

# The Puget Sound ECONOMIC FORECASTER

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You'll notice in this issue that the Puget Sound Index of Leading Indicators was revised upward and suggests continued growth in the near term. The outlook also remains positive. Nonetheless, we continue to wonder when we'll see the peak in local employment at Amazon, when and how much growth we'll see at Microsoft, and what Boeing may do with its next new plane.

We also highlight in this issue differences in economic activity and demographics across counties in Washington. The dramatic job growth since 2010 in the Puget Sound area stands in stark contrast to the slow growth in many parts of the state. While some urban areas like Vancouver and Bellingham have seen solid employment growth in recent years, the rate of growth has been slower than in Seattle and the drivers have differed as well. Differences in economic activity have led to interesting differences in how counties are aging. In particular, Seattle has been attracting young workers much more than other counties, so other counties appear to be aging faster. The different age profiles can matter as people in different age groups have noticeably different spending habits.

## Regional Outlook

Tax reform is underway. While we know some of the details, economists generally agree that the new bill will not result in much growth and that the growth we could see will take time to emerge – if at all. Elements of the tax bill could result in the repatriation of funds held abroad making more money potentially available for investment. Here again, the actual impacts of the plan will not be known for quite some time. As such, we start this quarter's outlook on a foundation that is very little changed from recent quarters. But even if we think the regional economy is on the same path, there is much afoot

We highlighted in the last edition of *The Forecaster* how slower hiring at Amazon and their new HQ2 means slower economic growth for the region. We made allowances in our last forecast for slower hiring at Amazon and it is included in this forecast as well. What we do not know is exactly when local Amazon employment will reach its peak or where the company will locate HQ2. These both matter given the role Amazon has played in job creation in the region and how this region may interact with the potential locations of HQ2.

(You may notice our forecast in this issue calls for slightly more employment growth in the region in 2018 and 2019 that we had in our last issue. The difference is due to data revisions and other factors. The change is not significant.)

We wonder, for example, whether the high-rise boom will end as the hiring at Amazon tapers off. We discuss in other sections how apartment vacancy rates are starting to increase – noting that less hiring in the region and increasing vacancy rates should have an effect on construction, housing inventory and housing costs.

Our forecast this quarter calls for an increase in homes listed for sale next year and slower sales, along with a slower rate of growth in home price appreciation.

Focusing on employment, one possibility is that increases in hiring at companies like Microsoft could offset slower hiring at Amazon, allowing the region to continue its impressive run for a bit longer. Microsoft announced this fall plans to modernize the company Redmond campus, with a significant amount of construction to begin in fall 2018. The modernization

## Summary Forecast

### Annual Percent Change

	2016	2017	2018	2019
<b>Puget Sound Region</b>				
Employment	3.2	2.8	2.0	1.2
Personal income (cur. \$)	4.7	4.5	4.7	5.2
Consumer price index	2.2	3.0	2.4	2.5
Housing permits	-4.4	0.5	-12.5	0.8
Population	1.7	1.5	1.4	1.2
<b>United States*</b>				
GDP (\$09)	1.5	2.2	2.5	2.1
Employment	1.8	1.5	1.4	1.0
Personal income (cur. \$)	2.4	3.3	4.4	4.7
Consumer price index	1.3	2.1	2.1	2.3
Housing starts	6.1	2.1	6.7	6.3

\*Source: Blue Chip Economic Indicators



will create space for an additional 8,000 workers, though plans are not clear for when those workers might be added. Based on this information, we include in our forecast that Microsoft will add 4,000 jobs over a two year period, starting in mid to late 2019.

We also see continued slowing in employment in aerospace and note that Boeing is a difficult read. In particular, we are not sure how to interpret remarks from the CEO, Kevin McAllister, calling for “a faster, nimbler Boeing” and the lack of commitment about where the next plane, the 797, may be built.

Historically we have been able to explain much of the difference in economic activity in this region relative to the rest of the country by understanding changes in activity at Boeing, Microsoft, Amazon, and other specific firms. Right now we are watching these firms for signs of change so we can include that

information in our forecasts. Amazon has been the main driver of late, but Boeing still has the larger footprint, so to speak. Some estimates suggest that Boeing has more than 75,000 employees in the greater Seattle area, compared to 42,000 at Microsoft and 25,000 at Amazon. As such, Boeing still has a very large influence on the region. The downward trend in employment in aerospace shown in the Ten-Year Forecast table is something to watch closely, and what happens with the 797 will matter for the region.

