

Economic Review

November 1, 2017



Washington State
Economic and Revenue Forecast Council

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WASHINGTON STATE
ECONOMIC AND REVENUE FORECAST COUNCIL

AGENDA

ECONOMIC REVIEW MEETING

November 1, 2017
10:00 a.m.

- Approval of meeting minutes:
 - ✓ September 20, 2017
 - ✓ September 6, 2017
- Preparation of the November 2017 Budget Outlook
- Presentation of economic outlook and revenue collection experience

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STATE OF WASHINGTON

ECONOMIC AND REVENUE FORECAST COUNCIL

PO Box 40912 □ Olympia, Washington 98504-0912 □ (360) 534-1560

**Meeting Minutes
Revenue Review**

September 20, 2017

John A. Cherberg, Hearing Room 3

Economic and Revenue Forecast Council

Members Present

Timm Ormsby, House of Representatives
Vikki Smith, Department of Revenue
David Schumacher, Office of Financial Management
Shawn Myers, Assistant Treasurerⁱ

Staff

Steve Lerch, Executive Director,
ERFC

Call to Order

Director Schumacher called the meeting to order at 10:00 a.m.

Forecast Presentation

Dr. Lerch presented information on the final economic and revenue forecast. Dr. Lerch summarized the forecast changes. Discussion ensued.

Forecast Adoption

Absent a quorum, the forecast submitted by the supervisor of the forecast, Dr. Lerch, will have the same effect as if approved by the Council. The September economic and revenue forecast is adopted upon adjournment.

Adjournment

Meeting adjourned at 10:14 a.m.

ⁱ RCW 43.08.120 Assistant—Deputies—Responsibilities for acts.

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**Meeting Minutes
Economic Review**

September 6, 2017

John A Cherberg, Senate Hearing Room 3

Economic and Revenue Forecast Council Members

Present

Kevin Ranker, Senate (via phone)
John Braun, Senate (via phone)
Terry Nealey, House of Representatives (via phone)
Timm Ormsby, House of Representatives (via phone)
Duane Davidson, Treasurer
David Schumacher, Office of Financial Management
Vikki Smith, Department of Revenue

Staff

Steve Lerch, Executive Director,
ERFC

Call to Order

Director Schumacher called the meeting to order at 10:01 a.m.

Motion

Senator Ranker made a motion to approve the meeting minutes from the June 20, 2017 meeting, seconded by Director Smith. Council approved the motion at 10:01 a.m.

Motion

Treasurer Davidson made a motion to approve the meeting minutes from the July 28, 2017 meeting, seconded by Director Smith. Council approved the motion at 10:02 a.m.

Motion

Senator Ranker made a motion to extend the employment contract for the executive director, including 2.5% wage increases in 2017 and 2018 in addition to general wage increases as passed by the legislature. Motion seconded by Director Smith. Council approved the motion at 10:05 a.m.

Presentation on the Economic Forecast

Dr. Lerch presented information on the preliminary economic forecast. Dr. Lerch summarized the forecast changes and provided background information on both the U.S. and Washington economies. Discussion ensued regarding house price appreciation data, change in aerospace employment, and medical cannabis sales.

Adjournment

Meeting adjourned at 10:22 a.m.

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November 1, 2017

To: Economic and Revenue Forecast Council

From: State Budget Outlook Work Group

Subject: Preparation of the November 2017 Outlook

The State Budget Outlook Work Group (work group) poses the following issues for the Economic and Revenue Forecast Council (ERFC) to provide guidance in the preparation of the November 2017 Outlook.

Methodology for November 2017

Resource Updates

- The November 2017 Outlook will be updated for the November 2017 revenue forecast. However, the extraordinary revenue growth (ERG) calculation based on the November 2017 forecast will not be available. The work group will use the ERG calculation from the September 2017 forecast.
- Reversions for fiscal year 2017 will reflect actuals. Future year reversion assumptions will not be changed from the enacted outlook.

Maintenance Level Updates

- The November 2017 Outlook will begin with the enacted budget and include a preliminary estimate by the Office of Financial Management of projected maintenance level costs. These estimates are to reflect projected expenditures based on the estimated cost of providing services currently authorized in the budget. The 2017-19 maintenance level projection will be the basis for the 2019-21 projection using the outlook growth factors and adding any mandatory items that start in 2019-21. This estimate of the Governor's projected maintenance level is not final.

Outlook Growth Factors

At its September 21, 2016 meeting, the ERFC adopted updated growth factors for the Outlook. These updated growth factors will remain constant for Outlooks prepared during the 2017-19 biennium, from November 2016 through the Outlook on the enacted 2018 supplemental budget, unless otherwise modified by the ERFC.

Other Items

- The November 2017 Outlook will include the preliminary updates to maintenance level, however there have been costs in the past that are not maintenance level that the ERFC has opted to include. In prior Outlook preparations, these were limited to things such as costs incurred from new statewide ballot measures, certain fire/disaster response, and lawsuits. Following are two items for consideration in preparation of the November 2017 Outlook:
 - Costs related to fire mobilization in 2017 will continue to be further refined but initial costs are estimated to be approximately \$30 million. Does the ERFC want to include fire mobilization costs in the November 2017 Outlook? For all future November Outlooks, does the ERFC want to include an estimate for fire mobilization costs?
 - The Department of Social and Health Services is incurring fines for the *Trueblood* case which deals with delays in providing forensic mental health services. The fines are based on

the number of days a person waits for admission to a forensic bed in excess of court mandated timelines. The monthly fines have been trending upward since they began in July 2016. In addition, the court recently ordered new fines on delays for a subgroup of the class which prior to now had not been subject to fines.

Funding was provided in FY 2017 for Trueblood fines, however no specific funding was included in the FY 2017-19 operating budget for fines. The legislature included funding for FY 2017-19 to increase the capacity to provide forensic evaluation and restoration services for class members. DSHS is delayed in implementing the new beds that were funded back to July and does not expect to have these beds implemented until the spring.

From July 1st through October 12th of this fiscal year, DSHS has incurred a little over \$11 million in Trueblood fines. The following table provides the monthly fines going back to July 2016:

TRUEBLOOD FINES

Start Date	End Date	Total Fine Amount
07/08/2016	07/14/2016	199,500
07/15/2016	08/14/2016	529,000
08/15/2016	09/14/2016	962,500
09/15/2016	10/13/2016	1,395,500
10/14/2016	11/14/2016	2,344,000
11/15/2016	12/14/2016	2,139,000
12/15/2016	01/12/2017	2,162,500
01/13/2017	02/14/2017	1,827,000
02/15/2017	03/14/2017	1,907,000
03/15/2017	04/13/2017	2,307,500
04/14/2017	05/11/2017	2,573,000
05/12/2017	06/13/2017	3,153,000
06/14/2017	07/13/2017	2,872,500
07/14/2017	08/14/2017	3,020,500
08/15/2017	09/14/2017	3,344,500
09/15/2017	10/12/2017	3,529,000
		34,266,000

Does the ERFC want to include an adjustment for Trueblood fine costs in the November 2017 Outlook? If so, should the estimated costs be through November 20, 2017 (date the Outlook is prepared), the beginning of legislative session, or some other date?

