

# REVENUE UPDATE

CONTRIBUTORS: ANDREA WILKO, PH.D. AND THOMAS YOUNG, PH.D

## PART A: TAX COLLECTIONS

Given current collections and consensus indicators developed by the Revenue Assumptions Working Group, we anticipate FY 2017 General and Education Fund revenues will be in the range of \$5.0 million below to \$130.0 million above May Executive Appropriations targets (see top right chart). The midpoint of the range is up \$62.5 million. We expect the Transportation Fund to be \$5.0 million below to \$10.0 million above the May target.

May revenue estimates adopted by the Executive Appropriations Committee, assumed 4.6 percent growth between FY 2016 and FY 2017. We anticipate collections will be generally close to the established target, with a higher likelihood of revenue coming in above target versus under target. However, there is some downside risk to the forecast. Severance tax remains sluggish, although recovering. Sales tax is growing moderately strong in light of the relatively stronger employment picture, largely due to lower-than-typical inflation and subdued average wage growth.

The current forecast anticipates moderately strong growth in several key areas, such as employment, wages, construction, and taxable sales. Factors that may influence the direction and magnitude of economic growth in the coming quarters include how quickly average wages grow, how quickly individuals that had been outside of the workforce come back to the workforce, inflation, interest rates, expectations of future investment profitability, and overall confidence in the economic future.

Figure 2 to the right provides a broad inter-state comparison of the economic picture. It looks at the correlation of average unemployment rate for 2016 to the average wage growth for 2016. On each axis is an "Average" line that categorizes states into either high or low unemployment and either high or low average wage growth. Interestingly, Utah is in the bottom left quadrant—a very favorable unemployment rate and a marginally favorable wage growth (a slower average wage growth figure is generally correlated with stronger economic growth in the future).

Other states sharing the same quadrant as Utah include Colorado, North Dakota, Vermont, Idaho, Iowa, Hawaii, Kansas, New Jersey, Maryland, Arkansas, Wisconsin, Montana, and New York. On the other end of the picture is the top right quadrant (unfavorable unemployment rate and higher than average wage growth), which comprises the areas of Washington D.C., Delaware, Arizona, Tennessee, Georgia, Alabama, Ohio, Kentucky, Connecticut, Washington, Texas, Florida, North Carolina, and California.

