A G E N D A

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METRO

Agenda

MEETING:	METRO COUNCIL/EXECUTIVE OFFICER INFORMAL MEETING
DATE:	March 12, 2002
DAY:	Tuesday
TIME:	2:00 PM
PLACE:	Council Annex

CALL TO ORDER AND ROLL CALL

I.	**UPCOMING LEGISLATION**	
II.	**DRAFT ECONOMIC FORECAST**	Cotugno
III.	**ECONOMIC DEVELOPMENT**	Atteberry/Wolfe
IV.	**EXECUTIVE OFFICER COMMUNICATION**	
V.	**COUNCILOR COMMUNICATIONS**	

ADJOURN

031202cc-01

Economic Report to the Metro Council

2000-2030 Portland-Vancouver Area Forecast

DRAFT FORECAST

NOT FOR EXTERNAL RELEASE

SUBJECT TO CHANGE WITHOUT NOTICE

Preliminary Forecast
Presented to the Metro Council
March 12, 2002

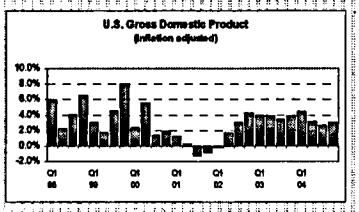
Today's Agenda

- U.S. Forecast
- Regional Forecast
- Context of the Forecast to Metro Periodic Review 2002-22

Forecast Assumptions

- U.S. monetary and fiscal assumptions by WEFA
- Policy neutral on land use & transportation
- Housing Price Forecast Assumption

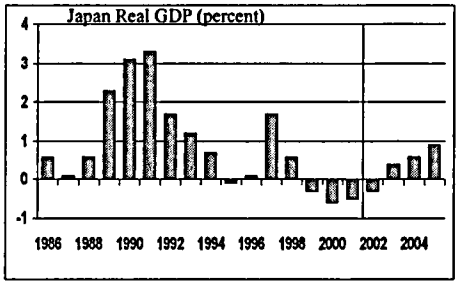
U.S. Economic Outlook



It's Official !

- Recession in the U.S.
- Peak growth ended in March 2001
- 9/11 tragedies worsen economic conditions
- Coincident worldwide recession makes matters worse
- Japan in 3rd recession in a decade.

Japan's Economy continues to struggle

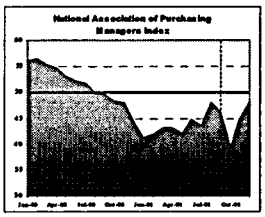


Recession chronology

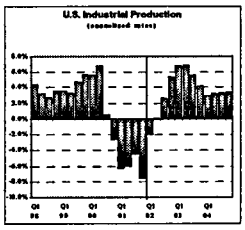
- Over investment through late 1990's
- Producer confidence begins to fall in 2000
- Over capacity swells
- Capacity utilization tumbles as does industrial production in late 2000
- Loss in manufacturing jobs - particularly durable
- Mounting job losses erode consumer confidence in early 2001
- Recession hits in March 2001
- Then... 9/11 tragedy plunges Nation into a deeper down turn

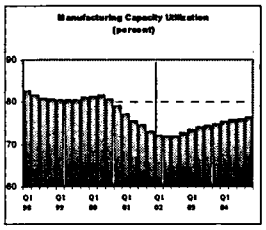
Business Confidence

- Business confidence on the slide since 2000 foreshadowing grimmer economic times ahead
- A reading above 50 points indicates an expanding manufacturing sector
- Turning point after 9/11?



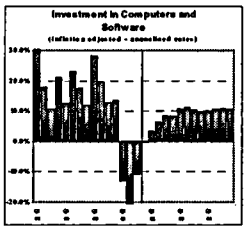
Capacity Utilization & Industrial Output





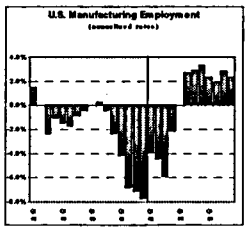
Producer durables on skids...

- After 8 years in a row of double-digit growth, investment valve turned-off.
- Investments & productivity driven growth plummets ... bringing down technology sector.



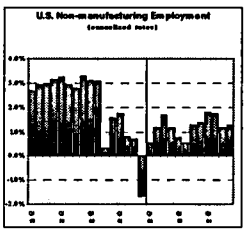
Manufacturing sector recession

- Hardest hit include technology, aerospace, high tech firms and other producer durable sectors.
- Sharp cutbacks in jobs prior to recession and expected through end of 2002.



Recession infects other sectors

- Recession hits non-manufacturing sector in last quarter of 2001
- Expected to rebound quickly but at reduced rates

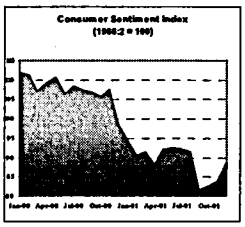


Shape of the Recovery

Favorable Economic Factors	Unfavorable Economic Factors
▪ Early & deep interest rate cuts	▪ Weak capital goods cycle
▪ Unusually well timed Federal tax cuts	▪ Global recession
▪ Large Federal spending on Anti-terrorism	▪ Steep drop in U.S. exports
▪ Low fuel prices	▪ Weak state & local budgets
▪ Low inflation and interest rates	▪ Poor business profits
▪ Decline in U.S. imports	▪ Inventory reductions
▪ Steady housing demand	
▪ Strong U.S. auto	

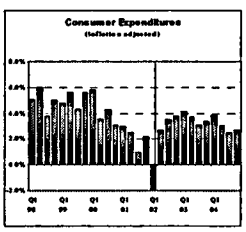
Consumer optimism?

