MONTANA'S FINANCIAL VOLATILITY

A Report Prepared for the
Revenue & Transportation Interim Committee

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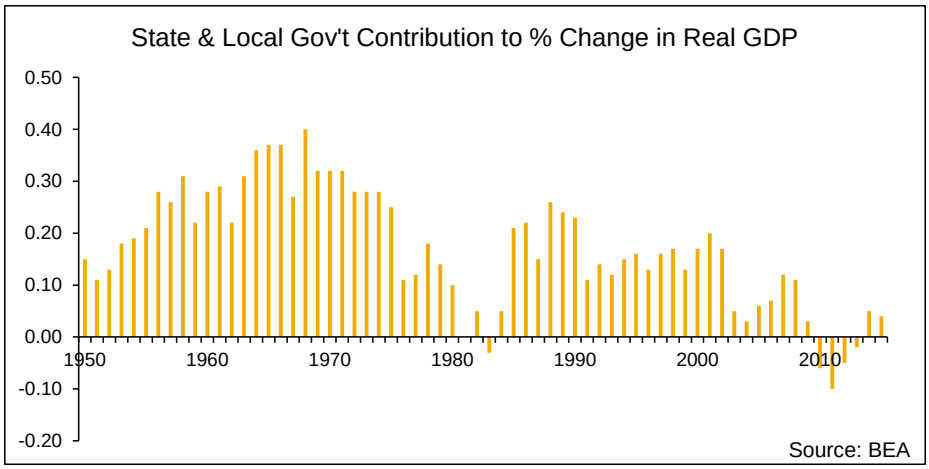
LFD
MONTANA LEGISLATIVE FISCAL DIVISION

INTRODUCTION

The primary focus of managing state financial volatility is maintaining budget stability and funding for programs that matter to people. Citizens rely on services funded by state government, including public schools, medical services to the most vulnerable, road maintenance, and public safety. When a state is in fiscal distress and is confronted with the need to cut spending or increase taxes, subsequent policy choices may impact citizens' personal and financial well-being. Ultimately, managing the volatility of state finances allows for consistent and reliable public services, as well as predictable tax levels, for Montana citizens and businesses.

In addition to providing consistent government services, consistent government spending helps maintain overall economic growth. A recent report by Moody's Analytics demonstrated how state and local government declines in spending held back economic growth after the last recession. The report notes on page 1, "To safely navigate the twists and turns of the business cycle, states and local governments should set aside adequate reserves to avoid having to take extraordinary fiscal actions that may exacerbate an already-declining economy or slow recovery. Past research shows that large extraordinary fiscal actions can harm regional, and national, recoveries, differentiating performance relative to that of neighbors."

The chart below illustrates state and local governments' contribution to change in real GDP since 1950. States and local governments was a net drag on the overall economy following the end of the recession in 2009, and have only recently provided a positive contribution to economic growth.



The first Legislative Fiscal Division (LFD) report on Managing Financial Volatility was published in September 2012. Since then, Montana has implemented two new statutes related to financial volatility management: HB 354 (2013 Session) created a self-sustaining wildland fire fund that reduced the financial stress previously born by the general fund, and HB 588 (2015 Session) increased the threshold by which the executive needed to reduce state general fund expenditures in 17-7-140, MCA, thereby requiring executive reductions when the ending fund balance reached 5% instead of the previous 2% of the second year appropriations or $118 million for the 2017 Biennium. Additional information can be found in Appendix 3.

The report from 2012 focused on just two of the ten top financial management characteristics from Standard and Poor's analysis. This report takes the next step by reviewing all ten and describing Montana's approach.

EXECUTIVE SUMMARY

State tax revenue has become more volatile for many states since 2000 when compared to the previous twenty years (see page 34 of Smoothing State Tax Revenues over the Business Cycle: Gauging Fiscal Needs and Opportunities by Yolanda K. Kodrzycki). Most of the increased volatility is due to increasing capital gains income which fluctuates with changes in the stock market and timing of tax payments, as well as higher reliance on individual income tax. In addition, Montana's general fund revenue is more closely tied to the natural resources sector than other states, and has a relatively small population.

In addition, research by public policy organizations and academics have provided new information regarding states' revenue volatility and potential fiscal management practices. Finally, other states have taken a new look at managing volatility and offered their insights in improving financial management.

This report lays out potential reasons for Montana's revenue volatility and provides various comparisons to volatility in other states. It summarizes the best policies and practices of state government finances according to Standard and Poor's and comments on Montana's current approach to each issue. The report wraps up with options for next steps if the legislature wishes to consider a more in depth study of managing state general fund volatility, including

- Stress test the budget to find the amount of general fund gap that would result in a mild or moderate recession
- Consider further legislative investigation—potentially through a session or interim committee, or by passing a joint resolution to evaluate which financial management strategies, if any, would be appropriate for Montana

MEASURES OF VOLATILITY

Various measures of revenue volatility have been studied by academic, government and policy organizations to describe the relative volatility and what that means for policy makers. In all cases, Montana is described as having more volatile revenue streams than other states. In some measures Montana is in the top five most volatile and under other definitions, Montana falls into the top twenty most volatile revenue streams. Each study has somewhat different measures and different results.

Montana's General Fund Revenue is Relatively Volatile

Smoothing State Tax Revenues over the Business Cycle: Gauging Fiscal Needs and Opportunities by Yolanda Kodrzycki of the Boston Federal Reserve Bank, summarizes changing tax revenue elasticity or responsiveness relative to inflation-adjusted per capita personal income over time by state. Key findings include:

- The greater cyclical volatility of tax receipts in the 2000s can be traced to the fluctuations in personal income tax receipts (page 6)
- The 50-state average elasticity increased from 0.83 in 1980-1999 to 1.76 in 2000-2012 (page 34)
- Montana's total tax revenue has the third highest elasticity, after Alaska and Oregon (page 34)
- On average, personal income tax revenue has become more elastic over time, with Montana's elasticity higher than average but in line with other mining intensive states (page 35)

Measures of MT Volatility Understated

In all state comparisons reviewed by the LFD, it was noted that the data used does not capture the revenue declines in the early 2000's due to the revenue allocation changes in Montana law with HB 124 (2001 Session). Due to this data problem, it is likely that the volatility for Montana is understated in all 50-state comparison studies. The studies still have merit, but must be considered in light of this known data problem.

HB 124 shifted significant tax revenues from local governments to the state general fund and then redistributed these funds through a mechanism called entitlement share. The timing of HB 124 is important as it occurred at the same time as the revenue downturn in FY 2002.

