

## And for 2024

For twenty-two years we have peered into a crystal ball trying to discern our economic future. In retrospect, if we could have picked another time to forecast, it would have been from 1970 to 2000 when the economy behaved...well...more predictably.

The thirty-year performance of the U.S. economy was rock solid. Real Gross Domestic Product (GDP) climbed at a 3.3 percent annual rate, spurring job growth to a 2.1 percent rate. There were problems, such as high inflation in the 1970s and a double-dip recession in the 1980s, but nothing knocked the economy off course or even seriously impeded its progress.

The ensuing years have been another matter, as back-to-back recessions triggered by high-tech and housing bubbles have thrown a wrench into the works. Since 2000 the average growth rates for real GDP and employment have plummeted to 1.8 percent and 0.4 percent, respectively. The Puget Sound region has fared better, as jobs have advanced at a 0.7 percent rate. Even so, that pace pales in comparison to the 3.3 percent rate of job growth achieved between 1970 and 2000.

What is in store for the economy in the coming decade: 1970-2000 or 2000-2014? Barring a major disruption, expect something in between. Constrained by an aging population, U.S. jobs will grow at a 1.2 percent rate, while real GDP will expand at a 2.6 percent rate, according to Blue Chip economists. Our Puget Sound outlook calls for a 1.5 percent employment growth rate. While that is down from the 2.7 percent rate predicted for this year, it would mean another 307,000 jobs and \$143 billion in personal income by 2024.

### Summary Forecast

Annual Percent Change	2013	2014	2015	2016
<b>Puget Sound Region</b>				
Employment	2.8	2.7	2.1	1.9
Personal income (cur. \$)	3.1	5.4	5.5	5.4
Consumer price index	1.3	2.3	2.5	2.3
Housing permits	8.9	7.0	-1.8	11.1
Population	1.4	1.4	1.2	1.0
<b>United States*</b>				
GDP (\$09)	2.2	2.1	3.0	2.9
Employment	1.7	1.8	2.0	1.7
Personal income (cur. \$)	2.0	4.3	5.0	5.2
Consumer price index	1.5	2.0	2.1	2.2
Housing starts	18.7	9.0	18.4	18.3

\*Source: Blue Chip Economic Indicators

## Regional Outlook

### Cannot be beat.

In May 1998, our newsletter headline read "Hard to Beat." The achievements of the Puget Sound economy were indeed remarkable: 16 straight years of expansion, growth at double the U.S. rate, 4 percent unemployment, and a per capita income 20 percent above the national average.

The stellar performance even caught the eye of *The Economist*: "The Seattle area is remarkable for its golden touch. Not only is it home to Bill Gates, America's richest man, it is also home to a cluster of companies which, like Microsoft, are standard-setters in their businesses, influencing the lives and life-styles of millions of people."

At the time, we knew that the economy could not keep up the pace. Our August 1998 ten-year outlook called for employment growth to decelerate from 5.1 percent in 1997 to 1.6 percent in 2000. This turned out to be reasonably accurate, as revised figures showed that the rate of job growth dropped from 5.4 percent to 2.3 percent.

But we failed to realize that the economy was edging toward the "Dismal Decade," which would rip our long-term projections to

shreds. Between 2000 and 2003, rather than adding 89,000 jobs as predicted, the regional economy lost 65,200 jobs when it was slammed by the Dot-Com/911

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## INSIDE

## Regional Outlook

recession. Despite a decent recovery, employment climbed to only 1,862,700 in 2008, 103,300 (5.5 percent) short of our August 1998 projection.

While we could make excuses about the unpredictability of the bursting of the dot-com bubble and the 9/11 terrorist attack, this tale serves as a good lesson. As Charles Tiebout warned fifty years ago, “forecasts are bound to be wrong, at least to a degree.”

### Parsing the outlook.

Our September newsletters focus on the ten-year economic outlooks for the nation and region. The current projections are predicated on a critical assumption: after years of economic turmoil, there will be a return to normalcy. In other words—cross your fingers—there will be no major economic disruption.

**Gross Domestic Product.** As the largest market for Puget Sound exports, the United States is the principal driver of the regional economy. This implies that U.S. Gross Domestic Product (GDP) is the most important exogenous variable in our regional forecasting model.

