

STRESS TESTING THE UTAH STATE BUDGET

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1

WHY STRESS TEST?

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

2

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

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3

3

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

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4

4

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

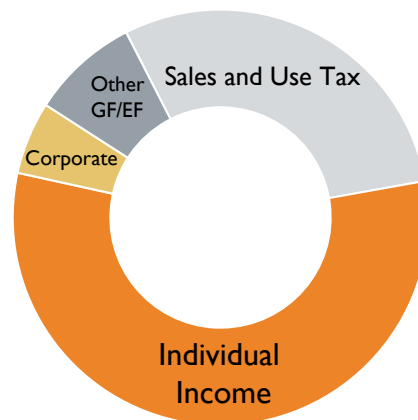
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5

5

UTAH GENERAL FUND—EDUCATION FUND REVENUE STRUCTURE

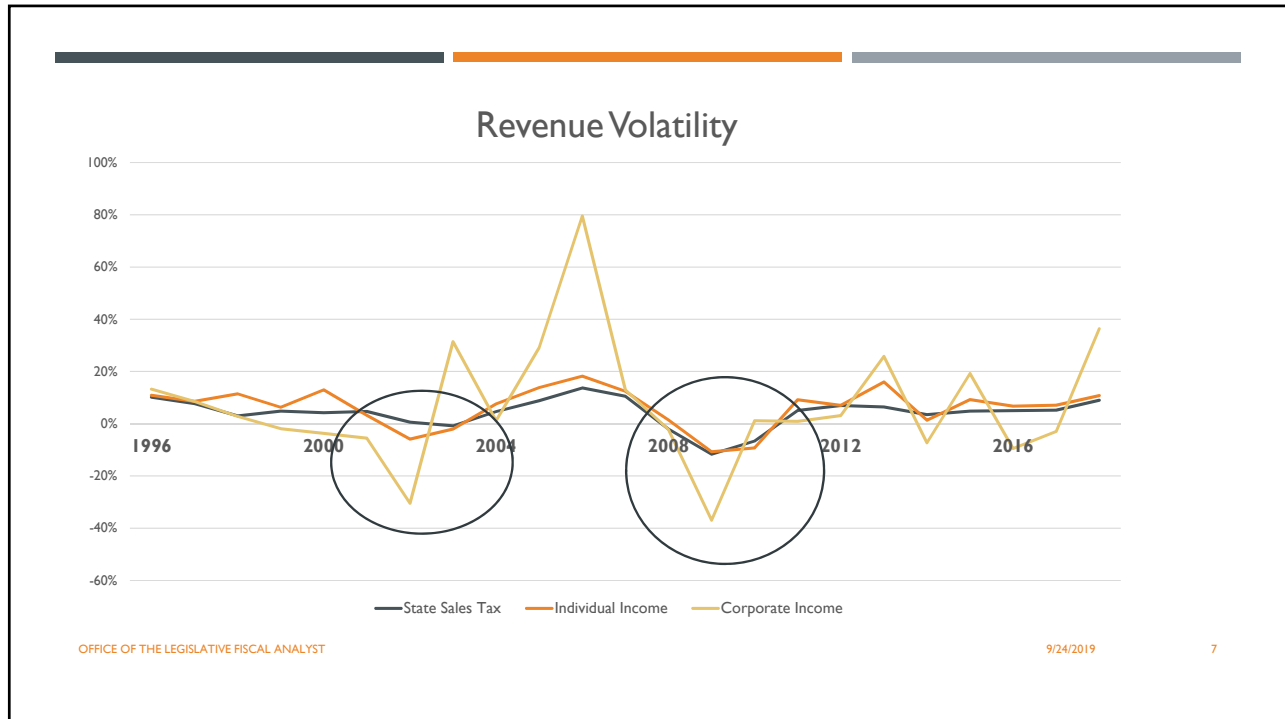


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6

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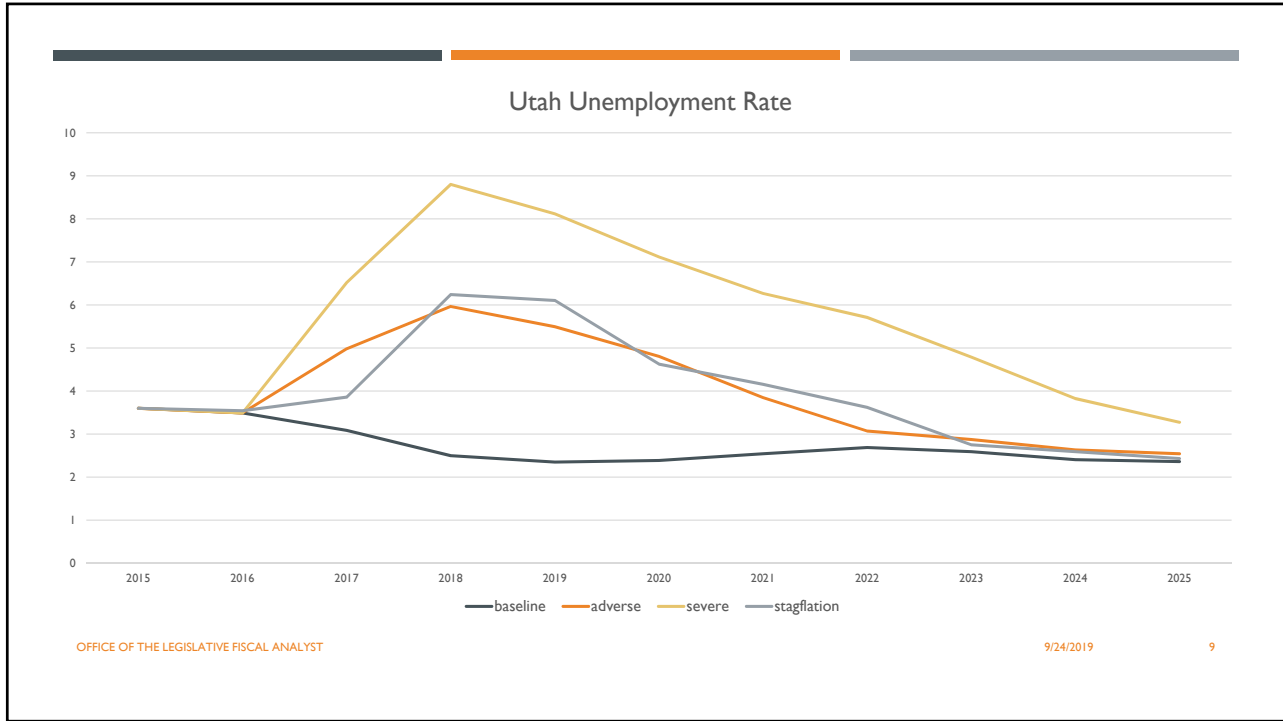
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NEW IN THE 2016 PROCESS

