
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

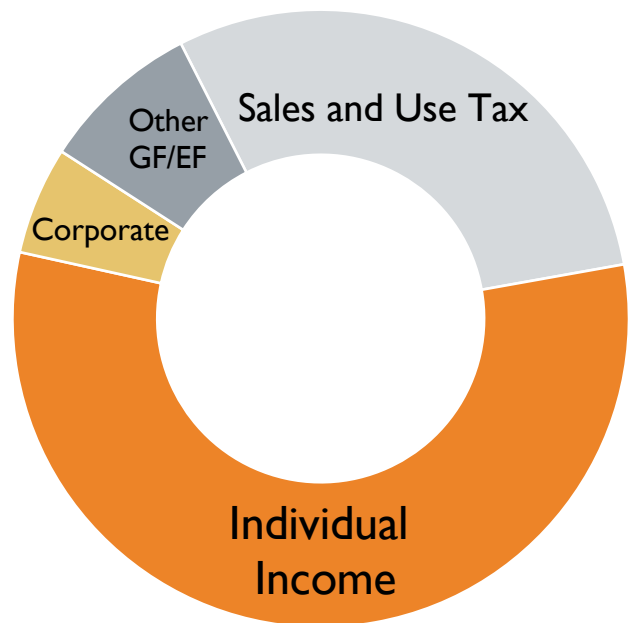
- Formal vs. informal process
- High-level vs. lots of detail in revenue and expenditure categories to review
- Selecting economic assumptions
- Defining budget reserves
- Choosing time frame
- Speculating about future / considering probabilities
- Communicating results