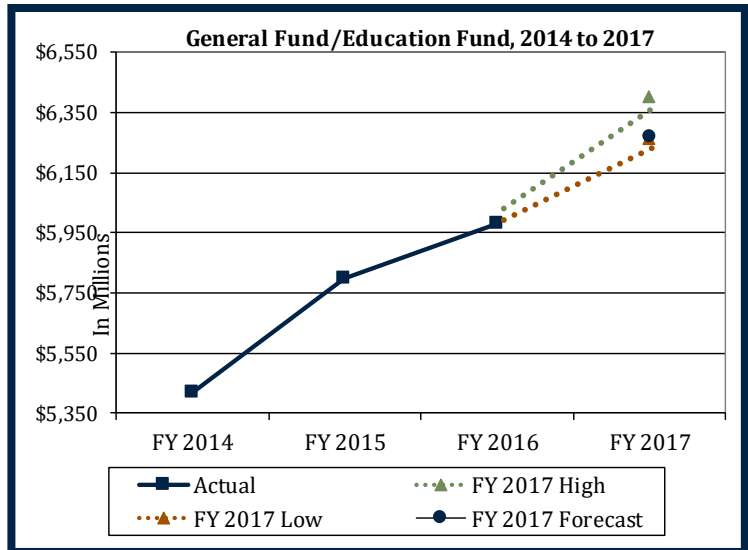


Figure 1

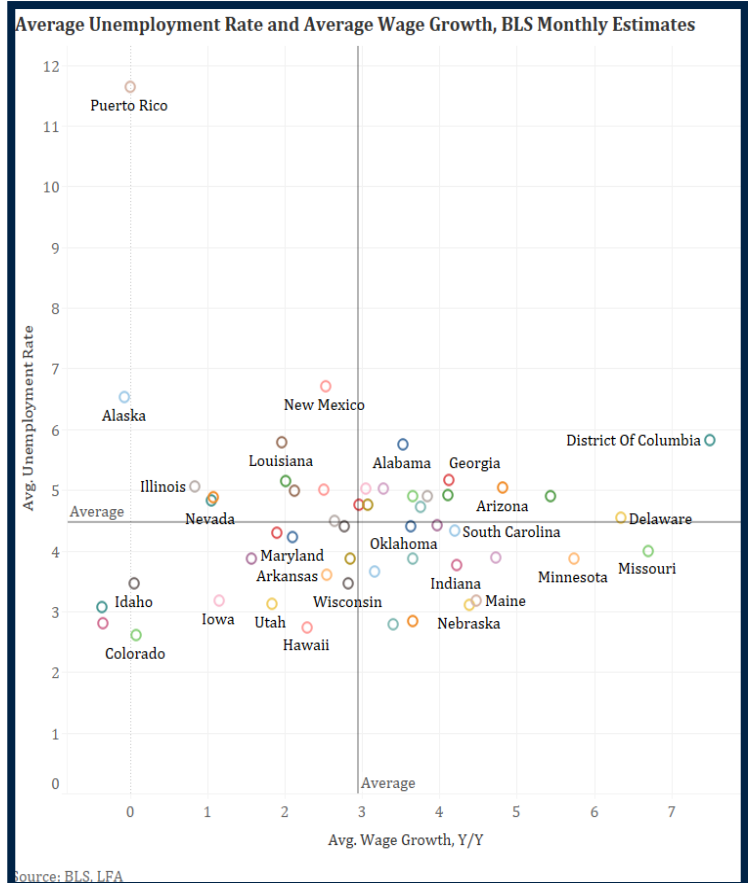


Figure 2

In May, the General Fund was expected to grow by 3.4 percent. We expect year end revenue to be close to the target. The July General Fund range estimate is expected to end FY 2017 between \$10.0 million below to \$50.0 million above the latest revenue target. The range includes both downside risk and upside potential.

The downside risk to the General Fund forecast stems largely from the consumer end, with the largest downside risks coming from a potential slump in retail consumption and purchases of cigarettes and tobacco. Severance taxes are rebounding, although for most of the year revenue from oil and gas and metal severance taxes has been quite weak, largely due to subdued prices (see Figure 3).

On the upside, one of the bright points is investment income (Figure 4). Although revenue from investments is nowhere near the highs of 2007, revenue is slowly reviving, and that growth is accelerating, potentially ending FY 2017 around \$5.0 million above target. Other revenue sources that could come in above target include sales tax (partially due to an increased remittance of online sales), liquor profits, insurance premiums, and other revenue sources.

Figure 3

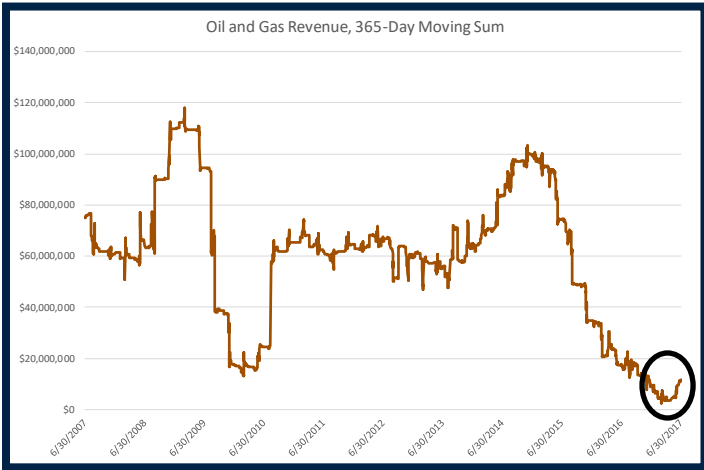
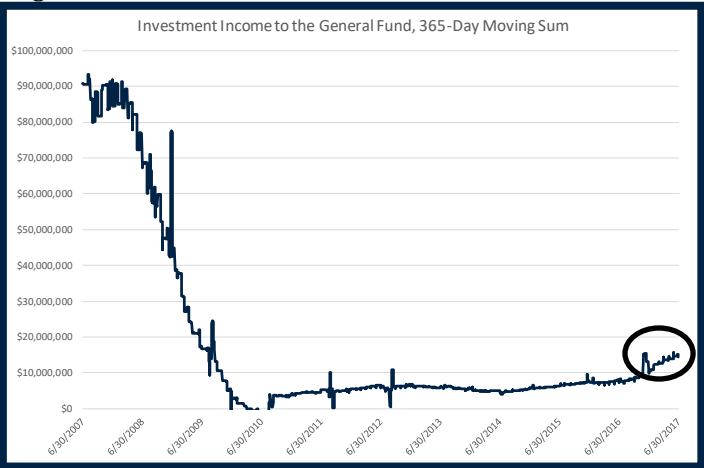


Figure 4



The Transportation Fund is anticipated to end FY 2017 from \$5.0 million below target to \$10.0 million above target.

Overall, revenue growth is fairly strong, largely due to the recent 4.9 cent per gallon tax increase—highlighted by the dark circles in Figures 6 and 7—and increased miles traveled, aided in part by low gas prices, which is highlighted by the dark circled area in Figure 5.

