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U.S. State and Local Government Finances Over the Current Cycle

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Abstract

The recent slowdown in the U.S. economy has led to state and local government tax increases and expenditure cuts that have lowered aggregate demand, in contrast to earlier downturns when the sector provided significant automatic stabilizers. Several explanations for this change are examined, including the role of federal grants, mandates, tax revolts, and compensation. The first three factors are found to be relatively unimportant. There does, however, appear to have been a large change in relative compensation over the 1980s, which can account for much of the deterioration in finances.

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### Summary

The recent slowdown in the U.S. economy led to significant budgetary problems for the state and local government sector, resulting in well-publicized tax increases and expenditure cuts, while during the 1985-89 economic expansion the fiscal balance of state and local governments in the United States steadily deteriorated. Thus, the sector amplified both the upswing and the downswing in activity in the current cycle. This paper looks at whether this behavior is typical, and if not, what might explain the difference this time around.

Comparing the most recent cycle with others, this paper concludes that the period since 1985 differs from earlier cycles in the 1970s and 1980s. In the earlier periods, the fiscal balance deteriorated during downturns and rose during recoveries, providing a significant part of government automatic stabilizers.

The immediate cause of the recent fiscal problems lies in the interaction between the low level of reserves accumulated over the upswing and existing laws requiring balanced budgets. For example, in mid-1980, before the two recessions of the early 1980s, state general government cash balances were 9 percent of expenditure; in mid-1989, by contrast, they were less than 5 percent. A similar pattern is evident for local government. As a result, the 1990-92 slowdown forced state and local governments to improve their financial position, undermining their role in stabilizing the economy.

But what explains this failure to build up reserves? Several possibilities are examined, including the role of federal government grants, federal mandates, tax revolts, and compensation to labor. The evidence indicates that the first three factors played little role in changing behavior, but that a large change in relative compensation over the 1980s was important. Between 1984 and 1990, this rise in relative compensation raised state and local government spending by almost \$30 billion, equal to the whole of the deterioration in the fiscal balance over the period.

As a result of these developments, the state and local government sector will need to continue to cut services and raise revenues in the short term. Over the longer term, the question is whether the sector will resume the pattern of the 1970s and early 1980s or whether it will continue to act as it did in the late 1980s. On the whole, the evidence points to the former. Although external factors, such as rising Medicaid payments, may cause continued fiscal strain, they have not been the core of the problem. The current fiscal squeeze, with its pressure to control costs, including labor costs, may well improve the longer-run financial outlook for the sector, enabling it to resume the countercyclical behavior of the 1970s and early 1980s.

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## I. Introduction

The recent slowdown in the U.S. economy led to significant budgetary problems for the state and local government sector, resulting in well publicized tax increases and expenditure cuts. <sup>1/</sup> As a consequence, despite rising unemployment the aggregate state and local government fiscal balance has improved in the period since the end of 1990. By contrast, during the expansion from 1985 to 1989, the fiscal balance steadily deteriorated. Thus, the state and local government sector has amplified the current cycle, exacerbating both the upswing and the downswing in activity since 1985.

The purpose of this paper is to look at the forces behind this behavior. The first section examines the behavior of the sector over earlier cycles in order to see whether the sector has acted to exacerbate or reduce earlier fluctuations. Section 2 then looks at the behavior of the sector in the late 1980s in more detail. The analysis first considers the role of external factors on state and local government finances in this period. Next, expenditures and revenues across different functional categories are examined. Finally, the role of wage costs and the regional breakdown of the budgetary difficulties are analyzed. In Section 3 these results are brought together to make some projections about the future behavior of the sector over the cycle.

### 1. The cyclical behavior of state and local government finances

State and local government is a significant sector of the United States economy. At \$742 billion in 1991 (13 percent of GDP), expenditures represent 40 percent of all government spending, while revenues from own resources (i.e., excluding transfers from the federal government) were equivalent to 9.8 percent of GDP. As the U.S. economy expanded over the years 1986 to 1989, the financial position of state and local governments weakened. During that period, expenditures rose broadly in line with GDP, while revenues, both from own resources and from federal grants, rose at a slower rate. As a result, the financial position of the sector moved from balance in 1986 to a deficit of 0.4 percent of GDP in 1989. The economic downturn in 1990 put additional pressure on the financial position of the sector. Although revenues, particularly federal grants, increased in relation to GDP, expenditures rose faster, and the deficit of the sector rose in 1990 before narrowing somewhat in 1991.

The upper panel of Chart 1 shows the behavior of the state and local government fiscal balance over the period since 1960. Three series are shown: the overall balance on the National Income and Product Accounts (NIPA) basis; the overall balance excluding the balance on social insurance funds; and the operating surplus, measured as the overall balance less the balance on social insurance funds less expenditures on structures.

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<sup>1/</sup> For the states, details of planned actions in fiscal year 1992/93 are contained in National Association of State Budget Officers (1992) and Brownstein (1991). Some data on local government responses are contained in National League of Cities (1991).

Excluding the balance of social insurance funds from the overall balance produces a better measure of movements in the underlying fiscal position since these transactions are essentially contractual; and is the concept used in the empirical analysis below. <sup>1/</sup> The operating surplus is included as an indicator of the overall financial health of the sector, as state and local governments are generally able to borrow for capital projects; but not for current spending.

All three measures of the budgetary position show a very similar cyclical behavior. After staying relatively flat in the 1960s, they start to show variations in the 1970s and 1980s of the order of 1 1/2 percent of GDP, with peaks in 1972, 1978, and 1985, and troughs in 1975, 1980, or 1982, and 1990. The series also display a secular decline in the balance after 1985. This decline in the operating surplus after 1985 is clearly a departure from earlier trends, and the record low operating surplus in 1990-91 points to an unhealthy underlying financial position.

The relationship between the fiscal balance and the cycle is illustrated in the lower panel of Chart 1, which shows the NIPA balance (excluding the social insurance balance) as a percentage of GDP together with a measure of the cyclical component of output (the deviations of the logarithm of output from a quadratic time trend). Comparing the cycles in output with changes in the fiscal balance, three periods can be identified. During the 1960s the state and local government fiscal balance varied within a relatively small range of values, with little or no cyclical pattern apparent. From 1970 to 1984 the balance varied counter-cyclically, rising in booms and falling in troughs. The behavior of the balance in the final period from mid-1984 to 1992 is more complex. The steady economic expansion from mid-1984 to 1989 is accompanied by a decline in the balance. In 1990, when output starts to fall compared to trend, this decline accelerates; however starting in 1991 the balance begins to increase as output reaches its trough.

Chart 2 explores the behavior of the components of the balance (excluding social insurance contributions and payments). The data on total expenditures and revenues illustrate a striking difference in behavior between the 1960s and later periods. During the 1960s the two series move in a very similar manner. From the early 1970s onward, however, while the two series show generally similar overall trends, there are significant differences in short-run behavior, with expenditures generally varying more with the cycle than revenues. Most of the variation in expenditures comes from changes in nontransfer expenditures, which have a pronounced cyclical content. Transfer payments have less cyclical variation, and are dominated by a secular upward trend which accelerates notably in the 1990-91. As discussed below, this acceleration largely reflects rising Medicaid payments. On the revenue side, revenues from own resources rose significantly in the 1960s, fell somewhat in the late 1970s when a number of legislative controls on tax increases were enacted, and have risen slowly

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<sup>1/</sup> See Gramlich (1991) for a fuller discussion.