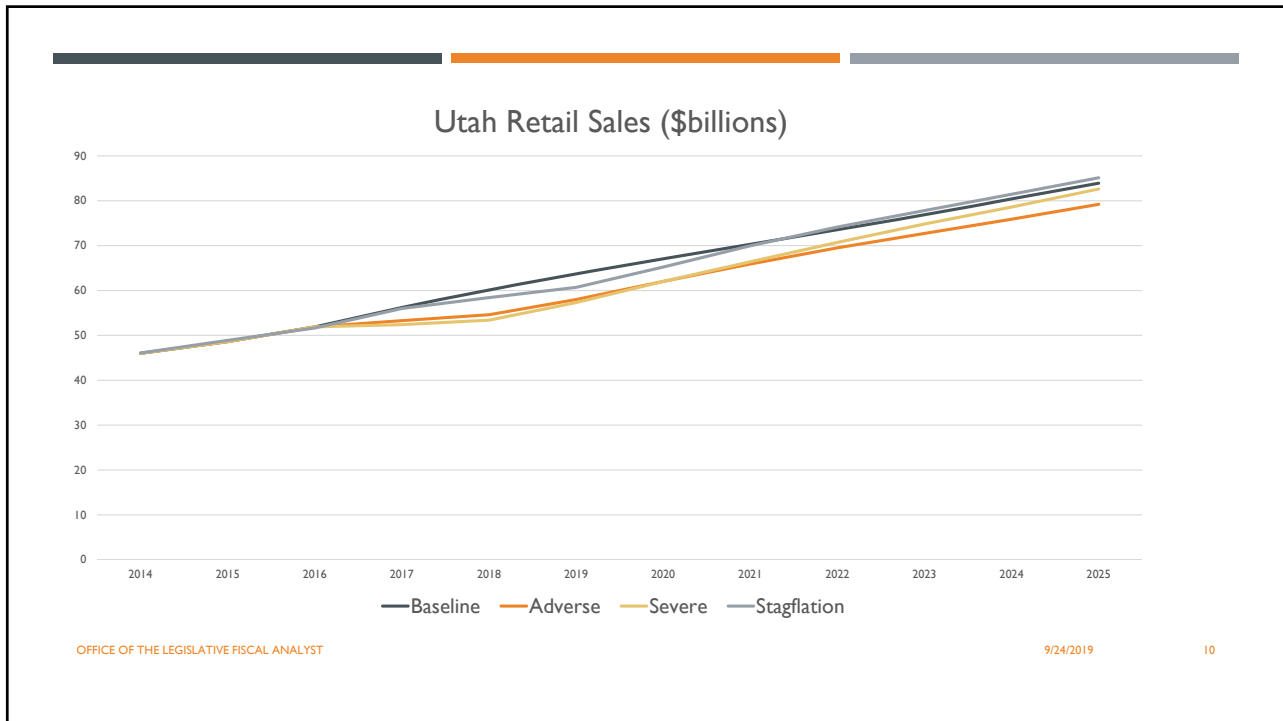
- Used economic scenarios purchased from Moody's Analytics—adverse, severely adverse, stagflation
- Expanded from two to five-year timeframe
- Assumes baseline grows for 12 months after recession begins, then flattens as governments begin to respond