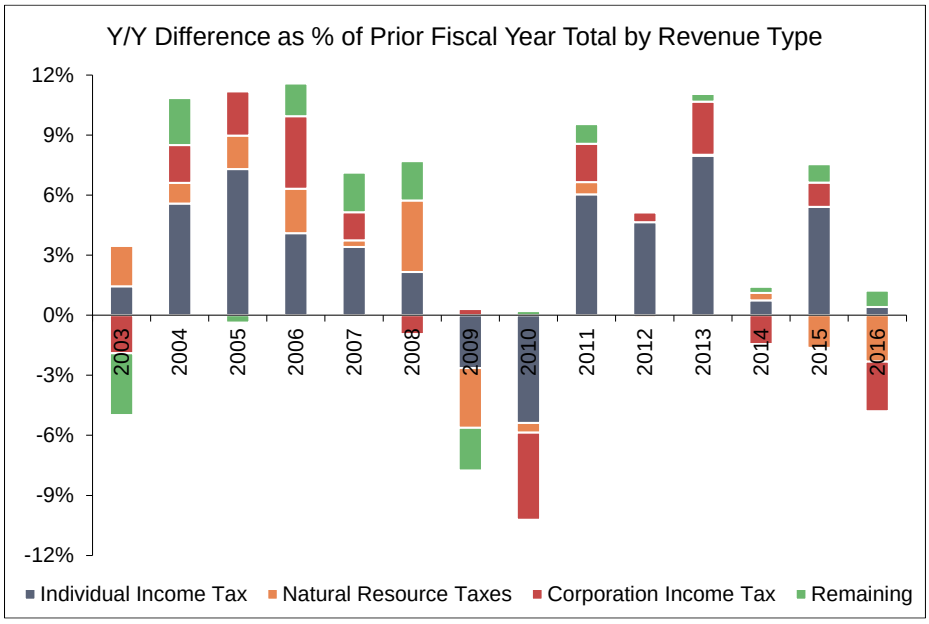
In the case of Analysis by Pew Trusts, LFD staff was able obtained the data used by Pew and adjusted it for HB 124. The revised analysis moved Montana's volatility ranking from 25th in the nation to 16th in the nation.

Managing Volatile Tax Collections in State Revenue Forecasts, a report by Pew Charitable Trusts and the Rockefeller Institute of Government, identifies some of the challenges facing state revenue forecasters:

- Increasing revenue volatility, with corporate income taxes and capital gains income being particularly difficult to forecast
- Changing consumption patterns that have impacted sales tax collections
- States with small populations or only a few dominant industries
- Timing of the forecast, with errors increasing with the amount of time between the estimate and the start of the forecast period
- Changes in federal or state tax laws

In addition, Montana revenue is increasingly reliant on individual income tax, lacks a comparatively stable broad-based sales tax, has an economy with relatively high reliance on the natural resources sector, and budgets with biennial forecasts.

The chart at the top of the next page shows the year-over-year difference by the three largest contributing sources to volatility, as a percentage of the previous fiscal year's total general fund revenue. Although individual income as the largest source of revenue typically also produced the largest year-over-year change in revenue, corporation income tax and natural resource taxes are significant contributors.



Expenditure Volatility

In the 2012 edition of Managing Financial Volatility, the expenditure volatility was primarily due to emergency natural disaster costs, specifically wildland fires. The 2013 Legislature passed a bill that provided immediate and ongoing revenue streams to fund wildland fires. The LFD estimates that in the long run, most fire costs should be able to be funded from the mechanism established. By establishing this method of funding fires, the anticipated expenditure volatility is relatively low, or less than 1% per biennia.

Fire Suppression Fund Update September 2016
($ Millions)

	FY 2015	FY 2016	FY 2017
Beginning Fund Balance	$42.296	$36.219	$73.719
Revenue			
Corporation Tax Transfer*	-	15.229	-
General Fund Reversion Transfer	3.653	21.596	11.422
Governor's Emergency Fund Transfer	-	13.484	-
Other Income	0.148	0.273	0.019
Total Revenue	3.801	50.583	11.441
Disbursements			
Personal Services	1.884	4.056	-
Operating Expenses	2.564	8.622	(0.079)
Equipment	0.340	0.292	0.030
Grants	2.951	0.113	-
Total Disbursements	7.739	13.083	(0.049)
Adjustments	(2.138)		
Ending Fund Balance (Unaudited)	$36.219	$73.719	$85.210

*Corporation tax transfer ends after FY 2016

INDUSTRY STANDARDS & MONTANA APPROACHES

Standard and Poor's (S&P) is one of three agencies that rate the credits in U.S. public finance. An article from S&P dated August 2012, outlines the top ten management characteristics of the highly rated credits in U.S. public finance. Highly rated credits are those that S&P considers to be the best managed from a financial perspective. The ten management characteristics are summarized below, along with the current Montana methodology for addressing each issue.

1. Focus on structural balance: "From Standard & Poor's standpoint, a budget is balanced if recurring revenues match recurring expenditures." S&P goes on to explain that they consider if the estimates for the revenues and expenditures in the budget are realistic in this analysis.

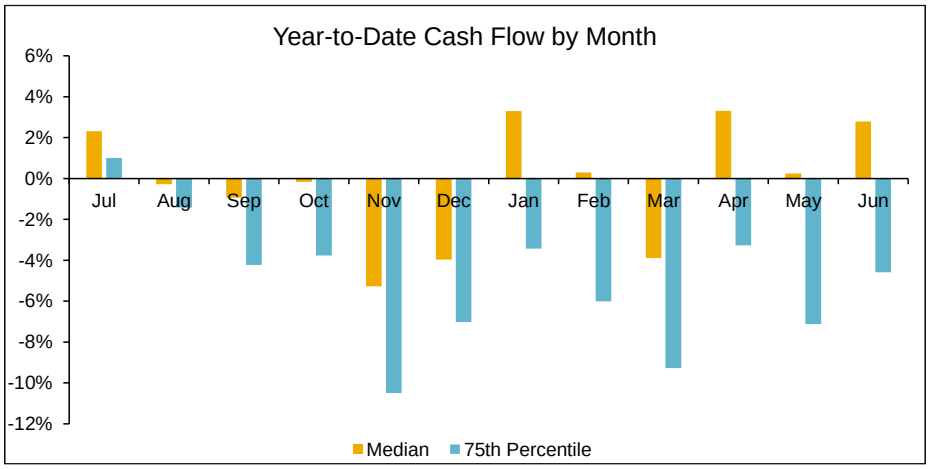
   - ✓ Montana has used structural balance for many years to aid in managing the budget. The table below highlights how Montana tracks structural balance during session; for an example of a session status sheet, see 2015 Sessions Status Sheet #11.