After a disappointing 2.1 percent gain in 2014, Blue Chip economists

predict that real GDP will expand at a 2.6 percent average annual rate between 2014 and 2024. Underlying this projection is the expectation that employment will increase at a 1.2 percent rate and labor productivity (real GDP per worker) will rise at a 1.4 percent rate.

This is a bold forecast, considering the U.S. economy’s poor track record of late. Between 2000 and 2014, real GDP grew at half speed, averaging 1.8 percent per year. Since labor productivity increased at a 1.4 percent rate, job growth slowed to a sluggish 0.4 percent rate.

Due to limited data, we are unable to forecast Puget Sound GDP. But we do know this: nominal regional GDP amounted to \$268.0 billion in 2012. On a per capita basis, it stood at \$70,890, 37.8 percent above the national mark.

**Personal consumption.** The economy is largely devoted to consumers. In real terms, U.S. consumption as a share of GDP has averaged 64.4 percent since 1970. Oddly, the share was lowest in 1970 (61.5 percent) and highest in 2009 (68.3 percent), both years of recession. Since 2009 the share has averaged 68.1 percent, as consumers appear to have made a concerted effort to lift the economy out of recession.

Puget Sound consumers have also been doing their bit. Since 2009 retail sales have expanded significantly faster than personal income, 5.3 percent per year compared to 4.5 percent.

## Puget Sound and U.S. Economic Growth

Average Annual Percent Change

	Puget Sound	United States	Difference
<b>Employment</b>			
1970-14	2.5	1.5	1.0
2014-24	1.5	1.2	0.3
<b>Personal income (cur. \$)</b>			
1970-14	7.6	6.7	0.9
2014-24	5.2	4.9	0.3
<b>Consumer price index</b>			
1970-14	4.4	4.2	0.2
2014-24	2.3	2.3	0.0
<b>Population</b>			
1970-14	1.6	1.0	0.6
2014-24	1.0	0.8	0.2

In the coming decade, however, as the cyclical forces of the recovery wane, retail sales will decelerate to a 4.5 percent rate, while personal income will accelerate to a 5.2 percent rate.

**Private investment.** In 2013, U.S. nonresidential fixed investment rose at a below-average 3.0 percent rate, as industrial capacity utilization, a determinant of business investment, was still clawing its way back from a low of 66.9 percent in 2009. Now that it is approaching 80 percent, the historical norm, forecasters are predicting a doubling of the pace of investment.

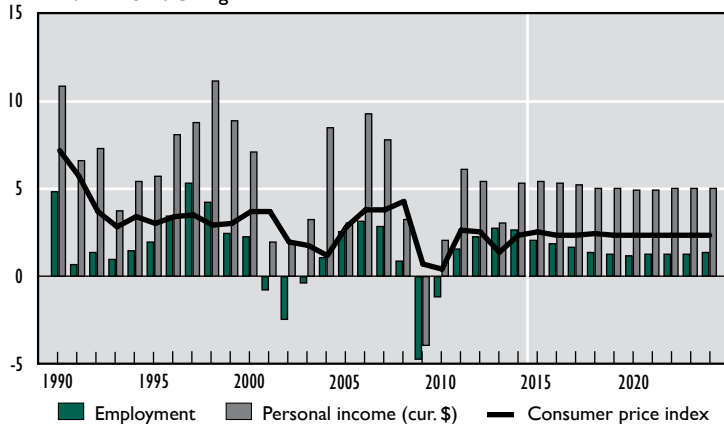
Residential investment should also pick up. U.S. housing starts, which are currently running one million per year, are expected to eventually reach 1.5 million.

In 2014, Puget Sound officials will issue around 9,600 single-family and 10,600 multi-family building permits. It is doubtful that multi-family construction will go much higher in the long run, but single-family homebuilding should eventually approach 15,000.

**Government expenditures.** Government jobs nationwide will be scarce, as public spending will

### Puget Sound Economic Performance

Annual Percent Change



have to toe the line. With faster population growth, however, our region could add another 25,000 government jobs by 2024.

*Foreign exports.* We should be thankful that we live on the west coast, relatively close to Asia, the fastest growing part of the world. With China moving up in line for American goods, U.S. exports to foreign countries are expected to rise at a 6 percent annual rate over the next ten years.

