

New England Fiscal Facts

Federal Reserve Bank of Boston • Summer 2003 • No. 31

Preparing for the Storm: Rainy Day Funds in New England

By E. Matthew Quigley

Rainy day funds have played an important role in alleviating the current state fiscal crisis. This article examines the benefits of these funds, the various ways in which they can be structured, and the differences in the structure and use of these funds in New England.

The cause of the states' current fiscal crisis is vigorously debated. Some believe that states "spent themselves into this mess" by chasing rising revenues with unabashed vigor. The solution to the ensuing difficulties, they say, is obvious: reduce spending. Others argue that states enacted excessive — in light of their long-term spending needs and commitments — permanent tax cuts during the boom years. The solution for these observers is equally clear: reverse the tax cuts.

To some extent, both sides are correct. In retrospect, some states did finance expenditure expansions on the back of extraordinary (and temporary) surges in revenue. Still others enacted generous tax cuts without curbing spending. Common to both arguments is the assertion that conscious decisions on the part of lawmakers, either to spend more or to tax less, created the budgetary gaps of today. But discretionary choices were only part of the problem.

Cyclical forces affect state governments just as they do households and businesses. During a recession, tax revenues generally fall, and expenditures, particularly on transfer programs, increase. Even if there is no change in fiscal policy, these two pressures shift budgets toward

deficit. Conversely, during economic expansions, tax revenues increase and transfer payments decline, shifting budgets toward surplus.

The federal government can ride out these waves of recession and growth, running surplus, then deficit, and so on. State governments cannot. With the exception of Vermont, all 50 states have some form of balanced budget requirement — when expenditures outpace revenues, steps must be taken to bring them back into balance.¹ Pro-cyclical state fiscal policy is often the result: officials raise taxes and cut spending during recessions and lower taxes and increase spending during expansions. Even if policymakers wanted to run counter-cyclical fiscal policies, given their balanced budget requirements, most would be unable to do so.

Rainy Day Funds

Rainy day funds are one way states can limit the need for pro-cyclical fiscal policy. States can build rainy day funds in prosperous times to be able to call upon them during leaner years. These set-asides of tax and other revenues benefit the states themselves and, to lesser extent, the overall economy. There are four benefits to consider:

First, drawing on reserve funds may aid an economic

1 With the exception of Vermont, all six New England governors must submit a budget in which expenditures are balanced with revenues. If the budget falls out of balance during the year, states may borrow or take additional supplemental action to achieve balance, but, unlike the federal government, they cannot plan on borrowing to cover operating expenses as part of the initial budget submission.

Editors

Robert Tannenwald
E. Matthew Quigley

Designer

Donna Kim

The views expressed in this publication do not necessarily reflect official positions of the Federal Reserve Bank of Boston or the Federal Reserve System. This publication is available without charge. We welcome your ideas and comments; contact Matthew Quigley at 617-973-3959 or at e-mail address, Matt.Quigley@bos.frb.org. Send requests to be placed on our mailing list to Research Library-D, Federal Reserve Bank of Boston, T-9, P.O. Box 2076, Boston, MA 02106-2076.

State Budget Timetables

Annual Budgets

Massachusetts
Rhode Island
Vermont
FY03: July 1, 2002
to June 30, 2003
FY04: July 1, 2003
to June 30, 2004

Biennial Budgets

Connecticut
Maine
New Hampshire
FY02-03: July 1, 2001
to June 30, 2003
FY04-05: July 1, 2003
to June 30, 2005

recovery by lessening the need to raise taxes or cut spending, both of which exert a drag on the economy. It is estimated that the collective actions of the states to erase their current deficits may shave 20 basis points (two-tenths of one percentage point) from GDP growth this year and as many as 40 basis points (four-tenths of one percentage point) next year.²

Second, a more stable fiscal policy — possible when surplus funds are used instead of tax increases and/or expenditure cuts — promotes private investment. Volatile tax rates and erratic spending contribute to economic uncertainty, which inhibits investors, while a stable fiscal policy is conducive to private investment. Private purchases of plant and equipment are an important component of the economy and a critical source of improvement in labor productivity.

