishes "traditional" from "nontraditional" S&Ls.

The test results suggest that asset credit risk is the primary determinant of S&L resolution costs. Real estate owned, land loans, and construction loans have the highest risk of loss, while commercial mortgages, multi-family mortgages, and non-mortgage loans have lower, but nevertheless significant, risk of loss. Nontraditional S&Ls, that is, those with few core deposits and single-family mortgages, also are shown to have higher resolution costs than S&Ls with high core deposits and substantial single-family mortgages. Finally, resolution costs are found to have been reduced as a result of granting acquirers tax benefits from the acquired insolvent S&L.

APPENDIX

BOX 1

Cash Flows of Liquidations vs. Assisted Acquisitions

Liquidations and assisted acquisitions have dramatically different cash flows and, hence, funding characteristics. In a nutshell, a liquidation requires much more up-front cash than an assisted acquisition because a large initial outlay is required to pay-off insured depositors. Once the insured depositors are satisfied, cash inflows are received from the sale of the institution's assets. In a sense, a depositor payoff is similar to an investment, a portion of which is paid back with income from the sale of assets.

Income from asset sales occurs over a period of years. Investment securities and performing loans with good documentation can be sold relatively quickly. Nonperforming loans, real estate, loans with poor documentation and other bad assets may not be sold for several years after the initial depositor payoff. Sales may take longer in depressed regions or if the asset is severely distressed. Asset sales also may be delayed by lawsuits or legal encumbrances on assets.

Assisted acquisitions typically require much less up-front cash than liquidations because assets are transferred to the acquirer. The transfer of assets at acquisition reduces up-front cash by avoiding the need to wait for income from future asset sales. If large amounts of assets are transferred to the acquirer, then the up-front cash required from the insurer is small. So-called "whole bank" acquisitions transfer all assets, thereby minimizing the need for up-front cash and eliminating the need for FSLIC to dispose of assets later.

The cash flow impact of alternative types of resolutions can be illustrated by imagining an insolvent S&L with \$100 million of assets backed by a similar amount of insured deposits. Liquidation begins with a deposit payoff of \$100 million, all of which

must be paid in cash at the start of resolution. The liquidation proceeds by generating income from asset sales over a period of years. An ultimate net loss of \$40 million might result if the assets are sold for \$70 million, and an additional \$10 million in financing and administrative expenses are incurred.

In contrast to a liquidation, a "whole bank" assisted acquisition might transfer assets at a value of \$60 million along with the \$100 million of deposits. The result is a \$40 million up-front cash payment from the insurer to the acquirer instead of the \$100 million required by the liquidation. In this example, both deals ultimately cost the insurer \$40 million.

Limits on the availability of cash to fund resolutions can affect which resolution method is chosen. Limits may force the insurer to avoid liquidating firms that ought to be liquidated, especially if a troubled institution is large. It is natural to consider that many assisted acquisitions might be arranged for the same amount of cash required by only one large liquidation. The structure of assisted acquisitions also can be affected. In particular, assistance that replaces up-front cash payments with interest subsidies and guarantees becomes an appealing alternative to "clean" deals that require only cash. Thus, limits on cash to fund resolutions mire the resolution decision when the resolution would strain the deposit insurer's cash resources. Conversely, easy access to funds allows the insurer to focus on resolving insolvent institutions at the lowest cost.

BOX 2

History of RTC Resolution Transactions

The RTC has, from its inception, set strict case-resolution guidelines that preclude the type of open-ended assistance agreements characteristic of the earlier FSLIC era. The RTC limits risk by avoiding guarantees

and/or promises to cover future losses on sold assets, yields on nonperforming assets, and other guarantees common in FSLIC agreements.

Within the constraints of strict limits on RTC guarantees, the RTC has nevertheless experimented extensively with alternative types of resolution transactions. The RTC initially attempted to sell institutions as close to "whole banks" as possible in order to preserve cash and to return assets to the private sector as quickly as possible. The RTC attempted to provide flexibility by allowing bidders to submit bids for a variety of transactions, such as agreements to transfer only clean assets and liabilities, or to transfer only deposits and a minimum amount of assets, such as branch offices and computer systems. In the first six months the RTC also began experimenting with asset "put" and "call" options that were limited to no more than a six-month term.

One problem with the initial RTC approach is that it resulted in substantial delay due to the need for bidders to perform asset reviews or due diligence. The time required for due diligence delayed sales but generally failed to increase the amount of assets transferred to acquirers. Acquirers consistently showed interest in deposits and branches but had little interest in risky assets, even after significant expense for due diligence.

The RTC responded to the sluggish pace of resolutions in March 1990 by offering expanded put and call options on bad and/or risky assets. The new program allows bidders to bid for only "clean banks" under a standard purchase-and-assumption transaction. The "clean bank" transaction generally transfers all deposit liabilities, secured borrowings, and "clean" assets, such as investment-grade securities, performing 1-4 family mortgages, and consumer loans. In addition to the clean bank alternative, investors can bid on an "extended purchase-and-assumption transac-

tion," receiving put and call options to purchase clean assets as well as a variety of risky assets, such as performing commercial loans, performing multi-family loans, nonperforming loans, and foreclosed real estate. These options give acquirers the right, but not the obligation, to purchase risky assets for periods extending from 15 days to 18 months.

The revised program reduces the need for due diligence prior to an assistance agreement. That is, put and call options enable bidders to delay much of their due diligence until after acquisition, thereby reducing the time required for asset reviews prior to acquisition. Bidders who have no interest in risky assets save up-front expense by simply leaving all questionable assets with the RTC after acquisition. Bidders with some interest in risky assets perform more extensive asset reviews immediately after acquisition.

BOX 3

Adjusting for Selection Bias

Sample selection bias occurs when a sample deviates systematically from the true population due to the sample selection criteria. The problem of selection bias applies to FSLIC resolutions because FSLIC was only able to resolve about 30 percent of its backlog of insolvent S&Ls during the 1984-1987 period. Moreover, FSLIC stretched its limited funds by resolving only exceptionally distressed insolvent S&Ls as liquidations, and relatively "clean" insolvent S&Ls as assisted acquisitions. Given that FSLIC chose S&Ls for resolution in a non-random manner, the coefficients produced by the classical regression model (OLS) may be biased estimators of the true loss coefficients.

Sample selection bias can be dealt with by applying a two-stage econo-

metric procedure first developed by Heckman (1976).¹⁵ The first stage attempts to identify sample selection bias by using a probit analysis to "explain" the sample selection process. In the case of FSLIC resolutions, probit is used to explain FSLIC's criteria for selecting insolvent S&Ls for resolution. The second stage then uses information from the first stage to adjust for bias in an OLS analysis of the determinants of S&L resolution costs.

The first stage of the two-stage Heckman (1976) procedure begins by treating FSLIC's resolution choice as a binary variable. Specifically, a resolution-choice variable (RESOLVED) is created that equals one if an insolvent S&L was resolved by FSLIC, and zero otherwise. The binary variable is then "explained" with two variables that relate to the factors FSLIC may have considered when choosing an S&L for resolution. The two variables are non-interest operating expenses in the quarter prior to resolution (OPEXP) and the yield on thrift liabilities (COF) for the same quarter. The hypothesis motivating these variables is that FSLIC attempted to resolve S&Ls with high operating expenses and high funding costs regardless of whether the resolution was a liquidation or an assisted acquisition. This hypothesis predicts that the probability of FSLIC resolution is positively related to OPEXP and COF.

The first stage of the two-stage Heckman (1976) procedure is applied to a sample of 475 insolvent S&Ls. The binary choice variable equals one for the 97 resolutions in our sample, and zero for 378 insolvent S&Ls that remained unresolved at the end of 1987.¹⁶ The results of the first-stage test are shown below.

Stage 1: Probit Results

$$\text{Resolve} \setminus \text{Not Resolve} = -6.55 + 22.84\text{OPEXP} + 275.62\text{COF}$$

$$(-10.06)^* \quad (2.55)^* \quad (8.75)^*$$

$$\text{Log-likelihood} = -187.02$$

$$\text{Chi-square} = 106.84$$

These results confirm a significant positive relationship between high operating expenses, high cost of funds, and the probability of resolution by FSLIC.

The second stage of the Heckman (1976) procedure uses a variable, LAMBDA, generated from the first-stage probit in an otherwise standard OLS model. LAMBDA captures information that helps predict the selection process of individual observations. LAMBDA becomes small if the selectivity problem is negligible, and large if it is significant. A small LAMBDA suggests that OLS coefficients are reliable. In essence, LAMBDA serves to correct the standard OLS regression for selection bias, so the OLS coefficients remain largely unchanged if the bias is small.

The following are the results of the second stage of the Heckman (1976) procedure as applied to the simple OLS regression discussed in the text.

Stage 2: OLS Results

$$\text{NETLOS} = 0.68\text{REO} + 0.73\text{LANCON} + 0.48\text{COMMORT} + 0.47\text{NMORTS}$$

$$(5.50)^* \quad (2.95)^* \quad (3.37)^* \quad (2.07)^{**}$$

$$- 0.02\text{OTHER} - 0.07\text{TRAD} - 0.89\text{YLDCOV} - 0.14\text{TAX} - 0.006\text{LAMBDA}$$

$$(-0.34) \quad (-1.81)^{***} \quad (-1.98)^{**} \quad (-3.50)^* \quad (-0.23)$$

$$\text{Adjusted } R^2 = 0.46$$

$$F\text{-statistic} = 11.33$$

It is noteworthy that the results from the second-stage OLS model are very similar to the results from the simple OLS model. In particular, the magnitudes and signs of the coefficients vary little between the two equations although some of the t-statistics decline slightly. The coefficient on LAMBDA, the selection bias variable, is very small and not significantly different from zero. The relatively small change in the coefficients, and the insignificant LAMBDA, suggest that the

¹⁵ See Maddala (1983) for a more extensive discussion of Heckman's two-stage procedure.

¹⁶ The adjustment procedure uses a software package, LIMDEP Version 5, developed by William Green in August 1988.

selection bias in our sample of 97 FSLIC resolutions may have had little effect on the simple OLS results.

As a final note, the reader should bear in mind that many of the 378 unresolved insolvent S&Ls used in the probit analysis were later resolved

by FSLIC in 1988. Thus, the question of selection bias remains for any application of the results to the current caseload of the RTC.

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Summary of Proceedings International Conference on Deposit Insurance and Problem-Bank Resolution Policies

by Alane K. Moysich*

This conference was convened by the FDIC on September 26, 1990, for the purpose of discussing issues related to the operation of deposit insurance systems and government policies for intervention in problem-bank situations. Officials from countries represented at the Basle Committee on Bank Supervision, the Commission of European Communities, and national banking associations were invited to share their experiences and concerns regarding the provision of national safety nets, and to consider whether there is a need to coordinate these policies on an international level.

From the U.S.'s perspective, this meeting was especially timely in light of the current debate on deposit insurance reform and restructuring of the U.S. banking industry. International bankers, in particular, were asked to share their views on the American Bankers Association's proposal to change failure-resolution procedures in the U.S. Other areas of interest included the future of deposit insurance programs and problem-bank resolution policies in the post-1992

European Community and, more generally, how national bank regulators can best maintain safe-and-sound financial systems in a global marketplace.

The conference was divided into four panel discussions. The morning session, which concentrated on government policies for problem-bank resolutions, was restricted to government officials to facilitate private dialogue. Banking industry representatives were invited to share their views during the afternoon session, which concluded with a discussion of prospective trends in deposit insurance and problem-bank resolution policies.

Panel I

The first panel discussion centered around the role that governments should play when confronted with problem-bank cases. Of particular concern was how confidence in the banking system can be maintained without unduly eroding market discipline and whether there are indeed banks that are "too big to fail."¹ Panel members were central bankers who have had considerable experience dealing with these issues. They in-

cluded: William Taylor, Director, Division of Banking Supervision and Regulation, Board of Governors of the Federal Reserve (moderator); Johann Wilhelm Gaddum, Member of the Directorate, Deutsche Bundesbank; Tadayo Homma, Director, Financial and Payment System Department, Bank of Japan; Huib Muller, Executive Director, the Nederlandsche Bank and Chairman of the Basle Supervisors' Committee; and Brian Quinn, Executive Director, Bank of England.

There was general agreement among the panelists that bank supervision and adequate capital levels are the first lines of defense against bank failures. Some panelists expressed a desire to see capital standards increased above the current Bank for International Settlements' (BIS) guidelines which require banks to

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¹ "Too big to fail" is imprecise shorthand for "too big to allow depositors to suffer losses." A situation in which a large bank fails but depositors are protected fully is thus consistent with the application of a "too big to fail" policy.

have equity capital, subordinated debt, and other reserves equivalent to eight percent of weighted-risk assets by year-end 1992. However, panelists also agreed that in free-market economies, bank failures can, and indeed should, occur. All panelists acknowledged at least several recent examples of bank failures or, in some cases, government-sponsored rescues, in their respective countries. Most insolvencies or near-insolvencies were resolved *via* bailout or merger; liquidations typically were limited to small, local depository institutions.

While the possibility of bank failure was viewed as a necessary market-discipline tool, panel members stressed the need to retain flexibility in resolving problem-bank cases. The prevailing view was that decisions on how to handle a particular crisis involve each situation's unique causes and effects and, therefore, cannot be prescribed in advance. One panelist noted that in his country, judgments regarding problem-bank resolutions are based on the net benefit to the community, not just on narrow financial calculations. Threats of contagion due to direct links to the failed bank, or to a general loss of confidence in

institutions performing similar functions, were cited as factors favoring a decision to provide official support.

Panelists acknowledged that there may be banks that are too big to fail, simply because large banks often are important components in a nation's payments system and, thus, the failure of a major bank could tie up much of an economy's working capital. At the same time, however, panelists stressed that "too big to fail" should not be accepted as public policy. If that were the case, however, then those benefitting should be forced to pay in the form of more-demanding supervision or greater prudential requirements. Moreover, panelists cited cases where government rescues were mounted for nonbanking companies that were considered too big to fail, as well as for small banks that were considered too important to fail. It was noted, however, that even if support is given, penalties should be imposed on managers, owners, and investors. Thus, in the words of Brian Quinn of the Bank of England, while a bank may be too big to fail, it is never "too big to suffer."

Panelists firmly agreed that the focal point in failure-resolution deci-

sions is the trade-off between maintaining public confidence in the financial system and preserving a degree of market discipline; thus, most regulators preferred taking prompt corrective action prior to a bank's actual insolvency. It was noted that overly-generous deposit insurance programs give rise to the so-called moral hazard problem, or excessive risk-taking by insured financial institutions. However, there was less agreement on the effectiveness of market discipline in controlling the risk-taking activities of banks. One panelist's view was that today's markets are not fully aware of the competitive environment in which banks operate and, therefore, need to face the consequences of a failure in order to be made aware of the new risks. Another panelist argued that while market discipline should be encouraged, it cannot be relied on exclusively due to the conflicting goal of maintaining financial stability. Additionally, it was noted that political forces sometimes may be brought to bear against the decision to allow depositors to lose money.

Deposit insurance funds or guarantee programs were seen by most panel members as supplemental tools to protect the small saver and to aid general financial stability when a bank is declared insolvent. Several panelists noted that the U.S. federal deposit insurance system is far more extensive than its European or Japanese counterparts. For example, individual limits on deposit insurance coverage in Great Britain and the Netherlands are rather low, while Germany's deposit insurance fund, which covers each depositor up to 30 percent of the bank's equity capital, does not cover interbank deposits and is run entirely by the banking industry. Hence, it was suggested that in Germany the government is not perceived to be the ultimate insurer of commercial bank deposits.

Direct comparisons of deposit insurance coverage among various countries are difficult, however, due

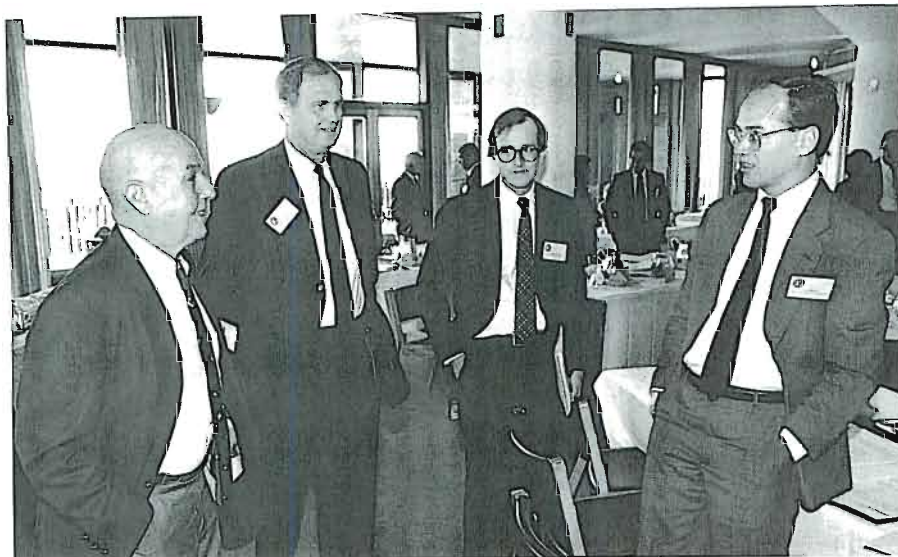


FDIC Director C.C. Hope, Jr. (far left) greets William Taylor of the Federal Reserve (left); Huib Muller, Chairman of the Basle Committee on Banking Supervision (center); and Johann Wilhelm Gaddum of the Deutsche Bundesbank (right). Photo: Rick Bloom

to differences in national banking structures and safety-net arrangements. For example, the U.S. does not have any government-owned banks which, by definition, cannot fail, or a postal savings system in which the government explicitly guarantees principal and interest. Additionally, many countries tend to rely on failure-prevention methods, including direct capital injections, government acquisition of nonperforming assets, nationalization of troubled banks, provision of liquidity through central banks or with industry support ("lifeboats"), and government-assisted mergers. As a result, costs which in the U.S. are incurred by the FDIC are incurred in these countries by the central bank, the finance ministry, or a consortium of banks.

