



# **STRESS-TESTING MAINE GENERAL FUND REVENUES & RESERVES FY2025-FY2029**

**OCTOBER 1, 2024**

**Consensus Economic Forecasting Commission  
and  
Revenue Forecasting Committee**



## STATE OF MAINE

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October 1, 2024

TO: Governor Janet T. Mills  
President of the Senate Troy D. Jackson  
Speaker of the House Rachel Talbot Ross  
Members, Joint Standing Committee on Appropriations and Financial Affairs

FROM: Dr. Sheena Bunnell, Chair  
Consensus Economic Forecasting Commission  
Amanda Rector, Chair  
Revenue Forecasting Committee

In accordance with Title 5, Chapter 151-B, Section 1710-G, the Consensus Economic Forecasting Commission (CEFC) and the Revenue Forecasting Committee (RFC) are pleased to present the biennial stress-test of sales and individual income taxes based on two economic recession scenarios: one a moderate recession, the other a severe recession. Additionally, this report includes an analysis of the sufficiency of the current level of the Maine Budget Stabilization Fund (MBSF) and an estimate of the reserves in the MBSF necessary to offset the declines in General Fund revenue because of potential economic recession scenarios. Maine is one of a handful of states that regularly performs a stress-test as part of their budget process.

The 2020 Stress-Test Report was issued as the national and state economies struggled to respond to the COVID-19 recession, and the 2022 report after historic fiscal and monetary stimulus implemented by Congress and the Federal Reserve in the months immediately after the start of the pandemic led to unprecedented revenue growth in FY2021 and FY2022. This year's report is issued as the Federal Reserve begins to reduce interest rates as inflation moves towards its 2% target, geo-political conflicts in Europe and Middle East continue, and state revenues return to a more moderate rate of growth. As a result, this year's report is timely in providing policymakers with the estimated impact of a moderate and severe recession on sales and individual income tax revenues, and the sufficiency and needs of the Maine Budget Stabilization Fund in each of the recession scenarios.

Table 1 below provides a summary of the primary macroeconomic parameters defining the hypothetical moderate and severe recession scenarios relative to the equivalent assumptions in the CEFC's February 2024 baseline forecast.

*Table 1*

| <b>Calendar Years</b>                              | <b>2024</b> | <b>2025</b> | <b>2026</b> | <b>2027</b> | <b>2028</b> | <b>2029</b> |
|----------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Wage &amp; Salary Employment (in Thousands)</b> |             |             |             |             |             |             |
| CEFC Forecast 02/2024                              | 655.4       | 658.0       | 659.3       | 660.0       | 660.7       | 661.3       |
| Hypothetical Moderate Recession                    | 655.4       | 645.7       | 650.8       | 657.2       | 658.2       | 659.0       |
| Hypothetical Severe Recession                      | 655.4       | 632.8       | 623.2       | 626.7       | 636.1       | 643.1       |
| <b>Personal Income (\$ Millions)</b>               |             |             |             |             |             |             |
| CEFC Forecast 02/2024                              | 92,226      | 96,246      | 100,350     | 104,589     | 108,958     | 113,521     |
| Hypothetical Moderate Recession                    | 92,226      | 95,232      | 97,745      | 101,693     | 106,515     | 111,649     |
| Hypothetical Severe Recession                      | 92,226      | 94,837      | 95,737      | 98,929      | 103,401     | 108,245     |
| <b>Wage and Salary Income (\$ Millions)</b>        |             |             |             |             |             |             |
| CEFC Forecast 02/2024                              | 43,089      | 44,813      | 46,605      | 48,470      | 50,408      | 52,425      |
| Hypothetical Moderate Recession                    | 43,089      | 43,204      | 44,691      | 46,794      | 48,815      | 50,955      |
| Hypothetical Severe Recession                      | 43,089      | 43,850      | 44,781      | 46,757      | 48,743      | 50,734      |
| <b>CPI (Annual Percentage Change)</b>              |             |             |             |             |             |             |
| CEFC Forecast 02/2024                              | 2.7         | 2.4         | 2.3         | 2.2         | 2.2         | 2.2         |
| Hypothetical Moderate Recession                    | 2.7         | 2.0         | 2.1         | 2.3         | 2.2         | 2.2         |
| Hypothetical Severe Recession                      | 2.7         | 1.9         | 0.6         | 1.9         | 2.0         | 2.3         |

The two forecasting committees estimate that a hypothetical moderate recession beginning in the first quarter of CY2025 would reduce General Fund revenues relative to the March baseline revenue forecast by 1.7 percent in FY2025 and 6.1 percent in FY2026. The revenue decline would continue at 5.3 percent in FY2027 before narrowing to 3.5 percent in FY2028. The moderate recession scenario assumes a relatively slow recovery, resulting in General Fund revenues still below the baseline revenue forecast by 2.9 percent in FY2029. The current MBSF level of \$908.3 million and other available resources would be enough to maintain current FY2025 appropriations of \$5.3 billion and provide sufficient resources to maintain the spending limitation (the current baseline revenue forecast) through the FY2026-27 biennium. The current MBSF, which is equal to 17.0% of FY2024 General Fund revenue, would fall short of the current

revenue forecast for the FY2028-29 biennium by approximately \$268.0 million. If the MBSF was at its maximum level of 18% of FY2024 General Fund revenue (\$963.5 million) there would be sufficient funds to fully offset the revenue shortfall through the FY2026-27 biennium but continue to fall short of the FY2028 and FY2029 baseline revenue forecasts by \$39.0 million and \$174.0 million, respectively. While the MBSF maximum of 18% of prior year revenue falls short of covering all the revenue shortfall over the five-year forecasting period, the revenue shortfalls estimated in the FY2028-29 biennium are relatively small and provide the Governor and Legislature two and a half years from the start of the recession to make any needed adjustments to General Fund expenditures and revenues to meet policy objectives.

The two forecasting committees estimate that the hypothetical severe recession beginning in the first quarter of CY2025 will reduce General Fund revenues relative to the March baseline revenue forecast by 2.7 percent in FY2025, 11.6 percent in FY2026, peaking at 14.8 percent in FY2027, and then declining to 12.4 and 10.0 percent in FY2028 and FY2029, respectively. The current MBSF level of \$908.3 million and other available resources would be exhausted by early FY2027 but provide approximately 15-18 months for the Governor and Legislature to address the revenue shortfalls caused by the severe recession. We estimate the MBSF would require a prohibitive level of funding to fully offset the reduction in revenue during the budget window studied. A MBSF equal to the current maximum of 18% of FY2024 General Fund revenue would allow for additional funding in FY2027 but would still fall far short of the March 1, 2024, baseline revenue forecast for FY2027.

Cc:

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## **I: EXECUTIVE SUMMARY**

Since the mid-1990s state revenue bases have become more elastic, magnifying revenue forecasting errors over the course of the business cycle. These forecasting errors have made it difficult for state policymakers, who are required to have balanced budgets, to determine how much incoming revenue during good economic times should be saved to offset the revenue shortfalls that will follow the inevitable onset of the next recession. Led by PEW Charitable Trusts, researchers since the end of the 2007-09 recession have been evaluating best practices that states can use to guide them in determining the method of funding and uses of “rainy day” funds that will best serve their states during a recession. One best practice is a regular “stress-test” of a state’s revenue system to estimate the magnitude of revenue reductions during recessionary periods and the reserves necessary to achieve the policy goals of policymakers to offset those shortfalls.

The FY2018-2019 biennial budget included a proposal that was subsequently enacted in Public Law 2017, chapter 284, Part N requiring the CEFC and the RFC to perform a biennial stress-test of General Fund revenues assuming hypothetical moderate and severe recessions and to evaluate the sufficiency of the Maine Budget Stabilization Fund (MBSF) under each economic scenario.

The two forecasting committees estimate that a hypothetical moderate recession beginning in the first quarter of CY2025 would reduce General Fund revenues relative to the March baseline revenue forecast by 1.7 percent in FY2025 and 6.1 percent in FY2026. The revenue decline would continue at 5.3 percent in FY2027 before narrowing to 3.5 percent in FY2028. The moderate recession scenario assumes a relatively slow recovery, resulting in General Fund revenues still below the baseline revenue forecast by 2.9 percent in FY2029. The current MBSF level of \$908.3 million and other available resources would be enough to maintain current FY2025 appropriations of \$5.3 billion and provide sufficient resources to maintain the spending limitation (the current baseline revenue forecast) through the FY2026-27 biennium. The current MBSF, which is equal to 17.0% of FY2024 General Fund revenue, would fall short of the current revenue forecast for the FY2028-29 biennium by approximately \$268.0 million. If the MBSF was at its maximum level of 18% of FY2024 General Fund revenue (\$963.5 million) there would be sufficient funds to fully offset the revenue shortfall through the FY2026-27 biennium but continue to fall short of the FY2028 and FY2029 baseline revenue forecasts by \$39.0 million and \$174.0 million, respectively. While the MBSF maximum of 18% of prior year revenue falls short of covering all the revenue shortfall over the five-year forecasting period, the revenue shortfalls estimated in the FY2028-29 biennium are relatively small and provide the Governor and Legislature two and a half years from the start of the recession to make any needed adjustments to General Fund expenditures and revenues to meet policy objectives.

The two forecasting committees estimate that the hypothetical severe recession beginning in the first quarter of CY2025 will reduce General Fund revenues relative to the March baseline revenue forecast by 2.7 percent in FY2025, 11.6 percent in FY2026, peaking at 14.8 percent in FY2027, and then declining to 12.4 and 10.0 percent in FY2028 and FY2029, respectively. The current MBSF

level of \$908.3 million and other available resources would be exhausted by early FY2027 but provide approximately 15-18 months for the Governor and Legislature to address the revenue shortfalls caused by the severe recession. We estimate the MBSF would require a prohibitive level of funding to fully offset the reduction in revenue during the budget window studied. A MBSF equal to the current maximum of 18% of FY2024 General Fund revenue would allow for additional funding in FY2027 but would still fall far short of the March 1, 2024, baseline revenue forecast for FY2027.

## **II: REVENUE VOLATILITY**

Following the end of the “Great Recession” (2007-09) and the relatively weak recovery, economists, state budget experts and bond rating agencies began to study to what extent state government revenue streams had become increasingly volatile, and what policies could be enacted to stabilize state budgets over the business cycle. The general conclusion of researchers is that state revenue bases have become more elastic since the mid-1990s, particularly taxable sources of the individual income tax, and that there is no reason to believe this will change in the near term.<sup>1</sup> This volatility and the difficulty of forecasting both the economy and revenues was further exposed during and after the unique nature of the COVID-19 pandemic recession and the historic fiscal and monetary response by the Federal government.

State revenues have historically increased or decreased consistent with the underlying national economy, and more specifically with changes in their respective state economies. Recent research has concluded that sometime in the late 1990s the elasticity of state tax revenues to economic conditions increased, making the management of state budgets that are required to be balanced on an annual basis more difficult. The reliance on and responsiveness of individual income tax receipts has become the primary source of this increased state revenue volatility. Sales, corporate income taxes, and severance taxes have also contributed to revenue uncertainty, but six studies cited here conclude that changes in sources of income, primarily investment income from capital gains, have made the individual income tax more difficult to forecast over the business cycle and thus resulted in state and local expenditures becoming more procyclical (declining during recessions).

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<sup>1</sup> Richard Mattoon and Leslie McGranahan, (2012), “Revenue Bubbles and Structural Deficits: What’s a state to do?”, Federal Reserve Bank of Chicago.

Yolanda K. Kodrzycki, (2014), “Smoothing State Tax Revenues over the Business Cycle: Gauging Fiscal Needs and Opportunities”, Federal Reserve Bank of Boston.

Yolanda K. Kodrzycki and Bo Zhao, (2015), “Achieving Greater Fiscal Stability: Guidance for the New England States”, Federal Reserve Bank of Boston.

Don Boyd (2022), “State Tax Revenue Volatility and its Impact on State Governments”, PEW Charitable Trusts.

Huixin Bi, Chaitri Gulati, and Nora Traum (2023), “ Understanding State and Local Government Spending over the Business Cycle”, Federal Reserve Bank of Kansas City.

Dadayan, Lucy (2024), “Beyond the Crystal Ball: State Revenue Forecasts before, during, and after the COVID-19 Pandemic”, The Urban-Brookings Tax Policy Center.

Mattoon and McGranahan (2012) find that the individual income tax elasticity doubled in the late 90s, and that two-thirds of the increase in cyclicalities is from the income tax base, primarily from investment income. Structural changes in labor markets, especially at the high end of the income distribution, have made employee compensation more cyclical over the last 20 years as well.

Yolanda Kodrzycki (2014) of the Federal Reserve Bank of Boston focuses on the volatility of each state's revenue system. Like Mattoon and McGranahan, Kodrzycki finds that individual income taxes are the main source of the increased revenue volatility since the late 1990s, and that the concentration of capital gains and other investment income in the upper end of the income distribution has increased the elasticity of individual income tax receipts.<sup>2</sup>

Kodrzycki and Zhao (2015) build on prior studies by focusing on the revenue volatility of the six New England states and the size of rainy-day funds needed by each state to offset the revenue shortfalls from moderate and severe recessions. The authors calculate the estimated deviation of revenues from trend for the 1988-2013 period for each state, showing that revenue volatility has increased in most of the New England states since the late 1990s, with Maine being an exception. In Maine, the volatility was slightly higher in the 2000s, but its estimated deviation from revenue trend during economic expansions and recessions was generally consistent over the 25-year period reviewed.