Third, evidence exists that reserves help reduce the excess burden of taxes — the language economists use to describe the cost to society created by tax-induced distortions of private economic decisions. One team of researchers found that “states that have rainy day funds are more likely to cope with fiscal stress through spending reductions than through tax increases.”³ To the extent this is true, rainy day funds indirectly promote economic efficiency.

Finally, the presence of reserves potentially improves a state’s fiscal standing with bond rating agencies, resulting in lower interest payments by the state and a lower cost of capital projects. The existence of the reserves implies a better preparedness for financial emergencies. A recent statement on budget reserves by Standard & Poor’s makes this point: “These reserves are accumulated in order to be spent during times of budgetary imbalance and extraordinary economic events. The last month has highlighted the importance and critical nature of these reserves from a credit standpoint. Given this period of economic uncertainty, a balanced approach of adjusting spending and drawing on reserves will reduce year-out structural imbalance.”⁴

In a field one summer’s day a Grasshopper was hopping about, chirping and singing to its heart’s content. An Ant passed by, bearing along with great toil an ear of corn he was taking to the nest. “Why not come and chat with me,” said the Grasshopper, “instead of toiling and moiling in that way?”

“I am helping to lay up food for the winter,” said the Ant, “and recommend you to do the same.”

“Why bother about winter?” said the Grasshopper. “We have got plenty of food at present.”

...When the winter came, the Grasshopper had no food and found itself dying of hunger... Then the Grasshopper knew: It is best to prepare for the days of necessity. — Æsop

Structuring Rainy Day Funds

In making the decision to save, policymakers incur opportunity costs (i.e., the funds are not available to increase spending and/or lower taxes). These costs, measured by the depth of reserves, are the first consideration in structuring stabilization accounts. Are the reserves meant to cover short-term adjustments or long-term revenue shortfalls — the rainy day or the rainy season? If policymakers view reserves as a way to “buy time” — a means of continuing services in the face

2 Mark M. Zandi, “Reasons for Optimism,” *Regional Finance Review*, April 2003.

3 Russell S. Sobel and Randall G. Holcombe, “The Impact of Rainy Day Funds in Easing State Fiscal Crises During the 1990–1991 Recession,” *Public Budgeting and Finance*, Fall 1996.

4 Robin Prunty, Alexander M. Fraser, and Steven J. Murphy, *Commentary: The State of the States*, Standard and Poor’s, October 18, 2001.

of a temporary dip in revenues — a relatively small reserve may suffice. However, if lawmakers wish to design reserves sufficient to weather a significant downturn, the reserve fund must be significantly larger.

Several researchers have found that the five percent rule of thumb advocated by Wall Street — reserves should equal roughly 5 percent of expenditures — has been woefully inadequate in smoothing the impacts of the revenue cycle.⁵ Even the deeper reserves accumulated by several states during the 1990s have proved insufficient in the face of the massive revenue falloffs of the new millennium.⁶

If policymakers take a long-term perspective and wish to build up reserves deep enough to maintain spending throughout a period of contraction, how severe a contraction should they plan for? One as severe as the average contraction in recent decades? The sharpest contraction in recent decades? Another Great Depression? And what percentage of revenues should policymakers try to cover? What percentage of revenues is vulnerable to cyclical downturns?⁷

Besides size, other fund features must also be determined. Should reserves remain in the general fund as unallocated surplus dollars, or be sequestered into a reserve or stabilization account? Should the size of the fund be capped? What should be the procedures for withdrawing from and depositing into the fund? What should be the procedures for replenishment?⁸ This list is not meant to be exhaustive but merely to raise some of the issues involved.

