THE PUGET SOUND
ECONOMIC FORECASTER
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February 18, 2010

Puget Sound Economic Outlook

Remarks by Dick Conway
enterpriseSeattle 38th Annual Economic Forecast Conference
January 14, 2010.

Thank you very much. It is a pleasure to kick off the New Year with you again.

PUGET SOUND PREDICTION ERRORS

Two years ago, I started a holiday tradition that I'm beginning to regret—reporting on my previous year's predictions. I thought about ducking the issue this year, but then I realized that some joker in the audience would probably ask, "Hey, Conway, what about last year's forecasts? They stunk."

Puget Sound Prediction Errors, 2009[1]
Percent Change

	Prediction (12/08)	Actual	Error	1994-09 Error
Employment	-0.8	-4.0	3.2	0.9
Personal income[2]	3.3	-1.8	5.1	1.7
Consumer price index	1.4	0.8	0.6	0.8
Housing permits	-17.8	-50.6	32.8	8.9
Population	1.5	1.1	0.4	0.3

[1]Based on preliminary estimates for 2009.
[2]Excludes Microsoft stock option income and dividend payment.

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Instead, I would like to take this opportunity to talk about the limit to forecasting accuracy. I think you will find this interesting. I also refer you to the article entitled "Limit to accuracy" in the newsletter on your table.

Doug Pedersen and I have published *The Puget Sound Economic Forecaster* since 1993. Currently, we make quarterly and annual forecasts to 2020 for about 100 regional economic and demographic variables. As part of our forecasting methodology, we analyze the prediction errors associated with our end-of-year forecasts—the December forecasts—and report the results to our readers. We do this for two reasons. First, it gives our readers a good sense of the uncertainty associated with our economic projections. Second, the analysis sometimes leads to improvements in our forecasting methodology and smaller prediction errors down the road.

Consider the one-year-ahead predictions for Puget Sound employment, which is arguably the most important variable that we forecast. As shown in the last column of the table, the average absolute prediction error—that is, the error without regard to sign—has been 0.9 percent over the past sixteen years. This means that if we forecast regional employment to increase 4.0 percent next year, we should not be surprised if the actual growth rate turns out to be 4.9 percent or 3.1 percent.

But does the 0.9 percent average error constitute reasonably accurate predictions of employment? One way to answer this question is to consider the variability of employment growth over time. If employment is volatile, constantly changing course and speed, it will tend to have large prediction errors. If it is stable, it will tend to have small prediction errors. Since 1990 the Puget Sound employment growth rate has ranged from -4.0 percent in 2009 to +5.1 percent in 1997. At the same time, the growth rate for U.S. real GDP has varied over a somewhat smaller range, from -2 .4 percent in 2009 to +4.8 percent in 1999. Since 1990 the average prediction error for real GDP made by the Blue Chip panel of fifty national economists has also been 0.9 percent. In that respect, our forecasts of regional employment have been equally good.

Now, here is the kicker. There have been two times, both of which occurred during the onset of a recession, when the prediction errors have been much larger. Last year's forecast of Puget Sound employment had a 3.2 percent error, as shown in the table. We did predict a recession—which was not difficult since the regional economy had already turned down in fourth quarter of 2008—but we had no idea how bad it would get. We also had a 2.7 percent error in 2001 at the beginning of the 2001-03 recession. Excluding these two instances, the other fourteen end-of-year employment prediction errors averaged only 0.6 percent.

PUGET SOUND RECESSIONS

As this analysis shows, forecasting recessions is not a strong suit of the economics profession. Why do economists—both regional and national—have trouble predicting recessions? For one thing, there has been little opportunity to practice the art. The Puget Sound region has suffered only four major set-backs in the past forty years.

Recessions are also idiosyncratic. Thus, past downturns leave few clues about the timing and nature of future slumps. The Boeing Bust was nothing like the Dot-Com/911 debacle, except that both involved the airplane maker.