Boyd (2022) examines various ways of measuring the volatility of a state's tax system to help policymakers and budget officials in understanding and managing volatility. Like the other studies, Boyd concludes that "tax revenue volatility increased substantially in the decade of the 2000s" and that the individual income tax has been the primary source for that increased volatility. While severance taxes and corporate income taxes are the most volatile sources of state revenues, the sales and individual income taxes are the most common and largest components of most states' systems, and their structures have contributed to their rising volatility. Most states' sales taxes are narrowly focused on durable and nondurable goods, which are volatile over the business cycle. A focus on individual income tax progressivity in many states have increased the reliance on a relatively small number of taxpayers that have volatile income sources such as capital gains and business income.

Bi, Gulati and Traum (BGT, 2023) study state and local (S&L) spending during and after recessions and conclude that between 1950 and the mid-80s there is no discernable pattern of spending after recessions, but after the mid-80s "S&L spending has followed a consistently procyclical pattern, beginning to recover three years, on average, after the start of a recession." The reason for this change in S&L spending is the individual income tax. The authors demonstrate that "a growing reliance on income tax revenues coupled with an increase in the procyclicality of these revenues may account for the change in expenditure cyclicalities."

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<sup>2</sup> Kodrzycki's results show that Maine's individual income tax is more cyclical than the sales tax, but it is one of seven states where the elasticity decreased in the 2000-2012 period compared to the 1980-1999 period.

All these papers explore policy options to smooth resources over the business cycle. Policy changes such as increasing (decreasing) income tax rates during recessions (expansions) could be made to offset the increasing volatility of the tax, but there are other tax policy objectives such as consistency, competitiveness, and equity to consider. Shifting to consumption taxes is another option, but most states have a narrow sales tax base that excludes many services that make up much of household spending offsetting the theoretical stability of consumption taxes. Reliance on federal assistance is one way states can limit raising taxes or cutting spending during recessionary periods, but the effectiveness of federal fiscal and monetary policy to offset state revenue shortfalls prior to the pandemic recession varies by state and the economic circumstances in which they are being implemented.<sup>3</sup> While the Boyd and BGT papers focus on measuring revenue and spending volatility and how the structure of state tax systems have increased that volatility, they conclude like the other papers that managing a tax system's volatility is difficult and that "Rainy day funds, or budget stabilization funds, are an institutionalized form of saving, such that states can save funds during an economic boom and withdraw from them during a recession." The general conclusion of all these studies is that sufficiently funded state rainy-day funds (RDFs) or budget stabilization funds (BSFs) may be the best approach to smooth resources over the business cycle and act as a countercyclical policy measure.<sup>4</sup>

### **III: BUDGET STABILIZATION FUNDS**

While policies to broaden state tax bases have been suggested to help reduce revenue volatility, most researchers have concluded that changes to the tax base will have a limited impact, and BSFs would be the best policy for states, all of which have balanced budget requirements, to pursue to offset revenue losses during recessions. This recommendation has been endorsed from groups across the ideological spectrum.<sup>5</sup> A well-funded BSF will lessen the need for spending cuts or tax increases during the recession, thereby lowering the fiscal drag on the state's economy and contributing to a faster recovery.

The PEW Charitable Trusts (PEW) has taken the lead on the use of BSFs to address revenue volatility, publishing numerous reports on the need for state BSFs and best practices around the

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<sup>3</sup> Joe Peek, Eric Rosengren, and Geoffrey M.B. Tootell, (2018), "Some Unpleasant Stabilization Arithmetic", Federal Reserve Bank of Boston.

<sup>4</sup> Many people use the terms "Budget Stabilization Fund" and "Rainy Day Fund" interchangeably, but as this report will show most state budget experts believe there are important differences between the two.

<sup>5</sup> "Managing Uncertainty: How State Budgeting Can Smooth Revenue Volatility", (2014), The PEW Charitable Trusts. Elizabeth McNichol, Iris Lav, and Michael Leachman, (2015), "Better State Budget Planning Can Help Build Healthier Economies", Center on Budget and Policy Priorities.

"A Primer on State Rainy Day Funds", (2015), Institute on Taxation and Economic Policy.

Joseph Henchman, (2013), "Tax Foundation and CBPP Agree: States Need Strong Rainy-Day Funds", Tax Foundation.

design of such funds so that they best serve the unique characteristics of each state’s economy, revenue structure, and budget needs.<sup>6</sup>

RDFs traditionally have been savings accounts that had little statutory language that directed funds into and out of the fund, or purposes for its use. BSFs have a defined purpose, primarily to smooth spending over the budget cycle so that spending and taxes can remain relatively constant during recessionary periods. Maine is a good example: it moved from a RDF that had little statutory language that set out its purpose, funding, or uses to a BSF that has clear statutory guidance on how and when it can be utilized.<sup>7</sup>

In PEW’s “Why States Save” (2015), they recommend states consider three factors in constructing their BSFs: (1) the fund should have an explicit and narrowly defined purpose for its use, (2) states should perform a regular analysis of their revenue system to determine the degree of revenue volatility, and (3) the fund should have a target level of funding that is consistent with its stated purpose and guided by the findings of a revenue volatility study. In its December 2015 report PEW judged Maine to have an explicit and narrowly defined purpose for its BSF, but at the time of the report did not engage in a regular study of revenue volatility to estimate the reserves necessary during a recession.

Like Maine, most states have learned from the Great Recession and used a portion of the historic increase in revenues during the recovery from the pandemic to strengthen their fiscal reserves. Using information gathered by the National Association of State Budget Officers (NASBO), a recent PEW report showed that at the end of fiscal year 2024 increases in state RDF/BSFs had pushed balances to all-time highs in 38 states. The combination of revenue surpluses and state laws directing a portion of forecasted revenue volatility into RDF/BSFs has resulted in the median state having savings to cover government operations for 48.1 days.<sup>8</sup> PEW estimates that Maine’s BSF could cover 69.7 days of government operations at the end of fiscal year 2024, 11<sup>th</sup> highest in the nation.<sup>9</sup>

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<sup>6</sup> “Why States Save: Using Evidence to Inform How Large Rainy-Day Funds Should Grow”, (2015), The PEW Charitable Trusts.

<sup>7</sup> See the next section for a description of Maine’s Budget Stabilization Fund and how it is designed to interact with the State’s appropriation limitation.

<sup>8</sup> Theal, Justin and Forrest, Page (2024), “States Prioritize Reserves as Fiscal Flexibility Declines”, The PEW Charitable Trusts.

<sup>9</sup> PEW used the amount in the Maine BSF at the end of fiscal year 2024 (\$968 million) which is \$60 million more than used in this report because of a statutory withdrawal from the fund in August 2024. PEW did a different calculation looking at total balances (RDF/BSF plus ending balances), Maine had 92.2 days of government operations using this measure. Maine ranked 24<sup>th</sup> highest using total balances.

## **IV: STRESS-TESTING STATE REVENUES AND RESERVES**

Historically the general rule of thumb for RDFs and BSFs was 5 percent of general fund revenue.<sup>10</sup> The experience of state budgets over the last thirty years has demonstrated that for most states 5 percent of the previous year's revenues is below what is needed to adequately offset revenue shortfalls, even during a moderate recession. This is particularly true for resource-based states where commodity price fluctuations can lead to highly volatile revenue streams even during periods when the national economy is in an expansion phase. For states to estimate the level of reserves best for their budget needs, researchers have recommended a regular review of their revenue volatility over the business cycle.

Two approaches have emerged for measuring the volatility of state tax revenues and applying those measures to provide guidance on the level of reserves that would be necessary to counter recessions of varying magnitudes.<sup>11</sup> These studies conclude that the MBSF would need approximately 10 to 20 percent of General Fund revenue in reserve to offset a revenue shortfall associated with a moderate recession.<sup>12</sup>

Kodrzycki and Zhao (2015) utilize a look-back approach to calculate the funds necessary to fully offset a revenue shortfall, which is defined as the difference between “actual revenue for the fiscal year (adjusted for policy changes) and the amount that states would have collected if revenue had been consistent with long-run trends.” In this study “fully offset” means sufficient funds to get revenue resources back to the long-run revenue trend and prevent a reduction in services and/or revenue increases during the below trend period. For the 1988-2012 period the authors conclude that Maine would have needed reserves of 9.6 percent of General Fund revenue to fully offset a period of revenue shortfalls from a “Middle-Case Scenario”, and 14.9 percent for a “Worst-Case Scenario”.

Moody's Analytics (2024) uses a forward-looking approach by “stress-testing” each state's revenues and Medicaid expenditures during a moderate recession scenario occurring in early fiscal year 2025. In this study the FY2025-FY2026 revenue “shortfall” is the estimated revenue during the recession scenario compared to a baseline revenue forecast for FY2025 and FY2026 that assumes state forecasted FY2024 revenue, as reported by NASBO, increased by the forecasted increase in the implicit price deflator for state and local government consumption expenditures and investment. An estimate of increased Medicaid costs during the FY2025-FY2026 period is added to the revenue shortfall to project the combined “fiscal shock” for each state. The “fiscal shock” is measured

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<sup>10</sup> National Conference of State Legislators (1983).

<sup>11</sup> Kodrzycki and Zhao (2015), Dan White, Bernard Yaros, and Brittany Merollo (2017), “Stress-Testing States”, Moody's Analytics, Dan White, Todd Metcalfe, and Sarah Crane (2018), “Stress-Testing States 2018”, Moody's Analytics, Sarah Crane and Colin Seitz (2019), “Stress-Testing States 2019”, Moody's Analytics, Emily Mandel, Haley Curtin, and Bridget Ryan (2022), “Stress-Testing States: Looking Toward the Next Recession”, Moody's Analytics, Emily Mandel and Colin Seitz (2024), “Stress-Testing States: Looking Toward the Next Recession”, Moody's Analytics

<sup>12</sup> The Moody's Analytics' reports calculate a “combined fiscal shock” which includes not only the revenue shortfall because of the recession, but the increased spending to fully fund the state's Medicaid program.

relative to estimated FY2024 revenue in each state. Moody's concludes that Maine would experience a revenue shortfall during FY2025-FY2026 equal to 16.0 percent of FY2024 revenue if a moderate recession started in early FY2025, and a combined fiscal shock equal to 18.2 percent of FY2024 revenue. The 16.0 percent tax revenue shortfall is slightly below the national average of 17.5 percent as is the combined fiscal shock which is just below the national average of 19.4 percent. Moody's concludes that Maine's BSF would have enough funds to fully cover the estimated two-year fiscal shock of a moderate recession.

Moody's provides three "takeaways" from their latest stress-test study. First, the historic revenue growth most states have experienced since the start of the pandemic has left states with equally historic levels of RDF/BSF and total balances (RDF/BSF plus other cash balances). Second, on average RDF/BSFs represent 50 percent of total balances available. Unlike RDF/BSFs, it's unclear if those other cash balances are available to offset a revenue shortfall, and if available how quickly they could be deployed for such use. If only RDF/BSFs are considered, just 17 states are prepared to cover a fiscal shock. Third, having a plan to offset the revenue shortfall is important so that sufficient reserves can be generated, and how to deploy those reserves understood so that they can quickly be used to hasten the state's economic recovery. It's on this last finding that Moody's is encouraged to see "more state governments implementing their own "stress-testing" exercises as a part of their normal budget procedures." Moody's views such "stress-testing" exercises as a best practice in state budgeting.

### **Use of 2018 Stress-Test Report to Initially Forecast Impact of COVID-19**

Following adjournment of the 129th Legislature in March 2020 due to the COVID-19 pandemic, the Department of Administrative and Financial Services (DAFS) utilized the 2018 report on "Stress-Testing Maine General Fund Revenues & Reserves FY2019-FY2023" to quickly inform the Governor of the expected revenue shortfall over the final quarter of FY2020 and the sufficiency of reserves to manage that shortfall.

Using the severe recession scenario from the 2018 report, DAFS estimated that the FY2020 revenue shortfall could be as much as \$200 million: 5% of the approximately \$4 billion revenue forecast. The supplemental budget, enacted as the Legislature adjourned, left a FY2020 balance of \$193.2 million in the General Fund. Based on this initial analysis, it appeared that the State could absorb the estimated revenue shortfall without significant budget adjustments.

A more detailed analysis was performed to support the \$200 million estimated revenue shortfall over the remaining three months of the fiscal year. The \$200 million was assumed to be split evenly between sales and use and service provider taxes (consumption taxes) and individual and corporate income taxes, which represent over 85% of the State's General Fund revenue. Actual withholding taxes were much stronger than anticipated, primarily because of the increased taxable unemployment benefits included in the CARES Act. In total, the actual FY2020 shortfall was less

than half that projected using the 2018 stress-test report. The Maine specific stress-test, however, provided a quick and reasonable assessment of the impact of an unprecedented pandemic-induced recession on state revenues and proved to be more accurate than many other estimates provided by out-of-state non-government entities.