*Inflation and interest rates.* Surprisingly, the increased pace of the economy is not expected to have much effect on inflation. The inflation rate as measured by the U.S. consumer price index is predicted to rise slowly from 2.0 percent in 2014 to 2.3 percent in 2024. The 30-year conventional mortgage will

increase from 4.4 percent to 6.5 percent. As in the past, the regional inflation and interest rates will tend to follow the national lead.

#### Short bottom line.

Barring a significant downturn, the national forecast implies fertile ground for the region to grow. If the anticipated job losses at Boeing and Microsoft are offset by gains at Amazon, the Puget Sound region should continue its long-term trend of outperforming the nation.

Between 2014 and 2024, with jobs growing at a 1.7 percent an-

nual rate, the region will create 307,000 new employment opportunities, add 425,000 people to its population, and boost nominal personal income by \$143 billion. In 2024, there will be 2,230,000 jobs, 4,311,000 residents, and \$361 billion in personal income. The regional unemployment rate will stabilize at 5.2 percent, while per capita income will climb to \$83,800.

### County Forecasts, 2014-2024

Average Annual Percent Change

	Employment	Personal Income*	Taxable Retail Sales*
King County	1.4	5.0	4.7
Kitsap County	2.0	5.1	4.6
Pierce County	1.5	5.3	4.5
Snohomish County	1.6	5.6	4.6
Puget Sound Region	1.5	5.2	4.6

\*Current dollars.

## PUGET SOUND TEN-YEAR FORECAST

	2016	2017	2018	2019	2020	2021	2022	2023	2024
Employment (thous.)	2001.3	2034.8	2063.1	2090.1	2116.0	2142.7	2170.7	2199.6	2229.5
Aerospace employment (thous.)	88.3	87.1	85.9	84.9	84.1	83.3	82.5	81.6	80.8
Unemployment rate (%)	4.9	4.9	4.9	4.9	5.0	5.1	5.1	5.2	5.2
Personal income (bils. \$)	242.7	255.7	268.8	282.4	296.5	311.3	327.0	343.6	361.2
Consumer price index (82-84=1)	2.592	2.651	2.713	2.775	2.838	2.902	2.968	3.036	3.106
Housing permits (thous.)	22.1	22.8	23.4	23.7	23.6	23.9	24.2	24.4	24.7
Population (thous.)	3974.2	4013.8	4054.3	4095.6	4137.3	4179.8	4222.9	4266.8	4311.3
Retail sales (bils. \$)	82.4	86.2	90.2	94.1	98.1	102.4	106.9	111.6	116.6
<b>Annual growth (% change)</b>									
Employment	1.9	1.7	1.4	1.3	1.2	1.3	1.3	1.3	1.4
Personal income (cur. \$)	5.4	5.3	5.1	5.1	5.0	5.0	5.1	5.1	5.1
Consumer price index	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3
Housing permits	11.1	3.1	2.7	1.3	-0.2	1.2	1.4	0.7	1.4
Population	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Retail sales	4.8	4.7	4.6	4.4	4.3	4.3	4.4	4.4	4.5
<b>U.S. growth (% change)</b>									
GDP (\$09)	2.9	2.8	2.6	2.5	2.4	2.4	2.4	2.4	2.4
Employment	1.7	1.4	1.1	1.0	0.9	0.9	0.9	0.9	0.9
Personal income (cur. \$)	5.2	5.2	5.0	4.9	4.8	4.8	4.8	4.8	4.8
Consumer price index	2.2	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3
Housing starts	18.3	4.2	2.0	0.7	-0.7	0.7	0.7	0.0	0.7

# Retail Sales

## The long run.

Between 2013 and 2024, our long-range forecast calls for Puget Sound retail spending to climb at an average rate of 4.7 percent per year, divided between a 2.3 percent rise in prices and a 2.4 percent increase in real growth. While the nominal growth rate is close to the trend rate for the last two decades, the expected inflation rate is about one-half of a percentage point lower, which together imply stronger real growth in the future.