To be fair, the decrease in aerospace employment is due more to the growth of other industries and the number of jobs done by outside companies for Boeing (tier 2 and tier 3 supplies primarily) which would be more likely classified as non-aerospace manufacturing jobs. In future editions of the Forecaster we will explore the regional economic impacts of

this unbundling of job activities that has, and is, occurring.

We are also looking at the distribution of activity within, and across, the region. What Boeing, Microsoft, Amazon, and other large firms do does not impact each county within the region equally, and it certainly does not indicate what we might expect in counties outside the region. We have included a table and figures here to show the variation in employment growth in the Puget Sound counties. As is evident, from 2007 to 2010, most of the counties in the region performed similarly. From 2010 to present, however, King County and/or the Seattle MSA has had much stronger growth. The figures show neighboring metro areas as well, revealing even more variation. (The Seattle metro area includes Everett, so we do not show Snohomish County separately in the charts. We also do not show Vancouver as much of Clark

## PUGET SOUND TEN-YEAR FORECAST

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Employment (thous.)	2164.2	2190.2	2214.4	2237.7	2263.5	2288.9	2315.8	2344.1	2373.3
Aerospace	75.9	75.1	74.3	73.5	72.5	71.7	70.9	70.1	69.3
Unemployment rate (%)	4.2	4.3	4.5	4.7	4.7	4.9	5.0	5.0	5.1
Personal income (bils. \$)	297.2	312.2	327.5	343.3	360.1	377.3	395.5	414.7	435.0
Consumer price index (82-84=1.000)	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.2	3.2
Housing permits (thous.)	23.0	22.5	22.9	23.2	23.7	24.0	24.2	24.3	24.5
Population (thous.)	4185.9	4227.1	4267.9	4308.6	4349.1	4390.6	4432.1	4474.2	4517.3
Retail sales (bils. \$)	88.7	92.3	96.1	100.0	104.2	108.4	112.8	117.4	122.2
Annual growth (% change)									
Employment	1.2	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.2
Personal income (cur. \$)	5.2	5.0	4.9	4.8	4.9	4.8	4.8	4.9	4.9
Consumer price index	2.5	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.3
Housing permits	0.8	-2.1	1.6	1.6	2.1	1.4	0.5	0.5	1.0
Population	1.2	1.0	1.0	1.0	0.9	1.0	0.9	1.0	1.0
Retail sales	4.2	4.1	4.1	4.0	4.2	4.0	4.1	4.1	4.1
US Growth (% Change)									
Gross Domestic Product (bils. \$09)	17891.5	18267.2	18632.6	19005.2	19404.3	19811.8	20227.9	20652.7	21086.4
Employment (mils.)	150.0	151.5	152.9	154.2	155.6	157.0	158.4	159.9	161.3
Personal income (bils. \$)	17980.5	18825.6	19691.5	20597.3	21544.8	22514.3	23527.5	24586.2	25692.6
Consumer price index (82-84=1.000)	2.5	2.6	2.6	2.7	2.8	2.8	2.9	2.0	3.0
Housing starts (mils.)	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4

County is captured in the Portland, OR metropolitan statistical area.)

It may also be important to note that the drivers of growth differ as you move away from Seattle. For example, Olympia and Bellingham have seen much more growth in construction than Seattle (keeping in mind that some of the crane operators and construction workers building apartments in Seattle are employed by firms located outside of Seattle – and the growth Seattle has

seen in construction jobs is dwarfed by the job growth in other sectors). Some of the areas outside of Seattle, such as Bellingham, have also seen strong growth in manufacturing. In contrast, Seattle has experienced relatively strong growth in both the professional and business services sector and the information sector. Jobs in these sectors tend to have relatively high salaries, so Seattle has seen strong wage growth, which helps explain some of the increase in home prices.

Seattle has also seen noticeable growth in retail, with many Amazon jobs counted in that sector.

With this acknowledgement of wage growth and home price appreciation, we circle back to wondering when hiring will slow at Amazon or if other companies will make up for any decline and how long the party will continue. We are hesitant to reach that conclusion and look instead to a gradual slowing in hiring and an increase in housing inventory.