**Economic & Revenue Forecast Council
State of Washington**



Economic Review: November 1, 2017

Executive Summary

- This forecast is based on a modified version of IHS Markit's October 2017 Control forecast for the U.S. economy. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. The October Blue Chip forecast for real GDP growth in 2017 and 2018 was unchanged since September at 2.2% and 2.4%. The Blue Chip long-range forecast was also updated in October. The new forecast calls for growth rates of 2.1%, 2.1%, and 2.0% compared to 2.1%, 2.0%, and 2.0% in September.
- Our oil price forecast reflects the futures markets, primarily the Brent (North Sea) oil price but also the West Texas Intermediate (WTI) benchmark. This forecast was based on the Wednesday, October 25, 2017 closing prices for Brent and WTI futures. The latest futures prices are slightly higher than the prices used in the September forecast but, unlike in September, fall gradually through the forecast. The refiner acquisition price of crude oil in the first quarter of 2018 is now expected to average \$53 per barrel compared to \$50 in the September forecast. By the end of 2021, the refiner acquisition price is now expected to average \$50 per barrel compared to \$51 in the September forecast.
- In a significant change from earlier forecasts, the preliminary November forecast drops the assumption of fiscal stimulus beginning in 2018. Previous forecasts had assumed a reduction in personal and corporate federal tax rates as well as additional infrastructure spending.
- The U.S. labor market contracted by 33,000 net new jobs in September, reflecting hurricane-related disruptions. In the previous 12 months, employment had increased by an average of 172,000 jobs. October employment should be boosted by employees returning to work following the storms. Data for October employment will be incorporated into our final economic forecast.
- Two key measures of consumer confidence both increased this month. The University of Michigan index of consumer sentiment increased by 5.6 points in October to a 13-year-high 100.7. The Conference Board index of consumer confidence rose 5.3 points in October to 125.9, its highest level since 2000.
- Initial claims for unemployment insurance increased by 10,000 to 233,000 (SA) in the week ending October 21 from a 44-year low the previous week. The four-week moving average of initial claims decreased by 9,000 to 239,500.
- Industrial production increased by 0.3% (SA) in September following a 0.7% decline in August. Industrial production is now 1.6% above its September 2016 level. New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, increased by 1.3% (SA) in September and were 7.8% (SA) above their year-ago level according to U.S. Census Bureau data.

- U.S. housing data were generally weak this month. Housing units authorized by building permits in September were 4.5% (SA) below their August level and 4.3% below their year-ago level. September housing starts decreased by 4.7% (SA) compared to August but were 6.1% above their September 2016 level. Existing home sales in September increased 0.7% (SA) compared to August but were 1.5% below their year-ago level. New single-family home sales jumped 18.9% in September to 667,000 (SAAR) from a revised 561,000 in August. September new home sales were up 17.0% over their year-ago levels. The seasonally adjusted Case-Shiller national home price index for August was 0.5% above its July level and 6.0% above its year-ago level.
- Major threats to the U.S. and Washington economies remain, including slow labor productivity growth, geopolitical risks and concerns about international trade and fiscal policy.

Washington

- We have just one month of new Washington employment data since the September forecast was released. Total nonfarm payroll employment rose 3,600 (seasonally adjusted) in September, which was 3,600 less than the 7,200 expected in the September forecast. Manufacturing gained 1,200 jobs in September including 200 aerospace jobs. The construction sector, however, lost 900 jobs, as did government. Private, service-providing sectors added 4,200 jobs in September.
- We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions raised the estimated level of total employment in August 2017 by 6,000 jobs (0.2%). As a result of the upward revision to history and weaker-than-expected growth, the net effect is 2,400 (0.1%) more jobs in September 2017 than expected in the September forecast.
- In September, the Bureau of Economic Analysis released estimates for state personal income through the second quarter of 2017. We have incorporated the new BEA estimates as well as additional Washington QCEW and other wage data. The September release also incorporated the impact of the annual revision of the national income and product accounts (NIPA). Our current estimate of Washington personal income in the second quarter of 2017 is \$416.9 billion, which is \$6.8 billion (1.6%) higher than assumed in the September forecast. The new estimate of wage and salary income is \$0.7 billion lower than expected but nonwage income is \$7.5 billion higher. The much higher nonwage estimate is the result of the historical NIPA revisions, which raised the estimate for property income (dividends, interest, and rent) by \$8.4 billion in 2016.
- Washington housing construction held steady in the third quarter of 2017. The number of housing units authorized by building permits averaged 43,900 units (SAAR) in the third quarter of 2017, which was very close to the September forecast. Third quarter permits were made up of 24,000 single-family units and 19,900 multi-family units. The September forecast had assumed 43,600 units (SAAR) in the third quarter, consisting of 23,600 single-family units and 19,900 multi-family units.
- Seattle area home prices continue to rise very rapidly. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home

prices rose 0.6% in August compared to a 0.5% increase in the Composite-20 index. Over the year, Seattle home prices are up 13.3%, more than double the 6.0% increase in the Composite-20 index. Seattle home prices are now up 72% since the December 2011 trough and exceed the May 2007 peak by 20%.

- Seattle area consumer price inflation remains above the national average. Over the last year, from August 2016 to August 2017, consumer prices in the Seattle area rose 2.5% compared to 1.9% for the U.S. city average. Core prices, which exclude food and energy, were up 2.2% in Seattle compared to 1.7% for the nation. The higher Seattle inflation is due to more rapid growth in shelter costs. During the year, shelter costs in Seattle rose 6.1% compared to 3.3% for the nation. Excluding shelter, Seattle inflation was below the national average at 0.5% compared to 1.2%.
- The Institute of Supply Management – Western Washington Index (ISM-WW) remained strong in September. The index, which measures conditions in the manufacturing sector, decreased from 58.2 in August to a still strong 57.5 in September (index values above 50 indicate growth while values below 50 indicate contraction). This was a significant improvement from the previous three months whose index values were all less than or equal to 50. The production, orders, and inventory components indicated expansion in September while the employment and deliveries components were neutral at 50.
- Washington car and truck sales increased in July, August, and September after sinking to the lowest level in more than three years in June. Seasonally adjusted new vehicle registrations increased 3.5% in July, 8.6% in August, and 3.5% in September to 319,000 units (SAAR). Car and truck sales are up 1.4% over the year but down 4.8% since the post-recession peak in January 2016.
- Second quarter 2017 Washington exports were down 3.4% from the second quarter of 2016 because of a 10.1% decline in transportation equipment exports (mostly Boeing planes). Exports of agricultural products increased 28.9% over the year and exports of all other commodities rose 1.9% over the year. This “other” category, which consists mainly of manufactured goods, has shown positive over-the-year growth for the last three quarters.
- Washington employment is expected to grow 2.9% this year, which is the same rate expected in the September forecast. As in September, we expect growth to decelerate gradually as the recovery matures. We expect employment growth to average 1.6% per year in 2018 through 2021, which is also the same rate expected in September. Our forecast for nominal personal income growth this year is 5.2%, down from 5.8% in the September forecast. The level of personal income in 2017 is higher however due to historical revisions. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.1% per year which is the same rate as expected in the September forecast.