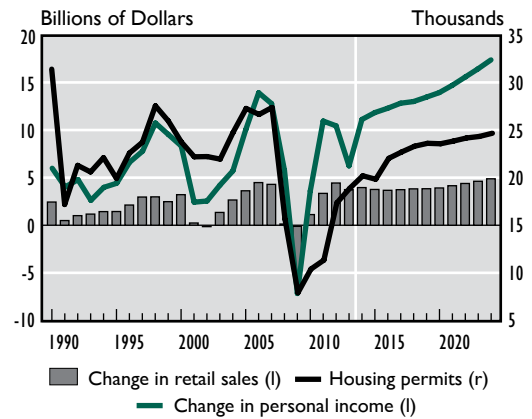
The key economic drivers for regional retail spending are personal income, housing permits, and the unemployment rate. These variables are well-correlated with retail sales. For example, between 1990 and 2013, the correlation coefficient for the change in retail sales and the change in personal income was 0.93. The correlation coefficients with respect to housing permits and the unemployment rate were

0.54 and -0.45, respectively. In general, personal income is the primary determinant of the long-run growth of retail sales, while housing permits and the unemployment rate help predict cyclical changes.

Interest rates and the availability of credit also play a role, though at times it is difficult to capture their effect. Our models for general merchandise and furniture, electronics, and appliances show that falling interest rates give a boost to sales. Federal Reserve data shows a 2.2 percentage point drop in the rate for new car loans during the recovery contributed to a 28 percent jump in loan volume. But auto dealers have been known to offer zero-rate loans in both low and high interest rate environments, which muddies the relationship between interest rates and auto sales.

Since we cannot predict the cyclical position of the economy in 2024, our long-run forecasts reflect trend

**Puget Sound Retail Sales, Personal Income and Housing Permits**



growth rates. Between 2013 and 2024, the 4.7 percent annual growth rate predicted for retail sales is predicated on personal income expanding at a 5.2 percent rate (compared to 5.4 percent between 1990 and 2013), home construction averaging 23,000 units, an unemployment rate of around 5.0 percent and a 2.5 percentage point rise in the ten-year Treasury rate. In 2024, Puget Sound retail spending will amount to \$116.6 billion, two-thirds larger than last year.

PUGET SOUND RETAIL SALES									
	2014				2015	Years			
	1	2	3	4	1	2013	2014	2015	2016
Retail sales (bils. \$)	72.834	74.478	75.441	76.233	77.089	70.685	74.747	78.611	82.386
Building materials	5.235	5.345	5.482	5.441	5.480	4.954	5.376	5.619	6.013
Motor vehicles and parts	15.073	15.713	15.906	16.112	16.328	14.508	15.701	16.729	17.532
Furniture and electronics	3.083	3.186	3.168	3.166	3.206	2.979	3.151	3.261	3.374
General merchandise	8.575	8.734	8.856	8.949	8.969	8.338	8.778	9.061	9.309
Food and beverage	8.734	8.806	8.880	8.957	9.027	8.600	8.844	9.133	9.416
Gasoline stations	8.884	9.028	9.184	9.352	9.530	8.710	9.112	9.792	10.532
Clothing and accessories	3.552	3.622	3.664	3.704	3.745	3.469	3.636	3.812	3.979
Food services and drinking	7.240	7.332	7.412	7.495	7.577	7.044	7.370	7.702	8.034
Other retail sales	12.458	12.713	12.888	13.057	13.227	12.083	12.779	13.502	14.196
Taxable retail sales (bils. \$)	75.052	77.550	78.118	78.842	79.970	72.713	77.390	81.741	86.087
Retail trade	33.274	34.208	34.414	34.690	35.156	32.697	34.147	35.858	37.677
Other taxable sales	41.778	43.342	43.704	44.152	44.814	40.016	43.244	45.884	48.409
<b>Annual growth (% change)</b>									
Retail sales	4.3	9.0	5.2	4.2	4.5	5.8	5.7	5.2	4.8
Taxable retail sales	5.5	13.3	2.9	3.7	5.7	7.7	6.4	5.6	5.3

Quarterly data are seasonally adjusted and expressed on an annual basis.

# Construction and Real Estate

## A long look.

Considering the severity of the Great Recession, some analysts speculated that it would take five years for the economy to normalize. That sounded pessimistic at the time, but we are now five years along and the Puget Sound housing market has not fully recovered.