- Consumer expectations still low, but rebounding
- Third month in a row index has risen.



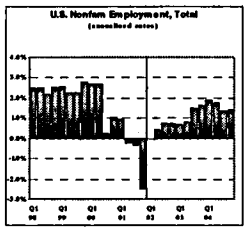
Consumer Spending on the rise?

- Consumer spending will have to lead the U.S. out of this recession.
- Consumer spending momentum is expected to accelerate much faster than other sectors of U.S.



U.S. Employment Outlook

- Muted rebound in Job growth
- Growth under 1% annualized growth per quarter through 2003
- Weak GDP growth until job momentum accelerates



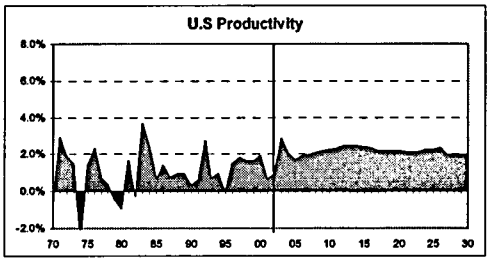
Near Term Forecast Risk

- Terrorism fears further undermine U.S. confidence
- Weaker corporate profits & stocks
- Sharply higher energy prices
- Deeper global recession
- Sag in housing and auto sales
- Delay in inventory rebound

Long-range growth factors

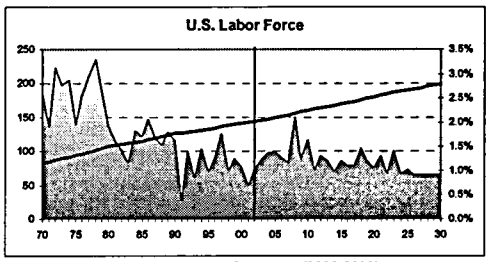
- Productivity - steady growth
- Labor Force / Population - modest trend
- Capital Investment - rebound, then tapering to relatively strong trend
- Employment - continued growth in non-manufacturing; declines in manufacturing

U.S. Long-Run Outlook



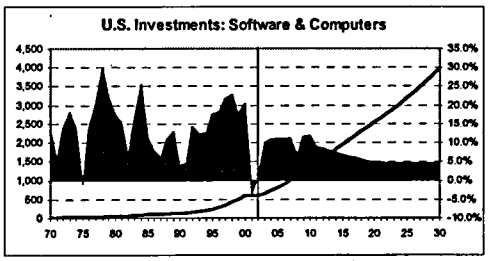
- Rebound, then leveling out

U.S. Long-Run Outlook



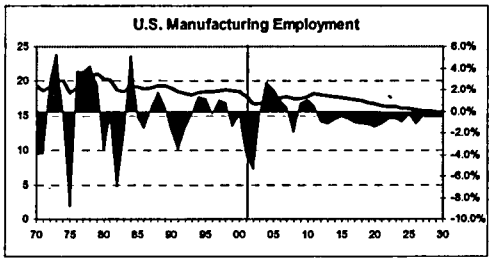
1.2% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



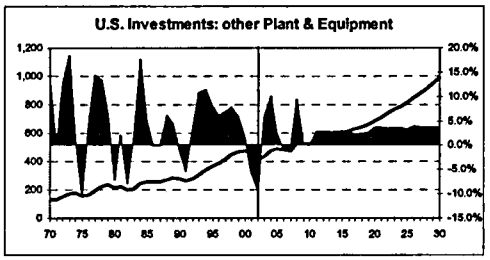
6.75% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



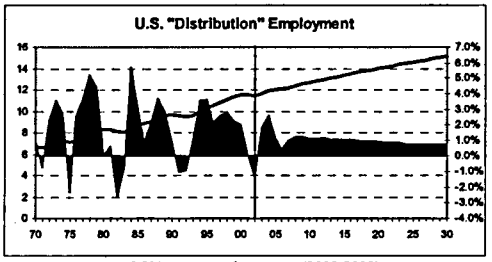
-0.6% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



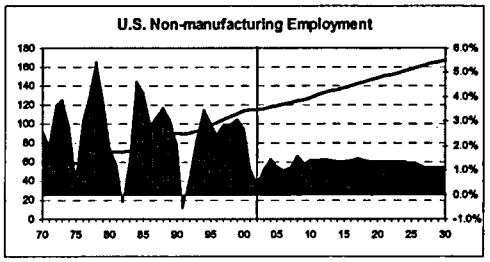
2.2% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



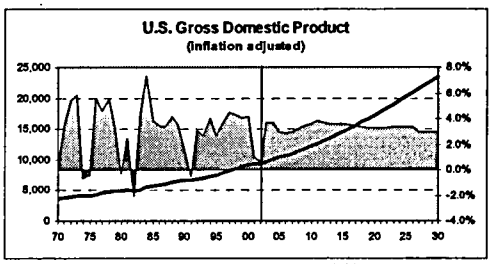
0.9% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