The need to maintain flexibility in problem-bank resolution policies, particularly with respect to the lender-of-last-resort policies of central banks, has been referred to as "constructive ambiguity" by E. Gerald Corrigan, President of the Federal Reserve Bank of New York, who believes it is a necessary force countering the moral hazard problem inherent in the provision of financial safety nets. While panelists agreed that "constructive ambiguity" is an appropriate policy for central bankers, several expressed a desire to revisit the Basle Concordat,² which spells out the responsibilities for supervision of international banks and banking groups, but does not directly address policies for dealing with the resolution of international bank failures. They noted that while it might not be desirable to suggest that a particular central bank will always act as lender of last resort, it is important to determine just which central bank is

² In December 1975, the central bank governors of the Basle Committee on Bank Supervision approved a group of broad guidelines for the division of responsibilities among national authorities governing the supervision of foreign banking establishments. These guidelines, which were later revised in 1983, became known as the "Basle Concordat."



Conferring during a break in the proceedings are (from left): FDIC Chairman L. William Seidman; Vice Chairman Andrew C. Hove, Jr.; George E. French, Chief of Research's Financial Markets Section and Editor, *FDIC Banking Review*; and Arthur J. Murton, Associate Director, Division of Research and Statistics.
Photo: Rick Bloom

responsible for deciding whether to intervene in a problem-bank situation. Several panelists suggested that a serious gap currently exists between the globalized nature of financial markets and the decentralized structure of central banks. Moves to bridge this gap during non-crisis times would save valuable time and help to ensure that financial stability is maintained in the event of an international bank failure.

Panel II

The second panel discussion focused more specifically on the role of deposit insurance programs. Panelists were asked to comment on their own country's philosophy regarding the protection of depositors and the rescue of insolvent banks, as well as the role deposit insurance plays in maintaining stability within their banking systems. This panel was moderated by Paul Fritts, Director of the FDIC's Division of Supervision. Speakers were drawn from countries that have a variety of mechanisms for dealing with deposit protection. They included: Monique Dubois, Assistant Director, Economic Studies Section, Swiss National Bank; Pierre Dubois, Director, Belgian Banking Commission; Ronald A. McKinlay, Chairman,

Canada Deposit Insurance Corporation; and, Robert Ophele, Representative, Banque de France.

Of the four foreign countries represented on this panel, the government of Switzerland appeared to be the least actively involved in bank-failure resolution issues. Although regulation and supervision are the principal mechanisms to prevent bank failures, the Swiss banking industry itself plays an important role in maintaining a sound financial system by establishing codes of conduct for member banks that supplement regulations imposed by Swiss banking legislation. One example is the joint guarantee of savings deposits at insolvent institutions which was agreed upon in 1984 in lieu of a legalized deposit insurance program. This guarantee (up to 30,000 Swiss francs) supplements the Swiss depositor preference law in which certain deposits receive a priority claim in the case of bankruptcy. In the past, most failed Swiss banks were taken over by other banks; however, since the 1984 deposit guarantee agreement there have been no failures and thus, the guarantee has never been used.

The Association of French Banks (AFB) also operates a loss-sharing

CONFERENCE PROGRAM

Morning Session

(Government Officials Only)

8:30 a.m. *Continental Breakfast*

9:00 a.m. *Opening Remarks* - L. William Seidman, Chairman, FDIC

9:15 a.m. Panel I: Policy Issues Surrounding Problem-Bank Resolutions and Their Impact on the Stability of Financial Markets

Moderator - William Taylor, Director, Division of Banking Supervision and Regulation, Board of Governors of the Federal Reserve

Speakers - Johann W. Gaddum, Member of the Directorate of the Deutsche Bundesbank
Tadayo Homma, Director, Financial and Payment System Department, Bank of Japan
Huib Muller, Executive Director, The Netherlands Bank
Brian Quinn, Executive Director, The Bank of England

10:30 a.m. Break

10:45 a.m. Panel II: The Role of Deposit Insurance Programs in Financial Systems

Moderator - Paul G. Fritts, Director, Division of Supervision, FDIC

Speakers - Monique Dubois, Assistant Director, Economic Studies Section, Swiss National Bank
Pierre Dubois, Director, Banking Commission, Belgium
Ronald A. McKinlay, Chairman, Canada Deposit Insurance Corporation
Robert Ophele, Representative, Banque de France

Afternoon Session

(Government Officials and Private Bankers)

12:15 p.m. *Luncheon* - Executive Dining Room

1:30 p.m. *Opening Remarks* - L. William Seidman, Chairman, FDIC

1:45 p.m. Panel III: Banking Industry Perspective on Deposit Insurance and Government-Sponsored Safety Nets

Moderator - C.G. ("Kelly") Holthus, President, American Bankers Association

Speakers - Piero Barucci, Chairman, Italian Bankers Association
Toru Hashimoto, Deputy President, Fuji Bank, Ltd.
Thomas S. Johnson, President, Manufacturers Hanover Trust Company
G. Malcolm Williamson, Group Executive Director, Standard Chartered Bank

3:00 p.m. Break

3:15 p.m. Panel IV: Where Do We Go from Here? International Trends in Problem-Bank Resolution Policies

Moderator - Paul A. Volcker, Chairman, James D. Wolfensohn, Inc.

Speakers - Masahiro Akiyama, Deputy Director General, Banking Bureau, Japanese Ministry of Finance
Robert Glauber, Under Secretary of Finance, U.S. Treasury Department
Paolo Clarotti, Head of Division, Banks and Financial Establishments, Commission of European Communities
Harry Walsh, Under Secretary, Her Majesty's Treasury

agreement among all commercial banks operating in France. Deposit protection is limited to approximately \$75,000 per person, with a yearly cap on total industry payouts. Only personal deposits held in French francs are insured; specifically excluded are foreign-currency deposits, interbank funds, and funds with "abnormally high rates of remuneration." Losses are shared according to each bank's market share, although smaller banks pay a larger percentage of their deposit base than do larger banks. This arrangement primarily is designed to protect small banks; the yearly cap precludes payouts of even a medium-sized bank. Additionally, the governor of the Banque de France legally may request that French banks participate in assisting the rescue of a troubled institution, as was the case with the 1987 rescue of Al Saudi Bank.

In contrast to the industry-sponsored Swiss and French deposit guarantee programs, Belgium has a deposit protection fund which is managed by the Rediscount and Guarantee Institute, an organization which has close ties to the central bank. Annual contributions are 0.02 percent of covered liabilities, which are limited to deposits in Belgian francs, up to \$15,000 per person. The deposit protection fund may contribute to the liquidation of an insolvent bank, to financial rehabilitation, or to the complete or partial takeover of the activities of a member bank, providing that such interventions would be less costly than a payoff. However, the fund has no receivership capacity and interventions are limited to the total amount of the fund. These constraints do not appear to concern the Belgian public, mainly because the three largest banks control 76 percent of covered deposits and thus, according to the Belgian representative, Pierre Dubois, it is perceived that they would not be allowed to fail.

Of the four countries represented on this panel, the Canada Deposit Insurance Corporation (CDIC) has powers most similar to those of the

FDIC, including the ability to acquire assets from member institutions and to act as receiver of a failed bank. Additionally, the CDIC is empowered to borrow up to \$3 billion from the consolidated revenue fund, if necessary. Annual premiums are currently 0.1 percent of insured deposit liabilities. Each deposit is insured up to \$60,000 in Canadian funds, with maturities not exceeding five years. The CDIC has handled over 20 bank failures since its inception in 1967 and strongly favors going-concern problem-bank resolutions over more-costly liquidations. Additionally, Chairman McKinlay noted that once an institution is known to be in financial difficulty, confidence is lost and rehabilitating the institution becomes nearly impossible. Therefore, the CDIC actively is engaged in a program to develop standards of sound business and financial practices, whose purpose is to preclude problems from developing. Similar to most European countries, Canada has a highly concentrated banking system, with about ten institutions controlling over 75 percent of deposits. This high degree of concentration was cited as a significant contributing factor to the country's ability to avoid losses of the magnitude of the U.S. savings and loan crisis.

Panel III

This panel was designed as a forum for international bankers to express their views on deposit insurance and other government-sponsored safety nets. Issues addressed included the relationship between the private and public sectors in the provision of deposit insurance and decisions or actions concerning problem banks, the competitive effects of different deposit insurance systems, and the American Bankers Association's proposal (which would mandate an automatic loss for uninsured depositors) and other ideas to reform the U.S. deposit insurance system. The panel moderator was C.G. ("Kelly") Holthus, President of the American Bankers Association. The speakers

included: Professor Piero Barucci, Chairman of the Italian Bankers Association; Toru Hashimoto, Deputy President, Fuji Bank, Ltd., Tokyo; Thomas S. Johnson, President, Manufacturers Hanover Trust Company, New York; and G. Malcolm Williamson, Group Executive Director, Standard Chartered Bank, London.

Several panelists expressed the view that private banks, and their managers, play an important role in maintaining public confidence in the safety and soundness of financial systems. How this is accomplished varies from country to country and several interesting differences were apparent. For example, during Great Britain's "fringe" banking crisis in the 1970s, all banks stepped in to prevent a general loss of confidence spreading throughout the financial system. This procedure was in keeping with the informal nature of the British banking system whereby a close working relationship between bankers and their supervisors at the Bank of England takes the place of many written regulations.

Japanese bank managers also take seriously their responsibility for maintaining public confidence in the financial system. However, in contrast to Great Britain where the supervisory style was characterized as being by "hint and nod," Japanese law emphasizes the public nature of banks and supervision is very strict. Although Japan has a government-sponsored deposit insurance system, it is rarely used and problem banks are either helped financially and managerially by other banks, or sold or merged into another bank.

In Italy, political pressure, stemming from the belief that bank crises should be borne by the banking system itself, led to the creation in 1987 of the Interbank Fund for the Protection of Deposits. Membership is voluntary, and member banks are legally bound to maintain certain balance-sheet ratios. Interventions by the Fund must be approved by the central

bank which is represented at its board meetings. In cases of liquidation, deposits are fully insured up to approximately \$170,000 with an additional \$675,000 covered at the rate of 75 percent. If less-costly than paying off deposits, the Fund also may assist in transferring the failed bank's assets and liabilities to another institution. Alternatively, the Fund may provide support to the ailing bank itself, under the following conditions: (1) the institution has been placed under special administration by the Bank of Italy; (2) the financial assistance must be less-costly than the estimated cost of paying off depositors in the event of liquidation; and, (3) there must be prospects for the bank to be restored to sound and viable condition.

There was general agreement among the foreign representatives that the current U.S. federal deposit insurance system and bank-failure resolution policies create a moral hazard problem that is not prevalent in other countries. However, most panelists agreed with the position that deposit insurance reform must extend beyond the federal safety net and address structural changes in the banking industry, particularly interstate branching laws. Several bankers noted that the ability to diversify risk geographically would enhance the efficiency and profitability of U.S. banks and, therefore, strengthen their performance at home and improve their international competitiveness. Stronger banks would attract new capital and facilitate an orderly and efficient consolidation of the U.S. banking industry.

Bankers on this panel expressed thoughts similar to those offered by government representatives during previous panels, with respect to the combined roles of market discipline and regulatory attentiveness in maintaining bank safety and soundness. Additionally, 100 percent deposit insurance coverage, either for all banks or only for those banks deemed too big to fail, was viewed by panelists as an inappropriate government policy.

In general, foreign bankers agreed with the American Bankers Association's position that more market discipline is needed to minimize the potential costs of deposit insurance or other financial system safety nets.

During the ensuing discussion, some representatives expressed reservations about the ABA's proposal to treat each failed bank in a manner that automatically subjects uninsured depositors and unsecured creditors to a percentage loss based on the FDIC's average receivership loss rate. One discussant suggested that this concept was incompatible with denouncing "too big to fail," since it actually guarantees depositors *more* than the stated insurance limit of \$100,000. In addition, the proposal's intended effect could be subverted by politicians who, in some instances, might decide to reimburse depositors in full anyway. In general, foreign bankers favored regulatory flexibility over passage of any law in their own countries that would impose fixed problem-bank resolution techniques.

Finally, panelists were queried regarding the reaction of the international financial community if the U.S. were to impose losses on depositors in a large bank. One panelist expressed skepticism that such an event would ever occur, except under the most extraordinary circumstances. Others felt that any foreign bank doing business with the failed bank should be prepared to accept the consequences of their decision. At the same time, panelists noted that such a failure probably would cause foreign banks to re-evaluate the creditworthiness of all American banks.

Panel IV

The final panel served to summarize some of the earlier discussions and to address future trends in deposit insurance and problem-bank resolution policies. In particular, panelists were asked to focus on what kinds of international coordination of safety nets will be needed in the future, and

how much standardization, if any, will be necessary. The panel moderator was Paul A. Volcker, Chairman of James D. Wolfensohn, Inc. and former Chairman of the Board of Governors of the Federal Reserve. Speakers included: Masahiro Akiyama, Deputy Director General, Banking Bureau, Japanese Ministry of Finance; Paolo Clarotti, Head of Division, Banks and Financial Establishments, Commission of European Communities; Robert Glauber, Under Secretary of Finance, U.S. Treasury Department; and Harry Walsh, Under Secretary, Her Majesty's Treasury, Great Britain.

Mr. Volcker noted that while a wide diversity of banking systems and safety-net arrangements exist, a remarkable degree of agreement on the nature of the problems surrounding deposit insurance and bank-failure resolution policies was expressed by the various representatives. This common understanding, which was not evident in international settings as recently as a decade ago, was seen as one indication that alignment of the various banking systems already may be occurring. Although most representatives from outside the U.S. had expressed satisfaction with the current structure and operation of their own domestic banking systems and regulatory mechanisms, this panel speculated on how well these systems will perform in the long run.

Observing that international bank safety and soundness begins with domestic financial systems, one panelist noted that regulators in his country are closely monitoring the effect that interest-rate deregulation will have on the future stability of the domestic banking market. This uncertainty has led authorities there to focus their efforts on prevention of failures, a strategy preferred by a number of countries to contain the costs of deposit insurance. While this approach has great merit, it was recognized that the style of bank supervision of an individual country depends on a number of factors including the degree to

which the financial industry is developed, its legal system, and even the social climate or national character.

It has been noted that the U.S. system of federal deposit insurance is virtually unique in that, although statutorily limited in the amount of coverage provided, the FDIC has authority to extend *de facto* coverage through its powers to arrange purchase-and-assumption transactions, financially-assisted mergers, or to provide direct assistance to banks. These tools, the need to handle bank insolvencies in the least-costly manner, and several well-publicized rescues of large banks in recent years have contributed to a widespread belief in the U.S. that uninsured depositors will only suffer losses in the failure of small banks. This belief has raised competitive concerns among commercial banks in the United States and also has led to concern that equity considerations may result in the FDIC extending *de facto* 100 percent deposit insurance coverage to all banks.

This panel suggested that there are really two issues raised by the "too big to fail" debate, only one of which can be dealt with through legislation. All panelists recognized that there are times when a particular bank failure could lead to a general loss of confidence in the system. These genuine cases of unacceptably high systemic risk, which are not limited to large banks, are the foundation for the argument in favor of "constructive ambiguity," or the maintenance of regulatory flexibility.

It is the other component which Mr. Glauber argued that the U.S. should try to change: that is, discrimination in the treatment of uninsured deposits at large *versus* small banks present in the current failure-resolution procedures. While the U.S. should not move towards a system where failures are prevented, it was suggested that an appropriate long-run strategy might be to restructure the relationship between the financial

institution and its regulator. This would include restructuring the U.S. financial system to allow banks to adapt to new lines of business, as advocated by a number of bankers on the third panel. At the same time, appropriate firewalls should protect insured deposits from the riskiest activities and to allow supervisors to focus more attention on the bank itself, and less on the holding company structure. These measures, designed to limit the safety net, could reduce both the number of institutions requiring resolution and the number of cases where a purchase-and-assumption transaction is justified and, ultimately, return deposit insurance to its historical purpose of protecting small depositors.

