VERMONT

STATE RESERVES STUDY AND STRESS-TESTING REPORT

Report to the Joint Fiscal Committee

DECEMBER 15, 2024

Submitted by the Treasurer, in consultation with the Department of Finance and Management and the Joint Fiscal Office, and with the assistance of Public Resources Advisory Group, Inc.

Submitted pursuant to Act No. 87 of 2024, Sec. E.131.2 and E.131.3, and Act No. 113 of 2024, Sec. B.1102(b)(18)

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EXECUTIVE SUMMARY

Pursuant to Act No. 87 of 2024 (the Budget Adjustment Act), Sec. E.131.2 and E.131.3, and Act No. 113 of 2024 (the Big Bill), Sec. B.1102(b)(18), staff from the Treasurer's Office, Legislative Joint Fiscal Office, Department of Finance and Management, and PRAG, Vermont's Municipal Advisor (together, the "Working Group"), met to assess and make recommendations regarding the State's reserve funds and related practices, and on fiscal stress-testing practices in other states.

With respect to reserves, the Working Group found:

- Vermont's reserves and related fiscal practices generally align with those of states with top credit ratings, and Vermont receives the highest scores in the rating agencies' reserves-related criteria.
- The State's reserve levels are strong; however, Vermont should continue its existing practice of maintaining the General Fund, Education Fund and Transportation Fund Budget Stabilization Reserves at their statutory maximums, build its General Fund Balance Reserve ("rainy day" fund) to its statutory maximum, and could consider formalizing the processes by which it accesses, replenishes, and establishes its reserves.
- Reserves are only one of several budgetary tools, and the State should continue its robust past practice of proactively addressing budget shortfalls, especially via the recission process.
- The State has ample safe and liquid cash balances relative to reserves, but should continue to monitor and project cash balances especially as extraordinary post-pandemic federal funds are drawn down.
- Given its large size relative to other special funds, and its reliance on payroll tax revenue, the newly created Child Care Contribution Special Fund should also have a statutory reserve, and it is reasonable to retain the $8 million transfer in this fund as a reserve pending the availability of revenue and expenditure data upon which to evaluate and recommend a reserve amount.
- When evaluating the appropriateness of reserve levels for a given fund, key considerations include both revenue and expenditure volatility; revenue volatility in turn is heavily dependent upon the type of revenue, with corporate taxes being the most volatile, property taxes the least volatile, and income and sales taxes moderately volatile.

With respect to the Stress-Testing Report, the Working Group found:

- Stress-testing is not widely and regularly used among states, however the rating agencies and outside parties (e.g., Pew) believe using stress testing or scenario testing to inform a state's basis for adequate reserves to be a good practice.
- Ideally, stress-testing should be paired with a multi-year (e.g., 3-5 year) budget projection incorporating both revenues and expenditures to evaluate the full effect of an economic downturn or other fiscal impact.
- Should personnel and financial resources become available, Vermont could consider conducting a one-time stress-testing and multi-year budget projection exercise to determine its value to the State's planning and budgeting process.

INTRODUCTION

In the 2024 Budget Adjustment Act (Act No. 87 of 2024), the General Assembly directed the Treasurer to produce both a State Reserves Study and a Stress-Testing Report[1], in consultation with the Department of Finance and Management (F&M) and the Joint Fiscal Office (JFO). The Treasurer's Office also engaged the State's Municipal Advisor, Public Resources Advisory Group (PRAG) to assist with the response. Additionally, Sec. B.1102 (b)(18) of Act No. 113 of 2024 (the FY2025 Big Bill) directed the Treasurer to recommend whether the Child Care Contribution Fund should have a statutory reserve, and to advise on the future status of the $8 million initially transferred to that fund.

Representatives from the Treasurer's Office, F&M, JFO, and PRAG (the "Working Group") convened for four working sessions from October through December and reviewed available literature on these topics.[2] PRAG also interviewed senior analysts from the three national rating agencies – S&P Global Ratings (S&P), Moody's Investors Service (Moody's) and Fitch Ratings (Fitch) – that rate the State's general obligation bonds, and met with officials from the states of Delaware, Rhode Island, New Hampshire, and Maine to discuss their respective states' processes. PRAG also provided best practice case studies of the processes used by other States including Minnesota and Utah for stress-testing, and Delaware, Rhode Island, and Maine for examples of smaller states' practices.

In general, the Working Group found that Vermont's reserve practices are in line with the reserve practices of states with triple-A (i.e., the highest available) credit ratings and, coupled with Vermont's reputation for strong fiscal management generally, meet the highest scoring thresholds consistent with published rating agency criteria. With respect to stress-testing, the Working Group found that this is a relatively nascent process among states, with few states having regular as opposed to ad hoc stress-testing practices or statutory procedures. However, the Working Group also found that stress-testing and forward-looking risk management techniques are generally viewed as a sound financial management practice (e.g., by the rating agencies), and one that several states are looking to develop further.

The Working Group found that reserves and stress-testing were closely related concepts, and several states use their stress tests to inform their required amount of reserves. The Working Group also found that a smaller subset of states use multi-year budget projections in conjunction with their stress-tests to identify structural trends and cumulative impacts of changes to revenues or expenditures. Because of this, the Working Group has combined both the State Reserves Study and the Stress-Testing Report into a single document and, where applicable, has discussed the relationships between the two concepts.

Finally, with respect to recommendations, the Working Group first endeavored to be sensitive to the time and expense that would accompany any changes or additions to the State's existing

[1] The full text of Act No. 87 of 2024, Sec. E.131.2 and Sec. E.131.3 is included as Appendix A.
[2] A list of reference materials is included as Appendix B.

statutes, process, and practices, given the State's limited personnel and financial resources. The Working Group further acknowledges that it is not aware of a state having audited the results of a multi-year budget-informed stress-test to determine the cost-benefit of the undertaking, or a comparative impact of the policy actions taken as a result of a stress test. With those caveats, the Working Group nonetheless believes that, should the personnel and financial resources be made available, a well-defined and reasonably constrained multi-year budgeting and stress-testing exercise could serve as a useful informational and planning tool to the Administration and the Legislature. Such a process may not necessarily inform changes to existing statutory reserves, but it could quantify the magnitude of revenue reductions, increased expenditures, and resulting shortfalls under adverse economic scenarios of varying intensity and could help to identify emerging structural mismatches between on-going revenues and on-going expenses, to plan proactively for out-year budget pressures.

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Sec. E.131.2: State Reserves Study

1. VERMONT'S CURRENT FISCAL RESERVE PRACTICES

Vermont currently has seven (7) statutory reserves across its three major funds: the General Fund, Transportation Fund and Education Fund. These funds include Budget Stabilization Reserves, Balance Reserves ("Rainy Day Funds"), and a Human Services Caseload Reserve and a 23/57 Reserve identified for specific purposes. A summary of the State's statutory reserves is shown in Figure 1 below:

Figure 1: Vermont's Statutory Reserve Funds

Fund	Name	Statute	Amount
General Fund	General Fund Budget Stabilization Reserve	32 V.S.A. § 308	5% of prior year General Fund Appropriations
General Fund	Human Services Caseload Reserve	32 V.S.A. § 308b	General Fund carry-forward transfers by Sec. of Adm. directly attributable to AHS caseload reductions and effective management of related federal receipts (excluding Corrections).
General Fund	General Fund Balance Reserve (Rainy Day Fund)	32 V.S.A. § 308c	5% of prior year General Fund Appropriations
General Fund	27/53 Reserve	32 V.S.A. § 308e	Prorated portion of upcoming 27th payroll and 53rd week of Medicaid payments
Transportation Fund	Transportation Fund Budget Stabilization Reserve	32 V.S.A. § 308a	5% of prior year Transportation Fund Appropriations
Transportation Fund	Transportation Fund Balance Reserve (Rainy Day Fund)	32 V.S.A. § 308c	Any remaining unreserved and undesignated end of fiscal year Transportation Fund surplus
Education Fund	Education Fund Budget Stabilization Reserve	16 V.S.A. § 4026	5% of prior year Education Fund Appropriations (reduced by the amount distributed to school districts by municipalities)

The General Fund, Transportation Fund and Education Fund Budget Stabilization Reserves were created to "reduce the effects of annual variations in State revenues" upon the Funds' respective budgets. The State's practice is to maintain these reserves at their respective statutory maximums of five percent of prior-year appropriations, in the case of the Education Fund "reduced by the amount distributed to school districts by municipalities for netting purposes under 32 V.S.A. § 5402(c)."

The General Fund and Transportation Fund Balance Reserves (the "Rainy Day Funds") provide for end of fiscal year unreserved and undesignated fund balances to be accumulated as additional reserves. The General Fund Balance Reserve has a statutory maximum of five percent of prior-year GF appropriations, while the Transportation Fund Balance Reserve does not have a specified limit. The Education Fund does not have a Balance Reserve.

The Human Services Caseload Reserve in the General Fund was created to meet caseload-related needs of the various Departments within the Agency of Human Services, and settlement costs related to the Global Commitment waiver. Finally, the 27/53 Reserve was created to meet the additional liabilities in years containing a 27th biweekly State employee payroll and a 53rd week of Medicaid payments.