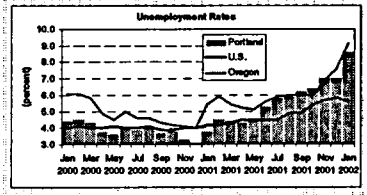
1.3% avg. growth per year (2000-2030)

U.S. Long-Run Outlook



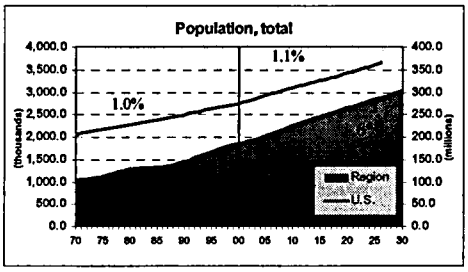
3.2% avg. growth per year (2000-2030)

Regional Outlook

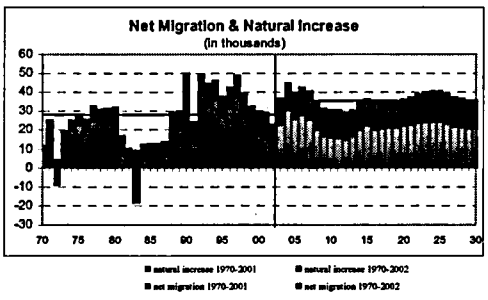


- Region still in decline while U.S. improves

Regional Population growth expected to exceed U.S. rate



Population change components



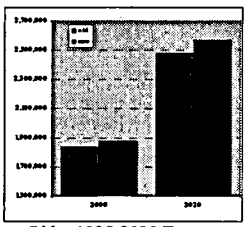
Population Change: 2000-2020

Population in 2000

- 1,837,600 (old forecast)
- 1,874,500 (new forecast)

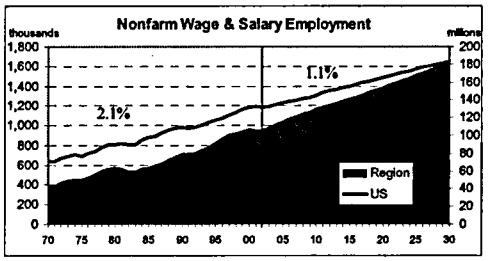
Population in 2020

- 2,475,000 (old forecast)
- 2,571,100 (new forecast)

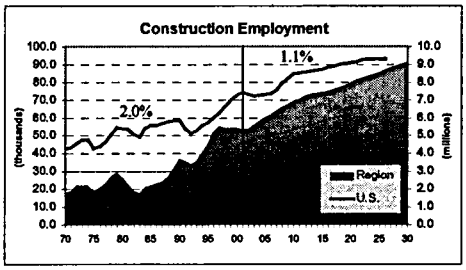


Old = 1995-2020 Forecast
New= 2000-2030 Forecast

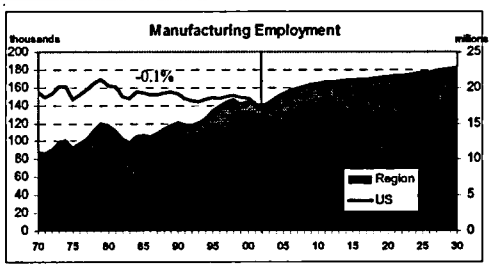
Portland-Vancouver Employment Forecast



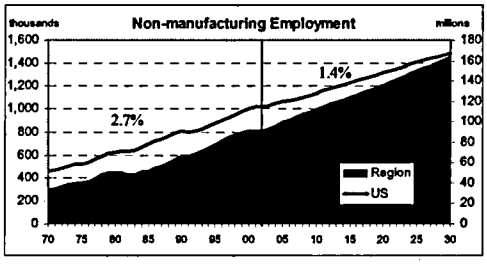
to keep pace with regional growth



Jobs expected to rise



Robust growth forecasted for nonmanufacturing employment



Prospects for Key Industries

High-tech (general)

- 4% past growth
- under 2% forecast for region
- U.S. comparison calls out no growth in jobs
- Regionally 60,000 jobs to 95,000 jobs in 30 years

Warehouse/Distribution

- 2.3% past growth
- 1.7% forecasted growth
- U.S. comparison under 1% growth

Job prospect in other industries

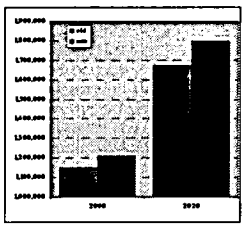
- Metal industry - small declines
- Transportation equipment - flat
- Food Processing - steady declines
- Services, Retail and other "office jobs" - growth rates between 1.3% - 2.7%

Employment Change: 2000-2020

Jobs in 2000
- 1,147,300 (old forecast)
- 1,209,000 (BEA est.)