Chart 1.  
Cyclical Behavior of State and Local Government Fiscal Balances  
(NIPA basis, in percent of GDP)

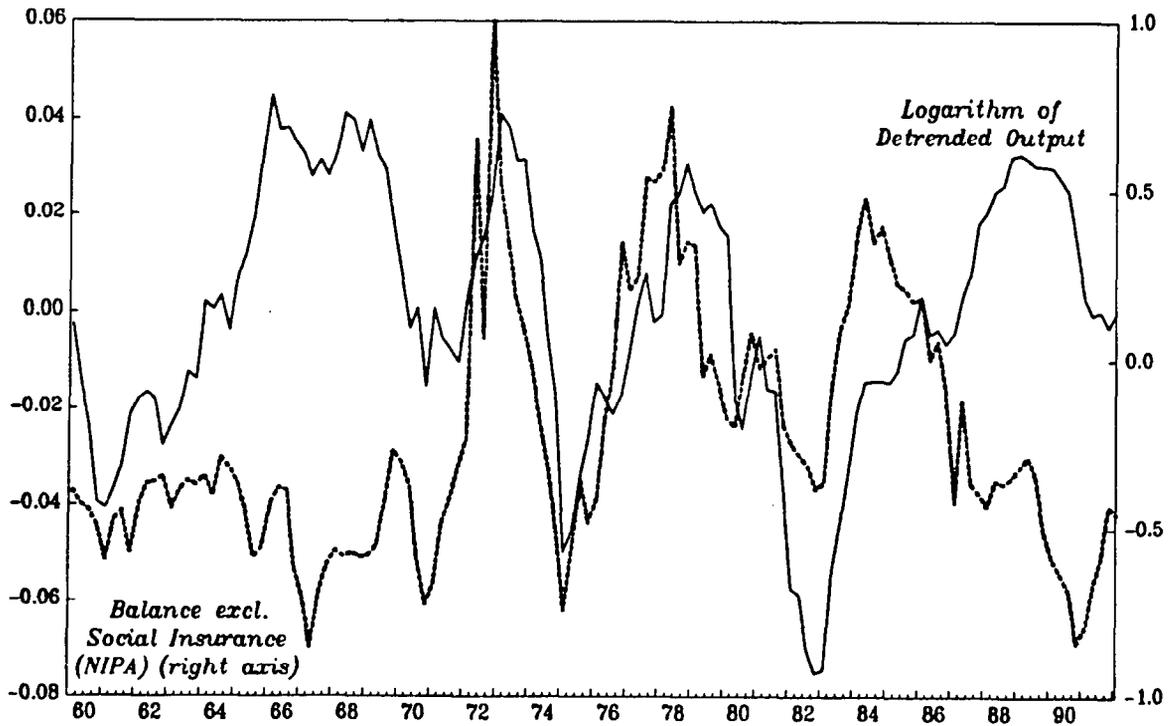