Legislative Fiscal Division General Fund Balance Sheet ($ Millions)				
6/15/15 12:44 PM	FY 2014	FY 2015	FY 2016	FY 2017
…				
Ending Fund Balance (unaudited and unassigned)	$424.451	$364.934	$319.061	$314.345
Total Ongoing Revenues	2,077.044	2,151.743	2,263.055	2,355.356
Total Ongoing Expenditures	2,034.400	2,158.751	2,239.116	2,301.708
Structural Balance (ongoing revenues-ongoing expenditures)	$42.644	($7.008)	$23.939	$53.648
Adjust Structural Balance for ongong liabilities funded with one-time funding Assumption for Public Defender and Dept. of Livestock ongoing			33.330	33.285
Adjusted Structural Balance			($9.391)	$20.362

2. Strong liquidity management: "An additional credit quality factor is management's ability to manage its cash flow and identify potential issues, internal or external, that could lead to a liquidity crunch."

   - ✓ Montana has had a strong cash position without need for cash flow operating loans known as TRANS (Tax Revenue Anticipation Notes) since 2003.

     Due to spending and revenue patterns over the course of the fiscal year, Montana has the greatest need for cash flow in November and March. The following chart illustrates cumulative monthly change in cash balance from FY 2002 through FY 2016 by month as recorded in the state accounting system (SABHRS). The yellow bars represent median year-to-date values and blue represents the 75th percentile. The 75th percentile means that cash is greater than this value 3 out of every 4 years. November has 5.3% median reduction, and a 75th percentile reduction of 10.5%. In other words the median cash balance in November is 5.3% less than the cash balance at the beginning of the fiscal year. Also, in 3 out of 4 years, the cash balance would not be more than 10.5% less than the cash at the beginning of the fiscal year.



3. Regular economic and revenue updates to identify shortfalls early: "In our experience, having a formal mechanism to monitor economic trends and revenue performance at regular intervals is a key feature of stable financial performance. This is particularly true in the case of states, which we have observed tend to exhibit revenue declines during economic downturns because they rely on personal income tax, sales tax, corporate income tax, and other economically sensitive sources."

   - ✓ The LFD does monthly revenue updates that compare year-to-date revenue collections to estimates beginning with the end of the 6th month of the fiscal year and distributes to all financially focused legislators. In addition, the LFD produces a detailed quarterly revenue and expenditure monitoring report for the Legislative Finance Committee and Revenue and Transportation Interim Committee.
   - ✓ The LFD reports significant anomalies and informs legislators.

4. An established rainy day/budget stabilization reserve: "A formalized financial reserve policy is a consistent feature of most of Standard & Poor's highly rated credits. For some governments, such a policy has been standard operating procedure for decades. … No one level or type of reserve is considered optimal from Standard & Poor's perspective. We have seen many different types of reserves factor into an improved government credit profile. In our view, some important factors government officials generally consider when establishing a reserve are:
   a. The government's cash flow/operating requirements;
   b. The historical volatility of revenues and expenditures through economic cycles;
   c. Susceptibility to natural disaster events;
   d. Whether the fund will be a legal requirement or an informal policy;
   e. Whether formal policies are established outlining under what circumstances reserves can be drawn down; and
   f. Whether there will be a mechanism to rebuild reserves once they are used."

   - ✓ HB 354 (2013 Session) added a permanent funding stream to the wildland fire suppression fund. Historical comparisons of wildland fire expenditures and the revenue streams now allocated to the fund suggest that the fund will be adequate for future expenditures, which reduces future general fund expenditure volatility. For natural disaster expenditure volatility, this fund follows the recommended policy above.

   - ✗ Montana has no rainy day fund or budget stabilization reserve for revenue volatility. For the past decade, Montana has relied on significant ending fund balances to manage volatility. There are no policies for when the funds can be spent nor how the reserves

will be rebuilt once they are used. The recent reliance on the ending fund balance was covered by Lee Newspapers in a June 2016 article.

5. Prioritized spending plans and established contingency plans for operating budgets: "We have found that contingency planning is an ongoing exercise for most highly rated governments. … In our analysis, we consider whether a government has contingency plans and options to address changing economic conditions, intergovernmental fund shifts, and budget imbalance when it occurs. This would include an analysis of the following:
    a. What part of the budget is discretionary;
    b. What spending areas can be legally or practically reduced;
    c. The time frame necessary to achieve reductions of various programs;
    d. Where revenue flexibility exists; and
    e. An analysis of revenue under varying economic and policy scenarios."

    - Montana law (17-7-140, MCA) is the primary manner in which it addresses contingency planning. This statute guides the Governor on which items of the budget can be reduced and the maximum amount that they can be reduced. There is no formal analysis undertaken on a regular basis to evaluate contingencies and little statutory framework.

6. Strong long-term and contingent liability management: "In our view, recognition and management of long-term and contingent liabilities are characteristics of highly rated credits. We continue to incorporate governmental liability management into our rating analysis, as we have for decades, with an emphasis on how liabilities are managed over time. In particular, Standard & Poor's views pension and other postemployment benefit obligations as long-term liabilities. While the funding schedule for pension and OPEB can be more flexible than that for a fixed-debt repayment, it can also be more volatile and may cause fiscal stress if not managed, in our opinion."

    - Montana has not always made the actuarial recommended contribution to pensions and has significant liabilities for pensions. Due to legislation passed in the 2013 session, Montana's major pension obligations met the actuarially recommended level of funding in FY 2014 and FY 2015. The markets have not been favorable in the past two years and the resulting impact on the pensions' funding will be available when the FY 2016 actuarial analysis is completed this fall.
    - Montana has a relatively small OPEB liability and generally has the ability to manage these costs.
    - New pension modeling techniques by the rating agencies, Governmental Accounting Standards Board (GASB), and others have given policymakers more tools to evaluate pension liabilities.
    - LFD now has internal pension liability modeling capacity to help the legislature manage pension liabilities.

7. A multiyear financial plan in place that considers the affordability of actions or plans before they are part of the annual budget: "In our analysis, we consider whether this plan is comprehensive. … Standard & Poor's realizes that the out-years of a multiyear plan are subject to significant change. They provide a model to evaluate how various budget initiatives affect out-year revenues, spending, and reserve levels. These plans will often have out-year gaps projected, which we believe allows governments to work out, in advance, the optimal method of restoring fiscal balance."

    - While Montana's policies processes are not as long-term and comprehensive as those contemplated by S&P, a significant effort is maintained to insure long-term financial soundness.