Figure 5



Figure 6

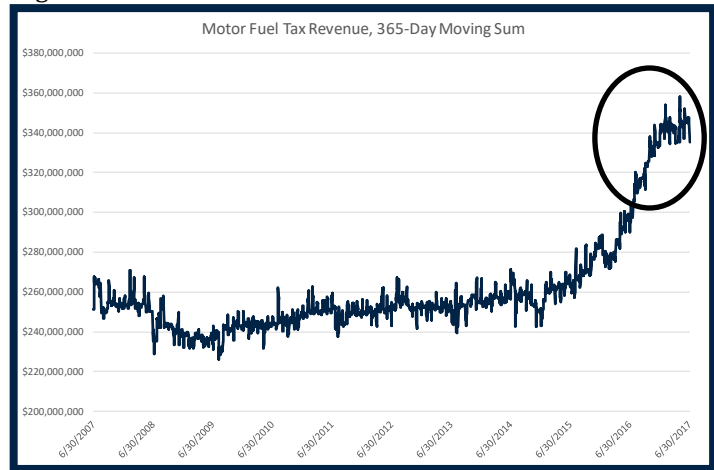
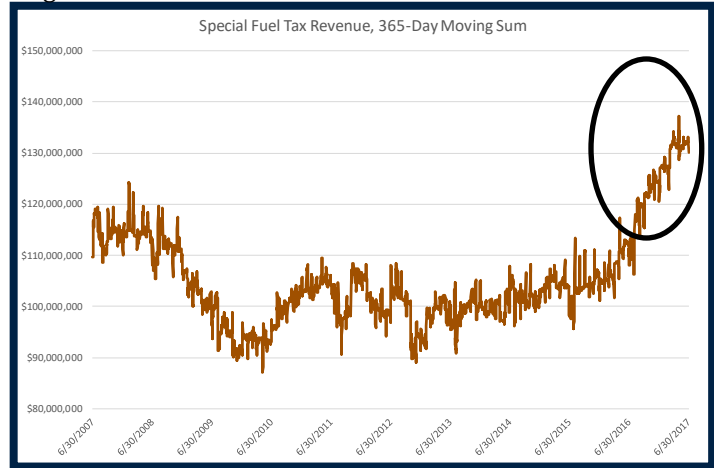


Figure 7



In May, we forecast Education Fund growth of 5.4 percent. As we get close to the end of the fiscal year we expect Education Fund to be close to the May target. We expect the Education Fund to end FY 2017 within a range of \$5.0 million above to \$80.0 million above the May target.

Every year there are two revenue bumps that show up in April. The bumps come from gross final payments from individuals and final payments from corporations. A summary of the gross payment picture by month (columns) and fiscal year (rows) is given in the graphic below. This year, (highlighted by the black circle in the bottom right portion of the graph) the April bumps came in moderately higher than the prior year. For the months of April and May, gross final payments in FY 2017 came in at about \$616.0 million, a 4.3 percent increase from the approximately \$591.0 million in FY 2016.

At the same time, the April and May gross payment figures were somewhat weaker than what the December/January signals would have predicted. Gross final payments for these two

months came in about 18.7 percent higher this fiscal year in comparison to the prior fiscal year. Part of the disappointing “April surprise” might stem from uncertainty on federal tax policy, which may have caused individuals and business owners to delay incurring capital gains until capital gains tax rates are potentially lowered. Another reason for the disappointing gross payments result was an increase in the number of W-2 workers (employees) as opposed to 1099 independent contractors (non-employees). 1099s tend to pay in April. However, the increase is a signal that companies are gaining greater confidence in the state of the economy.

Income tax withholding also came in stronger than the previous year is income tax withholding, with year-end growth estimated to be around 7.0 percent, somewhat stronger than the personal income growth of about 6.1 percent. Corporate income tax also came in slightly above target for the final payments of tax year 2016, with growth of \$7.0 million over the \$72.0 million in April. 2016.



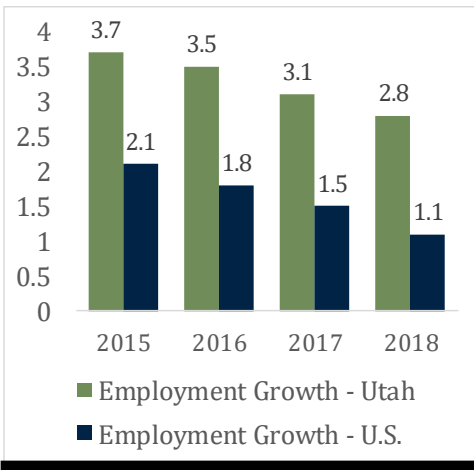
# PART B: ECONOMIC INDICATORS

B1

## REVIEW OF THE ECONOMIC INDICATORS

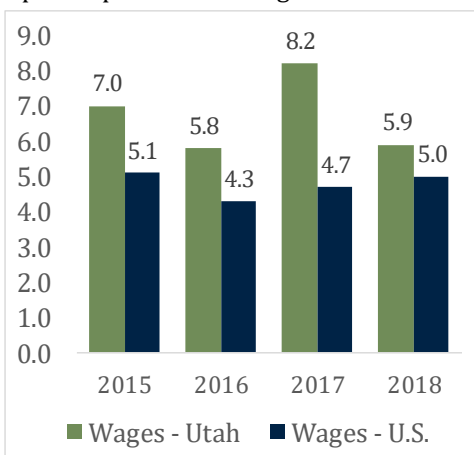
### Nonagricultural Employment

Employment growth is anticipated to continue through calendar year (CY) 2018, with growth rates of 3.1 and 2.8 percent in 2017 and 2018. These rates are expected to strongly outperform national employment growth rates over the same time period by between 1.6 and 1.7 percent.



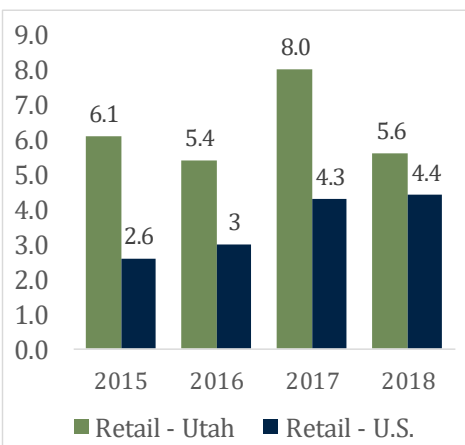
### Nonagricultural Wages

Consistent with the employment picture, the current forecasts assume wage growth will continue throughout 2017 and 2018. Wages are anticipated to grow by 8.2 percent in 2017 and 5.9 percent in 2018. These growth rates are anticipated to outperform national wage growth of 4.7 percent and 5.0 percent over the same time frame. Overall, a tighter labor market is putting moderate upward pressure on wages.