In 1969, following a decade of rapid growth in air travel spurred by the introduction of jet transports, the airplane market collapsed during an otherwise unremarkable national recession. Boeing went seventeen months without a single sale to U.S. airlines and ended up nearly bankrupt. Left with no other option, the company eliminated 64,000 jobs in King and Snohomish counties. Altogether, the Puget Sound region lost 12.4 percent of its employment—one out of every eight jobs—causing the unemployment rate to soar to 12.2 percent. The Boeing Bust still stands as the region's worst recession since the Great Depression.

The demise of the high-flying dot-coms, which triggered the 2001-03 recession, was in a sense less shocking. The crazy quilt of dot-com businesses combined with rampant speculation in high-tech stocks was a clear sign that the party could not last. Were it not for the 9/11 terrorist attack, the local economy would have experienced a relatively minor disruption. But the financial damage to the airline industry inflicted by 9/11 ultimately led to the loss of 26,000 aerospace jobs in the region. During the ten-quarter slide, Puget Sound employment fell 4.8 percent.

Puget Sound Recessions

		Employment Change (percent)	Peak Unemployment (percent)
Boeing Bust	1969.3-71.3	-12.4	12.2
Fed Slam	1981.3-83.1	-3.0	11.1
Dot-Com/911	2001.1-03.2	-4.8	7.0
Great Recession	2008.2-10.1	-5.8	9.6

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The current recession, caused by the collapse of the housing and credit markets, has been an embarrassment to economists. Not only should we have seen it coming—we have experienced housing bubbles before—but it should not have happened in the first place.

The recession started when a speculative housing bubble burst, precipitating a rare decline in home prices. The bubble had been fueled by subprime loans, most of which were packaged into mortgage-backed securities. As mortgage defaults soared, trade in these securities came to a standstill—not even bond raters could figure out their value—which led to a credit freeze.

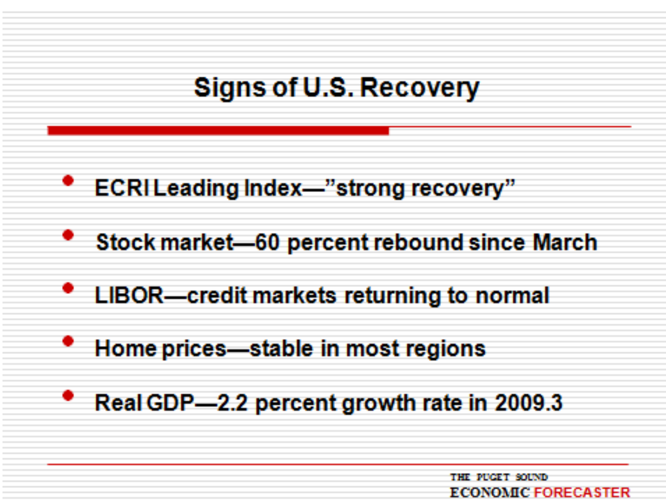
The ripple effects of the collapse of the housing and credit markets quickly spread to the real economy. Severely restricted mortgage lending and plunging home prices resulted in record low rates of homebuilding and the loss of nearly two million construction jobs nationally. Tight credit, falling home values, a 50 percent drop in the stock market, and rising unemployment caused consumers to become tight-fisted, pushing auto-makers to the brink of bankruptcy. A weakening world economy, coupled with a strengthening dollar, precipitated a downturn in foreign exports. And a steep fall-off in tax revenue gave rise to unprecedented budget deficits for state and local governments.

Initially, it appeared that if any part of the country could cope with the downturn it was the Puget Sound region. Leading up to the recession, regional employment and population were growing at twice the national rate.

But the momentum of the Puget Sound economy could not forestall a disastrous housing crash. Peak-to-trough on a quarterly basis, regional home sales fell 63 percent, residential building permits plummeted 80 percent, and home prices declined 19 percent. This in turn has led to widespread damage in the economy, including the loss of 38,000 construction jobs, the failure of Washington Mutual Bank, lay-offs at Boeing and Microsoft, and a 20 percent plunge in taxable retail sales.

SIGNS OF U.S. RECOVERY

But, even as the job situation continued to deteriorate last summer, signs of a national recovery began to emerge. It appeared that the prodigious effort by the federal government to right the economy—lowering interest rates, infusing capital into financial institutions, guaranteeing loans, and providing fiscal stimulus—was about to pay off. Four tracking indicators—the ECRI leading index, the stock market, the LIBOR rate, and home prices—gave good reason for hope.



