Stress Testing the Utah State Budget

Executive Appropriations Committee
December 13, 2016
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Why?

1. Manage the business cycle
2. Set sustainable expectations and meet them
3. Avoid crisis-driven policy decisions
How? Revenues

New on the Revenue Side

• Used “what if” economic scenarios purchased from Moody’s Analytics
  – Fed DFAST Adverse
  – Fed DFAST Severely Adverse
  – Stagflation
• Expanded from two to five year timeframe
• Assumes baseline grows for 12 months after recession begins, then flattens as governments begin to respond
Revenue-side Risk ($b)

- Baseline
- Adverse
- Severe
- Stagflation

Dow Jones Index, Baseline Scenario
Dow Jones Index, Stagflation Scenario
Dow Jones Index, Adverse Scenario
Dow Jones Index, Severely Adverse Scenario
How? Expenditures

New on the Spending Side

- Same new scenarios and timeframe as revenue side
- Modeled enrollment driven programs (Medicaid, higher ed, public ed), but added employee retirement costs
Spending-side Risk ($b)

Total Value at Risk

($b over 5 yrs)
It takes a tool kit.

New on Buffers

- Removed the Permanent School Fund as a potential buffer
- Counted ongoing sources for every year in which they are available, adjusted for debt repayment in early years
- Considered cuts and tax increases
Inventory of Buffers

• **Easily Accessible:** Unappropriated balances, operating reserves, buildings working rainy day fund

• **Moderately Accessible:** Nonlapsing balances, roads working rainy day fund, capital improvements relief valve

• **Somewhat Difficult to Access:** Capital improvements corpus, restricted fund balances

• **Difficult to Access:** Formal rainy day funds

• **Very Difficult to Access:** Permanent trust funds

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Risk vs. Buffers

![Graph showing the relationship between risk and buffers.](image-url)
Cuts and Taxes

<table>
<thead>
<tr>
<th>Session</th>
<th>FY</th>
<th>Budget Cuts</th>
<th>Revenue Increases</th>
<th>Revenue Multiplied</th>
<th>Cut %</th>
<th>Rev %</th>
<th>GF/EF</th>
<th>Cut %</th>
<th>Rev %</th>
<th>Budget %</th>
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<tbody>
<tr>
<td>2008S2</td>
<td>2009</td>
<td>$161</td>
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<td>$354</td>
<td>45.5%</td>
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<td>$5,574</td>
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<td>$2</td>
<td>$6</td>
<td>$521</td>
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<td>1.2%</td>
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<td>2009</td>
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<td>$177</td>
<td>$685</td>
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<td>$990</td>
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<td>$2,522</td>
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<td>9.0%</td>
<td>$31,177</td>
<td>3.2%</td>
<td>0.7%</td>
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</tr>
</tbody>
</table>

- 1% of baseline revenue used in scenarios = $324 m

Conclusions

- 5 year risk between $2.3 b and $3.7 b
- Informal buffers = $2.5 b
- Formal buffers = $0.5 b
- Cuts/Revenue ~ $0.3 b - $1.3 b
- Bonding erodes largest informal buffer (working rainy day fund)
- Working rainy day fund creates future commitments