A summary of Vermont's reserve fund balances as of the end of fiscal year 2024 is included in Figure 2:

Figure 2: Vermont's Fiscal Year 2024 Reserve Fund Balances

General Fund Reserves	FY2024 Balance	Percent[1]
General Fund Budget Stabilization Reserve	$104,877,033.30	5.0%
Human Services Caseload Reserve	94,532,573.00	4.5%
27/53 Reserve	9,100,359.00	0.4%
General Fund Balance Reserve (Rainy Day Fund)	98,110,202.92	4.7%
Other Reserves	0.00	0.0%
Total General Fund Reserve Balance	$306,620,168.22	14.6%
Education Fund Reserves	**FY2024 Balance**	**Percent[2]**
Education Fund Budget Stabilization Reserve	$47,028,048.39	5.0%
Tax Rate Offset Reserve	13,000,000.00	1.4%
Total Education Fund Reserve Balance	$60,028,048.39	6.4%
Transportation Fund Reserves	**FY2024 Balance**	**Percent[3]**
Transportation Fund Budget Stabilization Reserve	$14,194,331.00	5.0%
Transportation Fund Balance Reserve (Rainy Day Fund)	9,835,419.00	3.5%
Total Transportation Fund Reserve Balance	$24,029,750.00	8.5%

1. General Fund percentage is of prior-year appropriations.
2. Education Fund percentage is of prior-year appropriations less property taxes remitted directly to school districts from towns.
3. Transportation Fund percentage is of prior year appropriations less reversions.

The Tax Rate Offset Reserve in the Education Fund is not a statutory reserve but is included in the Education Fund's reserve balance as a one-time reserve for future budget needs.[3] All other State funds do not have statutory reserves, and in the event of a shortfall would spend General Fund cash balances, requiring future action such as a transfer from the General Fund, or increased revenues and/or reduced program expenditures to alleviate the deficit and return cash to the General Fund.

With respect to the Child Care Contribution Special Fund created by 32 V.S.A. § 10554 and funded with a 0.44% payroll tax, the State has only a few months of actual data for both the payroll tax revenues and the Fund expenditures. Given the level of uncertainty, and the concern that revenues will decrease and expenditures increase in an economic downturn, the Task Force recommends retaining the $8 million transferred to this the Fund as a reserve (assuming it is not otherwise needed for expenses), and then analyzing the Funds' revenue, revenue volatility and expenditures over the next several years to determine whether a dedicated statutory reserve and specific target (e.g., 5% of prior-year appropriations) is appropriate.

[3] The Tax Rate Offset Reserve was fully utilized as part of establishing the FY2025 Education Fund tax rates.

2. OTHER STATES' FISCAL RESERVE PRACTICES, AND BEST PRACTICES

To identify other states' and best fiscal reserve practices, the Working Group reviewed available literature with a specific focus on the criteria identified by S&P, Moody's and Fitch, the three credit rating agencies that rate most states including Vermont.

Figure 3: Credit Ratings and Meanings

S&P	Moody's	Fitch	Meaning
AAA	Aaa	AAA	**Prime**
AA+	**Aa1**	**AA+**	**High Grade**
AA	Aa2	AA	
AA-	Aa3	AA-	
A+	A1	A+	**Upper Medium Grade**
A	A2	A	
A-	A3	A-	
BBB+	Baa1	BBB+	**Lower Grade**
BBB	Baa2	BBB	
BBB-	Baa3	BBB-	
BB+	Ba1	BB+	**Non-Investment Grade (Speculative)**
BB	Ba2	BB	
BB-	Ba3	BB-	
B+	B1	B+	**Highly Speculative**
B	B2	B	
B-	B3	B-	
CCC+	Caa1	CCC+	**Substantial Risk**
CCC	Caa2	CCC	**Extremely Speculative**

Vermont's ratings are AA+/Aa1/AA+ as shaded in green above.

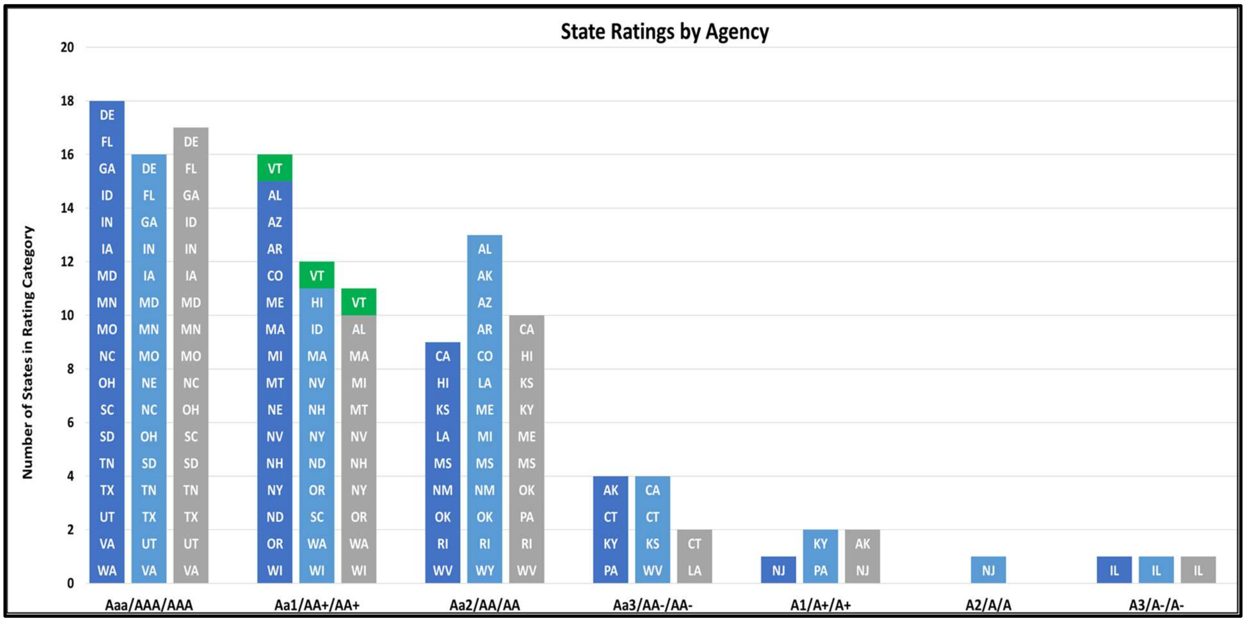
The Working Group also focused on smaller states where administrative resources would be more similar to Vermont, and on the highest-rated states, i.e., those with triple-A ratings from at least two of three rating agencies (see Figure 3 above). This approach is similar to the one used by Vermont's Capital Debt Affordability Advisory Committee (CDAAC), which meets annually to review Vermont's overall credit condition and to recommend a prudent amount of general obligation bond issuance to the General Assembly and Administration for the State's capital bill.

Vermont currently is rated AA+ by S&P, Aa1 by Moody's and AA+ by Fitch, in each case the second-highest available credit rating. Vermont also held triple-A ratings from Moody's and Fitch until 2018 and 2019, respectively; Vermont's rating downgrades were a result of the State's longer-term economic and demographic outlook, and unrelated to the State's reserves or financial management, which continue to score very well.

Currently seventeen states have at least two triple-A ratings: Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Maryland, Minnesota, Missouri, North Carolina, Ohio, South Carolina, South Dakota, Tennessee, Texas, Utah and Virginia.

A distribution of state ratings is shown in Figure 4:

Figure 4: Ratings of the 50 U.S. States (Moody's/S&P/Fitch)



The Working Group found that, as expected, higher-rated states generally have higher levels of reserves. However, there are no hard and fast rules for determining an appropriate amount of reserves because each state's circumstances are different. The rating agencies' methodologies generally support this position, however with differing levels of specificity and guidance. S&P opines that no budget reserve fund could be sized to completely address the potential for volatility in a severe recession or revenue downturn. However, S&P believes that states with well-funded reserves have greater flexibility to address shortfalls when they occur. S&P also identifies a reserve target of above 8% of revenue or spending in its highest category score. Moody's identifies a fund balance exceeding 15% of own-source revenue[4] and liquidity as very strong, corresponding to its "Aaa" score, making up 20% of a state's Financial Performance. Fitch believes an appropriate level of reserves is very specific to an individual government's circumstances, a function of both credit-relevant and broader policy considerations. Each of the rating agencies' reserves criteria is reviewed in greater detail below, following a review of individual states' reserve practices.

As shown in Figure 5 on the following page, most highly rated states have a maximum reserve level ranging from 5% to 10%, with some outliers: Georgia has a 15% cap; Utah has a total cap of 20% and South Dakota has an aggregate cap of 25%. Rainy Day Fund and Total Balances for these states are included in Figures 13 and 14 on pages 15 and 16.

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[4] Moody's defines "own-source revenue" as the total revenue, typically reported in the governmental funds section of the audited financial statements, minus revenue received from the federal government.