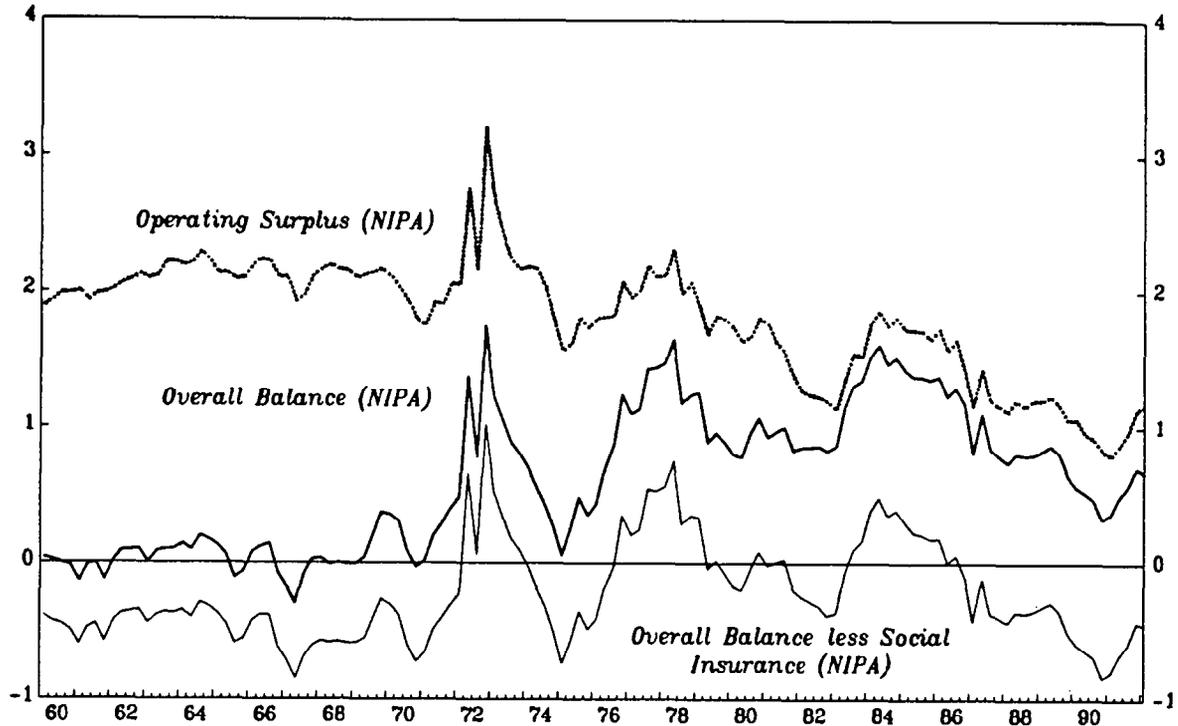
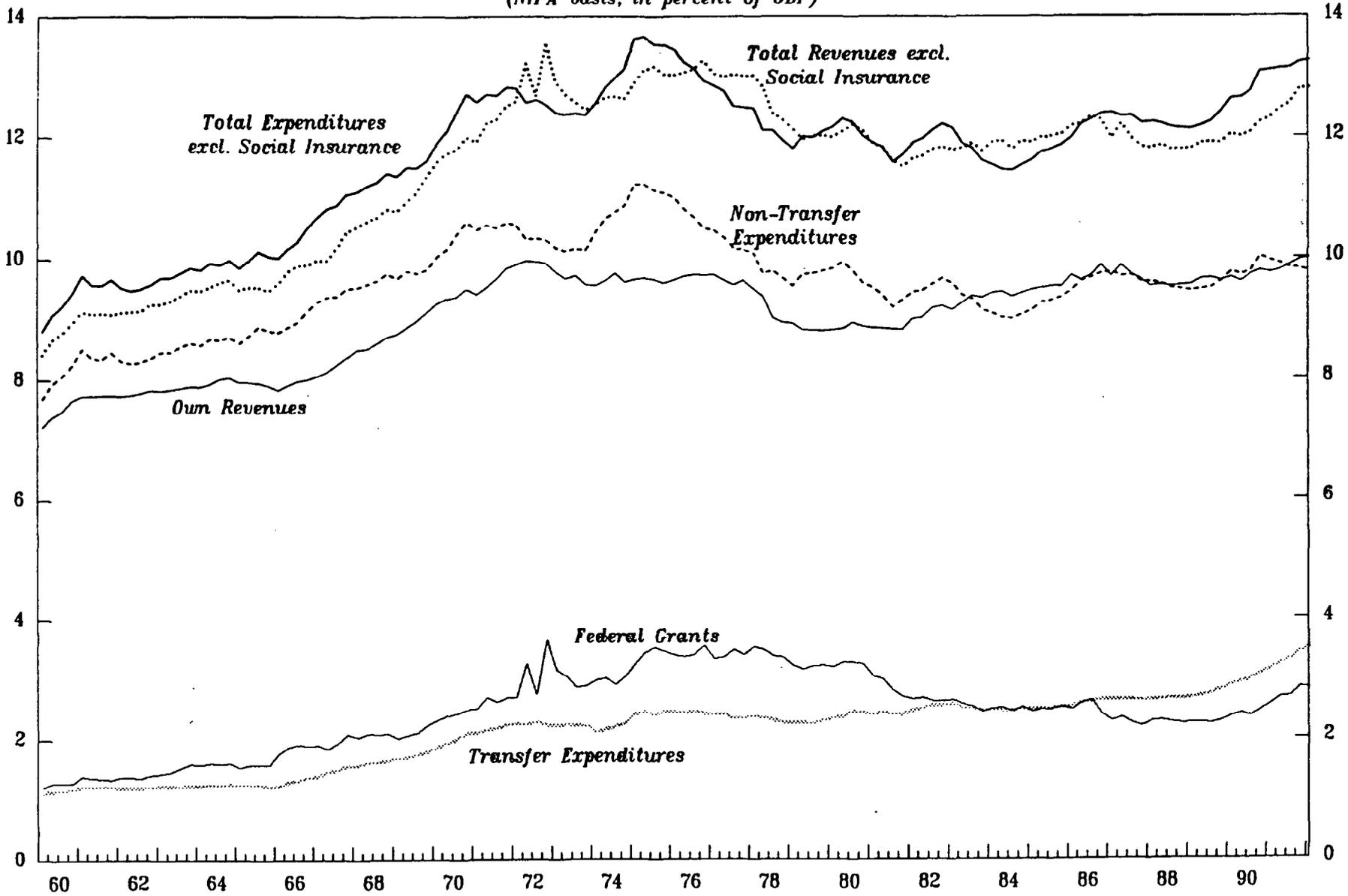
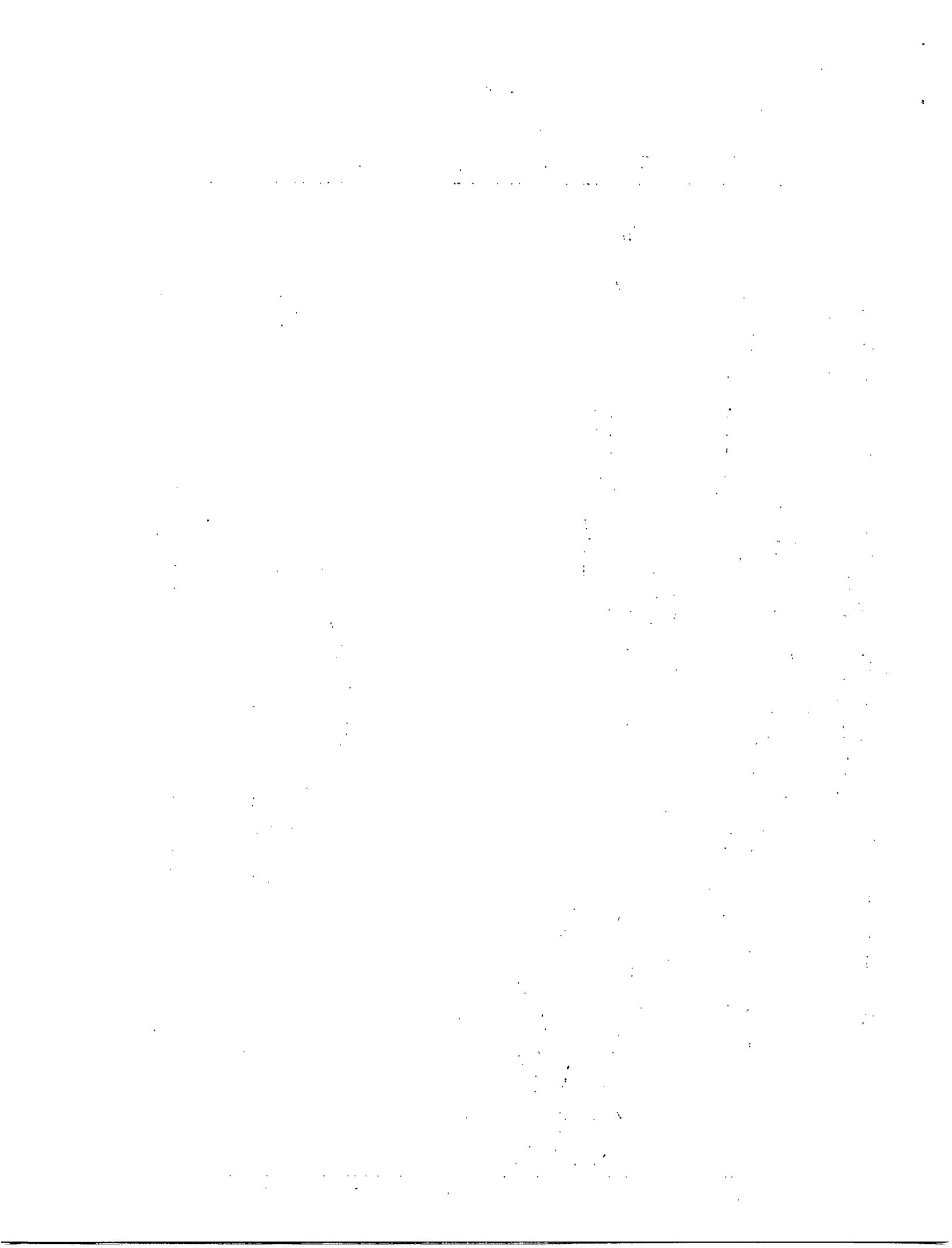




