

# Business Review

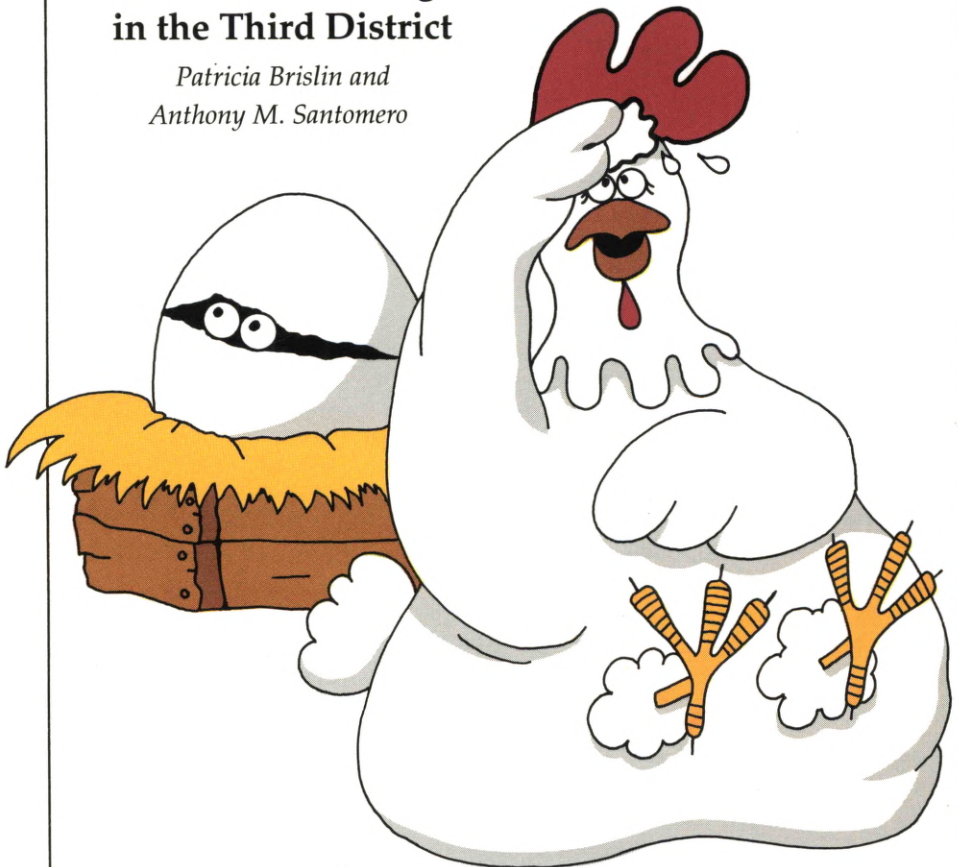
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## De Novo Banking in the Third District

*Patricia Brislin and  
Anthony M. Santomero*



## Coping with State Budget Deficits

*Janet G. Stotsky*

# Business Review

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JANUARY/FEBRUARY 1991

## DE NOVO BANKING IN THE THIRD DISTRICT

*Patricia Brislin and Anthony M. Santomero*

Much is made of the dwindling number of banking organizations, but a less publicized story is the rapid growth in the number of new banks that have opened. In an evident trend, the number of "de novo" banks—banks that have been in existence for less than five years—has increased both across the nation and in the Third Federal Reserve District. Thus far, new institutions in the District have achieved profitability for the most part, but challenges remain.

## COPING WITH STATE BUDGET DEFICITS

*Janet G. Stotsky*

In recent years, state budgets have been the bright spot amid government budget troubles. But now, like the federal government, many states are finding themselves in precarious budget situations. States in the Northeast are feeling the effects most keenly. And the states that have so far slid by with only minor adjustments may not be immune much longer. What's behind the budget problems in many states? And are there ways in which states can cope?

# De Novo Banking in the Third District

*Patricia Brislin and Anthony M. Santomero\**

**M**uch has been written about the number of bank failures and mergers in the last decade. To read the newspapers, one would think that the banking industry was losing members without end. It's true that the number of banking organizations in the United States has declined over time, but this isn't the entire story. As some banks go, others come.

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In fact, a major story is the rapid growth in the number of new banks that have opened.

Institutions that have been in existence for less than five years are termed "de novo" banks for purposes of the quarterly Call Reports all banks must file with their federal regulators. In an evident trend, the number of de novos has increased both across the nation and in the three states of the Third Federal Reserve District—Pennsylvania, New Jersey, and Delaware.

As the number of de novos in the Third District grows, the local press heralds their arrival. But little has been written about these banks' strategies for success or about the pit-

falls they may face along the way.

Previous studies have shown de novo banks having high mortality rates. Remarkably, all institutions chartered in the Third District since January 1985 still exist today. However, as will be shown below, special conditions are required for new entrants to do well in the banking industry. These include good management, rapid growth in assets, good credit decisions, and a healthy economy. Thus far, the institutions in the Third District have achieved profitability for the most part, but challenges remain.

### DE NOVO ACTIVITY IN THE THIRD DISTRICT

While the total number of Third District banks has declined slightly over the past five years—to 283 from 298—some 38 new commercial banks (excluding special-purpose institutions) started operations in the Third District between January 1985 and December 1989. Of this total, an overwhelming percentage have been concentrated in the greater Philadelphia metropolitan area. In the last quarter of 1989, these de novo institutions represented 13.4 percent of all banking institutions in the District, and their assets have grown rapidly. (For the 38 institutions' dates of establishment and asset sizes as of January 1, 1990, see *New Banks Established*.)

**Growth in Assets.** Despite representing more than 10 percent of the District's banking organizations in the last quarter of 1989, the 38 de novos held assets that accounted for only 1.26 percent of the District's total assets. Additionally, the average de novo was 9 percent the size of the average Third District bank in that quarter. This contrast owes primarily to the de novos' infancy.

Assets of de novo banks have grown rapidly over the last five years. In the final quarter of 1989, the average growth rate for the de novo group's assets was 82 percent (annualized), compared to 17.3 percent for the Third District

as a whole. As a de novo bank grows, however, its annual growth rate of assets declines. For a typical de novo, annual asset growth is 85 percent at the end of its second year of operation and declines to 35 percent by the end of its fifth year.

**Assets and Liabilities Composition.** In the early stages of operation, each of the 38 banks had a substantial portion of its assets in money market instruments, securities, and the "other assets" category—primarily premises and equipment. It takes time for new firms to find good loans and other profitable opportunities. Over time, however, they continuously increase the fraction of their assets in loans, at the expense of the fraction devoted to securities. In addition, fixed assets decline as a percentage of the total. For a de novo at the end of its first quarter of operation, total loans on average represent 30.7 percent of assets. This figure rises to 72.7 percent by the end of the second year. After making this transition, the average de novo holds approximately the same percentage of assets in loans as the average Third District bank. Within the securities category, the average de novo consistently holds more U.S. Treasury securities and fewer municipals than the average Third District bank.

The funding of de novos evolves much like their assets. Starting with primarily capital investment, the liability structure expands in both core deposits and money market liabilities. By the end of the first year of operation, 68 percent of the average de novo's liabilities are in these categories. This number had risen to 86 percent by the end of the fifth year of the study, but even then amounted to only 79 percent of the average figure for Third District banks. On the other hand, the ratio of demand deposits to assets was simultaneously about the same for the average de novo in the group as for the average Third District bank.