Jobs in 2020
- 1,673,700 (old forecast)
- 1,795,400(new forecast)

A.P.R.
- 1.9% (old) v. 2.0%

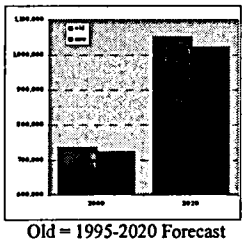


Old = 1995-2020 Forecast
New= 2000-2030 Forecast

Household Change: 2000-2020

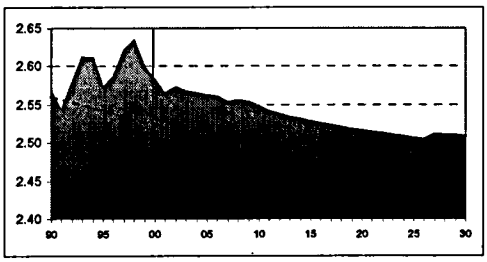
Housholds in 2000
- 736,000 (old forecast)
- 725,400 (new forecast)

Households in 2020
- 1,052,000 (old forecast)
- 1,022,000 (new forecast)



Old = 1995-2020 Forecast
New= 2000-2030 Forecast

Persons per Household



Peer Review Perspectives

- How reasonable is the forecast?
- Did we miss anything in the regional forecast?
- Would you assume anything differently?

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Metro Report

Economic Report to the Metro Council

2000-2030 Regional Forecast

- Employment
- Population
- Income

for Portland-Vancouver Metropolitan Area

March 2002

DRAFT

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Planning Department
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Director

Prepared by:
Data Resource Center
Dennis Yee
Chief Economist

METRO

Executive Summary
2002-2022 DRAFT Regional Forecast

The National View

- It's official – the U.S. is in a recession since March 2000, according to the private economic think tank: National Bureau of Economic Research.
- There's little worry of inflation. Interest rates are low; but so are consumer confidence and business activity. The National Association of Purchasing Manager's Index (NAPM) still points to contraction. Low confidence and downbeat industrial output spell negative GDP growth for the U.S for the first part of 2002.
- After a year, the recession may be coming to an end. . .
  1. Consumer confidence is on the rise – but still under pre-recession levels
  2. NAPM index is on the rise too – the level is presently near 50 – indicative of positive growth just around the corner
  3. Surplus capacity utilization and industrial production are showing early signs of acceleration
  4. Very favorable interest rates for stimulating additional domestic investments which could lead to a recovery in computers and software production
  5. Timely tax cuts prior to 9/11 and huge federal spending are stimulating GDP

Favorable Economic Factors	Unfavorable Economic Factors
■ Early & deep interest rate cuts	■ Vulnerable capital goods cycle
■ Unusually well timed Federal spending initiatives and tax cuts	■ Global recession
■ Low fuel prices	■ Steep drop in U.S. exports
■ Decline in U.S. imports	■ Weak state & local budgets
■ Steady housing demand	■ Poor business profits
■ Strong consumer auto purchases	■ Inventories

The Regional Perspective

- The region is in its worst condition in over a decade.
- The average number of unemployed rose to near 60,000 with peak unemployment reaching 75,000 in November and December 2001.
- The manufacturing sector is in full retreat – that's not good news for a region that has proportionally more industrial jobs than other areas of the country.
- Regional mainstays high tech, transportation equipment, machinery, metals, and food processors, are hurting. Quarterly job figures in manufacturing are off 6 percent from over a year ago on a seasonalized annual basis.
- A weak Pacific Rim has also hurt regional exports. Japan is in its 3rd recession in a decade.
- Despite weak economic fundamentals, population and migration are still holding up well. Population rose 1.5 percent last year, which is below historical norms, but that figure is still great compared with growth in the early half of the 1980's.

When can we expect the Portland region to rebound?

- The good news is: Probably by mid-summer. But at the start the rebound will be slow...so the region probably won't feel like its out of the recession until the first quarter of 2003.
- The U.S. should be well on its way to a recovery, so the region can count on a boost from higher U.S. business activity. High-tech will be on its way up, and that should help fuel regional growth.
- A mild recovery overseas – especially in Japan – will aid in bolstering exports and the regional economy, too.

Executive Summary
2002-2022 DRAFT Regional Forecast

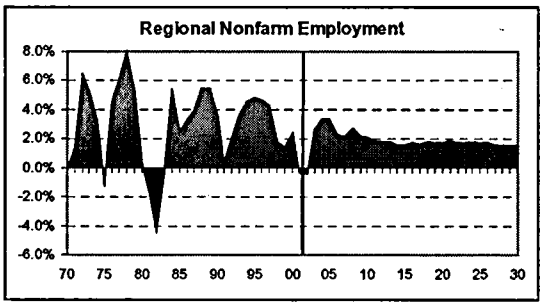
Regional Long-term Forecast Outlook: 2000 to 2030

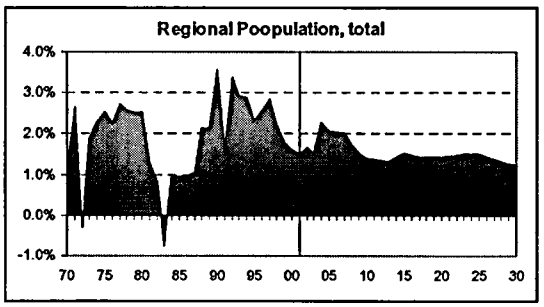
- Regional forecast presumes policy neutral position. Policies in effect today will be in force in the future. Regulation of the land supply assumed to not restrict underlying market growth trends.
- Population growth in last half of 1990's grew more rapidly than expected. Nearly 40,000 more residents by 2000 than previous 1995-2020 Regional Forecast[1].
- Population projected to rise 1.6% A.P.R. as compared to 2.0 percent annual average since 1970.
- 5 county region expected to reach 3 million mark by 2030. Population in 2022 expected to hit 2.65 million residents living in the region.