Chart 2.  
**Cyclical Behavior of State and Local Government Revenues and Expenditures**  
*(NIPA basis, in percent of GDP)*





but steadily since about 1980, while federal grants peaked in late 1970s, fell during the 1980s and then started to rise in the 1990-91, a change again largely associated with Medicaid.

These visual impressions can be augmented by more formal regression techniques. Assume that the balance depends upon two variables, the deviation of the logarithm of output from trend ( $Y - Y_T$ ) and other influences ( $X$ ),

$$(BAL/GDP) = \beta \log(Y/Y_T) + cX. \quad (1)$$

If  $Y_T$  is a log-linear trend and  $X$  is a random walk (possibly with drift) then the model can be rewritten,

$$\Delta(BAL/GDP) = \alpha + \beta \Delta \log(Y) + \epsilon_t, \quad (2)$$

where  $\Delta$  represents the first difference operator,  $Y$  is real GDP,  $\epsilon_t$  is an error term, and  $\beta$  measures how sensitive the balance is to the cycle. A positive value indicates that the balance varies counter-cyclically, acting as an automatic stabilizer and dampening fluctuations.

Table 1 shows the results from estimating equation (2), using the definition of the balance excluding social insurance, over three time periods, 1959:2-1969:4, 1970:1-1984:2 and 1984:3-1992:1. For the 1960s the estimate of  $\beta$  is negative, although insignificantly different from zero, implying that the state and local government sector played no role in dampening cyclical variations in the economy. For the 1970s and early 1980s, on the other hand, the estimate of  $\beta$  is 0.077 and significantly different from zero at the 1 percent level. Each 1 percent rise in the growth rate was associated with a rise in the fiscal balance of 0.08 percent of GDP, helping to reduce the impact of aggregate disturbances. The regression for the period since mid-1984 indicates a diminution in this counter-cyclical behavior, with the estimate of  $\beta$  falling from 0.077 to 0.033 and becoming insignificantly different from zero.

These results can be compared with those for the federal fiscal balance (again adjusted for social insurance payments). The coefficient for the federal deficit is 0.216 for the full 1959-92 period, with very little variation between sub-periods. Comparing the coefficient on state and local government with the value for the federal government, it appears that during the 1970s and early 1980s state and local governments provided about one-fourth of overall government automatic stabilizers.

Table 1 also shows the results from estimating equation (2) using the main components of the balance. They indicate that, as a ratio to output, both expenditures and revenues move counter to the cycle, falling in upturns and rising in the downturns. This implies that while expenditures tend to

Table 1. Cyclical Behavior of the State and  
Local Government Balance and Components

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Estimating Equation:  $\Delta(\text{BAL}/\text{GDP}) = \alpha + \beta \Delta \log Y_t + \epsilon_t$

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	1960:1 - 1969:4 $\beta$	1970:1 - 1984:2 $\beta$	1984:3 - 1992:1 $\beta$
Overall Balance	-0.022(0.023)	0.077(0.019)**	0.033(0.045)
Expenditures	-0.081(0.020)**	-0.104(0.014)**	-0.100(0.028)**
Nontransfers	-0.063(0.019)**	-0.083(0.012)**	-0.050(0.028)
Transfers	-0.017(0.004)**	-0.021(0.005)**	-0.050(0.008)**
Revenues	-0.105(0.018)**	-0.036(0.026)	-0.066(0.043)
Own	-0.072(0.009)**	-0.026(0.011)*	-0.005(0.034)
Federal grants	-0.032(0.015)*	-0.010(0.022)	-0.061(0.028)*

Notes: Standard errors are reported in parentheses. One or two asterisks indicate that the coefficient is significantly different from zero at the 5 and 1 percent level, respectively.

Source: Fund staff estimates.

dampen the cycle; revenues have the opposite effect. The cyclical response of total expenditures, as measured by the coefficient  $\beta$ , appears to have been relatively stable over time (at around -0.1). There is less stability in the cyclical behavior of overall revenues, where the estimates of  $\beta$  show a U shaped pattern, highly cyclical in the 1960s, less so in the 1970s and early 1980s, and then more cyclical in the later 1980s. Of the components, revenues from own resources have become progressively less cyclical over time, which is consistent with a move to a more medium-term budget perspective, with tax rates being kept more stable over the cycle. 1/

Grants, which became less cyclical in the 1970s and early 1980s, have become more cyclical in the later 1980s. The change in behavior of federal grants appears to reflect changes in federal policy. In the 1960s, grants were mainly categorical, tied to applications for specific projects, and the incentives to apply for them may have increased in economic downturns. From 1966 onwards many of these specific grants were replaced by block grants which provided more flexibility to lower levels of government and which may have made the system less cyclically sensitive. In the early 1980s, as part of the "new Fiscal Federalism" of the Reagan administration, federal grants to state and local government again became both more limited and more specific. 2/ An additional side effect of the "new Fiscal Federalism" was that the share of grants to state and local government ultimately directed to individuals rose sharply in the 1980s, which may explain part of the increase in the cyclical nature of federal grants. 3/

## 2. Reasons for the change in cyclical behavior

The foregoing analysis suggests that the improvement in the financial position of the state and local government sector in 1991 cannot be explained on the basis of economic recovery. Other factors have been at work, and statutory limits on deficit spending seem to have played a crucial role. Almost all states have balanced budget rules of one kind or another. For example, all but two states require either that the executive propose or

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1/ Feenberg and Rosen (1986) estimate that personal income and sales taxes, which make up the bulk of state (but not local) government revenues, have a combined elasticity of close to unity. This implies that, with unchanged tax rates, the ratio of revenues to GNP would stay constant over the cycle.

2/ See Swartz and Peck (1990) for a discussion of the "new Fiscal Federalism." More general discussions of the economics of federal grants are contained in Schwallie (1989) and Stiglitz (1988).

3/ As discussed below, while grants directed to state and local governments were cut, entitlement programs administered through states were largely unchanged. It should also be noted that the regressions for 1984-92 may somewhat overstate the cyclicity of federal grants, since a significant noncyclical increase in the cost of Medicaid in 1990-91 coincides with an economic downturn.

that the legislature enact a balanced budget. 1/ Such limits are also very common in local government. Although these limits are usually framed in the context of a balanced budget requirement, they typically operate in stock terms, constraining fiscal reserves from falling below a certain level. 2/ Hence, the degree to which state and local governments can allow their finances to deteriorate in a recession depends on the extent to which they enter the downturn with a healthy level of reserves.

The cash reserves of state governments declined considerably during the 1980s and early 1990s, as shown in Table 2. Total reserves of state governments stood at about 9 percent of expenditure in mid-1980, 3/ well above the level of 5 percent considered prudent (Coleman, 1992). By mid-1989 reserves were 4.8 percent of expenditures, and the 1990-91 recession reduced them further, to 1.8 percent of expenditure in 1991, a factor which apparently forced many states to take action to reduce the fiscal deficit. Nevertheless, cash reserves are estimated to have fallen further to just 0.8 percent of expenditures in mid-1992. A similar pattern of financial stress emerges for local governments: between 1989 and 1991 the percentage of cities (in a survey of 1,457 cities and towns) in which expenditures exceeded revenues rose from 32 to 61 percent, having been relatively constant over the 1985-89 period. 4/

Data on the net debt of the sector point to a deterioration in state and local government finances since the mid-1980s. Chart 3 shows the ratio of state and local debt to GDP from 1960-90, together with the capital stock of the sector, also as a ratio to GDP. There is a slight rise in the debt ratio in the 1960s, reflecting the construction of the inter-state highway system and related infrastructure expenditures, followed by a fall in the 1970s. After staying fairly constant between 1980 and 1984, the ratio then rose rapidly, from 11.2 in 1984 to 15.5 percent of GDP in 1987, before stabilizing over the remainder of the period. 5/ Unlike the 1960s, this

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1/ See ACIR (1992), Vol. 1, Table 3 for details on individual state provisions. The two exceptions are Ohio and Vermont.

