State and Local Budgets during Business Contractions

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The steepness of the second-quarter decline in real economic activity and the prospects for a slow recovery from the current recession with little relief from inflation have raised concerns about the financial health of state and local governments. To what extent will the budgets of state and local governments be affected by the business downturn, and what type of fiscal adjustments will be forthcoming in response to a sluggish economy? The answers are important, partially because of the large relative size of the state and local government sector. Total state and local expenditures now equal about 14 percent of GNP, increased substantially from less than 8 percent in 1950. Because of its relative size, this sector may partially cushion or exacerbate business-cycle swings.

This *Economic Commentary* examines the behavior of the state and local sector's budget during postwar business contractions. The state and local sector is viewed as a supplier of public goods and services. The state and local sector does not engage in active fiscal policy as does the federal government; state and local officials do not adjust their budgets intentionally to offset a general business contraction or reduce inflation. To isolate the cyclical budget behavior of the state and local sector, federal grants-in-aid payments are subtracted from both state and local receipts and expenditures. The behavior of grants-in-aid and the spending they support should be attributed to the fiscal policies of the federal government. This approach implicitly assumes that the availability of federal funds has neither a stimulative nor restrictive effect on state and local government spending and taxing policies, but this assumption may not conform closely with reality. Federal grants sometimes require state and local governments to raise matching funds, and federal spending may substitute for existing state and local spending, or it may cause state and local outlays that otherwise might not be made.

Budget Constraints and Cyclical Behavior of Receipts

The cyclical behavior of nearly all state and local governments is constrained by laws that prevent their supporting daily operations through the issuance of debt. They consequently almost always show a surplus in their general operating budgets and sometimes even accumulate surplus funds over a few years to meet unforeseen contingencies. Although national income and product account (NIPA) surpluses and deficits provide information about the influence of the state and local sector on the economy, they do not adequately indicate the financial health of the state and local governments. NIPA data do not reflect the general borrowing constraints on state and local operating budgets, because the data consolidate many different funds along with current operating budgets. (NIPA data are shown in table I.) State and local governments, for example, maintain social insurance funds, primarily pensions, which always show surpluses. These funds, however, may not be used to support state and local current operating expenditures. Some NIPA measures of state and local surpluses include social insurance funds. The NIPA data also include expenditures for capital projects, such as construction. State and local governments spend large amounts on capital projects and borrow—often subject to limitations based on assessed property values—to finance capital projects. Because capital and current operating expenditures are combined in the NIPA measures, the data sometimes record a state and local budget deficit when social insurance funds are excluded.

Because of the borrowing limitations, state and local governments depend heavily on the availability of receipts to maintain expenditures. During the past five business contractions, the growth in the state and local own-source receipts, that is, total revenue less federal grants-in-aid and social insurance contributions, usually has slowed relative to the

Table 1 State and Local Budgets in Business Contractions and Expansions[a]

Contraction, peak to trough	Expenditures, percent change[b]	Revenues, percent change[b] Total	Revenues, percent change[b] Own-source[d]	Surplus/deficit, billions of dollars[c] Total	Surplus/deficit, billions of dollars[c] Own-source[d]
1953:2 to 1954:2	15.0	6.1	5.7	-$2.0	(na)
1957:3 to 1958:1	10.3	4.1	3.7	- 1.1	(na)
1960:1 to 1960:4	8.7	7.7	7.6	- 0.3	-$0.5
1969:3 to 1970:4	12.5	10.3	10.2	- 2.3	- 3.2
1973:4 to 1975:1	13.0	8.7	7.9	- 6.9	- 9.4
Expansion, trough to peak					
1950:1 to 1953:2[e]	5.9	9.6	9.1	+$2.4	(na)
1954:2 to 1957:3	9.4	9.3	9.3	- 0.4	(na)
1958:1 to 1960:1	5.3	9.2	9.1	+ 2.7	+$2.2
1960:4 to 1969:3	9.4	9.8	9.8	+ 2.9	- 0.7
1970:4 to 1973:4	8.8	11.2	11.3	+ 9.8	+ 7.5
1975:1 to 1980:1	9.2	10.7	10.1	+22.4	+ 6.1

a. All data are on a national income and product account basis and exclude federal grants-in-aid to state and local governments.
b. Percent change at average annual rates.
c. Dollar change.
d. Own-source excludes social insurance contributions.
e. 1950:1 is not a trough date; it is the first data point used in this article.

