OVERVIEW
To prepare for potential economic disruptions, Utah stress-tests its state budget on a regular basis and has done so since 2015. The coronavirus pandemic represents one such economic and fiscal disruption. In response, the Office of the Legislative Fiscal Analyst and the Governor’s Office of Management and Budget present below an updated Utah budget stress test that reflects the pandemic. This new stress test assumes a severe two-month economic shock due to the pandemic, followed by a moderate recovery. Our analysis currently projects a General and Education Fund budget value-at-risk from the pandemic of between $1.2 billion for one year and $2.1 billion over five years. The analysis calculates available contingencies of between $1.7 billion (“easy to access”) and $5.4 billion (all buffers). Utah has already begun executing on its prior stress tests to address the current economic downturn. We hope that this additional analysis will provide further clarity and more options for Utah policymakers.1

ANALYSIS
Budget stress tests go beyond traditional revenue loss analysis to capture the full exposure of state budgets to economic stress. They do so by incorporating potential costs from increased demand for government services during an economic downturn. While the analysis is complex, the concept is simple: project potential revenue declines, project potential cost increases, add them together and compare them to an inventory of available budget buffers. Past Utah stress tests have revealed that the state may not have been as prepared as it might have preferred and have led policymakers to build additional budget contingencies including greater temporal surpluses, increased investment in working rainy day funds, and increased deposits to formal rainy day funds. As shown below, this current stress test shows that Utah now has several options for responding to the fiscal impacts of the pandemic.

ASSUMPTIONS
This version of Utah’s COVID-19 pandemic stress test makes the following assumptions:
- Delay in FY2020 income tax collections of approximately $840 million, to be collected in FY2021;
- Increased state Medicaid enrollment, costing approximately $43 million;
- Increased federal medical assistance percentage (FMAP) of 6.2 percentage points for the duration of the pandemic, saving approximately $39 million;
- Increased cost for higher education training and retraining of $121 million in FY 2021;
- Increased state cost for employee retirement of $18 million over the coming five years;
- An increase in the unemployment rate to a high of 9.1% in Q2 2020;
- A decrease in wages of 11% at the height of the recession in Q2 2020;
- A decrease in employment of 6.0% in Q2 2020;
- A maximum decrease in personal income of 3.2% in Q3 2020;
- A decline in GDP of 6.9% in Q2 2020.

Note: Figures presented here are estimates, based on currently available data and will be updated as data improves.
**Impacts on State Revenues and Expenditures**

As indicated in Table 1 below, we find that the effect to state revenues (General Fund/Education Fund only) is likely to be an aggregate effect of approximately -$1.2 billion in the first year, -$1.6 billion over the course of three years, and -$1.1 billion over the course of five years.

We also find that the effect to state expenditures is likely to be an increase of approximately $2 million in the first year, $405 million over the course of three years, and $1.1 billion over the course of five years.

<table>
<thead>
<tr>
<th>Table 1. Revenues and Expenditures</th>
<th>One-Year Impact</th>
<th>Three-Year Impact</th>
<th>Five-Year Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td>$1,167,000,000</td>
<td>$1,612,000,000</td>
<td>$1,053,000,000</td>
</tr>
<tr>
<td><strong>Expenditures</strong></td>
<td>$2,000,000</td>
<td>$405,000,000</td>
<td>$1,053,000,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$1,169,000,000</td>
<td>$2,016,000,000</td>
<td>$2,106,000,000</td>
</tr>
</tbody>
</table>

**Inventory of Buffers**

The availability and accessibility of reserves that the State could utilize to account for unforeseen expenditures and revenue losses is shown in Table 2 and its accompanying chart, below. We have categorized these reserves by availability: easy to access, moderately accessible, somewhat difficult to access, and difficult to access. Reserves that are easy to access include cash-funded buildings, cash-funded roads, the Medicaid Expansion Fund, and the Medicaid Budget Stabilization Restricted Account. Reserves that are moderately easy to access include nonlapsing balances, cash and investment in water loans, and water project earmarks. Reserves that are somewhat difficult to access include funds in the Transportation Investment Fund of 2005 (TIF), General Fund restricted fund balances, and capital improvement funds. Reserves that are difficult to access include funds in the Education Fund Budget Reserve Account, the General Fund Budget Reserve Account, and the State Disaster Recovery Restricted Account (i.e. “rainy day fund” balances).