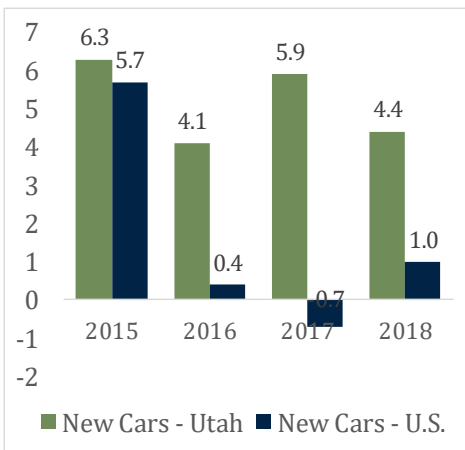
### Retail Sales and Total Taxable Sales

Outside of the increased revenue from collections on online commerce purchases, the consumer in Utah is expected to slightly accelerate spending in 2017 and 2018. Retail sales growth came in at 5.4 percent in 2016 and growth is expected to jump to 8.0 percent in 2017 and then moderate to 5.6 percent in 2018. On the national front, retail sales is currently forecast at 4.3 percent in 2017 and 4.4 percent in 2018.



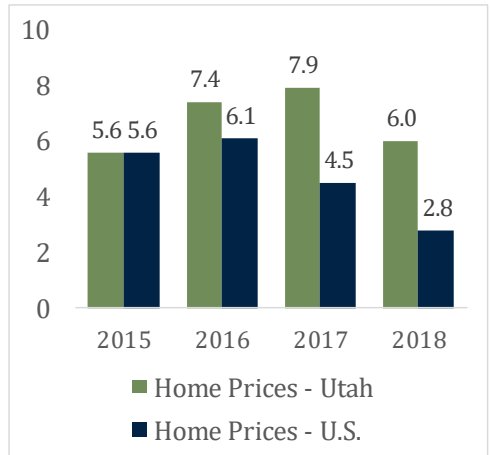
### New Automobiles and Truck Sales

Estimated growth in new automobiles and truck sales is 5.9 percent for CY 2017 and 4.4 percent for CY 2018. These are anticipated to be a healthy amount higher than national automobile and truck sales, which are expected to decline by 0.7 percent in 2017 and then grow by 1.0 percent in 2018.



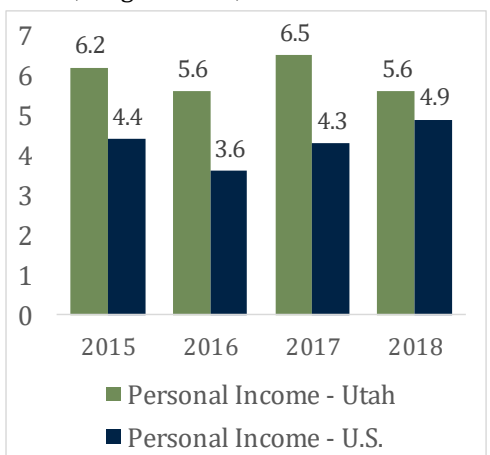
### Home Prices

Potential demand may be outpacing current supply in certain home markets in Utah, and as a result the average annual increase in home prices is expected to be 7.9 percent in 2017 and 6.0 percent in 2018. The 2017 and 2018 home price appreciation figures for Utah are quite strong compared to anticipated national home price growth of 4.5 percent for 2017 and 2.8 percent for 2018.



### Personal Income

Income growth in Utah is anticipated to be fairly strong in 2017 and 2018, with growth rates of 6.5 percent and 5.6 percent. These two figures are anticipated to be stronger than the national growth rates of 4.3 percent and 4.9 percent over the same period of time. Behind the income growth is anticipated strong growth in interest income, dividend income, wage income, and other income.



The housing market in Utah is “hot.” It exhibits a high demand for moderately priced single-family homes, but an inadequate supply of said homes. According to some measures, existing homes, new construction and apartments are all facing measures of shortage, with some new homebuilders having a very limited supply of unsold inventory and are operating at a high level of building capacity.

The four graphs below are indications of the “hotness” of the housing market in Utah. Figure 8 is the cumulative growth in households and housing units from 2010 to 2016. Overall, the growth in households is strongly beating the growth in housing units—an indication of stronger demand for a limited supply of housing. Figure 9 is the construction of new single-family homes by square footage in the Midwest United States, which includes Utah. Construction is coming up, but still far below the activity seen prior to the boom years of the early to mid 2000s, an indication that supply is still limited. Figure 10 is the Federal Housing Finance Authority’s All-Transactions Home Price Index for Utah. Housing prices are now well above where they were when the recession hit in 2008. With potential demand for housing exceeding available supply, analysts expect prices to continue to rise. Figure 11 is the median square feet of floor area in single-family homes across the United States. The general trend of rising square footage was broken in 2016, as builders appear to be just starting to get back into the more affordable housing arena.