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Washington State Economic Outlook & Revenue Collection Experience

Presented to
The Economic & Revenue Forecast Council

Steve Lerch
Executive Director

November 1, 2017
Olympia, Washington



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Summary

- The preliminary economic forecast for the U.S. is similar to the September forecast, although after-tax personal income is lower
- The preliminary economic forecast for WA has slightly higher personal income but is generally similar to September
- Downside risks to the baseline include uncertainty regarding trade and fiscal policy, weak labor productivity growth and geopolitical concerns
- Revenue collections since the September forecast are \$45.5 million (3.2%) above expectations

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Forecast risks

Upside

- Elevated consumer, business confidence could translate into stronger growth
- Stock market gains could translate into faster household consumption growth
- Stronger global economic growth

Downside

- Stagnant labor productivity inhibits wage growth
- Geopolitical risks: North Korea, Russia
- International trade and fiscal policy uncertainty

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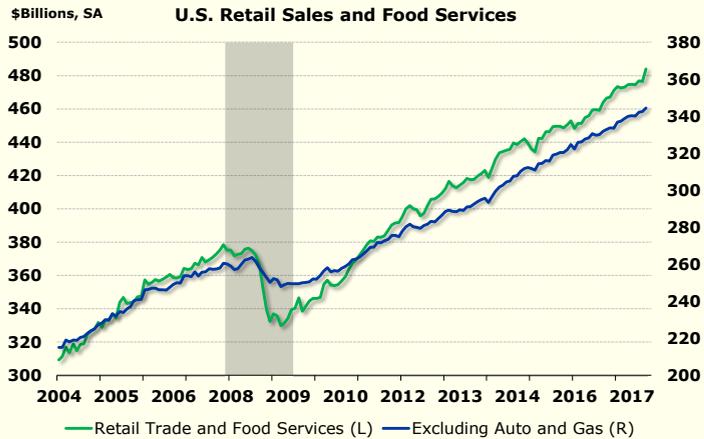
U.S. retail sales excluding autos and gas showing steady climb

Preliminary U.S. retail trade and food services sales (SA) decreased 0.1% in August but jumped 1.6% in September.

Excluding autos and gas, sales were up 3.8% YOY in July, August and September.

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Source: U.S. Department of Commerce, Census Bureau; Data through September 2017 advance

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U.S. household net worth has increased almost 75% from its low point during the recession



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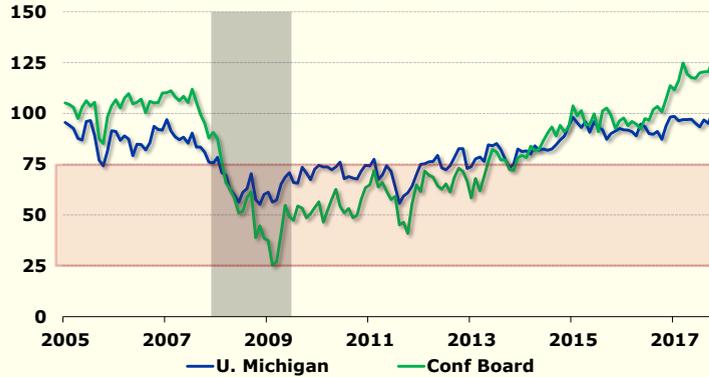
Source: Federal Reserve Bank of St. Louis, data through 2017 Q2

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Consumer confidence is above pre-recession levels

Index
Mich: 1966Q1 = 100, SA
Conf Board: 1985 = 100, SA



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Sources: University of Michigan, Conference Board; data through October 2017

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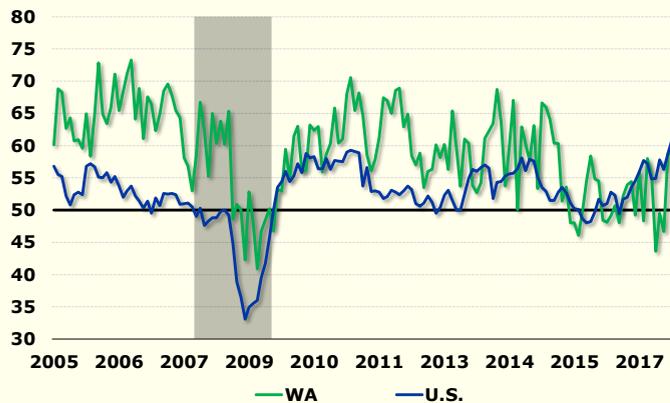
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Manufacturing activity is showing signs of improvement nationally and in WA

Index values below 50 indicate contraction in manufacturing activity, values above 50 indicate expansion

Manufacturing Purchasing Managers' Index, WA & US



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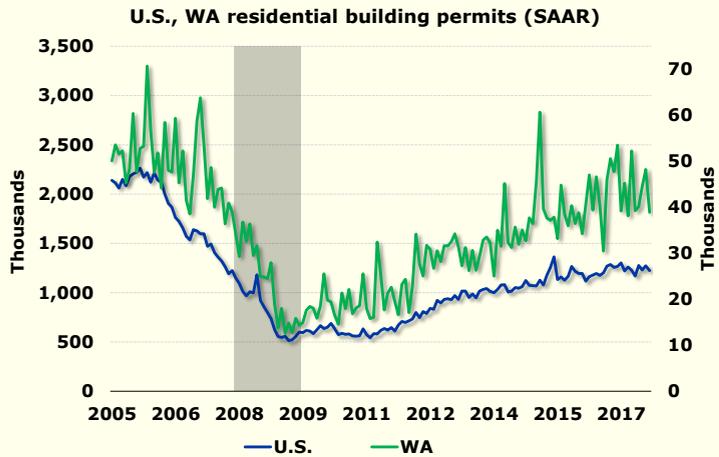
Source: Institute of Supply Management, data through September 2017

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U.S. residential construction remains below pre-recession levels



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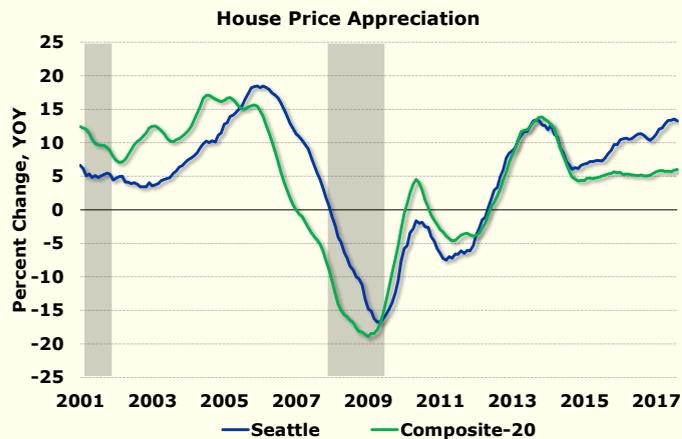
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Source: U.S. Census Bureau, ERFC; data through September 2017

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Seattle house price appreciation continues to be well above national levels