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis.

experience in the immediate preceding and subsequent business expansions. The only exception to this general pattern occurred during the 1969-70 business downturn, when receipts grew faster than in the previous business expansion because of rapidly accelerating inflation. Although the growth in total state and local receipts tends to slow during the downturn, receipts simultaneously rise relative to GNP, suggesting that the overall economic burden of these taxes increases during economic contractions. These patterns are not altered when social insurance funds are included in the data.

The slower growth in state and local revenues during business contractions reflects the slower growth in nominal income and expenditures that accompanies recessions. The observed increase in state and local receipts relative to GNP, however, requires some explanation. A similar phenomenon is not observed at the federal level. Although state and local receipts are responsive to change in national income, the overall sensitivity of this response is small. The income elasticity of state and local receipts (a standard economic gauge of this sensitivity that measures the percent change in receipts resulting from a 1 percent change in income) appears to be well below 1.[1] Heavy reliance on fixed-rate taxes, such as property, sales, and excise taxes, accounts for this low sensitivity. Fixed tax rates do not vary with changes in income levels. In contrast, under graduated tax rates, such as the federal individual income tax, taxpayers drop into lower tax brackets as income falls, and the overall tax rate actually falls. Consequently, the percentage change in revenues resulting from a 1 percent change in income is much greater under graduated-rate taxes than under fixed-rate taxes. A second reason that state and local revenues rise relative to GNP during recessions is that many state and local governments actually raise tax rates to protect revenues during business downturns.

1. Income elasticity, E, measures the response in receipts to changes in income and is defined as:

$$E = \frac{\text{percent change in receipts}}{\text{percent change in income}},$$

where E greater than one is "elastic," E less than one is "inelastic," and E equal to one is "unit elastic." The higher the elasticity, the greater the sensitivity of receipts to changes in income.

Inflation and State and Local Budgets

Although this article primarily deals with the behavior of state and local budgets in business contractions, the persistence of high rates of inflation in recent recessions necessitates comment on the budget impact of inflation. Inflation increases state and local receipts, as it increases nominal incomes and expenditures. There is evidence that, because of the reliance of state and local governments on property and income taxes, inflation actually has increased revenues in real terms.[1] Although the property tax is a fixed-rate tax, property values have risen more rapidly than most other prices in the past ten years. Consequently, property-tax receipts have outpaced inflation. In addition, graduated income taxes automatically push individuals into higher tax brackets, causing income-tax receipts also to outpace inflation. While inflation raises revenues, it also increases costs to state and local governments. In fact, prices of goods and services purchased by state and local governments have risen at an annual average rate of more than 11 percent since 1970, faster than the 9 percent increase of prices in general.

The data in table 1 show both receipts and expenditures increasing faster in the two more recent recessions than in the previous three, a development that is entirely attributable to inflation. Unfortunately, there is not a sufficient body of evidence from which to determine the net impact of inflation on state and local budgets. The overall effect, whatever the result, is probably small; there may be initial short-term gains that are later offset by rising expenditures, as contracts and wages are adjusted for inflation.[2]

1. See Advisory Commission on Intergovernmental Relations, *State and Local Finances in Recession and Inflation: An Economic Analysis* (U.S. Government Printing Office, 1979), pp. 30-4.
2. *State and Local Finances in Recession and Inflation,* pp. 30-4.

A survey conducted by the Senate Subcommittee on Intergovernmental Relations found that 33 percent of the jurisdictions making recession-related budget adjustments did so in part by raising tax rates.[2]