- ✓ Montana has a biennial budget, which requires planning for two years ahead. Beginning with the 2007 legislative session, fiscal notes show revenue and expenditure impacts for four years ahead and may also speak to longer term costs.
- ✓ Structural balance is a specific consideration and is consistently reported to the legislature on the session status sheets and many other documents. Session status sheets illustrate the long term viability of the decisions of the legislature throughout the legislative process. Structural balance of the second year establishes the ongoing level of spending in the following biennia and aids in maintaining a long term financial plan that considers the affordability of actions taken during session.

8. A formal debt management policy in place to evaluate future debt profile: "In the past decade, many states and local governments have developed debt affordability guidelines or models, which we regard as a positive development. This affordability analysis generally includes a systematic review of existing and proposed debt, and how they will affect a government's future financial profile."

   - ✗ Montana has no formal debt management policy, but has low debt ratios.

9. A pay-as-you-go financing strategy as part of the operating and capital budget: "In our opinion, pay-as-you-go financing can be a sound financing policy. Not only does it lower debt service costs, but it also provides operating budget flexibility when the economy or revenue growth slows."

   - ✗ Montana has no policy to pay-as-you-go nor an ongoing capital investment plan. However, Montana has invested in buildings and infrastructure on a cash basis during much of the last decade.

10. A well-defined and coordinated economic development strategy: "In addition to historical economic trends, we consider each government's economic development initiatives and future growth prospects as they are likely to affect future revenue-generating capacity."

    - Economic development is supported at the state level by the Governor's Office of Economic Development, the Office of Tourism and Business Development at the Department of Commerce, and other state agencies. Local area economic development organizations are primarily supported through the Department of Commerce.

SUMMARY OF POLICIES

Montana does address several of the policy goals outlined by S&P. Credit ratings are a reflection of the volatility and financial management of the state. Montana is rated as follows: Moody's Aa1, S&P AA, and Fitch AA+. There are other states that go further to address these policy goals and have higher credit ratings than Montana. Some similar states such as South Dakota, Wyoming, and Iowa have higher credit ratings, but do not issue debt. Utah seemed the most similar to Montana due to its geographic location and it does issue debt. Utah's policies are described in Appendix 2.

STRESS TESTING

Implied in the S&P recommendations is that a state would have a plan for the next slowdown in revenues or recession. Recent academic and state studies have stress tested state budgets in order to enable development such a plan. Such plans need to encompass several years as recessions do not impact the revenue collections of just one year, but typically several years until revenue fully recovers.

Erick Elder, an economist at the University of Arkansas at Little Rock, has studied the revenues and expenditures of all 50 states and calculated under various spending assumptions the amount of flexibility each state would need to weather the next recession. Moody's Analytics and the state of Utah used a different approach, and evaluated savings needs under various economic forecasts. Both of these approaches are described below.

Saving Needs Based on Historical Patterns

Weathering the Next Recession: How Prepared Are the 50 States?, a recent paper by Erick Elder from the Mercatus Research Center at the University of Arkansas, provides a statistical distribution of potential budget shortfalls by state and compares the results with states' current level of savings. Findings for Montana based on the historical data from the U.S Census Bureau and National Association of State Budget Officers (NASBO) used for the report include the following:

- Montana has a shorter business cycle of 70 month or 5.8 years than the 7-year national average
    - Montana's expected expansion is 56 months and expected contraction is 14 months
    - The national average expected expansion is 67 months and expected contraction is 18 months
- The savings Montana would need to weather three out of four recessions without spending reductions or tax increases ranges from 21% to 39% of pre-contraction annual revenue, depending on whether recessionary spending has zero or average growth
- Based on the FY 2014 general fund ending fund balance of $425 million, Montana would have been able to weather 63% to 72% of potential economic contractions depending on spending assumptions

Applying Elder's revenue savings recommendations to the 2017 biennium leads to a total savings range of $460 million to $860 million depending on expenditure growth assumptions.

The advantage to this form of stress testing is that the revenue component is largely done. The legislature could choose which assumptions it wished to use and evaluate the future budgets relative to that level of reserves or other tools. The disadvantage to this approach is that it does not consider a state's current point in the business cycle or the current economics of the state. An alternative approach could be a forward-looking analysis.

Saving Needs Based on Alternative Economic Forecasts

Stress testing state reserves by Moody's Analytics describes the concept of stress testing a state's budget. At a recent NCSL budget presentation, Utah described how it applied the economic forecast version of stress testing to its budget. In short, the approach considers a baseline forecast as a baseline budget, but looks forward several years under three scenarios: baseline, adverse and severe. The results lead to an ability to measure how a state's financial condition and budget tools compare to any potential recession over several years.

NEXT STEPS

The legislature could undertake various strategies to evaluate and continue to improve its fiscal management of the state general fund. Two potential choices are:

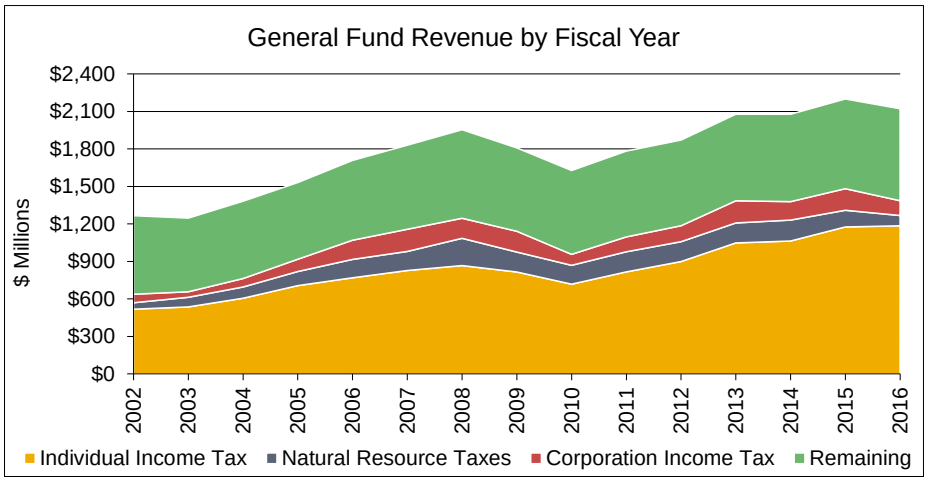
- Stress test Montana's general fund management by evaluating Montana's budgeting tools relative to the historical measures provided by the Elder studies or using the Utah/Moody's forecast approach.
- Initiate a comprehensive study of managing the state general fund. This study could include all of the S&P top management characteristics and use stress testing as a method of measuring success in developing budget policy and tools. The legislature may wish to assign a committee during session or the interim to evaluate the options. The legislature could adopt a joint resolution or a bill that described the goals of the study.