2/ "These constraints ... usually do not prohibit state or local deficits; they only prohibit balances from falling below a certain level." Gramlich (1991), page 253. In addition, they usually pertain specifically to current expenditures, while capital spending can be financed by borrowing.

3/ All but two states have fiscal years that end on June 30. Reserves are defined as the balance on state general funds plus the balance on state stabilization funds. All data are taken from National Association of State Budget Officers (1992). No data are available prior to 1979.

4/ National League of Cities (1991).

5/ The precise timing of the rise in debt can be partly explained by particular circumstances. Prior to 1986 there was considerable fear that the ability of states to issue tax-free debt would be curtailed in the impending Tax Reform Act, and this led to a spurt in borrowing (Rubin, 1988).

Chart 3.  
State and Local Government Debt and Net Capital Stock  
(In percent of GDP)

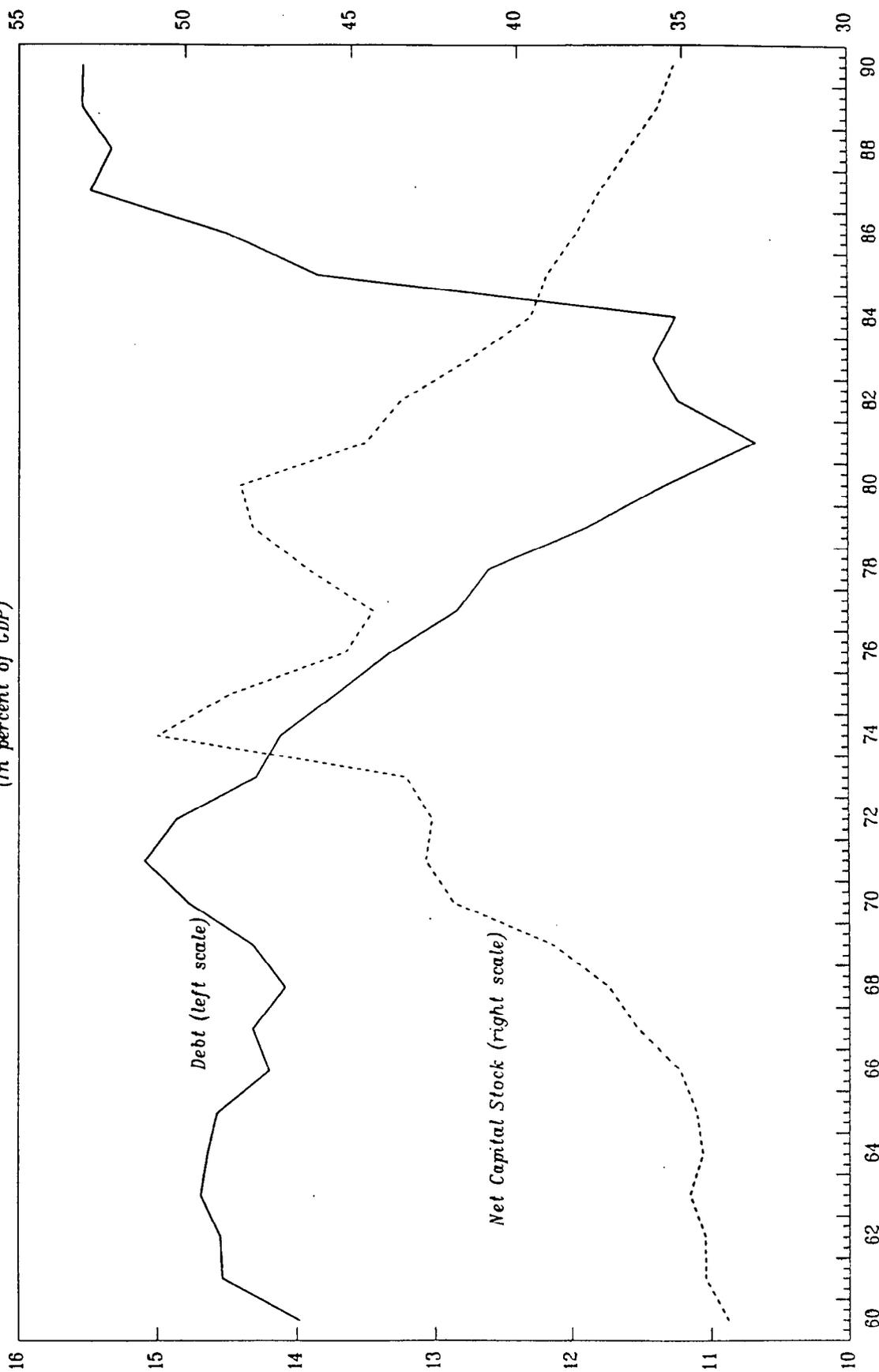




Table 2. Year-End Reserve Balances of State Governments

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	In Percent of Expenditure	In Billions of Dollars
1979	8.7	11.2
1980	9.0	11.8
1981	4.4	6.5
1982	2.9	4.5
1983	1.5	2.3
1984	3.8	6.4
1985	5.2	9.7
1986	3.5	7.2
1987	3.1	6.7
1988	4.2	9.8
1989	4.8	12.5
1990	3.4	9.4
1991	1.8	5.4
1992 (estimated)	0.8	2.5

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Notes: For all but two states, fiscal years run from July through June 30.

Source: National Association of State Budget Officers (1992).

1/ Defined as the sum of the balance on general funds and on state stabilization funds.

rise in debt was not associated with an increase in the ratio of the net capital stock to GDP, which has declined steadily since 1980.

Two, not necessarily mutually exclusive, explanations for the states' failure to build up reserves in the late 1980s have been put forward in the academic literature. 1/ One puts the emphasis on external pressures; decreasing transfers from the federal government, increasing federal mandates, and increased public hostility to tax increases. The other attributes the problems of the sector to a failure of management. Instead of building up reserves, as in previous periods, state and local governments chose to use the enhanced fiscal leeway created by the upswing in the late 1980s to expand spending while avoiding increasing taxes. 2/

While it may be difficult to distinguish fully between these alternative interpretations, in part because state and local governments comprise a large and diverse set of authorities, some headway can be made. The impact of specific factors such as federal grants, mandates and tax revolts on finances can be considered directly. On a more general level, if the problems of the sector are largely caused by external pressures on spending and revenues, then one would expect to see these types of spending and revenues become more important over the period. This can be analyzed by looking at spending across functional categories. The role of labor costs can be examined by looking at wage trends, while the regional breakdown of the aggregate balance may give additional information as to the source of the problems.

a. Federal grants, mandates, and tax revolts

Table 3 shows data on federal grants expenditures to state and local governments. After falling in the early 1980s, the real value of federal grants rose by 15 percent during the period FY 1985 and 1991. 3/ However, all of the increase has been associated with payments to individuals, mostly for Medicaid. Direct grants to state and local governments fell in real terms, from \$60 billion in FY 1982 to \$54 billion in FY 1991 (in 1987 prices). However, the cut is relatively small, both in absolute terms, 4/ and in comparison to the cuts which occurred between 1980 and 1985, a period when the finances of the sector appear to have followed the cycle in a normal manner. Thus, it is difficult to argue that cuts in federal grants were a major new factor behind the deterioration in state and local government finances in the late 1980s.