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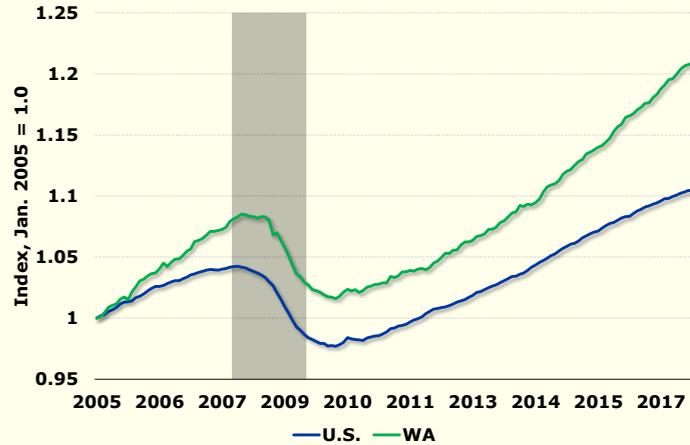
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Source: S&P Case-Shiller; Monthly data through August 2017

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WA employment has grown much faster than for the U.S. as a whole



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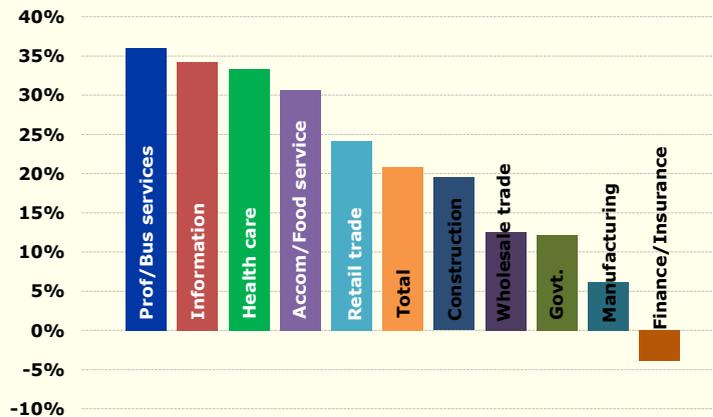
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Source: U.S. Bureau of Labor Statistics, Employment Security Dept., ERFC; data through Sept. 2017

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WA employment growth by major sector, Jan. 2005 to Sept. 2017



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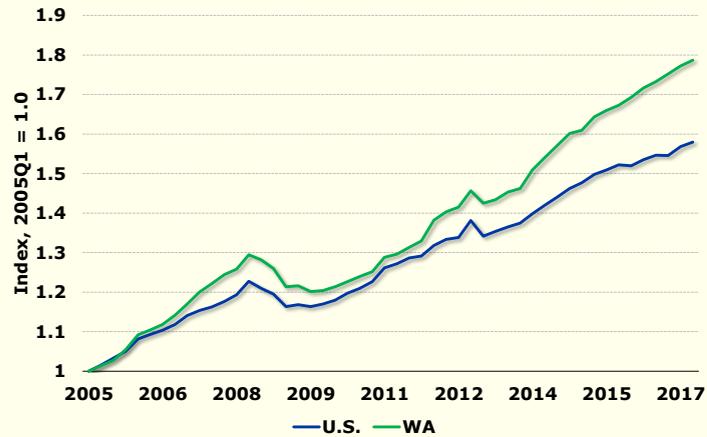
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Source: Employment Security Dept., ERFC; data through Sept. 2017

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WA personal income growth continues to outpace the U.S.



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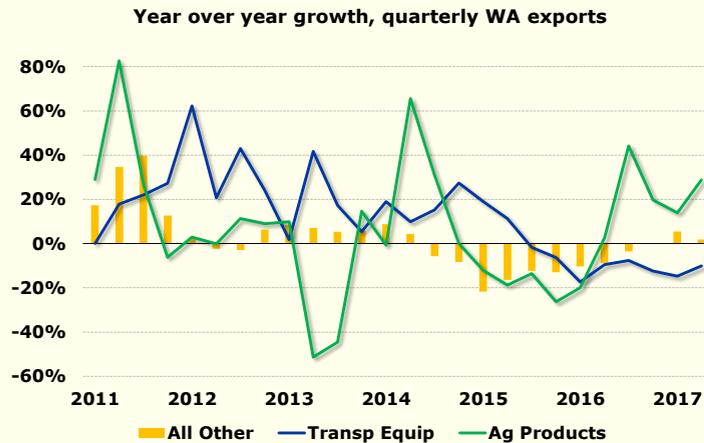
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Source: U.S. Bureau of Economic Analysis; data through 2017 Q2

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Agricultural exports are showing some improvement, transportation equipment is declining



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Source: WISERTrade, data through 2017 Q2

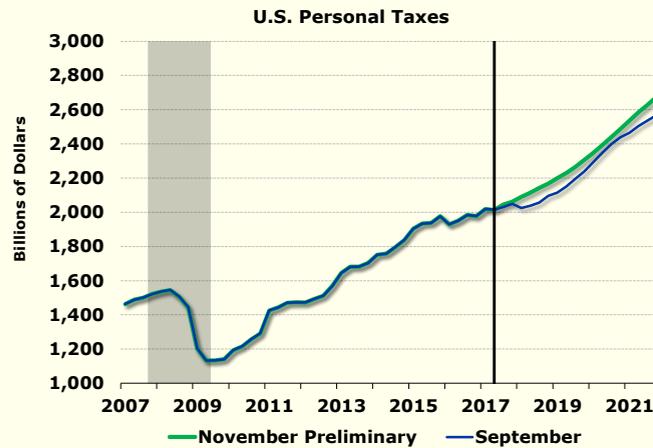
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The tax cut assumption has been dropped from the U.S. forecast

"Owing to recent political developments in Washington and numerous conversations with fiscal and legislative experts, we made the decision to remove the stimulus from our baseline forecast."
-IHS Markit

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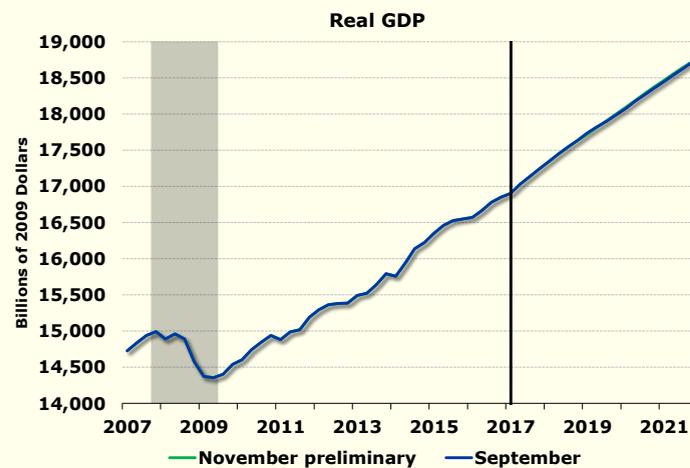
Source: IHS Markit, ERFC; data through Q2 2017
Note: Vertical black line indicates last actual

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Real GDP is essentially unchanged from the September forecast

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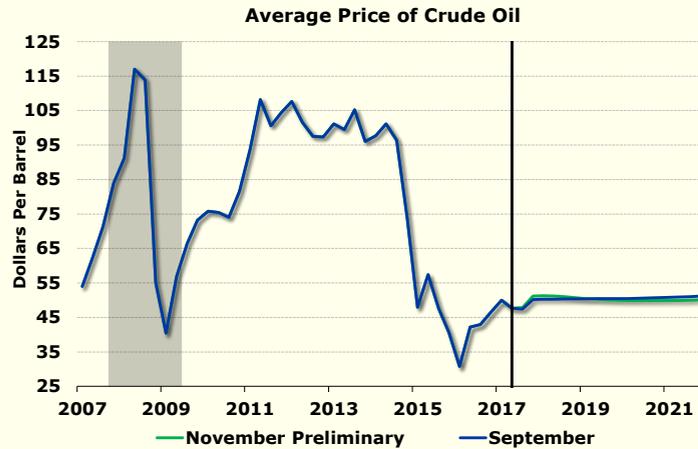