## **V: MAINE APPROPRIATION LIMITATION & BUDGET STABILIZATION FUND**

### **General Fund Appropriation Limitation<sup>13</sup>**

As of December 1st of each even-numbered year, a General Fund appropriation limit is established for the ensuing two fiscal years. For the first fiscal year, the General Fund appropriation limit is equal to the “biennial base year appropriation” multiplied by one plus the Growth Limitation Factor. For the second fiscal year, the General Fund appropriation limit is the General Fund appropriation limit of the first year multiplied by one plus the Growth Limitation Factor. As amended in 2024, for FY2025, the “biennial base year appropriation” means 99% of the projected fiscal year 2024 General Fund revenue forecast reported by the Revenue Forecasting Committee as of December 1, 2023. Beginning in FY2026, the “biennial base year appropriation” means 98% of the fiscal year 2024 projected General Fund revenue forecast reported by the Revenue Forecasting Committee as of December 1, 2023, and for subsequent fiscal years, the amount of the General Fund appropriation limit for the current year as of December 1 of even-numbered years. The Growth Limitation factor means “Average personal income growth,” which is defined as the average for the prior 10 calendar years, ending with the most recent calendar year for which data is available, of the percent change in personal income in this State, as estimated by the United States Department of Commerce, Bureau of Economic Analysis. The average personal income growth is determined by October 1, annually, by the State Economist. Table 2 below shows both the annual growth limitation factor and the base appropriation limitation.

Table 2 shows the preliminary General Fund Appropriations Limit out to FY2029 as calculated by the State Budget Officer for the purposes of this stress test. The preliminary Limit is calculated using estimated Growth Factors from the State Economist. The Limit will be recalculated for the December 1st submission using actual data for the Growth Factors.

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<sup>13</sup> 5 MRSA §1534

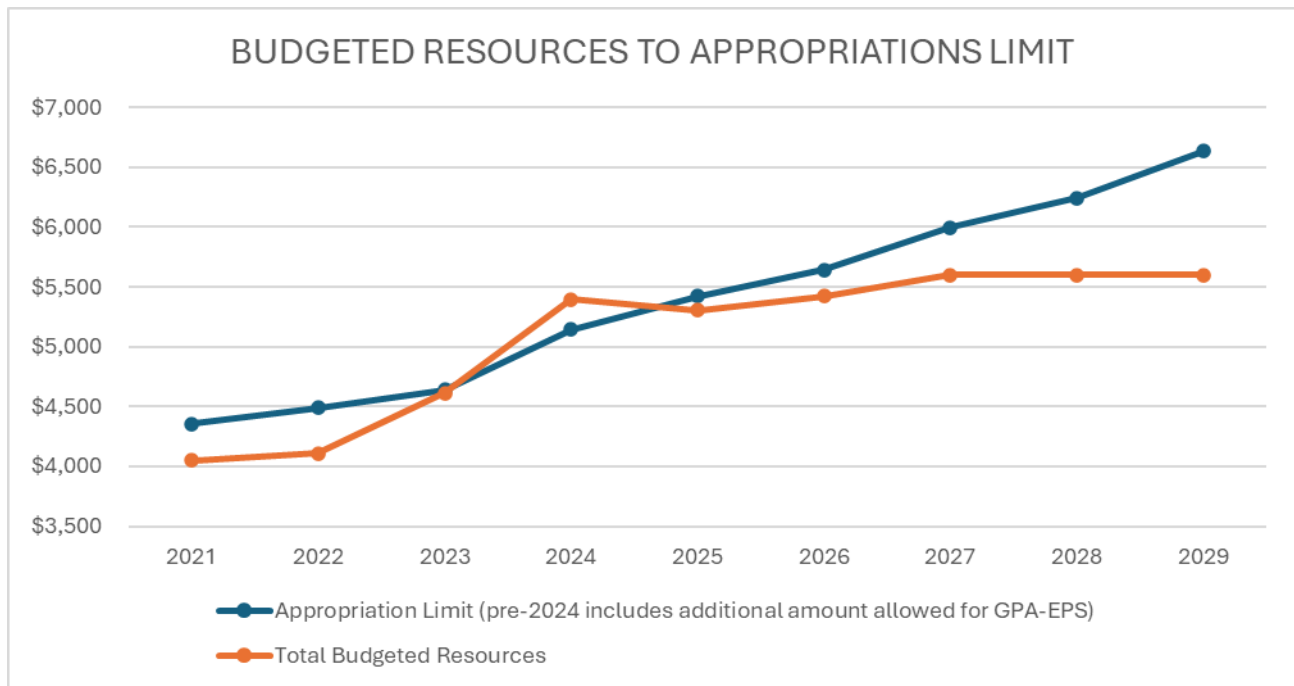
Table 2: General Fund Appropriations Limits for 2021-2029 (limits for 2026-2029 are preliminary)

| Calculation of General Fund Appropriation Limit as per 5 M.R.S. § 1534 (Dollars in millions - rounded)  |          | State<br>achieves<br>55% EPS |          | Rebased<br>Approp<br>Limit |         |         |         |         |         |
|---------------------------------------------------------------------------------------------------------|----------|------------------------------|----------|----------------------------|---------|---------|---------|---------|---------|
| Fiscal Year                                                                                             | 2021     | 2022                         | 2023     | 2024                       | 2025    | 2026    | 2027    | 2028    | 2029    |
| A Annual Growth Limitation Factor                                                                       | 2.77%    | 3.30%                        | 3.30%    |                            | 4.31%   | 5.18%   | 5.18%   | 5.34%   | 5.34%   |
| B General Fund Revenue Forecast as of December 1, 2023                                                  |          |                              |          | \$5,250                    |         |         |         |         |         |
| C Biennial Base Year Appropriation (5 MRSA §1534)                                                       |          |                              |          | \$5,145                    |         |         |         |         |         |
| D Biennial Base Year Appropriation fiscal year 2024-25 calculation only (PL 23, c.643, Pt. F, Sec. F-4) |          |                              |          | \$5,197                    |         |         |         |         |         |
| E Appropriation Limit (pre-2024 includes additional amount allowed for GPA-EPS)                         | \$ 4,358 | \$ 4,492                     | \$ 4,640 | \$5,145                    | \$5,421 | \$5,644 | \$5,998 | \$6,254 | \$6,655 |

Table 3 shows the current forecast of budgeted resources and how budgeted resources compare to the General Fund Appropriations Limitation. Budgeted resources are based on the March 1, 2024, revenue forecast and laws enacted through the Second Regular Session of the 131st Legislature. The graph illustrates the comparison of the Appropriation Limit Including GPA to the projected level of budgeted resources.

Table 3: Budgeted Resources and Appropriations Limitation Including GPA: Fiscal Years 2021-29

| Comparison of General Fund Budgeted Resources and Appropriations to the GF Appropriation Limit based on current law through the 131st 2nd Regular Session (Dollars in millions - rounded) |          |          |          |          |          |          |          |          |          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Fiscal Year                                                                                                                                                                               | 2021     | 2022     | 2023     | 2024     | 2025     | 2026     | 2027     | 2028     | 2029     |
| F General Fund Budgeted Resources                                                                                                                                                         |          |          |          |          |          |          |          |          |          |
| G Beginning Budgeted Balance                                                                                                                                                              | \$ 184   | \$ 155   | \$ 33    | \$ 165   | \$ 322   | -        | -        | -        | -        |
| H Net Transfers/Adjustments to Fund Balance                                                                                                                                               | \$ (305) | \$ (905) | \$ (686) | \$ (99)  | \$ (250) | -        | -        | -        | -        |
| I Net General Fund Revenue                                                                                                                                                                | \$ 4,171 | \$ 4,857 | \$ 5,264 | \$ 5,332 | \$ 5,333 | \$ 5,425 | \$ 5,598 | \$ 5,790 | \$ 5,993 |
| J Total Budgeted Resources                                                                                                                                                                | \$ 4,050 | \$ 4,107 | \$ 4,611 | \$ 5,398 | \$ 5,405 | \$ 5,425 | \$ 5,598 | \$ 5,790 | \$ 5,993 |
| K Amount Budgeted Resources are (below) above the GF Appropriations Limit ***                                                                                                             | \$ (308) | \$ (385) | \$ (29)  | \$ 254   | \$ (16)  | \$ (220) | \$ (400) | \$ (464) | \$ (662) |
| L Total Budgeted Appropriations through 2025 and Estimates for 2026 - 2029                                                                                                                | \$ 3,895 | \$ 4,074 | \$ 4,447 | \$ 5,076 | \$ 5,394 | \$ 5,770 | \$ 5,900 | \$ 5,900 | \$ 5,900 |
| M Amount Budgeted Appropriations are (below) above the GF Appropriations Limit***                                                                                                         | \$ (463) | \$ (418) | \$ (193) | \$ (68)  | \$ (27)  | \$ 126   | \$ (98)  | \$ (354) | \$ (755) |



Historically, budgeted resources have consistently fallen well below the state’s spending limitation. The baseline revenue forecast for the FY2024-2025 biennium, however, estimated that budgeted revenues would exceed the General Fund Appropriations Limit Including GPA in the FY2024-2025 biennium and fall below the limitation again for the FY2026-2027 biennium.

According to 5 MRSA §1535, “Baseline General Fund revenue” and other available budgeted General Fund resources that exceed the spending limitation must be transferred to the MBSF (if below the statutory cap).<sup>14</sup> In addition, pursuant to 5 MRSA §1536, eighty percent of fiscal year end General Fund unappropriated surplus must be transferred to the MBSF (if below the statutory cap). The requirement to transfer revenue exceeding the spending limitation in fiscal year 2023, 2024 and 2025 was suspended in Public Laws 2023, chapters 1 and 412.

The General Fund appropriation limitation may be exceeded for certain extraordinary circumstances which must be outside the control of the Legislature, including (a) catastrophic events, such as natural disaster, terrorism, fire, war, and riot, (b) unfunded or underfunded State or Federal mandates, (c) citizens’ initiatives or other referendum, (d) court orders or decrees or (e) loss of Federal funding. Extraordinary circumstances do not include changes in economic conditions, revenue shortfalls, increases in salaries or benefits, new programs or program expansions that go

<sup>14</sup> “Baseline General Fund revenue” means the recommended General Fund revenue forecast reported by the Revenue Forecasting Committee in its December 1 report in even-numbered years, increased by the estimated amount of net General Fund revenue decrease, if any, for all enacted changes affecting the state and local tax burden included in that forecast.

beyond existing program criteria and operation. The General Fund appropriation limit may be temporarily increased for such other purposes only by a vote of both Houses of the Legislature in a separate measure that identifies the intent of the Legislature to exceed the General Fund appropriation limit. Finally, the statutes relating to the MBSF, and the appropriation limitation are subject to modification or repeal at any time by the Legislature.

### **Maine Budget Stabilization Fund<sup>15</sup>**

The Maine Budget Stabilization Fund, formerly known as the “Rainy Day Fund”, was restructured in Public Law 2005, Chapter 2, to be expended primarily to offset a general fund revenue shortfall. Amounts in the stabilization fund may not exceed 18% of the total General Fund revenues in the immediately preceding state fiscal year, and except as provided by 5 MRSA §1533, may not be reduced below 1% of total General Fund revenue in the immediately preceding state fiscal year. If the stabilization fund is at its limit of 18% of General Fund revenue of the immediately preceding year, then amounts that would otherwise have been transferred to the stabilization fund must be transferred to the Maine Department of Transportation’s Highway and Bridge Capital program in accordance with 5 MRSA §1536, sub-§3. At the close of every month during which the stabilization fund is at the 18% limit, any interest earnings for the stabilization fund must be transferred to the Irrevocable Trust Funds for Other Post-employment Benefits for the state employee plan.

The MBSF, coupled with both the Reserve for General Fund Operating Capital and the temporary curtailment of allotment in 5 MRSA §1668, is an important tool in maintaining a low overall tax burden and a structurally balanced budget, indicated by both a positive budgetary balance (revenue-expenditures) and Generally Accepted Accounting Principles, net position (assets-liabilities). The fund’s balance provides a smoothing mechanism and allows lawmakers to address counter-cyclical fiscal policy, such as funding for Federal Medical Assistance Percentage (FMAP) and caseload in the MaineCare program that run counter to the economic cycle, as well as maintain appropriate funding levels of the State’s long-term obligations such as retirement, retiree health and debt service without raising taxes.

The MBSF is integrated with the General Fund Appropriation limitation to provide funding consistent with the economic cycle. In addition, the fund receives deposits from the year-end General Fund unappropriated surplus. For example, in FY2023 actual revenues at year end exceeded budgeted revenues and, along with other year-end adjustments, resulted in a transfer of nearly \$52 million to the MBSF in accordance with 5 MRSA §1535, bringing the total in the Stabilization Fund to the statutory maximum of \$968.3 million. At the close of FY2024, the Stabilization Fund was still at the statutory limit resulting in the transfer of all year-end excess General Fund revenues and other adjustments to the Highway and Bridge Capital Program.