APPENDIX 1

PRIMARY SOURCES OF REVENUE VOLATILITY

Individual Income Tax

Individual income tax has been a growing share of total general fund revenue since FY 2002, as illustrated in the chart below. In FY 2002, it accounted for 40.9% of general fund revenue; by FY 2016, it grew to account for 55.9%.

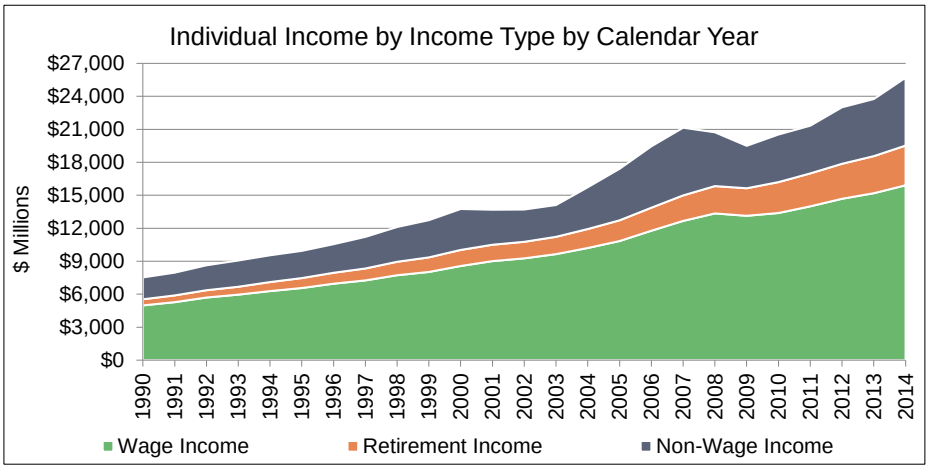


In fact, while all other sources combined grew an average of 1.6% annually from FY 2002 to FY 2016—nearly the same as the average annual inflation growth of 2.1% over the same period—individual income tax grew at an average annual rate of 6.1%. Although individual income tax is less volatile than corporation income tax or natural resource taxes, the increasing reliance on a single source of revenue may result in more exposure to forecasting error, as well as business cycle fluctuations.

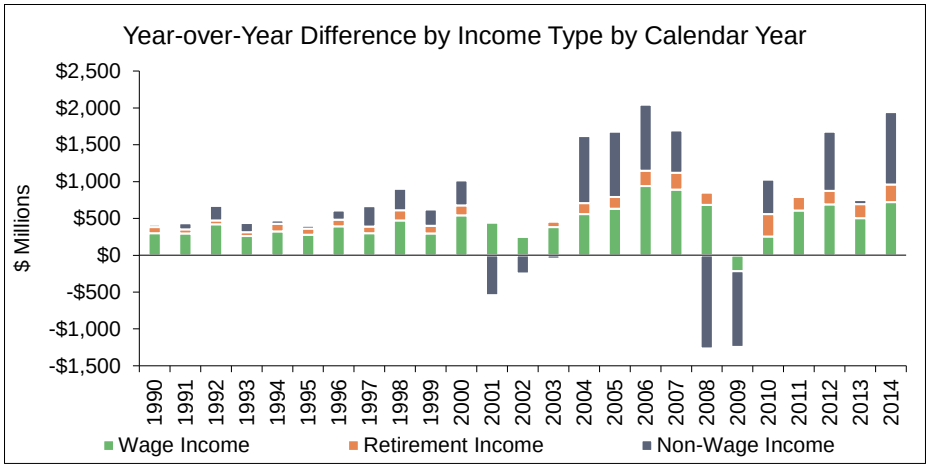
Volatility from the Perspective of Calendar Year Income

Although the composition of individual income as measured by wage and non-wage income sources has remained fairly consistent, non-wage income appears to have become increasingly sensitive to business cycle fluctuations as well as taxpayer behavior.

Total individual income grew from $7,530 million in 1990 to $25,698 million in 2014. Wage income remained the largest share, changing from 66% of the total in 1990 to 62% in 2014. Non-wage income accounted for 26% of total income in 1990, and 24% in 2014. The biggest change in proportional share was due to retirement income, which grew from 7% in 1990 to 14% in 2014.



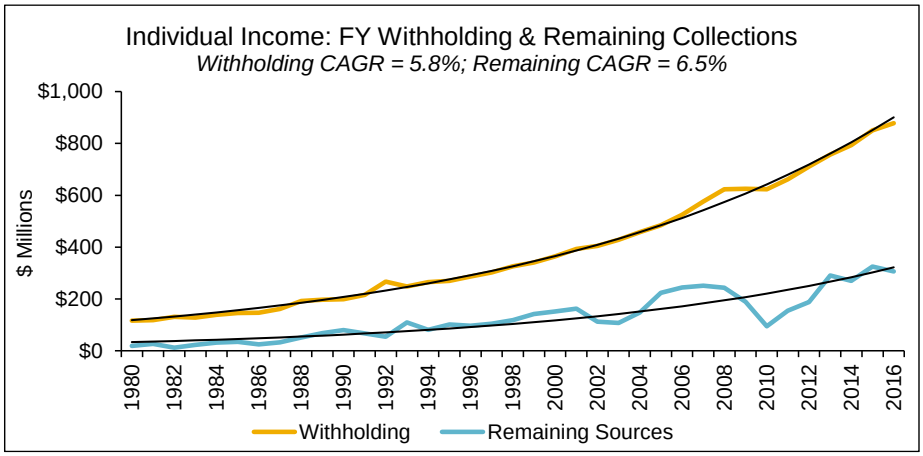
The chart below shows the year-over-year amount difference by the three income types. Wage income nearly always grows over the prior year; when it declined in 2009, the amount of decline was relatively small. Non-wage income appears to be more sensitive to economic downturns—as in 2001-2002 and 2008-2009—as well as taxpayer behavior, with the large swings in 2012-2014 in part due to the pending increase in federal capital gains tax rates at the beginning of 2013.



Volatility from the Perspective of Fiscal Year Collections

The relative volatility of the components of individual income can also be explored through the fiscal year collections by type. Individual income tax withholding is typically associated with wage and retirement income, while remaining sources—including quarterly estimated tax payments and final tax payments in April—generally reflect non-wage income.