Figure 5: General Fund Rainy Day and Reserve Criteria for Triple Triple-A Rated States and Vermont

State	Rainy Day/Reserve Fund	Criteria
Delaware	Budget Reserve Account	Amount in the reserve does not exceed 5% of the estimated General Fund Revenue for the ensuing fiscal year.
	Budget Stabilization Fund	None.
Florida	Budget Stabilization Fund	Not less than 5% nor more than 10% of the last complete fiscal year's net General Revenue Fund collections.
Georgia	Revenue Shortfall Reserve	Balance shall not exceed 15% of net revenues of the preceding fiscal year.
Indiana	Counter-Cyclical Revenue & Economic Stabilization Fund	If the balance in the fund at the end of the fiscal year exceeds 7% of total general fund revenues for the same period, the excess is transferred to the general fund.
	State Tuition Reserve	Combined balance of all reserves, including Rainy Day Fund, is capped at 12.5% of revenues.
	Medicaid Contingency Reserve Fund	
Iowa	Cash Reserve Fund	Capped at 7.5% of the adjusted revenue estimate for the general fund for the current fiscal year.
	Economic Emergency Fund	Capped at 2.5% of the adjusted revenue estimate for the General Fund for the current fiscal year.
Maryland	Revenue Stabilization Account	Appropriations required until balance reaches up to 7.5% of revenues with executive authority to spend to a minimum of 5% of revenues.
Minnesota	Budget Reserve	The recommended reserve percentage of 5.2% for FY2024-25 is based on assessment of volatility in Minnesota's revenues.
	Cash Flow Account	Up to $350,000,000.
Missouri	Budget Reserve Fund	Fiscal year end balance is limited to 7.5% of net general revenue collections for the prior fiscal year.
North Carolina	Savings Reserve Account	A balance sufficient to cover at least a two-year shortfall for nine out of 10 recession scenarios involving a decline in general fund revenue from one fiscal year to the next. Recommended target is revised annually. Since implementation in 2018, target has ranged from 10.9% to 11.3%.
Ohio	Budget Stabilization Fund	By law, the maximum balance of the BSF is 8.5% of the General Revenue Fund revenues.
South Dakota	Budget Reserve Fund	Up to an amount equal to 10% of the general fund appropriation for the prior fiscal year.
	General Revenue Replacement Fund	Up to an amount equal to 15% of the general fund appropriation for the prior fiscal year.
Tennessee	Reserve for Revenue Fluctuation	The statutory goal is for the reserve to be 8% of estimated tax revenues to be allocated to the general fund and education trust fund.
Texas	Economic Stabilization Fund	During each fiscal biennium, the amount in the fund may not exceed 10% of the total amount deposited in general revenue during the preceding biennium (excluding investment income, interest income and amounts borrowed from special funds).
Utah	General Fund Budget Reserve Account	Cap at an amount of up to 9% of general fund expenditures.
	Education Fund Budget Reserve Account	Cap at an amount of up to 11% of education fund expenditures.
	Medicaid Growth Reduction and Budget Stabilization Accou	None.
VERMONT	General Fund Budget Stabilization Reserve	Not to exceed 5% of prior year General Fund Appropriations.
	General Fund Budget Balance Reserve	Not to exceed 5% of prior year General Fund Appropriations.
	Human Services Caseload Reserve	General Fund carry-forward transfers by Sec. of Adm. directly attributable to AHS caseload reductions and effective management of related federal receipts (excluding Corrections).
	27/53 Reserve	Prorated portion of upcoming 27th payroll and 53rd week of Medicaid payments.
Virginia	Revenue Stabilization Fund	Capped at 15% of average annual tax revenues from income and retail sales for last 3 fiscal years.
	Revenue Reserve Fund	Any required annual deposit cannot exceed 1% of the total general fund revenues for the prior fiscal year. Through FY 2024, combined balance of the RRF and the RSF cannot exceed 20% of the total average annual tax revenues derived from the taxes on income and retail sales for last 3 fiscal years.

Source: National Association of State Budget Officers, The Fiscal Survey of States, Spring 2024, and state statutes or other publicly-available information.

A key difference among states is the composition of their revenue sources. The most common revenue sources are personal income taxes, corporate income taxes, sales and use taxes, property taxes, and other revenues. As shown in Figure 6 below, these sources of general fund revenues vary significantly from state to state, with some states having no revenue from a given source (e.g., several states have no personal income tax) and some states relying on personal income or sales taxes for more than 60% of revenue.

The make-up and volatility of general fund (or any fund's) tax revenues is a consideration for determining reserve levels.

Figure 6: General Fund Revenue by Source

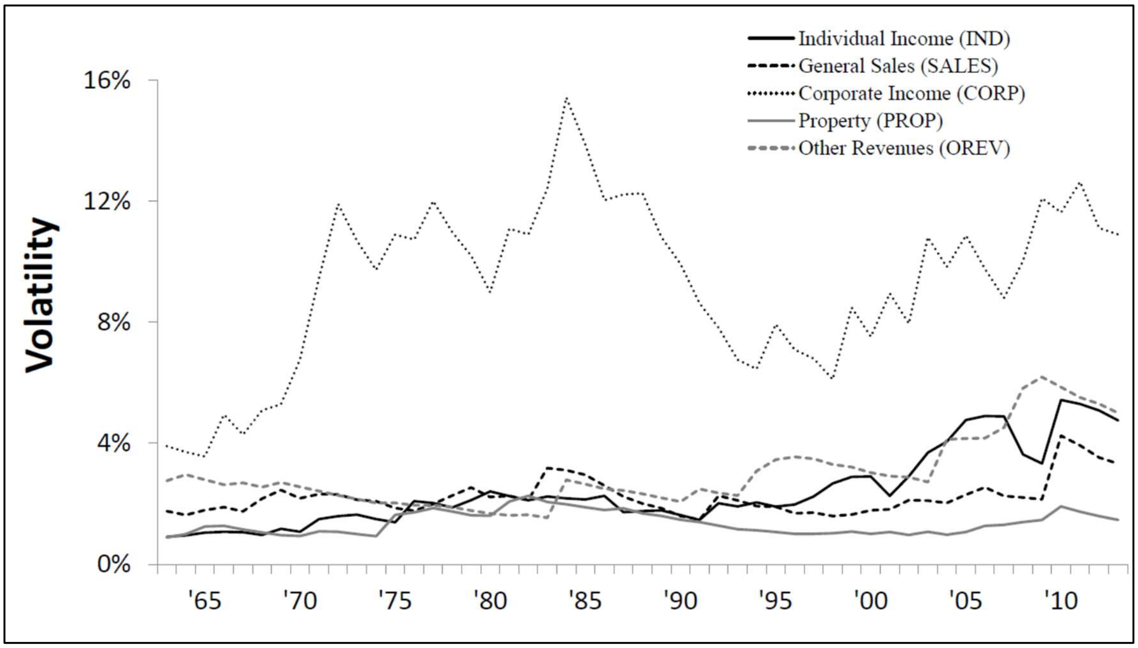
	2024 General Fund Revenue Current Percentage Estimates by Sources				
Triple-A Rated States	Sales & Use Tax	Personal Income Tax	Corporate Income Tax	All Other Revenue	Total
Delaware	0%	34%	5%	61%	100%
Florida	75%	0%	12%	13%	100%
Georgia	24%	46%	9%	21%	100%
Idaho	34%	43%	15%	8%	100%
Indiana	48%	37%	5%	10%	100%
Iowa	44%	52%	11%	-7%	100%
Maryland	24%	56%	7%	13%	100%
Minnesota	25%	50%	10%	15%	100%
Missouri	23%	64%	7%	7%	100%
North Carolina	32%	49%	5%	14%	100%
Ohio	48%	35%	8%	10%	100%
South Carolina	37%	47%	6%	11%	100%
South Dakota	61%	0%	0%	39%	100%
Tennessee	58%	0%	18%	24%	100%
Texas	53%	0%	0%	47%	100%
Utah	29%	55%	7%	9%	100%
VERMONT	**0%**	**50%**	**11%**	**40%**	**100%**
Virginia	16%	67%	8%	9%	100%
Mean	**42%**	**31%**	**7%**	**21%**	
Median	**26%**	**27%**	**5%**	**12%**	
50-State Median	**31%**	**42%**	**10%**	**18%**	

Source: National Association of State Budget Officers "The Fiscal Survey of States" (Spring 2024)

Figure 6 above shows that in 2024 Vermont relied on personal income tax, a relatively volatile revenue source, for 50% of general fund revenues; ***rating agencies have said that the reliance on economically sensitive taxes make it crucial to maintain correspondingly sufficient reserve funding.*** At the same time, Vermont's reserves are based upon the prior year appropriations being equal to their expected sources, not just revenues, therefore reducing risk and volatility. Should revenues decline, Vermont has structural policies in place to automatically adjust its spending authority, i.e., rescission provisions.

Data from the State of Minnesota illustrates the volatility of different revenue sources: as shown in Figure 7, Minnesota analyzed 50 years of tax revenues and determined that corporate income taxes had by far the highest volatility. Individual and "other" revenues were next-highest, followed by general sales taxes, with property taxes being the least volatile. This is consistent with other states' experience and the available literature on revenue volatility.

