

Stress Testing the Utah State Budget

Fiscal Leaders' Seminar

November 17, 2017

Why?

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



What

- Model impact of alternative scenarios
 - Use "free" DFAST scenarios from Fed
 - Purchase more detailed scenarios
- Test both Revenue and Spending Sides
 - Medicaid, Higher Ed, SNAP, Retirement, etc.
- Compare to Contingencies

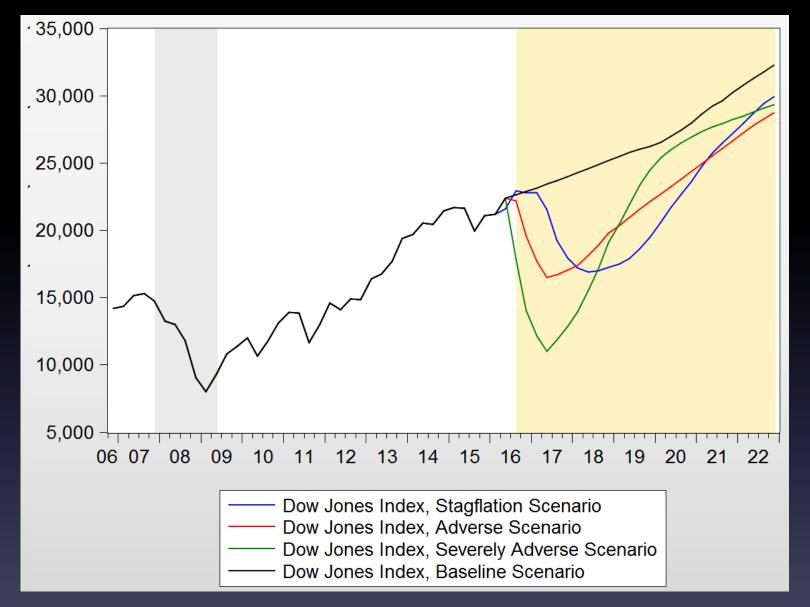


How? Revenues

Experience

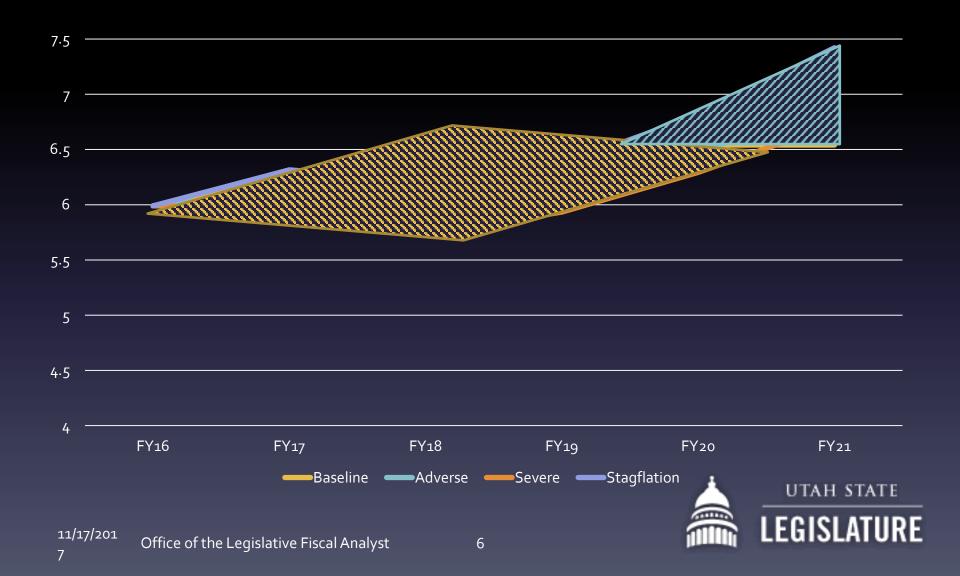
Scenario Assumptions Estimated Revenue







Revenue-side Risk (\$b)