Other ideas mentioned by panelists to reduce the U.S. safety net included limiting deposit insurance to natural persons rather than companies, excluding brokered deposits from insurance coverage, and reducing individual coverage limits. Risk-related deposit insurance was mentioned by one panelist, who felt it would only be marginally-effective given appropriate risk-related capital requirements and supervisory arrangements that ensure enforcement of prudential standards.

With respect to the convergence of international safety nets, the experience of the European Community (EC) provided a fruitful area for discussion. The majority of EC countries established deposit insurance programs following the Commission of European Communities' 1986 recommendation, although it was noted by Mr. Clarotti that these programs share few common characteristics. With passage of the Second Banking Directive in December 1989, it became clear that deposit insurance programs that require branches of foreign banks to join the local system are incompatible with the principle of home country control for banking supervision set forth in the Directive.

Therefore, the Commission has decided that it will establish certain basic guidelines for harmonization of the individual deposit insurance programs. It is expected that these minimum standards will not legislate uniformity among the systems, but rather allow the EC countries flexibility in deciding how their deposit insurance systems are established and operated. Panelists expressed the opinion that these different systems can co-exist successfully in the post-1992 environment if small depositors continue to use domestic banks and if protection is limited to individuals and not extended to financial institutions themselves. However, further harmonization might be required if banks begin holding foreign-currency deposits for small depositors or if the mechanics of a particular insurance program give rise to a competitive edge.

Harmonization of deposit insurance and other safety-net arrangements on a world-wide basis was not envisioned as necessary or desirable in the near future. Not only was such an attempt thought to be politically unrealistic, but also nearly impossible given the vast differences that currently exist in regulatory structures, safety-net provisions, and bankruptcy laws. However, as globalization of financial markets proceeds, panelists felt that there most likely will be further alignment by way of increased communication and cooperation among regulators. Familiarity with one another's supervisory styles was seen to be important for banks operating across borders and for regulators who will need to anticipate a given country's reaction in a crisis situation. Additionally, it was noted that the insurance status of deposits in foreign banks or branches is one area of inconsistency that should be clarified. However, the point was made that regardless of the pace or future degree of international safety-net convergence, reform of the U.S. banking industry and deposit insurance system should proceed as soon as possible.

Summary

The purpose of this meeting was to convene policy-makers and private bankers from the major industrialized nations to share their thoughts and concerns regarding financial system safety nets in the context of a global marketplace. Much was learned about the vast differences among the various banking systems, but common goals also were found to exist. Chief among these were the desire to preserve the stability and integrity of national banking systems and to provide mechanisms that protect the small, unsophisticated saver. All representatives expressed a desire to work together to ensure that these goals are met in the event of an international bank failure.

Several speakers felt that the discussions should not be limited to the "too big to fail" doctrine, or even to failure-resolution methods in general. It was noted that some portion of the value of a bank's assets is lost when the institution becomes insolvent or is known to be in trouble. Thus, a number of regulators expressed a desire to continue efforts to strengthen capital standards, while all stressed the need for strong and effective supervisory procedures to limit the number of bank failures.

One of the major themes expressed throughout the day was the need for bank regulators to have at their disposal a wide variety of mechanisms to deal with actual or potential insolvencies at financial institutions. Moreover, regulators need the flexibility to use these measures on a case-by-case basis. It may be concluded from the discussions that attempts to have bank-failure resolution policies cemented into law in the United States would not be copied by other countries.

The desire to retain a measure of "constructive ambiguity" in failure-resolution policies was prevalent in discussions on "too big to fail." While several speakers acknowledged that imposing losses on depositors in the

failure of a major bank could provide a number of unacceptable public-policy choices for regulators and politicians, none was prepared to advocate a "too big to fail" doctrine, and a few speakers expressed dismay that this subject has even been discussed in public. In general, it was felt that in order to encourage market discipline, no bank should be considered too large to fail; if a situation dictates that it is in the public interest to provide official support to an ailing financial institution, then the means should be available to impose penalties on its owners, investors, and managers.

It was shown that several countries have viable deposit insurance funds or guarantee programs run entirely by the private banking sector, or in conjunction with the central bank. For the most part, however, these exist in countries where few bank failures have occurred, where penalties for mismanagement are severe, and where the banking industry is concen-

trated enough for banks to be diligent about self-policing. Additionally, there was the general perception that the relationship between bankers and their regulators is much closer in many countries than in the U.S. and, in some cases, independent auditors play an important examination role.

While there were some representatives who expressed a desire for increased coordination of international safety-net policies, it was generally felt that convergence of these policies is neither necessary nor desirable at this time. However, there were two areas that conference participants thought required clarification in the near future. The first was the allocation of responsibility among international financial regulators for problem-bank intervention decisions that may affect more than one country. This would include a clear understanding as to which is the lead authority in a given situation, who else may be involved, and what effects a

decision will have on other countries. The second area in need of clarification is the insurance status of deposits in foreign bank subsidiaries or branches. As a result of the current disparity in deposit insurance systems, some deposits may be covered by more than one program while others remain uninsured.

In summary, this conference highlighted the need for international financial regulators to continue to communicate and to share information with each other as banking markets continue to undergo change. Each country is faced with the prospect of adapting national banking systems and supervisory styles to a globalized financial marketplace. Technological change and the trend toward multi-function financial conglomerates ensure that the need for international cooperation and coordination will become even more critical in the future.

Recent Developments Affecting Depository Institutions

by Benjamin B. Christopher*

Regulatory Agency Actions

Federal Deposit

Insurance Corporation

Capital Maintenance

The FDIC issued a proposal for public comment to correlate the agency's "leverage capital requirements" for banks with the existing risk-based capital framework. The proposed standards would affect the commercial banks and savings banks that the FDIC supervises, and other depository institutions that file applications with the FDIC.

Under the existing leverage capital requirements, state nonmember banks must maintain "primary capital" of at least 5.5 percent of total assets and "total capital" of six percent. Primary capital includes common stockholders' equity, all forms of perpetual preferred stock, the entire allowance for loan and lease losses, and certain amounts of mandatory convertible debt. The new proposal instead would be based on a single narrower category of capital called "Tier 1" or "core" capital. *FR, 9/26/90, p. 39288.*

The FDIC adopted revisions that will replace the primary and total capital definitions with a Tier 1 (core)

capital definition and establish a minimum three percent Tier 1 leverage capital ratio requirement for the most highly-rated banks (CAMEL rating of 1) that are not anticipating or experiencing any significant growth. All other state nonmember banks will need to meet a minimum leverage ratio that is at least 100 to 200 basis points above this minimum requirement. State nonmember banks with capital below the minimum leverage capital requirement will be deemed to be engaging in an unsafe or unsound practice unless they have submitted, and are in compliance with, a capital plan approved by the FDIC.

In addition, the previous three percent leverage test, which was based on primary capital and used for determining when a depository institution was in an unsafe or unsound condition, is replaced with a new two percent "unsound condition" test based solely on Tier 1 capital. Effective: April 10, 1991. *FR, 3/11/91, p. 10154.*

Purchased Mortgage-Servicing Rights

The FDIC adopted a final rule, to implement certain provisions of the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), restricting the amount of

purchased mortgage - servicing rights (PMSRs) that FDIC-supervised banks and savings associations can use to meet capital requirements.

Under the rule, PMSRs in excess of 50 percent of core capital will be deducted from assets and capital when calculating the bank's regulatory capital. The 50 percent limit applies also indirectly to thrifts supervised by the Office of Thrift Supervision (OTS) since FIRREA requires that agency to prescribe limits on PMSRs that are at least as stringent as those applied to FDIC-supervised banks. In addition, the FDIC rule directly limits PMSRs for savings associations to no more than 100 percent of the thrift's "tangible capital," which typically consists of core capital minus qualifying supervisory goodwill.

The rule permits PMSRs in excess of the capital limitations if those servicing rights were purchased on or before February 9, 1990. Also, there

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Reference sources: *American Banker* (AB); *Wall Street Journal* (WSJ); *BNA's Banking Report* (BBR); *Federal Register* (FR); Commerce Clearing House Inc., Electronic Legislative Search System (ELSS).

are exemptions from the limitations, under certain conditions, for PMSRs held by a separately capitalized mortgage banking subsidiary, and for a savings association in the process of establishing such a subsidiary.

The final rule becomes effective 30 days after it is published in the *Federal Register*. PR-232-90, 12/11, FDIC; FR, 12/27, p. 53137.

Brokered Deposits

The FDIC adopted a final rule pursuant to new Section 29 of the Federal Deposit Insurance Act (Section 224 of FIRREA), which prohibits the acceptance, renewal or rollover of brokered deposits by an undercapitalized insured depository institution (bank or savings association) except on specific application to, and waiver of, the prohibition by the FDIC.

In December 1989 the FDIC adopted an interim rule, which provided further guidance on when an institution is considered undercapitalized, when certain deposits are considered "brokered" for purposes of the prohibition, and the circumstances under which a waiver from the prohibition may be granted.

The final rule is essentially the same, except that it:

- a) explicitly extends the application of the rule to insured branches of foreign banks;
- b) provides further guidance on the meaning of "normal market area" in relation to the prohibition on paying excessive rates without a waiver; and
- c) explicitly provides for the opportunity to consult with an institution's primary federal or state regulatory agency before the FDIC acts on the waiver application. FIL-52-90, 10/19, FDIC; FR, 9/25, p. 39135.

Liability of Commonly Controlled Depository Institutions

The FDIC adopted a statement of policy that sets forth the procedures

and guidelines the FDIC will use in assessing liability against commonly controlled depository institutions under Section 5(e) of the Federal Deposit Insurance Act. The new Section, which was added by FIRREA, creates liability for commonly controlled insured depository institutions for losses incurred or anticipated by the FDIC in connection with the default of such institution, or any assistance provided by the FDIC to such institution in danger of default.

The purpose of Section 5 (e) is to ensure that the assets of healthy depository institution subsidiaries within the same holding company structure, or of a healthy institution which controls a failing institution, will be available to the FDIC to help offset the cost of resolving the failed subsidiary. The FDIC also seeks to encourage the acquisition of troubled institutions by those capable of rehabilitating them and to avoid instances in which the assessment of liability against an otherwise healthy institution will cause its failure. The policy statement attempts to balance these considerations in setting forth guidelines and procedures that the FDIC will use in assessing liability and in granting waivers thereof. FR, 5/30/90, p. 21935.

Agencies Encourage Lending to Creditworthy Borrowers

The FDIC, the Office of the Comptroller of the Currency (OCC), the Federal Reserve Board (FRB), and the OTS issued a joint statement and guidelines to help create a climate in which banks and thrifts will make loans to creditworthy borrowers and work constructively with borrowers experiencing financial difficulties, consistent with sound banking practices.

The policies encourage increased disclosure about the condition of financial institutions' loan portfolios. Among the numerous issues covered in the policy statements are:

- a) Recognition of income for certain nonperforming loans. The agen-

cies are considering proposed guidelines relative to the accrual of income on loans that have been partially charged off.

- b) Valuation of real-estate loans in examinations. The joint statement clarifies that the supervisory evaluation of real-estate loans is based on the ability of the collateral to generate cash flow over time, not upon its liquidation value.
- c) Other issues relating to nonaccrual assets and formally restructured debt. The guidance covers a range of accounting issues, including cash-basis income recognition on nonperforming loans, treatment of multiple loans to one borrower, and acquisition of nonaccrual assets. FIL-8-91, FDIC, 3/1.

Premium Rate Increase and Borrowing Proposed

The FDIC issued a proposal to increase the assessment rate applicable to banks from 19.5 cents to 23.0 cents per \$100 of deposits, to be effective July 1, 1991. The FDIC also announced its intention to borrow for near-term funding of the Bank Insurance Fund (BIF). Discussions regarding the borrowing are being held with the Treasury. Alternative sources of the funds include the Treasury, the Federal Reserve, the Federal Financing Bank and the banking industry.

Chairman L. William Seidman said that while the combination of the premium increase and borrowings would be of great assistance with respect to current problems, the additional funding must be part of an appropriate restructuring of the financial system and deposit insurance. PR-29-91, FDIC, 2/28.

Deposit Insurance Coverage

The FDIC amended its deposit insurance regulations, largely in response to a provision of FIRREA requiring uniform insurance coverage rules for insured banks and thrifts previously insured by the Federal Sav-

ings and Loan Insurance Corporation (FSLIC). The FDIC's statement stressed that most depositors at banks and thrift institutions are unaffected by the revisions and continue to be covered up to the statutory insurance limit of \$100,000.

Among the thrift accounts involved in the changes are deposits of so-called "457 Plan" employee benefit programs made by employers for state or local government workers or employees of tax-exempt organizations. Existing FDIC rules for insured banks provide for coverage of a 457 Plan's accounts up to \$100,000 in the aggregate, while the FSLIC, in contrast, insured 457 Plan deposits in savings associations for up to \$100,000 per each participant.

The Board decided to extend the existing rules for thrifts until January 1992 -- for both current and new participants -- to maintain liquidity at the institutions and to give Congress time to consider whether to allow the FDIC to provide the higher coverage. There are approximately \$4-\$5 billion of 457 Plan deposits at savings institutions. As now contemplated, beginning January 29, 1992 the more restrictive 457 Plan rules for banks will apply also to thrift institutions. *PR-81-90, 5/1, FDIC.*

Restrictions on Savings Banks' Investments

The FDIC issued for public comment a proposal that would require savings and loan associations (S&Ls) that convert to savings banks to continue operating under their existing restrictions on high-risk investments and other activities.

An S&L that converts to a savings bank still would be subject to restrictions and notice requirements imposed by statute in 1989 to protect the Savings Association Insurance Fund (SAIF). Those restrictions on SAIF-insured S&Ls include a prohibition on junk bond investments, a ban on loans to affiliates engaging in certain high-risk activities and a limit on the size of loans that can be made to one

borrower. The law also requires prior notice to the FDIC before establishing subsidiaries or conducting a new activity in an existing subsidiary.

The proposal reflects the concern of federal regulators about the growing number of states that have enacted, or are considering, legislation to allow the conversion of S&Ls to state-chartered, SAIF-insured savings banks, which could be permitted under state law to exercise powers and make high-risk investments such as were authorized by states in the past and contributed to the S&L crisis.

The FDIC proposal does not apply to savings banks that have been supervised by the FDIC and were not previously S&Ls. *PR-224-90, 11/29, FDIC; FR, 12/12, p. 5117.*

Appraisals

The FDIC adopted a final rule pursuant to Title XI of FIRREA that requires the FDIC to adopt regulations regarding the use of appraisals in connection with certain real-estate transactions by FDIC-supervised financial institutions. The regulation sets minimum standards that apply to all appraisals performed under the regulation. It also sets criteria for transactions that will require the services of a certified appraiser and those that can be done by a licensed appraiser. The regulation does not apply to transactions with a value of \$50,000 or less.

The appraisal standards and other provisions of the rule take effect on September 19, 1990, except for the specifications as to which transactions require the use of certified or licensed appraisers, which become effective on July 1, 1991 (or such later date as may be set pursuant to FIRREA). *FIL-47-90, 8/29, FDIC; FR, 8/20, p. 33879.*

Adverse Contracts

The FDIC issued a proposal regarding abusive contracts in general, and asking for comments on ways to prevent depository institutions from entering into contracts that pose serious risks to the insurance funds.

One abuse cited involves contracts for data processing and other services carrying inflated terms that misrepresent an insured institution's financial condition. An insured bank or savings association would be prohibited from entering into any contract determined to be adverse. The agency would provide examples of terms that could indicate an adverse arrangement, and the appropriate federal regulatory agency would evaluate individual contracts on a case-by-case basis, giving institutions an opportunity to prove a contract is not adverse.

In a related action, the FDIC issued a notice of intention to propose a rule to prevent special problems involving contracts between an insured institution and its parent company or a non-depository affiliate. Examples include holding companies that take assets from their insured subsidiaries without paying fair value, or that provide vital services to the subsidiary at excessive terms. *PR-45-91, FDIC, 3/26.*

Disclosures of Banks Examined for Community Reinvestment

The FDIC issued in early March its monthly list of banks recently evaluated for compliance with the Community Reinvestment Act (CRA). A list covering the period July 1 through November 30, 1990 was issued in February. FIRREA requires the public disclosure of an evaluation and rating for each bank that undergoes a CRA examination on or after July 1, 1990. A copy of an individual bank's CRA evaluation, which includes the rating, is available directly from the bank, which is required by law to make the material available upon request, or from the FDIC. *PR-28-91, FDIC, 3/1.*

Determination of Economically Depressed Regions

The FDIC adopted a rule defining "economically depressed regions" for purposes related to FDIC assistance for certain troubled thrift institutions

prior to the appointment of a receiver or conservator. The FDIC is required by law to consider proposals for direct financial assistance by SAIF members whose offices are located in an "economically depressed region" and which satisfy certain other specified criteria.

