How Stress Testing Can Inform State Budgets: Examining Utah’s Approach
Today’s webinar

• Jonathan Ball
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Previously served on the Joint Economic Committee of U.S. Congress, the D.C. Office of Michigan Governor John Engler, the U.S. Department of Commerce, and the White House Office of Management and Budget.

• Maddy Oritt
Staff Economist, Utah Office of the Legislative Fiscal Analyst
Previously served as director of the PAC-12 Academic Leadership Coalition.

• Juliette Tennert
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Previously served as the state budget director and chief economist for Governor Gary Herbert, chief economist for Governor Jon Huntsman, and fiscal analyst for the Utah State Legislature.
How to submit a question

• Please submit a question by clicking on the grey control panel on the right side of the screen.

• Once you do so, enter your query in the “Questions” box.

• We ask that you please include your name and state with your question.
HOW STRESS TESTING CAN INFORM STATE BUDGETS: EXAMINING UTAH’S APPROACH

Jonathan Ball, Legislative Fiscal Analyst, Utah Office of the Legislative Fiscal Analyst
Juliette Tennert, Chief Economist, Kem C. Gardner Policy Institute
Maddy Oritt, Economist, Utah Office of the Legislative Fiscal Analyst
Change in U.S. Retail Sales and Selected Components of Personal Income between Q1 and Q2 2020

Notes: Data are seasonally adjusted. “General” retail stores include sellers of furniture, electronic, appliances, clothing, sporting goods, books, and other general merchandise (NAICS 442, 443, 448, 451, and 452).

Source: Kem C. Gardner Policy Institute analysis of U.S. Census Bureau and Bureau of Economic Analysis data
FY 21 State Revenue Projections: Percent decline from pre-COVID projection, September 2020

*Range, middle value shown

Source: National Conference of State Legislatures (NCSL)
Wall Street Journal: Economists’ Forecast of December 2020 U.S. Unemployment Rate

Source: Kem C. Gardner Policy Institute analysis of Wall Street Journal data
WHAT AND WHY?

JONATHAN BALL
WHAT IS A BUDGET STRESS TEST?

- Model impact of alternative economic scenarios
  - Use “free” DFAST scenarios from Fed (2015)
  - Purchase more detailed scenarios (2016)
- Test both revenue and spending sides
  - Medicaid, higher ed, retirement, etc.
- Compare to contingencies
WHY STRESS TEST?

1. Statute requires it: UCA 36-12-13
2. Manage the business cycle
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2. Manage the business cycle
3. Set sustainable expectations and meet them
WHY STRESS TEST?

1. Statute requires it UCA 36-12-13
2. Manage the business cycle
3. Set sustainable expectations and meet them
4. Avoid crisis-driven policy decisions
Used regionalized and aged-forward Federal Reserve economic scenarios purchased from Moody’s Analytics: baseline, adverse/moderate recession, severely adverse/protracted slump

Five-year timeframe

Moderate recession/adverse: assumes recession begins 3rd quarter 2019 and lasts through second quarter 2021

Protracted slump/severely adverse: assumes same recession duration as first scenario, but with a protracted slump recovery
1. Scenario assumptions

2. Each entity estimates indicator variables, come to consensus

3. Each entity estimates sales tax, income tax, corporate tax, and “other,” come to consensus
1. Scenario assumptions

2. Each entity estimates indicator variables, come to consensus

3. Each entity estimates enrollment-driven programs (Medicaid, higher ed, public ed) and employee retirement costs, come to consensus
CONCLUSIONS

- 5-year risk between $1.7 billion and $4.6 billion
- Informal buffers = $4.4 billion (2019)
- Formal buffers = $877.4 million (2019)
- Bonding erodes largest informal buffer (working rainy day fund)
- Working rainy day fund creates future commitments
HOW TO: GLOBAL PANDEMIC

MADDY ORITT

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2020 PANDEMIC PROCESS

- Consensus assumptions about duration and severity of shock
- Consensus assumptions about economic indicators
- Five-year timeframe
- Each entity estimates revenues and expenditures, then consensus
INVENTORY OF BUFFERS

- **Easily Accessible:** Certain restricted accounts, working rainy day funds
- **Moderately Accessible:** Nonlapsing balances, unclaimed property, certain sales tax earmarks
- **Somewhat Difficult to Access:** Restricted fund balances, capital improvements corpus, cash and investment in water loans
- **Difficult to Access:** Formal rainy day funds, remaining capital improvements
RISKS VS. BUFFERS

Five-Year Value at Risk

Five-Year Budget Reserves

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CONCLUSIONS

- 5-year risk between $1.2 billion and $2.1 billion
- Informal buffers = $3.9 billion (2020)
- Formal buffers = $725 million (2020)
- Bonding erodes largest informal buffer (working rainy day fund)
- Working rainy day fund creates future commitments
REAL LIFE: EXECUTION AND POLICY

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- Delay in income tax filing across fiscal years
- Immediate revenue loss (FY 2020)
- Dashed expectations
- Ongoing revenue loss (FY 2021)
IT TAKES A TOOL KIT

Value at Risk

Severity/Volatility

SB 5001

Spending Reductions

Working Rainy Day Funds

Temporal Balance

Cashflow Management

Revenue Enhancement

Operating Reserves

Budgetary Reserves

SB 3001

HJR 301

HB 3001

HB 3 Items 323 and 327

SB 5001

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Revenue volatility

Long-term budgets

Stress testing
QUESTIONS?

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- Stress Testing User Guide

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