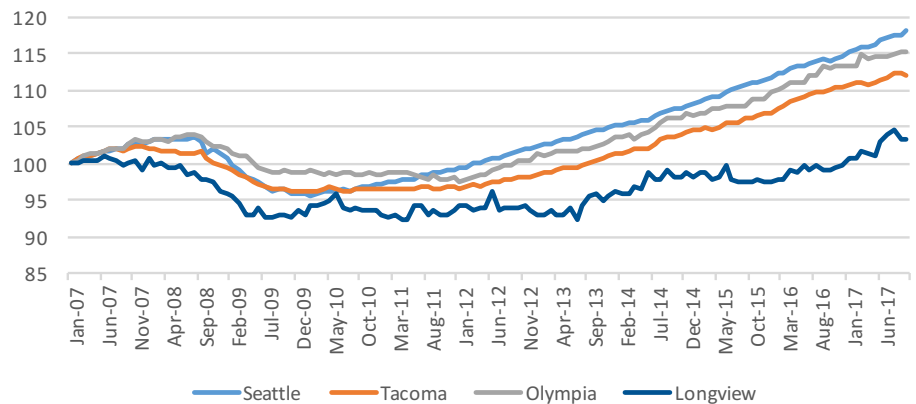
## Puget Sound Economic Recession and Recovery

### Annual Percent Change

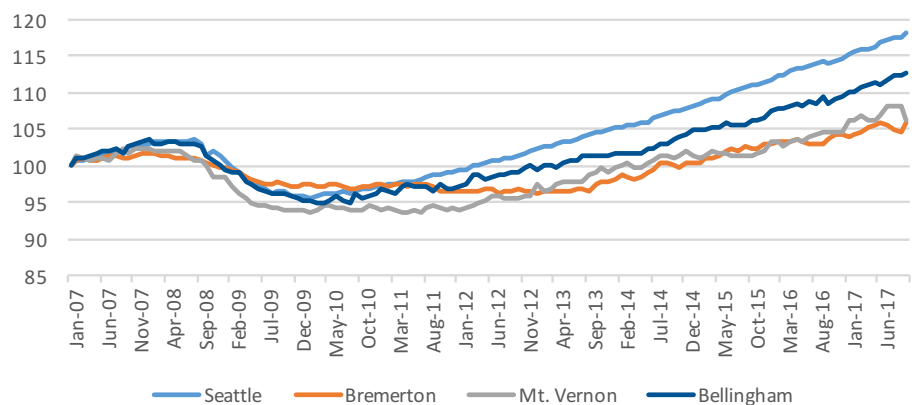
	2007-10	2010-17
<b>King County</b>		
Employment	-1.7	2.9
Unemployment rate*	9.0	3.5
Population	1.6	1.5
<b>Kitsap County</b>		
Employment	-1.2	1.1
Unemployment rate*	8.6	4.9
Population	1.0	0.9
<b>Pierce County</b>		
Employment	-1.7	2.1
Unemployment rate*	10.4	5.2
Population	1.0	1.1
<b>Snohomish County</b>		
Employment	-1.9	2.2
Unemployment rate*	10.7	3.9
Population	1.5	1.6
<b>Puget Sound Region</b>		
Employment	-1.7	2.6
Unemployment rate*	9.6	4.0
Population	1.4	1.4

\*End of period.

## Seattle and South Employment Change



## Seattle and North Employment Change



- <http://www.eweek.com/it-management/microsoft-to-modernize-redmond-headquarters-campus-in-2018>
- <https://www.seattletimes.com/business/boeing-aerospace/new-ceo-mcallister-pushes-boeing-to-be-faster-nimbler-as-decision-looms-with-new-jet/>

## Retail Sales

We expect the growth rate for Puget Sound taxable retail sales to average 3.7 percent over the near-term (2017-2019). This is about a half percentage point slower than forecasted in September, and much weaker than the 8.2 percent growth in spending last year. Most of the pullback comes in “other taxable sales”, which in recent quarters have been pushed higher by the booming construction sector. Some of this support is expected to weaken going forward as regional housing permits slip from 26,000 units annually in 2017 to 23,000 in 2019. A slight rise in the unemployment rate and slowdown in net migration will also weigh on spending, although the effect is expected to be relatively mild.

Our regional retail sales series, derived from U.S. retail spending, shows a similar easing-back in growth rates for total retail sales from 6.1 percent this year to 4.2 percent in 2018 and 2019.