The final rule is identical to an interim rule adopted by the FDIC in March 1990, designating eight individual states as economically depressed regions. In determining "economically depressed regions," the FDIC considered (1) the ratio of poor quality real-estate assets to total assets in the portfolios of banks, (2) the ratio of poor quality real-estate assets to total assets in the portfolios of thrifts, and (3) unemployment figures. The statewide percentages of impaired real-estate assets for banks and thrifts and unemployment rates were analyzed with reference to national levels. The eight states designated in the rule are Alaska, Arizona, Arkansas, Colorado, Louisiana, New Mexico, Oklahoma, and Texas. *FIL-23, 3/22/90, FDIC; FR, 9/17, p. 11160.*

Required Information for External Auditors

The FDIC reminded depository institutions that, pursuant to Section 931 of FIRREA, they are required to furnish certain information to their independent auditor if they have not already done so. The requirement applies to any independent auditor they have employed at any time since August 9, 1987, and to future external auditors. Procedures are specified in the notice which institutions supplying information are requested to adhere to in order to protect the confidentiality of examination reports or reports of supervisory activity.

The information that each insured institution is required under the Section to provide to its independent auditor includes (1) its most recent Report of Condition, and (2) a copy of the most recent report of examination. In addition, if applicable, the institution must provide for the period

covered by the audit (a) any supervisory Memorandum of Understanding or written agreement in effect between a federal or state banking agency and the institution; (b) a final order, or description of pending action, by a federal banking agency resulting from unsafe or unsound banking practices, violations of laws or regulations, or noncompliance with monetary transaction recordkeeping and reporting requirements; (c) a final order, or pending action, similar to (b) above, by a state banking agency; and (d) any other civil money penalty against the institution or any "institution-affiliated party." *FIL-37-90, 7/2, FDIC.*

Money Laundering

FDIC-insured banks were notified of the Treasury Department's adoption of a final rule requiring each financial institution to keep a log of bank checks and drafts, cashier's checks, money orders and traveler's checks sold for cash in amounts of \$3,000 or more. The log must contain specific information about the purchaser(s), with different requirements for transactions involving customers with deposit accounts and those without deposit accounts. No sale may be completed unless the required information is obtained. *FIL-36-90, 6/25, FDIC.*

The Treasury proposed amendments to anti-money laundering regulations, implementing the Bank Secrecy Act, that relate primarily to wire transfers and other funds transfers between financial institutions. Each domestic bank involved in a funds transfer would be required to retain certain information, the amount and type of which would depend upon the bank's role in the funds transfer process. In addition, banks would be required to verify the name and address and obtain additional information on originators and beneficiaries of funds transfers who are not deposit account holders. Financial institutions other than banks that transmit and receive funds would

have similar recordkeeping requirements. *FIL-59-90, 11/9, FDIC.*

Insurance Retention not Assured if Thrift Leaves FHLB System

The FDIC advised Wauwatosa Savings and Loan Association, Wauwatosa, Wisconsin, that the FDIC can make no assurances at this time that it would be able to retain its deposit insurance should Wauwatosa withdraw from membership in the Federal Home Loan Bank System.

The FDIC based its position on a determination by OTS that Wauwatosa is legally bound to remain a member of the System, and that the withdrawal of savings associations from the System would pose safety-and-soundness concerns.

The FDIC will withhold any final decision on the Wauwatosa request for 18 months to permit the OTS to consider rule-making. The FDIC Board indicated it would entertain OTS's suggestion that the rule-making process be undertaken jointly by the OTS, the FDIC and the Federal Housing Finance Board. *PR-168-90, 8/29, FDIC.*

Home Mortgage Disclosure Submissions

The FDIC informed institutions it supervises that the banks and their majority-owned mortgage banking subsidiaries subject to the Home Mortgage Disclosure Act (HMDA) and the Federal Reserve Board's Regulation C are required to submit annual reports of certain residential real-estate lending activity. The reports for calendar year 1990, in the form of Loan Application Registers, are due at appropriate FDIC Regional Offices, either on paper or electronically, by March 1, 1991. *FIL-3-91, FDIC, 1/23.*

Policy on Outside Legal Fees

The FDIC's Legal Division announced a policy intended to enhance competition and reduce costs for legal services to the FDIC and the Resolution Trust Corporation (RTC).

During 1990 the Legal Division paid \$615 million for outside legal costs in helping the two agencies to recover an estimated \$21.1 billion in connection with failed banks and thrifts. The stated amount recovered is cash collected and does not include unpaid court judgments.

Under the policy, firms which received more than \$2.5 million in aggregate fees from the FDIC and RTC during any previous 12-month period must obtain prior written approval from a designated FDIC official before gaining new business from the agencies. This policy is expected to promote more efficient and economical legal services while providing the flexibility to make more extensive use of certain firms where appropriate. The FDIC anticipates that firms exceeding the cap must offer special expertise, reduced fees or other benefits. *Joint News Release, FDIC and RTC, PR 21/91; 2/13/91.*

Division of Resolutions

The FDIC created a Division of Resolutions (DOR) for the purposes of centralizing and enhancing the agency's resources for handling bank failures and assisting institutions that are in danger of failing. DOR will be responsible for planning for and handling bank failures, encompassing such activities as assembling data about anticipated failures, conducting meetings with potential acquirers, coordinating with other agencies, and overseeing other aspects of resolutions. The Division also will develop the FDIC's overall resolution policies and financing strategies.

Other responsibilities of DOR will include the administration of resolution agreements, the design and negotiation of asset service agreements, interim management of FDIC-owned "bridge banks," and the management and sale of capital instruments acquired from assisted banks. *PR-40-91, FDIC, 3/19.*

Study of Risk-Based Deposit Insurance

The system of flat-rate deposit insurance premiums has been criticized because it provides an inducement for a bank or thrift to increase its portfolio risk without incurring any additional insurance premium expense. It is argued that flat-rate premiums subsidize "high-risk," poorly managed institutions at the expense of the well-run institutions. Section 220(b)(1) of FIRREA requires the FDIC to study the establishment of premium assessment categories related to types of risk to the insurance funds and report its recommendations to Congress by January 1, 1991. The FDIC issued its report as required.

The report discusses primarily two approaches to risk-based premiums: (1) adjusted capital, and (2) reinsurance. It is recognized that there are many proposals for pricing deposit insurance that merit consideration, and this report is not intended to preclude any of those options.

The adjusted capital approach to risk-based premiums would use a depository institution's capital-to-asset ratio, adjusted for some performance measure(s), as the basis for deposit insurance premiums.

The reinsurance approach is an integrated system of public and private insurance that is intended to determine a market price for each bank's deposit insurance. The FDIC would purchase coverage, for a small percentage of its risk that a covered depository institution will fail, from qualified private reinsurers. The FDIC would base the premium it assesses the covered institution on the risk-based price set by the reinsurer in a competitive bidding process. The reinsurance approach is designed explicitly for large (as defined) banks and thrifts.

The report does not recommend any specific approach to risk-based premiums. It does recommend that the FDIC be given the authority to levy such premiums. It states that the

implementation of a risk-based premium system must be coordinated with other reforms to the deposit insurance system, and options should be evaluated in the context of the proposals made in the Treasury's report on the deposit insurance system. *A Study of the Desirability and Feasibility of a Risk-Based Deposit Insurance Premium System, FDIC, December 1990, 86 pp.*

New Publications

Chairman Seidman announced in April 1990 that the agencies are developing an early-warning system to assist in identifying possible difficulties in commercial and residential real-estate markets. It appears that very high rates of growth are often followed by economic downturns -- though sometimes with a considerable lag -- thus analysis is being focused on markets having abnormally high rates of growth. In connection with the project, *Real Estate Market Indicators*, and *Real Estate Lending Patterns and Trends*, are being released by the FDIC's Division of Research and Statistics.

Resolution Trust Corporation

RTC Performance Report

The RTC held 183 institutions in conservatorship, with assets totaling \$91.8 billion, at the end of January. Reflecting uncertainties regarding legislation to provide additional funding for the RTC, the pace of resolutions slowed in January compared to most of 1990.

Also under the RTC's jurisdiction on January 31 were 362 receiverships, resulting from the resolution of thrifts, with \$63 billion in assets.

The 10 institutions resolved in January brought the total number of resolutions to 362 from the establishment of the RTC in August 1989 through January 31, 1991. These institutions held \$114 billion in assets at the time of resolution.

Sales and principal collections since inception have totaled \$137 billion, net of putbacks, and subject to additional returns under unexpired

putback provisions of resolution transactions. The \$137 billion represented 47 percent of the total assets of the 545 institutions when they were taken over by the RTC. Collections in asset categories include \$64 billion in securities, \$51 billion in mortgages, \$13 billion in nonmortgage loans, \$4 billion in real estate, and \$5 billion in other assets. *RTC Review, RTC, January 1991.*

Accelerated Resolution Program

The RTC will undertake a pilot program designed to accelerate the marketing and sale of troubled savings associations before they are declared insolvent and placed into conservatorship. Chairman L. William Seidman said that "experience shows that the longer an institution sits in conservatorship, the more likely it is that its value will diminish. We want to act before that happens . . . Under our Accelerated Resolution Program (ARP), the institution will be marketed by the RTC, the OTS, and its management. When a buyer is identified, the thrift will be closed by the OTS, placed with the RTC, and immediately reopened in the hands of the waiting buyer. By preserving the franchise value of the institution, it will be more attractive to investors, and this will lower the ultimate cost of its resolution."

The ARP was scheduled, as of the date of this release, to begin in several weeks pending funding approval and policy review by the Oversight Board. Institutions that will be offered under the ARP are those that the OTS has determined are in danger of failing and whose financial condition would cause them to be placed into RTC conservatorship within one year. The institutions also should have an acceptable management structure, stable operations, and franchise value.

The pilot program, which will involve approximately ten institutions, will be reviewed and evaluated after a period of about three months. *News Release, RTC, 7/10/90.*

Retention of Thrift Branches Acquired by Banks in Emergency Acquisitions

The RTC adopted a rule permitting retention and operation by insured banks of branches of failed or failing thrifts acquired pursuant to the emergency acquisition provisions of Section 13(k) of the Federal Deposit Insurance Act. The purpose of the rule is to permit insured banks to retain and operate such branches despite provisions of state law that would limit their ability to do so. The RTC believes that such state laws present a serious impediment to the emergency acquisitions of troubled thrifts by banks, and increase the cost of resolution of these thrifts. Effective June 1, 1990. *FR, 6/1/90, p. 22323.*

Branching Rule Upheld in Appeals Court

The U.S. Court of Appeals for the Eighth Circuit, reversing a district court decision, ruled that the RTC has the authority, under the Federal Deposit Insurance Act as amended by FIRREA, to pre-empt state laws forbidding the sale of former thrift branches for conversion to branches of commercial banks.

The case arose when the RTC proposed to sell the failed Independence Federal Savings Bank of Batesville, Arkansas, to Worthern Bank & Trust Co., Little Rock, with former Independence branches to be converted into Worthern branches.

In a similar case in Colorado, the U.S. Court of Appeals for the Tenth Circuit upheld the RTC in allowing banks that acquire failed savings institutions to operate the acquired offices as branches of the acquiring bank, notwithstanding any provision of state law. *AB, 7/6/90, p. 2; 7/23, p. 9; 10/10, p. 4; BBR, 9/10, p. 398; 2/18/91, p. 309.*

Affordable Housing Disposition Program

The RTC is adopting an Affordable Housing Program to implement provisions of FIRREA which, among other things, require the establish-

ment of a ninety-day marketing period for the disposition of eligible residential properties for which the RTC has title in its corporate capacity or as a receiver. The program is to provide homeownership and rental housing opportunities for moderate-income, lower-income, and very low-income families and individuals. The final rule is effective August 21, 1990. *FR, 8/31/90, p. 35564.*

Regional Public Service Centers

The RTC has opened Public Service Centers in its four regional offices to provide services in each region that are similar to the services offered by the RTC Reading Room in Washington, D.C. The centers provide region-specific, and other publicly available information about the RTC, which the public can request by telephone, mail, or on a walk-in basis. Staff is also available to help in solving problems that the public has experienced in dealing with the RTC. *News Release, RTC, 3/19/91.*

Federal Reserve Board

Capital Adequacy Guidelines

The FRB approved final capital leverage guidelines and transitional capital standards for state member banks and bank holding companies, effective September 10, 1990. The final guidelines are essentially the same as the proposals the FRB issued for public comment late last year.

Bank holding companies and state member banks must maintain Tier 1 capital equal to a minimum of three percent of assets. The transitional standards permit institutions to comply with existing capital-to-asset ratios until the end of the year, or to conform to a risk-based standard to become effective January 1, 1991. The existing minimum capital adequacy ratios are 5.5 percent primary capital, and six percent total capital, to total assets.

For leverage purposes, Tier 1 capital for state member banks includes common equity, minority interests in

equity accounts of consolidated subsidiaries, and qualifying noncumulative perpetual preferred stock, less goodwill. It excludes other intangibles and investments in subsidiaries as determined by the FRB on a case-by-case basis. For bank holding companies, Tier 1 capital consists of common equity, minority interests in equity accounts of consolidated subsidiaries, and qualifying perpetual preferred stock, the latter limited to 25 percent of Tier 1 capital. *Press Release, FRB, 8/2/90; FR, 8/10, p. 32828; BBR, 8/13, p. 250.*

Bank Holding Companies: Bank and Nonbank Subsidiaries' Transactions

Interlocks of Officials. The FRB is considering allowing director interlocks between the nonbank subsidiaries of bank holding companies and their bank and thrift affiliates as long as the majority of the board of directors of the securities underwriting company would not be composed of directors of the affiliated depository institutions. The current restrictions already allow interlocks between the boards of a bank holding company and its "Section 20 subsidiary."

With respect to officer and employee interlocks, the complete prohibition could be replaced with a requirement that the Section 20 subsidiary not be managed or controlled by its affiliated banks or thrifts and that there not be a substantial identity of personnel between the entities. Comment also is being sought on whether certain specific interlocks should be prohibited (for example, whether an officer or director of a bank or thrift should not be permitted to serve as chief executive officer or chief financial officer of an affiliated securities underwriting company).

Cross-Marketing. Under the FRB's present policy a bank or thrift affiliate is prohibited from acting as agent for, or engaging in marketing activities on behalf of, the Section 20 company. The FRB requested comment on modifying these restrictions by plac-

ing substantial reliance on disclosure requirements that apply to the activities of Section 20 companies, together with provisions of the Glass-Steagall Act prohibiting a bank from engaging directly in underwriting and dealing in securities. Comment is sought particularly on marketing activities that should be limited in order to avoid potential conflicts of interest.

Purchase/Sales of Financial Assets. With respect to a bank or thrift's purchase of financial assets from, or sale of such assets to its affiliated securities underwriting company, such transactions are currently prohibited, except in the case of U.S. Treasury securities, or direct obligations of the Canadian federal government, that are not subject to repurchase or reverse repurchase agreements between the underwriting subsidiary and its bank or thrift affiliates. Comment is sought on extending the exemption to those U.S. Government agency securities, and U.S. Government-sponsored agency securities, for which there is a market with a breadth and liquidity comparable to that for U.S. Treasuries. *Press Release, FRB, 7/3/90.*

International Banking Operations

The FRB proposed a number of revisions to Regulation K (International Banking Operations) pursuant to a requirement of the International Banking Act that the FRB review its regulations at least every five years to ensure that the purposes of the Edge Act are currently being served.

Since 1979, Regulation K has explicitly authorized foreign subsidiaries of both U.S. banks and bank holding companies to underwrite and deal in debt and equity securities outside the U.S. Among its proposals, the FRB would raise the underwriting limit on a consolidated basis (parent firm and foreign subsidiaries), that is applicable to equity securities to the lesser of \$60 million or 25 percent of the investor's Tier 1 capital. The limit could exceed \$60 million on a case-by-case basis for strongly capitalized

institutions. The limit on equity securities of any one issuer held in trading or dealing accounts would be raised from \$15 million to the lesser of \$30 million or ten percent of the investor's Tier 1 capital.