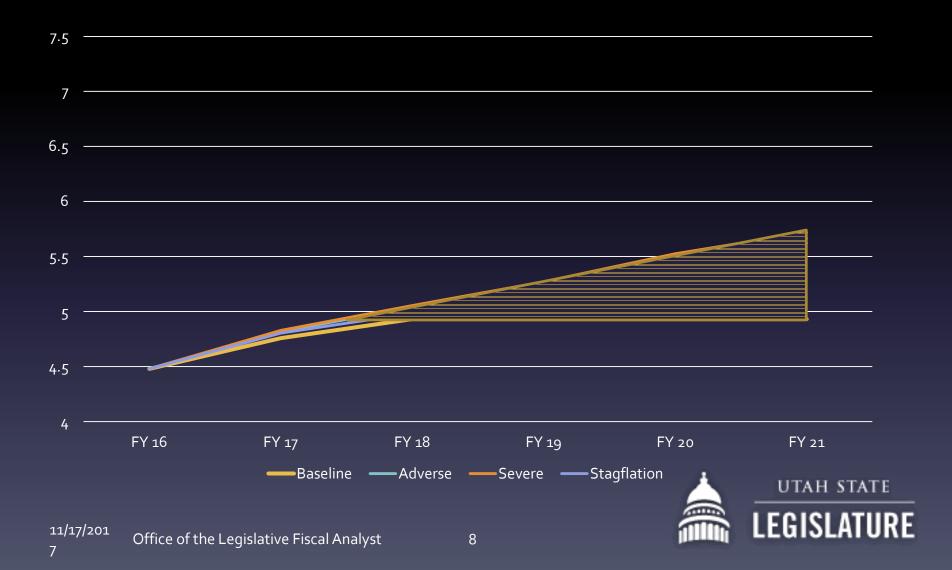
How? Expenditures

Experience

Scenario Assumptions Estimated Costs

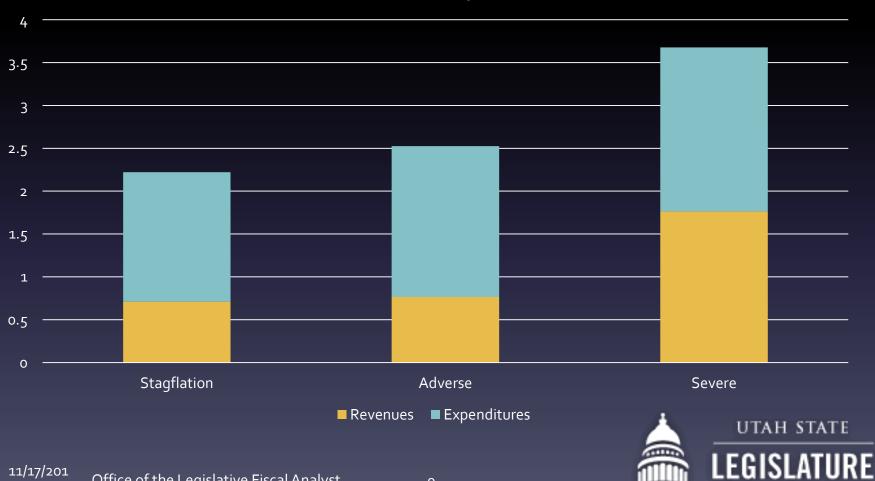


Spending-side Risk (\$b)

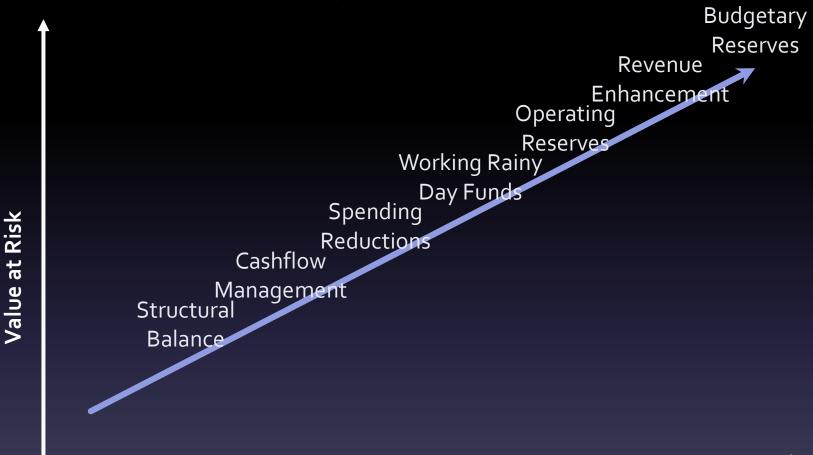


Total Value at Risk

(\$b over 5 yrs)



It takes a tool kit.



Severity/Volatility



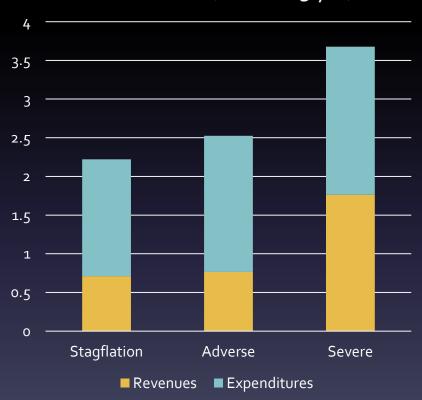
Inventory of Buffers

- 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

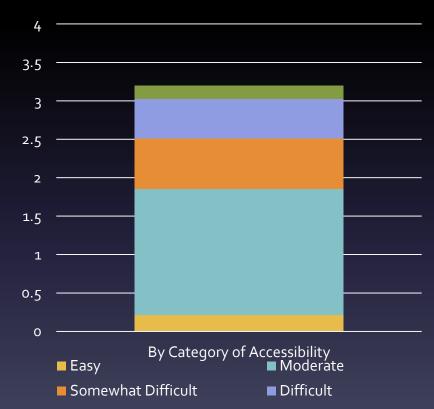


Risk vs. Buffers

Value at Risk (\$b over 5 yrs)



Reserves/Offsets (\$b)





Cuts and Taxes

Session	FY	Budget Cuts	Revenue Increases	Revenue Multiplied	Shortfall	Cut %	Rev %	GF/EF Budget	Cut % Budget	Rev % Budget
2008S2	2009	\$161			\$354	45.5%	0.0%	\$5,574	2.9%	
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		\$685	46.3%	25.8%	\$5,162	6.1%	
2010	2010	\$70			\$208	33.7%	0.0%	\$4,845	1.4%	
2010	2011	\$75	\$43	\$43	\$482	15.6%	8.9%	\$4,770	1.6%	0.9%
	_	 \$990	 \$104	<u> </u>	<u> </u>	39.3%	9.0%	\$31,177	3.2%	

• 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
- Could withstand Stagflation and Adverse, but not severe