**Income and Expenses.** De novo banks see noticeable growth of interest income over the first few years of operation. For the 38 de novo

## New Banks Established in the Third District Since March 1985\*

Name of Bank	City, State	Established	Assets (1/1/90)
Berks County Bank	Reading, PA	12/01/87	\$76,111,000
Bank of Brandywine Valley	West Chester, PA	08/01/88	\$20,350,000
Bank of Delaware Valley	Fairless Hills, PA	10/31/89	\$4,441,000
Bank of Gloucester County	Deptford, NJ	11/06/89	\$6,569,000
Burlington County Bank	Burlington, NJ	03/02/88	\$26,623,000
Carnegie Bank	Princeton, NJ	03/09/88	\$45,723,000
Chestnut Hill National Bank	Philadelphia, PA	05/09/85	\$50,927,000
The Coastal Bank	Ocean City, NJ	02/26/88	\$42,926,000
Constitution Bank	Philadelphia, PA	06/02/86	\$124,980,000
Commerce Bank of Harrisburg	Camp Hill, PA	06/01/85	\$59,161,000
Commonwealth State Bank	Newtown, PA	04/08/87	\$37,975,000
Community National Bank of NJ	Westmont, NJ	10/02/87	\$39,449,000
Equitable National Bank	Upper Darby, PA	04/13/87	\$15,146,000
First Bank of Philadelphia	Philadelphia, PA	07/22/87	\$73,778,000
First Capitol Bank	York, PA	11/21/88	\$18,590,000
First Commercial Bank of Philadelphia	Philadelphia, PA	10/24/89	\$5,517,000
First Executive Bank	Philadelphia, PA	11/03/88	\$45,503,000
First Pennsylvania Bank (NJ), N.A.	Marlton, NJ	11/02/87	\$64,449,000
First State Bank	Wilmington, DE	11/21/88	\$30,531,000
First Sterling Bank	Devon, PA	06/01/88	\$42,319,000
First Washington State Bank	Windsor, NJ	12/04/89	\$6,569,000
Freedom Valley Bank	West Chester, PA	06/09/86	\$81,826,000
Founders' Bank	Bryn Mawr, PA	07/14/88	\$33,319,000
Glendale Bank of Pennsylvania	Upper Darby, PA	12/18/87	\$37,330,000
Jefferson Bank of New Jersey	Mount Laurel, NJ	08/25/88	\$29,964,000
The Madison Bank	Blue Bell, PA	08/16/89	\$12,459,000
Metrobank, N.A.	Philadelphia, PA	06/01/89	\$21,149,000
National Bank of the Main Line	Wayne, PA	03/18/85	\$109,395,000
Pennsylvania State Bank	Camp Hill, PA	04/24/89	\$8,205,000
The Pocono Bank	Milford, PA	11/09/88	\$15,200,000
Regent National Bank	Philadelphia, PA	06/05/89	\$90,614,000
Republic Bank	Philadelphia, PA	09/06/88	\$35,887,000
Rittenhouse Trust Company	Philadelphia, PA	04/01/87	\$18,974,000
Security First Bank	Media, PA	08/01/88	\$28,368,000
Security National Bank	Pottstown, PA	09/27/88	\$21,173,000
Sun National Bank	Medford, NJ	05/06/85	\$39,188,000
Trust Company of Princeton	Princeton, NJ	01/24/87	\$45,082,000
United Valley Bank	Wayne, PA	02/04/88	\$68,918,000

\*This list excludes savings banks, credit-card banks, other special-purpose banks, and one subsidiary of an existing holding company that entered the market at an unusually large size. It does, however, include several subsidiaries of existing bank holding companies that were created to enter new markets but that appeared in other respects to behave similarly to the independent banks in the de novo sample.

banks, interest income accounted for 74 percent of total income in the initial quarter of operation and 98 percent in the most recent quarter.

The composition of expenses for all de novos changes substantially over time. Overhead expenses account for 92 percent of total expenses in the first quarter of operation of a typical de novo. Interest expenses in the first quarter are only 5.3 percent of total expenses, as the bank has not yet had time to attract a substantial deposit base. But in subsequent quarters, the relative importance of interest expenses increases; overhead falls proportionately. For de novos at the end of their fifth year of operation, the expenses on average consist of approximately 70 percent interest and 27 percent overhead.

New organizations inevitably run losses at early stages of their development. Then, as assets increase, interest income grows to more than offset these expenses. These results are not surprising. Of note, however, is the speed with which Third District de novos have reached profitability (Figure 1).

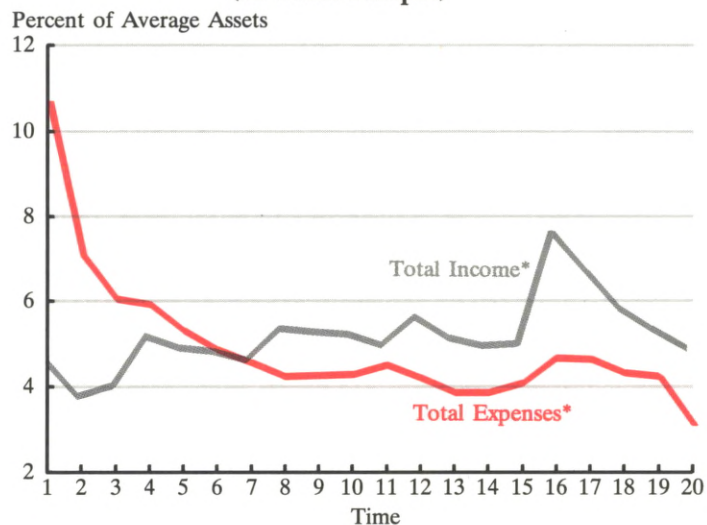
**ROE and ROA.** This performance can be illustrated by examining the sample institutions' average return on assets (ROA) and return on equity (ROE) for the first

20 quarters of operation. ROA measures how well the bank is utilizing its assets. ROE measures the return on invested capital in the bank. Both are used to evaluate an institution's profitability. In the Third District, de novo banks' average ROA and ROE turn positive around the seventh quarter of operation. However, ROA stays approximately constant over the remaining quarters in our sample, while ROE fluctuates and continues to grow.

#### FURTHER COMPARISON TO THIRD DISTRICT PERFORMANCE

The first two years of a bank's life are unique in many ways as it struggles to become profitable. By looking at a special subset of de novos—those in existence at least two years as of December 1989—we can learn more about

**FIGURE 1**  
**Income and Expenses of De Novo Banks**  
(38-Bank Sample)



\* Net of interest expenses, to normalize for interest rate movement across the sample.

Source: Federal Financial Institutions Examination Council, Quarterly Reports of Condition and Income for Insured Commercial Banks

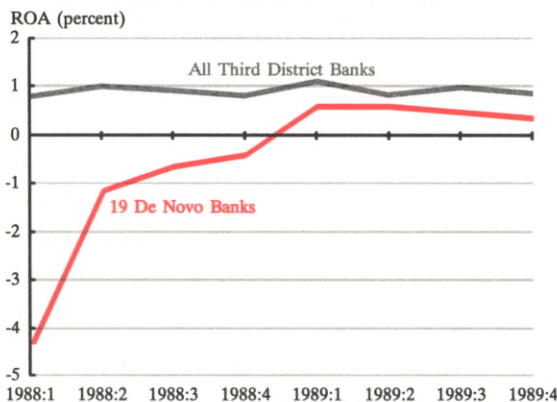
the challenges facing de novos and the strategies by which they confront those challenges. Nineteen of the 38 de novos established since 1985 meet this criterion. Let's restrict the comparison of performance in this section to these 19 banks and the average Third District institution.

**Profitability.** Average ROA and ROE of all Third District banks have been relatively stationary over the entire sample period, at approximately 1 percent and 12 percent, respectively. Like those of all 38 de novos described above, the ROA and ROE of the 19-bank subsample grew rapidly at first, then remained constant over the last year of operation, at approximately half the average for the Third District (Figures 2 and 3). This results in an ROE for the sample of near 5 percent, which might seem a less-than-stellar return to the average investor in these new banks and unacceptable as a long-run return to invested equity capital. Such a judgment, however, may be premature given the recent origin of these banks.