Personal income, housing activity, unemployment, and population are all taken into consideration in the forecasts for retail spending. Other factors that we might view as drivers of retail spending should have a positive impact in the near term. For example, U.S. data show that overall household debt remains very low relative to disposable income. Household mortgage debt hit a low of 69 percent of disposable income in the third quarter of 2016 and has trended sideways since then. Consumer credit has climbed to 26 percent of income from a post-recession

low of 23 percent, yet default rates are unchanged. In addition to low debt-to-income ratios, household debt service payments relative to disposable income remain at an all-time low of 9.9 percent. We look at these data and conclude that deleveraging and

low interest rates may spur spending in the near term, or at least that household debt seems unlikely to act as a spending restraint.

Retail spending may also receive a push from rising household wealth evident in the surge in home prices (particularly in the Puget Sound area), and the soaring stock market. Broad equity market measures have climbed more than three and one-half times since the low point during the recession. Over the four-quarter period ending in the third quarter of this year, the Wilshire 5000 Total Market Index has soared 16.6 percent. The drop in the personal savings rate, from over 5 percent as recently as the middle of last year, to 3.2 percent in October is also consistent with a positive “wealth effect”. Consumers are spending more out of their current income, or saving less. That fact may have negative consequences in the future, but means something positive for retail activity in the near term.

## Retail Space

### Food For Thought

	square feet per capita
US	23.5
Canada	16.4
Australia	11.1
UK	4.6
*Source: Morningstar Credit Ratings	

## PUGET SOUND RETAIL SALES

	2017			2018		Years			
	2	3	4	1	2	2016	2017	2018	2019
Retail sales (bils. \$)	81.432	81.983	82.958	83.779	84.807	77.122	81.818	85.224	88.762
Building materials	6.919	6.952	7.046	6.960	6.978	6.633	7.002	7.035	7.347
Motor vehicles and parts	20.772	20.697	21.006	21.358	21.706	19.261	20.779	21.748	22.399
Furniture and electronics	3.397	3.466	3.461	3.468	3.506	3.270	3.434	3.520	3.631
General merchandise	9.338	9.425	9.511	9.598	9.684	9.031	9.381	9.726	10.057
Food and beverage	11.003	11.078	11.151	11.232	11.332	10.599	11.034	11.391	11.826
Gasoline stations	4.334	4.395	4.437	4.409	4.433	3.959	4.355	4.446	4.558
Clothing and accessories	4.289	4.303	4.337	4.387	4.439	4.108	4.296	4.458	4.631
Food services and drinking	6.848	6.879	6.959	7.051	7.141	6.596	6.875	7.176	7.522
Other retail sales	14.532	14.788	15.050	15.317	15.588	13.666	14.661	15.723	16.793
Taxable retail sales (bils. \$)	95.715	96.602	97.032	97.645	98.694	92.146	96.247	99.116	102.550
Retail trade	39.803	40.199	40.316	40.506	40.879	38.417	39.910	41.060	42.480
Other taxable sales	55.912	56.403	56.716	57.139	57.815	53.729	56.338	58.056	60.070
Annual growth (% change)									
Retail sales	2.6	2.7	4.8	4.0	4.9	3.7	6.1	4.2	4.2
Taxable retail sales	0.3	3.7	1.8	2.5	4.3	8.2	4.5	3.0	3.5

# Construction/Real Estate

We are starting to see an increase in vacancy rates and slower home price appreciation. As noted in other segments of the newsletter, we also expect slower employment growth, though not dramatically slower. With that backdrop, we expect activity in construction to slow and home prices to continue increasing, but not as fast as in late 2016 and early 2017. In particular, we anticipate almost a 13 percent drop in housing permits, with the drop happening entirely on the multi-family side. A roughly 5 percent increase in the apartment vacancy rate (from 3.7 to 4 percent) should also lead to a slower increase in rents.