The costs of mandates, i.e., externally imposed obligation which are legally binding, particularly those emanating from the federal government,

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1/ See, for example, Gramlich (1991) and the comment on that paper by Gordon (1991).

2/ See Moore (1991).

3/ Federal fiscal years, starting October 1.

4/ \$6 billion represents less than 1 percent of total spending by the state and local governments.

Table 3. Federal Grants to States

(In billions of constant FY 1987 dollar, fiscal year)

	Total	To Individuals			Direct to States
		Total	Medicaid	Non-Medicaid	
1980	127.6	46.3	19.5	26.8	83.1
1981	121.5	49.0	21.6	27.4	72.5
1982	106.5	47.2	21.0	26.2	59.3
1983	107.0	49.4	22.0	27.4	57.6
1984	108.4	50.5	22.3	28.2	57.9
1985	113.0	53.0	24.2	28.8	60.0
1986	115.9	56.2	25.8	30.4	59.7
1987	108.4	57.8	27.5	30.3	50.6
1988	110.8	59.9	29.3	30.6	50.9
1989	112.2	61.7	31.8	29.9	50.5
1990	119.7	67.4	36.3	31.1	52.3
1991	129.0	75.0	44.6	30.4	54.0

Source: Budget of the United States Government: FY 1993.

are also often cited as an important factor in the financial problems of state and local government. Mandates can take various forms. 1/ There are requirements to provide a minimum level of service, such as in the case of Medicaid. Since the federal government covers only part of the cost of these services (just over half in the case of Medicaid, by far the most important program) rising costs imply higher state and local government spending. There are also direct costs, for example the EPA estimated that the Asbestos Hazard Emergency Response Act of 1986 would cost school districts \$3 billion, while only \$25 million a year was appropriated by Congress. Finally, the courts have imposed a number of mandates associated with factors such as prison overcrowding.

Aggregate information on the costs of mandates is limited. 2/ However, detailed information illustrative of the costs of recent mandates is available for one state, namely Tennessee (State of Tennessee, 1992). By FY 1993, the overall cost of new mandates imposed on Tennessee since 1987 is estimated to be \$27 million, about 3/4 of a percent of projected total expenditures, with Medicaid spending representing over 90 percent of these costs. These data only refer to the cost of new mandates, and to one particular state. However, as with government grants, the small size of the estimated costs compared to overall spending make it unlikely that new mandates were a major factor in the deterioration of state and local government finances in the late-1980s.

A third area of concern for state and local governments has been the effect of state-wide limitations on municipal taxes, such as proposition 13 in California. Most of these limits refer specifically to property taxes; in 1987 29 states had limits on property tax revenues and 4 had wider limits (in 1976 the corresponding figures were 15 and 2 respectively). One recent study of the impact of these restraints (Preston and Ichiowski, 1991) estimates that these limits have reduced overall local government revenues by between 1 and 15 percent compared to municipalities without such limits, with the exact size of the estimated reduction varying with the type of regulation and with the estimation procedure.

Since local government revenues make up almost half of the revenues of state and local government combined, it is clear that reductions of this magnitude could potentially have had a significant effect on the overall fiscal position of the sector. However, several factors mitigate against this. Most of these regulations were enacted in the late 1970s or early 1980s, rather than in the late 1980s when the deterioration in finances

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1/ Kee (1989) and Whitman and Bezdek (1989) discuss the definition and extent of mandates in more detail.

2/ Since 1981 the Congressional Budget Office (CBO) has been required to estimate the costs for state and local government of all legislation imposing an aggregate cost of \$200 million, while the Office of Management of the Budget (OMB) serves a similar role for federal regulations. However, these estimates are not aggregated, and in any case are subject to a number of problems which them too inaccurate to be useful.

occurred. In addition, the late 1980s saw a boom in real estate values. While this may well have made these limitations on tax revenues more binding, it also tended to boost property tax revenues in general, particularly in states with no statutory limits. Again, it is difficult to believe that limitations on tax revenues was an important factor in the deterioration in overall state and local government finances in the late 1980s.

b. Expenditures and revenues by functional categories

There are two sources for data on state and local government expenditures by function. The *Survey of Current Business* publishes such data on state governments and local governments separately on a nonregular basis. Alternatively, the Bureau of Census publishes detailed data on expenditures and revenues for state governments and local governments on a fiscal year basis. Since these data are more up to date, include details of federal grant receipts to state governments, and are reported on a state-by-state basis, this was the data set chosen for the analysis.

Table 4 shows the proportion of total net expenditures of state and local government allocated to five functional categories: education, health and hospitals, highways, public welfare and other expenditures. Net expenditures were calculated as the direct expenditures by both state and local governments less federal grants to states. 1/ The most striking feature of the data is the stability of relative spending on different functions between 1985 and 1990 compared to earlier periods. None of the five categories shows a change in relative spending of more than 0.2 percent of total spending between 1985 and 1990, whereas from 1980 to 1985 and 1975 to 1980 only one category shows a change of less than 0.2 percent. 2/

Relative spending on public welfare, which includes Medicaid payments, has been remarkably stable over the time, at between 6.0 and 6.2 percent of total spending. Detailed data were also obtained on two other categories which could have been heavily influenced by mandates, namely, public safety and natural resources. State and local expenditures on correctional institutions show a significant rise, from 2.1 percent of total direct expenditures in 1985 to 2.8 percent in 1990; however, spending on the police, which is significantly larger, remained unchanged. Direct state spending on natural resources, at around 1.1 percent of total expenditures, has stayed unchanged throughout the 1980s. Hence, with the notable

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1/ Direct federal grants to local government, which are relatively small, are not divided into functional categories and were excluded from the calculations.

2/ Part of this is probably due to the large changes in the level of grants over the 1975-85 period, which may have made it a particularly turbulent one for state and local government finances. However, the results are relatively similar if federal grants are not excluded from the calculation, although in this case there are some secular changes in spending patterns.

Table 4. Relative Net Spending on Different Functions by State and Local Government

(In percent of total expenditures; fiscal year)

	Education	Hospitals and Health	Highways	Public Welfare	Other
1975	37.9	8.9	8.2	6.1	38.9
1980	36.0	9.5	7.3	6.2	41.0
1985	34.5	9.9	6.3	6.0	43.3
1990	34.5	9.8 <u>1/</u>	6.1	6.2	43.4 <u>1/</u>

Note: Spending is calculated net of federal government grants.

Source: Bureau of Census.

1/ 1989.

Table 5. Sources for State and Local Government Revenues

(In percent of total revenues)

	State Government Taxes	Local Government	
		Property taxes	Other taxes
1975	82.8	59.3	13.4
1980	81.0	50.4	16.0
1985	78.1	46.2	16.1
1990	76.8	46.7	15.9

Note: State revenues are defined as general revenues.

Source: Bureau of Census.

exception of correctional institutions, expenditures in areas associated with federal mandates do not appear to have been a particularly important sources of the rise in overall state and local government spending.