The foregoing analysis indicates that during the last 30 years, changes in GNP have caused parallel, but rather inelastic, changes in state and local receipts. Changes in tax laws over this period, however, generally have moved toward making state and local receipts more income elastic. Over this period, state and local governments responding to rising demand for their services sought out new revenue sources. These were, in large measure, the more income-elastic income taxes that previously had been reserved to the federal sector. In 1956, for example, property taxes, a fairly stable revenue source with an income elasticity of just under 1, accounted for 45 percent of state and local revenues; by 1976 they equaled 36 percent of the total. Over this period, however, income taxes, both corporate and individual, rose from 9 percent to 20 percent of total state and local receipts. Corporate income taxes have income elasticities of about 1, but individual income taxes have high income elasticities of roughly 1.7.[3] Proportionately, sales-tax revenue remained virtually constant over this period; however, there has been a pronounced shift away from specific sales taxes, which usually have very low income elasticities toward general *ad valorum* sales taxes, which have an income elasticity of roughly 1. Because of these shifts, total state and local revenues probably have become more sensitive to declines in GNP. In the future, if state and local governments increasingly rely on graduated income taxes for revenues, their revenues could become more vulnerable to fluctuations in the business cycle.

2. U.S. Senate, Committee on Governmental Affairs, Subcommittee on Intergovernmental Relations, "The Countercyclical Assistance Program: An Analysis of Its Initial Impact," 95th Cong., 1st Sess. (U.S. Government Printing Office, February 28, 1977). Interestingly, the survey found that 25 percent of those surveyed made no budget adjustment in the 1973-75 recession.

Cyclical Behavior of Expenditures and Employment

As revenue growth slows during business contractions, state and local governments

3. For elasticity estimates see Advisory Commission on Intergovernmental Relations, *State and Local Finances in Recession and Inflation: An Economic Analysis* (U.S. Government Printing Office, 1979), pp. 23-5.

initially may be protected by previously accumulated surpluses; however, if the recession is severe, additional budget adjustments may be forthcoming on the expenditure side. The previously cited survey conducted by the Senate Subcommittee on Intergovernmental Relations found that 58 percent of the state and local governments imposed limitations on personnel, and 20 percent delayed or cancelled capital projects. However, many state and local spending categories, such as police, fire, and education, are not easily cut, while others, namely welfare and unemployment compensation, automatically rise during a recession. Consequently, spending cuts probably occur in a narrow range of functions, making it difficult to predict how total state and local expenditures would respond during a business contraction.

In the past five business contractions, expenditures generally grew faster during recessions than in the immediately preceding and subsequent business expansions. There have been two exceptions to this pattern. In the long business expansion of 1961 to 1969, secular demands for expanded state and local services grew rapidly. During the 1973-75 recession, the most severe U.S. business contraction since the 1930s, state and local expenditures, after adjustments for inflation, grew more slowly than in the previous business expansion. (Inflation-adjusted figures are not shown in table 1.) The data suggest that, in the aggregate during most recessions, increases in state and local welfare and unemployment compensation payments outweigh cutbacks in other spending categories, such as construction. Previously accumulated surpluses and the ability to raise taxes during a business contraction usually have protected state and local spending programs during recessions. In severe business contractions, however, state and local governments appear to reduce the growth of total expenditures.

Statistical analysis undertaken by the Advisory Commission on Intergovernmental Relations suggest a more complicated pattern of expenditures over the business cycle.[4] Although state and local expenditures rose during the year in which a business contraction occurred, state and local expenditures fell somewhat in the following year. It would

4. *State and Local Finances in Recession and Inflation,* Appendix C.

Table 2 State and Local Employment in Business Contractions and Expansions

Peak to trough	%Δ[a]	Trough to peak	%Δ[a]
1953:2–1954:2	5.6	1950:1–1953:2[b]	2.0
1957:3–1958:1	4.6	1954:2–1957:3	5.7
1960:1–1960:4	4.1	1958:1–1960:1	3.9
1969:3–1970:4	4.5	1960:4–1969:3	5.0
1973:4–1975:1	4.4	1970:4–1973:4	3.9
		1975:1–1980:1	2.1

a. Percent change at average annual rates.
b. 1950:1 is not a trough date; it is the first data point used in this article.

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

appear, therefore, that state and local governments attempt to rebuild accumulated surpluses following a recession in which they are depleted.

Although many state and local governments resort to "limitations on personnel" when recessions necessitate expenditure adjustments, aggregate state and local employment generally has not fallen during contractions as it has in the private sector (see table 2). State and local governments may restrict hiring, but collectively they do not lay off workers during economic downturns. In three of the last five recessions, including the 1973-75 recession, the growth of state and local employment accelerated relative to the previous expansionary period. The fast pace of employment during the 1953-54 and 1960 recessions seems to reflect strong secular growth in state and local government employment; the availability of federal funds to support state and local government jobs may explain the relatively rapid growth of state and local employment during the 1973-75 recession.