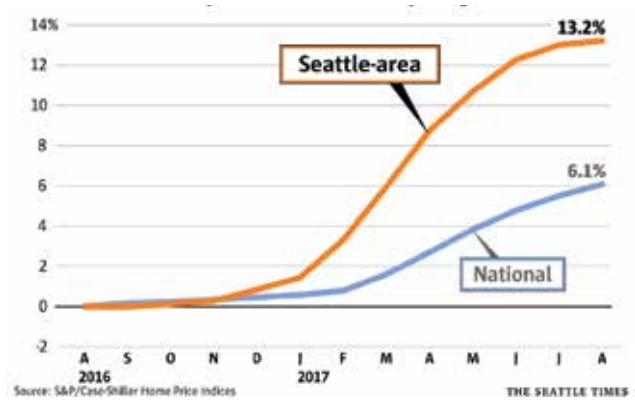
Activity in construction and real estate are difficult to forecast in general, and particularly difficult when prices are changing as much as they have been in Seattle. Thinking about residential housing, for example, we typically see a rough pattern in homes being offered for sale. People move for work, decide to downsize, or just want something new. Regardless of the reason, we usually have a supply of houses available for buyers to consider. That supply can fall noticeably if some of the people thinking they want to downsize or move for another reason decide not to, because they think their current house is going up in value and they should wait. Of course, that decision can be somewhat self-fulfilling... for a while.

On the commercial side, low vacancy rates and rapid population growth can lead developers to build more apartments

and office buildings. One article in the Seattle Times noted that developers were building more apartments this decade than the previous 50 years combined, with 10,000 units to be added in 2017 alone.

We predict this activity based on factors such as expected mortgage rates, employment and population growth, etc. Challenges arise because it is difficult to predict when people will make decisions to sell, or not, or when developers will decide to accept a given amount of risk. If conditions encourage an excessive amount of construction at a given period, it is easy to reach a peak in construction, followed by a sharp decline in activity while demand catches up with the new supply.

## Seattle marks a full year as America's hottest housing market



## PUGET SOUND CONSTRUCTION AND REAL ESTATE

	2017.2	2017.3	2017.4	2018.1	2018.2	2016	2017	2018	2019
Housing permits (thous.)	24.1	27.9	24.7	22.5	22.8	25.9	26.1	22.8	23.0
Single-family	10.8	11.1	10.4	9.7	10.0	10.1	10.7	10.1	10.9
Multi-family	13.3	16.8	14.3	12.8	12.8	15.8	15.4	12.7	12.1
Housing permits (mils. \$)	5205.0	6272.1	5395.2	5071.0	5240.9	5357.0	5698.8	5304.4	5750.9
Single-family	3478.5	3505.1	3373.0	3211.4	3358.0	3326.0	3468.7	3416.7	3838.0
Multi-family	1726.6	2766.9	2022.2	1859.7	1882.9	2031.0	2230.2	1887.7	1912.9
Average home price (thous. \$)	517.4	528.6	533.6	536.9	539.7	466.3	519.4	541.2	552.7
Active home listings (thous.)	6.6	7.0	7.3	7.6	7.9	7.9	6.7	8.0	9.1
Home sales (thous.)	69.9	73.8	74.0	70.4	69.8	71.2	72.8	69.8	67.8
Apartment vacancy rate (%)	3.7	4.0	3.9	3.9	4.0	3.4	3.7	4.0	4.1
Average apartment rent (\$)	1513	1550	1565	1578	1587	1411	1526	1593	1635
Annual growth (% change)									
Housing permits (mils. \$)	-48.5	82.0	-55.9	-24.0	13.4	-4.6	6.4	-6.9	8.4
Average home price	15.6	8.7	3.7	2.5	2.1	9.8	11.4	4.2	2.1
Average apartment rent	10.3	9.8	3.9	3.2	2.4	9.0	8.1	4.4	2.7

3. <https://www.seattletimes.com/business/real-estate/seattles-record-apartment-boom-is-ready-to-explode/>

## Special Topic – Place Matters

As we noted in the Outlook section, economic activity in the region is not spread evenly. Job creation in Seattle has been the driver, with the effects diminishing as you move out from Seattle.

From 2000 to 2009, the population in Washington State grew at an average rate of 1.3 percent, slightly above the rate for the U.S. (0.95 percent). In this time period, King County grew at roughly the same rate as the U.S. From 2010 to 2016, King County grew at an average rate of 1.7%, leading the state with a growth rate nearly twice that of the U.S. overall. In short, the dramatic job growth in Seattle – not surprisingly – resulted in significant population growth, with that growth spilling into the neighboring counties. Job and population growth were much slower in the North and South Sound, as well as the Olympic Peninsula.

We recognize that the Puget Sound region is a bit of an outlier. Other regions have not enjoyed the job growth or had the population growth (which can be difficult to manage) of Puget Sound. Still, we wonder why people do not seem to be moving as much as in the past in pursuit of better job opportunities, and whether or how the changes in population density and demographics will affect activity in the future. In particular, we wonder what it might mean as Seattle gets younger in some respects or other parts of the state get older, faster.