Source: ERFC November 2017 Preliminary forecast; data through Q2 2017

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Oil prices are slightly higher in the near term compared to the September forecast



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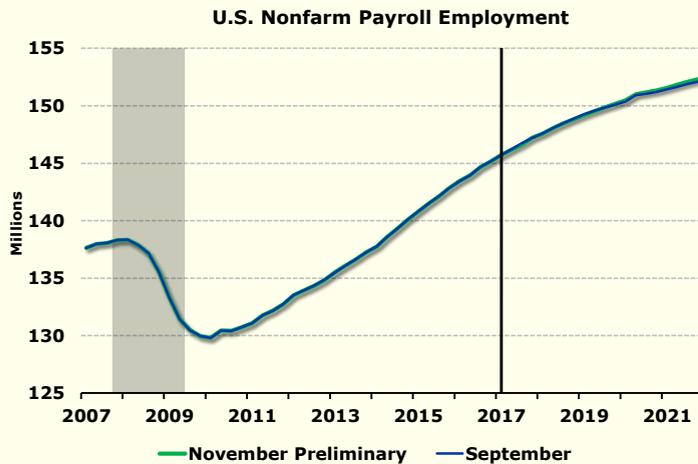
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Source: DOE, ERFC November 2017 Preliminary forecast; historical data through Q3 2017

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The U.S. nonfarm payroll employment forecast is very similar to the September forecast



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Source: ERFC November 2017 Preliminary forecast; data through Q3 2017

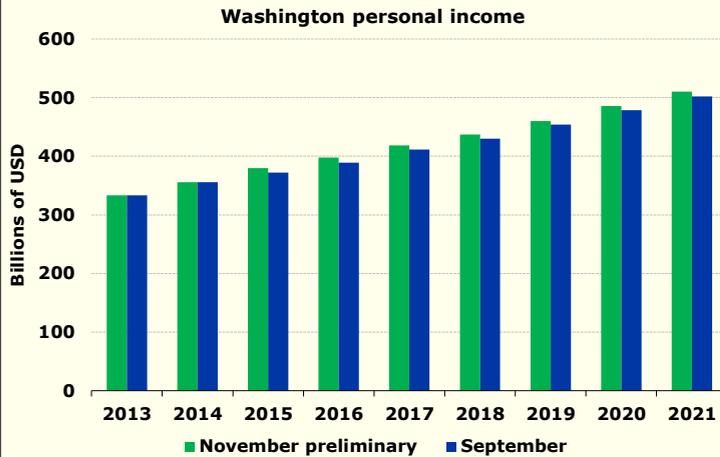
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Washington personal income is slightly higher than in September

2015 and 2016 data were revised slightly higher. WA personal income is 1.6% higher in 2021 compared to the September forecast.

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Source: ERFC November 2017 Preliminary forecast; historical data through 2016

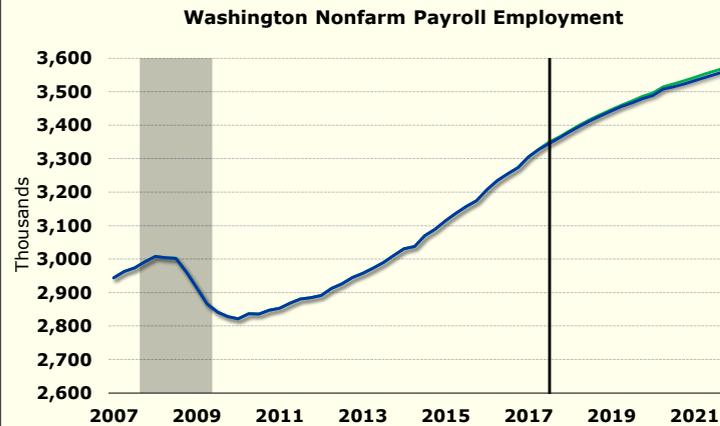
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Washington employment forecast is essentially unchanged compared to September

The WA nonfarm employment forecast is 11,000 jobs higher (0.3%) by 2021 compared to September.

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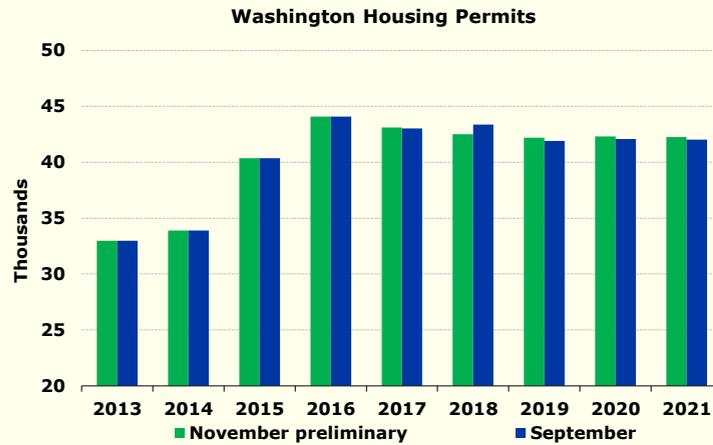


Source: ERFC November 2017 Preliminary forecast; historical data through Q1 2017

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Washington housing permits forecast is very similar to September



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Source: ERFC November 2017 Preliminary forecast; historical data through 2016

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Revenue Act receipts have been growing faster than personal income for the last 7 quarters

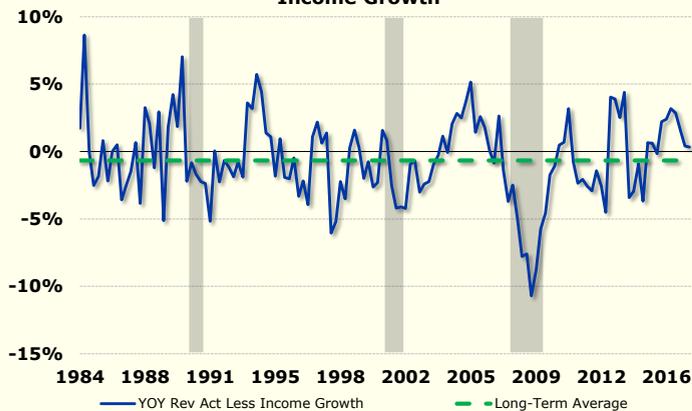
Adjusted Rev Act
growth YOY:

16Q3: 7.2%
16Q4: 6.4%
17Q1: 6.3%
17Q2: 5.6%

November
preliminary
personal income
YOY growth
estimates:

16Q3: 4.4%
16Q4: 4.8%
17Q1: 5.9%
17Q2: 5.2%

**Year-Over-Year Rev Act* Growth Less State Personal
Income Growth**



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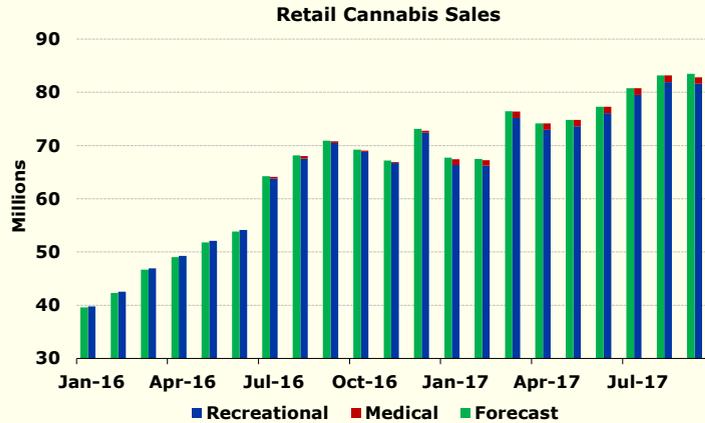
*Adjusted for large one-time payments and refunds and payments under the amnesty program
Source: ERFC; Quarterly revenue data through Q2 2017, November 2017 preliminary income estimates

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Cannabis revenue continues to be volatile

Sales were 2.3% below forecast in September



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Source: LCB, ERFC; data through September 2017

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Large commercial property sales still strong in the 3rd quarter

Large commercial sales (>\$10 million) totaled \$1.8 billion in the 1st quarter of 2017, \$2.9 billion in the 2nd quarter and \$2.0 billion in the 3rd quarter.



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Source: ERFC; Monthly data through September 2017 preliminary

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Revenue collections to date

Collections Variance Since September Forecast (September 11, 2017 – October 10, 2017) dollars in thousands

	<u>Estimate</u>	<u>Actual</u>	<u>Difference</u>	<u>Pct.</u>
Dept. of Revenue	\$1,415,234	\$1,459,366	\$44,132	3.1%
All other agencies	\$5,182	\$6,501	\$1,319	25.5%
Total GF-S	\$1,420,417	\$1,465,868	\$45,451	3.2%

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Conclusion

- The U.S. and Washington economic forecasts are similar to September; we continue to expect moderate growth
- As has been the case for some time, Washington's economy is continuing to outperform the nation
- Threats to economic expansion include slow labor productivity, geopolitical risks and concerns about international trade and fiscal policy
- The next monthly revenue collection report will be available on November 13th and the revenue forecast will be presented on November 20th

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U.S. Economic Forecast Comparison

October 2017

	2017Q3	2017Q4	2018Q1	2018Q2	2016	2017	2018	2019	2020	2021
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary November)	2.4	2.6	2.3	2.4	1.5	2.2	2.4	2.1	2.1	2.0
IHS	2.4	2.9	2.2	2.0	1.5	2.2	2.4	2.2	2.2	2.2
Economy.com	2.4	2.6	2.9	3.7	1.5	2.2	2.9	2.3		
Blue Chip Average*	2.4	2.6	2.3	2.4		2.2	2.4	2.1	2.1	2.0
Blue Chip Top 10*	2.9	3.2	2.9	3.1		2.2	2.8	2.5	3.1	2.6
Blue Chip Bottom 10*	1.8	2.1	1.7	1.9		2.1	2.1	1.8	1.4	1.4
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary November)	1.9	2.5	2.4	2.5	2.7	2.6	2.4	2.2	2.0	2.0
IHS	1.9	3.0	2.4	2.3	2.7	2.7	2.5	2.3	2.4	2.4
Economy.com	1.9	2.7	2.5	2.8	2.7	2.6	2.6	2.2		
Blue Chip Average*	2.0	2.5	2.3	2.5		2.6	2.4	2.2	2.0	2.0
Blue Chip Top 10*	2.6	3.1	2.9	3.0		2.7	2.7	2.6	2.5	2.6
Blue Chip Bottom 10*	1.5	1.9	1.7	2.0		2.5	2.1	1.8	1.4	1.4
Federal Funds Rate										
ERFC (Preliminary November)	1.2	1.3	1.5	1.5	0.4	1.0	1.7	2.6	3.0	3.0
IHS	1.2	1.3	1.5	1.5	0.4	1.0	1.7	2.6	3.0	3.0
Economy.com	1.2	1.2	1.4	1.7	0.4	1.0	1.9	3.4		
Three Month T-Bill Rate										
ERFC (Preliminary November)	1.1	1.2	1.4	1.5	0.3	0.9	1.7	2.5	2.9	2.9
IHS	1.1	1.2	1.4	1.5	0.3	0.9	1.7	2.5	2.9	2.9
Blue Chip Average*	1.1	1.2	1.4	1.6		0.9	1.7	2.4	2.7	2.8
Blue Chip Top 10*	1.1	1.3	1.5	1.8		1.0	1.9	3.0	3.3	3.3
Blue Chip Bottom 10*	1.1	1.1	1.3	1.3		0.9	1.5	1.9	2.2	2.2
10-Yr. T-Note Yield										
ERFC (Preliminary November)	2.3	2.5	2.9	3.1	1.8	2.4	3.2	3.8	4.0	4.0
IHS	2.2	2.5	2.8	3.0	1.8	2.4	3.1	3.8	4.1	4.1
Economy.com	2.2	2.5	2.9	3.1	1.8	2.4	3.3	4.2		
Blue Chip Average*	2.2	2.4	2.6	2.7		2.3	2.8	3.4	3.5	3.5
Blue Chip Top 10*	2.2	2.6	2.8	3.0		2.4	3.1	4.2	4.2	4.2
Blue Chip Bottom 10*	2.2	2.3	2.4	2.4		2.3	2.5	2.7	2.9	3.0
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary November)	2.6	2.8	2.8	1.0	1.3	2.2	2.0	2.0	2.3	2.2
IHS	2.2	2.2	1.6	1.3	1.3	2.1	1.7	2.2	2.7	2.4
Economy.com	1.8	2.5	2.0	2.2	1.3	2.0	2.1	2.8		
Blue Chip Average*	2.0	2.5	1.9	1.9		2.1	1.9	2.3	2.3	2.3
Blue Chip Top 10*	2.4	3.9	2.8	2.5		2.3	2.3	2.7	2.8	2.9
Blue Chip Bottom 10*	1.4	1.4	0.5	1.0		2.0	1.5	1.9	1.9	1.8
Payroll Employment, Millions										
ERFC (Preliminary November)	146.6	147.2	147.6	148.1	144.3	146.4	148.3	149.7	151.0	151.9
Percent Change, Annual Rate	1.2	1.7	1.0	1.3	1.8	1.5	1.2	1.0	0.9	0.6
IHS	146.6	147.3	147.7	148.1	144.3	146.5	148.3	150.0	151.3	152.5
Percent Change, Annual Rate	1.2	1.8	1.1	1.3	1.8	1.5	1.3	1.1	0.9	0.8
Economy.com	146.6	147.2	147.8	148.4	144.3	146.4	148.7	150.2		
Percent Change, Annual Rate	1.2	1.7	1.6	1.7	1.8	1.5	1.6	1.0		
Unemployment Rate, Percent										
ERFC (Preliminary November)	4.3	4.3	4.3	4.3	4.9	4.4	4.3	4.3	4.3	4.3
IHS	4.3	4.3	4.3	4.3	4.9	4.4	4.3	4.3	4.3	4.4
Economy.com	4.3	4.3	4.1	4.0	4.9	4.4	3.9	3.9		
Blue Chip Average*	4.3	4.3	4.2	4.2		4.4	4.1	4.2	4.3	4.4
Blue Chip Top 10*	4.3	4.4	4.4	4.3		4.4	4.3	4.6	4.8	4.9
Blue Chip Bottom 10*	4.3	4.2	4.0	4.0		4.4	3.9	3.8	3.8	4.0
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary November)	-0.2	1.2	2.3	2.5	1.4	1.2	1.9	2.7	2.5	2.0
IHS	0.5	2.0	3.4	2.7	1.4	1.4	2.5	3.0	2.8	2.6
Blue Chip Average*	1.6	2.1	3.0	2.8		1.5	2.5	2.4	2.3	2.2
Blue Chip Top 10*	2.6	3.2	4.5	3.6		1.9	3.1	3.0	2.9	2.9
Blue Chip Bottom 10*	0.5	0.8	2.0	2.2		1.3	2.0	1.8	1.7	1.7
West Texas Intermediate										
ERFC (Preliminary November)	48.2	51.9	52.6	52.8	43.2	50.1	52.5	51.1	50.3	50.1
IHS	48.2	49.4	44.5	47.5	43.2	49.5	49.3	55.1	67.1	72.9
Economy.com	48.2	50.1	51.0	51.5	43.4	49.5	51.6	52.8		