The tightness of the housing market is not just limited to the residential side of the housing market. Pressure is also showing up in the multifamily area. The sale of multifamily units, which includes townhomes, condominiums and twin homes, accounted for 24.0 percent of all residential sales. This represents the highest share to date. Over the last two decades, multifamily sales averaged 18.0 percent of residential sales. Current estimates suggest that one in three Utah households now rent instead of owning a home. Of that group, 19.0 percent are senior citizens, 15.0 percent live in households of five or more, and 25.0 percent live alone. Perhaps most interesting, 31.0 percent of rental units are in single-family homes, 37.0 percent are in apartment communities; 25.0 percent are in duplexes, triplexes, fourplexes, townhomes and condos; and 7.0 percent are basement apartments.

Figure 8

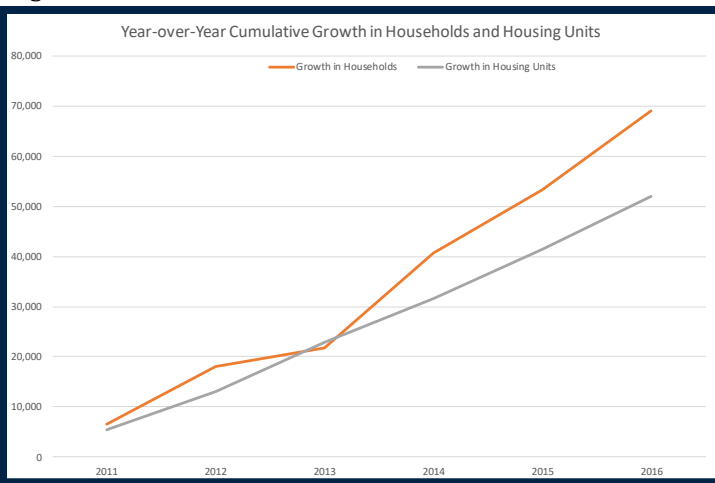


Figure 10

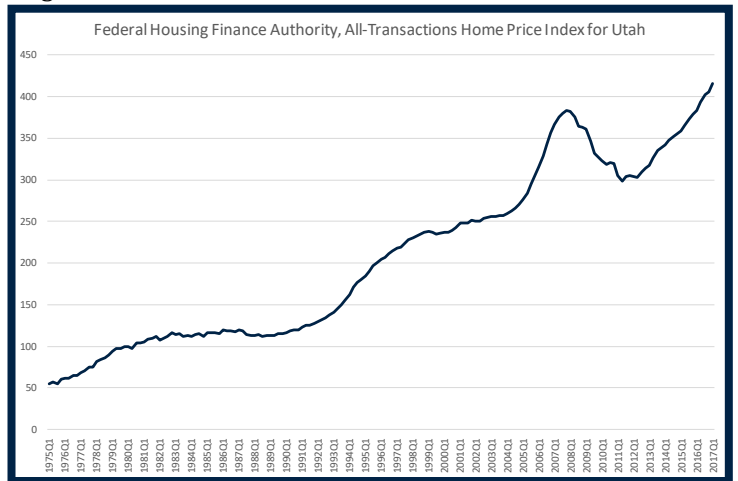


Figure 9

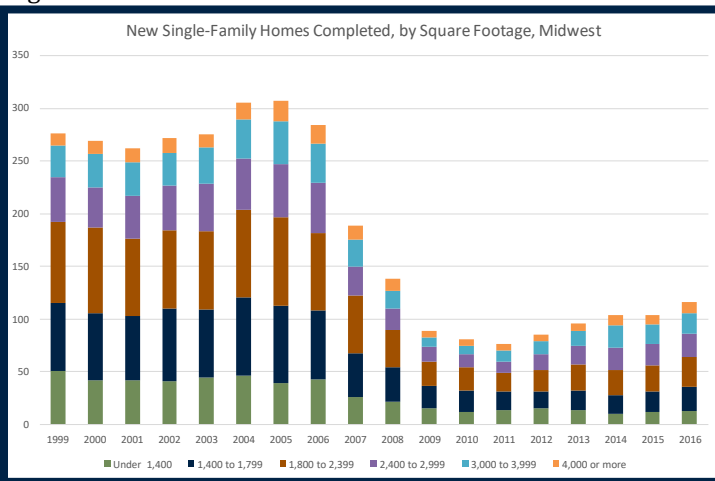
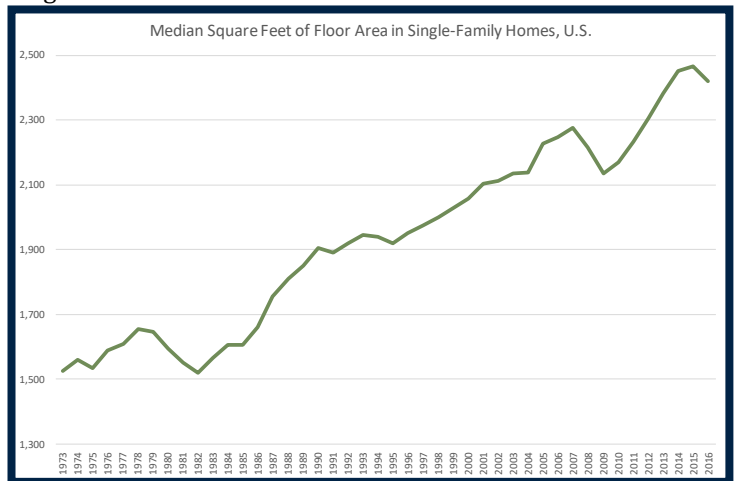


Figure 11



FEDERAL TAX REFORM

Because the State's income tax system is linked with federal adjusted gross income, the federal exemption amount, the federal standard deduction, and the federal itemized deductions, potential federal tax changes will likely directly impact income tax revenue.