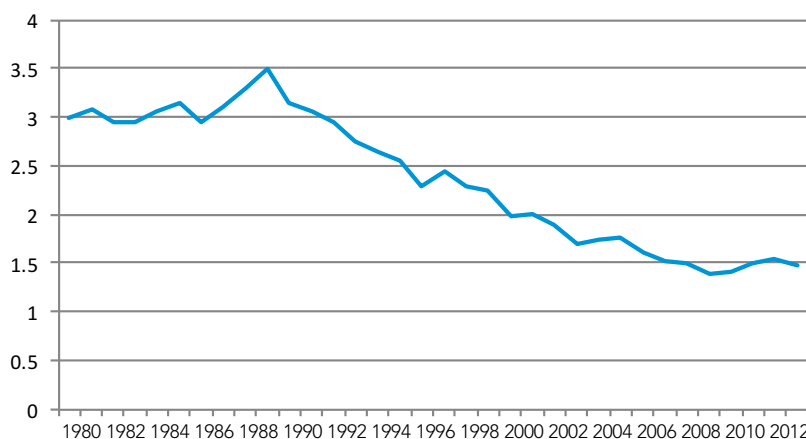
Between 2010 and 2016, King County saw much larger increases in the younger age groups (e.g., 30 year olds) and much less growth in the older age groups (e.g., over 70) than did Kitsap, Snohomish, and Thurston Counties. The same pattern was evident and even more pronounced in the rest of the state. (Note, the decline in the number of people in their 40s over this period – in the Puget Sound and

state as a whole – was because ‘generation X’ is so much smaller than the ‘baby boom’ generation. The change visible in the diagram is not due to outmigration from the region or state.)

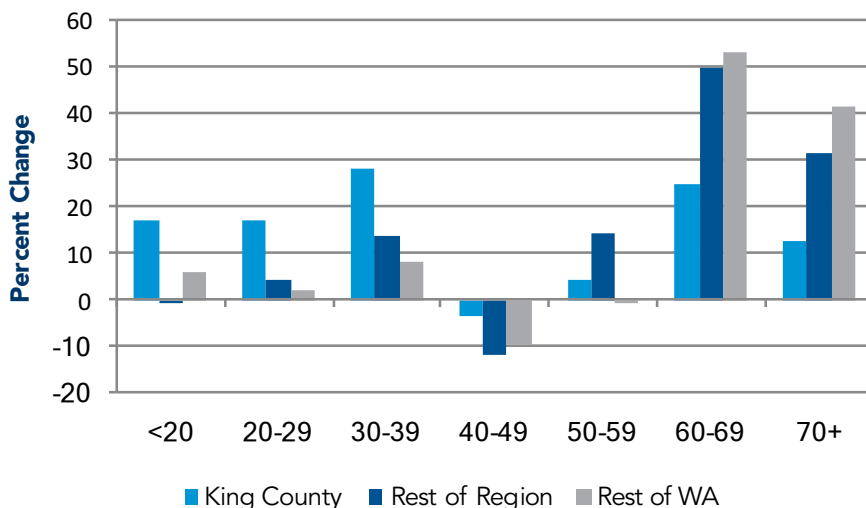
We have to consider the changing demographics in different regions as counties with a younger population will see more spending on durable goods, clothing, etc. while counties with an older population will see more spending on health care services. As such, demographics can be an important factor in the forecasting process. We also think these changes could be important for city officials and planners.

Looking at interstate migration, we know housing affordability is a factor, but so are other considerations such as whether both individuals in a two-income household can find jobs in the same city, the chance of losing unemployment benefits, etc. We are not sure if an aging population also plays a role. In any event, less interstate migration has implications for employers hoping to fill openings. It’s a topic that has our attention and one we will be studying for a while as we prepare future forecasts.