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<sup>15</sup> 5 MRSA §1532

The following table displays the fund's deposit and withdrawal history since FY2005. Public Law 2023, chapter 643, Part UUUU includes the transfer of \$60 million from the MBSF to municipal, state or regionally significant infrastructure adaptation, repair and improvements that support public safety, protection of essential community assets, regional economic needs and long-term infrastructure resiliency and to provide grant opportunities for businesses and organizations, including nonprofit organizations, affected by severe weather-related events. Those transfers will occur in FY2025 based on the effective date of the law.

*Table 4: History of Maine Budget Stabilization Fund*

| Fiscal Year Ending June 30th                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Maine Budget Stabilization Fund<br>(Formerly Maine Rainy Day Fund) |                                                                            |                                                    |                |                      |                 |                |               | Ending Balances as a %<br>of General Fund Revenue |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|----------------|----------------------|-----------------|----------------|---------------|---------------------------------------------------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Beginning Balance                                                  | Deposits:<br>GF Available Year-end,<br>Unappropriated Surplus or "Cascade" | "Specified" Deposits:<br>GF Unappropriated Surplus | Transfer to GF | Transfer to Programs | Interest Earned | Ending Balance | Statutory Cap | General Fund Revenue                              |       |
| 2005                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 33,158,244                                                         | 13,121,679                                                                 |                                                    |                |                      |                 | 46,279,923     | 279,084,505   | 2,790,845,053                                     | 2.50% |
| 2006                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 46,279,923                                                         | 30,662,369                                                                 |                                                    | -              | -                    | 2,960,695       | 79,902,987     | 351,819,082   | 2,931,825,687                                     | 4.1%  |
| 2007                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 79,902,987                                                         | -                                                                          | 29,000,000                                         | -              |                      | 6,576,879       | 115,479,866    | 362,351,447   | 3,019,595,389                                     | 5.2%  |
| 2008                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 115,479,866                                                        | -                                                                          | 10,000,000                                         | -              | (100,000)            | 3,497,143       | 128,877,009    | 370,538,280   | 3,087,818,992                                     | 5.5%  |
| 2009                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 128,877,009                                                        | -                                                                          |                                                    | (131,550,969)  | (50,000)             | 2,919,303       | 195,343        | 337,364,195   | 2,811,368,295                                     | 0.0%  |
| 2010                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 195,343                                                            | 19,626,525                                                                 | 5,597,244                                          | -              | (50,000)             | 15,970          | 25,385,082     | 330,681,900   | 2,755,682,500                                     | 1.3%  |
| 2011                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 25,385,082                                                         | 46,080,951                                                                 |                                                    | -              | (50,000)             | 50,781          | 71,466,814     | 353,394,811   | 2,944,956,756                                     | 3.0%  |
| 2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 71,466,814                                                         | -                                                                          | 4,000,000                                          | (30,855,982)   | (50,000)             | 247,677         | 44,808,509     | 361,864,587   | 3,015,538,222                                     | 2.1%  |
| 2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 44,808,509                                                         | 55,065,933                                                                 |                                                    | (40,253,091)   | (50,000)             | 129,123         | 59,700,474     | 371,326,061   | 3,094,383,842                                     | 2.0%  |
| 2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 59,700,426                                                         | 8,453,337                                                                  |                                                    | -              | (50,000)             | 167,728         | 68,271,491     | 373,619,632   | 3,113,496,933                                     | 2.4%  |
| 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 68,271,491                                                         | 23,854,159                                                                 | 18,803,702                                         |                | (100,000)            | 254,141         | 111,083,493    | 599,278,778   | 3,329,326,547                                     | 3.3%  |
| 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 111,083,493                                                        | 707,300                                                                    |                                                    |                |                      | 561,446         | 112,352,239    | 605,914,404   | 3,366,191,131                                     | 3.3%  |
| 2017                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 112,352,239                                                        | 36,837,024                                                                 | 46,017,246                                         |                | (50,000)             | 1,133,541       | 196,290,050    | 621,882,695   | 3,454,903,862                                     | 5.7%  |
| 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 196,290,050                                                        | 76,247,087                                                                 |                                                    | (2,000,000)    | (200,000)            | 2,524,023       | 272,861,160    | 645,781,652   | 3,587,675,847                                     | 7.6%  |
| 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 272,861,160                                                        | 18,123,960                                                                 | 19,800,000                                         | (19,194,185)   | (100,000)            | 5,718,984       | 297,209,920    | 692,731,996   | 3,848,511,092                                     | 7.7%  |
| 2020                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 297,209,920                                                        | -                                                                          | 17,431,338                                         | (60,305,815)   | (100,000)            | 4,511,388       | 258,746,831    | 714,481,866   | 3,969,343,702                                     | 6.5%  |
| 2021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 258,746,831                                                        | 223,607,793                                                                | 8,000,000                                          | 0              | (200,000)            | 1,760,856       | 491,915,480    | 813,706,406   | 4,520,591,145                                     | 10.9% |
| 2022                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 491,915,480                                                        | 401,897,486                                                                | 0                                                  | 0              | (300,000)            | 2,483,732       | 895,996,698    | 970,490,442   | 5,391,613,569                                     | 16.6% |
| 2023                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 895,996,698                                                        | 52,371,763                                                                 | 315,496                                            |                |                      | 19,624,605      | 968,308,562    | 968,308,562   | 5,379,492,013                                     | 18.0% |
| 2024                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 968,308,562                                                        |                                                                            |                                                    |                |                      |                 | 968,308,562    | 963,497,278   | 5,352,762,655                                     | 18.1% |
| *Public Laws 2017 chapter 284, Part EEEEEEE and 2019 chapter 343, Part KKKK directed the State Controller to transfer a total of \$79.5 million from the Budget Stabilization Fund to a reserve account to cover disallowed federal participation at the Riverview Psychiatric Center. Repayment to the Centers for Medicare and Medicaid Services were completed during fiscal year 2020. A balance of \$314,496 was returned to the Budget Stabilization Fund in fiscal year 2023. |                                                                    |                                                                            |                                                    |                |                      |                 |                |               |                                                   |       |

## **VI: RECESSION SCENARIOS**

### **Statute and Background: 5 M.R.S.A. §1710-A**

**4. Alternative economic scenarios.** No later than February 1st of each even-numbered year the commission shall provide to the State Budget Officer, the State Economist, and the Associate Commissioner for Tax Policy at least 2 additional economic forecasts that assume potential economic recession scenarios of varying levels of severity. These additional forecasts must include economic assumptions for the current fiscal biennium and the next 2 fiscal biennia. In each report the commission shall fully describe the methodology employed in reaching its recommendations.

The FY2018-2019 biennial budget included a provision requiring the CEFC to provide the State Economist, the State Budget Officer, and the Associate Commissioner for Tax Policy with at least two alternative economic recession scenarios of varying levels of severity. The alternative scenarios are required to be included in the CEFC's report due February 1st of each even-numbered year and must include assumptions for calendar years that encompass the current and next two biennia. It is important to note that these recession scenarios are hypothetical in nature and should not be considered a prediction by the CEFC.

### **Methodology**

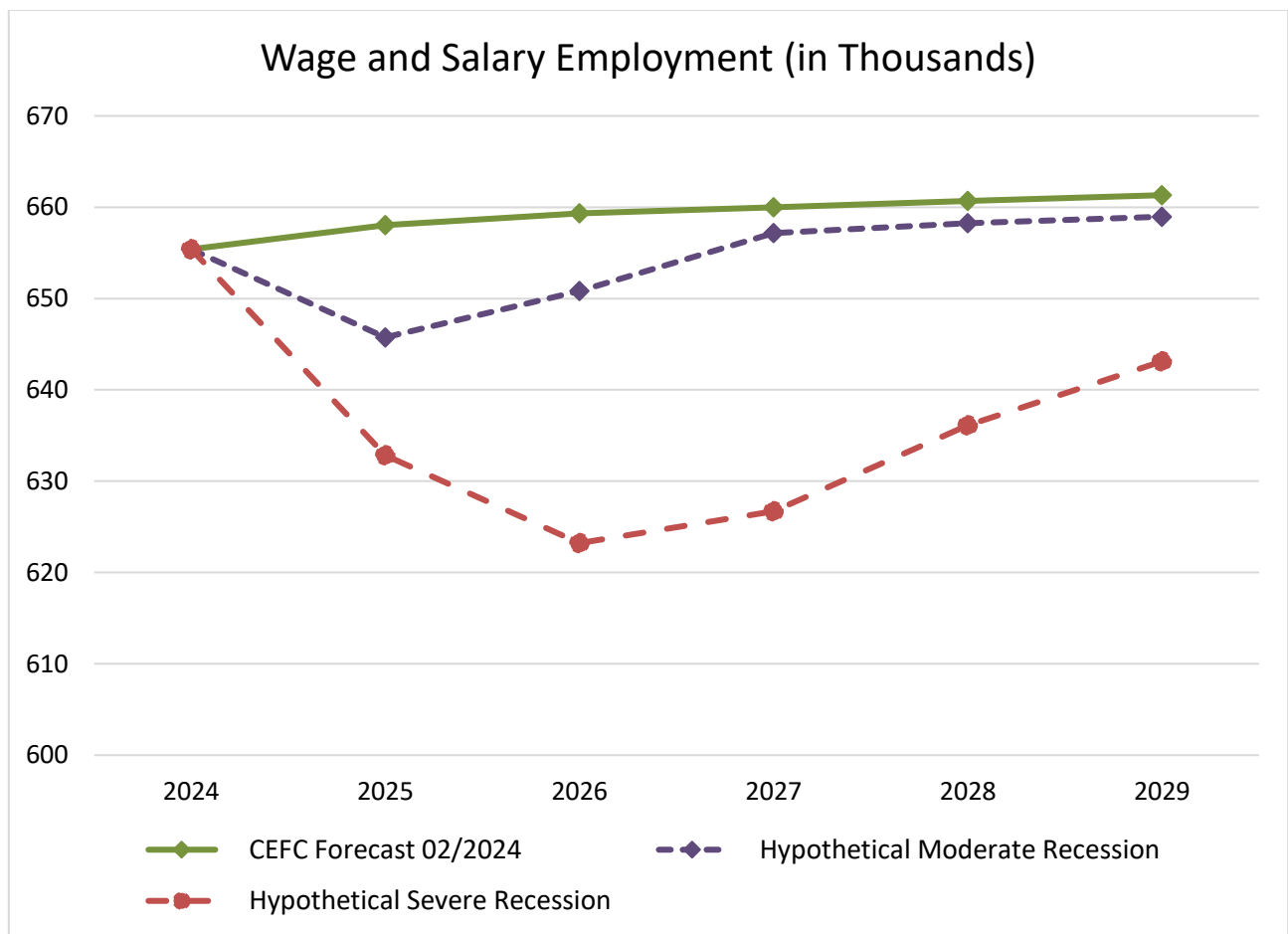
During their January 2024 meeting, the CEFC decided to designate two alternative scenarios provided by Moody's Analytics in January 2024 as the moderate and severe recession scenarios. While the scenarios describe a set of specific events surrounding the recessions, the CEFC does not ascribe to these specifics, instead selecting the scenarios based on the numbers and growth rates that seemed reasonable as generic "moderate" and "severe" recessions. These scenarios provided plausible economic inputs for an analysis of the General Fund revenue projections in both a moderate and severe downturn. These recession scenarios were identified explicitly for the stress-testing required by statute and are not an official economic forecast by the CEFC.

The moderate and severe recession scenarios were compared to the Moody's Analytics baseline scenario for January 2024 to create a ratio that eliminates any extra variation stemming from the differences between the Moody's baseline and the CEFC forecast. This ensures that the alternative scenario captures only the differences resulting from the economic conditions and not from a differing baseline. Additionally, both recession scenario forecasts were adjusted so that the recession begins in the first quarter of CY2025. For CY2024, the CEFC forecast was used; the alternative economic scenarios were then used to provide forecasts for CY2025-2029. Revised actual personal income data as available were incorporated for CY2023.

Detailed tables for the CEFC’s February baseline economic forecast and the two recession scenarios are included in the Appendix to this report.