Regional Patterns

The focus here has been on the aggregate state and local sector. While this approach facilitates comparisons of the state and local sector with the overall economy or other broad economic sectors, it masks disparite cyclical behavior among various regions of the nation and between different levels of government. Regions of the country in which the industrial base consists of cyclically sensitive industries, such as durable-goods manufacturers, and particularly those regions containing older, less-efficient plants, will experience deeper, longer recessions.[5] The older, less-efficient plants are usually the first to close during an economic downturn and the last to reopen. The industrial Midwest especially is vulnerable to business contractions. Consequently, state and local governments in these regions are more likely to cut expenditures, reduce employment, and raise tax rates during periods of recession. In contrast, state and local governments in regions with sizable concentrations of growth industries, such as service, energy-related, or high-technology industries, are less vulnerable to recessions. The extent of these differences may be quite large; for example, roughly 50 percent of the large surpluses generated in 1977 and 1978 was concentrated in California and Texas.

Cities usually experience business contractions more severely than state or county governments, because a long-term erosion of their economic bases and a more specialized industrial base often compound the effects of swings in the business cycle. The movement of residents and businesses from urban centers to the metropolitan "fringe" areas often has resulted in deterioration of the economic bases of cities. The migration of upper- and middle-income groups has left central cities with large populations with special needs and problems that drain city resources. Because central city dwellers are often lesser skilled, they are often the first to be laid off during business contractions. In addition, in many cities—most notably Detroit—the economic base is heavily influenced by a single industry or a few industries that may be cyclically sensitive. States and counties often have more diversified economic bases. The major cities in the industrial Midwest have the most severe social, economic, and fiscal difficulties, and these cities also seem to be the most vulnerable to business contractions.

Summary and Current Outlook

The data presented here suggest that state and local receipts and expenditures demonstrate a cyclical pattern that tends to dampen slightly business-cycle fluctuations. State and local receipts usually slowed during the five postwar recessions from rates of growth experienced in the immediately preceding and subsequent business recoveries; however, the economic burden of these revenues, measured as a ratio to GNP, usually increased during the recessions. State and local expenditures grew faster during business contractions than during the immediately preceding and subsequent business recoveries, except in very deep and prolonged recessions, as in 1973-75. This cyclical pattern probably reflects growing reliance of state and local governments on more cyclically sensitive—though still inelastic—revenue sources and their increased responsibility for welfare payments and unemployment compensation.

During recessions, state and local governments deplete accumulated surpluses to avoid major spending cutbacks or tax-rate increases. There are some reasons to suspect that going into the current recession, state and local governments may have been less able to avoid large expenditure reductions or tax-rate increases. In 1978 and 1979, state and local governments drew down the surpluses accumulated in 1976 and 1977. In part, this reflects a faster pace of spending in 1978, but it also resulted from tax reductions totaling $3.3 billion in 1978 and $8.5 billion in 1979.[6] Consequently, aggregate state and local budgets, exclusive of social insurance funds, shifted from a surplus of $4.2 billion in 1978 to a deficit of $1.9 billion in 1979. Growth of state and local receipts has slowed during the current recession, as in past recessions. The slowdown, however, could be accentuated by tax cuts initiated, but not fully effective, last year. With accumulated surpluses drawn down, and if receipts demonstrate a sharper than usual cyclical slowdown, state and local expenditure growth may not show its typical acceleration in this recession. The atypical pattern of state and local government expenditures may be accentuated by the relatively high interest rates experienced during the current recession. In contrast to the behavior of the aggregate state and local budget, regional budget patterns will be more typical. Midwestern state and local governments, especially in areas dependent on automobile and related industries, will experience the recession most severely.

5. See Steven A. Monzel and Robert H. Schnorbus, "Industrial Structure and Recession in Ohio," *Economic Commentary,* Federal Reserve Bank of Cleveland, June 30, 1980.

6. See David J. Levin, "State and Local Government Fiscal Position in 1979," *Survey of Current Business* (Washington, DC: Department of Commerce, January 1980), pp. 23-6.

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