**Portfolio Composition.** The fraction of assets these de novos held as loans in the last quarter of 1989 (66.5 percent) was only slightly greater than the percentage held by Third District banks in general. Within this loan category, de novo banks hold, on average, approximately the same amount of real es-

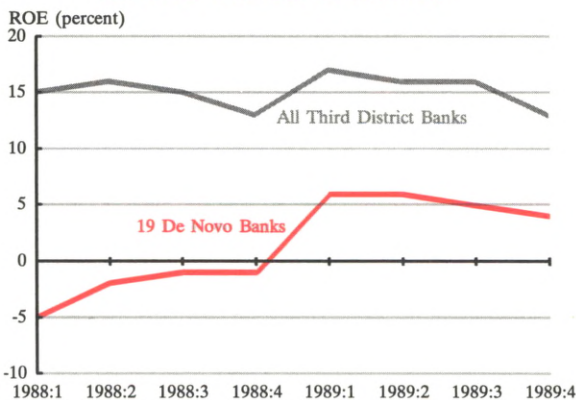
tate loans, more commercial and industrial (and other) loans, and fewer consumer loans than the average Third District bank. These proportions, however, appear to change over time. For example, the concentration in real estate loans changed from approximately 23

**FIGURE 2**  
**Average ROA of Banks in the Third District**



Source: Same as Figure 1

**FIGURE 3**  
**Average ROE of Banks in the Third District**



Source: Same as Figure 1

percent of total loans in the first quarter of operation to over 47 percent in the last quarter, while the proportion of commercial and industrial loans fell from 38 percent to 30 percent (Figure 4).

As researcher James McAndrews points out in an article on Third District banks in the 1990s, high loan-to-asset ratios are typical of Third District banking. The new entrants seem to have followed their District counterparts in maintaining high loan-to-asset ratios and low securities-to-asset ratios. In the absence of defaults, loan yields exceed securities yields, making this a profitable strategy. At the same time, however, high loan-to-asset ratios and correspondingly low securities-to-asset ratios generally suggest that a bank is relatively illiquid and may therefore have difficulty adjusting to changing economic conditions.

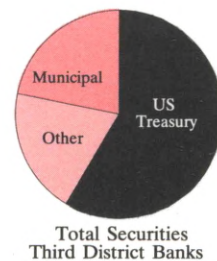
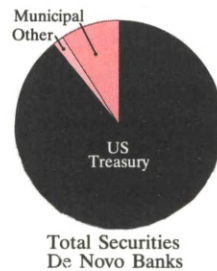
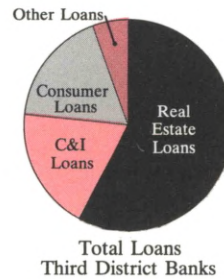
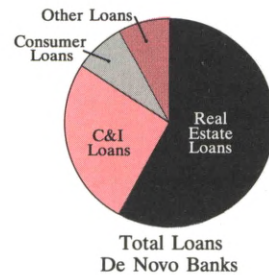
**Securities-to-Assets Ratios.** Besides having slightly higher loan-to-asset ratios than the District average, the older de novos also tend to substitute "other assets"—a category that includes these banks' own brick and mortar—for securities. This emphasis may be regarded as a strategy of investing in the means of both attracting additional deposits and generating additional loans. Overall, the average de novo bank seems to focus its growth of assets in the direction of acquiring loans and other assets as opposed to securities.

The composition of securities held by these de novos, moreover, differs from Third District averages (Figure 4). Compared to the District average, the 19-bank de novo sample holds more U.S. Treasury securities and fewer municipals and other securities. This is probably due to de novo banks' special need, at least initially, for high-quality liquid assets that can be quickly converted to loans as opportunity arises and yet pose no credit risk of their own. However, they seem to be decreasing their holdings of other securities and increasing their holdings of municipals over time.

**Deposit Financing.** The average de novo

**FIGURE 4**  
**Comparison of Asset**  
**Composition of De Novo and**  
**Third District Banks**

1989Q4 (19 Banks)





bank's liability structure is similar to that of the average Third District bank. In the last quarter of 1989, the established de novos' average core deposits per average assets were approximately 87 percent of the Third District average, while average demand deposits of de novos were 98 percent of the Third District average.

These comparisons provide some indication of what de novos have accomplished and where they are headed. The growth rate of these banks has been rapid, more than four and a half times the District's average asset growth rate as of the end of 1989. Together, the substantial asset growth, high loan-to-asset ratios, and reliance on core deposits suggest that de novos provide a useful function in their marketplace. Their profits, however, while positive on average, have yet to achieve a level comparable to the industry average or to their established Third District counterparts.

### ARE ALL DE NOVOS ALIKE?

In the comparisons above, we have been treating all de novos as a group. But that treatment may mask some significant differences in their strategy and performance.

**Winners and Losers.** While the average de novo has reached profitability by the end of the second year, this has not been true for all the institutions. In fact, the return on assets after two years of operation varied from -1.22 percent to 1.58 percent for the 19-bank sample. A median value of 0.32 percent therefore masks substantial differences. For new institutions these differences are most important, for they may indicate the ability of these banks to find a long-run place in the Third District marketplace.

In addition, average balance-sheet structure and loan-to-asset ratios overlook significant differences in strategy within the de novo group. For the 19 banks operating for at least two years, the loan-to-asset ratio averages 66.5 percent of total assets. The range, however, is between 45 percent and 83 percent. Four

institutions—First Pennsylvania Bank (NJ), N.A., Chestnut Hill National Bank, Glendale Bank of Pennsylvania, and United Valley Bank—had more than 75 percent of their total assets in the form of loans.

**Loan Specialization.** Within the loan category, most banks tended to specialize. The most common specialization was in the area of real estate lending, to which these institutions, on average, devoted more than 50 percent of their loan portfolio after two years of operation. Carnegie Bank, Trust Company of Princeton, and Equitable National Bank committed more than four-fifths of their lending activity to this segment of the market. On the other hand, Sun National Bank and Rittenhouse Trust Company reported no such loans, and First Pennsylvania Bank (NJ), N.A., had less than 20 percent in this category.

Commercial and industrial lending made up one-third of the loan portfolio, on average, but varied widely within the sample. Constitution Bank clearly targeted this area for concentration by devoting 92 percent of its loans to this category, and Burlington County Bank devoted 57 percent of its portfolio to this segment. By contrast, Community National Bank of New Jersey, Commonwealth State Bank, Glendale Bank of Pennsylvania, and Equitable National Bank had less than 10 percent of their portfolio in commercial loans.

Consumer lending traditionally begins slowly for new banks. Accordingly, it is not surprising that, after two years of operation, less than 10 percent of these banks' loans were made to consumers. Consumer lending at Constitution Bank, First State Bank, and Equitable National Bank was negligible. However, Rittenhouse Trust Company, First Pennsylvania Bank (NJ), N.A., and Chestnut Hill National Bank had more than twice the average percentage in their consumer portfolio.

While this evidence suggests that many de novos have been trying to specialize in various ways, the measures of product specialization

## De Novo Market Entry: How Is it Done?

Unlike most businesses, entrepreneurs wishing to enter the banking market cannot do so without constraint. They must first obtain a charter from either the State Banking Commissioner or, if a national bank, from the Office of the Comptroller of the Currency. In addition, in order to obtain deposit insurance, new entrants must make application to the Federal Deposit Insurance Corporation.

In judging the merits of a charter request, the State Banking Commissioner and the Comptroller of the Currency have traditionally used two criteria. The principal criterion is the proposal's worthiness, as evidenced by the financial capital behind the new venture, the expertise of management, and the intended business strategy. In addition, the charter proposal must satisfy a "convenience and needs" test, which considers the social desirability of the proposed institution. In essence, the regulators ask if there is a demonstrated need for a new entrant in the marketplace. The relative importance of these two criteria has changed over time and may differ across chartering authorities; for example, in 1984 the Comptroller of the Currency reduced the emphasis on the "convenience and needs" test in the evaluation process.

If the charter is accepted by the banking authorities as potentially viable, the relevant regulatory authority interviews the applicants and reviews the management team. Community reaction to the proposal is solicited at this point and, in some states, public hearings are held. Recommendations resulting from this process are forwarded to either the State Banking Commissioner or the Comptroller of the Currency. If the authorities view the application favorably, the organization is granted a charter and the management team is permitted to proceed to serve the market.

Clearly, banking is viewed as an activity that requires supervision. At both the state and national levels, attempts are made to restrict entry so that only entities meeting certain criteria operate in the market. Some contend that such a process is overly restrictive and that it enhances existing banks' monopoly positions. Others argue that entrance to the payments system must be restricted to only the highest-quality participants.