The weekly leading index developed by the Economic Cycle Research Institute is composed of seven forward-looking indicators. For the past several months it has been pointing to "a stronger U.S. economic recovery than most anticipate."

The stock market has rebounded more than 60 percent from its March low, a hearty endorsement by investors that business conditions are improving. The upturn in the market should also help calm jittery consumers.

The difference between the 3-month London Interbank Offered Rate (LIBOR) and the 3-month T-bill rate is a measure of credit availability. After widening to more than 400 basis points (4 percentage points) during the credit freeze, the spread has narrowed to about 20 basis points, a normal difference. This does not mean that the credit markets have completely thawed, but they are getting close.

The most important development has been the turnaround in U.S. home prices. It has been clear from the outset of the recession that nothing good would happen to the economy until home prices stabilized. Between April and October, national home prices rose 5.2 percent, the first gain in three years, according to the Case-Shiller price index. Falling home prices were halted by a spurt of sales brought about by the increased affordability of homes and the home-buyer tax credit.

In the fall, the U.S. Bureau of Economic Analysis, which maintains the national income and product accounts, reported the first solid evidence of the recovery. After a string of four quarterly losses, real Gross Domestic Product (GDP) advanced in the third quarter of 2009. The annual rate of growth was 2.2 percent, according to revised numbers.

PUGET SOUND EMPLOYMENT CHANGE

The latest employment data give a clear picture of where the Puget Sound economy stands. The job numbers confirm that the four-county area is suffering a deeper recession than the nation. Between January 2008 and November 2009, the region lost 5.9 percent of its jobs, compared to 5.1 percent for the nation.

Puget Sound Employment Change
January 2008-November 2009
Thousands

	Change	Percent Change	U.S. Percent Change
Employment	-109.2	-5.9	-5.1
Construction	-38.3	-29.0	-19.7
Manufacturing	-20.5	-10.7	-15.2
Information	-0.4	-0.5	-6.8
Financial activities	-8.7	-8.1	-6.8
Professional and business services	-21.0	-8.4	-7.4
Other industries	-28.2	-3.6	-2.3
Government	7.9	2.8	0.7

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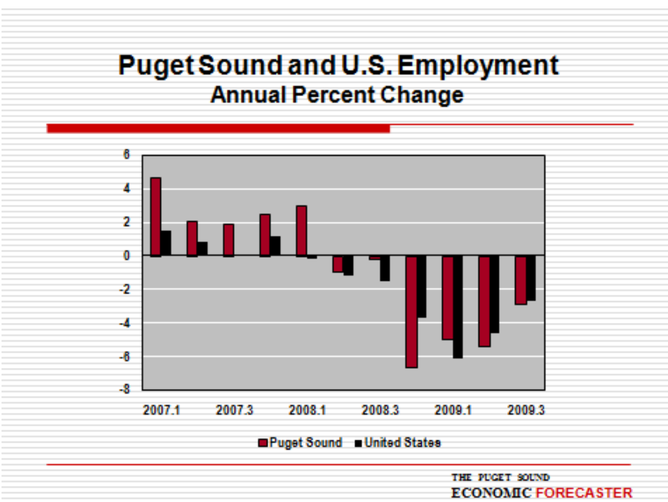
Why has the region fallen so hard? Ironically, the answer lies in the strength of the regional economy just prior to the recession. With local employment and population growing at twice the national rate, activity in the housing market—home sales and housing construction—rose to a higher level than in most other parts of the country. Thus, when the housing and credit markets collapsed, the region had farther to fall.

The downturn in residential and nonresidential building activity has resulted in a loss of 38,000 construction jobs, 29.0 percent of the industry total. Had employment declined in line with its national counterpart (19.7 percent), the region would have experienced a milder recession than the nation—a 4.6 percent total employment loss to date—after taking into account the multiplier effect.