Table 5 shows the proportion of own general revenues of state governments which came from taxes, and the proportion of local government revenues which came from property taxes and from other taxes for 1980, 1985, and 1990. Tax revenues fell from 82.8 percent of all state revenues in 1975 to 76.8 percent in 1990, but there does not appear to be any marked change in pattern in the late 1980s. In the case of local governments, property tax revenues fell significantly as a ratio to all revenues between 1975 and 1985, and then rose slightly in the late 1980s. The initial decline may well reflect the impact of new statutory limits on property tax revenues, while the increase after 1985 is presumably linked to the rise in property values. Other tax revenues rose over the entire period. As a result, tax revenues rose as a proportion of total revenues over the period.

Overall, the data do not show large shifts in the composition of either expenditures or revenues over the late 1980s. If external factors such as mandates, falling federal grants and statutory limits on local taxes were problems for state and local governments, there was little aggregate response in terms of the composition of spending or revenues.

c. Labor costs

A number of journalists who comment on state and local government affairs have pointed to lavish increases in compensation and employment as a source of the fiscal problems of state and local government, 1/ reflecting archaic work practices and the influence of public sector unions, although previous academic studies have not focused on this issue. 2/ Table 6 and Chart 4 show developments in compensation per employee for the sector. 3/ Relative to the private sector, compensation of state and local government employees have shown long swings over time. They rose by around 10 percentage points in the 1960s, fell by 6 1/2 percentage points in the 1970s before rising by 12 1/2 percentage points in the 1980s. As a result of the current upswing, by 1990 state and local government compensation per worker was a record 10 percent higher than the average for the private sector, compared with 4 percent at the previous peak in 1971.

The data also distinguish between state and local government employees involved in education and those in other activities. During the 1980s the rise in relative remuneration was significantly smaller for employees in education than the rest of the work force, particularly in the later half of the decade. As a result, average compensation for noneducational workers, which was below that for the private sector throughout the 1960s, 1970s, and

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1/ See Bates (1991) and Koretz (1991).

2/ For example Gramlich (1991), Gordon (1991), and Rubin (1988).

3/ Compensation per employee was calculated as the ratio of total compensation to full time equivalent employment.

Table 6. Relative Compensation of State and  
Local Government Employees 1/

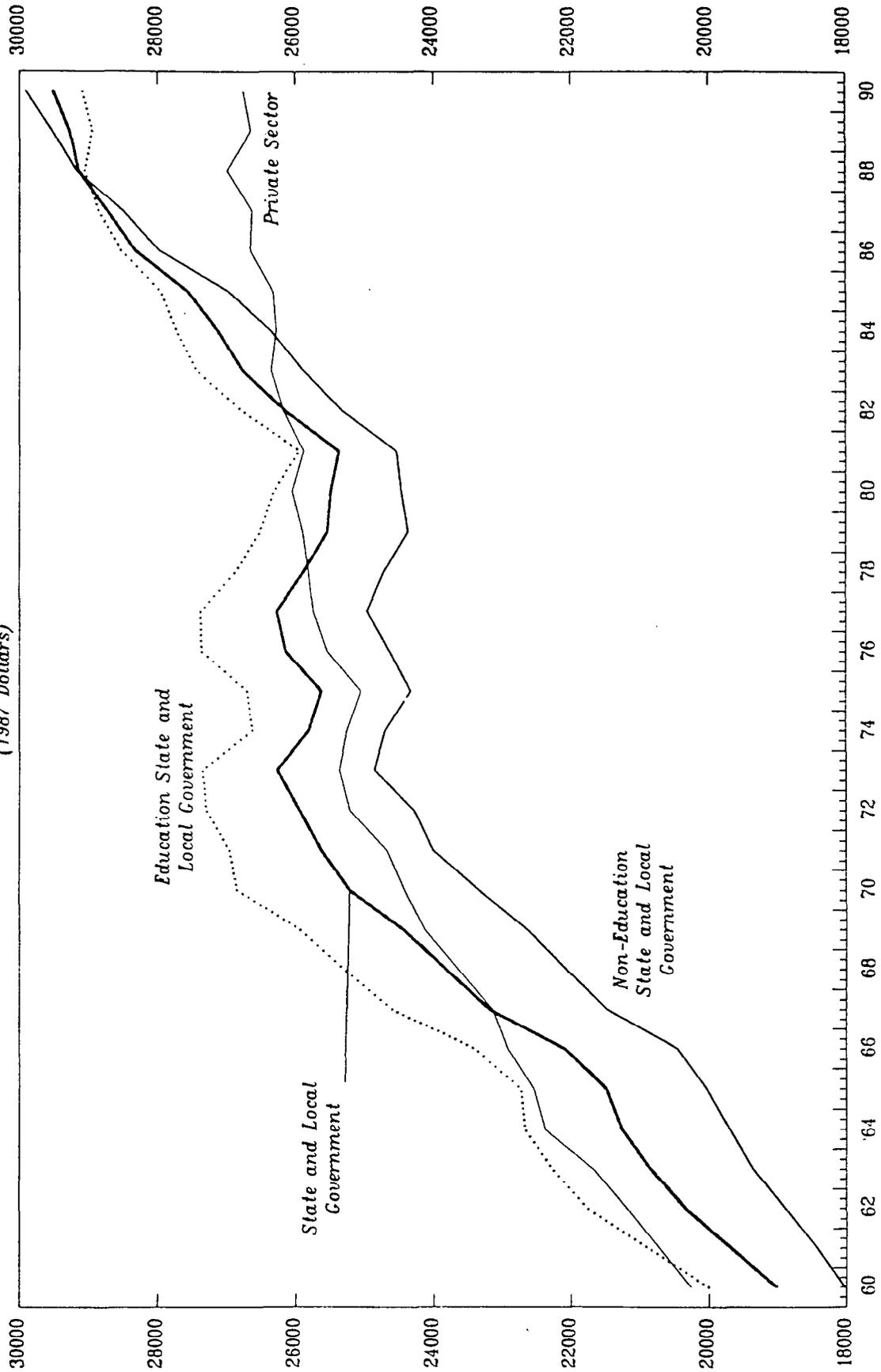
(As percent of private sector compensation)

	All	Education	Non-Education
1960	93.9	98.7	89.0
1971 (Peak)	103.8	109.2	97.2
1980 (Trough)	97.8	101.2	93.9
1990	110.3	108.7	111.8

Source: U.S. National Accounts.

1/ Per full time equivalent employee.

Chart 4.  
Compensation of State and Local Government Employees  
(1987 Dollars)





early 1980s, was 11.8 percent higher than that in the private sector by 1990. The change from earlier trends is clearly visible in Chart 4. Before 1980 movements in the wages of noneducational workers closely followed those of the private sector, while since 1980 they have grown much faster.

It is also possible to distinguish recent trends in compensation by type of occupation. The Bureau of Labor Statistics publishes employment compensation series for blue collar and white collar state and local government workers. The data indicate that between 1982 and 1991, 1/ compared to similar private sector jobs, the compensation of state and local government employees rose by 7.1 percentage points for blue collar workers, 8.2 percentage points for white collar workers and by 10.1 percentage points for all workers. This implies that around a quarter of the rise in relative compensation in state and local government may be due to a shift in the composition of employment from low wage blue collar jobs to higher paid white collar jobs, possibly reflecting moves to contract out basic services to private companies. However, even when these effects are taken into account, there is still a substantial rise in relative pay for state and local government employees in the 1980s.