The perceived likelihood of successfully obtaining a new charter has changed over time. Prior to 1984, new applications were rarely filed and, some observers contended, not encouraged by the regulatory authorities. Since then, however, some have argued that new entrants should be encouraged because they enhance the competitive environment. This may have contributed to the spate of de novo applications both in the Third District and in the nation over the past five years.

available in the Call Reports fall short of identifying a single banking strategy. For example, the data do not reveal such customer specialization as a full-service private-banking strategy, which might include concentrated lending to high-income customers, or a commercial-lending strategy, which emphasizes business lending to middle-market customers.

Some researchers have suggested that successful established banks tend to follow one of these specialized strategies; on the other hand, a bank serving more than one market may be able to achieve a more stable earnings flow.

The dynamic tension between a narrow focus for higher average profitability and diversification for safety in adverse times remains a challenge for de novo banks in the Third District, and each bank must find its own way.

**Funding from Deposits.** On the funding side, the average bank had raised, by the end of its second year, more than two-thirds of its funds from demand deposits and retail savings accounts. These quantities, which are typically from local sources, included both consumer and commercial deposits. The remaining one-third was obtained from owners'

equity and borrowed funds in the regional money market. However, institutions such as Trust Company of Princeton, Commerce Bank of Harrisburg, First State Bank, and National Bank of the Main Line needed little additional money to support their activities. Each had more than 80 percent of its portfolio supported by core deposits.

In summary, the de novo trend in the Third District includes institutions of various characteristics. They share a common experience: entrepreneurial adventure in a dynamic banking market. Yet each institution has chosen its own path, as illustrated by significant differences in financial performance, asset composition, and liability structure. Changes in the economic conditions under which these institutions function may have a further impact on relative performance and the ability to survive and prosper.

### THE FUTURE OF DE NOVO BANKS

Previous studies find that de novo banks have had difficulty creating a stable market niche and that their profitability has been inconsistent.<sup>1</sup> Moreover, recent studies suggest that nearly half of de novos cease to exist within 10 years.<sup>2</sup>

Many reasonable explanations have been offered for the relative vulnerability of de novos. These banks need time to acquire a customer base and consumer loyalty. Meanwhile, they incur losses associated with large fixed costs and a general lack of experience in their chosen markets. Further, to break even requires sub-

stantial asset growth, good credit judgment, and, at times, good luck. Their small size and vulnerability due to lack of loan diversification make them less likely to survive an economic downturn in their region or their area of concentration.

Thus far, the Third District has been fortunate in that no de novo in the group chartered since 1985 has failed. This fine record owes not just to the nation's long economic expansion, but to the strength of the regional economy. However, signs of a national economic slowdown are clearly on the horizon. Already there have been impacts on reported earnings at regional banks throughout the country, as well as on money-center institutions. It will inevitably have a greater impact on new entrants here and elsewhere.

At least partially because of the change in economic environment, de novo activity in the Third District has declined substantially over the last calendar year. Regulators granted only four new charters for full-service commercial banks within the Third District over the first three quarters of 1990. This decline in the trend may signal an end to the recent wave of new entrants into the banking market as prospective entrants await calmer waters to launch their new institutions.

### SUMMARY

De novo banks are an important force in American banking. In many respects, they differentiate the American system from its more concentrated counterparts worldwide. Entry, even if regulated, adds an entrepreneurial spirit to any industry and allows the industry to serve its market more efficiently.

Within the Third District, fully 13.4 percent of operating institutions are less than five years old. These new entrants have entered a mature market and have performed well. On average, they break even in approximately two years and maintain a positive, if low, return on assets in the subsequent period. The secret to their

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<sup>1</sup>Douglas V. Austin and Christopher C. Binkert, "A Performance Analysis of Newly Chartered Commercial Banks," *The Magazine of Bank Administration* (January 1975) pp. 34-35.

<sup>2</sup>William C. Hunter and Aruna Srinivasan, "Determinants of De Novo Bank Performance," *Federal Reserve Bank of Atlanta Economic Review* (March/April 1990) pp. 14-25.

performance is substantial growth of high-quality assets in the first few years, coupled with the development of a strong core deposit base. In addition, successful banks exhibit a competitive strategy that exploits market niches left open in a consolidating industry. These institutions should be encouraged to continue serving their market.

Yet, the prospects for de novo banks are not all rosy. By their nature these institutions can-

not be broadly diversified and they face an uncertain future. Previous studies have shown that nearly half disappear, usually through consolidation, within the first decade. Whether this will be the fate of the Third District de novos is an open question. For the present, however, the customers and stockholders of these banks appear to find value to their presence in the Third District market.

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# Coping with State Budget Deficits

*Janet G. Stotsky\**

**I**n recent years, state budgets have been the bright spot amid government budgetary problems. But now, like the federal government, many states, especially those in the Northeast, are facing budget problems. And more bad news may be on the way for states that have so far slid by with only minor adjustments.

The primary reason for these budgetary imbalances is the slowdown in the national

economy. After recovering from a severe recession in 1981-82, much of the nation, especially the East and West coasts, experienced robust economic expansion. Many coastal states used this opportunity to increase spending rapidly for a wide range of programs. But other regions, such as the Midwest, did not prosper to the same degree. Unable to engage in the same spending splurge, they were left with healthier budget situations as the economy slowed. Meanwhile, states heavily dependent on energy industries never experienced the boom at all, instead sinking into recession as oil prices fell in the mid-1980s. These states are finally emerging from their

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budget problems just as others tumble in (Figure 1).

What are the causes of recent state budget problems? How do states manage these problems? And are there ways in which states can minimize these problems?

**WHY ARE THERE PROBLEMS?**

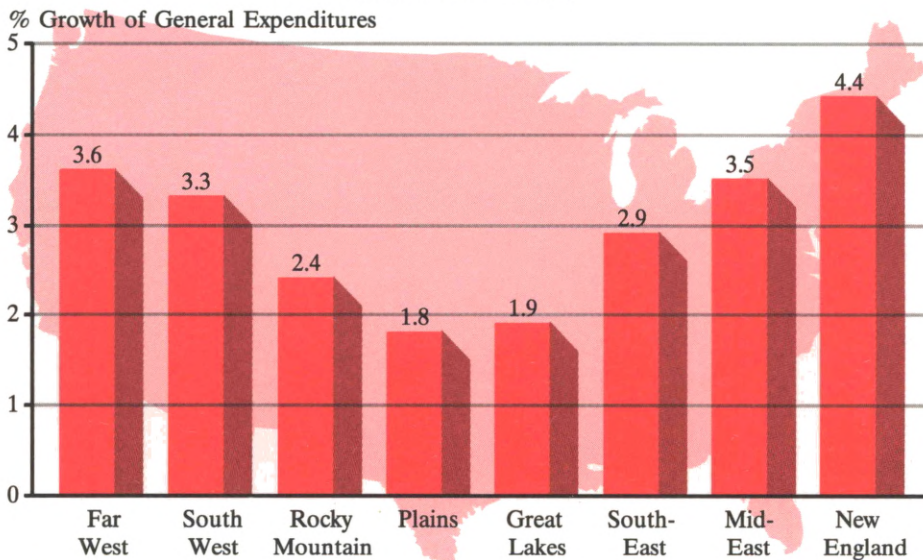
Economic slowdowns cause budget problems for state governments by reducing revenues and increasing some expenditures above expected levels. (See *How States Forecast Revenues*, p. 16.) In the past decade, this fiscal stress during economic downturns has been compounded by cutbacks in federal government aid, increased demands from local govern-

ments, relentlessly rising costs for certain basic services, and the inability of states to accumulate sizable reserves.

**The Impact of Economic Growth on Expenditures and Revenues.** During slowdowns, state spending rises above expected levels as people lose their jobs or face reduced workweeks and become eligible for unemployment compensation, welfare, and other income-transfer programs.<sup>1</sup> Moreover, slowdowns cause tax revenues to decline below expected levels.