This does not imply that the news is all bad. With a 3.8 percent vacancy rate, a 6.3 percent rent hike, and about 20,000 units added since 2011, the apartment market is currently enjoying one of its best years ever.

The owner-occupied market, however, is still struggling. This year closed home sales are expected to number 60,400, about 5,000 below trend. The average home price is predicted to jump 7.6 percent to \$392,100, but it will fall short of the \$426,600 peak reached in 2007. Indicative of housing's uphill battle is single-family permits,

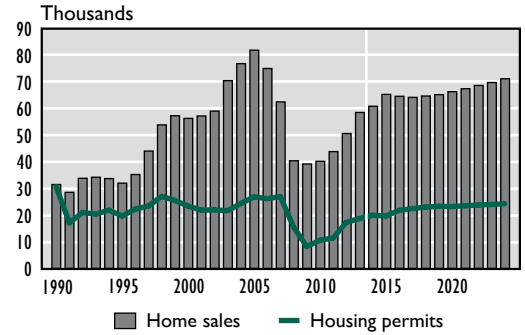
which will come in around 9,600 or 4,000 below normal.

This newsletter presents a ten-year outlook for the regional economy. We therefore thought it fitting to discuss our housing forecasts for 2024.

The regional apartment market will cool off. The forecast calls for a 5.1 percent vacancy rate in 2024, close to the historical average. Apartment rents will rise at a 3.1 percent annual rate, 0.8 percentage points faster than the general inflation rate. Between 2014 and 2024, the average rent will increase from \$1,178 to \$1,550.

Home sales, including condos (about one-sixth of the total), will increase to 70,600 in 2024. This squares with the national housing trend as well as the region's faster growing population. After rising at a 3.6 percent annual rate in the coming decade, the average home price will climb to \$560,100, about

Puget Sound Home Sales and Housing Permits



40 percent above its national counterpart.

In 2024, officials will issue 24,700 housing permits, including 14,600 single-family permits and 10,200 multi-family permits. Despite the recent surge in multi-family construction—or probably because of it—single-family permits will continue to account for three-fifths of the total in the long run.

Assuming 2.40 persons per household, the region's 44,500 new residents will require 18,500 housing units in 2024. The other permits will be issued to replace older housing.

## PUGET SOUND CONSTRUCTION AND REAL ESTATE

	2014				2015	Years			
	1	2	3	4	1	2013	2014	2015	2016
Housing permits (thous.)	18.4	23.0	20.5	18.9	19.4	18.9	20.2	19.9	22.1
Single-family	8.5	8.5	10.1	11.5	11.7	9.1	9.6	11.9	13.1
Multi-family	9.9	14.5	10.5	7.4	7.7	9.8	10.6	7.9	8.9
Housing permits (mils. \$)	3662.4	4310.7	4510.9	4536.2	4682.5	3891.4	4255.0	4869.6	5634.7
Single-family	2444.4	2531.7	3010.1	3457.3	3555.4	2590.1	2860.9	3679.4	4210.5
Multi-family	1218.0	1779.0	1500.8	1078.8	1127.0	1301.2	1394.1	1190.1	1424.2
Average home price (thous. \$)	386.6	389.7	393.3	398.6	406.1	364.3	392.1	415.1	428.2
Active home listings (thous.)	11.7	12.5	12.6	12.9	13.3	11.5	12.4	13.7	14.9
Home sales (thous.)	54.1	57.5	63.6	66.3	65.8	58.1	60.4	64.8	64.1
Apartment vacancy rate (%)	3.6	3.6	3.9	4.0	4.2	3.9	3.8	4.6	5.0
Average apartment rent (\$)	1157	1171	1185	1199	1211	1108	1178	1226	1252
<b>Annual growth (% change)</b>									
Housing permits (mils. \$)	-81.1	70.8	18.6	2.2	12.9	12.5	9.3	14.4	15.7
Average home price	12.6	3.2	3.7	5.4	7.5	10.3	7.6	5.9	3.2
Average apartment rent	6.3	4.8	4.9	4.5	4.0	6.5	6.3	4.1	2.1

Quarterly data are seasonally adjusted and expressed on an annual basis.