Some of the proposed federal changes will have no **direct** impact on the State's revenue picture, such as proposals to adjust the income tax brackets, reduce the capital gains rate, or eliminate the net investment income tax on certain individuals.

A couple of direct impact examples are presented to the right. Figure 12 has the federal exemption amount reduced by 50.0 percent. Because the Utah exemption amount for purposes of calculating the Taxpayer Tax Credit uses 75.0 percent of the federal amount, should the federal government reduce the exemption amount and the State make no changes, the individuals state income tax burden would go up. A simulation of income tax returns using 2015 data puts the associated revenue increase at \$180.0 million.

REDUCE FEDERAL EXEMPTION AMOUNT BY 50% = \$180 M STATE INCOME TAX INCREASE IN 2015

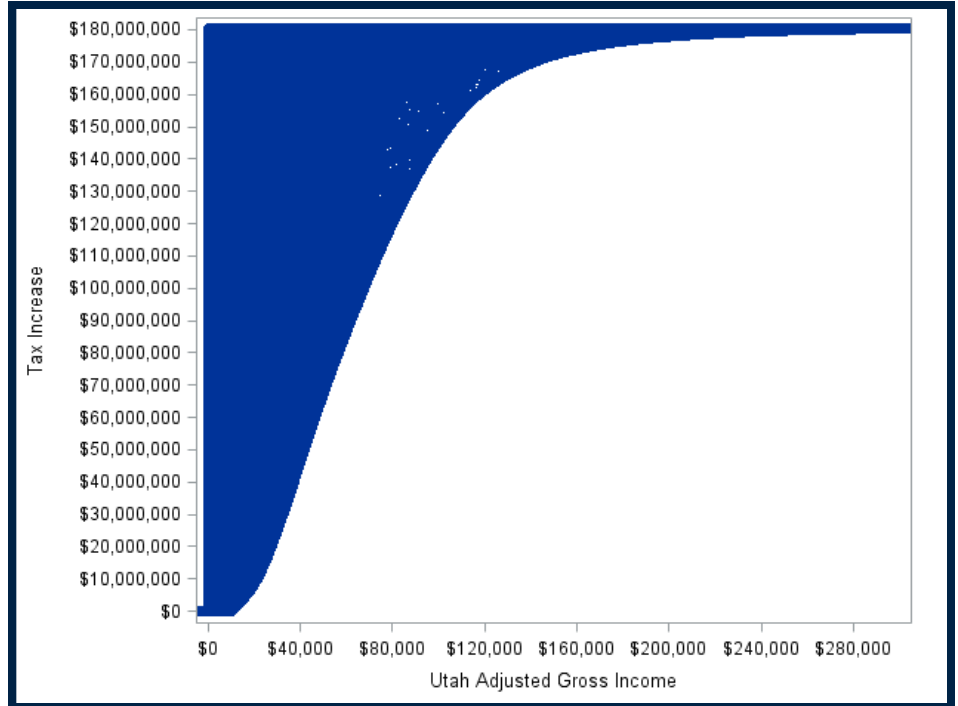


Figure 12

The second example in Figure 13 deals with the standard deduction and itemized deductions. The State income tax system uses a tax filer's standard or itemized deductions when calculating the Taxpayer Tax Credit. In the example to the right, the model assumes that the federal government increases the standard deduction by 25.0 percent and caps the itemized deductions at \$12,500 for individuals and \$25,000 for married filing jointly filers. As indicated on the chart, some tax filers experience a decrease in tax liability and some tax filers experience an increase in tax liability. On the net, this scenario results in an associated increase of \$28.0 million.

THE STANDARD DEDUCTION RISES BY 25% AND CAP ITEMIZED DEDUCTIONS AT \$12.5K (SINGLE)/\$25K (MARRIED) = \$28 M STATE INCOME TAX INCREASE IN 2015