Currently, Regulation K permits U.S. banking organizations to underwrite credit life, accident, and health insurance abroad. In addition, the FRB has granted approval on a case-by-case basis for a number of U.S. banking organizations to engage in insurance underwriting activities in a number of countries. The FRB now proposes to add underwriting of life insurance and similar types of insurance for which the risks are actuarially predictable to the list of permissible activities in Regulation K. The general authority to engage in life insurance underwriting would be limited to subsidiaries of bank holding companies. *Press Release, FRB, 8/1/90.*

Notice of Changes in Senior Officials

The FRB proposed interim amendments, pending the adoption of final amendments to its Regulation Y to implement the provisions of FIRREA that require bank holding companies and state member banks that have recently undergone a change in control, or have less than minimum required capital or are otherwise in troubled condition, to file a notice with the FRB prior to adding a member of the board of directors, or employing an individual as a senior executive officer. This prior notice requirement also applies to state member banks that have been chartered within two years before the proposed management change. The FRB may disapprove any proposed board member or senior executive officer whose service is not considered to be in the best interests of the depositors of the bank or the public. The provisions of FIRREA covered in this release apply to insured banks, thrift institutions, and credit unions. *Press Release, FRB, 2/14/90.*

Appraisal Standards for Federally Related Transactions

The FRB adopted amendments to its Regulations H and Y to implement provisions of FIRREA regarding real-estate appraisal standards. The amendments identified which transactions require an appraiser, set forth minimum standards for performing appraisals, and distinguish those appraisals requiring the services of a state-certified appraiser from those requiring a state-licensed appraiser. The appraisal standards were effective August 9, 1990, and the certification and licensing requirements become effective July 1, 1991. The FRB set a threshold level of \$100,000 for real-estate transactions for which appraisals must be obtained. *Press Release, FRB, 6/28/90.*

Following the FRB's publication of its rule, concerns were raised about whether \$100,000 is an appropriate level. The federal financial institution regulatory agencies other than the FRB have adopted a threshold level of \$50,000. The FRB is now seeking comments on whether it should conform in its regulation to the level adopted by the other agencies. The FRB also is inviting comments, with respect to reducing the threshold level from \$100,000 to \$50,000, concerning the effects on (a) the increase in the cost of obtaining appraisals, (b) the availability of licensed or certified appraisers, and (c) the history of losses in this range of transactions resulting from inadequate appraisals. *FR, 11/26/90, p. 49057.*

Banks' Dividend Payments

The FRB amended its Regulation H to clarify the circumstances under which state member banks may pay dividends and will bring the calculation of dividend-paying capacity more closely into line with current regulatory reporting standards and generally accepted accounting principles (GAAP). *FR, 1/8/91, p. 627; 12/26/90, p. 52982.*

The rule is consistent with a regulation issued by the OCC for national banks.

Investment Brokerage Activities

Under the FRB's interpretive rule a bank holding company may not engage in the "sale or distribution" of shares of investment companies advised by the bank holding company or one of its nonbank subsidiaries. The FRB proposed to modify this rule to clarify that a BHC and its nonbank subsidiaries may broker shares, solely as agent for the account of customers, of both open- and closed-end investment companies that are advised by the BHC or any of its bank or nonbank subsidiaries. *Press Release, FRB, 6/19/90.*

Required Notices under Change in Bank Control Act

The FRB is amending its Regulation Y to remove the current regulatory requirement that a person that has already received regulatory clearance to acquire ten percent or more of the voting shares of a state member bank or bank holding company file additional notices under the Change in Bank Control Act for subsequent acquisitions resulting in ownership of between ten and 25 percent of the shares of the bank or bank holding company. This amendment is intended to reduce the regulatory burden without impairing the FRB's ability to properly evaluate acquisitions under the CIBC Act. The amendment is effective November 9, 1990. *FR, 11/16/90, p. 47843.*

Court Rejects "Source of Strength" Policy

A federal appeals court in New Orleans ruled that the FRB does not have the power to force bank holding companies to give assistance to their financially troubled subsidiaries. An FRB policy, made explicit in regulations in 1984 and 1987, required bank holding companies to use their assets to assist their banking units "during periods of financial stress or adversity." The court said the FRB does

not have the "authority to regulate the day-to-day soundness of the subsidiary banks," and that the holding company's refusal in this case to transfer assets did not constitute an "unsafe and unsound practice."

The case involved MCorp, a Dallas-based bank holding company, concerning actions taken by the FRB in the fall of 1988 and in 1989. *WSJ, 5/16/90, p. A2.*

J.P. Morgan Allowed to Underwrite Stocks

The FRB gave approval for J.P. Morgan & Co. to underwrite and deal in stocks through a subsidiary. It is the first time since passage of the Glass-Steagall Act in 1933 that a banking firm has had these powers.

J.P. Morgan and several other BHCs are already engaging in underwriting and dealing in corporate debt securities, having been granted that authority by the FRB in January 1989.

Morgan's newly acquired securities powers are subject to certain restrictions. Not more than ten percent of the securities subsidiary's revenues may be derived from the underwriting of corporate equities, corporate debt, commercial paper, securities backed by mortgages and consumer debt, and municipal bonds. At least 90 percent of the subsidiary's revenues must come from the underwriting of federal debt. *WSJ, 9/20/90, p. C1; BBR, 10/11, p. 519.*

The FRB granted approval for Bankers Trust New York Corp., Canadian Imperial Bank of Commerce, and The Royal Bank of Canada to underwrite and deal in equity securities. The activities will be conducted through separate subsidiaries. *BBR, 1/21/91, p. 101.*

Court Upholds BHCs' Securities Underwriting

An FRB decision in 1989 permitting five banking companies to engage in securities underwriting activities through subsidiaries was upheld by the U.S. Court of Appeals for D.C. In January 1989 the FRB

granted approval for Bankers Trust New York Corp., Chase Manhattan Corp., Citicorp, J.P. Morgan & Co., and Security Pacific Corp. to underwrite and deal in corporate debt, and to sell common stock within a year. At the time of the decision, FRB officials said reviews would begin to ensure that the institutions have sufficient capital, internal controls and expertise before being permitted to begin the underwriting activities, and that BHCs entering this business must have capital that is "substantially above" required minimums. In its approval the FRB specified several restrictions on transactions between the parent firms, subsidiary banks, and the securities and other nonbank subsidiaries. *AB*, 4/11/90, p. 1; also see this *Review*, Spring/Summer, 1989, p. 32.

Banks Can Offer Reduced-Rate Credit Cards to Affiliates' Customers

The FRB amended its Regulation Y to allow banks owned by bank holding companies to offer a price reduction on credit cards issued to their customers if the customer also obtains a traditional banking product from any of the credit card bank's affiliates. The amendment is effective December 18, 1990.

Section 106 of the Bank Holding Company Act Amendments of 1970 generally prohibits banks from offering reduced consideration for credit or other services if that reduction is conditioned on a requirement that the customer also obtain some additional service from the bank or a holding company affiliate of the bank. The Section allows the FRB to permit exceptions that are not contrary to the Section's purposes.

The FRB granted approval for Norwest Corporation, Minneapolis, and NCNB Corporation, Charlotte, North Carolina, to offer reduced-rate credit cards to customers of their affiliate banks. The grants of exemptions were based upon the FRB's analysis of the competitiveness of the relevant

credit card markets. In its approvals the FRB retained the right to terminate the exemptions if it was found that the arrangements resulted in anticompetitive practices. *FR*, 11/15/90, p. 47741; *Press Release*, FRB, 11/8; 6/22.

Home-Equity Lines of Credit

The FRB amended its Regulation Z, Truth in Lending, relating to home-equity loans. The final rule became effective on September 19, 1990, but compliance is not mandatory until October 1, 1991.

The amendments provide that a creditor may stop advancing funds, or reduce the credit limit on a home-equity line of credit, when the interest-rate cap is reached, provided that the creditor's right to do so was specified in the initial agreement.

It is required that all repayment phase disclosures be given to customers when they receive the application for the line of credit. *Press Release*, FRB, 9/14/90; *FR*, 11/28, p. 49391.

Securities Activities Permissible for BHCs

The FRB proposed to amend its Regulation Y to add to the regulatory list of nonbanking activities generally permissible for bank holding companies certain financial advisory activities and the provision of full-service securities brokerage services. This combination of activities is currently permitted on a case-by-case basis, the FRB having determined that, subject to certain restrictions, these activities are so closely related to banking as to be a proper incident thereto for purposes of the BHC Act.

The FRB requested comments also on whether it is appropriate to permit BHCs to provide these discretionary investment services to retail customers as well as institutional customers. *FR*, 9/5/90, p. 36282; *Press Release*, FRB, 8/30.

NCNB Permitted to Manage RTC Assets

The FRB granted approval for the \$69.2 billion NCNB Corp., Charlotte,

North Carolina, to engage in asset management, servicing, and collection activities for the RTC and the FDIC. The services will be provided through a Dallas, Texas subsidiary.

The OCC recently allowed national banks to manage failed-thrift assets for the RTC.

NCNB will not own the assets being managed or serviced under this authority, but it is not precluded from acquiring institutions whose assets have been managed by the subsidiary. NCNB agreed to establish procedures to preserve the confidentiality of information gained in the management process.

While it has previously granted similar asset-management authority, the FRB said NCNB will try to make those services available to a wider range of potential customers. *BRR*, 1/7/91, p. 9.

FRB Stops Citicorp Delaware Unit's Insurance Underwriting

The FRB ruled that the powers granted for state-chartered banks to sell and underwrite insurance nationwide under a recently enacted Delaware law are in conflict with the BHC Act. The FRB ordered a subsidiary of Citibank to stop insurance underwriting, because the insurance unit would in effect operate under the state's law as a separate nonbank corporate entity.

The FRB's decision apparently does not prevent banks from engaging in such insurance activities in other states that permit banks to do so. In November 1989, a federal appeals court upheld the FRB's contention that the latter does not have regulatory authority over state-chartered bank subsidiaries of bank holding companies (see this *Review*, Fall, 1989, p. 40). *AB*, 9/11/90, p. 1; 9/24, p. 18.

Approval for Foreign BHC Control of First Boston Corp.

The FRB permitted CS Holding, owner of Credit Suisse, Switzerland's third largest bank, to put \$300 million in equity into The First Boston organization, increasing the Swiss firm's interest in First Boston's parent, CS First Boston Inc., to about 60 percent from 44.5 percent. Reportedly, it is the first time in recent history that a foreign firm or a bank has taken a majority ownership in a major U.S. investment bank. First Boston and CS First Boston will be subject to restrictions in making acquisitions, merchant-banking, and bridge loans. *WSJ*, 11/14/90, p. C1.

Swiss BHC Can Offer Non-Financial Futures Advice

The FRB granted approval for Swiss Bank Corp., Basle, Switzerland to offer investment advice on non-financial futures and options through a joint venture with a Chicago-based limited partnership. The partnership's advice-giving activities will be limited to SBC-related organizations. The \$123.3 billion-asset Swiss BHC has several branches and agencies in the U.S.

The FRB previously has permitted BHCs to provide investment advice to large investors on futures and options related to bank-eligible securities, and on certain stock and bond indices.

Concerns were reiterated by the FRB about potential adverse aspects of joint ventures between BHCs and firms involved in securities activities not approved for BHCs, such as the erosion of the separation of banking and commerce, and possibilities of conflict of interest. The applicant made certain commitments to maintain a separation. *BBR*, 11/7/91, p. 8.

Management Interlocks with Securities Subsidiary Permitted

The FRB gave approval for a securities subsidiary of the \$2.6 billion-asset First Eastern Corp., Wilkes-Barre, Pennsylvania, to provide certain financial advisory and private placement services, and in addition, allowed the subsidiary to have three of seven directors in common with the parent firm's subsidiary banks. The FRB had previously ruled that private placement activities conducted directly by a bank do not constitute underwriting or dealing in securities. It said also that concerns about common control of a bank and a securities affiliate "are less significant where, as here, the securities affiliate is engaged in agency activities and where no substantial capital is at risk." *BBR*, 7/30/90, p. 179.

Approval for BHC to Acquire Community Development Organization

The FRB permitted Luxemburg Bancshares, Inc., Luxemburg, Wisconsin to acquire a small corporation which plans to acquire and re-develop the only medical clinic in Luxemburg, which has a population of about 1,000. *BBR*, 11/26/90, p. 850.

Automated Clearing House Services

An action by the FRB will enable Visa U.S.A. to offer its automated clearing house services nationwide. Visa U.S.A. has been offering ACH services in some regions since 1987, thus providing an alternative to the Federal Reserve as a supplier of these services. Visa's system, however, has faced a difficulty in that only financial institutions with accounts at the Federal Reserve Bank of San Francisco could settle Visa-processed clearing house transactions directly on their reserve accounts. In late October, the FRB took action that will allow financial institutions maintaining accounts in any of the 12 Federal Reserve districts to settle the Visa transactions

directly on those accounts. *AB*, 11/11/90, p. 1.

Payments System Risk Reduction

As part of its payments system risk reduction program, the FRB requested comments on a proposed policy that would prohibit bankers' banks and Edge corporations from incurring funds or book-entry overdrafts on Fedwire. The Federal Reserve Banks would assess a penalty fee when these or other institutions with imposed zero caps incur inadvertent daylight or overnight overdrafts on Fedwire. *FR*, 5/31/90, p. 22086.

Expedited Funds Availability

Pursuant to provisions of the Expedited Funds Availability Act, the FRB proposed an amendment to its Regulation CC to require paying banks to provide same-day settlement for checks presented by 8 a.m. local time at specified locations. The proposal would eliminate presentment fees for these checks and thereby facilitate their collection. *FR*, 2/6/91, p. 4743.

Office of the Comptroller of the Currency

Minimum Capital Ratios

The OCC amended its capital regulation to establish a new minimum leverage ratio of three percent Tier 1 capital-to-total assets for the highest-rated banks, with an additional cushion of 100-200 basis points for all other banks. Existing definitions of primary and secondary capital were replaced with Tier 1 and Tier 2 capital.

As amended, the definition of capital is consistent with capital used in the OCC's risk-based capital guidelines. These guidelines were published in January, 1989. *FR*, 9/21/90, p. 38797.

Banks' Payment of Dividends

The OCC revised and clarified its rules, effective December 13, 1990, to make the calculation of the dividend-paying capacity of national banks consistent with regulatory reporting and GAAP with respect to the treatment

of the allowance for loan and lease losses.

National banks will not be allowed to include provision for loan losses as a part of income when calculating dividend-paying capacity. Also, banks must use only capital surplus representing earnings in the dividend-capacity calculation. An earnings test limits dividend payments to net retained profits for the current period plus the previous two calendar years. The effective date for applying the earnings test is January 1, 1991. A bank may pay dividends on preferred stock if the payment exceeds net undivided profits only after the approval of the OCC. *FR*, 12/13/90, p. 51269; *AB*, 12/14, p. 2; *BBR*, 12/24, p. 1016.

Banks May Manage Assets for RTC

The OCC issued an opinion clarifying that national banks may provide asset-management services to the RTC. An official said that contracts for providing the service would be considered on an individual case basis. Among the requirements is that an applicant must have strong capital, and sufficient trained personnel for conducting the activity. Banks would need to protect against a conflict of interest between the asset-management function, which should be performed through a subsidiary, and the institution as lender to a purchaser of the assets. Also, banks were cautioned that asset-managers might be exposed to liability under the Comprehensive Environmental Response, Compensation, and Liability Act. *ABA Bankers Weekly*, 11/6/90, p. 6; *AB*, 11/26, p. 8.

Loan Sales in Farmer Mac Program

The OCC issued a guidance on national banks' participation as loan sellers in the Federal Agricultural Mortgage Corporation (Farmer Mac) program. Banks are provided an explanation of the regulatory accounting, capital, and legal lending limit treatments for three ways a national bank might sell loans into the program, and important supervisory re-

strictions that apply. *Banking Circular 248*, 10/24/90, OCC.

Securities Brokerage Permitted on Bank's Premises

In an interpretive letter, the OCC permitted an unaffiliated securities broker to conduct business on a national bank's premises in return for a percentage of the gross commissions received by the broker.

Almost all of the securities brokerage activities would be conducted by nonbank employees, and signs would give customers clear notice that the bank and brokerage are separate.

The decision follows other OCC decisions which have allowed lease terms under which the banks receive a percentage of the tenant's gross income from business conducted on the premises, and have required a similar separation. *ABA Bankers Weekly*, 1/8/91, p. 7.

Investment in Commodities Contracts

The OCC granted approval for Chase Manhattan Bank to pool investor money and invest it in commodities contracts, on foreign currencies, precious metals and financial futures.

Commodities funds are used as a source of profits and also as a hedge for other investments. Chase will be the first bank to offer commodities pools domestically, but previously has invested in several funds offshore. *Interpretive Letter 541*, 3/91, OCC; *AB*, 3/19, p. 1.

Banks' Selling of Insurance Upheld

The U.S. District Court for the District of Columbia upheld a 1986 decision of the OCC giving approval for an insurance-agency subsidiary of a national bank located in a small town to solicit and sell insurance to customers anywhere in the country (*National Association of Life Underwriters v. Robert L. Clarke and United States National Bank of Oregon*).

The National Bank Act allows national banks located in towns having

a population of less than 5,000 to act as a general insurance agent. The issue in this case was whether the activities so permitted are restricted in each case to the small town, and the Court found no such restriction. The Court said that "claims for relief should be addressed to Congress; this court is the wrong forum." The insurance industry was expected to appeal the decision. *ABA Bankers Weekly*, 5/15/90, p. 4; *AB*, 5/9, p. 1.

Banks' Power to Sell Debt Cancellation Contracts Upheld

The U.S. Supreme Court declined to review an appeals court ruling (*Taylor v. First National Bank of Eastern Arkansas*, 11/13/90), thereby upholding a lower court's decision that a national bank may sell debt cancellation contracts. The circuit court found that the activity does not constitute the "business of insurance" under the McCarran-Ferguson Act and therefore is not subject to state regulation.

The OCC, though not a named party in the case, argued that the contracts are among national banks' incidental powers under the National Bank Act. *BBR*, 11/19/90, p. 824.