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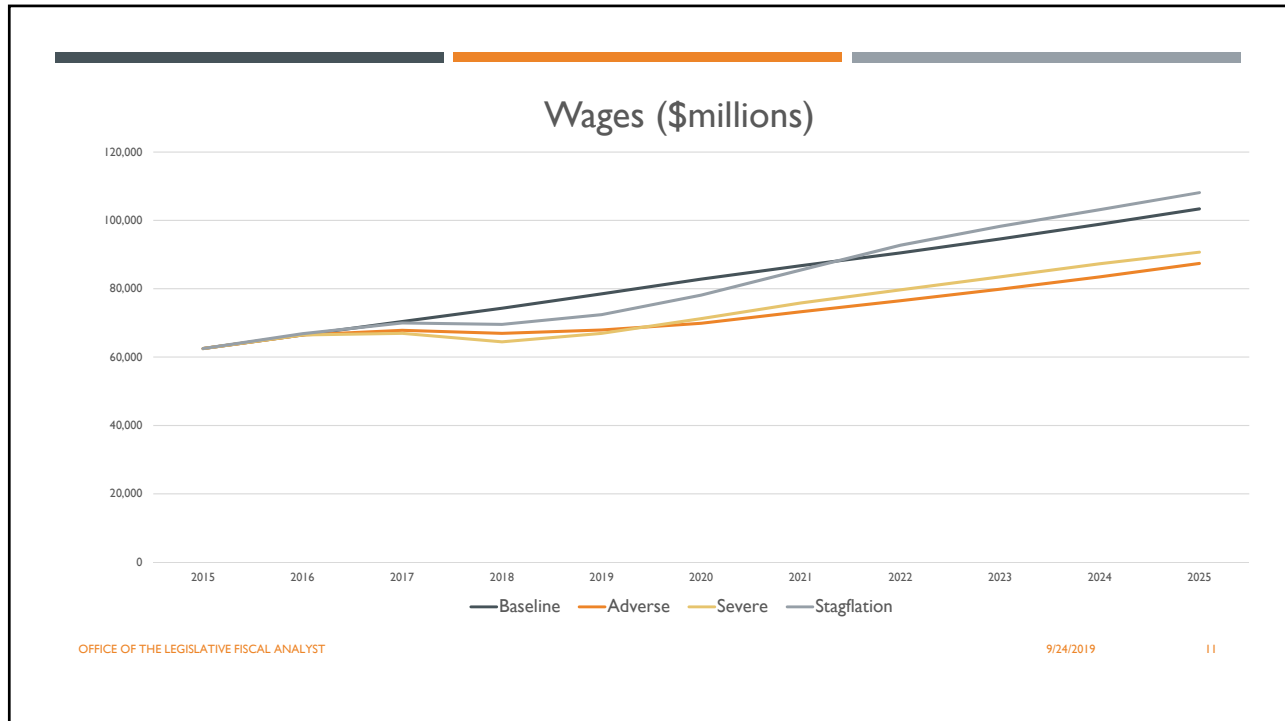
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