Figure 7: Minnesota Revenue Volatility by Source



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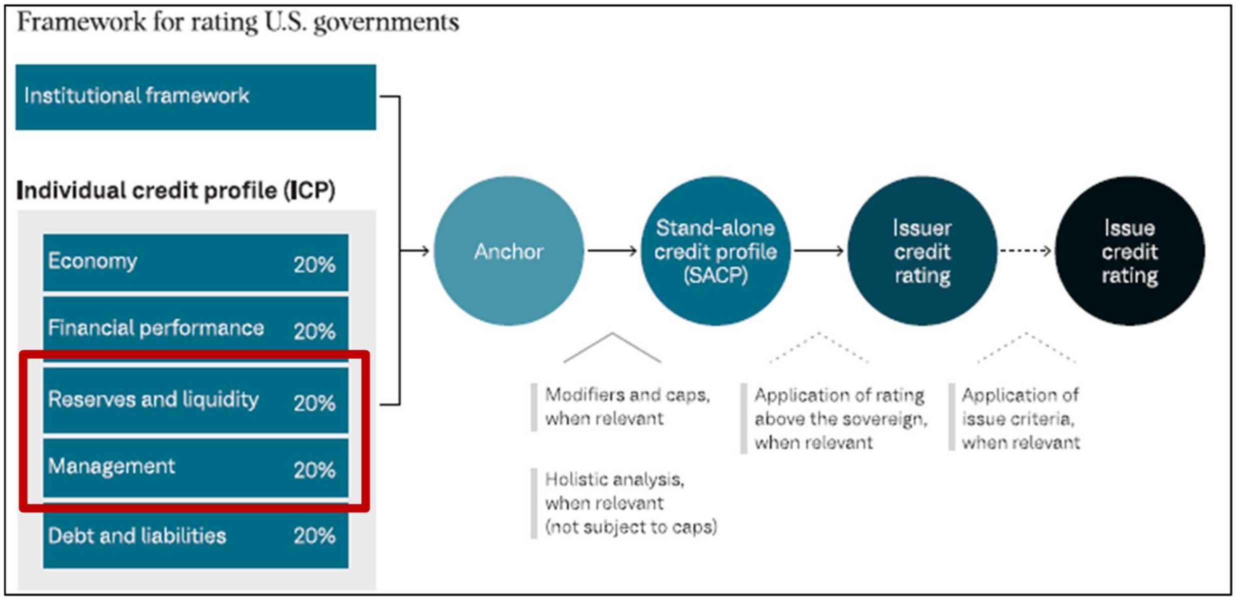
Rating Agency Criteria: S&P Global Ratings

S&P released its new Methodology for Rating U.S. Governments on September 9, 2024. In its criteria, Reserves and Liquidity is rated as one of five factors, each worth 20%, in a State's Individual Credit Profile (ICP) as shown in Figure 8. A second factor, Management, also discusses reserves and liquidity policies in the context of long-term planning and budgeting, and is also worth 20%.

Figure 8: S&P Framework for Rating U.S. Governments



The Reserves and Liquidity initial assessment considers the level and stability of a government's reserves and liquid assets. S&P's assessment is based on the budgetary reserve targets as a percentage of annual revenue or spending[5] combined with a track record of funding to the target and replenishing reserves over economic cycles. S&P then considers adjustments to the initial assessment, for under or overstated reserves, projections that suggest a different initial assessment, and liquidity and contingent liability risks. Reserve policies are also factored into S&P's criteria.

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[5] For Vermont, S&P includes the General Fund and Education Fund in this figure, but not the Transportation Fund, to facilitate comparisons to other states, owing to the variability in the different states' treatment of their transportation funds.

S&P then scores Reserves and Liquidity on a scale of 1 through 4, with the best (lowest) score also identifying a budget-based reserve target above 8% as shown in Figure 9:

Figure 9: S&P Reserves and Liquidity Initial Assessment

Reserves and liquidity: Initial assessment for states

Government type	Metric	Assessment			
		1	2	3	4
States	Budget-based reserves	There is a formal budget-based reserve target relative to annual revenue or spending that is above 8%. In addition, there is a demonstrated track record of restoring the reserve following depletion	There is a formal budget-based reserve target relative to annual revenue or spending that is between 4% and 8%. In addition, there is a demonstrated track record of restoring the reserve following depletion	There is a formal budget-based reserve target relative to annual revenue or spending that is between 1% and 4%. In addition, there is a demonstrated track record of restoring the reserve following depletion	There is no formal budget reserve target, or reserves are funded at less than 1% over time, or there is no process for accumulating reserves. No additional reserve funds are identified or available

S&P's initial Management assessment considers three subfactors:

- Budgeting practices (35%): Considers revenue and expenditure assumptions and budget adjustments and updates
- Long-term planning (35%): Considers long-term financial and capital planning
- Policies (30%): Investment management policies, debt management policies, and reserve and liquidity policies

S&P scores Management, and specifically its Policies subfactor assessment, on a scale of 1 through 4 (lower is better), with the best two scores identifying reserves and liquidity policies, and the "1" score corresponding to policies that are well-defined and coupled with strong reporting and monitoring as shown in Figure 10 (sections referencing reserve and liquidity policies are highlighted):

Figure 10: S&P Management Policies Assessment

Management: Policies subfactor assessment

1	2	3	4
Robust, well-defined policies with thorough reporting	**Basic policies with regular reporting**	**Informal policies exist with little or no reporting**	**No policies or policies not followed**
Investment, debt management, and reserve and liquidity policies exist, are well defined, and reflect the operating environment of the government. Strong reporting and monitoring mechanisms exist and are functioning	Investment, debt management, and reserve and liquidity policies exist; however, they are basic or informal, but are widely communicated and followed with some regular reporting	Some policies exist, formally or informally, and are generally adhered to; however, there is limited reporting or link to the operating environment of the government	Absence of basic policies or clear evidence that policies are not followed

Vermont has not yet been rated using S&P's new criteria, but under the previous criteria Vermont's overall "Budgetary Performance" score, which included budget reserves and liquidity, was 1.4, corresponding to a AAA or top rating.

Rating Agency Criteria: Moody's Investor's Service
Moody's issued its revised US States and Territories Rating Methodology on July 24, 2024. Moody's criteria includes a Financial Performance factor, which carries a 20% weighting in the overall rating scorecard. The Financial Performance factor in turn assesses fund balance, liquidity, and structural balance as one blended score.

Moody's considers fund balances and liquid reserves to represent the resources available to fund the budget in the event of unforeseen contingencies such as revenue shortfalls and spending overruns, and that the fund balance provides an important indication of whether a state has a financial cushion against unexpected events. Moody's includes all amounts that are classified as unassigned, assigned, or committed in the total governmental funds section of a state's audited financial statements and excludes any fund balance that is categorized as non-spendable or restricted. Any fund balances that are restricted for budget stabilization or budget reserves are considered part of available fund balance. The table below summarizes Moody's scoring of Financial Performance, specifically identifying on-going revenues matching on-going expenses (structural balance) and a fund balance exceeding 15% as corresponding to its top Aaa category as shown in Figure 11:

Figure 11: Moody's Financial Performance Factor

Financial Performance (20%)						
Factor	Aaa	Aa	A	Baa	Ba	B
Financial Performance	Fund balance approximates or exceeds 15% of own-source revenue and liquidity is very strong; revenue and expenditures are expected to remain in structural balance.	Fund balance approximates or exceeds 10% of own-source revenue and liquidity is strong, or fund balance is below 10% of own-source revenue and liquidity is very strong; revenue and expenditures face a modest structural imbalance, with an expected return to balance.	Fund balance approximates or exceeds 5% of own-source revenue and liquidity is adequate, or fund balance is below 5% of own-source revenue and liquidity is strong; revenue and expenditures face a noteworthy structural imbalance, with an expected return to balance.	Fund balance approximates or exceeds 0% of own-source revenue and liquidity is somewhat weak, or fund balance is below 0% of own-source revenue and liquidity is adequate; revenue and expenditures face a significant structural imbalance, with a potential return to balance.	Fund balance is between 0% and minus 5% of own-source revenue and liquidity is weak, or fund balance is below minus 5% of own source revenue and liquidity is somewhat weak; revenue and expenditures face significant structural imbalance, with a limited path toward balance.	Fund balance is between minus 5% and minus 10% of own source revenue and liquidity is very weak, or fund balance is below minus 10% of own source revenue and liquidity is weak; revenue and expenditures face significant structural imbalance that undermines the delivery of core government services.

While Vermont's combined stabilization and fund balance reserves are below 15%, Moody's nonetheless assigns Vermont a "Aaa" or top rating for Financial Performance.

Rating Agency Criteria: Fitch Ratings
Fitch issued its revised U.S. Public Finance State Governments and Territories Rating Criteria on April 2, 2024. Fitch's criteria assess four key drivers, but unlike S&P and Moody's, Fitch does not have a standard weighting of factors, preferring instead a consideration of "issuer-specific qualitative and quantitative factors."

Fitch does not set static expectations for reserves, recognizing that reserve levels fluctuate throughout the economic cycle, and that the appropriate level of reserves is very specific to an individual government's circumstances, a function of both credit-relevant and broader policy considerations. As shown in Figure 12 below, the key driver that addresses reserves and liquidity is called Operating Performance, with the top "aaa" criteria recognizing not only a "high level of fundamental financial flexibility" but also "superior gap-closing capacity," i.e., the ability to raise revenues and/or reduce spending:

Figure 12: Fitch Operating Performance Key Driver

Operating Performance					
	aaa	aa	a	bbb	bb
Financial Resilience Through Downturns (Based on Interpretation of Scenario Analysis)	Superior gap- closing capacity; expected to manage through economic downturns while maintaining a high level of fundamental financial flexibility.	Very strong gap-closing capacity; expected to manage through economic downturns while maintaining an adequate level of fundamental financial flexibility.	Strong gap-closing capacity; financial operations would be more challenged in a downturn than is the case for higher rating levels but expected to recover financial flexibility.	Adequate gap-closing capacity; financial operations could become stressed in a downturn, but expected to recover financial flexibility.	Limited gap-closing capacity; financial operations could become distressed in a downturn..
Budget Management at Times of Economic Recovery	Rapid rebuilding of financial flexibility when needed, with no material deferral of required spending/ nonrecurring support of operations.	Consistent efforts in support of financial flexibility, with limited to no material deferral of required spending/ nonrecurring support of operations.	Some deferral of required spending/ nonrecurring support of operations.	Significant deferral of required spending/ nonrecurring support of operations.	Deferral of required spending/ nonrecurring support of operations that risks becoming untenable given tools available to the issuer.

Fitch's "Financial Resilience Through Downturns" subfactor references "Interpretation of Scenario Analysis," which alludes to Fitch's Analytical Stress Test (FAST) model, which relates historical tax revenue volatility to GDP. Fitch uses its FAST model to estimate possible revenue behavior in an economic downturn based on historical revenue performance.