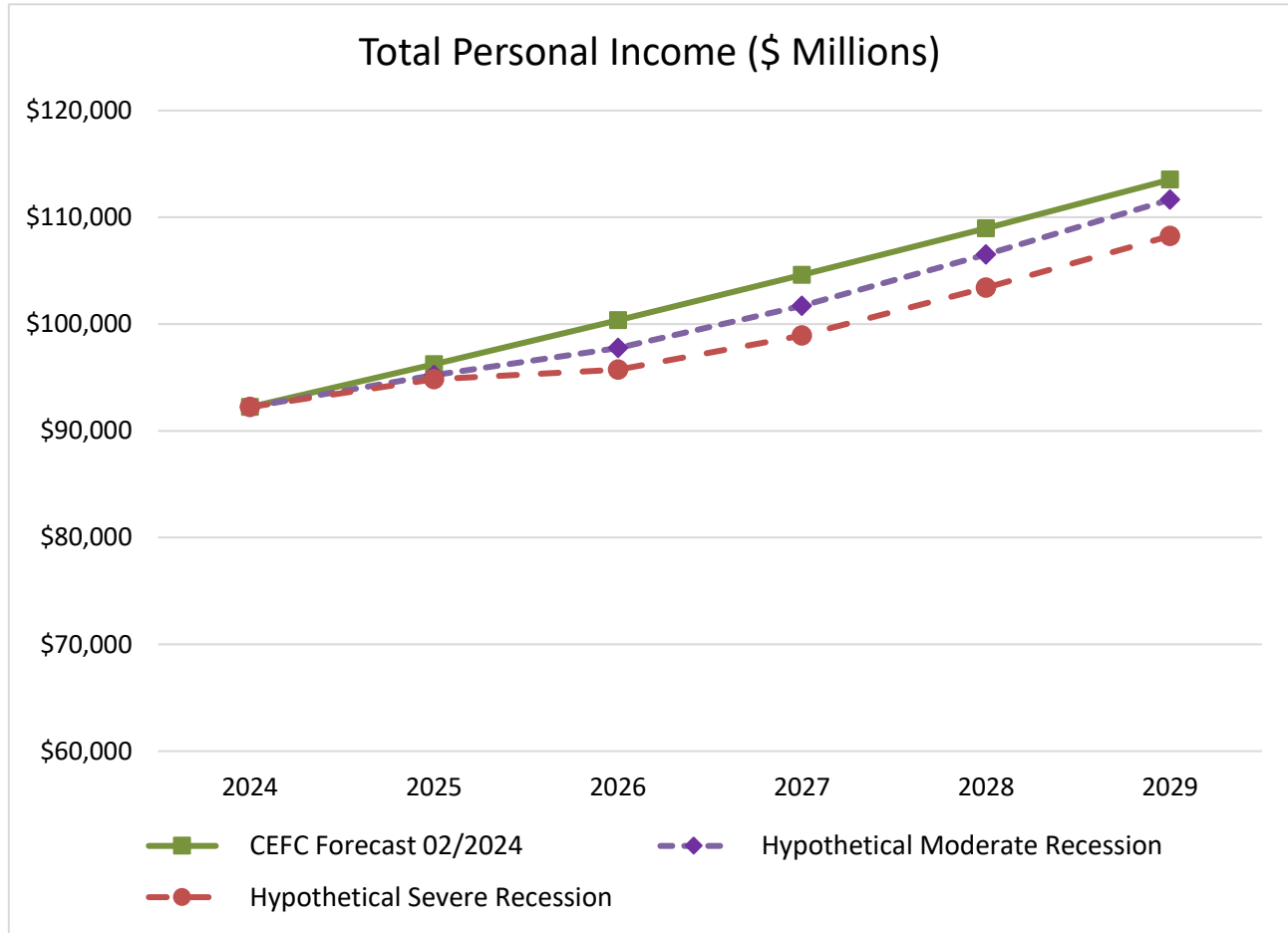
### Key Economic Indicators

Total wage and salary employment in the baseline scenario from the CEFC is forecast to rise through CY2029 to 661,320. In the hypothetical moderate recession scenario, employment declines to 645,700 before recovering to 659,000. In the hypothetical severe recession scenario, employment declines to 623,200 and only returns to 643,100 by CY2029.

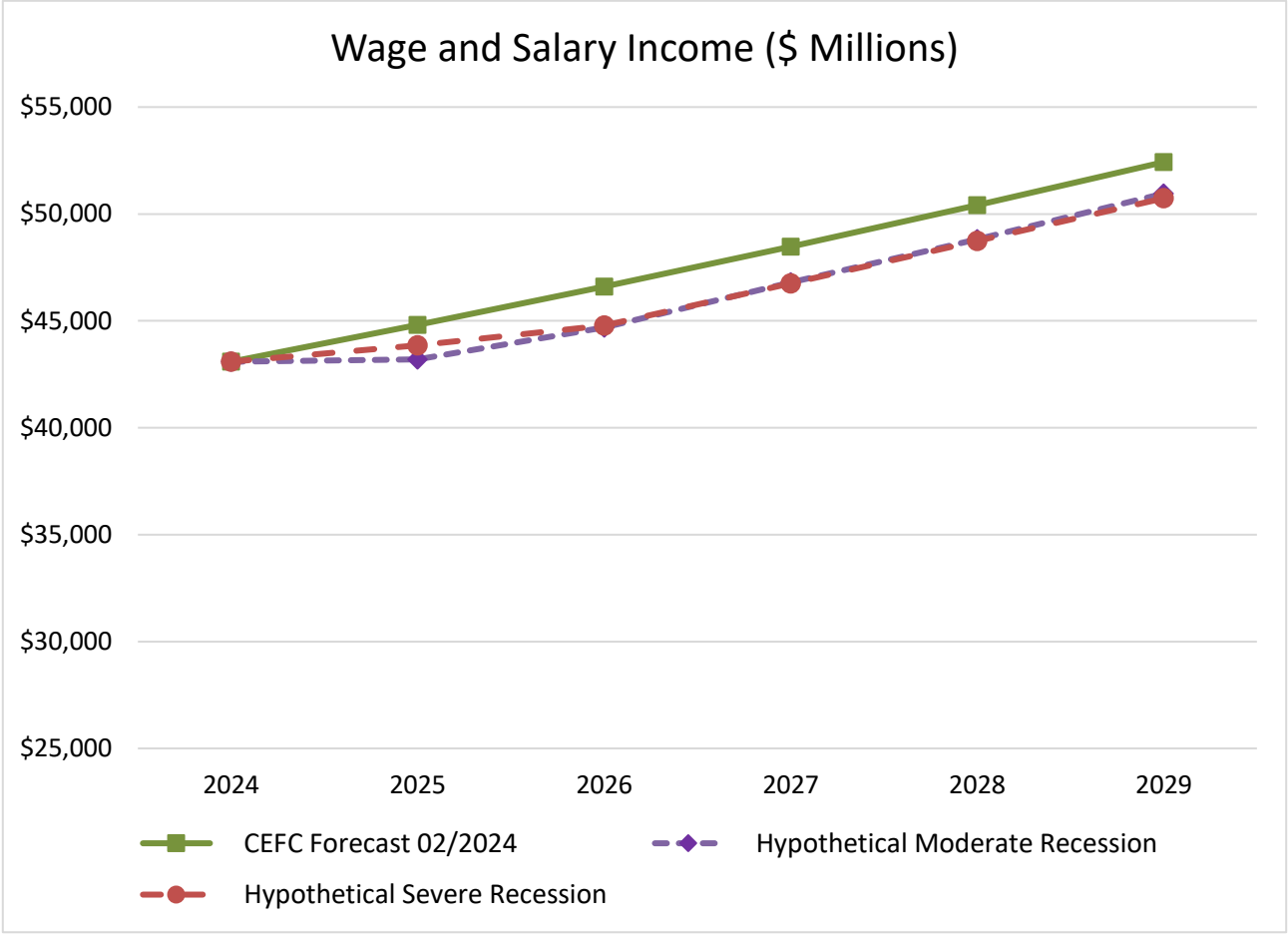


Total personal income rises from \$92.2 billion in CY2024 to \$113.5 billion in CY2029 in the baseline scenario from the CEFC. In the hypothetical moderate recession scenario, total personal income grows at a slower pace for three years before increasing at a faster rate to \$111.6 billion in

CY2029. In the hypothetical severe recession scenario, total personal income grows at a slower pace for three years before increasing at a faster rate to \$108.2 billion.



Wage and salary income in the baseline scenario increases from \$43.1 billion in CY2024 to \$52.4 billion in CY2029. In the hypothetical moderate recession scenario, wage and salary income grows at a slower pace for two years before increasing at a faster rate to \$51.0 billion in CY2029. Similarly, in the hypothetical severe recession scenario, wage and salary income grows at a slower pace for two years before increasing at a faster rate to \$50.7 billion.



## **VII: REVENUE IMPACT OF RECESSION SCENARIOS**

### **Statute and Background: 5 M.R.S.A. §1710-G**

**Use of Revenue Forecasts.** No later than October 1st of each even-numbered year the commission and committee shall jointly issue a report to the Governor, the Legislative Council and the joint standing committee of the Legislature having jurisdiction over appropriations and financial affairs that uses the alternative economic scenarios recommended by the commission in accordance with section 1710-A, subsection 4. The report must include analyses and findings that detail the stress impact such potential economic recession scenarios would have on the current General Fund revenue projections of sales and income tax revenues. The report must include an analysis of the sufficiency of the current level of the Maine Budget Stabilization Fund and an estimate of the reserves in the Maine Budget Stabilization Fund necessary to offset the declines in revenue because of potential economic recessions of varying level of severity.

The FY2018-2019 biennial budget included a provision requiring the CEFC and the RFC to perform a biennial stress-test of General Fund revenues assuming hypothetical moderate and severe recessions, and the sufficiency of the MBSF under each economic scenario. The methodology for performing the stress-test is consistent with the approach used in the Moody's Analytics papers discussed earlier in the report.

### **Methodology**

The moderate and severe recession revenue forecasts were performed using the same methodology as the semiannual revenue forecasting exercises. The State Economist provided the Maine Revenue Services' Office of Tax Policy (OTP) with the CEFC's economic forecasts for the two recession scenarios presented in the Appendix, and an extended baseline forecast for CY2028 and CY2029. Additionally, the State Economist provided forecasts of supplemental economic variables consistent with each recession scenario and the baseline that are typically used by OTP in developing their recommended forecasts for tax revenue lines administered by Maine Revenue Services.

The March 1, 2024, baseline revenue forecast has been updated to account for all actions by the 131st Legislature through the Second Regular Session. These adjustments primarily impact the

sales and use tax and reduce the March 1<sup>st</sup> General Fund forecast by less than 1 percent.<sup>16</sup>

The statute only requires a stress-test of sales and use and individual income taxes.<sup>17</sup> While these tax lines represent over 85 percent of General Fund revenue, we know that other General Fund revenue lines such as corporate income tax, estate tax and other consumption-based revenues (e.g., cigarette and tobacco taxes, real estate transfer tax, lottery revenues) will be negatively impacted in recessions as well. The revenue forecasts for the two recession scenarios include estimated changes for the corporate income tax, revenue sharing, and the new transfer of a portion of sales tax revenue from new and used automobile sales to the Highway Fund. All the other General Fund revenue lines are assumed to be unchanged. This assumption regarding the other revenue lines will slightly understate the revenue shortfall estimated in the recession scenarios. Finally, unlike the Moody's Analytics reports 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.

### **Moderate Recession Scenario**

We estimate that a hypothetical moderate recession will reduce sales and use and service provider taxes by a minimal amount in FY2025, 4.3 percent in FY2026 and 2.6 percent in FY2027 (See Table 5). The percentage decrease in revenue moderates but remains below the baseline forecast (-1.0 percent) by FY2029. These percentage point reductions translate into a loss of \$244.0 million in revenue over the forecast period, peaking at approximately \$102.0 million in reduced revenue in FY2026. In the moderate recession scenario, recovery is relatively quick, due partly to a projected decline in the personal saving rate, which partially offsets the decline in income. Durable goods purchases by consumers are impacted the hardest by the moderate recession, showing up in the building supply and other retail store categories. Other retail stores are typically specialty stores that sell more discretionary goods that consumers are more likely to delay purchasing during a downturn in the economy. The growth in nondurable goods, and services spending slow in the moderate recession, but neither expenditure experiences year-over-year declines like durable goods. Automobile sales are certainly impacted by the moderate recession but recover quickly over the forecast period.

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<sup>16</sup> The FY2024-25 Supplemental Budget included two tax provisions affecting the sales and use tax. A broad sales tax exemption for purchases by nonprofit entities with a 501(c)(3) designation by the Internal Revenue Service and moving from the current Maine approach of having sales and use tax imposed on the lessor upfront on the full value of its rental property when purchased and used in Maine to instead requiring the lessor to collect sales tax from the lessee on each periodic rental payment.

<sup>17</sup> We include the service provider tax in this report because the General Fund portion of the tax was originally part of the sales tax base, and the OTP models make no distinction between the two tax bases.

Table 5

| Sales & Use and Service Provider Taxes |  |           |           |           |           |           |
|----------------------------------------|--|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years                           |  | 2025      | 2026      | 2027      | 2028      | 2029      |
| March 2024 RFC Forecast                |  | \$2,333.5 | \$2,369.7 | \$2,401.9 | \$2,440.7 | \$2,482.1 |
| Moderate Recession Forecast            |  | \$2,311.5 | \$2,267.6 | \$2,338.3 | \$2,409.9 | \$2,456.4 |
| Variance                               |  | (\$21.9)  | (\$102.1) | (\$63.6)  | (\$30.8)  | (\$25.7)  |
| Percent Change                         |  | -0.9%     | -4.3%     | -2.6%     | -1.3%     | -1.0%     |

Individual income tax receipts decline by 2.6 percent in FY2025, followed by an 8.9 percent decline in FY2026, an 8.4 percent decrease in FY2027, and then declining in FY2028 and FY2029 by 5.6 and 4.5 percent, respectively (See Table 6). The primary impact on individual income tax receipts is through wage and salary income, which typically represents approximately two thirds of Federal Total Income. The change in wage and salary growth (+4.0 percent to +0.3 percent) in CY2025 combined with a slow recovery that leaves wages below the baseline in CY2029 by \$1.5 billion results in individual income tax receipts never getting back to the baseline level during the forecast period. Tax liability from capital gains realizations also decrease in the early stages of the recession but recover quickly consistent with the forecast of the stock market (S&P 500), falling just below the baseline forecast by the end of the forecast period.