UTAH'S STRESS TESTING PROCESS

REVENUE

- 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

UTAH GENERAL FUND—EDUCATION FUND REVENUE STRUCTURE



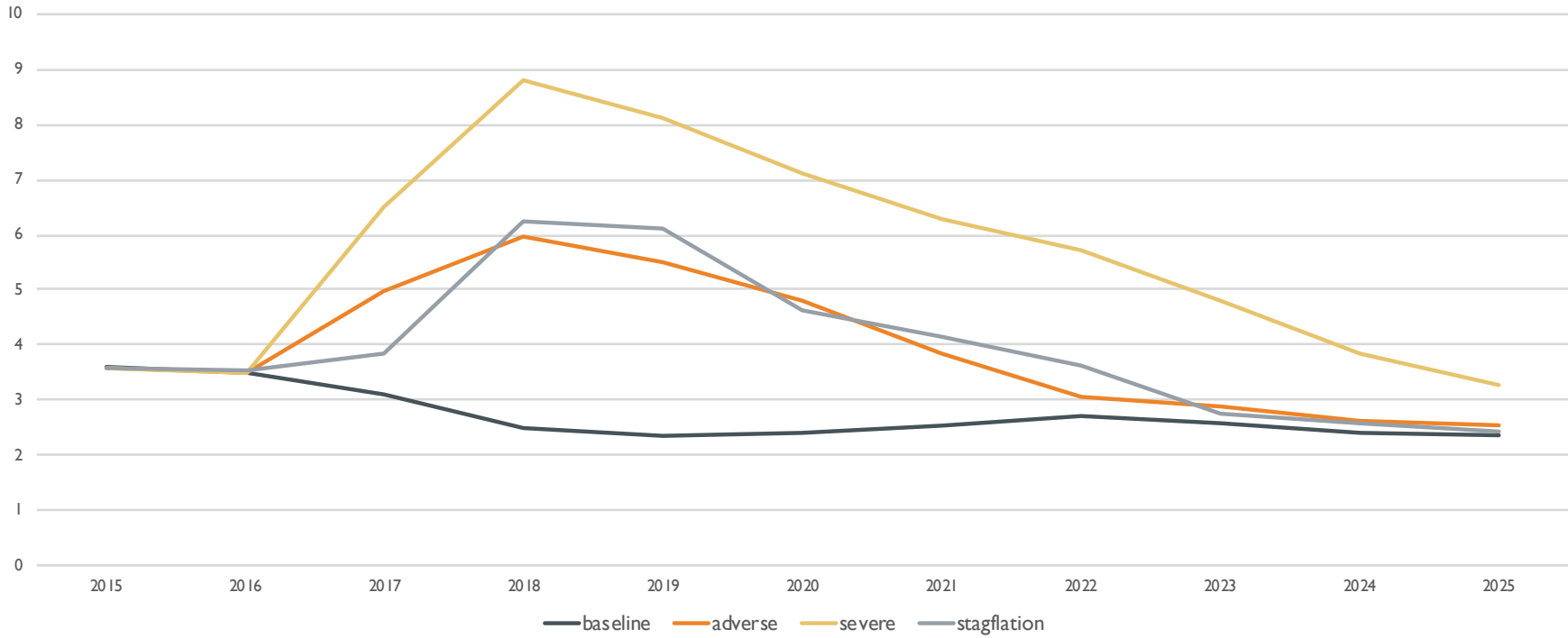
Revenue Volatility