## Special Topic: Winners and Losers

### An asymmetrical recession.

IHS Global Insight recently conducted a study entitled “Income and Wage Gaps Across the US.” The economic forecasting firm found evidence of asymmetrical behavior of employment and the average annual wage during the course of the Great Recession and recovery. This spring the national economy finally regained the 8.7 million jobs lost during the recession, but “they were not the same jobs.”

Global Insight estimated that the average annual wage of the jobs lost in 2008 and 2009—the average wages and salaries of the industries weighted by their respective job losses—was \$61,637. However, the average wage of the jobs regained during the recovery was only \$47,171, as low-wage trade and services jobs replaced high-wage construction and manufacturing jobs. The wage gap was 23.5 percent, which cost the national economy about \$100 billion or 1.4 percent of total wages and salaries. Global Insight concluded that this asymmetrical behavior has been a factor in the slowing of income growth and the widening distribution of household income.

Applying Global Insight’s meth-

odology to regional data, we conclude that the behavior of Puget Sound jobs and income was substantially more symmetrical during the recession. Excluding the employment gains in other services and government, the economy shed 121,000 jobs between 2008 and 2010 (on a quarterly basis the fall-off totaled 131,000 jobs). Excluding the employment loss in government, the economy subsequently restored 124,000 jobs between 2010 and 2013.

The average annual wage of the jobs lost during the recession was \$56,046, while the average wage of the jobs added back during the recovery was \$53,633. In this case, the wage gap was just 4.3 percent, which cost the regional economy about \$300 million or 0.2 percent

### Puget Sound Employment Change and Average Wage and Salary\*

	Thousands		Wage and Salary (\$/yr.)
	2008-10	2010-13	
Natural resources	-0.3	0.0	52596
Construction	-39.2	7.0	53175
Aerospace	-1.9	14.4	86378
Other manufacturing	-18.6	6.8	55810
Wholesale and retail trade	-20.2	21.6	42501
Transportation and public utilities	-5.4	4.1	49209
Information	-1.3	3.5	113900
Financial activities	-12.7	5.0	68958
Professional and business services	-21.5	27.2	62173
Other services	5.6	34.6	32118
Government	3.7	-3.5	52506
<b>Total</b>	<b>-111.7</b>	<b>120.5</b>	<b>---</b>

\*2008 average wage and salary.

of total wages and salaries.

One reason for the smaller wage gap in the region was Boeing, Puget Sound’s largest private employer. Unlike other manufacturers, the airplane maker experienced only a slight job loss (1,900) during the downturn but a sizable job gain (14,400) during the upturn. If our analysis had excluded the impact of Boeing and its \$86,378 average pay, the annual wages of the jobs lost during the recession and regained during the recovery would have been \$55,563 and \$49,338, respectively, yielding an 11.2 percent wage gap.

The almost symmetrical behavior of Puget Sound employment and the average wage explains an anomaly of the Great Recession. Between 2008 and 2010, while the region’s job loss was greater than the nation’s (6.0 percent versus 5.0 percent), its wage and salary loss was less (1.8 percent versus 2.4 percent). This relatively strong growth of regional income continued during the recovery.

### Puget Sound and U.S. Employment and Wages and Salaries

	2008	2010	2013	Annual Change (%)	
				2008-10	2010-13
<b>Puget Sound</b>					
Employment (thous.)	1862.7	1751.0	1871.5	-3.0	2.2
Wages and salaries (bils. \$)	104.7	102.8	120.3	-0.9	5.4
Average wage and salary (\$/yr.)	56209	58695	64302	2.2	3.1
<b>United States</b>					
Employment (mils.)	137.2	130.3	136.5	-2.5	1.5
Wages and salaries (bils. \$)	6531.9	6377.5	7124.7	-1.2	3.8
Average wage and salary (\$/yr.)	47609	48945	52234	1.4	2.2