Fitch assigns Vermont its top "aaa" ratings in both Financial Resilience and Budget Management.

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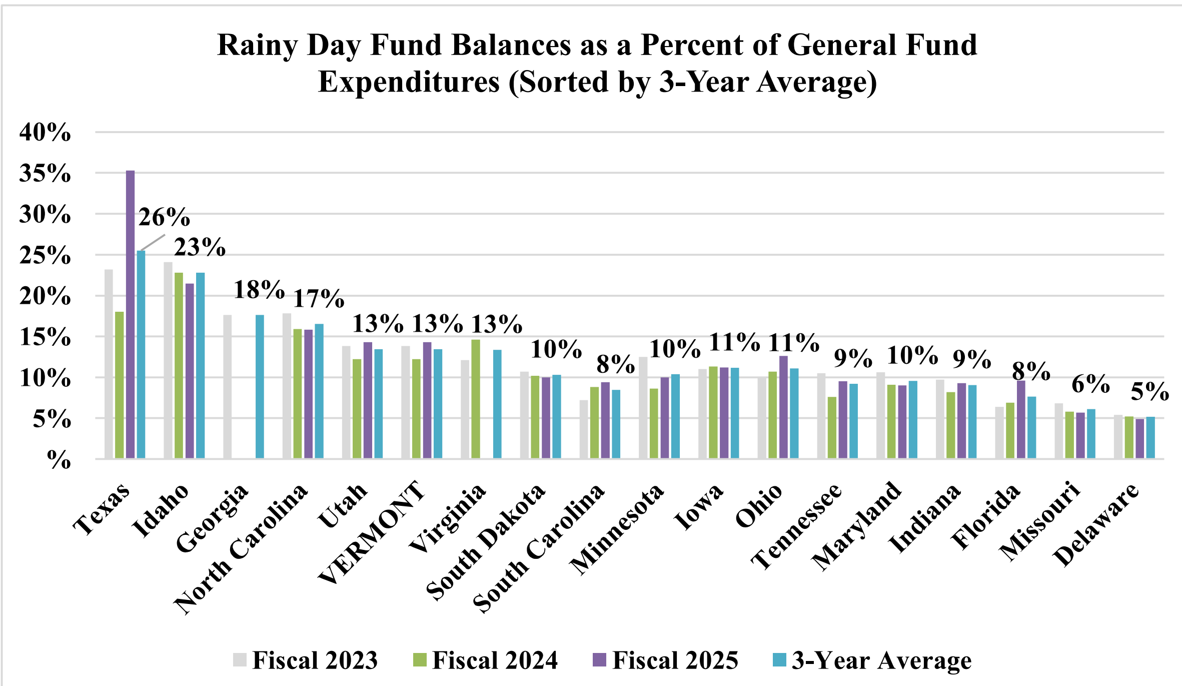
3. COMPARISON OF VERMONT'S PRACTICES TO OTHER STATES' AND TO BEST PRACTICES

Vermont's reserve practices generally are in line with those of highly rated states, and with best practices as described in the rating agency criteria.

To assess Vermont's recent reserve practices with those of the seventeen peer states previously identified, the Working Group reviewed data available from the National Association of State Business Offices (NASBO) Spring 2024 "The Fiscal Survey of States" report, which is published semi-annually. As shown in Figure 13, Vermont's rainy day fund[6] actual, estimated, and recommended balances from fiscal years 2023, 2024, and 2025, respectively are above the mean and median of peer states in all years:

Figure 13: Rainy Day Fund Balances as a Percent of General Fund Expenditures



Source: National Association of State Budget Officers "The Fiscal Survey of States" (Spring Report 2024). Fiscal 2023 are actual figures, fiscal 2024 are estimated figures and fiscal 2025 are recommended figures. Rainy day fund balances were not available for Georgia or Virginia.

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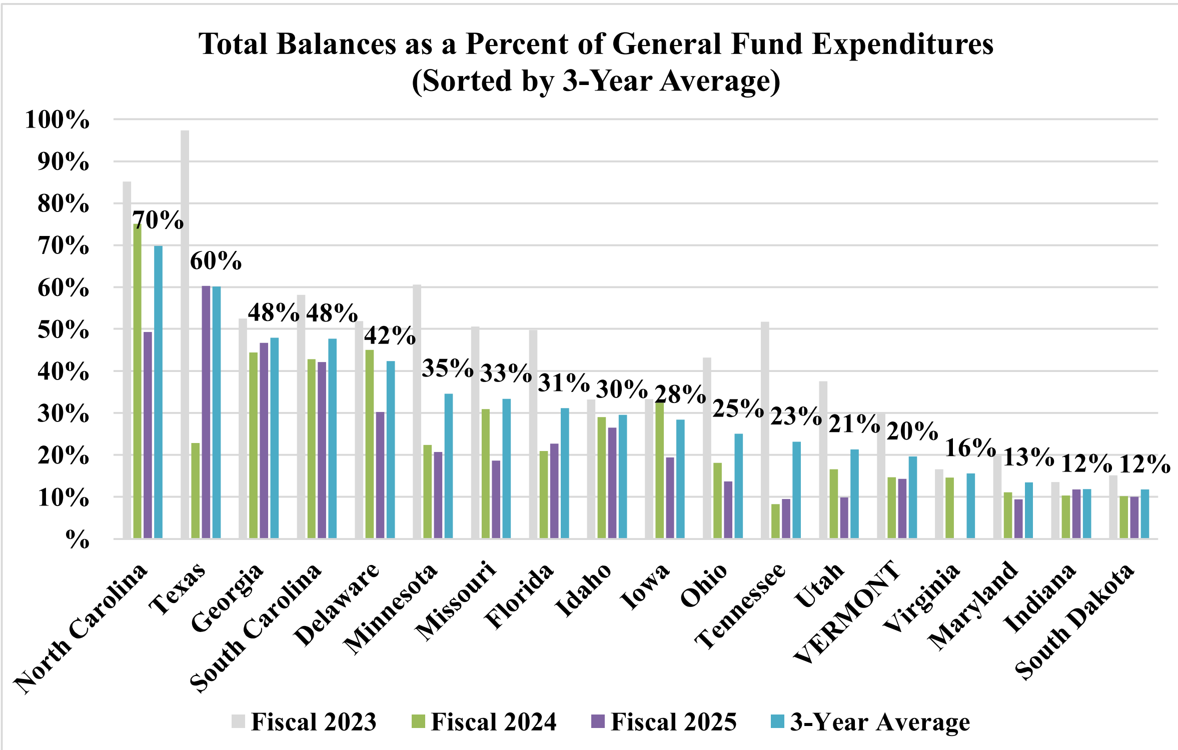
[6] NASBO includes Vermont's General Fund Budget Stabilization Reserve, Balance Reserve, Human Services Caseload Reserve and 27/53 Reserve as "rainy day funds."

A similar assessment of total fund balances as a percentage of general fund expenditures shows Vermont somewhat below the mean and median over the same timeframe.[7] However, it should be noted that the period in question still reflects the effects of extraordinary federal stimulus both during and post-pandemic, as shown in Figure 14:

Figure 14: Total Fund Balances as a Percent of General Fund Expenditures



Source: National Association of State Budget Officers "The Fiscal Survey of States" (Spring Report 2024).Total balances include both the ending balance and rainy day funds. Fiscal 2023 are actual figures, fiscal 2024 are estimated figures and fiscal 2025 are recommended figures.

Vermont also scores at or near the top of each of the rating agencies' assessments of reserves and financial flexibility. Specifically, Moody's scores Vermont a top "Aaa" rating in its Financial Performance category, and Fitch assesses Vermont as a top "aaa" in both the Financial Resilience and Budget Management components of its Operating Performance key driver. Likewise, S&P assigned Vermont a score of 1.4, corresponding to a top AAA rating, in Vermont's most recent rating report from May 30, 2024.

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[7] It should be noted that Vermont's total expenditures can exceed prior-year appropriations due to the State's carry-forward process, which could depress Vermont's reserves to total fund balance percentages relative to other states'.

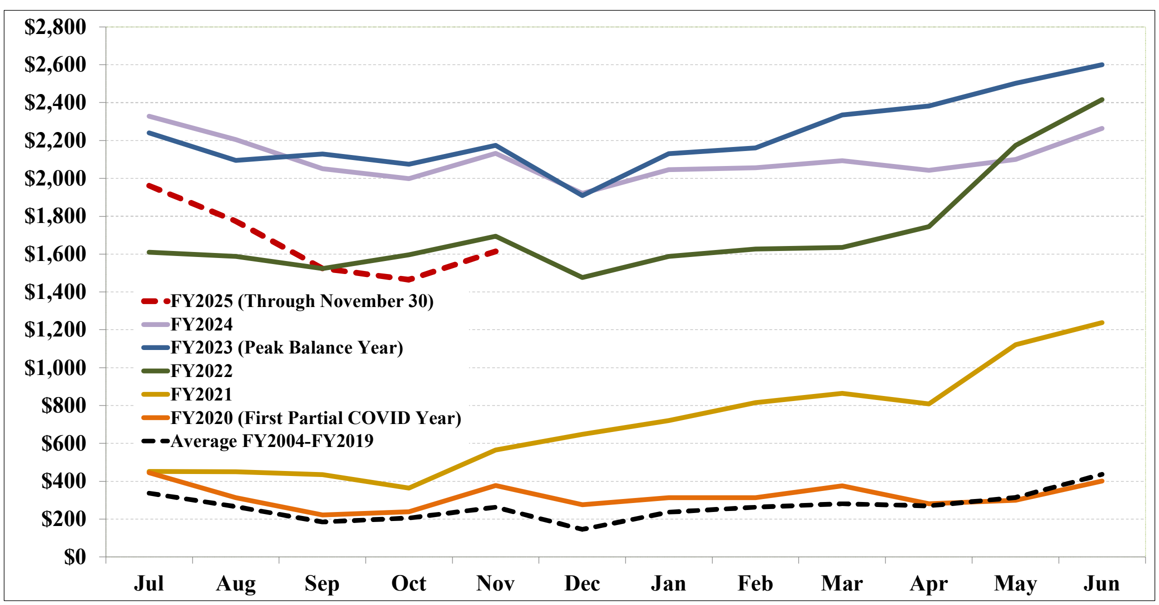
4. CASH RESERVE POLICIES COMPARED TO RESERVE REQUIREMENTS

As shown in Figure 15 below, Vermont's monthly unrestricted cash balances increased dramatically beginning in fiscal year 2021 as a result of pandemic-era stimulus, peaking at an all-time high of $2.6 billion in June 2023. The balance as of November 2024 was over $1.6 billion.