PUGET SOUND AND U.S. EMPLOYMENT

According to employment data, the region has trailed the nation by about one quarter throughout the recession. Because of a strong economy, led by a hot housing market, the region entered the recession late. U.S. employment began to fall in the first quarter of 2008, while Puget Sound jobs started to slip in the second quarter. Currently, the region is losing jobs faster than the nation, indicating that our economy continues to lag behind.

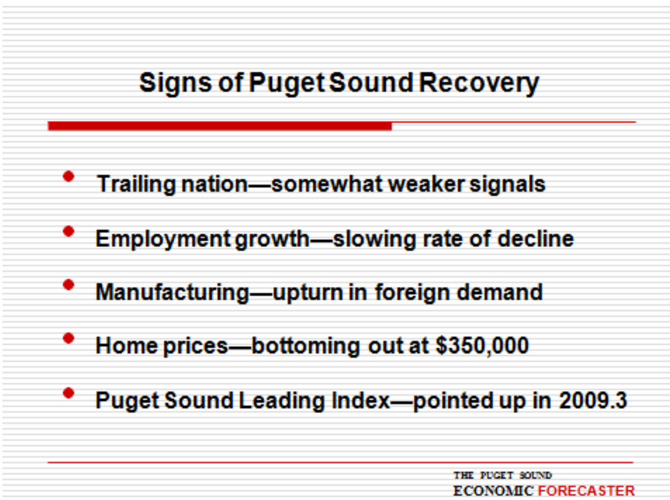


SIGNS OF PUGET SOUND RECOVERY

Because the region trails the nation, the signs of a Puget Sound recovery are still mixed. Nevertheless, there is mounting evidence that the local economy is also laying the groundwork for growth.

For example, the region is still shedding jobs but at a slowing rate. In the last quarter of 2008, employment fell at a 6.7 percent annual rate. In the third quarter of 2009, the rate of decline was down to 2.9 percent.

The manufacturing sector is benefitting from a weakening dollar and a pick-up in world markets. This is having a stabilizing effect on its employment. Between August 2008 and May 2009, regional manufacturing establishments cut 17,200 jobs. Since May, however, they have shed only 4,500.



Like the nation, the Puget Sound housing market has bottomed out. In response to an upturn in home sales, the seasonally-adjusted average home price has been bouncing around $350,000 since March.

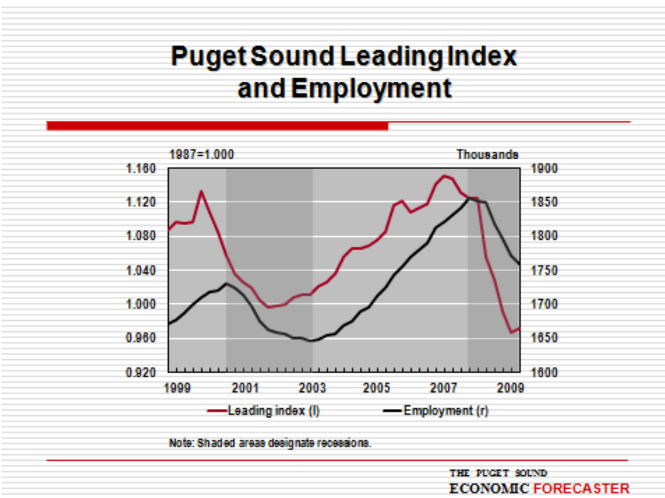
The latest reading of the Puget Sound Index of Leading Economic Indicators provides perhaps the most promising sign that a local recovery is on the way.

PUGET SOUND LEADING INDEX AND EMPLOYMENT

Composed of seven variables—for example, initial claims for unemployment compensation, regional housing permits, and the Boeing backlog-delivery ratio—the index tends to lead the Puget Sound business cycle by three to six quarters.

As evident by the chart, the leading index did a good job of predicting the last two recessions. Let me read a passage from our December 2007 newsletter about the current recession: “last quarter’s dip in the leading index [the downturn in 2007.3] might be the first in a series of declines, in which case a recession in late 2008 or early 2009 cannot be ruled out.”