Branching Ruling Upheld

A federal appeals court upheld an OCC ruling allowing national banks in Missouri to branch outside their home county, even though state-chartered banks in the state are not permitted out-of-county branching (*Independent Bankers Association of America v. OCC*, 10/29/90).

State-chartered thrifts in Missouri are allowed to branch statewide. The OCC, concluding that thrifts in the state, as a practical matter, were conducting a banking business, acted under a provision of the McFadden Act which permits national banks to branch anywhere that state banks can branch.

The case arose from an application in 1987 by First National Bank & Trust Co. of Columbia, Missouri to establish two branches outside its

home county. *BBR*, 11/12/90, p. 790; *ABA Bankers Weekly*, 11/13, p. 4.

Examination Schedule Changes

The OCC proposed revising its schedule of examinations to eliminate the current requirement for at least two examinations per year of every national bank. It would allow the agency to schedule examinations as it deems necessary. *ABA Bankers Weekly*, 8/21/90, p. 4.

Agricultural Lending Practices Study

In response to the agricultural recession in the early 1980s, banks made major changes in their lending processes, this report notes, including tightening their underwriting standards, and improving credit analyses and credit administration procedures. The results of a recent survey, however, raise "serious concerns."

The OCC analyzed the practices used by 47 national banks, representing a statistical sample of all community banks in the Midwestern District that have 25 percent or more of their loans in agricultural loans.

It was found that many lack the underwriting standards necessary to thoroughly assess and control acceptable risks for the loan portfolio. Some of the weaknesses in these respects are similar to the deficiencies that caused large loan losses experienced by agricultural community banks in the late 1970s and early 1980s, the study says.

"Pronounced weaknesses" are common in the analysis of customer profitability, repayment capacity and efficiency. Most banks do not properly evaluate those performance indicators, and the banks that do frequently lack the internal standards for proper use of the information. Also, improvements are needed in the methods used to assess the reliability of cash flow and accrual income information. It was found that banks too frequently depend on income tax returns; this information tends to be in-

adequate for these purposes and can distort analysis of a borrower's financial position and progress.

Several weaknesses were identified in loan administration. Thirteen percent of the banks lacked written policies for agricultural loans, and many do not have guidelines for managing concentrations of credit. *Agricultural Loan Underwriting Study, OCC, April 1990.*

Office of Thrift Supervision

Policy on Dividends, Other Capital Distributions

The OTS announced a new rule under which well-capitalized and well-managed savings associations will find it easier to pay dividends or make other capital distributions, while troubled institutions will have limits on their capital distributions.

The same standards will apply to all types of capital distributions, including dividends, stock repurchases and cash-out mergers. Associations that meet their fully phased-in capital requirements established under FIRREA and require only normal OTS supervision can distribute up to 100 percent of net income earned to date during the calendar year plus 50 percent of their capital surplus (the amount of capital over their fully phased-in capital requirement) without OTS prior approval. Institutions that meet current capital requirements can distribute, without prior OTS permission, from 25 to 75 percent of their current earnings, depending upon the extent they are meeting their fully phased-in capital requirements. Institutions that fail to meet current capital requirements are prohibited from making any capital distribution without prior written approval from OTS. *NEWS, OTS, 6/25/90.*

Interest-Rate Risk Component of Capital

The OTS issued a description of proposed methodologies for calculating an interest-rate risk component to ensure that savings associations maintain levels of capital commensurate with the degree of interest-rate risk to

which they are exposed. Minimum risk-based capital requirements were announced by the OTS in November 1989.

The proposal would require a savings association to hold capital against interest-rate exposure in an amount equal to 50 percent of the estimated decline in the market value of its portfolio equity that would result from an immediate 200 basis point increase or decrease in interest rates. Portfolio equity is defined as the aggregate net market value of assets, liabilities, and off-balance-sheet items. *FR, 12/31/90, p. 53529; 3/15/91, p. 11115.*

Loans to One Borrower

The OTS adopted a regulation that permits savings institutions that meet their fully phased-in capital requirements, and are not of supervisory concern, a transition period until December 31, 1991 before they must comply with a general 15 percent loans-to-one-borrower limit. That limit resulted from passage of FIRREA. About 1,100 savings institutions qualified for the transition rule as of mid-1990. Through 1990, healthy thrifts can grant new loans of up to 60 percent of their unimpaired capital and unimpaired surplus to one borrower for development of domestic residential housing. The transition limit drops to 30 percent after December 31, 1990, and 15 percent beginning January 1, 1992.

Generally, new commercial loans must conform to the permanent 15 percent limit, but qualifying thrifts can use the higher transition limits to continue funding loans that were made before enactment of FIRREA in August 1989. Such preexisting loans can be for either residential or nonresidential projects. All loans made under the transition rule must be secured by first liens on real property, and meet other specified criteria.

Thrifts that do not qualify under the transition rule must continue to fully conform to the national bank lending limits imposed by FIRREA and embodied in a March 1990 OTS

regulation. Generally, the limit is 15 percent of a thrift institution's unimpaired capital and unimpaired surplus, or \$500,000, whichever is higher. Before FIRREA, thrifts could lend up to 100 percent of their regulatory capital to one borrower. *NEWS, OTS, 7/2/90.*

Notification of Changes in Senior Officials

The OTS is requiring insured savings associations and thrift holding companies to notify the agency prior to adding or replacing a director or senior executive officer, if the institution has been chartered less than two years in the case of an insured institution, has undergone a change in control within the preceding two years, is not in compliance with its minimum capital requirement or is otherwise in "troubled condition," as determined from the institution's most recent Report of Condition or examination. The notice must be received by the OTS District Office at least 30 days before the effective date of the addition, hiring or promotion.

The action was taken pursuant to a provision of FIRREA which requires certain depository institutions or their holding companies to provide such notifications to their regulatory agencies. The agency may, in certain circumstances, disapprove the proposed changes in officials. *Thrift Bulletin 45, OTS, 4/25/90.*

Securities-Selling in Deposit-Taking Offices

The OTS proposed a regulation that would prohibit a savings institution from selling its own debt securities or those of its corporate affiliates on premises where it also accepts insured deposits from the public. The selling of equity securities would have to comply with several safeguards, including a requirement that buyers be informed that such securities are not federally insured.

Like the current rules, the proposed regulation would prohibit a savings association from paying any commissions to employees who sell

equity securities, and such securities sales could not be made by tellers at teller counters. Selling areas for equity securities would have to be physically segregated from areas where tellers take deposits. The specified safeguards notwithstanding, comments were solicited also on whether the selling ban should be extended to include equity as well as debt securities.

The proposed regulation does not affect the current rule under which a savings association, with OTS approval, can lease segregated and clearly identified parts of its facilities to the association's service corporation to use in selling various securities directly or through a joint venture with an affiliated discount brokerage firm. *NEWS, OTS, 5/3/90.*

Appraisals

The OTS adopted a final rule, similar to regulations being issued by other federal financial institutions regulatory agencies, implementing Title XI of FIRREA. Among its provisions the regulation identifies which transactions require an appraiser, sets forth minimum standards for performing appraisals, and distinguishes those appraisals requiring the services of a state-certified appraiser from those requiring a state-licensed appraiser. Effective August 23, 1990. *FR, 8/23/90, p. 34533.*

Thrift Conversions Directly to Banks Permitted

The OTS issued a legal opinion stating that direct conversion of thrifts into national banks is permitted by the Home Owners Loan Act as amended in 1989 by FIRREA. Heretofore these conversions were allowed to be done only through indirect, three-step procedures. While the OTS action should facilitate the conversions, industry officials said it would be much easier at present for the relatively new and small thrifts to convert. Institutions would be subject to taxation on accumulated loan-loss reserves should they become banks.

ABA Bankers Weekly, 11/20/90, p. 3; BBR, 11/19, p. 816.

New Approach to Supervisory Conversions

In an order in which Shadow Lawn Savings Bank, SLA, Long Branch, New Jersey, converted from mutual to stock form, and subsequently was purchased by Rochester Community Savings Bank, Rochester, New York, the OTS signaled a new approach to resolving the problems of basically healthy but significantly undercapitalized mutual institutions.

The method is designed to give OTS a truer picture of a troubled institution's financial condition by eliminating goodwill from the calculation of whether an institution qualifies for supervisory conversion. In effect, faltering mutual institutions now can attract capital sooner, before they become hopelessly insolvent. Under the old system, weak mutual thrifts seeking capital from acquirers had to wait before being eligible for supervisory conversion until they were insolvent according to GAAP, which permits a thrift to record assets at cost and defines goodwill as an asset. By the time institutions were GAAP-insolvent, they often held little or no value for potential acquirers.

The new approach also is in line with FIRREA, which limits and ultimately phases out goodwill as an asset in the calculation of regulatory capital. *NEWS, OTS, 3/28/90.*

Courts Rule on Goodwill Writedown Agreement, Forbearance

A U.S. claims court judge ruled that a requirement of FIRREA that supervisory goodwill be removed from thrifts' capital accounts by 1994 violates a preexisting contract allowing the writedown of goodwill over a 35-year period. Winstar Corp., a Minnesota company, brought the case on behalf of a subsidiary, United Federal Savings and Loan Association, which was taken over by regulators last May.

It is thought that the government will appeal if the court awards money damages. If the decision is upheld, the government could be exposed to hundreds of lawsuits and billions of dollars in claims.

The judge said the thrift owners relied on memoranda from the Federal Home Loan Bank Board which promised a long amortization period, and that they had presented "undisputed evidence" that a contract did exist. He rejected the government's position that the memoranda "merely were representations of then-existing regulatory policy." He said that while Congress remains free to change the regulatory treatment of supervisory goodwill, "the government may be compelled to pay for the results of its actions, especially when in so doing the government actually is paying because it received a benefit." *AB, 8/9/90, p. 1.*

A U.S. district court judge in Georgia ordered the OTS to comply with a 1987 forbearance agreement, and issued a preliminary injunction against efforts by the agency to force an insolvent thrift to agree to its merger and sale by the OTS (*Guaranty Financial Services, Inc. v. OTS, 8/10/90*). The court also blocked the agency's attempt to not honor an agreement allowing the thrift to amortize supervisory goodwill over 25 years. *BBR, 8/27/90, p. 346.*

The U.S. Court of Appeals for the Sixth Circuit ruled that a forbearance agreement in 1988 between Franklin Federal Savings Bank and the Federal Home Loan Bank Board is not binding upon OTS (*Franklin FSB v. OTS, 3/12/91*). The court held that FIRREA abrogates such agreements. *BBR, 3/18/91, p. 520.*

Disclosure of Reports of Condition

The OTS will make available to the public all information, except for three categories, it collects in the Thrift Financial Report from the savings associations it supervises. Data proprietary to the regulatory process

will not be released, the OTS said, because to do so would increase the incentive for inaccurate reporting of this information. This category includes classified assets, specific valuation allowances, fair value of assets repossessed, and loans 30-89 days overdue but still accruing interest.

Restrictions are placed on disclosure of maturity/repricing/rate information used to measure interest-rate risk. Collecting of this information is currently being expanded and enhanced, and meanwhile, if fully disclosed the data could be misleading to the public. Upon completion of the enhancement program, expected to occur in early 1991, the disclosure will be expanded. Finally, data reported monthly, except balances for end-of-quarter months, will not be disclosed at this time. These data are subject to such a large degree of variability as to be potentially misleading for analysis purposes on a month-by-month basis. *FR, 8/7/90, p. 32168.*

Thrifts' Release of Customer Records

The OTS removed a rule issued by the Federal Home Loan Bank Board, effective December 15, 1989, that authorized federally chartered savings associations to disclose, unless the customer objected in writing, customers' names and addresses to any party. The agency plans to propose a new regulation. *FR, 8/17/89, p. 33859; 8/24/90, p. 34698.*

Forming Mutual Holding Companies

The OTS proposed a regulation describing the procedure and criteria for forming a federal mutual holding company, as authorized under the Competitive Equality Banking Act of 1987.

The proposed regulation is similar in many respects to those already in effect for a federally chartered savings association to convert from mutual to the stock form of organization. In this case a savings association would be permitted to operate within a holding

company structure while retaining the advantages of mutual ownership. *FR, 1/11/91, p. 1126; Regulatory Update, National Council of Savings Institutions, 1/26.*

Court Protects Regulators' Decision-Making Process

A U.S. court of appeals in Richmond, Virginia, vacating a lower-court contempt citation against M. Danny Wall, former Director of the OTS, ruled that government officials do not have to explain the mental process by which they reach decisions. The case arose from the government takeover of Franklin Savings Association, Ottawa, Kansas, in 1990. The appeals court cited a long history of court decisions, dating from a 1941 Supreme Court ruling, that have held that, absent "extraordinary circumstances," a government decision-maker will not be compelled to testify about his mental processes in reaching a decision, "including the manner and extent of his study of the record and his consultations with subordinates. *NEWS, OTS, 1/11/91.*

Federal Financial Institutions Examination Council

Policy Statement on Practices Relating to Securities

The five member agencies proposed to revise the FFIEC's policy on selection of securities dealers and on unsuitable investment practices. The proposal addresses the selection of securities dealers, requires depository institutions to establish prudent policies and strategies for securities transactions, defines securities-trading or sales practices that are viewed by the agencies as being unsuitable when conducted in an investment portfolio, indicates characteristics of loans held for sale or trading, and denotes certain types of securities with volatile price or other high-risk characteristics that are generally not suitable investments for depositor institutions.

It is required that managements of depository institutions have sufficient knowledge about the securities firms,

and personnel with whom they are doing business in order to conduct safe-and-sound securities transactions. Boards of Directors should approve the securities portfolio policy and review management's strategies and activities on at least a quarterly basis for consistency with portfolio policy.

Boards of Directors would be required to document approval of the overall portfolio policy, and management would have to document its strategies for significant portfolios.

Securities holdings that do not meet the supervisory reporting criteria for either investment or trading portfolios would be reported as held for sale. The latter must be reported at the lower of cost or market value. Several criteria are added to the regulation for determining whether securities that are held for investment are, in reality, held for sale or trading.

Certain specific unsuitable investment practices are identified in the additions to the regulation. Also added are certain securities whose acquisition would receive increased regulatory attention and may be considered unsuitable. *FR, 1/3/91, p. 263.*

State Licensing of Real-Estate Appraisers

The FFIEC issued advisories on state criteria for licensing of real-estate appraisers.

As authorized by Title XI of FIRREA, the FFIEC earlier released guidelines for state certification and licensing of real-estate appraisers (see this *Review*, Fall 1990, p. 45).

The advisories state that acceptable standards should continue to include meaningful but not overly restrictive education, experience and testing requirements. This may include permitting either the education or experience requirements to be met after passing a licensing test.

All persons should be required to pass a meaningful written test before they are licensed to perform appraisals for federally related real-estate

transactions. The Appraisal Subcommittee believes that standards issued by the Appraiser Qualification Board (AQB) of the Appraisal Foundation represent a useful guide to the states in establishing examination requirements.

An experience requirement of 2,000 hours is a reasonable standard to ensure that licensed individuals have sufficient practical experience. A state, consistent with Title XI, might well recognize real-estate-related experience such as that of a real-estate lending officer or a real-estate broker as being acceptable for some or all of the experience requirement, if such experience has included the actual performance or professional review of real-estate appraisals.

The education requirement of the AQB for the "residential real property appraiser" is 75 classroom hours in certain specific subjects. The Subcommittee believes that 75 hours is a reasonable minimum educational requirement for licensed appraisers, especially in light of the potential for transitional provisions permitting it to be satisfied for a period of up to two years after obtaining a license. Consistent with the AQB criteria, the educational requirement should be fulfilled in actual classroom time rather than through home study and correspondence courses. *FFIEC Press Release, 1/128/90; Advisory, Appraisal Subcommittee of FFIEC, 90-1, 8/8; 90-2, 1/128.*

Return of Loans to Accrual Status

The FFIEC requested comments on a proposal by the four federal bank and thrift supervisory agencies for an accounting change, applicable to the institutions which they supervise, for returning a partially charged off loan that has been on nonaccrual status to accrual status, without first recovering the partial charge-off or becoming fully current in accordance with the contractual loan terms. Among the issues for comment are whether the proposal is consistent with GAAP and whether it should apply only to cer-

tain loans on a selective basis. *Press Release, FFIEC, 3/14/91.*

Treatment of Asset Sales with Recourse

The FFIEC requested comments on asset sales with recourse, in particular on how "recourse arrangement" should be defined and how the sales should be reported.

Traditionally, recourse has referred to the seller's retention of some credit risk in asset sales, but increasingly sellers are extending loss coverage to other types of risk, such as interest-rate risk, prepayment risk, foreign-exchange risk, and liquidity or marketability risks.

Comments were requested also on how the amount of capital required to support recourse arrangements should be determined, and how recourse arrangements should be treated for lending limit purposes. *FIL-41-90, FFIEC, 7/16; BBR, 7/2/90, p. 4.*

Home Mortgage Disclosure Act Reports

The FFIEC approved a new format for the Home Mortgage Disclosure Act (HMDA) required statements for individual lenders and for the aggregate HMDA reports for each Metropolitan Statistical Area in the United States. The Council also approved the public release of edited raw data for the loan and application registers that lenders are required to prepare beginning with the data for 1990.