	Population change in decade	Avg. Growth in decade
1860-70	13,811	6.41%
1870-80	25,123	6.30%
1880-90	69,510	8.52%
1890-00	39,891	2.82%
1900-10	157,733	6.96%
1910-20	71,192	2.02%
1920-30	83,767	1.95%
1930-40	50,538	1.01%
1940-50	210,702	3.42%
1950-60	116,332	1.47%
1960-70	194,697	2.07%
1970-80	248,584	2.15%
1980-90	179,969	1.31%
1990-00	396,554	2.41%
2000-10	359,451	1.77%
2010-20	337,200	1.42%
2020-30	384,200	1.40%

- Population table (left) shows growth tapering off during the forecast to 1.4 % per year between 2010 to 2030.
- Migration represents one-half of future population growth.
- Despite more people in this forecast, the number of households or the housing unit need forecast is actually 30,000 lower than the previous regional forecast.
- Household size was revised upwards by Census. Future household sizes expected to hold up higher than in previous forecast assumption.
- Population growth helps fuel population-dependent industries reach 4 and 4.5 percent growth rates in mid-1990's.
- Employment growth in near term expected to rebound and as a result so too will population (see charts below).
- Long-run employment prospects are expected to be favorable for the region. Job growth expected to exceed U.S. growth rates.
- Manufacturing jobs are expected to grow at an average of 0.8 percent a year. Nonmanufacturing jobs expected to grow 2.0 percent a year. Total is 1.9 percent average annual growth as compared to 3.0 percent during the last 30 years.

Annual Growth Rate Charts





[1] Source: Metro Data Resource Center, **2015 Regional Forecast**, January 1996

2002-2022 DRAFT Regional Forecast
Introduction

Purpose

In order to maintain a sound and vibrant regional economy, planning for future land needs is essential. State law mandates that Urban Growth Boundaries (UGB) in Oregon are to be periodically updated, and the inventory of buildable residential land inside UGB's are to be replenished up to a 20 year supply at the time of periodic review. And as a matter of general practice, Metro also maintains an inventory of up to 20 years of industrial and commercial land at its periodic review of the Metro UGB. The basis for future land need and demand is a regional forecast of employment and household change.

The regional forecast is, in part, the supporting evidence for Metro's UGB decision due to be finalized in December 2002. This demand, represented by the current regional forecast, provides the technical information for a baseline estimate of a 20 year need for both residential and employment land[2]. Metro is now in the process of completing its studies and analyses for its 2002-2022 periodic review UGB decision[3].

The Metro regional forecast presents the technical underpinnings for estimates of future employment and future residential land need. National economic assumptions drive a forecast derived from a regional economic model of the Portland-Vancouver region. Overall regional control totals for aggregate demand for employment land are derived from sector-by-sector employment forecasts. Commercial and industrial land demand (need) are derived from sector level employment forecasts and by projections of employment density and floor-to-area-ratios (FAR) for each sector[4].

Future residential land demand (need) is determined from housing unit forecasts created from the Metro regional forecast. Future regional population is estimated using an age-cohort model, with the final result a forecast of population by age. U.S. Census "middle-series" age-specific fertility and age-specific mortality rates are the initial basis for projecting natural population growth. These age-specific rates are benchmarked with regional vital statistics data to create composite regional age-specific birth and death rates used in estimating natural increases in regional population[5]. The migration component is

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[2] Additional high and low growth scenarios for the region will accompany this baseline forecast to cover a range of uncertainty in the forecast.

[3] Additional information is needed from other tasks under periodic review to make a final determination of UGB land need, e.g., alternatives analysis, Metroscope data on capture rates and refill rates, policy inputs with respect to matters of urban form, regional transportation plan assumptions.

[4] FAR projections and employment density assumptions are derived by Metro's other economic model – Metroscope. In fact, Metroscope is a comprehensive land use allocation model that interacts with Metro's regional transportation model as well as the regional economic model.

[5] Regional birth and death rates fluctuate a tad from year-to-year. We chose as initial rates a set of composite rates that minimized the difference between actual and model fitted births and deaths between 1900 and 2000. We adjusted the national fertility and mortality assumptions to correspond to regional differences in rates. These differences were not large, but we felt it was reasonable to make the adjustments in order to better replicate regional trends.

estimated net of in- and outflows and linked to the employment forecast. The completed population forecast is then converted to an estimate of the number of households and dwelling units.

Assumptions

The DRI-WEFA U.S. forecast sets the overall tone of anticipated macroeconomic conditions for the next 20 year period. The Metro regional forecast implicitly adopts these assumptions for the Metro region for its next 20 year growth cycle[6].