After a steep eight-quarter slide, the leading index suddenly reversed course in the third quarter of 2009. Admittedly, the upturn does not look like much. But I think it is significant in two respects. First, it halted an unprecedented plunge in the leading index. Second, the timing of the upturn suggests that regional employment will start rising again in the second quarter of 2010. Our leading index and econometric model are totally independent forecasting methods. Yet, they are making the same prediction—that jobs will start growing in the spring—which strikes me as somewhat reassuring in these uncertain times.



PUGET SOUND ECONOMIC FORECAST

The regional recovery is likely to be a drawn-out affair, especially with regard to employment, according to our latest forecast. Not until the second quarter of 2010 will employment begin to rise; not until 2013 will it return to its 2008 peak; and not until 2016 will the unemployment rate drop to 6 percent.

There are three reasons for the slow recovery. First, the difficult problems in the housing and credit markets will not be totally resolved overnight. Second, despite a relatively strong export sector, neither Boeing nor Microsoft will be a significant growth force. Third, state and local government, typically the last sector to succumb to a recession, will be dealing with budget deficits for at least another year. This means lay-offs in the public sector and higher taxes in the private sector, neither of which is helpful to a recovery.

The Puget Sound economy will improve in 2010, but the progress must be judged in relative terms. After falling 4.0 percent in 2009, employment will decline only 0.8 percent in 2010. Current-dollar personal income will increase 3.2 percent, following a 1.8 percent loss in the previous year. Because of the weak economy the inflation rate is predicted to be only 1.7 percent.

Puget Sound Economic Forecast
Percent Change

	2008	2009	2010	2011
Employment	0.9	-4.0	-0.8	1.8
Personal income	3.7	-1.8	3.3	4.6
Consumer price index	4.3	0.8	1.8	1.8
Housing permits	-42.8	-50.6	34.1	35.9
Population	1.4	1.1	0.7	0.7

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In 2011, as the recovery catches hold, the regional economy will grow at a healthier pace. In general, 2011 is setting up to be a reasonably good year: a 1.8 percent increase in employment, a 4.7 percent gain in personal income, a 1.8 percent inflation rate, and a 31.4 percent jump in housing permits.

PUGET SOUND ECONOMIC FORECAST (2)

Early evidence indicates that holiday sales were up 3 percent over the year, a bit better than we had forecast. Thus, the 2.7 percent growth rate predicted for total retail sales in 2010 might be on the light side. Indeed, if you are looking for a surprise during the recovery, keep an eye on the consumer.

Puget Sound Economic Forecast (2)
Percent Change

	2008	2009	2010	2011
Retail sales	1.9	-5.3	2.7	4.3
Taxable retail sales	-5.2	-13.0	0.8	6.6
Home sales	-35.2	-9.2	17.3	6.1
Average home price	-5.5	-11.4	4.9	5.1
Apartment vacancy (%)	4.9	7.1	7.6	6.9

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I hope that our forecast of taxable retail sales is too low. After losing one-fifth of the tax base in 2008 and 2009, we are forecasting virtually no gain in 2010. That would likely necessitate another round of deficit-fighting in 2011.

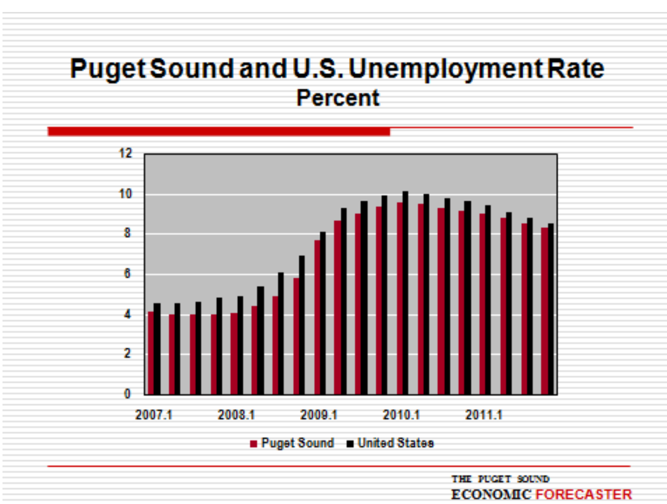
The ten-year outlook for our largest tax base is extremely worrisome. We predict that nominal taxable retail sales will not return to its 2007 peak until 2013. Adjusted for inflation, it will not return to the 2007 level until 2016. And, adjusted for population growth, real taxable retail sales per capita will not fully recover until sometime after 2020.