In historical terms, the State's cash balances are almost an order of magnitude greater than a decade ago, when monthly balances averaged less than $200 million from fiscal years 2004 to 2014. Average balances increased steadily during the pre-pandemic period, from $250 million in fiscal year 2015 to $338 million in fiscal year 2019, before dipping to $321 million in fiscal year 2020 at the beginning of the pandemic, when much of the economy initially shut down and tax receipts were delayed. Since then, as noted above, cash balances peaked at $2.6 billion in 2023 and are currently in the $1.6-1.7 billion range.

At these levels, the State's liquidity far exceeds the total of its seven statutory reserves. These cash balances are expected to decline further with the expenditure of remaining federal stimulus dollars on encumbered projects, however the Treasurer's Office and F&M project that they will remain at or near approximately $1 billion longer-term. It will be important for the State to continue to monitor its cash balances and liquidity relative to the size of its budgetary, rainy day, and dedicated reserves.

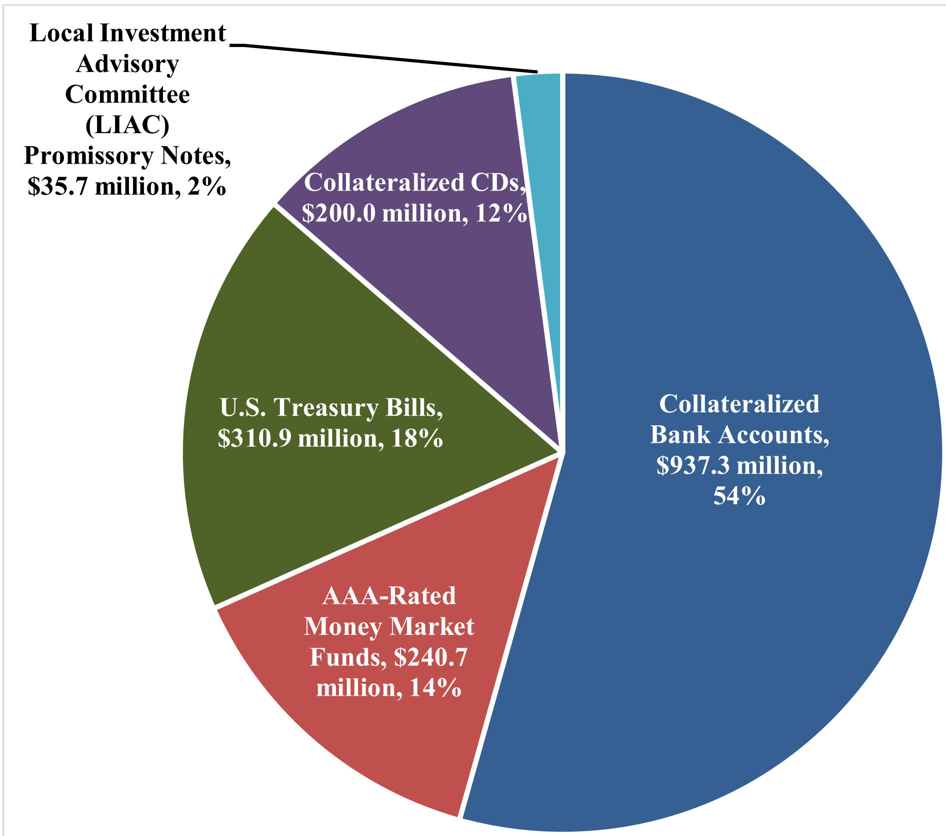
Figure 15: Monthly Unrestricted Cash Balances from 2004-2024
(Amounts in $ Millions, through November 30, 2024)



Source: Treasurer's Office website: https://www.vermonttreasurer.gov/sites/treasurer/files/cash-investments/pdf/TRE_Vermont_historical_monthly_cash_flows_FY2014_to_FY2025.pdf

Another consideration related to the level of unrestricted cash balances is the liquidity of the investments for those funds. As a matter of policy, the Treasurer's Office invests almost all of the State's unrestricted cash balances in highly safe and liquid vehicles such as collateralized interest-bearing bank accounts, money market funds invested in government-only securities, U.S. Treasury Bills, and certificates of deposit backed by irrevocable letters of credit from the Federal Home Loan Bank, as shown in Figure 16.

Figure 16: Vermont's Cash and Short-Term Investments (as of November 30, 2024)



Source:https://www.vermonttreasurer.gov/sites/treasurer/files/cash-investments/pdf/TRE_Temporary_Investments_Holdings.pdf

A small portion of the State's unrestricted cash is invested in promissory notes pursuant to Act No. 87 of 2013, Act No. 179 of 2014 and Act No. 199 of 2014, Act No. 143 of 2024 and the Local Investment Advisory Committee (LIAC) process. These investments can be longer-term, currently up to 20 years, and are not available until maturity. As of November 30, 2024, the total amount invested in such promissory notes was $35.7 million, or just over 2% of the State's unrestricted cash, however this amount does not include $85.7 million of approved investments, yielding $121.4 million total currently outstanding or approved. Act 199 allows up to 10% of the State's average cash balance to be invested in this manner, with Act 143 allowing an additional 2.5% credit facility for climate infrastructure and resilience projects, for a total of 12.5%. It should be noted that the percentage of such investments relative to the cash balance increases not just with additional investments, but also as the State's overall cash balance is drawn down. While the current percentage is lower than 12.5%, as the pandemic-era federal funds are drawn down, the outstanding balance of promissory notes could approach 12.5% of overall balances.

5. RECOMMENDATIONS

Reserve Levels. Given Vermont's already-strong evaluations from all three rating agencies with respect to reserves, and the State's general alignment with the practices of other top-rated states, a first baseline recommendation is for Vermont to continue adhering to its existing robust fiscal reserve practices including fully funding stabilization reserves at their statutory maximums, and to continue making progress on funding the General Fund Balance Reserve ("rainy day" fund). Possible rationales for increased reserves could include changes to or loss of federal funds, economic conditions, environmental and/or climate-driven factors, etc.

Reserve Practices. The State could consider formalizing a practice to determine when a new fund requires a reserve, and the condition and process by which it accesses reserves, e.g., if circumstances arise in which additional revenues could not be raised or recissions completed in time to address a given need. Also, should the State need to access a reserve, then it is strongly recommended to continue Vermont's well-established practice of replenishing the reserve as promptly as possible; optimally, the State could formalize an automatic replenishment mechanism in statute. In this regard, the language regarding the use of up to 50% of amounts in the General Fund Balance Reserve "added in the prior fiscal year" (32 V.S.A. § 308c(b)(1)) to fund "unforeseen or emergency needs" could be clarified, e.g., as to how it applies in years following years in which no funds were added.

Budgeting Practices. A third recommendation is that the State continue its strong past practice of promptly addressing both revenue shortfalls and greater-than-projected expenses with spending reductions (recissions) and/or revenue increases, and its demonstrated willingness and ability to act decisively in both directions. This is consistent with the rating agencies' observation that reserves are just "one tool in the toolbox" for managing budget shortfalls, and are not a recommended remedy to resolve structural imbalances (ongoing revenues not meeting ongoing expenditures) in any given budget year. In order to have a better sense of its structural balance, however, the State could consider preparing a multi-year expenditure forecast, in addition to the multi-year revenue forecast currently prepared by the State's economist.

Risk Assessment Informing Reserve Funding Levels. A final recommendation is to review significant non-major funds (in addition to the Child Care Contribution Special Fund), especially those with a dedicated revenue source (e.g., payroll tax), that do not have budget stabilization or rainy-day reserves and consider whether a dedicated reserve would be preferable to assuming a General Fund backstop. A related recommendation would be to identify other known or predictable and recurring special purposes for which reserves could be set aside, similar to the Human Services Caseload Reserve and the 27/53 Reserve. Any decision to create dedicated reserves should balance financial versus operational considerations, and be weighed against the prospective reductions to services and/or costs to taxpayers that could result from maintaining additional reserve balances. While specific recommendations of such purposes are beyond the scope of this report, the Treasurer's Office would welcome the opportunity to work with JFO, F&M, and other agencies and departments as needed on this question.

<u>Sec. E.131.3: Stress-Testing Report</u>

1. OTHER STATES' STRESS-TESTING PRACTICES AND METHODOLOGIES

Similar to its approach for the State Reserves Study, to survey other states' stress-testing practices and methodologies, the Working Group reviewed available literature, and PRAG convened meetings with analysts from Moody's, S&P and Fitch as well as representatives from the states of Delaware, Rhode Island, Maine, and New Hampshire.