THE PUGET SOUND  
ECONOMIC FORECASTER

## FORECAST DETAIL 55 Percent Probability

	2014				2015	Years			
	1	2	3	4	1	2013	2014	2015	2016
Employment (thous.)	1906.8	1918.0	1927.2	1936.9	1947.1	1871.5	1922.2	1963.2	2001.3
Goods producing	289.4	293.7	294.2	294.9	295.1	284.2	293.0	295.9	298.2
Natural resources and mining	1.1	2.4	1.6	1.6	1.6	1.1	1.7	1.6	1.6
Construction	97.9	99.0	100.6	101.5	102.1	93.2	99.8	103.2	106.7
Manufacturing	190.4	192.3	192.0	191.7	191.4	190.0	191.6	191.1	189.8
Aerospace	90.8	91.1	90.7	90.3	89.9	92.9	90.7	89.5	88.3
Other durable goods	68.6	69.5	69.6	69.7	69.8	66.8	69.4	69.9	69.8
Nondurable goods	31.1	31.7	31.7	31.7	31.7	30.2	31.5	31.7	31.6
Services producing	1617.4	1624.2	1633.0	1642.0	1652.0	1587.3	1629.2	1667.3	1703.2
Wholesale and retail trade	285.1	286.9	288.3	289.4	291.1	278.1	287.4	293.7	299.8
Transportation and public utilities	64.3	65.3	65.4	65.6	65.7	62.1	65.1	66.1	66.7
Information	95.4	96.0	96.0	96.0	96.1	93.3	95.8	96.3	97.4
Financial activities	101.1	101.6	102.3	102.6	102.8	100.6	101.9	102.8	102.9
Professional and business services	260.9	261.9	265.4	268.8	272.1	255.1	264.2	277.8	290.4
Other services	520.1	521.4	523.4	526.2	529.4	508.3	522.8	534.2	546.1
Government	290.5	291.2	292.3	293.5	294.7	289.9	291.9	296.3	300.0
State and local	240.4	241.2	242.4	243.7	244.8	238.6	241.9	246.4	250.0
Federal	50.2	50.0	49.9	49.9	49.9	51.3	50.0	49.9	50.0
Unemployment rate (%)	5.7	5.2	5.2	5.1	5.1	6.0	5.3	5.0	4.9
Personal income (bils. \$09)	197.6	199.5	201.1	202.8	204.5	192.9	200.2	207.0	213.7
Personal income (bils. \$)	213.7	217.1	219.8	222.7	225.7	207.1	218.3	230.3	242.7
Wage and salary disbursements	125.2	127.5	129.2	131.0	132.8	120.3	128.2	135.5	142.4
Other income	88.5	89.6	90.7	91.8	92.9	86.8	90.1	94.8	100.3
Per capita personal income (\$)	55281	55945	56461	57022	57627	54053	56177	58537	61067
Consumer price index (82-84=1.000)	2.428	2.471	2.486	2.499	2.513	2.416	2.471	2.534	2.592
Housing permits (thous.)	18.4	23.0	20.5	18.9	19.4	18.9	20.2	19.9	22.1
Population (thous.)	3865.7	3879.8	3893.3	3906.2	3917.2	3831.3	3886.2	3933.9	3974.2
Net migration (thous.)	27.2	30.7	28.2	25.9	18.3	29.0	28.0	18.0	13.3
Three-month treasury bill rate (%)	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.5	1.6
Conventional mortgage rate (%)	4.4	4.2	4.3	4.5	4.8	4.0	4.3	5.1	5.8
<b>Annual growth (% change)</b>									
Employment	3.0	2.3	1.9	2.0	2.1	2.8	2.7	2.1	1.9
Personal income (cur. \$)	6.6	6.3	5.1	5.3	5.4	3.1	5.4	5.5	5.4
Consumer price index	1.4	7.2	2.4	2.2	2.2	1.3	2.3	2.5	2.3
Housing permits	-64.7	99.4	-43.1	-31.6	9.7	8.9	7.0	-1.8	11.1
Population	1.4	1.5	1.4	1.3	1.1	1.4	1.4	1.2	1.0

Quarterly data are seasonally adjusted and expressed on an annual basis.

# Leading Index

## Mixed blessings (3).

The Puget Sound leading index rose 1.2 percent in the second quarter. Three components (housing permits, initial filings for unemployment compensation, and real durable goods spending) improved, three components (help-wanted ads, manufacturing hours, and the interest rate spread) worsened, and one component (the Boeing backlog-delivery ratio) was unchanged. If that 3-3-1 pattern seems familiar, it is because we have now seen it three quarters in a row. The latest reading, like the mixed performance in the fourth quarter of last year, resulted in a rise in the leading index. In the first quarter of this year, however, the split caused

the composite index to fall.