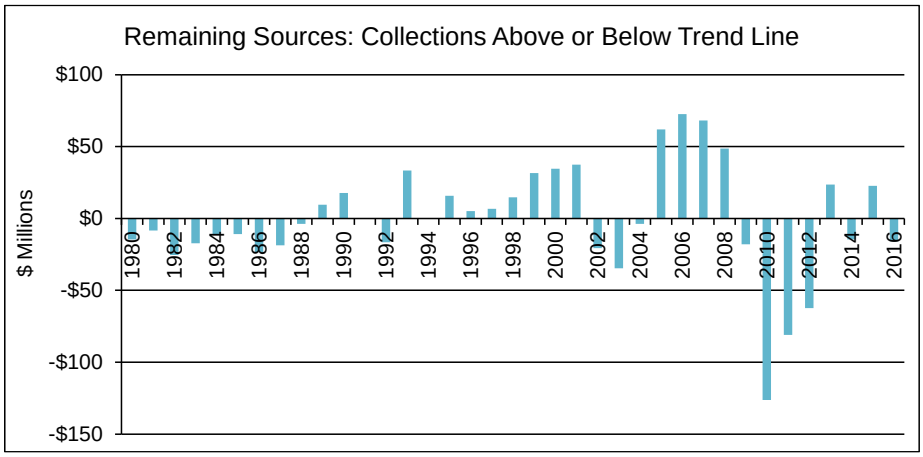
The adjacent chart shows withholding and remaining sources of income, along with compound annual growth rate (CAGR) trend lines for each. Withholding has a strong correlation with a CAGR trend line based on 5.8% growth. While the remaining sources have a higher CAGR of 6.5%, the associated volatility is also higher, and has increased since FY 2000.



Revenue Capping Options

The 2012 report presented several options for capping volatile revenue streams. Capital gains—a component of individual income—is a key source of overall individual income volatility. However, it would be difficult to isolate the tax due to calendar year capital gains income and even more problematic to attribute an accurate share of the quarterly estimated and current year tax payments during the fiscal year to capital gains income.

An alternative option is to cap the net of all fiscal year payments and refunds, excluding withholding (see the “Remaining Sources” blue line in the chart above). The difference between “Remaining Sources” and its associated CAGR trend line is illustrated below. If “Remaining Sources” of revenue had been capped based on a CAGR trend line of 6.5%, the captured revenue since FY 2000 would have been nearly adequate to compensate the times when “Remaining Sources” were below trend line.

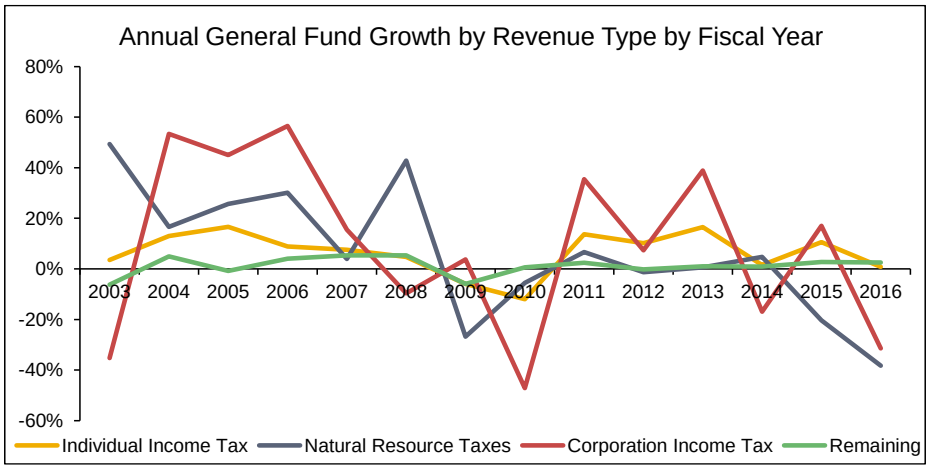


There is risk associated with capping the "Remaining Sources" of revenue based on a specific CAGR. The correlation of the "Remaining Sources" line with the CAGR trend line is not strong, especially in recent years. If there is a significant change in the underlying taxpayers' income distribution by income type, the CAGR trend line may not apply to future years.

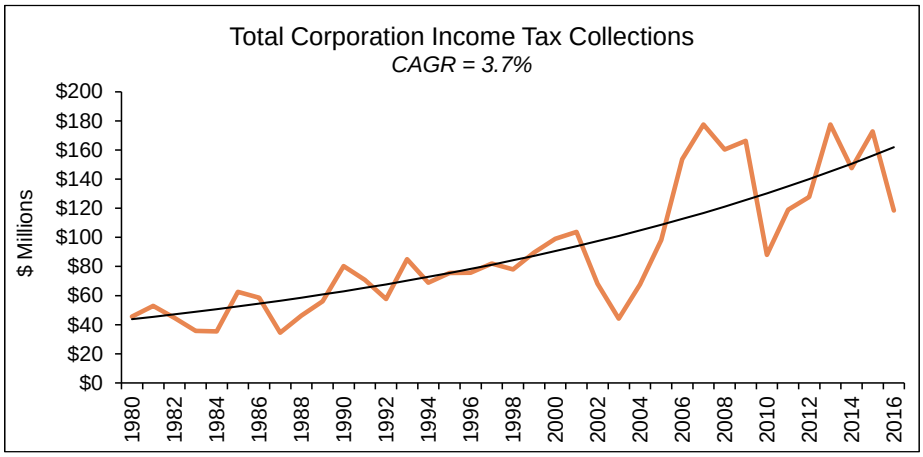
Further analysis could explore more options such as capping estimated and current year payments only and not considering refunds; only capping estimated payments; or only capping current year payments.

Corporation Income Tax

Although corporation income tax is a smaller source of total general fund revenue than individual income—varying between 4% and 10% since FY 2002—it has the largest swings in growth, as shown with the red line in the chart below. The three-year carryback provision that allows taxpayers to apply current year losses to three prior years of returns and obtain refunds of taxes paid in those years amplifies the decline in economic downturns.



The chart at the top of the next page shows that like individual income tax collections, corporation income tax collections have become more volatile since FY 2000. The orange line depicts actual collections since FY 1980 and the black line shows the CAGR trend line.