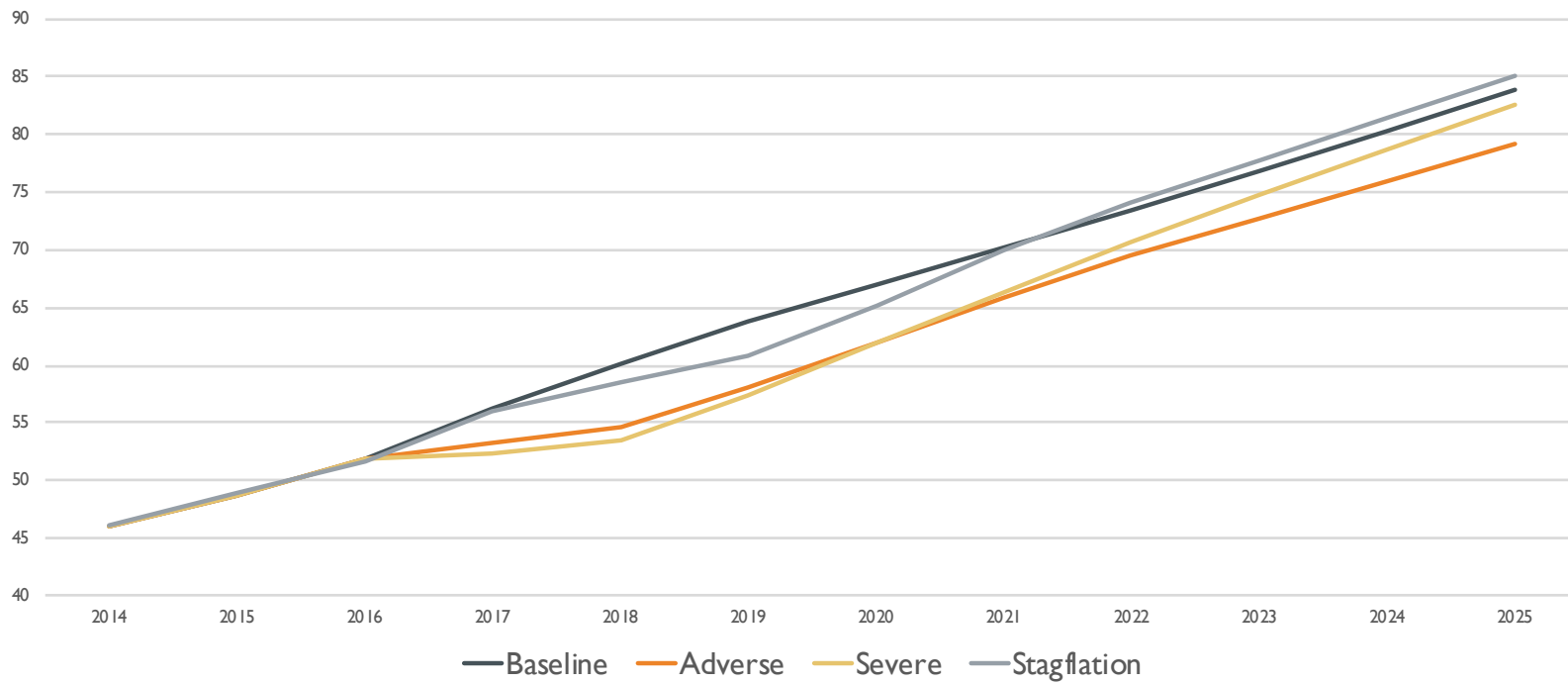
NEW IN THE 2016 PROCESS

- Used economic scenarios purchased from Moody's Analytics—
adverse, severely adverse, stagflation
- Expanded from two to five year timeframe