The Council's actions are in response to amendments to HMDA contained in FIRREA. Among other requirements, the amendments expanded the coverage of HMDA to include lenders that are not affiliated with depository institutions or their holding companies, required the reporting of data on the disposition of all applications for home-purchase and home-improvement loans, and required the reporting of data on the race or national origin, gender and income of loan applicants and borrowers. *Press Release, FFIEC, 7/2/90.*

National Credit Union Administration

Approval Required for Change in CU Officers, Directors

The NCUA issued rule changes to implement a section of FIRREA which requires that an insured credit union that has been chartered less than two years or is in troubled condition to notify NCUA at least 30 days prior to the addition of any individual to the board of directors or a committee or the employment of any individual as a senior executive officer. NCUA may disapprove any change that it determines not to be in the best interests of the members of the credit union or the public. A process for appealing an adverse NCUA decision is included in the rule. Effective November 26, 1990. *FR, 10/26/90, p. 43084.*

Member Business Loans

The NCUA proposed additional requirements on credit unions involved with business lending.

One of the changes being proposed would limit credit unions to financing no more than 80 percent of the value of the security for a loan. Another would lower the maximum member business loan to any one borrower from 20 percent of reserves to ten percent.

Federally insured credit unions held less than \$800 million in commercial loans in mid-1986, when the NCUA began collecting data on such lending; however, four years later the total had grown by 78 percent to \$1.4 billion. About 7 percent of federally insured credit unions (895) are currently engaged in some form of business lending to their members. For these institutions, business loans represent an average of 3.7 percent of assets. It is noted that in the five largest failures of member credit unions in each region during 1990, commercial lending was a factor in 16 of the 30 cases. *FR, 1/24/91, p. 2723.*

CU Investments

The NCUA proposed to prohibit, with respect to federal credit unions, certain investments that expose the institutions to an inordinate degree of interest-rate risk, including certain mortgage derivative products, such as Stripped Mortgage-Backed Securities (SMBSs) and residual interests in Collateralized Mortgage Obligations (CMOs) or Real Estate Mortgage Investment Conduits (REMICs). (NCUA has previously determined that SMBSs are unsuitable investments for the vast majority of credit unions.) Federal CUs holding any of these high-risk investments would be required to dispose of the investment within one year unless a longer period is approved by NCUA in writing. *FR, 3/21/91, p. 11944.*

Approval for CU Asset/Liability Acquisitions

The NCUA proposed to require any credit union whose accounts are insured by the National Credit Union Share Insurance Fund (NCUSIF) to have the NCUA's approval before acquiring loans or other investment assets or assuming or receiving any assignment of shares or liabilities of any credit union not insured by NCUSIF, of any other depository institution, of any successor in interest to either such institution, or of any NCUSIF-insured credit union not in liquidation. Certain asset acquisitions would not be subject to the approval process. *FR, 11/26/90, p. 49059.*

Restriction on Sale of Uninsured Shares

The NCUA proposed that federally insured state-chartered credit unions, as a condition of federal share insurance, be prohibited from offering uninsured shares. The ban would not apply to shares that are uninsured solely because the amount is in excess of the maximum insurance coverage.

The NCUA said that as many as thirteen states may authorize state-chartered credit unions to offer "uninsured membership shares." These

shares are at risk to the member and are intended to serve as a form of capital for the credit union. It was noted further that while the agency is aware of only four federally insured state-chartered credit unions that presently offer this type of account, additional credit unions recently have indicated that they are considering offering uninsured membership shares. *Proposed Rules and Regulations, NCUA, 5/10/90.*

State Legislation and Regulation

Banks' Insurance Powers

Delaware: A new law extends the power to underwrite and sell insurance nationwide to about 40 money-center and regional banks that have opened state-chartered affiliates in Delaware since enactment in 1981 of an economic development law. Many of the banks chartered in the state years ago already had the insurance power.

The insurance operations must be conducted through separate divisions or subsidiaries. Assets, liabilities and records of the insurance units must be kept separate from those of the bank. Investment in such insurance operations is limited to 25 percent of the bank's total capital, surplus and undivided profits.

A companion law places restrictions on banks' marketing of insurance in Delaware. Selling to Delaware residents is limited to direct mail, generally to credit card customers. *WSJ, 5/31/90, p. A16; AB, 5/31, p. 2.*

Illinois: New legislation allows a state bank to own and operate a subsidiary for selling insurance pursuant to the state's insurance statutes. Banks are not allowed to establish an insurance agency -- they must conduct this business through acquisition of an existing insurance agency, or sell through an agency, that has existed for at least a year. The insurance subsidiary's employees must be licensed as insurance producers. A number of consumer safeguards are provided, including that employees of the insurance subsidiary are prohib-

ited from both making loans on behalf of the bank and soliciting or transacting the sale of insurance to the same bank customer. *Illinois Banker*, 9/90, p. 19.

North Dakota: The state Banking Board authorized state-chartered banks to sell annuities, subject to the state's securities laws and subject also to the same restrictions and disclosures that are required by the OCC for national banks. Customers must be informed that the annuity is a product of an insurance company, not of the bank, and that it is not federally insured. *Northwestern Financial Review*, 7/14/90, p. 43.

Virginia: State-chartered banks, thrifts, and credit unions could sell, but not underwrite, insurance throughout the state under a bill signed by the governor.

Many banks in the state already may legally sell insurance. These include four major banks having this authority under grandfather provisions of the Garn-St Germain Act of 1982 and state laws. About 50-60 banks can sell insurance products under a state law that permits this activity in towns having a population of 5,000 or less. Approximately 20 national banks have this power under a similar provision in federal banking law. If approved by the Governor, the legislation would become effective on July 1, 1991. *BBR*, 1/28/91, p. 144.

Washington: State bank regulators are now permitting banks having an office in a town with a population of 5,000 or less to sell insurance throughout the state. It is no longer required that, to have this power, a bank's head office be so located. *The State Bank Regulator*, 11/19/90, p. 7.

Savings Institution Charters and Conversions

Alabama: New legislation permits state- and federally chartered S&Ls and savings banks to convert to state-chartered banks with the approval of the Superintendent of Banks. *ELSS*, 2/12/91.

Florida: Mercantile Bank, a \$90-million institution with offices in St. Petersburg and Tierra Verde, converted from a federal savings bank to a commercial bank, under provisions of FIRREA. Officials said it was the first such conversion involving an independent thrift in the Southeast. *Southern Banker*, July/August/90, p. 28.

Illinois: A new law provides for the chartering of savings banks by the state. With the new charter a savings bank is not subject to certain business and supervisory restrictions applicable to savings associations, and does not need to meet the QTL test in FIRREA in order to maintain its tax bad debt reserve. *Illinois Banker*, 8/90, p. 4; *BBR*, 8/20, p. 296.

Louisiana: Federal and state-chartered S&Ls are permitted under a new law to convert to a state savings bank charter. A moratorium on these charters will be in effect until September 1991. *The State Bank Regulator*, 11/9/90, p. 6.

New Jersey: Recently enacted legislation permits state-chartered S&Ls that meet federal minimum capital requirements to convert to state savings banks. About 40 of 86 state S&Ls would qualify under the six percent capital requirement, and the same number would qualify under another provision of the law specifying three to six percent minimum capital for a state S&L to convert for the purpose of merging with a state savings bank which meets the higher requirement.

Approximately 20 states now permit state-chartered S&Ls to convert to state savings bank charters. *BBR*, 3/4/91, p. 411; *AB*, 3/11, p. 2.

North Carolina: Under new legislation the State Banking Commission may approve the conversion of S&Ls to state-chartered banks. The law requires that such a conversion be expected to result in improved services to the public, and that the thrift be in sound condition. A mutual savings association must first convert to a stock association in order to apply for conversion to a bank. *BBR*, 8/6/90, p. 229.

Closed Institution's Depositors to Receive Payments

Rhode Island: The Depositors Economic Protection Corp. was created under a recently enacted law to liquidate the assets of institutions closed earlier whose deposits were not federally insured. On January 1 the Governor closed 45 credit unions and banks whose deposit accounts were insured by the failed Rhode Island Share and Depository Indemnity Corp. As of late January, 14 of these institutions, not having obtained federal deposit insurance, remained closed. About 350,000 accounts remained frozen, with \$1.3 billion in deposits.

Depositors will be paid their deposits in full up to \$100,000 over a specified period of time. Repayment of each additional \$100,000 increment up to \$500,000 will be reduced by 10 percent, and the amount over \$500,000 will be 50 percent repaid. The payments will be financed in part by a \$150 million bond issue, and by the sale of the failed institutions' assets.

Regulators are said to be taking steps to bring more credit unions in other states under federal deposit insurance. Twenty states permit the use of private insurance by some state-chartered credit unions. An estimated \$17 to \$20 billion is held in these privately insured accounts, representing eight to ten percent of all credit union deposits. *WSJ*, 2/11/91, p. A4; 1/29, p. C27; 1/2, p. A3; *BBR*, 1/28, p. 143; 2/18, p. 305; *AB*, 1/22, p. 1.

Intrastate Banking

Alabama: A statutory amendment permits a bank that is a subsidiary or an affiliate of a holding company to accept deposits and payments on obligations as agent for other banks in the state that are subsidiaries or affiliates of the same BHC. Effective 3/29/90. *ELSS*, 2/12/91.

Illinois: The Governor signed legislation, effective August 15, 1990, that allows a state or national bank in

Illinois to establish ten full-service branches in its home county, an additional five in each contiguous county, and five in any non-contiguous county, but located not more than ten miles from the bank's main office. Under prior law, banks in Illinois were allowed a total of only five full-service branches.

The amendments reduce home-office protection in counties having a population of 250,000 or more, where branching will be prohibited within 200 yards from another bank's head office. *Illinois Banker*, 10/90, p. 8.

Mississippi: A new law permitting the operation of multibank holding companies in the state was scheduled to go into effect on July 1, 1990. BHCs are prohibited from acquiring any shares of any Mississippi bank that has not operated for at least five years, with some exceptions, one of which is the acquisition of shares of a bank the total of which before the acquisition were more-than-fifty percent owned by the acquiring company. *BBR*, 4/9/90, p. 613.

Nebraska: New legislation allows banks in the state to acquire the branches of failed or undercapitalized S&Ls. An official said that under the law such a branch could be transferred before an undercapitalized S&L is actually declared insolvent. *ABA Bankers Weekly*, 5/22/90, p. 6.

Oklahoma: A branching law amendment restricts state-chartered thrifts to the same branching rights as state banks to avoid the type of challenge to the state's branching laws that occurred in Mississippi and elsewhere. While banks in Mississippi did not have statewide branching authority, the Comptroller of the Currency ruled under the McFadden Act that national banks in the state could branch statewide, on the grounds that thrifts, which could branch statewide, were operating essentially as banks. *Oklahoma Banker*, 8/90, p. 9.

Banks are permitted under new legislation to acquire savings banks

and S&Ls and operate them as branches anywhere in the state. *The State Bank Regulator*, 9/9/90, p. 7.

Tennessee: New legislation permits state banks and savings institutions to establish and maintain branches anywhere in the state. *The State Bank Regulator*, 11/9/90, p. 6; *ELSS*, 2/12/91.

Wisconsin: The Governor signed legislation that makes permanent the changes made last year in the state's law that permits banks to open branches without geographic restrictions, establish joint branch banks, offer each other's customers financial services, and operate courier services. *BBR*, 3/26/90, p. 530.

Interstate Banking

Connecticut: A new law permits nationwide reciprocal banking, effective January, 1992. Out-of-state institutions cannot enter through *de novo* offices until February 1, 1992. Under prior law only banks in New England were allowed entry into the state. *BBR*, 3/19/90, p. 481.

Delaware: The state's nationwide interstate banking law for commercial and savings banks became effective on June 30, 1990. Out-of-state holding companies can acquire Delaware banks that have been in existence at least five years, if the target institution has not elected to remove itself from being open to acquisition. *Banking Legislation and Policy*, Federal Reserve Bank of Philadelphia, April-June, 1990, p. 6.

Kansas: A regional, reciprocal interstate banking law was enacted. Effective July 1, 1992, bank holding companies based in Arkansas, Colorado, Iowa, Missouri, Nebraska, and Oklahoma are allowed to acquire Kansas banks or BHCs if the home state of the acquirer has a similar law. *BBR*, 3/25/91, p. 556.

Massachusetts: The Governor signed a law on July 6 that permits banking firms outside New England to purchase Massachusetts banks or open offices in the state, effective 60 days after the signing. Previously, financial institutions outside the region

were prohibited from taking deposits, acquiring banks, or opening branches in Massachusetts. The state's banks are allowed to "opt out" of the interstate provision until July 1, 1992. Banks and bank holding companies, both out-of-state and intrastate, are limited by a 15 percent cap on the amount of the total deposits in the state they can control through acquisition.

A "net new benefits" test must be met by out-of-state institutions seeking to enter the state. The benefits test involves capital investment, job creation, services to the public, and commitments to maintain and open branch offices. *BBR*, 7/16/90, p. 94.

New Hampshire: A new law extends to the entire U.S. the state's reciprocal, interstate banking law that previously had been restricted to the states of New England under a law enacted in 1987. The new law was effective immediately. It also increased to 20 percent, from 15 percent, the maximum amount of deposits in the state that any one bank can control through the purchase of another bank. This restriction can be waived if the Banking Commissioner determines that a bank is experiencing difficulties that could lead to federal intervention. *BBR*, 4/30/90, p. 727.

North Dakota: A new law permits nationwide, interstate banking on a reciprocal basis, effective July 1, 1991. Among the specified restrictions, an out-of-state institution cannot acquire a North Dakota bank without its consent, and the institution must agree to make the same percentage of commercial loans in North Dakota that it does systemwide. *BBR*, 4/1/91, p. 602.

Pennsylvania: New legislation, effective December 18, 1990, provides for reciprocal interstate operations for savings banks. *ELSS*, 2/12/91.

Tennessee: Under new legislation, banks and bank holding companies in any state may enter Tennessee through purchase or opening a bank. Reciprocity is required. The law be-

came effective January 1, 1991. *BBR*, 3/26/90, p. 530.

Savings institutions are given similar authority to banks for interstate banking. Effective 3/8/90. *ELSS*, 2/12/91.

Utah: A decision of Utah regulators to allow BankAmerica Corp. to operate a Salt Lake City office as a full-service branch of its Arizona-chartered bank is seen as a precedent that could result in further interstate branching by state-chartered banks. The Utah office was acquired by BankAmerica as part of its \$81-million purchase of Western Savings and Loan Association's assets and liabilities from the RTC in May 1990. Following its acquisition of Western, BankAmerica converted it into a state-chartered commercial bank. Having obtained full banking privileges in Utah, Bank of America Arizona could open more branches in the state. *AB*, 7/12/90, p. 1.

Wyoming: The legislature approved a measure that requires all bank branches operating in the state to be licensed annually. The bill was prompted by the possibility of interstate banking and the regulators' desire to establish control over such branches. Out-of-state banks with branches in the state are required to designate one office as a principal place of business for the location of banking records. If enacted, the legislation would be effective July 1, 1991. *BBR*, 2/25/91, p. 350.

Sale of Securities Restricted in Branches

California: Without written regulatory permission, depository institutions are prohibited under a new law from selling certain uninsured securities issued by the bank or its affiliates in a branch that accepts deposits from the public. Sales of uninsured securities in the deposit-taking area of the branch must have the customer's written statement of understanding that the security may not be federally insured. *California Banker*, 11/12/90, p. 3.

Lenders' Liability Is Limited

Colorado: Bankers are protected under a new law against claims by third parties that they or their property is being hurt by polluted property that the bank owns through foreclosure. The legislation limits third-party liability for lenders who comply with certain conditions to the cost of cleaning up contaminants or pollution. It states that "no lender-owner . . . shall . . . be liable for any third-party liability arising from contamination." *AB*, 4/26/90, p. 4.

States Will Conduct Joint Examinations

Arizona and Utah agreed to conduct joint examinations of state-chartered commercial banks with multistate branches. Reportedly it is the first such multistate agreement of its kind for commercial banks, though there have been similar agreements between states for thrift institutions. The agreement covers coordination of examinations, division of regulatory authority, information sharing, and fees.

The action by the states follows the purchase of Arizona's Western Savings and Loan Association by BankAmerica Corp., and its conversion into state-chartered Bank of America Arizona, with authority to operate Western's single Salt Lake City office as a branch. *AB*, 9/4/90, p. 2.

State Regulators Will Coordinate Foreign Bank Supervision

With respect to international banks operating in their states, regulators in New York, California, Florida, Illinois, Georgia, Michigan, and Washington will share such information as financial condition, examination rating, business practices, compliance record, and the bank's relationships with its home-country supervisor and its parent company. The Conference of State Bank Supervisors said the agreement will simplify compliance and ensure uniform, thorough regulation.

Foreign banks hold almost \$700 billion in assets in the U.S., or 23 percent of all U.S. banking assets, and 94 percent of foreign bank-controlled assets are under state regulation.