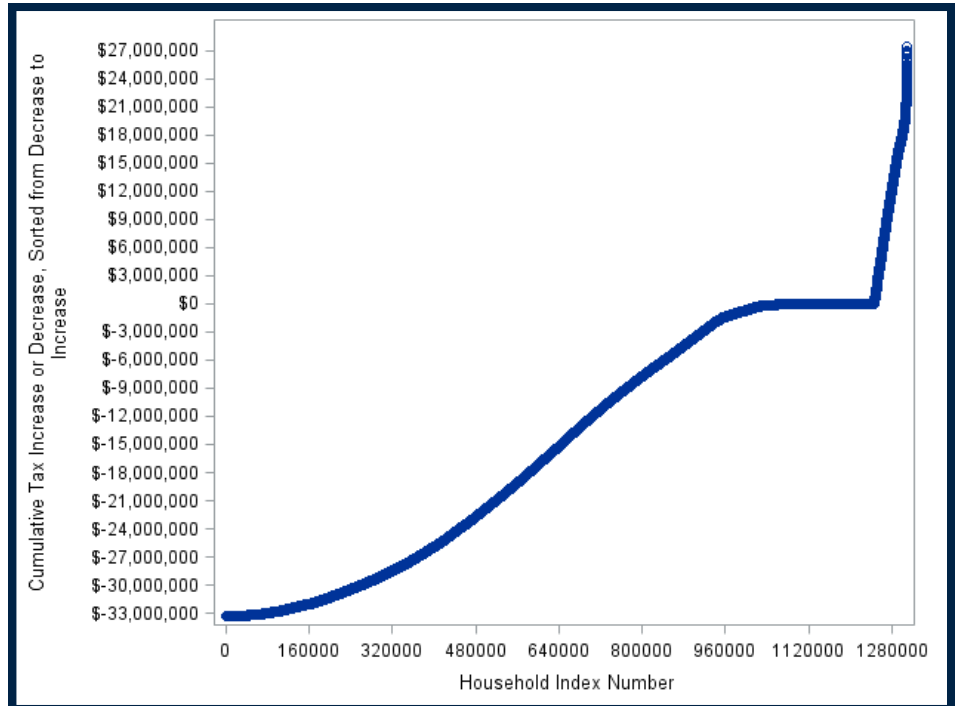


Figure 13

These two examples of direct changes to the tax base are only two of the possibilities that have been mentioned as of this writing. It's also important to note that a number of the already-mentioned federal tax changes that are not directly tied to the State's income tax system will indirectly show up, having an effect on income tax revenue, such as when the federal government changes capital gains rates.

External financial conditions are generally quite favorable to short-term economic growth. Interest rates are still very low, central banks around the world are still very accommodative, the equity markets are performing well, and global growth is generally synchronizing to the upside. The question is how long current conditions can last.

**Central bank asset balance sheet expansions.** Central Banks have seen a giant expansion in their balance sheets, particularly the Federal Reserve, the European Central Bank (ECB), and the Bank of Japan. Since they began purchasing financial assets in earnest in August 2008, these three have seen their balance sheets expand by around \$10.0 trillion, and only briefly did the ECB experiment with selling off some balances. The larger question now is how will the financial world react when central banks eventually begin to sell off the accumulated assets. Missteps could trigger a worldwide recession.

**Stock market.** Overall, stock markets around the world are performing amazingly well, much stronger than what the general state of the economy would predict. The performance has had the positive effect of boosting individuals' and companies' net worth and possibly boosting confidence in the economic condi-

tions. The downside is that an economy boosted by equity markets can be dragged down by weakening equity markets, and that weakness doesn't necessarily have to be connected with overall economic conditions, but rather simply the view that economic conditions may sour.

**Federal funds rate.** The Federal Reserve has been incredibly accommodative for the past decade, having lowered the federal funds target rate to virtually zero and expanded its balance sheet by more than \$3.0 trillion. These actions pose the risk of adverse economic conditions when the central bank attempts to release itself of such extraordinary measures.

**Probability of a Recession Based on the Yield Curve.** A common measure for evaluating the probability of a recession is the yield curve. Usually, when the yield curve moves lower and eventually turns negative, a recession is on the imminent horizon. Using the 10-year Treasury note less the 3-month T-Bill as the yield curve definition, the chart at the bottom right shows that there is currently a low probability of job losses occurring in a year from today. With that said, the yield curve is moving towards an economic slowdown, although, according to this measure, a recession is still multiple years away.