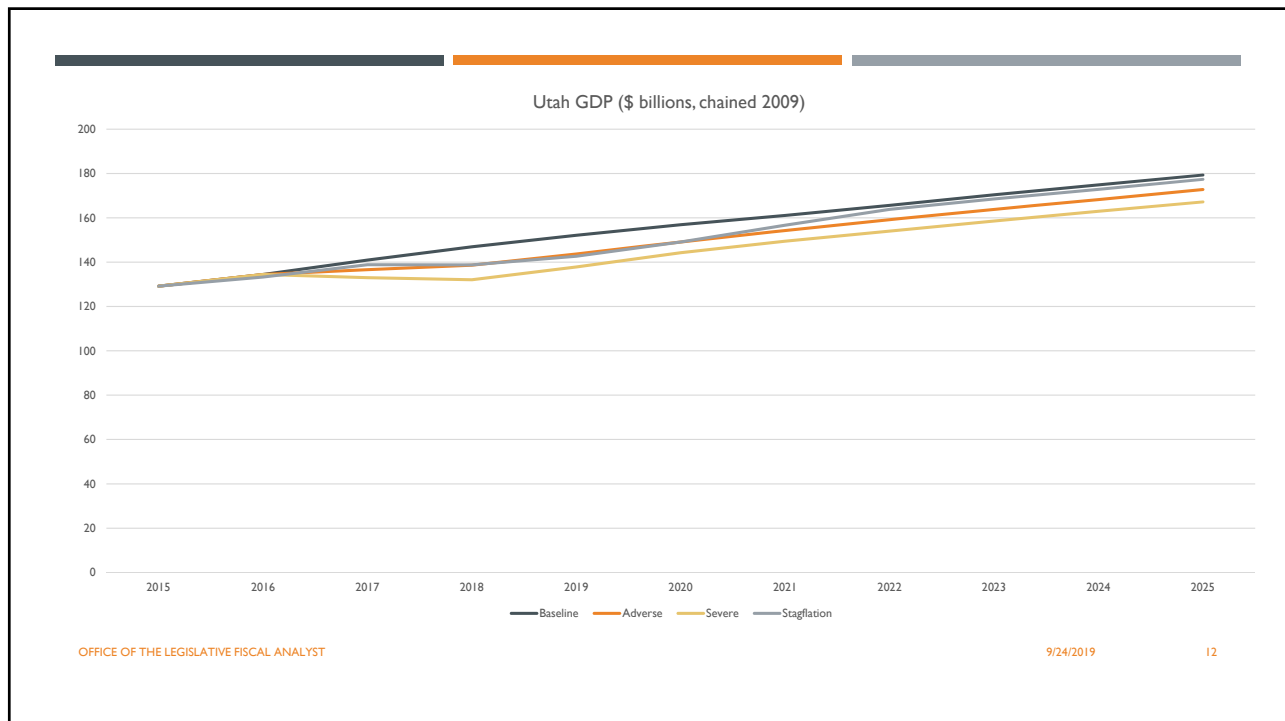
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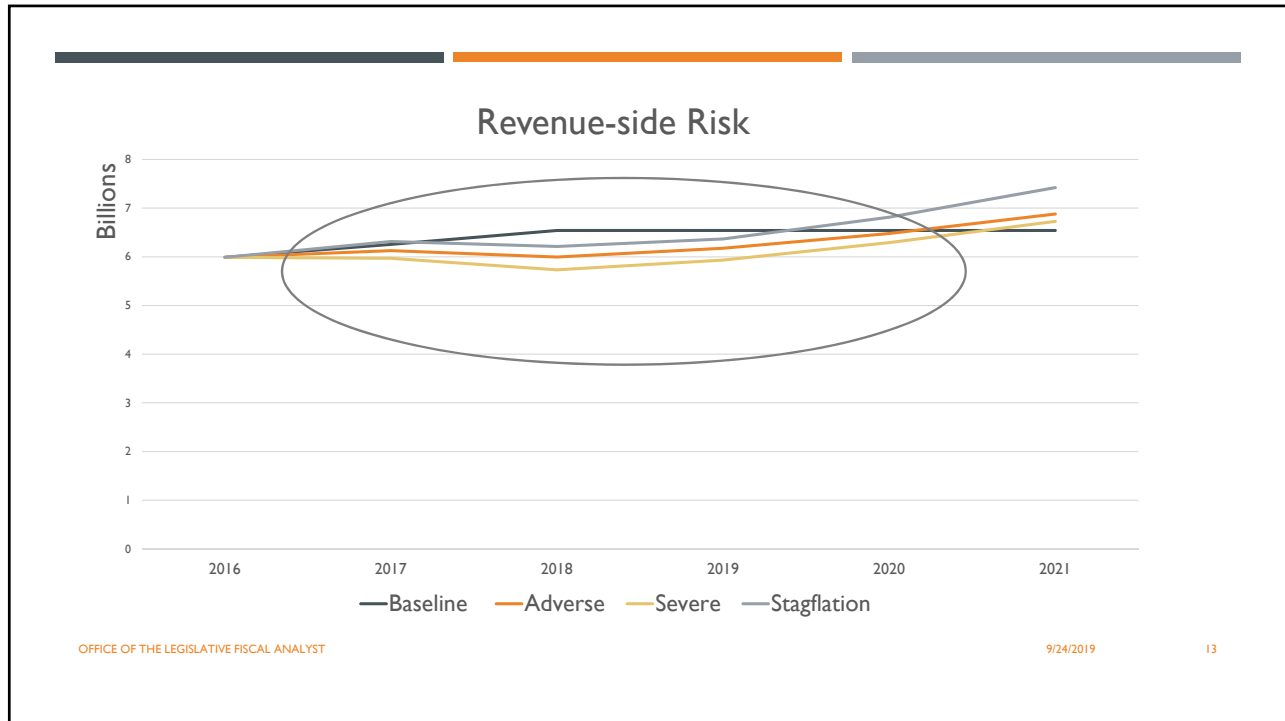