<sup>1</sup>States are cushioned somewhat from the full impact of these cyclical changes because they share funding responsibility with the federal government. States currently pay approximately 44 percent of the two largest means-tested

**FIGURE 1a**  
**Regions in Which State Expenditures Grew More Slowly**  
**in the 1980s...**  
**(Fiscal 1980 - 1988)**



Note: Balances are budget stabilization and Rainy Day Funds. Because of inconsistencies that arise from definitional changes in General Fund data at the state level, we have chosen to use General Expenditures for the time series in Figure 1a.  
 Source: U.S. Bureau of the Census

States can make the transition from boom to bust very quickly and unexpectedly. "Over the last 18 months, tax revenues have fallen precipitously and we still don't know where the bottom is," said S. Stephen Rosenfeld, chief secretary to former Governor Michael S. Dukakis of Massachusetts, one of the states with the

income-transfer programs, Aid to Families with Dependent Children (welfare) and Medicaid (medical assistance for the poor). This raises the issue of what is the appropriate role of the federal and state governments in providing income insurance. The federal government has been seen as the principal provider of this insurance because it has greater capacity for countercyclical spending and a broader tax base. See Wallace E. Oates, *Fiscal Federalism* (Harcourt Brace, 1972) for further discussion of this point.

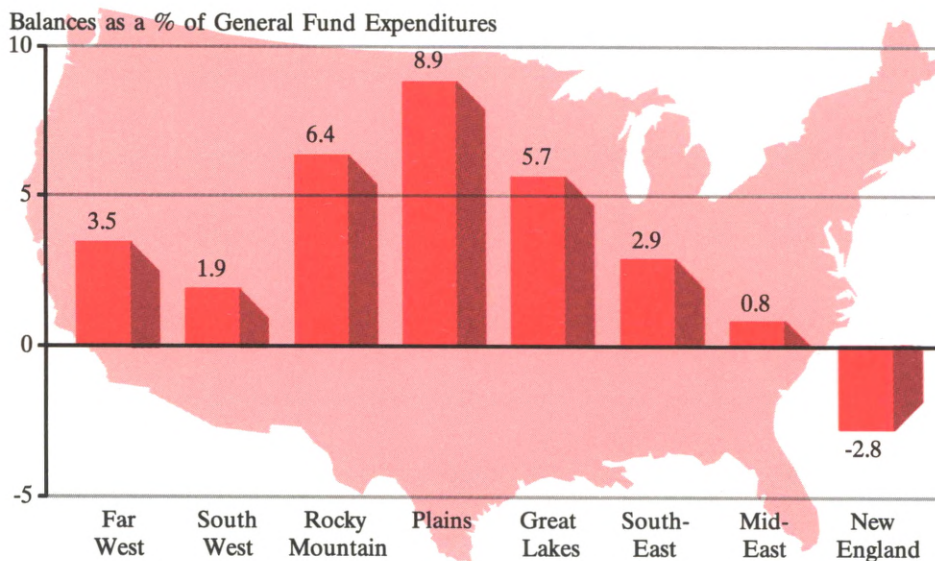
worst budgetary problems.<sup>2</sup>

The sensitivity of revenues to changes in the level of economic output or income is measured by what economists term the income elasticity of revenues.<sup>3</sup> The more sensitive tax

<sup>2</sup>As quoted in Michael deCourcy Hinds, "Half of States Strive to Avert Perilous Deficits," *New York Times*, March 4, 1990.

<sup>3</sup>The income elasticity of revenues is given by the percentage change in revenues divided by the percentage change in income. An elasticity greater than 1 indicates that revenues change by a greater proportion than income, which is termed an elastic response. An elasticity less than 1 indicates that expenditures or revenues change by a smaller proportion than income, which is termed an inelastic response.

**FIGURE 1b**  
**... and Had a Better Cash Balance in 1990**  
**(Fiscal 1990)**



Source: Marcia Howard, *Fiscal Survey of the States*, National Governors' Association and National Association of State Budget Officers (March 1990)

## How States Forecast Revenues

State governments base spending on revenue forecasts, so it is essential that they have a precise method for forecasting revenues. Unfortunately, forecasting revenues is an imperfect science. State budget offices use several different methods. A common one is to simply extrapolate previous trends into the near future. This method, however, fails to incorporate all of the information about future economic conditions that may be available to budget planners. Another method, which has become more widespread in recent years, is to use regression analysis and formal econometric models.<sup>a</sup>

Two recent studies<sup>b</sup> find that state revenue forecasts tend to have a downward bias, meaning that revenues tend to be underestimated. This bias should, in theory, help states guard against budget shortfalls. Several reasons have been suggested for a downward bias to revenue estimates.<sup>c</sup> First, uncertain tax revenues mean that states cannot be assured of meeting revenue targets. With a balanced-budget requirement, a downward bias to the forecast protects against an unexpected shortfall. Second, a downward bias to the revenue forecast means that a state is likelier to end up with a surplus and may create discretionary funds for the executive.

In separate studies, William Klay and William Gentry suggest that a downward bias to revenue forecasts is undesirable because, with a balanced-budget requirement, such a forecast constrains spending. An upward bias (revenues are overestimated) may allow states with balanced-budget requirements to realize budget deficits when the state runs out of money at the end of the fiscal year. But politicians come under pressure when either a large deficit or surplus occurs. Large deficits must be eliminated, and surpluses suggest that taxes were set too high. This bias against either deficits or surpluses should mitigate the tendency for either a pronounced downward or upward bias.

Politics may unduly influence economic forecasts and budget policy. Even if a state budget office were successful in predicting an economic downturn, it might be hard to convince elected officials to cut spending plans or raise revenues before the downturn had actually materialized. Thus, the political bias may be to ignore the signs of a downturn until the budgetary situation has become dire and support can be galvanized for cutbacks in spending or for revenue increases.

<sup>a</sup>See Daniel R. Feenberg, William Gentry, David Gilroy, and Harvey S. Rosen, "Testing the Rationality of State Revenue Forecasts," *The Review of Economics and Statistics* (May 1989) pp. 300-08. They find little evidence to suggest that econometric techniques provide superior forecasts, though their sample is limited to only three states.

<sup>b</sup>See Feenberg and others (1989) and William M. Gentry, "Do State Revenue Forecasters Utilize Available Information?" *National Tax Journal* (December 1989) pp. 429-39.

<sup>c</sup>See William E. Klay, "Revenue Forecasting: An Administrative Perspective," in J. Rabin and T.D. Lynch, eds., *Handbook of Public Budgeting and Financial Management* (Marcel Dekker, 1983).

revenue is to changes in income, the greater the elasticity. Personal and corporate income taxes are generally regarded as having the greatest income elasticities, followed by the general sales tax, wealth taxes, and selective sales taxes.<sup>4</sup>

<sup>4</sup>See "Federal-State-Local Fiscal Relations," Office of State and Local Finance, Department of the Treasury (September 1985) p. 341.

Since state governments derive a large part of their tax revenues from a mix of income taxes and the general sales tax, their tax revenues tend to be elastic. This dependence on income-elastic taxes exerts a destabilizing influence on the budget because revenues grow more rapidly than income in expansions and revenues shrink more rapidly in recessions.<sup>5</sup> In recent decades, state governments have relied increas-



ingly on income-based taxes, making state taxes more sensitive to economic fluctuations.<sup>6</sup>

**Intergovernmental Pressures.** State bud-

<sup>5</sup>This was first noted in Harold M. Groves and C. Harry Kahn, "The Stability of State and Local Tax Yields," *American Economic Review* (March 1952) p. 88. William F. Fox and Charles Campbell, in "Stability of the State Sales Tax Income Elasticity," *National Tax Journal* (June 1984) pp. 201-12, investigate the stability of the sales tax income elasticity over the business cycle and argue that a varying elasticity may provide more stability than a constant one.