Table 6

| Individual Income Tax       |  |           |           |           |           |           |
|-----------------------------|--|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years                |  | 2025      | 2026      | 2027      | 2028      | 2029      |
| March 2024 RFC Forecast     |  | \$2,454.5 | \$2,547.3 | \$2,687.1 | \$2,843.0 | \$3,005.0 |
| Moderate Recession Forecast |  | \$2,390.6 | \$2,321.0 | \$2,460.6 | \$2,683.5 | \$2,869.2 |
| Variance                    |  | (\$63.9)  | (\$226.3) | (\$226.5) | (\$159.5) | (\$135.8) |
| Percent Change              |  | -2.6%     | -8.9%     | -8.4%     | -5.6%     | -4.5%     |

When corporate income tax changes from the recession are added to the remaining baseline forecasts for General Fund revenues, and revenue sharing and the auto sales tax transfer to the Highway Fund are adjusted, the total estimated impact of the moderate recession on General Fund revenues is -1.7 percent in FY2025, -6.1 percent in FY2026, and -5.3 percent in FY2027

(See Table 7). Because of the forecasted length of the recession and a relatively slow recovery General Fund revenues are estimated to remain below the baseline forecast in FY2028 by 3.5 percent (\$202 million) and by 2.9 percent (\$172 million) in FY2029. As discussed above, this should be a best-case scenario since the revenue forecast of the moderate recession scenario doesn't account for all revenue changes during the recession or additional spending needs.

*Table 7*

| <b>Total General Fund</b>   |             |             |             |             |             |  |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|--|
| <b>Fiscal Years</b>         | <b>2025</b> | <b>2026</b> | <b>2027</b> | <b>2028</b> | <b>2029</b> |  |
| March 2024 RFC Forecast     | \$5,333.3   | \$5,424.6   | \$5,597.6   | \$5,789.6   | \$5,992.9   |  |
| Moderate Recession Forecast | \$5,245.1   | \$5,093.4   | \$5,300.8   | \$5,587.7   | \$5,821.3   |  |
| Variance                    | (\$88.2)    | (\$331.3)   | (\$296.7)   | (\$201.9)   | (\$171.7)   |  |
| Percent Change              | -1.7%       | -6.1%       | -5.3%       | -3.5%       | -2.9%       |  |

### **Severe Recession Scenario**

We estimate the severe recession scenario will reduce sales and use and service provider taxes by 1.5 percent in FY2025 and 9.4 percent in FY2026, peak at -12.1 percent in FY2027, and then moderate to -10.4 percent and -8.6 percent by FY2028 and FY2029, respectively (See Table 8). These percentage point reductions translate into a loss of \$1 billion in revenue over the forecast period, peaking at approximately \$291 million in reduced revenue in FY2027. In the severe recession scenario, the saving rate is projected to increase as income declines, so the loss in revenue is exacerbated, and revenue recovers more slowly as income remains low and saving rates remain high. The severe recession features a less rapid decline in revenue compared to the Great Recession, but revenue declines longer, for 8 quarters compared to 5 quarters of decline in the Great Recession.

Table 8

| Sales & Use and Service Provider Taxes |  |           |           |           |           |           |
|----------------------------------------|--|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years                           |  | 2025      | 2026      | 2027      | 2028      | 2029      |
| March 2024 RFC Forecast                |  | \$2,333.5 | \$2,369.7 | \$2,401.9 | \$2,440.7 | \$2,482.1 |
| Severe Recession Forecast              |  | \$2,299.4 | \$2,147.7 | \$2,110.8 | \$2,187.1 | \$2,268.8 |
| Variance                               |  | (\$34.1)  | (\$222.1) | (\$291.0) | (\$253.6) | (\$213.3) |
| Percent Change                         |  | -1.5%     | -9.4%     | -12.1%    | -10.4%    | -8.6%     |

In the severe recession scenario, the individual income tax is reduced by over 14 percent in the FY2026-FY2027 biennium, and by 11 percent in the FY2028-FY2029 biennium (See Table 9). The total loss in individual income tax receipts over the forecast period is just under \$1.5 billion. One interesting aspect of the severe recession scenario is that the decrease in wages and salaries is smaller in CY2025 and CY2026 compared to the moderate recession scenario, roughly the same in both scenarios in CY2027, and then only slightly higher than the moderate recession scenario in CY2028 and CY2029. One big difference between the two recession scenarios is the magnitude and length of decline in the stock market (S&P 500). The severe recession scenario assumes a steep decline in stock market consistent with previous corrections (2000-01 and 2007-08) but reaches its nadir sooner than the other two most recent recessions. This results in a very steep decline in resident tax liability related to capital gains realizations in CY2025 and CY2026, and the slow stock market recovery results in capital gains tax liability remaining well below the baseline forecast by the end of the forecast period.

Table 9

| Individual Income Tax     |  |           |           |           |           |           |
|---------------------------|--|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years              |  | 2025      | 2026      | 2027      | 2028      | 2029      |
| March 2024 RFC Forecast   |  | \$2,454.5 | \$2,547.3 | \$2,687.1 | \$2,843.0 | \$3,005.0 |
| Severe Recession Forecast |  | \$2,378.8 | \$2,235.0 | \$2,254.0 | \$2,476.6 | \$2,717.8 |
| Variance                  |  | (\$75.7)  | (\$312.3) | (\$433.1) | (\$366.4) | (\$287.2) |
| Percent Change            |  | -3.1%     | -12.3%    | -16.1%    | -12.9%    | -9.6%     |

When the sales, service provider, individual income tax, and corporate income tax severe recession forecasts are added to the forecasts for the rest of General Fund revenues, the total estimated impact of the severe recession on General Fund revenues is -2.7 percent in FY2025, -11.6 percent in FY2026, -14.8 percent in FY2027, -12.4 percent in FY2028, and -10.0 percent in FY2029 (See Table 10). The annual shortfall in General Fund revenue averages \$695 million from FY2026 to FY2029.

Table 10

| Total General Fund        |  |           |           |           |           |           |
|---------------------------|--|-----------|-----------|-----------|-----------|-----------|
|                           |  |           |           |           |           |           |
| Fiscal Years              |  | 2025      | 2026      | 2027      | 2028      | 2029      |
| March 2024 RFC Forecast   |  | \$5,333.3 | \$5,424.6 | \$5,597.6 | \$5,789.6 | \$5,992.9 |
| Severe Recession Forecast |  | \$5,187.2 | \$4,793.1 | \$4,768.8 | \$5,069.4 | \$5,393.1 |
| Variance                  |  | (\$146.1) | (\$631.5) | (\$828.7) | (\$720.2) | (\$599.8) |
| Percent Change            |  | -2.7%     | -11.6%    | -14.8%    | -12.4%    | -10.0%    |

## **VIII: BUDGET STABILIZATION FUND SUFFICIENCY AND NEEDS**

The stress-test results presented here are designed to determine if the current funding level of the MBSF is sufficient to provide resources to maintain spending at limitation levels during a period of revenue shortfall. This meets the third criteria of the PEW report that states set a BSF cap based on the unique characteristics of their revenue structure and economy.

The current MBSF level of \$908.3 million and other available resources would be enough to maintain current FY2025 appropriations of \$5.3 billion and provide sufficient resources to maintain the spending limitation (the current baseline revenue forecast) through the FY2026-27 biennium (See Table 11). The current MBSF which is equal to 17.0% of FY2024 General Fund revenue would fall short of the current revenue forecast for the FY2028-29 biennium by approximately \$268.0 million. If the MBSF was at its maximum level of 18% of FY2024 General Fund revenue (\$963.5 million) there would be sufficient funds to fully offset the revenue shortfall through the FY2026-27 biennium but continue to fall short of the FY2028 and FY2029 baseline revenue forecasts by \$39.0 million and \$174.0 million, respectively. While the MBSF maximum of 18% of prior year revenue falls short of covering all the revenue shortfall over the five-year forecasting period, the revenue shortfalls estimated in the FY2028-29 biennium are

relatively small and provide the Governor and Legislature two and a half years to make any needed adjustments to General Fund expenditures and revenues to meet policy objectives.

*Table 11*

| General Fund Appropriation Limitation and Sufficiency of the Maine Budget Stabilization Fund (Moderate Recession)                                         |  |         |           |           |           |           |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years                                                                                                                                              |  | 2024    | 2025      | 2026      | 2027      | 2028      | 2029      |
| Effective Spending Limitation as of 10/1/24 /1                                                                                                            |  |         | \$5,333.3 | \$5,424.6 | \$5,597.6 | \$5,789.6 | \$5,992.9 |
| Revenues/Resources Minus Appropriations Limitation /2                                                                                                     |  |         | (\$116.4) | (\$331.3) | (\$296.7) | (\$201.9) | (\$171.7) |
| Budget Stabilization Fund at Fiscal Year End                                                                                                              |  | \$908.3 | \$791.9   | \$460.6   | \$163.9   | \$55.9    | \$58.2    |
| 1/ Calculated as the minimum of the General Fund Appropriation Limit or the baseline General Fund revenue forecast, which in this exercise is the latter. |  |         |           |           |           |           |           |
| 2/ General Fund total budgeted resources of \$5,305.0 million is used in FY25, otherwise the baseline revenue forecast is used (See Table 3).             |  |         |           |           |           |           |           |

The two forecasting committees estimate that in the hypothetical severe recession, the current MBSF level of \$908.3 million and other available resources would be exhausted by early FY2027 but provide approximately 15-18 months for the Governor and Legislature to address the revenue shortfalls caused by the severe recession (See Table 12). We estimate the MBSF would require a prohibitive level of funding to fully offset the reduction in revenue during the budget window studied. A MBSF equal to the current maximum of 18%, or the recommended 20%, of FY2024 General Fund revenue would allow for additional funding in FY2027 but would still fall far short of the March 1, 2024, baseline revenue forecast for FY2027.

*Table 12*

| General Fund Appropriation Limitation and Sufficiency of the Maine Budget Stabilization Fund (Severe Recession)                                           |  |         |           |           |           |           |           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|-----------|-----------|-----------|-----------|-----------|
| Fiscal Years                                                                                                                                              |  | 2024    | 2025      | 2026      | 2027      | 2028      | 2029      |
| Effective Spending Limitation as of 10/1/24 /1                                                                                                            |  |         | \$5,333.3 | \$5,424.6 | \$5,597.6 | \$5,789.6 | \$5,992.9 |
| Revenues/Resources Minus Appropriations Limitation /2                                                                                                     |  |         | (\$174.3) | (\$631.5) | (\$828.7) | (\$720.2) | (\$599.8) |
| Budget Stabilization Fund at Fiscal Year End                                                                                                              |  | \$908.3 | \$734.0   | \$102.5   | \$47.7    | \$50.7    | \$53.9    |
| 1/ Calculated as the minimum of the General Fund Appropriation Limit or the baseline General Fund revenue forecast, which in this exercise is the latter. |  |         |           |           |           |           |           |
| 2/ General Fund total budgeted resources of \$5,305.0 million is used in FY25, otherwise the baseline revenue forecast is used (See Table 3).             |  |         |           |           |           |           |           |

## **IX: CONCLUSIONS**

The 2020 Stress-Test Report was issued as the national and state economies struggled to respond to the COVID-19 recession, and the 2022 report after historic fiscal and monetary stimulus implemented by Congress and the Federal Reserve in the months immediately after the start of the pandemic led to unprecedented revenue growth in FY2021 and FY2022. This year's report is issued as the Federal Reserve begins to reduce interest rates as inflation moves towards its 2% target, geo-political conflicts continue, and state revenues return to a more moderate rate of growth. As a result, this year's report is timely in providing policymakers with the estimated impact of a moderate and severe recession on sales and individual income tax revenues, and the sufficiency and needs of the Maine Budget Stabilization Fund in each of the recession scenarios.

The current MBSF level of \$908.3 million and other available resources would be enough to maintain current FY2025 appropriations of \$5.3 billion and provide sufficient resources to maintain the spending limitation (the current baseline revenue forecast) through the FY2026-27 biennium. The current MBSF, which is equal to 17.0% of FY2024 General Fund revenue, would fall short of the current revenue forecast for the FY2028-29 biennium by approximately \$268.0 million. If the MBSF was at its maximum level of 18% of FY2024 General Fund revenue (\$963.5 million) there would be sufficient funds to fully offset the revenue shortfall through the FY2026-27 biennium but continue to fall short of the FY2028 and FY2029 baseline revenue forecasts by \$39.0 million and \$174.0 million, respectively. While the MBSF maximum of 18% of prior year revenue falls short of covering all the revenue shortfall over the five-year forecasting period, the revenue shortfalls estimated in the FY2028-29 biennium are relatively small and provide the Governor and Legislature two and a half years to make any needed adjustments to General Fund expenditures and revenues to meet policy objectives.