<table>
<thead>
<tr>
<th>Table 2. Five-Year Reserves and Accessibility</th>
<th>Five-Year Reserves</th>
</tr>
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<tbody>
<tr>
<td>Easy</td>
<td>$1,695,000,000</td>
</tr>
<tr>
<td>Moderate</td>
<td>$1,301,000,000</td>
</tr>
<tr>
<td>Somewhat Difficult</td>
<td>$1,580,000,000</td>
</tr>
<tr>
<td>Difficult to Access</td>
<td>$826,000,000</td>
</tr>
<tr>
<td>Total</td>
<td>$5,402,000,000</td>
</tr>
</tbody>
</table>

Of the available reserves, approximately 31 percent are easy to access, 24 percent are moderately accessible, 29 percent are somewhat difficult to access, and 15 percent are difficult to access. In total, Utah has $5.4 billion in available reserves. Based on the assumptions enumerated above, the total five-year value-at-risk, accounting for shocks to both revenues and expenditures, is approximately $5.4 billion. The sum of Utah’s easily accessible and moderately accessible reserves is nearly $3 billion. As such, Utah is well-positioned to weather the economic shock of the coronavirus through utilization of relatively accessible reserves.
**Executing on the Plan**

Using data from the stress tests, Utah has developed a "fiscal tool kit" that guides policymakers on when and how to respond to an economic event. The sequence in which they employ certain tools may change, but the graph below displays how past Utah legislators have approached downturns. As severity of an economic event increases, so does value at risk, and thus does political will to take certain actions. Each tool in the toolkit is described below the graph.

- Temporal balance means matching the timing or term of revenue with that of spending – balancing ongoing revenue with ongoing expenditures and one-time revenue with one-time expenditures;
- Cashflow management involves carrying previous-year revenue balances into subsequent fiscal years before spending them;
- Spending reductions involves cutting state spending, including projects that can be delayed or lower-impact programs that can be eliminated or reduced;
- Working rainy day funds involves utilizing ongoing cash invested in infrastructure that can then be replaced with debt financing;
- Operating reserves involves utilizing unspent program balances, restricted account balances, and spending buffers that can be accessed relatively easily;
- Revenue enhancements involves raising taxes or fees;
- Budgetary reserves are formal rainy day funds that can only be used when the state is in a deficit.

Utah began executing on its stress tests using this toolkit during the 2020 General Session, and has continued to do so through two subsequent special sessions. Items 323 and 327 of *Appropriations Adjustments* (HB 3, 2020 General Session) reserve ongoing revenue for future use, creating a temporal surplus – the first tool in our toolkit. Senate Bill 3001, *Pandemic Response Appropriations Adjustments*, from
the 2020 3rd Special Session leverages cashflow advantages to bridge the delay of income tax filing from fiscal year 2020 into fiscal year 2021 – our second tool. Joint Resolution Urging Fiscal Responsibility (HJR 301, 2020 3rd Special Session) begins the process of budget reductions – a process that will continue in the next special session and beyond. That’s the third tool in Utah’s toolkit. Finally, at least for now, the Legislature passed HB 3001 Bond Amendments in the 2020 3rd Special Session, activating Utah’s working rainy day funds – the fourth tool in the toolkit. This bill allows the State Treasurer to issue previously authorized bonds and replace pay-as-you-go cash with bond proceeds.

**Conclusion**

By developing and administering budget stress tests, Utah has practiced for inevitable economic disruptions. While we had no idea that the next disruption would be a pandemic, past tests helped the state discern that it needed to do more to prepare for a downturn. To policymakers’ credit, they did so before March of 2020. As a result, even though this pandemic stress test currently forecasts value at risk of between $1.2 billion and $2.1 billion, it also catalogues potential budget offsets of between $1.7 billion and $5.4 billion. Perhaps more valuably, the stress test provides policymakers with a road map and menu of options for addressing fiscal distress caused by the COVID-19 pandemic. Utah appropriators have already begun executing on that plan.

This budget stress test is a living document. It is currently predicated upon limited available data and forecasts based upon those data. As additional data become available, the Office of the Legislative Fiscal Analyst and the Governor’s Office of Management and Budget will update the forecasts and information presented in this document to reflect the most current data.