* Forecasts beyond 2018 are from the October 2017 Blue Chip Economic Indicators

U.S. Forecast Comparison

2017Q3 2017Q4 2018Q1 2018Q2

Real GDP (Billions of 2009 Dollars)

November Forecast, Preliminary	17,134	17,245	17,344	17,446
Percent Change	2.4%	2.6%	2.3%	2.4%
September Forecast	17,139	17,243	17,343	17,446
Percent Change	2.6%	2.5%	2.3%	2.4%

Real Consumption (Billions of 2009 Dollars)

November Forecast, Preliminary	11,909	11,983	12,053	12,129
Percent Change	1.9%	2.5%	2.4%	2.5%
September Forecast	11,919	11,992	12,067	12,141
Percent Change	2.2%	2.5%	2.5%	2.5%

PCE Price Index (2009=100)

November Forecast, Preliminary	112.8	113.3	113.9	114.2
Percent Change	1.8%	1.9%	2.1%	1.1%
September Forecast	112.8	113.3	113.7	114.2
Percent Change	1.9%	1.9%	1.4%	1.6%

Real Personal Income (Billions of 2009 Dollars)

November Forecast, Preliminary	14,590	14,635	14,723	14,819
Percent Change	0.4%	1.2%	2.4%	2.6%
September Forecast	14,604	14,657	14,774	14,864
Percent Change	0.8%	1.5%	3.2%	2.5%

Nonfarm Payroll Employment (Millions)

November Forecast, Preliminary	146.6	147.2	147.6	148.1
Percent Change	1.2%	1.7%	1.0%	1.3%
September Forecast	146.8	147.2	147.6	148.1
Percent Change	1.6%	1.2%	1.1%	1.2%

Unemployment Rate (Percent of Labor Force)

November Forecast, Preliminary	4.3	4.3	4.3	4.3
September Forecast	4.3	4.3	4.3	4.3

30 Year Fixed Mortgage Rate (Percent, average)

November Forecast, Preliminary	3.9	4.1	4.6	4.9
September Forecast	3.9	4.1	4.6	4.9

3 Month T-Bill Rate (Percent, average)

November Forecast, Preliminary	1.1	1.2	1.4	1.5
September Forecast	1.1	1.2	1.4	1.5

2015 2016 2017 2018 2019 2020 2021

16,472	16,716	17,078	17,491	17,859	18,234	18,598
2.9%	1.5%	2.2%	2.4%	2.1%	2.1%	2.0%
16,472	16,716	17,079	17,493	17,860	18,217	18,582
2.9%	1.5%	2.2%	2.4%	2.1%	2.0%	2.0%

11,264	11,572	11,876	12,162	12,429	12,678	12,931
3.6%	2.7%	2.6%	2.4%	2.2%	2.0%	2.0%
11,264	11,572	11,881	12,173	12,453	12,727	12,994
3.6%	2.7%	2.7%	2.5%	2.3%	2.2%	2.1%

109.5	110.8	112.6	114.4	116.3	118.5	120.7
0.3%	1.2%	1.7%	1.6%	1.6%	1.9%	1.9%
109.5	110.8	112.6	114.4	116.3	118.5	120.9
0.3%	1.2%	1.7%	1.5%	1.7%	1.9%	2.0%

14,206	14,377	14,570	14,869	15,295	15,730	16,122
4.6%	1.2%	1.3%	2.1%	2.9%	2.8%	2.5%
14,206	14,377	14,579	14,921	15,376	15,814	16,194
4.6%	1.2%	1.4%	2.3%	3.0%	2.8%	2.4%

141.8	144.3	146.4	148.3	149.7	151.0	151.9
2.1%	1.8%	1.5%	1.2%	1.0%	0.9%	0.6%
141.8	144.3	146.5	148.3	149.7	150.9	151.8
2.1%	1.8%	1.5%	1.2%	1.0%	0.8%	0.6%

5.3	4.9	4.4	4.3	4.3	4.3	4.3
5.3	4.9	4.4	4.3	4.3	4.3	4.3

3.9	3.6	4.0	5.0	5.8	6.0	6.0
3.9	3.6	4.1	5.0	5.8	6.0	6.0

0.1	0.3	0.9	1.7	2.5	2.9	2.9
0.1	0.3	0.9	1.6	2.5	2.9	2.8

Washington Forecast Comparison

	2017Q3	2017Q4	2018Q1	2018Q2
Real Personal Income (Billions of 2009 Dollars)				
November Forecast, Preliminary	372.5	374.0	377.1	380.3
Percent Change	1.3%	1.6%	3.4%	3.5%
September Forecast	366.2	367.8	371.2	374.1
Percent Change	1.0%	1.7%	3.9%	3.1%
Personal Income (Billions of Dollars)				
November Forecast, Preliminary	420.0	423.7	429.4	434.3
Percent Change	3.1%	3.5%	5.6%	4.6%
September Forecast	413.0	416.7	422.1	427.1
Percent Change	2.9%	3.7%	5.3%	4.8%
Nonfarm Payroll Employment (Thousands)				
November Forecast, Preliminary	3350	3366	3384	3402
Percent Change	2.6%	1.9%	2.2%	2.2%
September Forecast	3345	3363	3381	3398
Percent Change	2.2%	2.1%	2.1%	2.1%
Unemployment Rate (Percent of Labor Force)				
November Forecast, Preliminary	4.6	4.6	4.5	4.5
September Forecast	4.5	4.4	4.4	4.4
Manufacturing Employment (Thousands)				
November Forecast, Preliminary	285.0	284.7	286.5	289.0
Percent Change	0.3%	-0.5%	2.6%	3.6%
September Forecast	284.0	283.6	284.4	286.1
Percent Change	-0.8%	-0.6%	1.2%	2.4%
Construction Employment (Thousands)				
November Forecast, Preliminary	201.7	202.1	203.7	203.5
Percent Change	0.2%	0.8%	3.3%	-0.5%
September Forecast	201.4	204.0	206.0	206.3
Percent Change	0.9%	5.3%	4.1%	0.5%
Housing Permits (Thousands)				
November Forecast, Preliminary	43.9	43.9	42.8	42.4
Percent Change	-0.2%	0.1%	-9.7%	-3.3%
September Forecast	43.6	43.9	44.3	43.7
Percent Change	-2.9%	2.9%	4.2%	-5.7%