While the MBSF at its current level or at its statutory cap would not be sufficient to fully offset a revenue shortfall because of a severe recession, it would provide enough resources to maintain spending at the spending limit in FY2025 and FY2026. Funds would still be available to cover a small portion of the revenue shortfall in early FY2027, providing approximately 15-18 months for the Governor and Legislature to bring the budget into balance.

## **APPENDIX**

## Baseline Scenario

The baseline economic scenario is the CEFC forecast from February 1, 2024. This scenario does not forecast a recession. Employment in Maine increases through 2029. Wage and salary income rises each year along with total personal income. Total personal income growth rates slow from 4.6% in 2024 to 4.2% for 2027-2029. For wage and salary income, growth is 5.0% in 2024 and 4.0% for the remaining forecast years.

| Maine Consensus Economic Forecasting Commission |        |        |         |         |         |         |
|-------------------------------------------------|--------|--------|---------|---------|---------|---------|
| February 2024 Forecast (Adjusted for 2023)      |        |        |         |         |         |         |
| Forecast - Calendar Years                       |        |        |         |         |         |         |
| actual personal income estimates)               | 2024   | 2025   | 2026    | 2027    | 2028    | 2029    |
| CPI-U* (Annual Change)                          | 2.7%   | 2.4%   | 2.3%    | 2.2%    | 2.2%    | 2.2%    |
| CPI for Energy Prices** (Annual Change)         | -0.1%  | -0.3%  | -0.1%   | 0.9%    | 1.1%    | 1.1%    |
| Avg. Price of New Vehicles** (Annual Change)    | -4.7%  | -5.2%  | 2.1%    | 4.9%    | 5.9%    | 5.3%    |
| New Vehicle Registrations** (Annual Change)     | 1.9%   | 3.4%   | -0.5%   | -2.0%   | -1.7%   | -0.8%   |
| Personal Savings Rate**                         | 4.9%   | 6.5%   | 7.4%    | 7.9%    | 8.3%    | 8.6%    |
| Maine Unemployment Rate**                       | 3.1%   | 3.2%   | 3.3%    | 3.4%    | 3.4%    | 3.4%    |
| 3-Month Treasury Bill Rate**                    | 4.80%  | 3.30%  | 2.41%   | 2.37%   | 2.37%   | 2.37%   |
| 10-Year Treasury Note Yield**                   | 3.62%  | 3.24%  | 3.17%   | 3.18%   | 3.19%   | 3.19%   |
| Before-Tax Corporate Profits* (Annual Change)   | 1.0%   | 0.5%   | 2.0%    | 2.0%    | 2.0%    | 2.0%    |
| Maine Wage & Salary Employment* (thousands)     | 655.4  | 658.0  | 659.3   | 660.0   | 660.7   | 661.3   |
| Natural Resources                               | 2.2    | 2.2    | 2.3     | 2.3     | 2.3     | 2.3     |
| Construction                                    | 32.7   | 33.1   | 33.6    | 33.1    | 32.7    | 32.2    |
| Manufacturing                                   | 54.7   | 54.8   | 54.9    | 55.5    | 55.0    | 54.5    |
| Trade/Trans./Public Utils.                      | 121.1  | 121.6  | 122.1   | 121.7   | 121.7   | 121.7   |
| Information                                     | 7.8    | 7.8    | 7.8     | 7.8     | 7.8     | 7.7     |
| Financial Activities                            | 33.8   | 33.9   | 34.0    | 34.0    | 34.0    | 33.9    |
| Prof. & Business Services                       | 77.9   | 78.3   | 79.0    | 80.2    | 81.5    | 82.7    |
| Education & Health Services                     | 132.1  | 132.8  | 132.9   | 132.7   | 132.7   | 132.9   |
| Leisure & Hospitality Services                  | 69.3   | 69.4   | 69.2    | 69.0    | 69.3    | 69.7    |
| Other Services                                  | 22.2   | 22.4   | 22.3    | 22.3    | 22.3    | 22.3    |
| Government                                      | 101.6  | 101.7  | 101.4   | 101.4   | 101.4   | 101.4   |
| Maine Wage & Salary Employment* (Annual Change) | 0.8%   | 0.4%   | 0.2%    | 0.1%    | 0.1%    | 0.1%    |
| Natural Resources                               | 1.2%   | 2.9%   | 0.8%    | 1.1%    | 0.2%    | -0.1%   |
| Construction                                    | -1.1%  | 1.1%   | 1.5%    | -1.3%   | -1.3%   | -1.5%   |
| Manufacturing                                   | 0.3%   | 0.2%   | 0.2%    | 1.0%    | -0.9%   | -0.9%   |
| Trade/Trans./Public Utils.                      | 0.0%   | 0.4%   | 0.4%    | -0.3%   | 0.0%    | 0.0%    |
| Information                                     | -0.9%  | 0.7%   | 0.0%    | -0.2%   | -0.5%   | -0.3%   |
| Financial Activities                            | -0.3%  | 0.3%   | 0.1%    | 0.1%    | -0.1%   | -0.1%   |
| Prof. & Business Services                       | 0.6%   | 0.6%   | 0.8%    | 1.6%    | 1.6%    | 1.5%    |
| Education & Health Services                     | 1.9%   | 0.5%   | 0.1%    | -0.1%   | 0.0%    | 0.1%    |
| Leisure & Hospitality Services                  | 2.0%   | 0.2%   | -0.3%   | -0.3%   | 0.5%    | 0.6%    |
| Other Services                                  | 0.5%   | 0.7%   | -0.3%   | -0.1%   | 0.0%    | -0.2%   |
| Government                                      | 1.1%   | 0.0%   | -0.3%   | 0.0%    | 0.0%    | 0.0%    |
|                                                 | 2024   | 2025   | 2026    | 2027    | 2028    | 2029    |
| Personal Income* (\$ million)                   | 92,226 | 96,246 | 100,350 | 104,589 | 108,958 | 113,521 |
| Wages & Salaries*                               | 43,089 | 44,813 | 46,605  | 48,470  | 50,408  | 52,425  |
| Supplements to Wages & Salaries*                | 9,462  | 9,793  | 10,136  | 10,440  | 10,754  | 11,076  |
| Nonfarm Proprietors' Income*                    | 7,308  | 7,527  | 7,753   | 7,986   | 8,225   | 8,472   |
| Farm Proprietors' Income**                      | 112    | 182    | 208     | 183     | 173     | 183     |
| Dividends, Interest, & Rent*                    | 16,937 | 17,699 | 18,495  | 19,328  | 20,197  | 21,106  |
| Dividends                                       | 6,300  | 6,106  | 6,547   | 6,803   | 7,008   | 7,303   |
| Interest                                        | 6,063  | 6,867  | 7,010   | 7,364   | 7,796   | 8,168   |
| Rent                                            | 4,573  | 4,726  | 4,938   | 5,160   | 5,393   | 5,635   |
| Personal Current Transfer Receipts*             | 21,042 | 22,094 | 23,199  | 24,358  | 25,576  | 26,855  |
| Less: Contributions for Social Ins.**           | 7,172  | 7,360  | 7,597   | 7,787   | 8,053   | 8,339   |
| Adjustment for Residence**                      | 1,448  | 1,498  | 1,550   | 1,612   | 1,677   | 1,743   |
| Personal Income* (Annual Change)                | 4.6%   | 4.4%   | 4.3%    | 4.2%    | 4.2%    | 4.2%    |
| Wages & Salaries*                               | 5.0%   | 4.0%   | 4.0%    | 4.0%    | 4.0%    | 4.0%    |
| Supplements to Wages & Salaries*                | 3.5%   | 3.5%   | 3.5%    | 3.0%    | 3.0%    | 3.0%    |
| Nonfarm Proprietors' Income*                    | 5.0%   | 3.0%   | 3.0%    | 3.0%    | 3.0%    | 3.0%    |
| Farm Proprietors' Income**                      | -9.3%  | 62.6%  | 13.9%   | -11.8%  | -5.4%   | 5.6%    |
| Dividends, Interest, & Rent*                    | 5.0%   | 4.5%   | 4.5%    | 4.5%    | 4.5%    | 4.5%    |
| Dividends                                       | 5.3%   | -3.1%  | 7.2%    | 3.9%    | 3.0%    | 4.2%    |
| Interest                                        | 3.3%   | 13.3%  | 2.1%    | 5.1%    | 5.9%    | 4.8%    |
| Rent                                            | 7.1%   | 3.3%   | 4.5%    | 4.5%    | 4.5%    | 4.5%    |
| Personal Current Transfer Receipts*             | 3.5%   | 5.0%   | 5.0%    | 5.0%    | 5.0%    | 5.0%    |
| Less: Contributions for Social Ins.**           | 3.6%   | 2.6%   | 3.2%    | 2.5%    | 3.4%    | 3.6%    |
| Adjustment for Residence**                      | 4.3%   | 3.4%   | 3.5%    | 4.0%    | 4.1%    | 3.9%    |

\*CEFC Forecast

\*\*From S&P and Moody's Analytics baselines (January 2024)

Remaining lines derived from CEFC forecast by CEFC staff and reviewed by CEFC

## Moderate Recession Scenario

The moderate recession scenario selected by the Commission is the “S7” Next-Cycle Recession scenario. This scenario has the recession lasting three quarters. The cumulative decline in national real gross domestic product is 1.2 percent. Employment in Maine declines around 0.9 percent. Wage and salary income and total personal income in Maine continue to grow but at a slower pace.