Revenue Capping Options

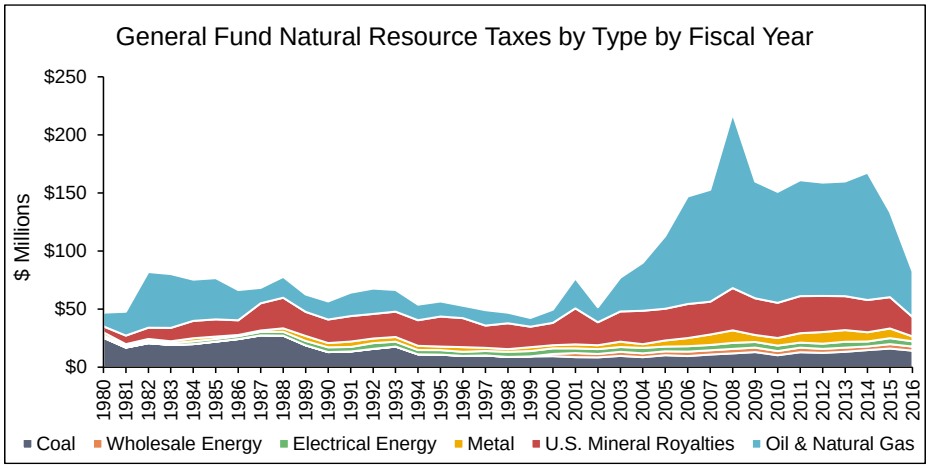
If corporation income tax had been capped based on a CAGR trend line of 3.9%, the captured revenue since FY 2000 would have nearly compensated for the times when collections were below trend line.

The caveat—as with individual income tax—to capping corporation income tax based on a specific CAGR is that if there are long-term changes in taxpayers' income or filing strategies, the CAGR trend line may not apply to future years.

Other options include capping at an average over a typical business cycle, such as seven years; capping at some portion of an average of the previous several years revenue; or limiting to a specific dollar amount and adjust for inflation.

Natural Resource Taxes

Natural resource taxes have been fairly stable in recent years, after growing steadily to about $150 million in general fund revenue by FY 2006. FY 2008 had unusually high revenues that were driven by strong natural gas prices. FY 2016 collections were lower than any time since FY 2003 primarily due low oil prices.



Revenue Capping Options

Given the lack of obvious growth trend, capping combined natural revenue at a specific dollar amount is one option to reduce the possibility of budgeting based on unsustainably high revenue. Oil and gas revenues are shared between the state general fund, several state special funds, and local entities; therefore, any changes in policy would need to consider potential impacts to local governments.

APPENDIX 2

IN PRACTICE: FINANCIAL MANAGEMENT HIGHLIGHTS FROM UTAH

The characteristics identified by S&P provide a framework for managing financial volatility; however, there are a range of options that various states use. Utah's approaches for volatility management includes various tools as needed on a continuum, beginning with the simplest and moving up to more complex policies.

Monitor

Consistent with S&P characteristic #3 and similar to Montana's financial monitoring, the Utah Fiscal Division reports to the Legislature on the fiscal status of the state. Utah has gone further and has a fiscal health dashboard on their website.

Structural Balance

Consistent with S&P characteristic #1 and similar to Montana's structural balance practices, the Utah Fiscal Division carefully tracks structural balance of appropriations. Utah also includes in their structural balance an accounting for full cost of implementation for new infrastructure or programs.

Utah's Cash Flow Management Similar to Montana's Ending Fund Balance

Consistent with S&P characteristic #4a and similar to Montana's ending fund balance monitoring, the Utah Fiscal Division tracks and monitors ending fund balance. While Utah does not anticipate that the ending fund balance will absorb the impacts of a recession, it is used to offset a normal range of revenue estimate error.

Legislative Spending Priorities

Consistent with S&P characteristic #5, Utah's Legislature prioritizes projects so that some can be delayed and that lower impact programs can be eliminated. Montana's Legislature has not done much of this type of prioritizing. In recent biennia, the Montana Legislature has set and contemplated mechanisms that allow for additional spending, but not as much for less spending.

Utah's "Working Rainy Day Funds"

Consistent with S&P characteristic #9, Utah's Legislature has a mechanism to pay for infrastructure with cash. Utah has a continuous investment policy in infrastructure which was described in the LFD June 2016 report State Infrastructure Budgeting and Funding. When revenues are normal, Utah uses cash to pay for the long term infrastructure plan. When revenues are weak, Utah continues its infrastructure plan with bonds and uses cash to support state operating budgets, and when revenues are strong, Utah uses the additional cash to pay down debt.

Operating Reserves

S&P does not mention other funding sources, but Montana and Utah have similar practices in using state special account reserves. After the preceding steps are used to balance the budget, Utah will sweep ending fund balances in restricted (state special) fund balances and continuing appropriation authority.

Revenue Enhancement

Utah uses selective revenue enhancement strategies prior to using their rainy day funds, starting with items that have relatively inelastic demand such as tobacco and motor vehicle registration.

Formal Budget Reserves

Consistent with S&P characteristics #4b-f, Utah has formal budget reserves with policies on when and how these reserves are spent an how they are replenished. Policy does not allow all of the funds to be spent at once and are the last source used for balancing the budget.

Stress Testing the Budget

The Utah Fiscal Division has recently started stress testing their budget by analyzing revenue and expenditures two scenarios of economic slowdown in addition to the base case scenario. The results are used to determine desired spending and reserve levels. This type of analysis is implied in S&P characteristic #4.

Further details on Utah's approach are available in a report from Pew Trusts: In Utah, Evidence-based Policies for Rainy Day Funds.

APPENDIX 3

HIGHLIGHTS OF 2012 REPORT

The 2012 report considered options for managing the volatility of Montana's revenues and expenditures. It specifically considered the volatility of the general fund revenues, volatility of specific revenue streams, best financial management practices within government entities, and the polices that might assist in managing volatility.

The report concluded that between 6.7% and 10.1% of biennial expenditures would satisfy various definitions and needs for reserve:

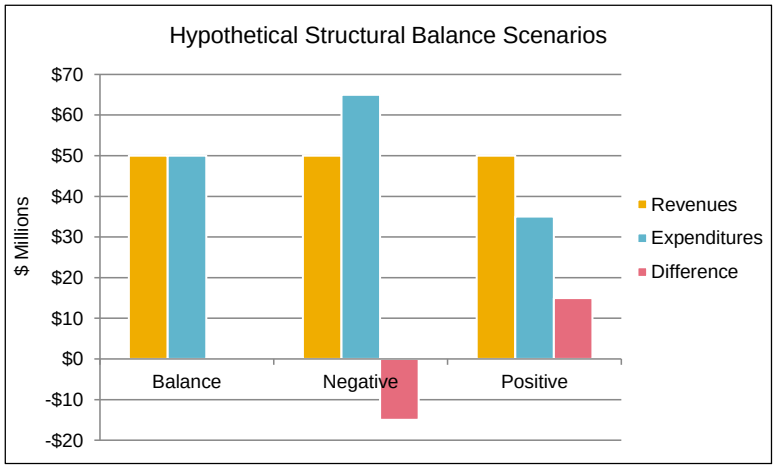
- Maximum revenue volatility was 6.7% of biennial expenditures
- Maximum expenditure volatility was 2.4% of biennial expenditures
- Statutory minimum was 1% of biennial expenditures
- The reserves for liquidity or cash flow vary between 4 and 8% and would be concurrent with other needs

The report also offered several options for capping expenditures or reliance on certain revenue streams such as corporation taxes or oil and gas revenues.