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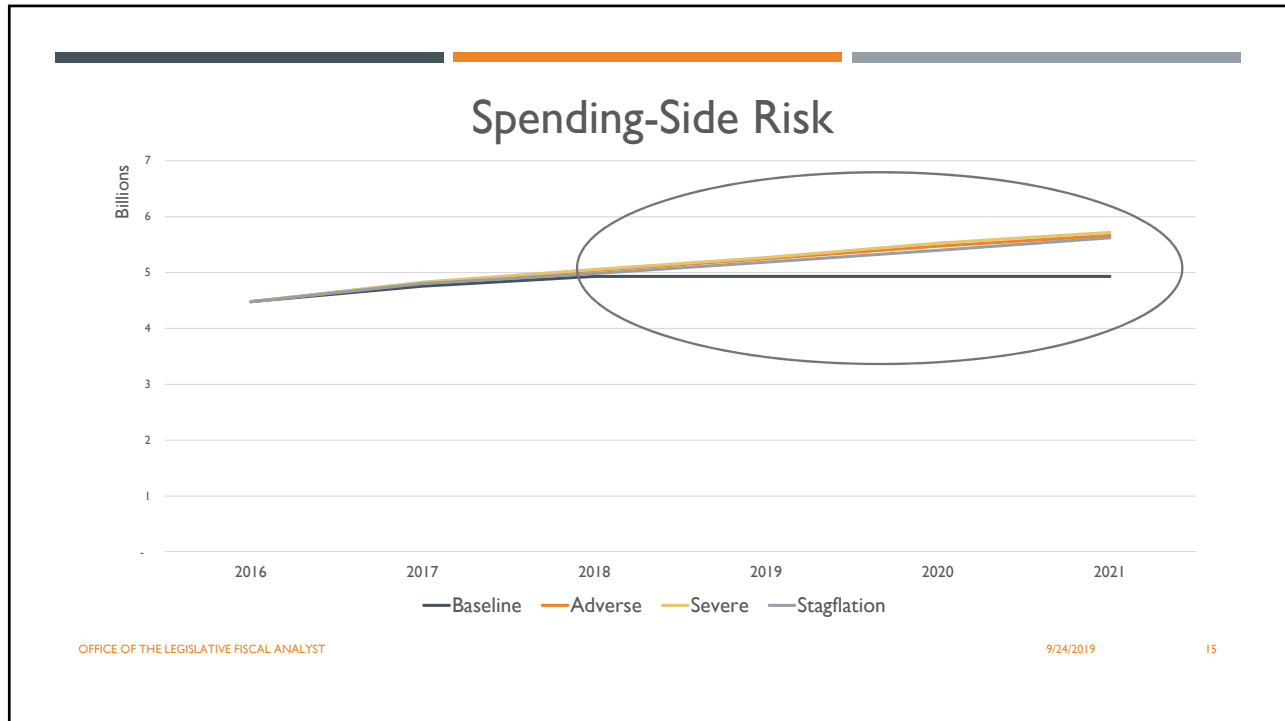
UTAH'S STRESS TESTING PROCESS