The housing market should finally come out of the cold in 2010. We expect that home sales will jump 17.3 percent and home prices will increase 4.9 percent. December data show that since July seasonally-adjusted home prices have been rising at a 6.4 percent annual rate.

The apartment market will continue to struggle. In 2010, the average vacancy rate will hit 7.6 percent, while the average rent will decline 2.2 percent. A weak economy, forcing some apartment dwellers to double-up, the affordability of home-owning, and an over-supply of multi-family housing are weighing heavily on the rental market.

PUGET SOUND AND U.S. UNEMPLOYMENT RATE

This chart shows the profile of the recovery from the standpoint of the unemployment rate. The unemployment rate is a lagging variable, meaning that it will be one of the last things to return to normal. There are two reasons for this. When output rises during the initial stages of a recovery, businesses are hesitant to take on new employees until they are certain that the expansion will take hold. And, when hiring does resume again, discouraged workers—and there are lots of them right now—reenter the labor force, preventing the unemployment rate from declining more quickly than it would otherwise. Thus, it will be a long time, if ever, before the unemployment rate falls back to what now seems to be an incredibly low rate of 4.0 percent, the rate achieved in 2007.



THE DISMAL DECADE AND BEYOND

Before turning to the long-term outlook, here is a trivia question. Is the following statement true or false? Over the past ten years, our region has created a greater number of jobs than the nation. The answer is true, but it turns out to be nothing to brag about. Between 2000 and 2010, the United States will lose 600,000 jobs, according to our current forecast. The Puget Sound region will hardly do better, adding just 35,000. By comparison, the region created 350,000 jobs between 1990 and 2000.

Hammered by the dot-com implosion, 9/11, the housing bubble and credit crunch, and soaring energy prices, this past decade will go down, at least in my book, as the Dismal Decade.

Will the next decade be any kinder? The answer is almost certainly yes, as the national and regional economies will have an opportunity to play a game of catch-up. Given the nation's rapidly aging population, the projected annual trend growth rates—the so-called full-employment growth rates—for employment and real GDP are about 0.6 percent and 2.2 percent, respectively. But the U.S. economy should be able to take advantage of the labor supplied by the 15 million people left unemployed by the current recession. Thus, the actual national employment growth rate will likely be closer to 1.3 percent per year between 2010 and 2020. This would imply a real GDP growth rate of 2.8 percent, up substantially from the 1.7 percent rate during the past decade.

The Dismal Decade and Beyond

	1990-00	2000-10	2010-20
UNITED STATES			
Employment change (mils.)	22.3	-0.6	19.3
Employment growth (%/yr.)	1.9	-0.1	1.4
Real GDP growth (%/yr.)	3.4	1.7	2.8
Real income growth (%/yr.)	3.5	1.5	2.8
PUGET SOUND REGION			
Employment change (thous.)	353.9	35.1	348.2
Employment growth (%/yr.)	2.3	0.2	1.8
Real income growth (%/yr.)	4.7	1.9	3.0

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Barring a major move by Boeing to South Carolina—one that would take more than the 3,800 jobs already announced—the Puget Sound region should continue to grow faster than the nation. There are five reasons for this optimistic prognosis: the region's location in one of the fastest growing parts of the country; its ability to sell goods and services in expanding foreign markets; its world class companies; a high concentration of high-tech activities; and natural and cultural amenities that make the region an attractive place to live and locate a business.

Specifically, we predict that employment will grow at a 1.8 percent annual rate between 2010 and 2020. As a consequence, the four-county area will create a total of 350,000 jobs, ten times the number tallied during the past decade. By 2020, the Puget Sound region will have nearly 4.1 million residents with 2.1 million jobs and $300 billion in personal income.

On that hopeful note, I wish you a Happy New Year and a Happy New Decade.

For a related article by Dick Conway, see "A Hard Fall," *Seattle Business*, January 2010, pages 30-33 (www.seattlebusinessmag.com).