STRESS TESTING THE UTAH STATE BUDGET

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WHY STRESS TEST?

- 1. Manage the business cycle
- 2. Set sustainable expectations and meet them
- 3. Avoid crisis-driven policy decisions
MAJOR CHALLENGES FOR STATE GOVT IN ECONOMIC DOWNTURN

- Unstable economic conditions impact government revenues
- Tax policy amplifies economic instability
- Expenditure patterns are countercyclical
- Expectations of stable government services
ISSUES TO DECIDE

- Formal vs. informal process
- High-level vs. lots of detail in revenue and expenditure categories to review
- Selecting economic assumptions
- Defining budget reserves
- Choosing time frame
- Speculating about future / considering probabilities
- Communicating results
1. Scenario Assumptions
2. Each entity estimates revenue using different assumptions
3. Estimates were made for sales tax, income tax, corporate tax, and “other”
4. Come to consensus
Revenue Volatility

- State Sales Tax
- Individual Income
- Corporate Income

NEW IN THE 2016 PROCESS

- Used economic scenarios purchased from Moody’s Analytics—adverse, severely adverse, stagflation
- Expanded from two to five year timeframe
Utah Unemployment Rate
Utah GDP ($ billions, chained 2009)
Revenue-side Risk

Billions


Baseline  Adverse  Severe  Stagflation
1. Scenario Assumptions
2. Each entity estimates expenditures using different assumptions. Same timeframe as revenue.
3. Estimates were made for enrollment-driven programs (Medicaid, higher ed, public ed), but added employee retirement costs
4. Come to consensus
Spending-Side Risk

Billions vs. Year:
- Baseline
- Adverse
- Severe
- Stagflation

Years: 2016 to 2021
Total Value at Risk over five years
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 spending 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
RISKS VS. BUFFERS

Total Value at Risk over five years

- **Adverse**
  - Revenue
  - Expenditures

- **Severely Adverse**
  - Revenue
  - Expenditures

- **Stagflation**
  - Revenue
  - Expenditures

Reserves/Offsets ($billions)

- **Easy**
- **Moderate**
- **Somewhat Difficult**
- **Difficult**
- **Very Difficult**
## 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>Shortfall</th>
<th>Cut % Shortfall</th>
<th>Rev % Shortfall</th>
<th>GF/EF Budget</th>
<th>Cut % Budget</th>
<th>Rev % Budget</th>
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<tbody>
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CONCLUSIONS

- 5-year risk between $2.3 billion and $3.7 billion
- Informal buffers = $2.5 billion (2016)
- Formal buffers = $500 million (2016)
- Cuts/Revenue ~ $.3 billion - $1.3 billion
- Bonding erodes largest informal buffer (working rainy day fund)
- Working rainy day fund creates future commitments