### Interstate Migration Rate



Source: US Bureau of the Census, March Supplement to the Current Population Survey. Calculations from Faith Karahan and Darius Li; Liberty Street Economics, 10/17/16



<b>FORECAST DETAIL</b> 55 Percent Probability									
	<b>2017.2</b>	<b>2017.3</b>	<b>2017.4</b>	<b>2018.1</b>	<b>2018.2</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Employment (thous.)	2091.6	2104.5	2116.4	2127.1	2137.2	2039.9	2097.8	2139.2	2164.2
Goods producing	309.3	308.6	307.9	307.0	306.2	307.4	308.6	305.6	302.9
Natural resources and mining	1.2	1.0	1.1	1.1	1.0	1.1	1.1	1.0	1.0
Construction	125.0	125.8	126.1	125.8	125.7	118.2	125.1	125.6	125.9
Manufacturing	183.1	181.8	180.8	180.2	179.4	188.1	182.4	178.9	176.0
Aerospace	80.9	79.1	78.4	78.0	77.5	86.9	80.3	77.3	75.9
Other durable goods	69.3	69.4	69.1	69.0	68.8	68.9	69.2	68.6	67.3
Nondurable goods	33.0	33.3	33.2	33.2	33.1	32.4	33.0	33.1	32.8
Services producing	1782.3	1795.9	1808.5	1820.1	1830.9	1732.5	1789.1	1833.6	1861.3
Wholesale and retail trade	325.6	327.9	330.5	332.6	334.5	311.6	326.5	334.1	335.1
Transportation and public utilities	72.2	72.7	72.7	72.9	73.1	70.1	72.4	73.0	73.1
Information	113.0	114.2	115.4	116.3	117.4	106.7	113.6	117.8	122.0
Financial activities	102.2	102.6	102.9	102.8	102.5	100.8	102.3	102.3	101.1
Professional and business services	294.4	296.3	299.7	302.8	306.1	285.7	295.6	307.1	315.7
Other services	562.6	567.2	571.1	575.3	579.0	549.3	565.0	580.3	591.5
Government	312.3	314.9	316.1	317.3	318.4	308.3	313.7	319.0	322.9
State and local	259.1	262.1	263.5	264.7	265.8	255.2	260.6	266.3	270.1
Federal	53.2	52.8	52.7	52.6	52.6	53.2	53.0	52.6	52.7
Unemployment rate (%)	3.9	4.0	4.0	3.9	3.8	4.6	4.0	3.9	4.2
Personal income (bils. \$09)	239.5	239.7	241.4	243.5	245.5	233.2	239.8	246.1	253.2
Personal income (bils. \$)	268.9	270.1	273.5	277.4	281.1	258.4	270.0	282.6	297.2
Wage and salary disbursements	152.8	153.8	155.3	157.4	159.5	146.1	153.4	160.3	167.8
Other income	116.1	116.3	118.2	119.9	121.7	112.3	116.6	122.4	129.5
Per capita personal income (\$)	66006	66072	66657	67358	68049	64269	66163	68305	71009
Consumer price index (82-84=1.000)	2.627	2.633	2.652	2.669	2.682	2.549	2.627	2.691	2.757
Housing permits (thous.)	24.1	27.9	24.7	22.5	22.8	25.9	26.1	22.8	23.0
Population (thous.)	4073.9	4088.6	4103.2	4117.6	4131.5	4020.2	4081.2	4137.9	4185.9
Net migration (thous.)	33.7	33.1	32.5	32.1	29.9	38.5	33.4	28.7	18.5
Three-month treasury bill rate (%)	0.9	1.0	1.2	1.4	1.6	0.3	0.9	1.7	2.4
Conventional mortgage rate (%)	4.0	3.9	4.2	4.4	4.5	3.7	4.0	4.6	5.1
Annual growth (% change)									
Employment	2.5	2.5	2.3	2.0	1.9	3.2	2.8	2.0	1.2
Personal income (cur. \$)	2.0	1.8	5.0	5.6	5.5	4.7	4.5	4.7	5.2
Consumer price index	4.9	1.0	2.9	2.5	2.0	2.2	3.0	2.4	2.5
Housing permits	-51.7	63.8	-46.3	-34.8	4.2	-4.4	0.5	-12.5	0.8
Population	1.5	1.4	1.4	1.4	1.3	1.7	1.5	1.4	1.2

## Leading Index

The quarterly Puget Sound Index of Leading Economic Indicators rose 0.4 percent in the third quarter. Perhaps more important, the reading for the second quarter was revised upward from a small decline to a 0.2 percent gain. This revision means the quarterly leading index has now moved higher in seven straight quarters, sending a clear message that the regional economy will continue to expand over the near term.