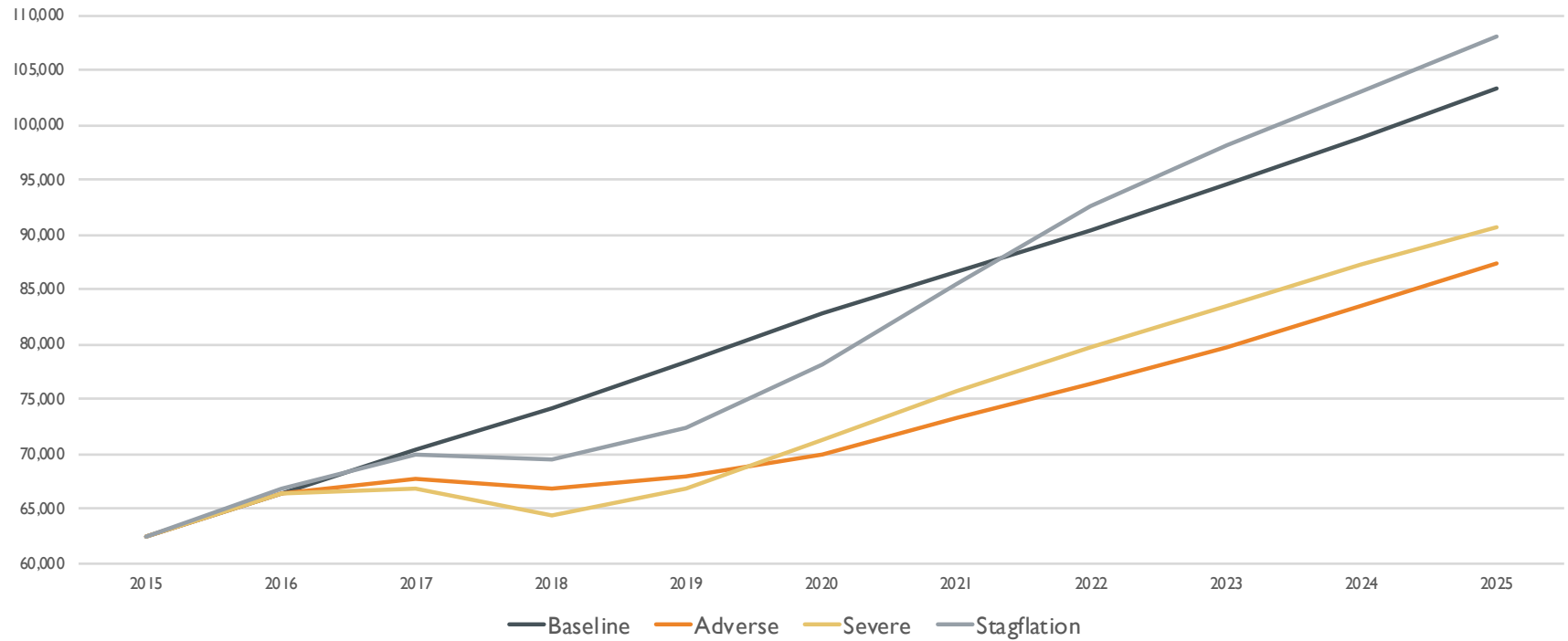
Utah Unemployment Rate



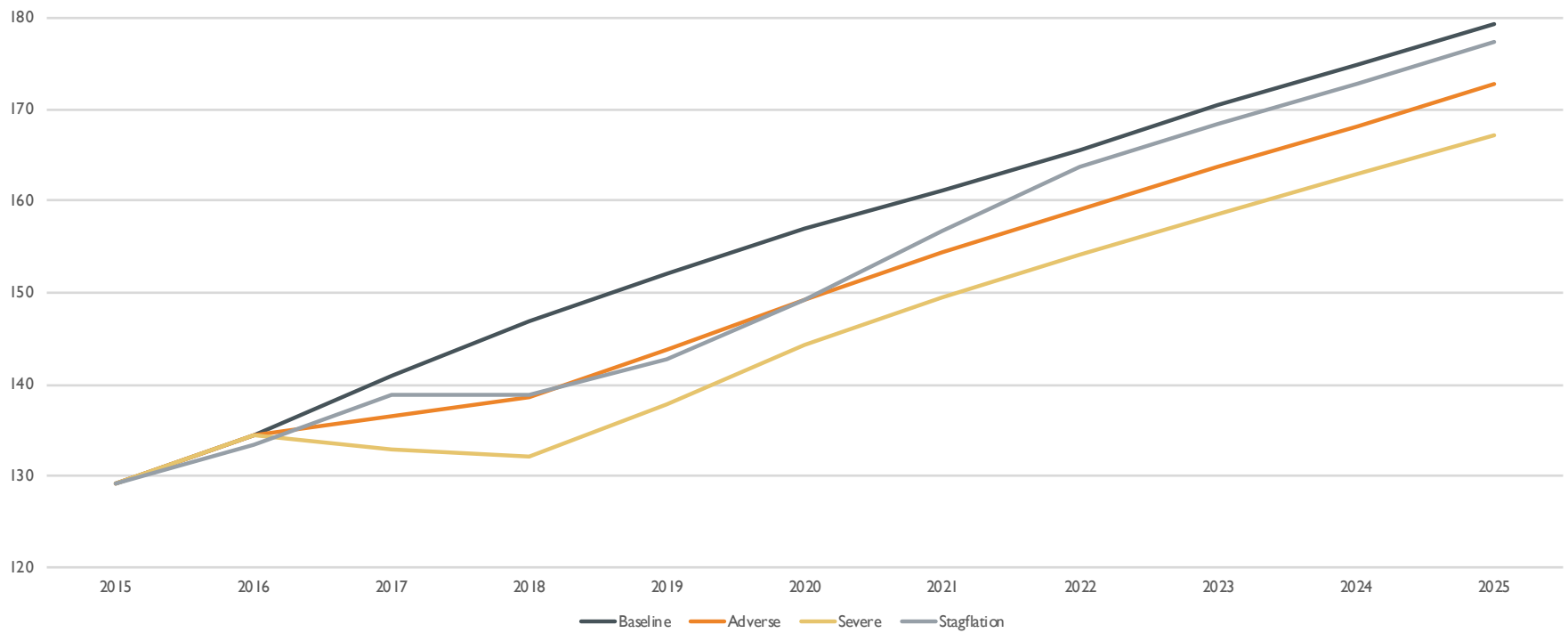
Utah Retail Sales (\$billions)