The Working Group also reviewed a November 2023 report from Pew Charitable Trusts titled "Tools for Sustainable State Budgeting," which provided a detailed discussion of the long-term budgeting assessment and budget stress-testing practices of twenty states. From their team's own review of available information and interviews with state staff, Pew concluded that only these twenty states conducted either budget assessments or stress tests as Pew defined them, and only eight states conducted what Pew deemed to be "best practice" stress-testing informed by long-term budget projections. As such, the number of states performing stress-testing using Pew's assessment is relatively small.

Of note, early in the interviews with rating agency analysts, all three rating agencies identified Pew's report as being one of the most exhaustive current inventories of states' practices, which the Working Group corroborated from its own research.

Pew's findings with respect to states' practices are shown in Figure 17 on the following page. Of the twenty states in Pew's report, fifteen were deemed to have "long-term budget assessments" and thirteen were deemed to have "budget stress-tests," in both cases as defined by Pew. However, Pew's report also argued that best practice is to use the long-term budget assessment in conjunction with the stress test, to identify both ongoing structural deficits as well as temporary shortfalls; Pew evaluated only eight states currently doing this. While several states including Maine, Minnesota, Florida, and Delaware complete multi-year budget projections, these did not meet Pew's criteria.

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Figure 17: Pew Assessment of States' Long-Term Budgeting and Stress Testing Practices

Pew Tools for Sustainable State Budgeting Summary of State Fact Sheets			
States	Long-Term Budget Assessment Only	Budget Stress Test Only	Both Budget and Stress-Test
Alaska			✓
California			✓
Connecticut			✓
Maryland			✓
Montana			✓
New Mexico			✓
New York			✓
Utah			✓
Arizona	✓		
Colorado	✓		
Florida	✓		
Illinois	✓		
Pennsylvania	✓		
Rhode Island	✓		
West Virginia	✓		
Maine		✓	
Minnesota		✓	
Nebraska		✓	
North Carolina		✓	
Tennessee		✓	
TOTAL COUNT	**7**	**5**	**8**

Note: Highly rated peer states from Reserve Study indicated in **bold**.

Of note, only six of the twenty states identified in Pew's study are among the seventeen highly rated states the Working Group reviewed in the State Reserves Study, and of these, only two – Maryland and Utah – are deemed to use both long-term budgeting and stress testing. In other words, there is no evident correlation between credit rating and these practices. Utah was also mentioned in all three rating agency interviews as having a very robust stress-testing process, and a Utah case study is included below.

Case studies for five states are included below. Minnesota and Utah are both triple triple-A rated states mentioned in Pew's report; Delaware is also a triple triple-A rated state and a small state more comparable to Vermont, Maine, and Rhode Island. Both of the latter are small and nearby New England states, although lower-rated.

Case Study: State of Minnesota

Minnesota is rated triple-A by S&P, Moody's and Fitch. The State held those ratings prior to the Great Recession as well. During that period, however, Minnesota struggled with budget deficits and depleted reserves driven by the Great Recession, and temporarily lost all three triple-A ratings.

In 2013, the State passed legislation to build and maintain budgetary reserves using a systematic approach to measure and predict revenue volatility, and to transfer up to 33% of positive forecast biennium balance to replenish the reserves up to the recommended level.

For its stress test, Minnesota's State Economist evaluates 50 years of data to derive the volatility of income, corporate, sales, property, and other taxes, as well as the relative contribution of these taxes to the state budget. The economist then uses the overall tax volatility to calculate the size of rainy-day reserve necessary to protect against a decline in revenue with 95% confidence over the next biennium. In other words, the economist recommends a rainy-day reserve sufficient to balance the budget in all but the worst 5% of potential revenue outcomes reasonably anticipated to occur in the coming two years.

As Minnesota's overall revenues and revenue volatility have increased over time, the recommended size of the reserve has increased accordingly. Minnesota's recommended rainy-day reserve currently equals 5.2% of its biennium general fund non-dedicated revenues. Minnesota has maintained a fully funded reserve since 2019 and, as a result of this and a number of other initiatives, the State's ratings returned to triple-A in 2016 (Fitch), 2018 (S&P), and 2022 (Moody's).

Minnesota's stress testing process includes multiyear revenue and spending projections; however, Pew does not consider it to be a "long-term budget assessment" because "it lacks only a narrative discussion that explains the policy implications of the numbers." Pew suggests outlining "the State's fiscal strengths and weaknesses, key factors driving projected surpluses, and threats that could prevent the surpluses from materializing" to better-inform policy makers.

Case Study: State of Utah

Utah is one of only eight states (along with Alaska, California, Connecticut, Maryland, New York, Montana, and New Mexico) that Pew characterizes as having both a "long-term budget assessment" and a "budget stress test." All three rating agencies also mentioned Utah's stress testing process as one of the more thorough examples. Utah is also a triple triple-A rated state and has maintained triple-A ratings consistently from the time each rating was first assigned in 1965 (from S&P), 1973 (Moody's), and 1992 (Fitch).

Utah conducts a three-year budget evaluation process that uses a statistical model of fifteen years of historical data in various revenue and expenditure categories, to create five-year revenue and expense projections. The State's 2022 stress test, the most recent available, evaluated the impacts to both revenues and expenses in three scenarios:

- Moderate recession: lasts three quarters, peak-to-trough output decline of 1.4%, estimated 75% chance economy would do better and 25% chance it would do worse than this scenario in any given year.
- Severe recession: lasts one year, peak-to-trough output decline of 4.2%, estimated 96% chance the economy performs better and only 4% chance it performs worse than this scenario in any given year.
- Stagflation: accelerating inflation while never reaching full employment; peak-to-trough output decline of 3.3%, unemployment reaches 6.5%.

Utah's 2022 study estimated a combined total revenue and expenditure "value at risk" of $1.9 billion for a moderate recession and $5.6 billion for a severe recession. Finally, Utah's stress test estimated that the State had $9.2 billion of "budget buffers[8]" to address value at risk, ranging in ease of accessibility from "easy," "moderately easy," "somewhat difficult," to "difficult."

A link to Utah's "Budget Stress Testing Report" is included in item 14 in Appendix B.

Case Study: State of Delaware

Delaware incorporates many best practices that the Rating Agencies and Pew cite, including revenue and expenditure forecasting and stress test analysis used to inform budget reserves.

The Delaware Economic and Financial Advisory Council ("DEFAC") plays a key role in the State's budgeting process. DEFAC was created in 1977 following a State financial crisis, and is currently composed of 31 members representing academia, the business community, the General Assembly and the Administration. DEFAC submits to the Governor and the General Assembly budgetary General Fund and Transportation Trust Fund revenue forecasts five times each fiscal year for the current fiscal year and the succeeding two fiscal years. The State uses these forecasts in the State budget process to ensure compliance with the State's constitutional limits on spending and with statutory debt limitations.

The Delaware State Constitution limits annual appropriations to 98% of estimated General Fund revenue, plus unencumbered Fund balance from the previous year. The State also has a Budget Reserve Fund (BRF) and a Budget Stabilization Fund (BSF). The BRF is funded with unencumbered budgetary General Funds at the end of the fiscal year not to exceed 5%. Appropriations from the BRF require a three-fifths vote of the Legislature, and draws

[8] Utah's "budget buffers" describe the difficulty of accessing funds roughly corresponding to GAAP categories such as restricted, committed, assigned, and unrestricted fund balances.

must be fully replaced in the next fiscal year (in practice, the BRF has not been drawn upon since it was established in 1980).

The BSF has a target of 5% of gross General Fund revenues, and the Governor's Recommended Budget may not propose increasing the BSF above 7%, to prevent accumulation of reserves beyond what could reasonably be expected in any anticipated recessionary scenario (i.e., a total of 7% in the BSF, 5% in the Rainy Day Fund, and the 2% set aside from the 98% appropriation limit).

Case Study: State of Rhode Island

Rhode Island incorporates many of the rating agencies' and Pew's cited best practices, including independent revenue and expenditure forecasting, but not stress-testing or scenario analysis. However, State finance leaders have expressed an interest in adopting stress-testing practices going forward.

The State's Revenue Estimating Conference (REC) was created in 1990 to provide general revenue estimates to the Governor and General Assembly. The REC provides five years of forecasted state revenue along with Medical Assistance and Public Assistance Caseload Estimating Conference caseload each November and May. The REC's principals include the State Budget Officer, the House Fiscal Advisor and the Senate Fiscal Advisor, with the chair rotating among the three. The principals hear testimony from the State's outside economic consultant on economic forecasts for the United States and Rhode Island.

Rhode Island's Constitution limits annual appropriations to 97% of estimated revenues. The State's Budget Office is required to publish five-year forecasts of expenditures and revenues for submission to the General Assembly as part of the annual budget process, and the House of Representatives also prepares a multi-year projections to inform policymakers on out-year revenue and expenditure trends and budget pressures.

The State has a Budget Reserve and Cash Stabilization Account which may be called upon only in an emergency involving the health, safety, or welfare of the State or in the event of an unanticipated deficit caused by a shortfall in general revenue receipts. The Account is capped at 5% of General Fund revenues. If funds are withdrawn, the Account is replenished through the funding formula provided for in the Constitution, with repayment made in the next fiscal year.

Rhode Island also has a Supplemental Budget Reserve Account. The FY2024 Enacted Budget establishes a supplemental budget reserve and cash stabilization account, into which there is appropriated $55 million of general revenue. The budget further requires that 50 percent of excess revenue shall be transferred into this account if actual collections exceed final estimates, and the remaining 50 percent is to be transferred into the pension fund.