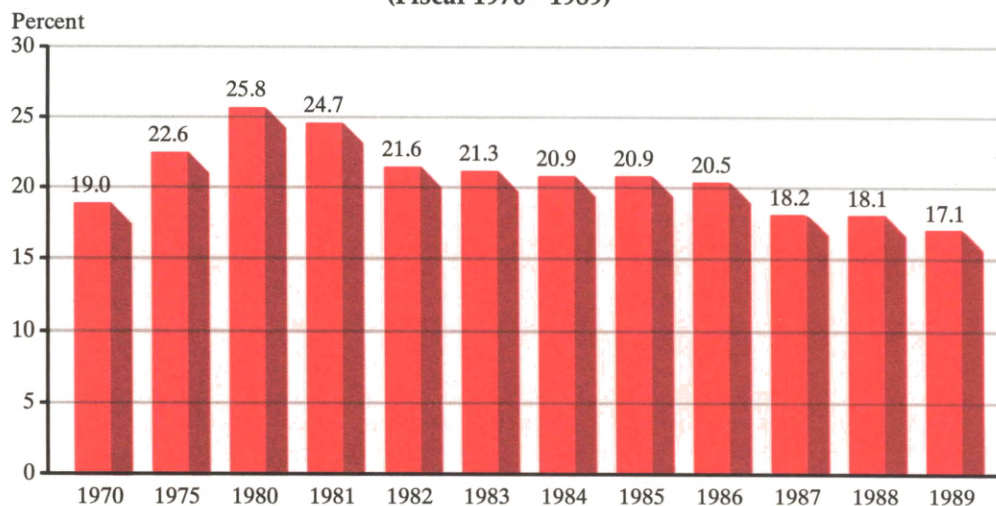
<sup>6</sup>The cyclical sensitivity of the income tax depends in part on the degree of progressivity of the tax. The more progressive the income tax system, the greater the cyclical sensitivity. As incomes rise, taxes rise more than proportionately as people are pushed into higher tax brackets; as incomes fall, taxes fall more than proportionately as people fall into lower tax brackets. It is difficult to gauge the progressivity of any particular income tax system because it can have so many dimensions. Some states, such as Pennsylvania, do not have highly graduated tax rate structures, mak-

getary problems have resulted not only from cyclical changes but also from substantial cut-backs in federal aid to state governments. Over the decade, federal aid has fallen as a share of state and local outlays, declining from 26 percent in 1980 to 17 percent in 1989 (Figure 2).<sup>7</sup> As

ing them less progressive than the federal code, which has a more graduated structure. On the other hand, some systems may disallow most deductions that primarily benefit higher-income taxpayers, enhancing their progressivity compared to the federal code, which allows many deductions.

<sup>7</sup>We aggregate state and local aid because the breakdown between state and local responsibilities varies from state to state and because some of the federal aid to states is passed through to local governments. An increasingly large percentage of the aid is direct grants to individuals through income-transfer programs, rather than aid for state and local government programs.

**FIGURE 2**  
**Federal Grants-In-Aid Decline as a Percentage**  
**of Total State-Local Outlays**  
(Fiscal 1970 - 1989)



Source: "Significant Features of Fiscal Federalism," Advisory Commission on Intergovernmental Relations, Vol.1 (January 1990)

a result, states must depend more on their own resources to pay for public services.

One recent change in the federal tax law has compounded the effects of these aid cutbacks. The Tax Reform Act of 1986 eliminated the deductibility of the state sales tax for federal tax purposes. This deductibility had lowered the cost of the sales tax for taxpayers who itemized deductions on their federal income tax returns. In effect, these taxpayers did not pay federal taxes on income used to pay the state sales tax.<sup>8</sup> The elimination of deductibility means that states cannot shift part of the burden of the sales tax to the federal government.<sup>9</sup>

Another source of pressure on state governments has come from local governments. In recent years, state governments have been under pressure from hard-pressed cities, counties, and school districts to assume responsibilities for certain programs and to increase intergovernmental aid. This aid is substantial, comprising more than one-third of state general expenditures. Revenues from the local property tax, the mainstay of local tax revenues, have been unable to keep up with demands for local public services. The pressures stem also from demands at the local level for redistribution

from wealthier communities to poorer communities.<sup>10</sup>

**Cost Pressures.** In addition to the intergovernmental pressures, state governments face relentlessly rising costs for many important public services. Medicaid is one such area. In recent years, health care costs have been rising more rapidly than inflation. In addition, Congress has mandated new benefits for Medicaid enrollees or expansion of coverage, and federal courts have ordered states to increase reimbursement rates to hospitals. States are also spending an increasing share of their budgets for corrections because of severe prison overcrowding. In fact, many states are under court-ordered mandates to improve conditions in their prison systems.

**Low Levels of Reserves.** A contributing factor to states' current budgetary problems is the low level of cash reserves they hold. Many states have Rainy Day Funds in which they hold surplus revenues for times of budgetary stress. A generally accepted rule of thumb in state government budgeting is that reserves be equal to approximately 5 percent of the current budget. Cash reserves can be used to create a countercyclical fiscal policy. As revenues fall in a downturn, previously accumulated cash reserves can be used to cushion the impact of

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<sup>8</sup>For every \$1 the taxpayer pays in deductible state and local taxes, federal taxable income is lowered by \$1. Thus, the effective price of a dollar of state taxes is 1 minus the taxpayer's marginal tax rate. If the taxpayer faces a marginal tax rate of 28 percent, the effective price of \$1 of state tax payments is \$1 minus 28 cents, or 72 cents. See Harvey S. Rosen, "Thinking About the Deductibility of State and Local Taxes," this *Business Review* (July/August 1988) pp. 15-23, for a discussion of this issue.

<sup>9</sup>Another change was limiting the use of tax-exempt state debt for private purposes, which state governments use to subsidize private businesses. The tax-exempt feature of this debt allows state governments to issue it at a lower interest rate than prevails in the market because its return must only be competitive with the after-tax return to taxable debt. By curtailing the use of this debt, state governments will have to find other means to provide these subsidies.

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<sup>10</sup>Public education is one area where most state governments are under pressure to increase their funding responsibilities. Although public primary and secondary school education was once largely the responsibility of local governments, approximately half of the funding for it now comes from state governments. In some cases, this spending results from court-ordered mandates to equalize spending across school districts. An example is the June 1990 New Jersey Supreme Court decision that requires substantial increases in funding to poor school districts. In 1990, the New Jersey legislature enacted an increase in the state income tax for the purpose of funding equalizing aid to school districts across the state, with the lowest-income communities scheduled to receive a larger share of this aid. Litigation, currently under way in many states, may require similar actions elsewhere.

this shortfall. As revenues rise in an upturn, surpluses can be allowed to accumulate.<sup>11</sup>

In recent years, the arrangements for Rainy Day Funds have become more formalized, even though most states have not met their reserve goals. As a practical matter, it is difficult for state governments to maintain reserves, since there are always pressing needs and political pressure for government spending. Thus, the

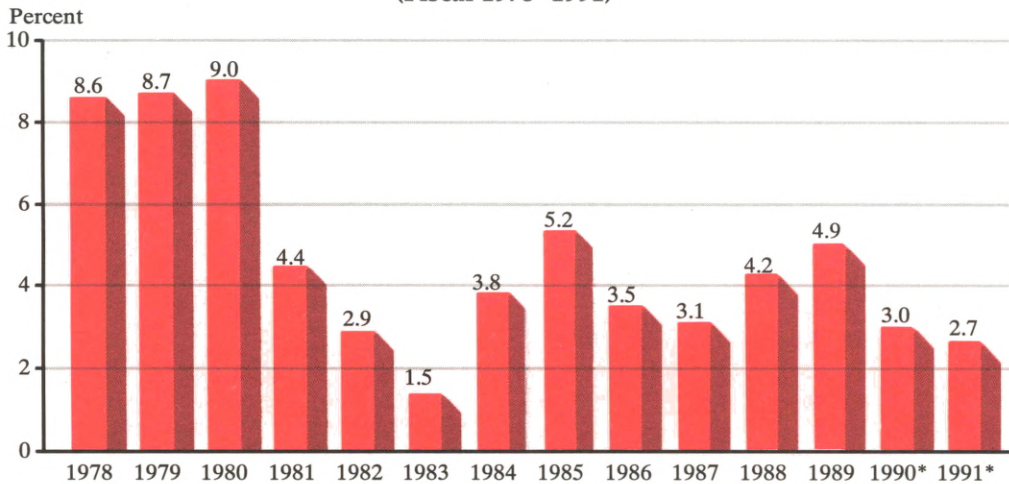
levels of these reserves tend to be lower than needed to ease any but the most minor budget shortfalls (Figure 3).