| Moody's Analytics January 2024 S7 - Next Cycle Recession |                           |        |        |         |         |         |
|----------------------------------------------------------|---------------------------|--------|--------|---------|---------|---------|
| Hypothetical Moderate Recession                          | Forecast - Calendar Years |        |        |         |         |         |
|                                                          | 2024                      | 2025   | 2026   | 2027    | 2028    | 2029    |
| CPI-U (Annual Change)                                    | 2.7%                      | 2.0%   | 2.1%   | 2.3%    | 2.2%    | 2.2%    |
| CPI for Energy Prices (Annual Change)                    | -0.1%                     | -3.7%  | 2.4%   | 1.7%    | 1.0%    | 1.1%    |
| CPI for New Vehicles (Annual Change)                     | -4.7%                     | -6.5%  | 0.5%   | 4.8%    | 5.9%    | 5.3%    |
| Personal Savings Rate                                    | 4.9%                      | 7.3%   | 5.8%   | 4.5%    | 5.0%    | 6.0%    |
| Maine Unemployment Rate                                  | 3.1%                      | 4.6%   | 4.8%   | 4.4%    | 4.3%    | 4.3%    |
| 3-Month Treasury Bill Rate                               | 4.80%                     | 2.61%  | 1.99%  | 2.09%   | 2.06%   | 1.99%   |
| 10-Year Treasury Note Yield                              | 3.62%                     | 2.34%  | 2.57%  | 2.93%   | 2.96%   | 2.97%   |
| Before-Tax Corporate Profits (Annual Change)             | 1.0%                      | -2.1%  | -0.7%  | 3.8%    | 3.2%    | 1.8%    |
| Maine Wage & Salary Employment (thousands)               | 655.4                     | 645.7  | 650.8  | 657.2   | 658.2   | 659.0   |
| Natural Resources                                        | 2.2                       | 2.2    | 2.3    | 2.3     | 2.4     | 2.4     |
| Construction                                             | 32.7                      | 31.9   | 32.8   | 33.1    | 32.8    | 32.5    |
| Manufacturing                                            | 54.7                      | 53.5   | 54.2   | 55.4    | 55.1    | 54.5    |
| Trade/Trans./Public Utils.                               | 121.1                     | 119.5  | 120.8  | 121.4   | 121.4   | 121.3   |
| Information                                              | 7.8                       | 7.7    | 7.7    | 7.8     | 7.7     | 7.7     |
| Financial Activities                                     | 33.8                      | 33.4   | 33.4   | 33.6    | 33.6    | 33.5    |
| Prof. & Business Services                                | 77.9                      | 75.9   | 76.6   | 78.7    | 80.0    | 81.2    |
| Education & Health Services                              | 132.1                     | 130.6  | 131.7  | 132.6   | 132.5   | 132.5   |
| Leisure & Hospitality Services                           | 69.3                      | 68.3   | 68.8   | 69.3    | 69.7    | 70.0    |
| Other Services                                           | 22.2                      | 21.6   | 21.6   | 21.9    | 21.9    | 21.9    |
| Government                                               | 101.6                     | 101.1  | 100.9  | 101.2   | 101.3   | 101.4   |
| Maine Wage & Salary Employment (Annual Change)           | 0.8%                      | -1.5%  | 0.8%   | 1.0%    | 0.2%    | 0.1%    |
| Natural Resources                                        | 1.2%                      | 2.7%   | 2.6%   | 2.6%    | 0.9%    | 0.1%    |
| Construction                                             | -1.1%                     | -2.3%  | 2.8%   | 0.7%    | -0.8%   | -1.0%   |
| Manufacturing                                            | 0.3%                      | -2.2%  | 1.2%   | 2.2%    | -0.6%   | -0.9%   |
| Trade/Trans./Public Utils.                               | 0.0%                      | -1.3%  | 1.0%   | 0.5%    | 0.0%    | -0.1%   |
| Information                                              | -0.9%                     | -1.0%  | 0.7%   | 0.6%    | -0.5%   | -0.3%   |
| Financial Activities                                     | -0.3%                     | -1.3%  | 0.2%   | 0.4%    | -0.1%   | 0.0%    |
| Prof. & Business Services                                | 0.6%                      | -2.5%  | 1.0%   | 2.7%    | 1.7%    | 1.5%    |
| Education & Health Services                              | 1.9%                      | -1.1%  | 0.8%   | 0.6%    | -0.1%   | 0.0%    |
| Leisure & Hospitality Services                           | 2.0%                      | -1.5%  | 0.8%   | 0.8%    | 0.5%    | 0.5%    |
| Other Services                                           | 0.5%                      | -2.9%  | 0.0%   | 1.3%    | 0.2%    | -0.2%   |
| Government                                               | 1.1%                      | -0.5%  | -0.2%  | 0.3%    | 0.1%    | 0.1%    |
|                                                          | 2024                      | 2025   | 2026   | 2027    | 2028    | 2029    |
| Personal Income (\$ million)                             | 92,226                    | 95,232 | 97,745 | 101,693 | 106,515 | 111,649 |
| Wages & Salaries                                         | 43,089                    | 43,204 | 44,691 | 46,794  | 48,815  | 50,955  |
| Supplements to Wages & Salaries                          | 9,462                     | 9,527  | 9,835  | 10,189  | 10,522  | 10,870  |
| Nonfarm Proprietors' Income                              | 7,308                     | 7,529  | 7,551  | 7,715   | 7,935   | 8,192   |
| Farm Proprietors' Income                                 | 112                       | 176    | 126    | 67      | 55      | 61      |
| Dividends, Interest, & Rent                              | 16,937                    | 17,314 | 17,638 | 18,870  | 20,304  | 21,560  |
| Dividends                                                | 6,300                     | 5,935  | 5,734  | 5,836   | 6,148   | 6,642   |
| Interest                                                 | 6,063                     | 6,986  | 7,221  | 8,299   | 9,387   | 9,877   |
| Rent                                                     | 4,573                     | 4,393  | 4,683  | 4,734   | 4,770   | 5,041   |
| Personal Current Transfer Receipts                       | 21,042                    | 23,037 | 23,566 | 23,884  | 24,938  | 26,322  |
| Less: Contributions for Social Ins.                      | 7,172                     | 7,000  | 7,153  | 7,387   | 7,684   | 8,015   |
| Adjustment for Residence                                 | 1,448                     | 1,445  | 1,490  | 1,561   | 1,631   | 1,703   |
| Personal Income (Annual Change)                          | 4.6%                      | 3.3%   | 2.6%   | 4.0%    | 4.7%    | 4.8%    |
| Wages & Salaries                                         | 5.0%                      | 0.3%   | 3.4%   | 4.7%    | 4.3%    | 4.4%    |
| Supplements to Wages & Salaries                          | 3.5%                      | 0.7%   | 3.2%   | 3.6%    | 3.3%    | 3.3%    |
| Nonfarm Proprietors' Income                              | 5.0%                      | 3.0%   | 0.3%   | 2.2%    | 2.8%    | 3.2%    |
| Farm Proprietors' Income                                 | -9.3%                     | 57.1%  | -28.5% | -46.6%  | -17.9%  | 10.1%   |
| Dividends, Interest, & Rent                              | 5.0%                      | 2.2%   | 1.9%   | 7.0%    | 7.6%    | 6.2%    |
| Dividends                                                | 5.3%                      | -5.8%  | -3.4%  | 1.8%    | 5.3%    | 8.0%    |
| Interest                                                 | 3.3%                      | 15.2%  | 3.4%   | 14.9%   | 13.1%   | 5.2%    |
| Rent                                                     | 7.1%                      | -3.9%  | 6.6%   | 1.1%    | 0.7%    | 5.7%    |
| Personal Current Transfer Receipts                       | 3.5%                      | 9.5%   | 2.3%   | 1.3%    | 4.4%    | 5.6%    |
| Less: Contributions for Social Ins.                      | 3.6%                      | -2.4%  | 2.2%   | 3.3%    | 4.0%    | 4.3%    |
| Adjustment for Residence                                 | 4.3%                      | -0.2%  | 3.1%   | 4.8%    | 4.5%    | 4.4%    |

## Severe Recession Scenario

The severe recession scenario selected by the CEFC is the “S4” downside scenario. This scenario has the recession lasting five quarters with a much slower recovery. National real gross domestic product declines around 1.6 percent in the first year of the recession and 1.6 percent in the second year. Employment in Maine declines around 2.3 percent in the first year and 0.5 percent in the second year. Wage and salary income and total personal income in Maine continue to grow but at a slower pace.

| Moody's Analytics January 2024 S4 Downside Scenario |                           |        |        |        |         |         |
|-----------------------------------------------------|---------------------------|--------|--------|--------|---------|---------|
| Hypothetical Severe Recession                       | Forecast - Calendar Years |        |        |        |         |         |
|                                                     | 2024                      | 2025   | 2026   | 2027   | 2028    | 2029    |
| CPI-U (Annual Change)                               | 2.7%                      | 1.9%   | 0.6%   | 1.9%   | 2.0%    | 2.3%    |
| CPI for Energy Prices (Annual Change)               | -0.1%                     | -10.5% | -4.2%  | 7.8%   | 5.3%    | 2.2%    |
| CPI for New Vehicles (Annual Change)                | -4.7%                     | -6.8%  | 0.8%   | 4.7%   | 5.9%    | 5.3%    |
| Personal Savings Rate                               | 4.9%                      | 8.4%   | 10.5%  | 9.8%   | 10.1%   | 10.0%   |
| Maine Unemployment Rate                             | 3.1%                      | 5.8%   | 7.7%   | 7.9%   | 7.1%    | 6.3%    |
| 3-Month Treasury Bill Rate                          | 4.80%                     | 2.65%  | 0.95%  | 0.49%  | 0.63%   | 0.69%   |
| 10-Year Treasury Note Yield                         | 3.62%                     | 1.71%  | 1.85%  | 2.33%  | 2.55%   | 2.83%   |
| Before-Tax Corporate Profits (Annual Change)        | 1.0%                      | -24.1% | -14.2% | 5.6%   | 7.3%    | 8.3%    |
| Maine Wage & Salary Employment (thousands)          | 655.4                     | 632.8  | 623.2  | 626.7  | 636.1   | 643.1   |
| Natural Resources                                   | 2.2                       | 2.1    | 2.2    | 2.2    | 2.3     | 2.3     |
| Construction                                        | 32.7                      | 30.6   | 29.5   | 29.8   | 30.8    | 31.3    |
| Manufacturing                                       | 54.7                      | 52.0   | 51.2   | 52.3   | 53.0    | 53.3    |
| Trade/Trans./Public Utils.                          | 121.1                     | 117.4  | 116.6  | 116.9  | 118.4   | 119.5   |
| Information                                         | 7.8                       | 7.5    | 7.4    | 7.4    | 7.5     | 7.5     |
| Financial Activities                                | 33.8                      | 32.7   | 32.3   | 32.1   | 32.4    | 32.7    |
| Prof. & Business Services                           | 77.9                      | 73.9   | 72.3   | 73.9   | 76.5    | 78.7    |
| Education & Health Services                         | 132.1                     | 128.3  | 127.3  | 127.8  | 129.3   | 130.5   |
| Leisure & Hospitality Services                      | 69.3                      | 66.8   | 65.2   | 65.4   | 66.7    | 67.8    |
| Other Services                                      | 22.2                      | 20.9   | 20.1   | 20.2   | 20.6    | 20.8    |
| Government                                          | 101.6                     | 100.6  | 99.0   | 98.5   | 98.7    | 98.7    |
| Maine Wage & Salary Employment (Annual Change)      | 0.8%                      | -3.4%  | -1.5%  | 0.6%   | 1.5%    | 1.1%    |
| Natural Resources                                   | 1.2%                      | -1.7%  | 2.4%   | 2.8%   | 1.3%    | 1.3%    |
| Construction                                        | -1.1%                     | -6.5%  | -3.4%  | 0.9%   | 3.3%    | 1.8%    |
| Manufacturing                                       | 0.3%                      | -5.0%  | -1.5%  | 2.1%   | 1.3%    | 0.5%    |
| Trade/Trans./Public Utils.                          | 0.0%                      | -3.1%  | -0.6%  | 0.2%   | 1.3%    | 1.0%    |
| Information                                         | -0.9%                     | -3.2%  | -1.0%  | 0.1%   | 0.6%    | 0.6%    |
| Financial Activities                                | -0.3%                     | -3.2%  | -1.4%  | -0.5%  | 0.8%    | 0.9%    |
| Prof. & Business Services                           | 0.6%                      | -5.1%  | -2.1%  | 2.2%   | 3.5%    | 2.9%    |
| Education & Health Services                         | 1.9%                      | -2.8%  | -0.8%  | 0.4%   | 1.2%    | 0.9%    |
| Leisure & Hospitality Services                      | 2.0%                      | -3.6%  | -2.3%  | 0.3%   | 2.0%    | 1.6%    |
| Other Services                                      | 0.5%                      | -5.8%  | -3.8%  | 0.4%   | 1.8%    | 0.9%    |
| Government                                          | 1.1%                      | -1.0%  | -1.6%  | -0.5%  | 0.2%    | 0.1%    |
|                                                     | 2024                      | 2025   | 2026   | 2027   | 2028    | 2029    |
| Personal Income (\$ million)                        | 92,226                    | 94,837 | 95,737 | 98,929 | 103,401 | 108,245 |
| Wages & Salaries                                    | 43,089                    | 43,850 | 44,781 | 46,757 | 48,743  | 50,734  |
| Supplements to Wages & Salaries                     | 9,462                     | 9,644  | 9,863  | 10,199 | 10,528  | 10,855  |
| Nonfarm Proprietors' Income                         | 7,308                     | 7,477  | 7,427  | 7,511  | 7,669   | 7,933   |
| Farm Proprietors' Income                            | 112                       | 161    | 91     | 53     | 49      | 57      |
| Dividends, Interest, & Rent                         | 16,937                    | 16,458 | 15,526 | 15,972 | 17,442  | 19,084  |
| Dividends                                           | 6,300                     | 5,330  | 4,820  | 4,793  | 5,167   | 5,554   |
| Interest                                            | 6,063                     | 6,673  | 6,049  | 6,454  | 7,355   | 8,129   |
| Rent                                                | 4,573                     | 4,455  | 4,658  | 4,725  | 4,920   | 5,400   |
| Personal Current Transfer Receipts                  | 21,042                    | 22,886 | 23,722 | 24,258 | 25,013  | 25,865  |
| Less: Contributions for Social Ins.                 | 7,172                     | 7,105  | 7,167  | 7,382  | 7,673   | 7,980   |
| Adjustment for Residence                            | 1,448                     | 1,467  | 1,493  | 1,560  | 1,629   | 1,696   |
| Personal Income (Annual Change)                     | 4.6%                      | 2.8%   | 0.9%   | 3.3%   | 4.5%    | 4.7%    |
| Wages & Salaries                                    | 5.0%                      | 1.8%   | 2.1%   | 4.4%   | 4.2%    | 4.1%    |
| Supplements to Wages & Salaries                     | 3.5%                      | 1.9%   | 2.3%   | 3.4%   | 3.2%    | 3.1%    |
| Nonfarm Proprietors' Income                         | 5.0%                      | 2.3%   | -0.7%  | 1.1%   | 2.1%    | 3.4%    |
| Farm Proprietors' Income                            | -9.3%                     | 43.4%  | -43.4% | -42.0% | -6.8%   | 16.8%   |
| Dividends, Interest, & Rent                         | 5.0%                      | -2.8%  | -5.7%  | 2.9%   | 9.2%    | 9.4%    |
| Dividends                                           | 5.3%                      | -15.4% | -9.6%  | -0.5%  | 7.8%    | 7.5%    |
| Interest                                            | 3.3%                      | 10.1%  | -9.4%  | 6.7%   | 14.0%   | 10.5%   |
| Rent                                                | 7.1%                      | -2.6%  | 4.6%   | 1.4%   | 4.1%    | 9.8%    |
| Personal Current Transfer Receipts                  | 3.5%                      | 8.8%   | 3.7%   | 2.3%   | 3.1%    | 3.4%    |
| Less: Contributions for Social Ins.                 | 3.6%                      | -0.9%  | 0.9%   | 3.0%   | 3.9%    | 4.0%    |
| Adjustment for Residence                            | 4.3%                      | 1.3%   | 1.8%   | 4.5%   | 4.4%    | 4.1%    |