EXPENDITURES

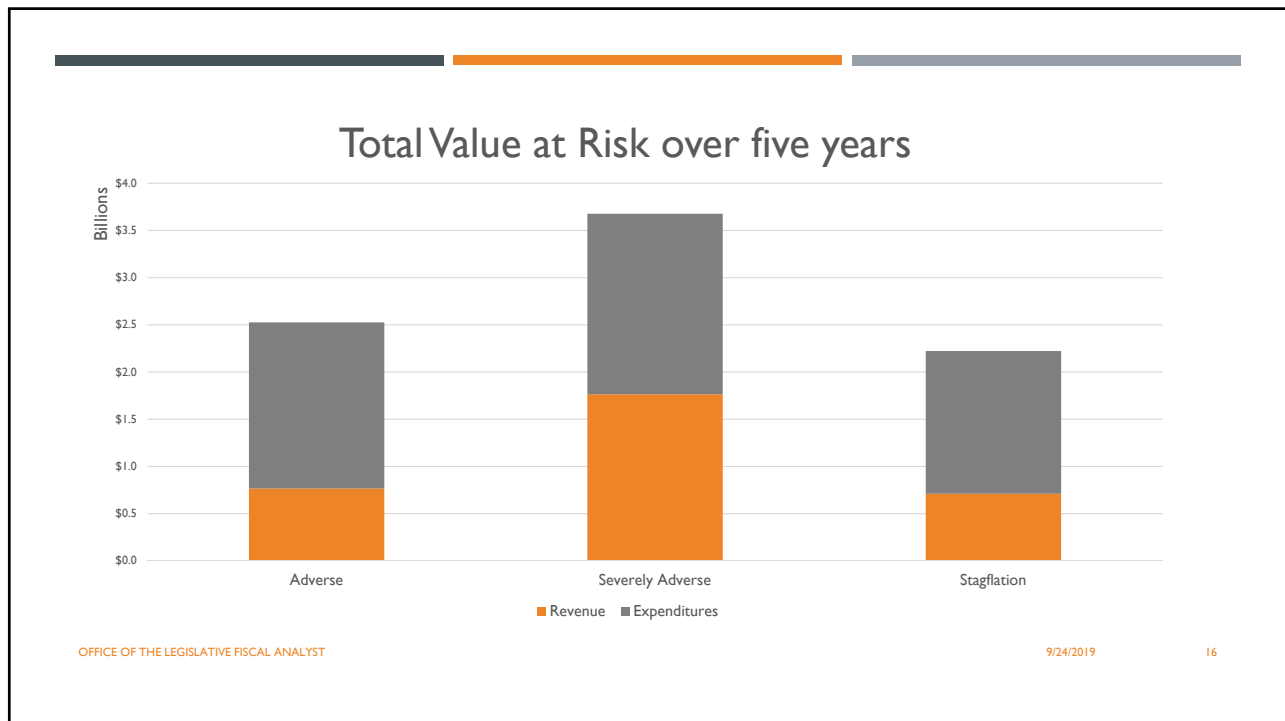
- 1. Scenario Assumptions
- 2. Each entity estimates expenditures using different assumptions. Same timeframe as revenue.
- 3. Estimates were made for enrollment-driven programs (Medicaid, higher ed, public ed), but added employee retirement costs
- 4. Come to consensus