Public agencies that collect data on employment, wages, and other variables frequently have to revise their estimates. These revisions are usually small and do not affect significantly our leading index or forecast. Sometimes, however, the revisions are consequential. Looking back to 2007-08, we recall a time when agencies were struggling to estimate accurately the pace of change in the labor market. Estimates for employment one month had to be revised down when

more data became available a few months later. With the rapid pace of job growth in Seattle lately and fluctuations in variables such as housing permits, we are again seeing revisions that matter.

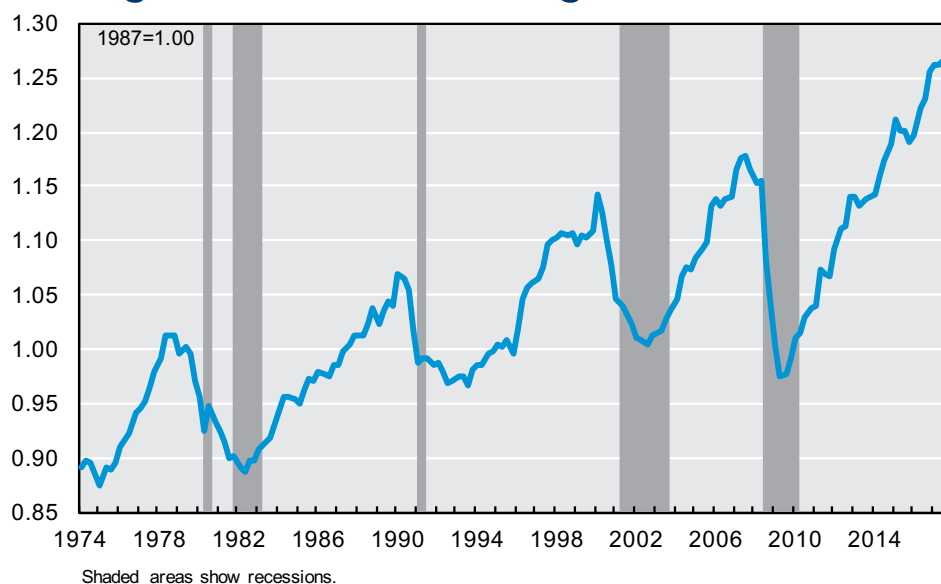
In the third quarter, five components improved (manufacturing hours, residential building permits, first-time claims for unemployment compensation, the Boeing backlog-delivery ratio, and real durable goods spending), while two components worsened (online help-wanted ads and the spread between long-term and short-term interest rates).

The caution reported in the December Monthly Leading Index report – the lengthening of the manufacturing workweek juxtaposed with the drop in help-wanted postings – is also apparent in the quarterly data. This could be foreshadowing a pause or slowdown in job creation, though the figures through October show continued robust job growth (see the December Current Economic Indicators report).

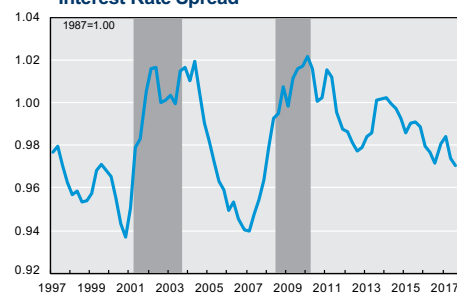
The spread between long-term and short-term interest rates is also something to watch. The ‘yield curve’ is quite flat, inviting many to wonder if it will invert... and suggest a recession on the horizon. We know that many people view an inverted yield curve means we’ll have a recession in 12-18 months. But one does not automatically cause the other and there are many things to watch in addition to interest rates.

As we look back, thinking about this uncertainty, it is reassuring to see the Puget Sound Index of Leading Indicators has provided a very accurate indication of future activity. The Index has provided a warning of oncoming recessions, with an average of 4.8 quarters between the time the index peaked and employment started to decline. So we expect we’ll see a clear indication with the index when a recession is on the horizon.

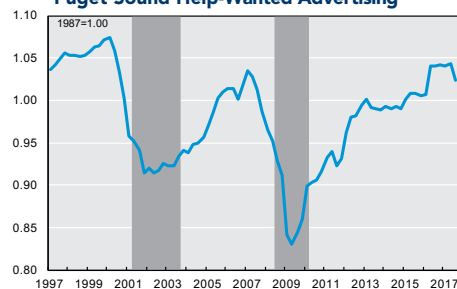
### Puget Sound Index of Leading Economic Indicators



### Interest Rate Spread



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