By contrast to the behavior of wages, changes in employment in the state and local government sector in the late 1980s have mirrored changes in employment in the private sector. At 15.2 percent of private sector (full time equivalent) employment, the level in 1990 was the same as that in 1985, similar to that in 1970 and somewhat lower than in the intervening period.

Wages and salaries comprise 60 percent of all state and local government spending, hence changes in relative compensation have large effects on their overall financial position. If compensation had risen in line with private sector values since 1984, spending by state and local government would have been almost \$30 billion lower in 1990 (4 percent of overall spending by the sector and 1/2 percent of GDP). This is equal to the entire deterioration in the state and local government balance between 1984 and 1990.

d. Regional experiences

It is also of interest to disaggregate the aggregate fiscal balance on a regional basis in order to investigate whether the problems of the sector are concentrated in specific areas of the country or not. Table 7 shows estimates of the state government balance and the local government balance for the eight standard regions defined by the Bureau of Economic Analysis, measured as a ratio to gross regional product (the regional equivalent of gross domestic product). 2/ To focus on behavior in the late 1980s, values are reported for FY 1985 and FY 1989. The state fiscal balance is

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1/ 1982 is the first full year for which the data are available.

2/ The fiscal data are in fiscal years, and the gross regional product data are in calendar years. The data represent the ratio between the current fiscal year and the gross regional product of the previous year.

Table 7. Regional Movements in State Government and Local Government Balances, FY 1985-FY 1989

(Percentage of Gross State Product)

	State Government Balance			Local Government Balance		
	FY 1985	FY 1989	Change	FY 1985	FY 1989	Change
New England	-0.5	-1.8	-1.3	2.0	1.3	-0.7
Mid-East	-0.9	-1.4	-0.5	2.4	1.6	-0.8
Great Lakes	-0.9	-1.0	-0.1	1.8	1.3	-0.5
Plains	-0.4	-0.4	0.0	2.2	1.6	-0.6
South East	-0.6	-0.7	-0.1	2.6	2.0	-0.6
South West	-1.2	-1.6	-0.4	1.7	1.1	-0.6
Rocky Mountains	-1.0	-1.0	0.0	2.3	2.2	-0.1
Far West	-1.8	-1.5	0.3	3.1	2.9	-0.2
U.S.	-0.8	-1.0	-0.2	2.3	1.8	-0.5

Notes: State government fiscal balance is calculated as general revenues minus total expenditure; local government fiscal balance is calculated as total revenues minus direct expenditures.

defined as general government revenues minus total expenditures, while the local government fiscal balance is defined as total revenues less direct expenditures. As a result, the balance for state governments is understated, since nongeneral revenues are excluded, while the local government balance is overstated, since nondirect expenditures are excluded.

In aggregate, these data indicate that the fiscal balance of both state governments and local governments declined between FY 1985 and FY 1989, with a somewhat larger fall in the local government sector (0.5 percent of regional product as opposed to 0.2 percent). <sup>1/</sup> As far as state governments are concerned, the deterioration was heavily concentrated in three regions, New England, the Mid East, and the South West, of which the most spectacular change is in New England, which moved from having the second largest balance in FY 1985 to the lowest balance in FY 1989. Two other regions stand out: The Plains states maintained a balance which was significantly better than the norm in both FY 1985 and FY 1989, while the Far Western states, which are dominated by California, had a fiscal balance which was consistently lower than the norm, despite some improvement over the period. In the case of the local governments, the deterioration in the fiscal balance is more general, with falls of 0.5 percent of regional product or more everywhere except the Far Western and Rocky Mountain regions. Interestingly, despite the existence of proposition 13 in California, local governments in the Far Western states maintained a healthy balance throughout the period, in marked contrast to the position of state government.

These movements do not appear to be particularly closely linked to economic performance. New England, where the state fiscal balance deteriorated spectacularly, was the fastest growing region over the 1984-89 period. By contrast, the next fastest growth was in the Far West, where the combined balance of state and local government improved. The two slowest growing regions were the South West, where the both the state and local government balances deteriorated significantly, and the Rocky Mountain region, where they did not. Nor does the pattern appear particularly correlated with the relative size of state and local government or legislated limits on taxes. The South Western region, with relatively small state and local governments, and the Mid Eastern region, with much larger ones, show a similar deterioration in the balance; while, despite legislated limits on local government revenues in California, local governments in the Far Western region appear to have maintained a relatively healthy balance. Overall, the path of the balances appear to be dominated by local choices on fiscal policy, rather than by economic performance.

### 3. Conclusions and future prospects

This paper has investigated the behavior of the state and local government sector in the United States over the business cycle. The

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<sup>1/</sup> The national accounts data indicate that the deterioration is more equally divided between the two sectors.

behavior of the sector in this downturn has been rather different from that in previous downturns in the 1970s and 1980s. In particular, after deteriorating from 1986 to 1989 during the expansion, the fiscal balance of the sector began to recover in 1991 despite continued weakness in activity. As a result, between the fourth quarter of 1990 and the first quarter of 1992 the sector produced a negative impulse on demand of the order of 1/3 percent of GDP. By contrast, in the 1970s and early 1980s the fiscal balance followed the cycle closely, deteriorating during the downturn and rising only in the recovery, and providing a significant part of overall government automatic stabilizers.

The reason for this change in behavior appears to lie in the low level of reserves at the start of the downturn, combined with statutory limits on borrowing for current expenditure. While in mid-1980, prior to the two recessions of the early 1980s, state general government cash balances were 9 percent of expenditure, in mid-1989 they less than 5 percent. More anecdotal evidence indicates a similar situation for local government. As a result, the sector was unable to ride out the recession, and was forced to take action to improve its financial position. This leads to the question of why the sector failed to build up reserves during the upturn of the 1980s, and in particular why the fiscal balance deteriorated during the 1986-89 expansion.

Several explanations for this change in behavior were examined, including the role of federal government grants, federal mandates, tax revolts, and compensation. The evidence indicates that the first three factors are unlikely to have played a pivotal role in changing behavior. There does appear, however, to have been a large change in relative compensation over the 1980s. Between 1984 and 1990 compensation per state and local employee rose by 7.1 percent more than that of the private sector, with a significantly larger increase for noneducational workers. Between 1984 and 1990, this rise in relative compensation has raised state and local government spending by almost \$30 billion, equal to the whole of the deterioration in the fiscal balance over the period.

What does this imply about the future? In the short-term it appears likely that, due to the low level of reserves, the sector will be forced to continue to cut services and raise revenues. In June 1992 state reserves were estimated to be just 0.8 percent of expenditure, and are projected to reach only 1.0 percent by June 1993. Over the longer term, the question is whether the sector will resume the pattern of the 1970s and early 1980s and build up reserves to protect itself against future downturns, or whether it will continue to act as it did in the late 1980s, keeping reserves at relatively low levels.

On the whole, the evidence would appear to make the first alternative more likely. Although there were some strains on finances caused by external factors such as the need to build correctional institutions and rising Medicaid payments that may continue in the future, these external factors do not appear to have been at the core of the problem. Rising labor costs, in the form of a significant rise in relative compensation, appear to

be a more important cause. The current fiscal squeeze, by putting pressure on governments to control costs, may well improve the longer run financial outlook for the sector, enabling it to resume the counter-cyclical behavior of the 1970s and 1980s.

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