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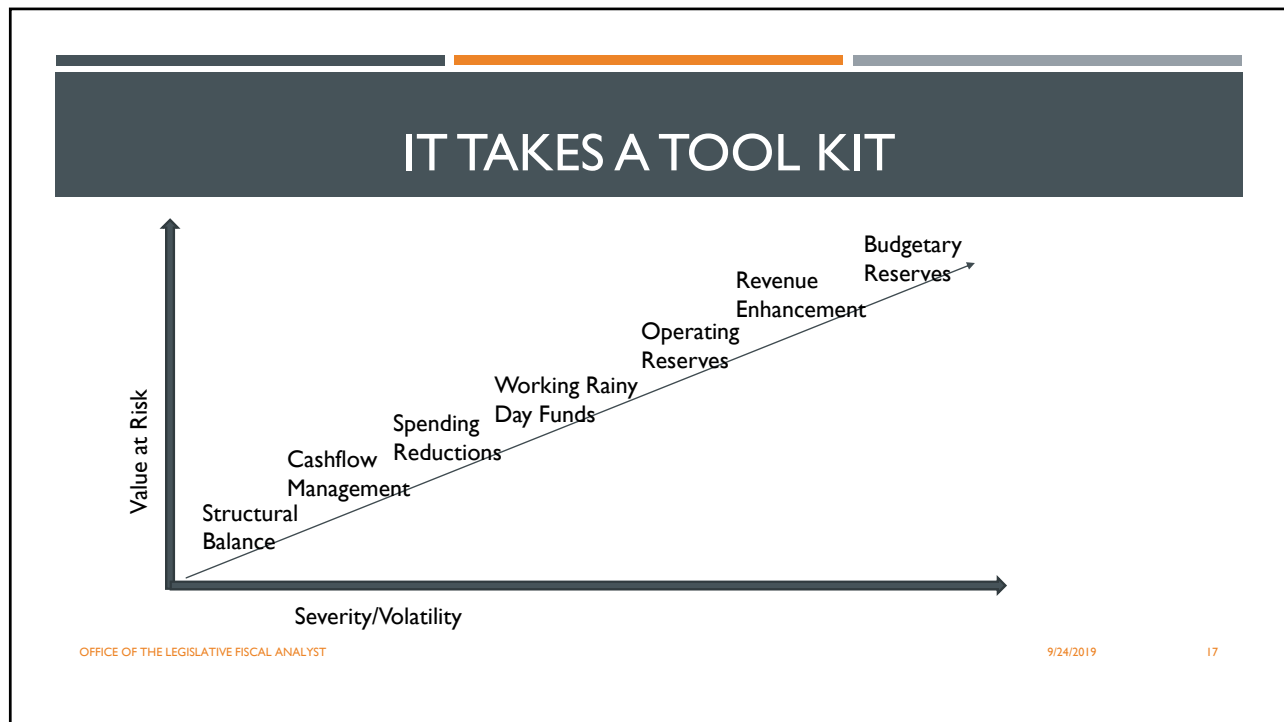
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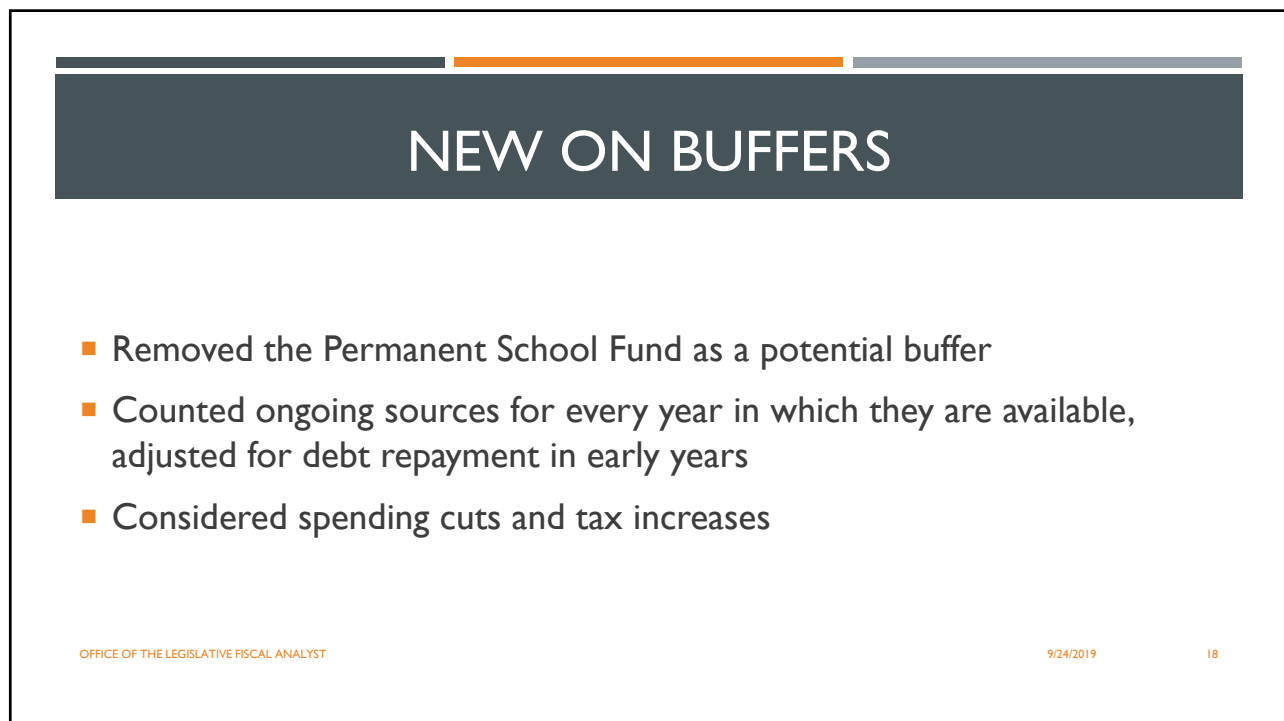
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16



17



18

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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19

RISKS VS. BUFFERS

Total Value at Risk over five years

Scenario	Revenue (\$billions)	Expenditures (\$billions)	Total (\$billions)
Adverse	~0.8	~1.7	~2.5
Severely Adverse	~1.8	~1.9	~3.7
Stagflation	~0.7	~1.5	~2.2

Reserves/Offsets (\$billions)

Access Category	Value (\$billions)
Easy	~0.2
Moderate	~0.8
Somewhat Difficult	~1.4
Difficult	~0.6
Very Difficult	~0.2
Total	~3.2

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20

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%

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21

21

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

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22

22