Case Study: State of Maine

According to Pew, Maine was one of the first states to mandate regular budget stress-tests, via legislation passed in 2017. These tests are prepared jointly by the State's Consensus

Economic Forecasting Commission (CEFC) and its Revenue Forecasting Committee (RFC).

The most recent such test, completed in October 2024, analyzes the effect of two economic recession scenarios – moderate and severe recession – on the State's sales and individual income tax revenues. Maine's stress-test also analyzes the sufficiency of the current level of the Maine Budget Stabilization Fund (MBSF) and estimates the MBSF reserves necessary to offset declines in General Fund revenue as a result of both the moderate and severe recession scenarios.

Maine's stress-test incorporates a five-year projection of economic variables including wage and salary employment, personal income, wage and salary income, and consumer price index for the CEFC's baseline forecast, and then for each of the recession scenarios. The moderate recession scenario forecasts a maximum General Fund revenue decline of 6.1% by FY2027 with revenues still 2.9% below the baseline forecast by FY2029. The severe recession scenario's maximum revenue decline is 14.8% in FY2027 and still 10% below forecast in FY2029. The stress-test estimates that the MBSF, currently funded at 17% of General Fund revenue, would be exhausted in the moderate recession scenario by the FY2028-2029 biennium, and in the severe recession scenario by early FY2027, in both cases absent spending reductions.

Pew cites Maine's 2020 stress-test as the primary reason the Legislature funded approximately $200 million of additional reserves in response to the COVID pandemic; had the State not done this, Pew suggested the State may have needed to cut programs far more than ultimately became necessary. Pew's suggested next step for Maine is to incorporate estimates of increased spending demands to its recession scenarios, and indeed Maine's stress-test states "the stress-test statute does not require an estimate of increased demands on Medicaid or other safety-net programs that historically rise during recessions. The omission of spending programs further understates the 'fiscal shock' the budget will experience in a recession."

A link to Maine's "Stress-Testing Maine General Fund Revenues & Reserves FY2025-2029" is included in item 17 in Appendix B.

2. ASSESSMENT OF BENEFIT TO VERMONT, AND RECOMMENDATIONS FOR IMPLEMENTATION

Given Vermont's limited personnel and financial resources, the variability in peer State practices, and the lack of correlation between these practices and fiscal health or rating, the Working Group is hesitant to recommend Vermont undertake significant new long-term budgeting or stress-testing exercises. Should additional resources become available, the following leading practices, identified by Pew, the rating agencies and the Working Group could be helpful in informing future analyses.

In the design of long-term budget assessments, Pew identified the following leading practices:

- Analyze revenue and spending across all funds and categories that could cause budget challenges.
- Project revenue and spending (for example, Medicaid, Federal Medicaid Assistance Percentage, Federal Highway re-authorizations, etc.) far enough into the future to account for deferred policy changes.
- Account for the impact of economic, demographic, and technological factors.
- Acknowledge uncertainty by showing how the numbers might vary under different scenarios, assumptions, or methodologies.
- Estimate whether ongoing spending aligns with ongoing revenue over the long term to assess structural balance.
- Analyze factors that could lead to long-term deficits, including identifying risks beyond the time frame of the analysis.

The rating agencies provided several additional scenario and stress-testing insights:

- Thinking long-term versus simply reacting, whether or not a formal process is in place, signals good governance.
- A consensus process (similar to Vermont's consensus revenue forecast) with broad stakeholder representation typically is preferable to one conducted by a single government branch.
- Revenue and budget projections typically are 3-5 years into the future; much longer can be speculative, but shorter may not capture multi-year trends.
- A question for states might be, "how much thinking have you done about potential negative developments, and how do you judge your preparedness?"

The Working Group added some additional considerations:

- Environmental factors and natural disasters (e.g., flooding, storms, etc.)
- Political risks, especially reduction in federal funds, programs, reimbursement levels, etc.

For budget stress tests, Pew identified the following leading practices:

- Examine multiple scenarios or a range of scenarios and estimate the likelihood of each.
- Measure the effects of the scenarios on all major economically sensitive revenue sources and spending categories.
- Compare the effects of the scenarios to reasonable baseline expectations for revenue collections and spending.
- Project far enough into the future to account for the full multiyear effects of the scenarios on the budget.
- Identify a broad list of contingencies to balance the budget in the event of stress.
- Assess whether these contingencies would be sufficient to offset the measured effects and, if not, present options to improve preparedness.

The rating agencies provided several additional long-term budget stress-testing insights:

- Different revenue streams (e.g., personal income, corporate, and sales taxes) can have different volatilities, and higher volatility implies greater required reserves.
- Income tax volatility can vary based upon a state's relative income levels and income tax structure (e.g., California with high incomes and progressive tax brackets has more volatile income tax revenues than Illinois with a flat tax, or than Kentucky with overall lower incomes).
- Stress testing should take stock market declines into account, as this impacts capital gains, consumer spending (the "wealth effect"), and pension funding levels and required contributions.
- A recession scenario might include increased Medicaid enrollment.

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APPENDICES

A. Full Text of Act No. 87 of 2024 Sec. E.131.2 and Sec. E.131.3

B. List of Reference Materials

Appendix A

Full Text of Act No. 87 of 2024 Sec. E.131.2 and Sec. E.131.3

Sec. E.131.2 TREASURER; STATE RESERVES STUDY

(a) On or before December 15, 2024, the Treasurer shall, in consultation with the Department of Finance and Management and the Joint Fiscal Office, submit a written report to the Joint Fiscal Committee on the State's fiscal reserve practices and the fiscal reserve practices of other states. The report shall include a review of:

(1) the current fiscal reserve practices of the State, including a review of which funds have statutory reserves and which funds do not;

(2) the fiscal reserve practices of other states and best practices;

(3) how Vermont's fiscal reserve practices compare to those of other states and to best practices; and

(4) the cash reserve policies of the State as it compares to reserve requirements.

(b) The report shall include the Treasurer's findings and any recommendations for changes in the fiscal reserve practices of the State.

Sec. E.131.3 TREASURER; STRESS-TESTING REPORT

(a) On or before December 15, 2024, the Treasurer, in consultation with the Department of Finance and Management and the Joint Fiscal Office, shall submit a written report to the Joint Fiscal Committee on fiscal stress-testing practices and methodologies in other states. The report shall address the extent to which such practices may be useful or beneficial and include any recommendations for the implementation of stress-testing practices in State government.

Full Text of Act No. 113 of 2024 Sec. B.1102 (b)(18)

(b) $8,000,000 is transferred to the Child Care Contribution Fund established in 32 V.S.A. § 10554 to be available for appropriation to Department for Children and Families' Child Development Division for the Child Care Financial Assistance Program if necessary. As part of the report required by 2023 Acts and Resolves No. 78, Sec. E.131.2, as amended by 2024 Acts and Resolves No. 87, Sec. 61, the Treasurer shall include a recommendation regarding the future status of these funds and whether the Child Care Contribution Fund should have a statutory reserve.

Appendix B

List of Reference Materials (and Selected Internet Links)

1. Tools for Sustainable State Budgeting, November 2023, The Pew Charitable Trusts (Tools for Sustainable State Budgeting | The Pew Charitable Trusts)
2. Fiscal Survey of States, Spring 2024, National Association of State Budget Officers (NASBO) (Fiscal Survey of States - Nasbo)
3. State Governments and Territories Rating Criteria, April 2, 2024, Fitch Ratings (
4. US State and Territories Rating Methodology, July 24, 2024, Moody's Ratings
5. Methodology for Rating U.S. Governments, September 9, 2024, S&P Global Ratings
6. Stress-Testing States: Looking Toward The Next Recession, October 3, 2022, Moody's Analytics (Stress-testing states: Looking toward the next recession)
7. Strong Fiscal Governance Positions States to Withstand High Inflation, Possible Recession, August 8, 2022, Moody's Investors Service
8. U.S. States' Fiscal 2025 Budgets Navigate Evolving Risks As Economic Growth Prospects Wane, May 28, 2024, S&P Global Ratings
9. When The Credit Cycle Turns, U.S. States May Be Tested In Unprecedented Ways, September 17, 2018, S&P Global Ratings
10. Fiscal 2022 U.S. State Medians: Preview of 2023, Improving Medians as Uncertainty Rises, May 20, 2024, Fitch Ratings
11. Budget Stress Testing, August 20, 2021, Pew Charitable Trusts (budget-stress-testing.pdf)
12. Minnesota Revenue Volatility and Budget Reserve Target, January 24, 2019, Minnesota State Economist
13. Issue Brief: 2021 Long-Term Budget, December 7, 2021, Utah Office of the Legislative Fiscal Analyst
14. Budget Stress Testing 2022, Utah Office of the Legislative Fiscal Analyst | Governor's Office of Planning and Budget (Utah Stress-Test)
15. How States Can Manage the Challenges of Paying for Natural Disasters, September 2020, The Pew Charitable Trusts (How States Can Manage the Challenges of Paying for Natural Disasters | The Pew Charitable Trusts)
16. Rhode Island FY2025 Budget As Enacted Report, October 24, 2024, Rhode Island Office of Management and Budget (Budget As Enacted Report Fiscal Year 2025.pdf)
17. Stress-Testing Maine General Fund Revenues & Reserves FY2025-2029, October 1, 2024, Consensus Economic Forecasting Commission and Revenue Forecasting Committee (Maine Stress-Test)