Before estimating future employment and population increases, a set of overarching conditions are presumed to be pre-set assumptions for the region and the U.S.. These assumptions are often overlooked, but are fundamental to the forecast. For example, the regional forecast assumes that Americans are free to go where they please without undue restrictions (this has implications on migration trends and business start ups), that Americans are protected by the U.S. Constitution and the rule of law (this implies that people and businesses can reasonably expect certain behavior from others and can plan for the future on this basis), that America's fundamental economic system continues to be based on system of free enterprise (this presupposes a sense of economic stability and conditions as opposed to a socialist regime that has a different set of economic implications), that Americans have the right to the pursuit of happiness. These fundamentals we hold to be true in the regional forecast as well as the U.S. forecast. Additional macroeconomic assumptions with respect to fiscal policy, monetary policy, and so forth are also explicitly folded into the national forecast. And, in the course of assuming the national forecast, these national assumptions become implicit policies for the region too.

At the regional level we assume a policy-neutral set of conditions over the course of the next 20 years. In other words, the policies that are in force today are presumed to be similar in the future. In terms of regional planning for the UGB, this means that future regional land use policies are assumed to be more of the same. In other words, that future policies will have similar impact to that which they have today.

The region in the past, and arguably in the present, has enjoyed land demand and supply conditions that pretty much do not suffer from peculiar economic distortions. Additionally, the forecast presumes that the market for all goods and services in the region is no more constrained than that of the rest of the nation. What this translates into for the regional forecast is that regardless of future policies, the regional markets (whether for labor, land or goods and services) in the Metro region are able to determine market equilibriums, and the condition of these markets are competitive with other cities

[6] Although business cycles are not dead and there have been at least 10 downturns in the Metro region, the current regional forecast plays out the present recession and attempts to forecast regional growth at its long-run expected growth rate. In the near term, population and economic growth in the region is slow or negative. Subsequently, as the U.S. economy emerges from the current 2001-2 recession, the region is expected to do so as well, but with a one-quarter lag. The recovery will initially show about a year or two above average growth rates as the region climbs out of recession, but after this initial growth peak, the regional forecast gradually tapers off to the region's long-run average growth path. This growth path is determined by the national forecast obtained from DRI-WEFA.

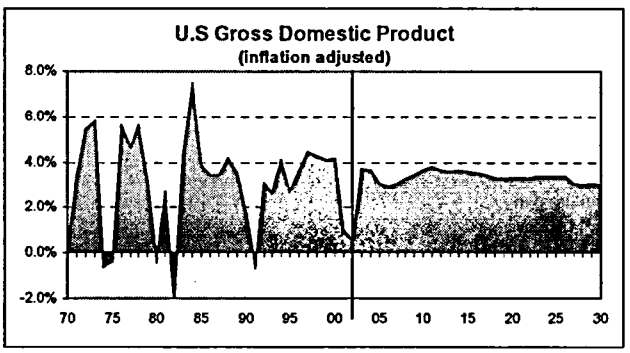
on the west coast. In short, the regional forecast presumes future policies will do no harm to observable economic trends[7]. The State's periodic review process and Metro code are intended to provide periodic replenishment of the available land inventory by balancing the desire for economic vitality with land and environmental conservation..

The economic trends for the region are based in part on past economic relationships, clusters, inter-industry linkages and the outlook for the nation. Our attempts to peer into a mist-shrouded future are based on these assumptions. The economic relationships between the U.S. economy, world economy and regional economy are intertwined and implicitly included in the regional forecast by virtue of the economic equations formulated in the regional economic model. Economic clusters that exist in the region are also considered. Inter-industry linkages, that is the relationships among different sectors of the region, are folded into the calculations of the regional forecast by inter-industry demand variables (behaves as an input-output parameter among industry sectors).

The future forecast for the region is based on an outlook of global and national conditions that are expected to materialize over the next 20 years, as well as economic relationships that have formed over the past decades. The set of U.S. and worldwide assumptions derive from the DRI-WEFA U.S. forecast. To highlight, the regional outlook includes these most recent updates:

- U.S. Census 2000 population data
- New immigration trend information for the 1990's
- Updated demographic assumptions of future households, migration, birth and death rates
- Revised employment data from the state employment departments
- New and revised U.S. Bureau of Economic Analysis income and wage data
- 9/11 economic impacts
- Macroeconomic recession assumptions from DRI-WEFA
- Global macroeconomic and industry detailed growth assumptions from DRI-WEFA

The DRI-WEFA national forecast is a trended forecast. This means that after the current recession is played out for the U.S., an expected growth rate is assumed by DRI-WEFA that presumably models an average growth path which bisects the peaks and valleys associated with recessions and a business cycle. The chart (right) of real U.S. GDP from DRI-WEFA exemplifies the trended approach of the national and regional forecast.