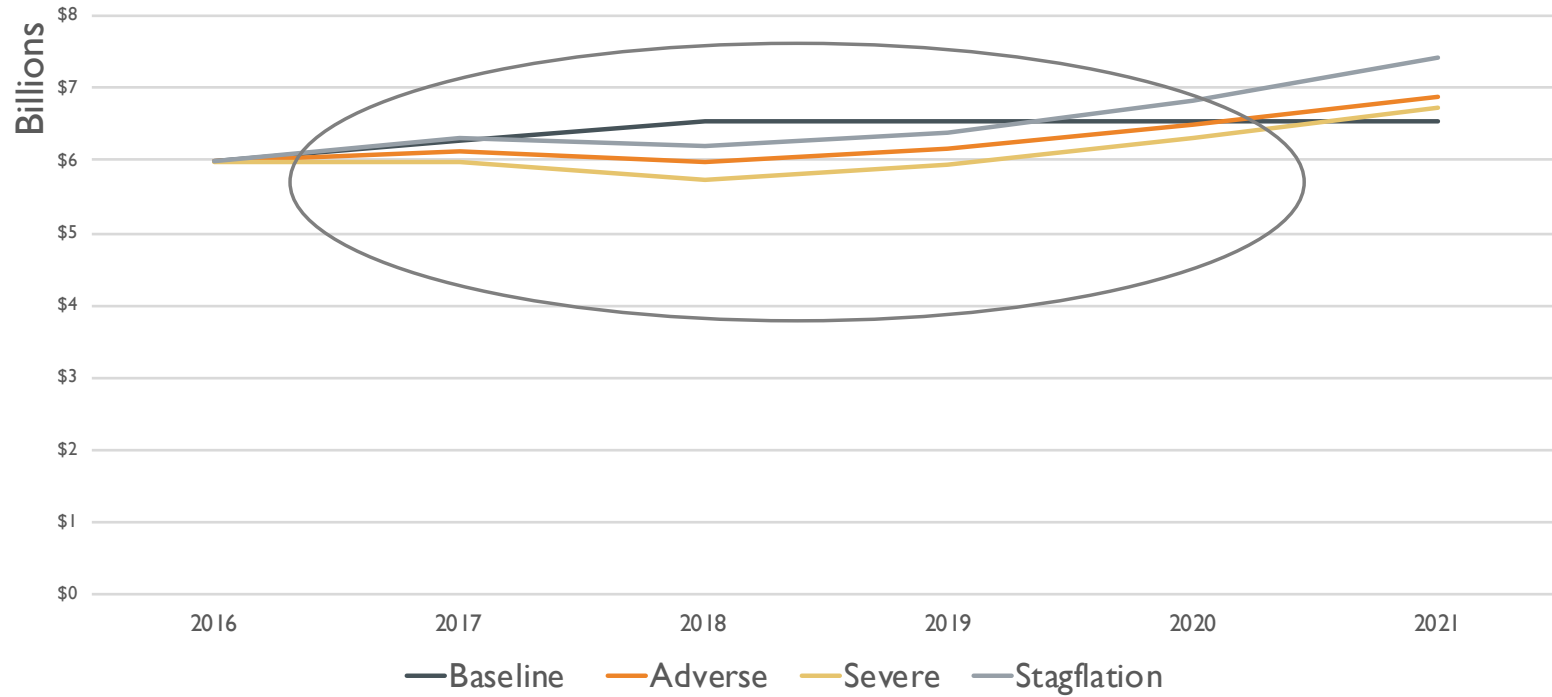
Wages (\$millions)



Utah GDP (\$ billions, chained 2009)