**LIMITATIONS ON STATE GOVERNMENTS**

Unlike the federal government, states cannot submit a budget that will be balanced by the issuance of debt. All, except Vermont, face balanced-budget requirements on their operating budgets. In contrast to the federal government, state governments separate their budgets into a current (or operating) budget and a capital budget. The operating budget refers to expenditures and revenues for the current year. Operating expenditures include general expenditures for all functions, some utilities expenditures, pension contributions, and payments for debt service. Operating

<sup>11</sup>See Richard Pollock and Jack P. Suyderhoud, "The Role of Rainy Day Funds in Achieving Fiscal Stability," *National Tax Journal* (December 1986) pp. 485-97, for a discussion of how states can use Rainy Day Funds to achieve fiscal stability. Also see Peter D. Skaperdas, "State and Local Governments: An Assessment of Their Financial Position and Fiscal Policies," Federal Reserve Bank of New York *Quarterly Review* (Winter 1983-84) pp. 1-13.

**FIGURE 3**  
**The Sizes of Total State Year-End Balances**  
**Are Low as a Percentage of Expenditures**  
**(Fiscal 1978 -1991)**



\* Estimated

Source: *Fiscal Survey of the States* (March 1990)

revenues include taxes, fees, intergovernmental aid (mostly from the federal government), and interest on investments. The capital budget refers to expenditures and revenues for long-term capital projects, such as the construction of schools and highways. Capital projects are typically financed by borrowing.

Stringency of the balanced-budget requirement varies from state to state. Some state governments are required only to submit a balanced budget, but may be allowed to borrow at year-end if they run out of funds. Other state governments are required not only to submit a balanced budget, but to realize a balanced budget at year-end. This requirement is more restrictive since it means that states must act immediately to bring their budgets into balance if expenditures exceed or revenues fall short of expectations. The advantage, however, is that states are forced to address their problems immediately and cannot compound fiscal woes by pushing off deficits into the future.

The Third District States—Delaware, New Jersey, and Pennsylvania—all share the limitation that the governor must submit a balanced budget, the state legislature must pass a balanced budget, and the governor must sign a balanced budget. Of the three, only Pennsylvania is allowed to carry over the deficit into the next fiscal year, which gives it greater budget flexibility.

Although balanced-budget requirements limit a state government's flexibility in times of budget shortfalls, this limitation on the uses of government debt is important. The use of long-term debt to finance capital projects, for example, spreads out the cost of these projects over a long-term horizon. If the benefits of these projects accrue over the same or a similar horizon, then it is fair that future taxpayers pay part of the cost of these projects. The use of long-term debt to finance current expenditures is not justified unless the government seeks to make an explicit transfer from future taxpayers to present taxpayers.

To avert cash-flow problems under normal budgetary conditions, some state governments may issue short-term debt. But states may create fiscal dilemmas if they issue large volumes of short-term debt and carry this debt over into subsequent years to hide persistent budget deficits. States may also create fiscal problems if they redefine current expenditures as capital expenditures, in order to circumvent balanced-budget requirements.<sup>12</sup>

High levels of long- or short-term debt can impose undue debt-service burdens on government. For instance, high levels of debt and debt per capita have been linked to lowered bond ratings and higher interest costs on debt.<sup>13</sup> These higher interest costs can substantially raise the cost of capital projects, possibly leading to inadequate investment in infrastructure.

**Tax Limitations.** State governments fight a difficult battle to obtain tax increases. The points President Bush scored with his "no new taxes" pledge suggests the hostility taxpayers have to tax increases. And voters convey this message loudly and clearly at the polls, having frequently voted to overturn tax increases and budgets in recent years. In addition, the tax revolt of the late 1970s and early 1980s led to the passage of tax and expenditure limitations in many states. The most common form is to limit the growth of revenues or expenditures to the growth of state personal income. Several states limit growth to the sum of the inflation rate and the growth in population, or to fixed

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<sup>12</sup>See Robert P. Inman, "Anatomy of a Fiscal Crisis," this *Business Review* (September/October 1983) pp. 15-22, for a discussion of how this and other practices led to local fiscal crises during the 1970s. Also see Edward M. Gramlich, "The New York City Fiscal Crisis: What Happened and What Is to Be Done?" *American Economic Review* (May 1976) pp. 415-29.

<sup>13</sup>See Pu Liu and Anjan V. Thakor, "Interest Yields, Credit Ratings, and Economic Characteristics of State Bonds: An Empirical Analysis," *Journal of Money, Credit, and Banking* (August 1984) pp. 344-51.

annual percentage increases. Evidence suggests, however, that these limitations have not been very effective in constraining state governments.<sup>14</sup> Nevertheless, state officials work within a constrained environment, having limited ability to raise additional revenues.

## CURES FOR BUDGET DEFICITS

If a budget deficit arises, it can be financed in several different ways.<sup>15</sup> One way is to draw down any reserve funds. Large deficits, however, require spending and revenue adjustments that can either be short or long term in nature.

**Postpone or Cut Spending.** On the spending side, a large deficit may require states to postpone or cut spending. States may have some short-term flexibility in paying their obligations. One well-known tactic is to move expenditures—such as payments to state government employees, to vendors, or to local governments—into the next fiscal year. This tactic may allow a state to avoid a current-year operating deficit; however, it is at best a stop-gap strategy because the additional revenues must be raised in the following year. States may also defer or eliminate capital expenditures, though delaying needed projects may raise their ultimate cost. Other tactics include undermaintaining the infrastructure and un-

derfunding the contribution to the employees' pension system or borrowing from it. But these tactics, while they may result in some short-term gains, only thrust the problems onto future taxpayers.<sup>16</sup>

State governments can also cut spending. The main problem on the spending side is that states have little flexibility for cutting their budgets in the short term. A large proportion of state spending goes for goods and services, including contractual wages and salaries, leaving state governments with little room for discretionary spending cuts. Even in the long term, employees will not typically accept cuts in their nominal wages. It may be possible, however, to cut spending by imposing a hiring freeze or by reducing the size of the work force.

Since state governments provide sizable aid to local governments, this is one area in which they may have some flexibility in cutting spending, although, in the case of education, the largest aid component, they may face restrictions on short-term cuts. In addition, reducing aid to local governments may help a state government tackle a budget crunch, but it ends up pushing the problem onto local governments.

Where state governments have budget flexibility, they may choose either across-the-board or selective cuts. Across-the-board cuts give the appearance of distributing the burden equitably, but they are not typically justified on economic grounds unless the last dollars spent on all programs are equally valued. The problem state governments face with spending cuts is that the need for these cuts generally appears well into a fiscal year. Thus, the burden of cutbacks falls more heavily on departments and programs than if the cutbacks were spread out evenly over the entire fiscal year. A cut-

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<sup>14</sup>See Daphne A. Kenyon and Karen M. Benker, "Fiscal Discipline: Lessons from the State Experience," *National Tax Journal* (September 1984) pp. 433-46, and Dale G. Bails, "The Effectiveness of Tax-Expenditure Limitations: A Re-evaluation," *American Journal of Economics and Sociology* (April 1990) pp. 223-38. Bails presents evidence suggesting that tax limits appear to resemble floors more than ceilings. He does not, however, address the issue of how high taxes would have risen in the absence of these limitations. California and Massachusetts would seem to be the two exceptions where tax revolts did result in a significant impact on tax and spending levels.

<sup>15</sup>See Corina L. Eckl, "State Deficit Management Strategies," *National Conference of State Legislatures* (November 1987) pp. 1-74.

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<sup>16</sup>See Robert P. Inman, "Paying for Public Pensions: Now or Later?" this *Business Review* (November/December 1980) pp. 3-12.

back of 4 percent for the year translates into an 8 percent cutback if it applies only to the latter half of the year.