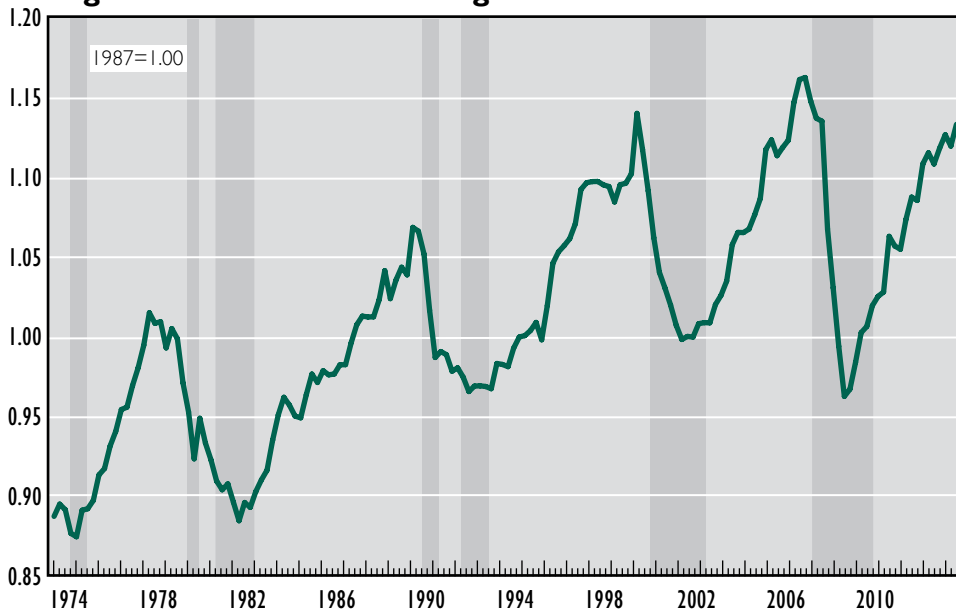
What does the erratic movement of the leading index components mean for the near-term economic outlook? Is it a precursor to a retreat in the leading index in advance of a recession? Or are the components reflecting a regional economic expansion that is simply maturing? Or, is it just a statistical coincidence with little significance for the economy? Our opinion is that the latter two possibilities offer better explanations for what is going on, as the risk of recession still seems remote given that the trend of the leading index continues to be upward.

In any event, history shows that the leading index components are

volatile. Collectively, they do an excellent job of anticipating the business cycle, but individually they are often all over the map. Also, some components change their behavior as an expansion ages. The work-week length and help-wanted ads, for example, are bound to ease up over time as labor demand is satisfied. Indeed, manufacturing hours have fallen in each of the last three quarters and help-wanted ads have retreated to 2012 levels.

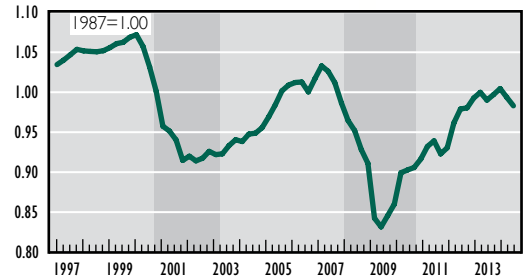
We noted in the June newsletter that the leading index's support for continued economic growth had dissipated a bit in recent quarters. That remains the case, but it does not mean that the index or the economy will soon stumble.

**Puget Sound Index of Leading Economic Indicators**

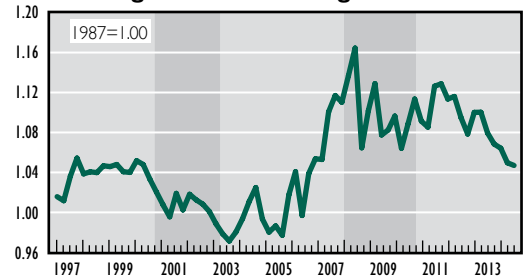


Shaded areas show recessions or periods of economic stagnation.

**Puget Sound Help-Wanted Advertising**



**Washington Manufacturing Hours**



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