Revenue-side Risk

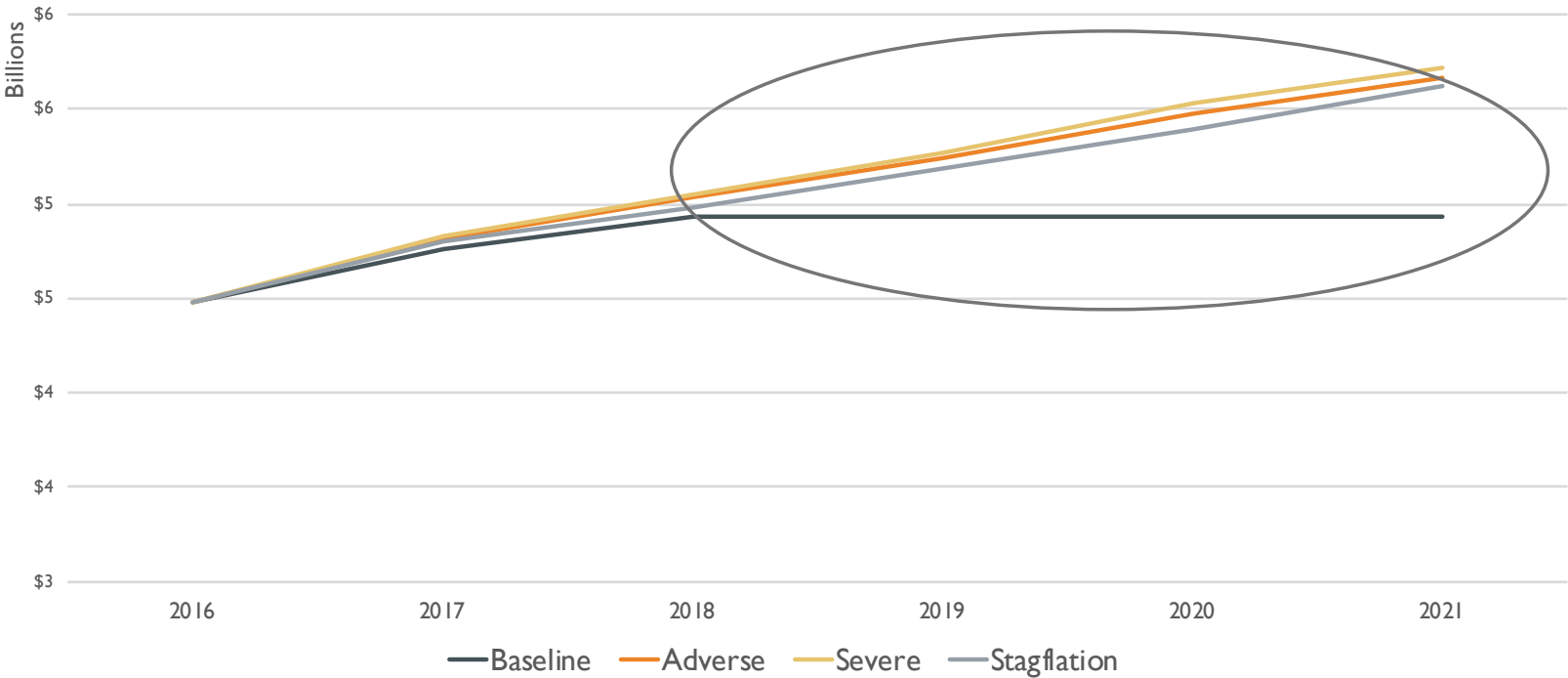


UTAH'S STRESS TESTING PROCESS

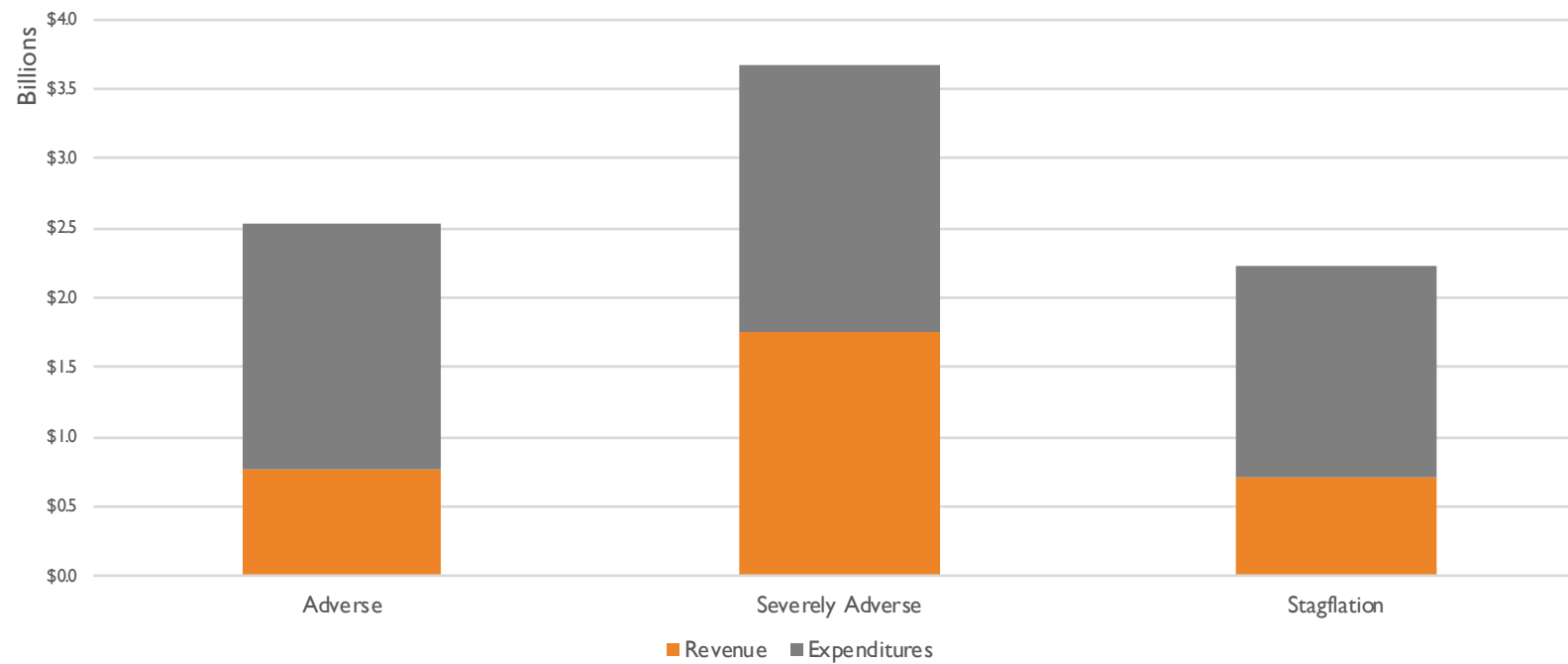
EXPENDITURES

- 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

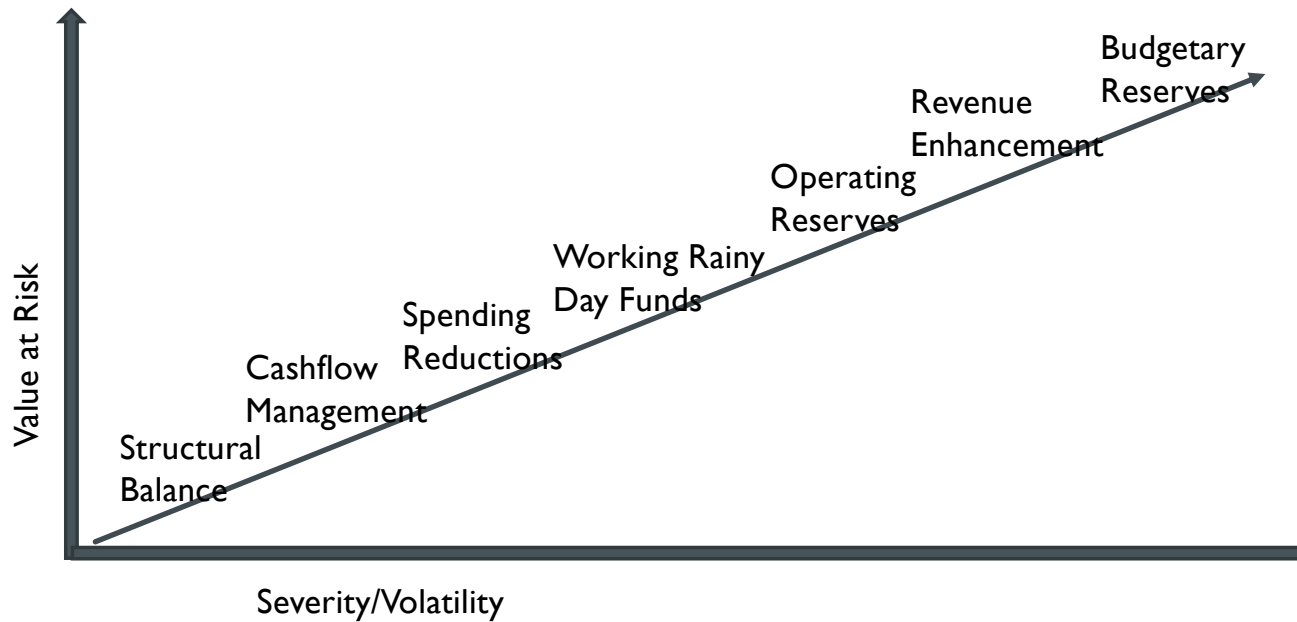
Spending-Side Risk



Total Value at Risk over five years



IT TAKES A TOOL KIT



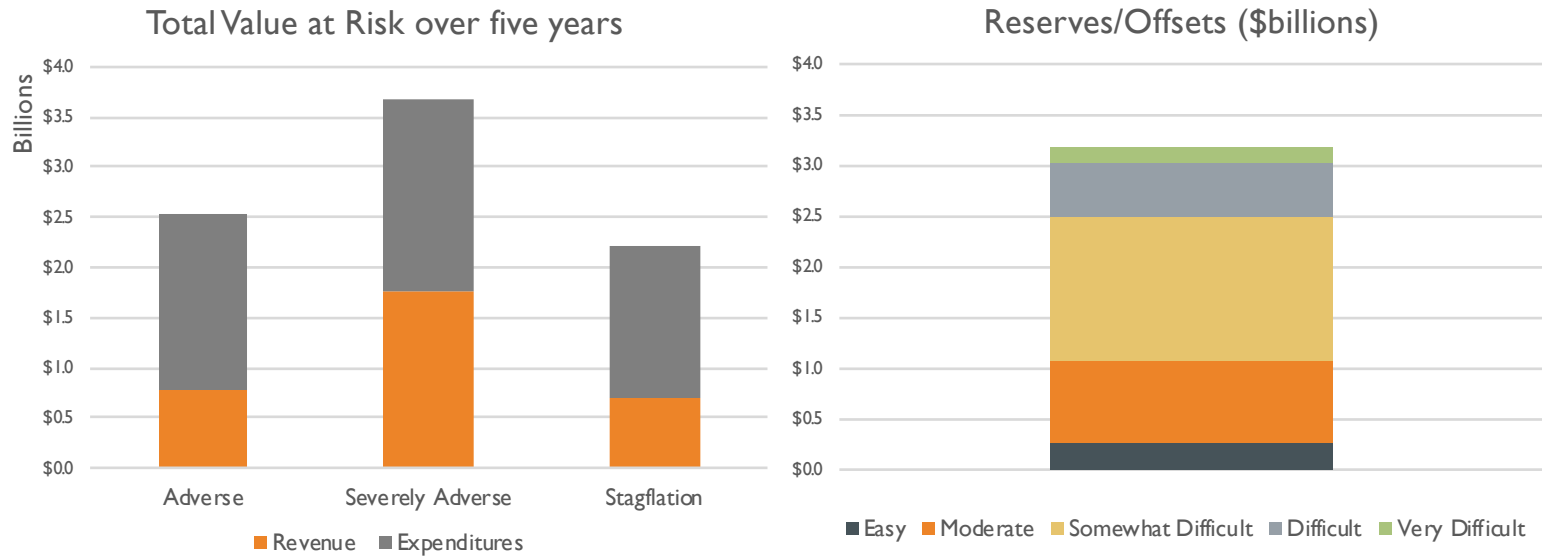
NEW ON BUFFERS

- 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



CUTS AND TAXES

Session	FY	Budget Cuts	Revenue Increases	Revenue Multiplied	Shortfall	Cut % Shortfall	Rev % Shortfall	GF/EF Budget	Cut % Budget	Rev % Budget
2008S2	2009	\$161			\$354	45.5%	0.0%	\$5,574	2.9%	0.0%
2008S2	2010	\$251			\$272	92.3%	0.0%	\$5,413	4.6%	0.0%
2009	2009	\$116	\$2	\$6	\$521	22.3%	1.2%	\$5,413	2.1%	0.1%
2009	2010	\$317	\$59	\$177	\$685	46.3%	25.8%	\$5,162	6.1%	3.4%
2010	2010	\$70			\$208	33.7%	0.0%	\$4,845	1.4%	0.0%
2010	2011	\$75	\$43	\$43	\$482	15.6%	8.9%	\$4,770	1.6%	0.9%
		\$990	\$104	\$226	\$2,522	39.3%	9.0%	\$31,177	3.2%	0.7%

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