In the long term, states may have to rethink priorities for state spending and redirect money to programs that they feel are the most essential. These changes require a certain degree of political consensus between the governor and the state legislature, however.

**Raising Taxes.** On the revenue side, a large deficit may require governments to take such short-term measures as accelerating their collection of taxes or raising taxes or other revenues. State governments can accelerate tax collection by changing the interval for collection from annual to quarterly or from quarterly to monthly. This creates a bonanza in the first year because of the earlier collection of taxes. But unless the collection is slowed thereafter, this tactic can only be used once. State governments may also increase tax revenues by raising the rate of existing taxes, by broadening the base to which a tax applies, or by instituting a new source of tax revenues altogether. None of these methods is easily accomplished.

To raise substantial amounts of additional revenues, state governments generally turn to the general sales or income taxes, the largest state taxes, comprising approximately 20 and 23 percent of general revenues, respectively. Even a small change in these tax rates can produce large increases in revenues. The sales tax is typically viewed as falling disproportionately on lower-income households and the personal income tax as falling disproportionately on higher-income households, which may enhance the political appeal of the personal income tax. Selective sales or excise taxes may also be used as a source of revenues and are sometimes easier to raise expeditiously because they are perceived as involving smaller amounts of revenues than the more broad-based taxes.

State governments can also raise taxes by broadening the base of the tax. Although the

general sales tax originally applied only to goods, many states have now extended it to services as well—potentially a large source of revenues. Taxing services would be likely to reduce cyclical variation in sales tax revenues because purchases of many services are less cyclical than purchases of consumer durables. Moreover, the general sales tax can be broadened by adding goods to the base that are now exempt. This would also reduce cyclical variation in sales tax revenues because exempt items tend to be necessities and expenditures on them would be less likely to vary with economic conditions. This would have the undesirable effect of increasing the tax burden on lower-income households. The elimination of sales tax deductibility for federal tax purposes has made sales taxes a less attractive source of new revenues for the states. They are more likely to cut back spending or shift toward other forms of revenues.<sup>17</sup> The base of the income tax can be broadened by eliminating deductions, exclusions, and other preferences.

State governments also face the following dilemma: although in the short run raising taxes may help balance budgets or fund public services, in the long run these taxes may inhibit businesses and households from wanting to locate or remain in the state. Thus, the long-run tax base may be hurt by high taxes. But the effect may be mitigated to the extent that higher taxes pay for better public services.<sup>18</sup>

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<sup>17</sup>See Janet G. Stotsky, "The Effect of the Elimination of State Sales Tax Deductibility on State Fiscal Decisions," *Public Finance Quarterly* (January 1990) pp. 25-46, for evidence that this change should lead to less reliance on the state sales tax.

<sup>18</sup>See Michael Wasylenko and Therese McGuire, "Jobs and Taxes: The Effect of Business Climate on States' Employment Growth Rates," *National Tax Journal* (December 1985) pp. 497-511, and L. Jay Helms, "The Effect of State and Local Taxes on Economic Growth: A Time Series-Cross Section Approach," *The Review of Economics and Statistics* (November 1985) pp. 574-82.

**User Fees.** Another way to raise revenues is by charging or increasing user fees for services. These fees could be tolls for highways, bridges, and tunnels, or tuition at state universities. The advantage of user fees is that they are paid in proportion to the use of the service and thus resemble payments for private goods. The disadvantage is that they tend to discourage the use of these services, which may be basic services, and their burden falls disproportionately on lower-income households.

States may thus use many different methods to correct budget imbalances. On the spending side, they may delay spending or make cuts in already budgeted programs. On the revenue side, they may raise taxes or other fees. Some states may also issue short-term debt. Budget balancing usually requires a combination of methods, all of which involve a certain amount of discomfort.

## HOW SOME STATES ARE COPING

State governments in the Northeast have dealt with their recent budget difficulties in different ways. In **Massachusetts**, budget deficits have all but paralyzed the state government for the past two years. The state has faced budget problems since midway through fiscal year 1989 and in 1990 ran a deficit of approximately \$661 million, the largest of any state in the nation. After relying on a temporary tax increase in 1990 to prevent this deficit from being even wider, the state legislature passed a tax-increase plan that will substantially raise state income taxes and extend the sales tax to cover, for the first time, some professional services. Nevertheless, the fiscal discord remains. Massachusetts recently elected a governor who campaigned on a platform of rolling back some of the tax increases, though a voter referendum to roll back taxes was defeated. Meanwhile, the rating agencies have given Massachusetts the lowest bond rating of any state.

In **New York State**, state government officials faced a large deficit in fiscal year 1990, but

could reach no budget resolution until compelled by the severe downgrading of the state's bond rating to its lowest level ever. The legislature finally opted, in a budget accord seven weeks overdue, to forgo the last phase of a scheduled reduction in state personal income tax rates and to raise taxes on corporations, professional services, and various other items. Nevertheless, it is not clear that New York State officials will address some important management issues, particularly the state's extensive reliance on short-term debt and its unusually high ratio of state government employees to state residents.<sup>19</sup>

In **New Jersey**, the legislature made temporary cutbacks in spending to close a fiscal year 1990 budget gap and passed a tax increase to close an expected deficit for 1991. This plan extended the sales tax to certain exempt items and raised the general sales tax and some excise taxes.<sup>20</sup> Swift passage of the bill allowed New Jersey to get by with its credit rating intact. Nevertheless, critics assert that the increases in taxes will ruin New Jersey's image as a low-tax state and discourage economic growth. After what was perceived as "anti-tax" voting in the November elections, the governor has now raised the possibility of rolling back some of the tax increases.

In **Pennsylvania**, state government officials were able to make some spending cuts and generate enough additional revenues to erase a fiscal year 1990 deficit; however, they severely restricted increases in spending to forestall tax

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<sup>19</sup>Apparently, New York State has a long history of circumventing balanced-budget requirements. See Allen J. Proctor, "Tax Cuts and the Fiscal Management of New York State," Federal Reserve Bank of New York *Quarterly Review* (Winter 1984-1985) pp. 7-18, for a discussion of how New York State manages its budget.

<sup>20</sup>These changes are part of a comprehensive plan that also includes an increase in the state income tax with the revenues dedicated to funding state aid to local communities for public education.

increases in 1991. There are two reasons why Pennsylvania has so far avoided severe budget problems. First, coming out of the 1980-82 recessions more slowly than most of the other Northeastern states, it did not increase spending as rapidly. Second, its economy is not rooted in a dominant industry that experienced a boom-and-bust cycle.

## CONCLUSION

Macroeconomic fluctuations make state government budgets inherently cyclical, and periods with varying degrees of budget stress are inevitable. A recent report prepared by the National Conference of State Legislatures concludes that, even in the absence of a recession, states should prepare for tight budgets.<sup>21</sup>

State governments can take several steps to cope with the lean years ahead:

- Make use of sound budgeting practices, instead of spending more than they have and

relying on short-term debt or accounting devices to circumvent balanced-budget requirements;

- Attempt to put money into Rainy Day Funds that provide some cushion against economic slowdowns;
- Improve their ability to forecast expenditures and revenues so that they can plan ahead and avoid serious budgetary shortfalls;
- Broaden and diversify their tax bases to minimize cyclical variability in their budgets and provide ample revenues for state spending without high tax rates. Extending the sales tax to services seems like a useful step toward this goal; and
- Invest in education, transportation, and other public infrastructure to enhance the climate for business growth and development, which will lead to a large and diversified tax base.<sup>22</sup>

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<sup>21</sup>See Ronald Snell, "The State Fiscal Outlook: 1990 and the Coming Decade," *National Conference of State Legislatures* (February 1990) pp. 1-10.

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<sup>22</sup>See Wasylenko and McGuire (1985). See also Gerald Carlino and Edwin S. Mills, "The Determinants of County Growth," *Journal of Regional Science* (February 1987) pp. 39-54, for evidence on the effectiveness of these investments in encouraging county growth.



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Address Correction Requested