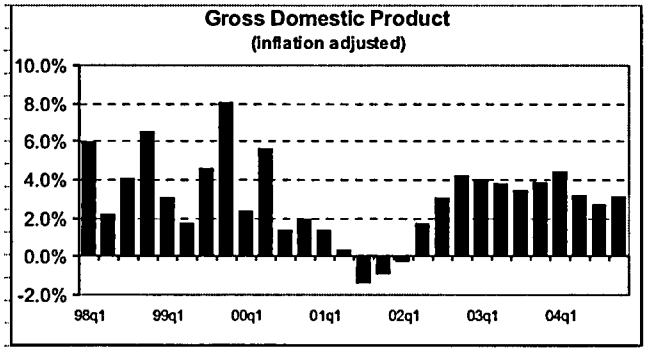


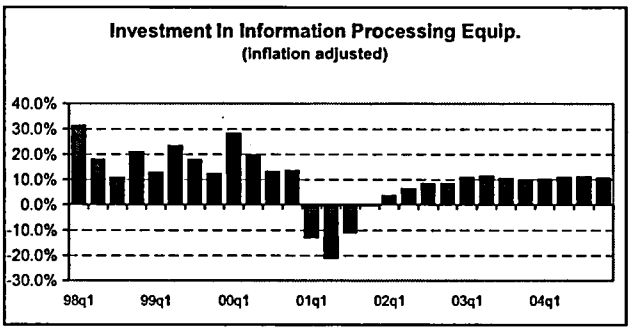
[7] Policies today may encourage economic trends such as economic development. Other policies today may tend to redirect or dampen economic growth, but are in place to mitigate externalities that an open and competitive market may not have the mechanisms to properly control, such as environmental externalities.

2002-2022 DRAFT Regional Forecast

U.S. Economy in Review

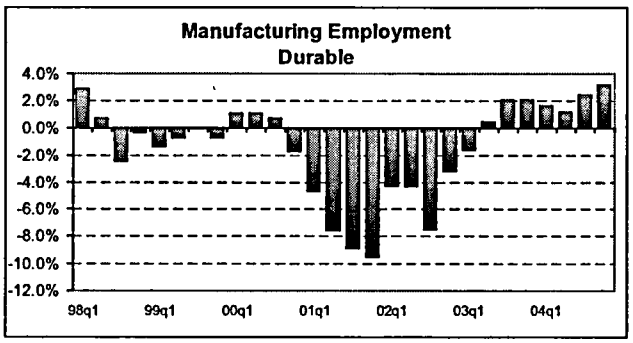
It's official! – the National Bureau of Economic Research (NBER) last November determined that the U.S. economy peaked in business activity in March 2001. With that announcement[8], the current U.S. recession began and the longest uninterrupted expansion since World War II ended – exactly 10 years after it had begun (March 1991).





Inflation-adjusted GDP estimates finally confirm the NBER's declaration. In the fourth quarter of 2001, real GDP in the U.S. fell 1.3 percent. Signs of a slowdown were appearing long before. Producers began cutting production in 2000Q4. Investments in domestic plant and equipment began declining in 2001Q1. Employment cuts soon followed as one after another economic driver stalled. Weak consumer confidence and fears of more unemployment caused consumers to retrench as consumption fell to 1.0 percent growth in the fourth quarter.

Every recession in the U.S. starts out differently and this one has been no different. The primary reason for the decline in U.S. output can be traced to the steep deceleration in manufacturing and investment spending.



- Steep draw-downs in retail and industrial inventories combined with cutbacks in industrial production
- Severe fall-offs in capital investments
- Struggling economies in Japan, Canada and Mexico hit U.S. shores just as the nation's own domestic industries began to decline

[8] The Business-Cycle Peak of March 2001, Business Cycle Dating Committee, NBER, Nov. 26, 2001. The NBER bases its recession determination on industrial production, employment, real income, and wholesale-retail trade activity when as a group these indicators show "significant decline".

Now a worldwide recession and Japan in its third recession in 10 years have severely hampered U.S. exports. A relatively strong U.S. dollar has not helped U.S. exports, which have fallen more steeply than imports.

The impact of this recession has been uneven across different geographic regions of the country and industry sectors. The Pacific Northwest has been hit the hardest by this recession. Employment in nonmanufacturing sectors has held steady with only narrow declines in many industries. Oregon's unemployment rate (7.3%) is the worst in the U.S.

U.S. unemployment in total has risen only modestly since the recession – to 5.8 percent from 4.0 percent a year ago. The manufacturing sector has endured the brunt of the current recession. On an annualized basis, U.S. manufacturing jobs fell 6.3 percent in the last quarter. High-technology manufacturing employment is down almost 10 percent. Transportation equipment is off nearly 6 percent. For the most part, durable producers are hurting much more than nondurable manufacturers.

Unlike previous recessions, many other national variables remain in good standing. Interest rates have been falling as the Federal Reserve (FED) and Chairman Alan Greenspan had attempted to stave off the recession with earlier cuts in interest rates. Since mid-2000, there have been 11 consecutive interest rate cuts. More recently, the FED has signaled a change in its interest rate bias to a neutral position – neither expecting to cut nor raise rates in the immediate future.

Along with a favorable interest rate climate, inflation has remained in check for much of the latter decade thanks to a balanced budget and an acceleration in productivity. Low real energy prices have also aided in taming inflation.

Favorable Economic Factors	Unfavorable Economic Factors
▪ Early & deep interest rate cuts	▪ Vulnerable capital goods cycle
▪ Unusually well-timed Federal spending initiatives and tax cuts	▪ Global recession
▪ Low fuel prices	▪ Steep drop in U.S. exports
▪ Decline in U.S. imports	▪ Weak state & local budgets
▪ Steady housing demand	▪ Poor business profits
▪ Strong consumer auto purchases	▪ Inventories

Housing demand and consumer purchases of automobiles – now a strength – could easily become a negative factor. Higher housing prices could easily tilt housing production down. And auto purchases could be at risk if consumers decide to not buy as many cars as rebate incentives evaporate.