Figure 14

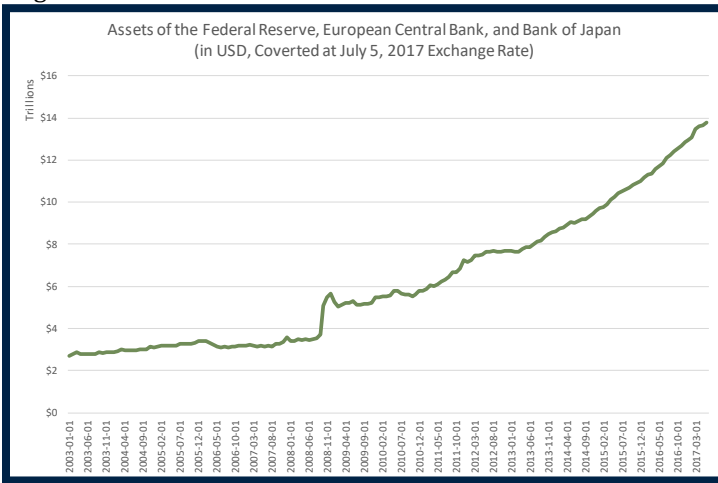


Figure 16

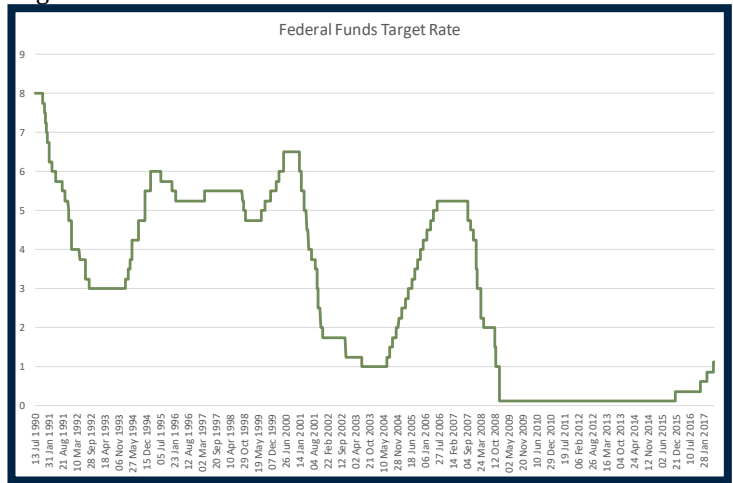


Figure 15

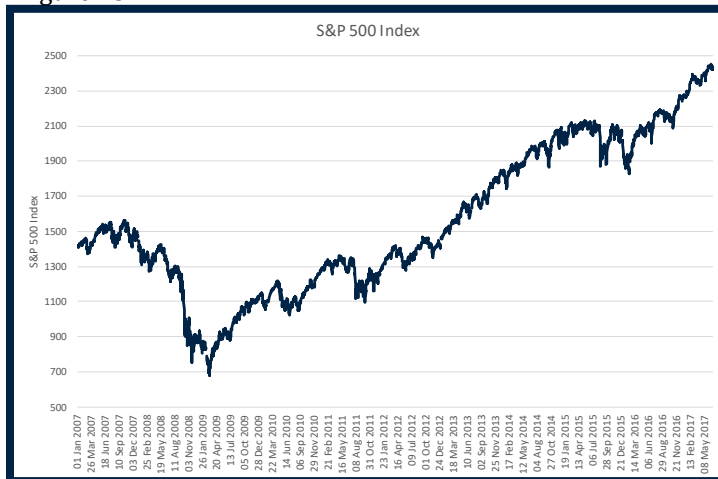
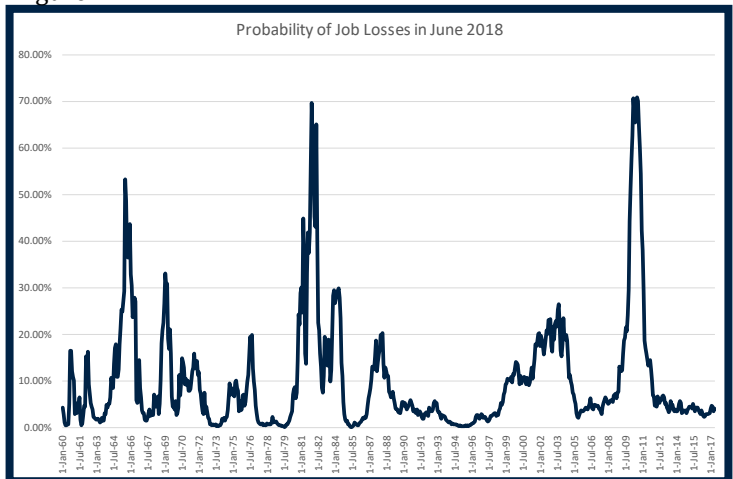


Figure 17





**RETURN SERVICE REQUESTED**

## ***PART C: REVENUE COLLECTIONS***

<b>Tax Revenue (In Millions of Dollars)</b>	<b>FY 2016 Final</b>	<b>FY 2017 Consensus</b>	<b>FY 2017 Consensus Growth Rate</b>	<b>FY 2016 Year-to-Date 7/8/2016</b>	<b>FY 2017 Year-to-Date 7/10/2017</b>	<b>FY 2017 Year-to-Date Growth Rate</b>
Sales & Use Taxes	\$1,778.54	\$1,851.16	4.1%	\$1,790.26	\$1,871.85	4.6%
Individual Income Tax	3,370.32	3,586.32	6.4%	3,369.17	3,605.91	7.0%
Corporate Franchise Tax	338.33	326.23	-3.6%	339.95	333.14	-2.0%
Beer, Cigarette & Tobacco	118.33	115.94	-2.0%	120.46	117.50	-2.5%
Insurance Premium Taxes	111.66	113.02	1.2%	112.30	123.10	9.6%
Severance Taxes	27.74	10.48	-62.2%	28.66	14.82	-48.3%
Other Sources	245.38	267.12	8.9%	222.27	231.82	4.3%
<b>Total - General &amp; Education Funds</b>	<b>\$5,990.30</b>	<b>\$6,270.27</b>	<b>4.7%</b>	<b>\$5,983.07</b>	<b>\$6,298.14</b>	<b>5.3%</b>
Motor Fuel Tax	\$305.23	\$352.70	15.6%	302.22	344.03	13.8%
Special Fuel Taxes	115.53	129.50	12.1%	110.40	129.26	17.1%
Other Transportation Fund	89.75	91.00	1.4%	86.55	89.28	3.2%
<b>Total - Transportation Fund</b>	<b>\$510.51</b>	<b>\$573.20</b>	<b>12.3%</b>	<b>\$499.17</b>	<b>\$562.57</b>	<b>12.7%</b>

Source: LFA, USTC, DOF