	2015	2016	2017	2018	2019	2020	2021
November Forecast, Preliminary	347.0	359.0	371.7	381.9	395.8	409.8	422.5
Percent Change	5.5%	3.5%	3.5%	2.8%	3.6%	3.5%	3.1%
September Forecast	339.9	351.1	365.4	375.9	390.0	403.5	415.5
Percent Change	4.3%	3.3%	4.1%	2.9%	3.7%	3.5%	3.0%
November Forecast, Preliminary	380.0	397.8	418.6	437.1	460.2	485.5	510.2
Percent Change	5.8%	4.7%	5.2%	4.4%	5.3%	5.5%	5.1%
September Forecast	372.1	389.0	411.6	430.0	453.8	478.4	502.2
Percent Change	4.6%	4.5%	5.8%	4.5%	5.5%	5.4%	5.0%
November Forecast, Preliminary	3146	3242	3337	3409	3466	3517	3558
Percent Change	2.9%	3.1%	2.9%	2.2%	1.7%	1.5%	1.2%
September Forecast	3146	3242	3335	3405	3461	3509	3547
Percent Change	2.9%	3.1%	2.9%	2.1%	1.6%	1.4%	1.1%
November Forecast, Preliminary	5.6	5.4	4.6	4.5	4.5	4.4	4.3
September Forecast	5.6	5.4	4.6	4.4	4.4	4.3	4.3
November Forecast, Preliminary	291.8	289.9	285.1	289.2	293.3	297.0	301.1
Percent Change	1.1%	-0.7%	-1.7%	1.5%	1.4%	1.3%	1.4%
September Forecast	291.8	289.9	284.5	286.3	290.7	294.9	298.5
Percent Change	1.1%	-0.7%	-1.8%	0.6%	1.5%	1.4%	1.2%
November Forecast, Preliminary	173.3	186.5	200.8	203.5	204.2	205.4	205.8
Percent Change	8.5%	7.6%	7.7%	1.3%	0.4%	0.6%	0.2%
September Forecast	173.3	186.5	201.0	206.5	208.3	209.4	209.6
Percent Change	8.5%	7.6%	7.8%	2.7%	0.9%	0.5%	0.1%
November Forecast, Preliminary	40.4	44.1	43.1	42.5	42.2	42.3	42.2
Percent Change	19.1%	9.2%	-2.2%	-1.4%	-0.7%	0.3%	-0.1%
September Forecast	40.4	44.1	43.0	43.4	41.9	42.1	42.0
Percent Change	19.1%	9.2%	-2.4%	0.8%	-3.4%	0.5%	-0.2%

U.S. Forecast Comparison **Fiscal Years**

	2016	2017	2018	2019	2020	2021
Real GDP						
Billions of 2009 dollars						
November Preliminary Forecast	16,578	16,891	17,292	17,677	18,045	18,419
<i>Growth</i>	1.7%	1.9%	2.4%	2.2%	2.1%	2.1%
September Forecast	16,578	16,891	17,293	17,685	18,033	18,401
<i>Growth</i>	1.7%	1.9%	2.4%	2.3%	2.0%	2.0%
Difference in level	0	0	-1	-8	12	19
<i>Difference in growth forecast</i>	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%

Real Consumption						
Billions of 2009 dollars						
November Preliminary Forecast	11,413	11,733	12,019	12,298	12,554	12,804
<i>Growth</i>	3.0%	2.8%	2.4%	2.3%	2.1%	2.0%
September Forecast	11,413	11,733	12,030	12,314	12,589	12,862
<i>Growth</i>	3.0%	2.8%	2.5%	2.4%	2.2%	2.2%
Difference in level	0	0	-11	-16	-35	-58
<i>Difference in growth forecast</i>	0.0%	0.0%	-0.1%	0.0%	-0.2%	-0.2%

Implicit Price Deflator						
Index 2009 = 100						
November Preliminary Forecast	110.0	111.8	113.5	115.3	117.3	119.6
<i>Growth</i>	0.7%	1.6%	1.6%	1.6%	1.8%	1.9%
September Forecast	110.0	111.8	113.5	115.3	117.4	119.7
<i>Growth</i>	0.7%	1.6%	1.5%	1.6%	1.8%	1.9%
Difference in level	0.0	0.0	0.0	0.0	-0.1	-0.1
<i>Difference in growth forecast</i>	0.0%	0.0%	0.0%	-0.1%	-0.1%	0.0%

Unemployment Rate						
Percent of Labor Force						
November Preliminary Forecast	5.0%	4.7%	4.3%	4.3%	4.3%	4.3%
September Forecast	5.0%	4.7%	4.3%	4.3%	4.3%	4.3%
<i>Difference in forecast</i>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

30 Year Fixed Mortgage Rate						
Annual Average						
November Preliminary Forecast	3.8%	3.9%	4.4%	5.4%	6.0%	6.0%
September Forecast	3.8%	3.9%	4.4%	5.4%	6.0%	6.0%
<i>Difference in forecast</i>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

3 Month T-Bill Rate						
Annual Average						
November Preliminary Forecast	0.2%	0.6%	1.3%	2.1%	2.8%	2.9%
September Forecast	0.2%	0.6%	1.3%	2.1%	2.8%	2.9%
<i>Difference in forecast</i>	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**Year-Over-Year Employment Growth by Industry
(September 2016 to September 2017)
Washington vs. U.S.**

	Washington		U.S.
	(000)	% Chg.	% Chg.
Total	90.4	2.8%	1.2%
Electronic Shopping and Mail-Order Houses	10.7	26.4%	NA
Construction	12.9	6.8%	2.7%
Software Publishers	2.8	4.7%	NA
State and Local Gov Non-Education	8.2	3.8%	0.3%
Professional and Business Services	14.0	3.4%	2.6%
Transportation, Warehousing and Utilities	3.5	3.4%	1.9%
Education and Health Services	14.1	3.0%	2.1%
Other Services	3.3	2.8%	0.9%
Leisure and Hospitality	8.6	2.6%	1.2%
Financial Activities	3.9	2.5%	1.8%
Manufacturing Excluding Aerospace	5.0	2.5%	NA
Wholesale Trade	2.6	2.0%	0.9%
Information Excluding Software	0.9	1.4%	NA
State and Local Gov Education	1.3	0.5%	0.0%
Mining and Logging	-0.3	-4.3%	9.1%
Aerospace Product and Parts Manufacturing	-7.4	-8.3%	NA
Information	3.7	3.0%	-2.8%
Retail Trade	16.3	4.4%	-0.5%
Manufacturing	-2.4	-0.8%	0.9%

Source: WA State ERFC data, U.S. Bureau of Labor Statistics