Rainy Day Funds in New England

As shown in Table 1, the six New England states have structured their rainy day funds in different ways. All six have formal budget reserves and are among the 40 states nationally that cap the overall size of their reserve fund. Connecticut, Massachusetts, and New Hampshire are among the nine states nationwide that cap their fund balance at 10 percent of expenditures; Maine is among the eight states with a cap of 5 to 10 percent of expenditures; and Rhode Island and Vermont are two of 19 states with a cap of less than 5 percent of expenditures. Procedures

Table 1

Structural Characteristics of New England's Rainy Day Funds

State	Name of Fund	Cap	Source of Deposits	Supermajority Requirement	Limit on Use	Replenishment
Connecticut	Budget Reserve Fund	10 percent	Year-end Surplus	None	None	None
Maine	Rainy Day Fund	6 percent	Year-end Surplus	2/3 vote of legislature for bonds/construction	None	None
Massachusetts	Commonwealth Stabilization Fund	10 percent	Year-end Surplus	None	None	None
New Hampshire	Revenue Stabilization Account	10 percent	Year-end surplus	2/3 of legislature for all but revenue shortfalls	None	None
Rhode Island	Budget Reserve & Cash Stabilization Account	3 percent	2 percent of revenues annually	None	None	Must be repaid within 2 years
Vermont	Budget Stabilization Reserve	5 percent	None	None	None	None

Source: Bob Zahradnik and Rose Ribeiro, "Heavy Weather: Are State Rainy Day Funds Working?" *Center on Budget and Policy Priorities*, May 13, 2003, Appendix Table D.

5 See, for example, Philip G. Joyce, "What's So Magical about Five Percent? A Nationwide Look at Factors that Influence the Optimal Size of State Rainy Day Funds," *Public Budgeting & Finance*, Summer 2001.

6 Bob Zahradnik and Rose Ribeiro, "Heavy Weather: Are State Rainy Day Funds Working?" *Center on Budget and Policy Priorities*, May 13, 2003.

7 Two papers presented at a recent Urban Institute-Brookings Institution conference on the current state fiscal crisis offer innovative techniques for estimating revenue volatility and optimal reserve size that improve on the existing ex-post method utilized in previous research. See Ray D.

Nelson and Gary Cornia, "Rainy Day Funds and Value at Risk," and Christian Gonzalez and Arik Levinson, "State Rainy Day Funds and the Budget Crisis of 2002-?" both presented at *State Fiscal Crises: Causes, Consequences, and Solutions*, April 3, 2003, The Urban Institute, Washington, D.C.

8 The Center on Budget and Policy Priorities, the National Association of State Budget Officers, and the National Conference of State Legislators have published several reports on the structural features of reserves.

for deposits, withdrawals, and replenishment also vary.

As shown in Table 2, New England's states have drawn heavily upon their rainy day funds during the current downturn in revenues:

- Connecticut used its entire \$595 million balance to offset the deficit that emerged in FY2001.
- Maine exhausted its \$144 million balance by the end of FY2002.
- Massachusetts' balance has dwindled from a high of \$2.3 billion to \$348 million.
- New Hampshire's fund balance has hovered at around half of its statutory cap.
- Rhode Island, drawing upon the proceeds of tobacco securitization, has maintained a reserve balance equal to roughly 3 percent of expenditures throughout the current downturn.
- Vermont's fund currently stands at just under 2 percent of expenditures.

Without these funds, the budget cuts and tax increases enacted last year and during the current year would have been significantly larger. (For details of current budget balancing actions, see the individual state write-ups in this issue.)

Conclusions

Rainy day funds, if structured properly, offer significant protection from the fiscal impacts of recession. Despite their potential benefits, however, they raise several potential problems:

First, some would argue that the funds create what economists call a moral hazard problem, the tendency of a party with insurance against an unfavorable event to engage in behavior that makes it more likely that the event will occur. In other words, policymakers may be less

likely to worry about careful planning of expenditures if they feel that reserves will cover any revenue shortfalls that arise. Although researchers have examined the impact of reserves on state savings decisions, they have not examined this potential problem explicitly.

Second, the opportunity cost of a large reserve account may be substantial. Generally speaking, surpluses are viewed positively by the public. As these surpluses grow larger and larger, however, "disutility" begins to appear. On one side of the political spectrum, many believe that surplus funds should be returned to taxpayers — in the form of tax cuts or tax rebates — and not "hoarded" by government. For these people, a substantial reserve account is anathema. At the other end of the political spectrum are people who believe that many pressing social needs are currently under-funded. For these people, a substantial reserve account represents a significant lost opportunity to increase spending. In short, the potential political difficulties associated with large rainy day funds are not minor.