VOLATILITY MANAGEMENT TOOLS IN EFFECT IN 2012

Structural Balance

Structural balance is defined as the difference between ongoing revenues and ongoing expenditures during a fiscal year. Per the chart to the right, consider structural balance in three different scenarios.



- Balance: Structural balance exists when ongoing revenues and ongoing expenditures are equal

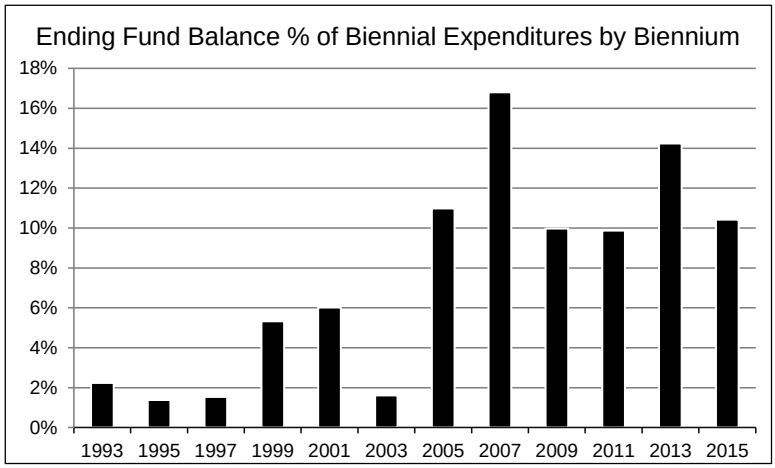
- Negative: A negative structural balance exists when revenues fall short of ongoing expenditures. When this occurs, the ending fund balance could be utilized to supplement revenues to meet the expenditure demands. The shortfall can come from revenue volatility, costs of natural disasters, or other unanticipated costs.

- Positive: A positive structural balance exists when ongoing revenues exceed ongoing expenditures. When this occurs, the ending fund balance is increased by the difference. The increase can come from higher-than-anticipated revenue or reduced expenditures.

Ending Fund Balance/Liquidity/Cash Flow Management

The general fund ending fund balance is effectively the "checking account balance" of the state. Most other states use a "Rainy Day Fund" to manage volatility. In recent years, Montana has used the general fund ending fund balance for managing volatility like other states use a "Rainy Day Fund."

The adjacent chart shows historical ending fund balances by biennium, which have varied from 1.4% to 16.8% of biennial expenditures.



Fire Fund

The special session of September 2007 created the fire suppression fund by using a $40.0 million transfer of general fund. By the 2013 biennium, these funds had been spent. At the time of the 2012 report, there was not an automatic mechanism to replenish the fire suppression fund.

Statutory Spending Reductions

Statute provided the Governor the ability to reduce executive branch expenditures if the anticipated general fund ending fund balance fell below 2% of expenditures in the second year of the biennium. Reduced expenditures resulted in increased reversions to the general fund and an increased general fund balance.

RECENT CHANGES IN MONTANA

Since the publication of the 2012 report, several changes have occurred in either law or practice that would impact the recommendations of the 2012 report.

Wildfire Suppression Account

HB 354 (2013 Session) added a permanent funding stream to the wildland fire suppression fund. The FYE 2016 fund balance of $73.7 million and an additional $11.4 million transfer in FY 2017 is approaching the fund's $100 million cap. Historical comparisons of wildland fire expenditures and the revenue streams now allocated to the fund suggest that the fund will be adequate for future expenditures.

From a financial management perspective, the wildland fire suppression fund reduced the financial pressure on the general fund. In the previous report, nearly 62% of the biennial expenditure volatility was the due to fire costs.

Increased Ending Fund Balance Requirement

In the 2012 report, statute required a budgeted ending fund balance of 2% of the second year

Potential Conflict in Intent of Changes in Law

In reviewing the changes to the managing volatility law since 2012, it became apparent that if the Governor were to use this statue to reduce expenditures then, without legislative action, the greatest share of the reversions created would likely be transferred to the fire fund. Reversions greater than 0.5% of general fund appropriations are transferred in the following fiscal year to the fire fund. Note that statute allows the Administration to not transfer these funds to the fire fund if the Administration believes that the transfers would cause the ending fund balance to meet the threshold outlined in MCA 17-7-140.

This may only be a concern in the first year of the biennium since the transfer in the second year of the biennium will not occur until after the biennium has closed.

expenditures. HB 588 (2015 Session) changed statute (17-7-140, MCA) to increase the level of ending fund balance required, for mandating spending reductions from 2% to 5% of general fund appropriations for the second fiscal year of the biennium. For FY 2017, the calculated ending fund balance requirement is $118 million.

If the Governor anticipates an ending fund balance below $118 million, 17-7-140, MCA requires that expenditures be reduced to bring the ending fund balance up to a level of 3.5% of biennial expenditures or $153 million.

Revenue Forecasting Changes

The volatility of past budgets are contingent on the corresponding revenue estimating error and associated estimating techniques. Changes have been made to the techniques for revenue estimating, so past experience may not appropriately measure current risk.

Corporation tax estimating changes

Based on LFD research findings (see Corporation Income Tax Estimating: Using Confidence Intervals to Minimize Forecasting Error) that the corporation income tax model underestimated revenues by an average of 8% to 9%, the model was adjusted to offset the statistical underestimate. As a result, corporation income tax is now equally likely to be overestimated as it is to be underestimated, which could shift the historical revenue risk.

Individual income tax changes

Individual income tax is currently being evaluated for improvement, based on legislative interest and LFD internal analysis; see A Study on Improving Montana's Personal Income Tax Revenue Projections. Initial findings suggest that a bias in historical collections data produces a median underestimate of 5% in future revenues. Research on the implications of the historical data bias and statistical findings of relative IHS forecasting accuracy is in progress, with current plans to incorporate the analytical conclusions into the November 2016 revenue estimate.

Note that overall improvements in the forecasting methodology for individual and corporation income taxes may increase the risk of overestimating revenues, as it decreases the risk of underestimating revenues. The forecast risk described in the 2012 report would be higher if revenue estimate were on average more accurate.