State banking departments in several states also are working on an agreement to exchange information about domestic banks with interstate operations. *NEWS RELEASE, Conference of State Bank Supervisors*, 7/18/90.

Bank and Thrift Performance

Banks' Earnings Continue Depressed by Loan Losses

Commercial banks in the U.S. earned a total of \$1.4 billion in the fourth quarter of 1990, declining from \$3.7 billion in the third quarter despite the fact that net interest margins widened. For the full year, banks' earnings were \$16.6 billion, up by \$1 billion from 1989.

High levels of troubled assets and provision for loan losses continued to heavily impact earnings. Commercial banks reserved \$11 billion in the fourth quarter for domestic credit losses, compared to the previous high of \$7.8 billion in the third quarter of 1990. For the full year, total provision for losses on domestic and foreign operations were \$31.7 billion, \$670 million more than in 1989.

In the Northeast Region, 38 percent of all banks had negative earnings in the fourth quarter.

Nationwide, troubled assets were 2.9 percent of all bank assets at the end of 1990, up from 2.3 percent in 1989.

The FDIC's list of "problem" banks totaled 1,012 at the end of 1990, down by 97 institutions from 1989, and well below the record number of 1,575 in 1987. Assets of "problem" banks, however, were above the total of any previous year, reaching \$409 billion at year-end 1990. *FDIC Quarterly Banking Profile, Fourth Quarter, 1990*.

Thrift Industry's Reduced Losses Reflect Ongoing Cleanup

Thrift institutions in the private sector reported losses of \$965 million in the fourth quarter of 1990, up from the \$774 million loss in the third quarter, but well under the \$3.1 billion loss in the last quarter of 1989. OTS Director Timothy Ryan said "the year-to-year reduction in losses reflects the continuing profitability of the healthier thrifts and the ongoing cleanup of the industry through the transfer of insolvent and near-insolvent thrifts to the Resolution Trust Corporation."

As of December 31, a total of 2,342 thrifts remained in the private sector, down 255 from year-end 1989. OTS divides these institutions into four groups: (I) well-capitalized and profitable institutions (1,069), (II) thrifts expected to meet capital requirements (710), (III) troubled institutions with poor earnings and low capital (369), and (IV) thrifts expected to be transferred to the RTC (194). Group I and II institutions, representing in numbers over three-fourths of the private-sector industry, and about 60 percent of the assets, together had earnings in the fourth quarter of \$645 million, compared to \$704 million in the final quarter of 1989.

Texas, with 13 of the most troubled thrifts at year-end 1990, is now outranked in that respect by Florida (21), California (20), and New Jersey (15). *NEWS, OTS, 3/14/91.*

Banks Overtaking Thrifts as Mortgage Investors

If present trends continue, commercial banks will pass S&Ls in the second quarter of 1991 in total investment in mortgages/mortgage securities. In the six months ending September 30, 1990, banks increased their holdings by 11 percent, to \$527.4 billion, while S&Ls' holdings declined by six percent to \$645.2 billion. A year and a half ago, banks topped S&Ls in the monthly production of home loans for the first time.

While some of the largest banks sell most of their originations, and then earn fees servicing the loans, almost all banks hold at least a portion of their new loans. Banks have become large buyers, because of attractive yields, of securities backed by mortgages, and collateralized mortgage obligations. The advantages to banks of mortgage-related investments in part reflect current business conditions and may diminish over the coming months.

Thrifts still have a much higher investment in mortgage-related assets relative to their total assets than banks have -- 55 percent as compared to 16 percent. *AB, 1/25/91, p. 1.*

Recent Articles and Studies

Treasury Study on Deposit Insurance, Agency Restructuring, and Banking Reforms

The Treasury Department submitted its report on the federal deposit insurance system to Congress, as required by FIRREA. In its letter of transmittal, the Treasury said its goal "has been to develop practical proposals to reform and strengthen the federal deposit insurance system; modernize our financial system to make banks safer and more competitive, both domestically and internationally; and streamline the bank regulatory structure."

Among the report's conclusions is that deposit insurance has been extended well beyond its original purpose(s). It proposes that in the short term deposit insurance coverage be limited to \$100,000 per institution for individual accounts and \$100,000 per institution in retirement accounts. In the long term the goal is limited coverage per depositor across all depository institutions.

Additional proposals to reduce the scope of deposit insurance include elimination of pass-through coverage for deposits held by professionally managed pension plans for Bank Investment Contracts. Also eliminated

would be the coverage of brokered deposits, and coverage of nondeposit creditors.

The FDIC would not protect uninsured deposits unless it is cheaper to do so. If the Treasury and Federal Reserve jointly determine that systemic risk exists, they would have the flexibility to fully protect uninsured depositors. These and certain other proposed new policies to limit coverage of uninsured depositors would be phased in after a three-year delayed effective date.

Well-capitalized banks would be authorized to have financial affiliates, including securities, mutual funds and insurance affiliates. Financial companies would be permitted to own well-capitalized banks, and commercial firms could own financial holding companies. These ownership structures would be subject to funding and disclosure firewalls and other specified safeguards.

The manner in which insurance is sold has generally been regulated at the state level. The report states that unless greater federal regulation of insurance is sought, the federal government should generally defer to the states in the manner in which banks are permitted to sell insurance products of either affiliated or unaffiliated companies. National banks should be permitted to sell insurance products in states that permit such activities for their own banks.

Direct equity investment in real estate and other commercial ventures, which is already prohibited for national banks, would be prohibited for state banks as well. Federally insured state-chartered banks would generally be prohibited from engaging in activities not permitted for national banks, unless the state bank is fully capitalized and the FDIC finds that the activities do not create a substantial risk of loss to the insurance fund.

Nationwide banking would be allowed for holding companies in three years. National banks would be permitted to branch interstate im-

mediately wherever interstate branching is permitted, but there would be no preemption of *intrastate* branching restrictions. Interstate banking for state banks would be authorized, but not required for all states.

With respect to regulatory restructuring, the Federal Reserve would regulate all state banking organizations. A new Federal Banking Agency under the Treasury Department would regulate all national banking organizations and all thrifts. All supervisory and regulatory functions as a primary regulator would be transferred from the FDIC. *Modernizing the Financial System: Recommendations for Safer, More Competitive Banks, U.S. Department of the Treasury, February 1991.*

GAO Study on Deposit Insurance

The General Accounting Office issued a report, which was required by FIRREA, on reform of the deposit insurance system.

One of the report's conclusions is that too often the enforcement process against unsound banking practices has been too slow, and the delay has caused failure-resolution costs to be higher. It proposes speeding up the problem-detecting and supervisory-enforcement process through a required, more clearly defined, "tripwire" approach. Starting at the earliest stage when certain problems can first be identified, for example, increasing interest-rate risk, or unusually rapid growth, regulators would have to initiate corrective action. This approach would be carried through to defined signals of more serious problems, including asset deterioration, declines in capital below required levels, and serious impairment of capital.

The report favors the use of a risk-based deposit assessment system. After the BIF is recapitalized, and when industry capital adequacy is attained, the risk-based assessments could be reduced for well-capitalized banks.

New powers would be granted only on a case-by-case basis to well-managed and well-capitalized institutions.

The FDIC should not be required to use the least-cost method for resolving failure cases, at least not until the industry condition is improved. In any case, the report says, it is necessary that the federal regulators have the flexibility to take any needed steps to preserve industry stability. The FRB, in consultation with the FDIC, should be given the authority to determine when an institution is "too big to fail."

One alternative for fully protecting depositors having accounts exceeding the limit of insurance would be to give them a choice of having their excess deposits insured by paying for such insurance explicitly or implicitly through a reduced yield. *Deposit Insurance - A Strategy For Reform, U.S. General Accounting Office, March, 1991.*

Other Studies on Deposit Insurance Reform

The proposals for deposit insurance reform contained in this article ("Insurance Reform Can Stop 'Beat-the-Bank' Syndrome," by Robert T. Parry) are based on several assumptions: a) prevention of destabilizing runs is the primary rationale of deposit insurance; b) market discipline is the most effective means of controlling risk-taking by financial institutions; and c) equity and subordinated debtholders are the most likely sources of market discipline. The most important of his proposals, the writer states, is for prompt resolution of failure cases, and abandonment of "forbearance." This rule would be applied to all institutions, regardless of size. The success of this would depend upon having a risk-adjusted minimum capital. An institution falling below this minimum would be closed or reorganized. If combined with "progressive discipline," an institution approaching the minimum would be subject to increasingly strin-

gent regulatory limits on their behavior.

Debtholder discipline would not be needed, nor would the deposit insurance fund, if the prompt closure rule were operating properly. However, regulators can and do make mistakes regarding asset valuation.

There is a need to augment book-value measures of capital with market valuation wherever possible. Regarding the valuation of loans, the writer cites two principles to make use of: a) the book value of a loan overstates its market value whenever the interest rate on a comparable new loan rises above the older loan's contractual value, and b) classified loans are not worth what their book values imply they are worth.

The final element of the reform proposals is to limit deposit insurance to \$100,000, "preferably on a per-capita basis, if a practical way can be found to do this." *AB, 4/19/90, p. 23.*

The writer (*Back From the Brink*, 1990, Peter J. Wallison) presents a plan for privatizing deposit insurance and strengthening the nation's banks and savings institutions. Banks and healthy thrifts would form Deposit Guarantee Associations (DGAs) which, after a period of transition, would guarantee all interest-bearing and certain other liabilities of selected other institutions that are not members of the same DGA. Participation in a DGA would be mandatory for individual banks or banking firms having assets of \$1 billion or more. Supervision of the DGAs could be by the FDIC, the study says.

A stop-loss provision -- such as is commonly found in the insurance industry -- would limit an individual institution's liability, in this case to 20 percent of the institution's capital in excess of its "base" level of three percent. Losses of a DGA beyond the specified limitation would be borne by other DGAs. While the BIF and SAIF would provide a back-up guarantee on insurance up to \$100,000 for DGA members, in effect the Funds

would not have to provide resources until the committed capital of all DGA members had been exhausted.

DGA banks would pay the BIF or SAIF only a nominal premium. The DGAs would charge members a risk-based premium, which would be set by a formula in a guarantee contract between the DGA and the institution, and which would be subject to resetting at frequent intervals. An individual institution's premium would be set by a DGA in competition with other DGAs; thus the premium would be market-established. Most sound institutions would, the author believes, pay a premium for insurance well below the amount they now pay. The only such institutions not realizing a saving would be those with large foreign deposits on which assessments are not paid.

The professional staffs of the guarantee DGAs would monitor and limit the risks assumed by the institutions for which they are responsible. If an institution could not obtain insurance by the end of a designated time period it would be sold, reorganized, or liquidated by its last guarantor. *Also by Peter J. Wallison: "Privatize Deposit Insurance," WSJ, 8/16/90, p. A14.*

Banks' Selling of Insurance

The GAO conducted a study of banks selling insurance, specifically sales of insurance underwritten by unaffiliated insurance companies, with all risk of loss due to policyholder claims borne by the insurance companies. The study focused on the potential effects on consumers, other insurance sellers, and bank safety and soundness.

At present most banks can sell credit insurance, and state-chartered banks in a majority of the states are permitted to sell most forms of insurance. In towns of less than 5,000 in population, bank holding companies, national banks, and some state banks can sell all types of insurance. A bank holding company with assets less than \$50 million can sell some type of insurance.

There may be advantages, the GAO report says, to consumers from banks selling insurance with respect to increased convenience and a saving of time in purchasing insurance. Consumers' insurance costs might be reduced if banks could lower costs through joint marketing of bank and insurance products. The study did not, however, attempt to estimate the extent of any savings, or whether such savings would lower insurance premiums.

With respect to coercive tie-ins, banking law forbids practices where the customer is forced to purchase an additional product to receive credit. While credit insurance is relatively susceptible to tie-ins, previous Federal Reserve studies have found favorable consumer perceptions, which did not indicate widespread abuse by banks. These studies concluded that while instances of abuse may occur, coercive tie-ins are not widespread in bank sales of insurance. Additional measures to protect consumers could include disclosing that insurance purchases are voluntary, and requiring that insurance marketing be separated from the credit-approval process. Such a separation, however, might reduce or eliminate the cost savings that would otherwise flow from joint marketing of banking and insurance products.

Banks have potential competitive advantages over other insurance sellers, for example, through joint marketing of bank and insurance products, and their access to bank customers and customer information, and shared overhead costs. However, these advantages are not unique to banks, and any large insurance seller has an advantage over small agents.

Although expanded bank sales of insurance underwritten by unaffiliated insurance companies would not endanger bank safety and soundness, it is suggested that additional measures may be necessary to ensure that consumers do not become confused about whether insurance products

sold by a bank are backed by federal deposit insurance. *Bank Powers -- Issues Related to Banks Selling Insurance, U.S. General Accounting Office, 9/90, 38 pp.*

Activities of BHC Securities Subsidiaries

This study develops information on the activities of bank holding companies' subsidiaries authorized by the FRB under Section 20 of the Glass-Steagall Act. That Section permits FR member banks to be affiliated with firms which are engaged, but not principally engaged, in activities that are generally forbidden to the banks themselves.

In 1987, the FRB began approving applications submitted by BHCs to allow their wholly-owned nonbank subsidiaries to underwrite and deal in certain bank-ineligible securities, specifically, municipal revenue bonds, mortgage-related securities and commercial paper. The FRB placed a limit of five percent of a subsidiary's gross revenues on the revenues that could be generated from the bank-ineligible activities. The FRB also required certain "firewalls" designed to insulate insured bank affiliates from the risks associated with Section 20 activities. In September 1989 the revenue limit was raised to ten percent. Approvals were granted in early 1989 that involved underwriting and dealing in corporate debt and equity securities, the latter subject to a one-year moratorium. In order for firms to begin these activities they had to meet some additional requirements. These involved managerial and operational structures sufficient to ensure compliance with the "firewalls," and a capital plan.

The GAO's report finds that in the third quarter of 1989 the 13 Section 20 firms which were in operation underwrote about \$69 billion in "bank-ineligible" securities, including mortgage-backed securities, municipal bonds, commercial paper, and consumer-related receivables. Commercial paper represented about 98 percent of that amount, increasing by

more than 500 percent from a year earlier. Activities involving the other securities also showed large percentage gains. Section 20 firms in the second quarter of 1989 had total capital of about \$1.8 billion, or approximately 4 percent of the capital of all securities firms then registered with the Securities and Exchange Commission.

The report states that "although there are risks associated with Section 20 company underwriting and dealing in bank-ineligible securities, these activities also provide bank holding companies with opportunities to diversify their activities and thus limit their risks from any single activity . . . it is still too early to tell whether Section 20 firms' activities and placing these activities in a nonbank subsidiary have actually affected the risk levels within their holding companies." *Bank Powers: Activities of Securities Subsidiaries of Bank Holding Companies, U.S. General Accounting Office, March, 1990.*

Nonbank Activities of BHCs

This article ("The Nonbank Activities of Bank Holding Companies," J. Nellie Liang and Donald T. Savage) finds that at year-end 1988, 284 bank holding companies held net nonbank assets totaling \$164.0 billion. Assets devoted to nonbank activities in-

creased 11.7 percent in 1988, and represented 6.9 percent of the firms' consolidated bank and nonbank assets at the year-end.

Ownership of nonbank assets is highly concentrated. The top five firms (in terms of net nonbank assets) held 57.2 percent of the total held by reporting firms in 1988, and the leading ten held 73.4 percent. For those firms, nonbank assets represented 17.8 percent of total assets of the holding companies. Three organizations had over 20 percent of their total assets in net nonbank assets.

Traditional banking activities, such as commercial finance, mortgage banking, consumer finance, and leasing, accounted for 56 percent of aggregate nonbank assets in 1988. Securities brokerage, growing by more than 50 percent in asset volume in 1988, accounted for 15.4 percent.

The evidence suggests that nonbank subsidiaries generally are more profitable than bank subsidiaries, but nonbank profits have moved in parallel with bank profits over the 1986-88 period. Various measures appear to indicate that nonbank subsidiaries, while better capitalized, are riskier than bank subsidiaries. Thus the growth in the relative share of non-

bank activities could have important implications for the safety and soundness of banking organizations. *Federal Reserve Bulletin, May, 1990, pp. 280-292.*

U.S. Justice Department Reports on S&L Investigations

The U.S. Justice Department, in a report compiled as of July 22, 1990, stated that 328 persons have been charged with crimes in connection with an estimated 243 S&Ls that have been "victimized" since October 1, 1988. In addition, there have been convictions of 213 persons, resulting in prison terms totaling 415 years, plus nearly \$1 million in fines, and restitutions ordered amounting to \$56.6 million.

The number of failed financial institutions under investigation by the FBI grew by 31 percent to 530 in February, from 404 at year-end 1989, according to the report. Texas leads in FBI investigations of failed financial institutions, with 198, followed by California (41), Louisiana (36), and Oklahoma (32). In the Northeast, New York was the leader, with nine. *AB, 8/20/90, p.9.*