Finally, not all state fiscal woes are cyclical in nature. The increased budgetary demands placed on states by Medicaid and other health care programs are substantial. To some extent, the extraordinary revenue run-ups of the late 1990s masked this problem, but they did not alleviate it. A host of other spending demands arising from an aging infrastructure, rising education costs, and crowded prison systems are additionally straining state coffers. These are structural problems requiring solutions beyond smoothing the cyclical volatility of revenues.

Despite these cautions, the business cycle will roll on, and states with a means of bracing themselves against its waves of boom and bust will find themselves in more comfortable circumstances than those without. **FF**

Table 2

New England's Rainy Day Fund Balances, FY2001–FY2004

State	FY2001 (Actual)		FY2002 (Preliminary Actual)		FY2003 (Appropriated)		FY2004 (Proposed)	
	Balance (\$ millions)	Percent of Expenditures	Balance (\$ millions)	Percent of Expenditures	Balance (\$ millions)	Percent of Expenditures	Balance (\$ millions)	Percent of Expenditures
Connecticut	595	5	0	0	0	0	0	0
Maine	144	5.4	34	1.3	0	0	0	0
Massachusetts	2,294	10.4	877	3.8	347	1.5	348	1.5
New Hampshire	55	5.2	55	4.7	55	4.6	55	3.9
Rhode Island	80	3.2	82	3.1	82	3.1	85	3
Vermont	43	4.9	14	1.6	18	2	26	1.7

Source: FY2001–FY2003: National Association of State Budget Officers, *Fiscal Survey of the States*, November 2002. FY2004: state budget documents.

A Tale of Two States

Massachusetts

The recession of the late 1980s and early 1990s hit the Commonwealth of Massachusetts hard. In response, policymakers raised taxes and enacted significant spending cuts. Despite these efforts, the state was forced to borrow to meet current funding obligations. In an effort to head off similarly painful actions in the future, officials began building up a budget stabilization account.

In explaining his support for the account, Speaker of the House Thomas Finneran said, “The boom and bust, the feast and famine, is not a good thing. . . so you set aside during the good years for when it’s not going to be so good.”

As steady revenue growth fueled burgeoning reserve balances, the legislature voted, in a series of increments, to boost the cap on the account from 3 percent of expenditures to 10 percent. With this constraint loosened, the Commonwealth’s rainy day fund swelled, reaching \$2.3 billion by FY2000. When revenues collapsed shortly thereafter, the legislature began drawing down the account. Roughly \$2 billion in savings was used, with about \$350 million left as of FY2003. Massachusetts is one of only a few states with reserves left on hand.

Connecticut

Connecticut followed a different path. During the recession of the late 1980s and early 1990s, officials quickly drained Connecticut’s rainy day fund to cover deep deficits. By 1991, with no reserves left, the state was forced to borrow \$1 billion to balance its budget.

Burdened with a high debt load and faced with modest economic recovery through the early 1990s, Connecticut did not begin making annual deposits into its reserve account until 1995. By 2001, these annual deposits totaled roughly \$600 million, or about 5 percent of general fund spending. When a new recession hit, revenues declined precipitously, and Connecticut fell back into a deficit situation. Policymakers applied the entire rainy day fund balance toward deficit mitigation and began issuing “economic recovery notes.”

In commentary accompanying his proposed biennial budget, Governor John Rowland wrote, “In retrospect,...the state should have placed additional dollars in a Budget Reserve Fund as opposed to concentrating its one-time surplus on debt avoidance and debt retirement.” Determined to end the cycle, the governor recently signed into law a deficit mitigation plan, increasing the state’s reserve cap to 10 percent of expenditures.

Rainy Day Fund Balances as a Percent of General Spending

Massachusetts & Connecticut, FY1990–FY2002

Percent of General Expenditures