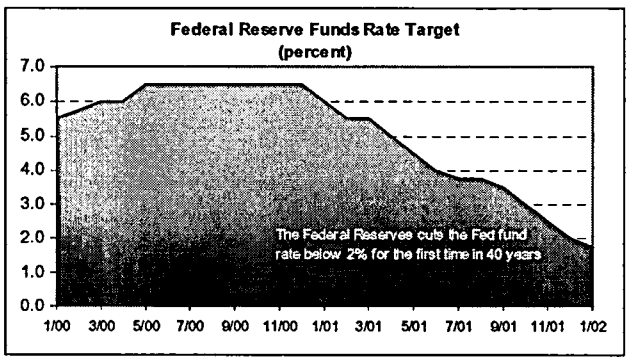
On the other hand, businesses will soon have to restock store shelves and bolster their inventories as economic spirits begin to lift. Inventory growth would accelerate GDP.

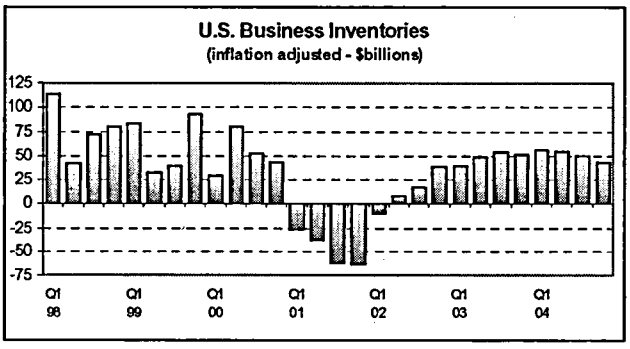
National Forecast Overview

The main question for most everyone has been "when can we expect the U.S. economy to rebound?". Estimates by most economic observers believe a turn-around could begin as soon as the start of summer, while others think it might not happen until early autumn. Most recessions have, on average, a peak to trough timeline of between 12 and 15 months. If indeed the U.S. economy fell into recession in March 2001, the U.S. should begin climbing out of its doldrums in the next few months –which would place the recovery in about June 2002.

Monetary conditions are in place for a recovery, but there are concerns that the rebound could be weaker than normal and slower to develop. However, over the long-run, U.S. economic growth is expected to be robust – more in line with growth during the 1990's than the low growth, low productivity, high interest, and inflationary 1970's and 80's. A couple of factors will tend to undercut a sharp recovery in the near term.

- Housing starts and sales have remained at relatively high levels, so expectations are mild for a strong run-up in additional housing starts. Low interest rates help, but the FED is unlikely to cut any deeper anytime soon.
- U.S. domestic auto sales have remained relatively strong throughout the downturn. Price rebates have stimulated strong demand despite the recession. A sharp rise in auto purchases in late-2001 may restrain auto sales growth in the near future, just as a recovery is beginning.



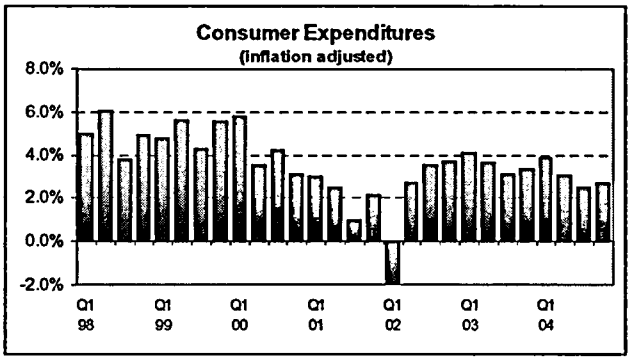


As a consequence, these two large sectors of the economy are not expected to offer much bounce to an early recovery. The U.S. will have to look to other sectors of the economy for leadership during the recovery.

And so. . .once again, consumers will have to step it up in order to boost U.S. GDP. Nascent signs are emerging to suggest the consumers are ready and willing, but there are worries that high consumer debt levels may hamper a stronger recovery.

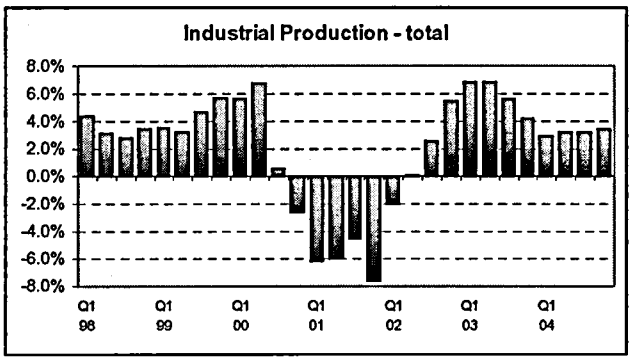
Consumers will have to lead, before conditions ripen enough for producers to gain the confidence to gear up production.

A couple of other factors favor a recovery in the near future. The first was the "economic stimulus" in the fall of 2001.



Though this "tax rebate" was not initially billed as an economic stimulus, the refunds came at a very serendipitous time in the business cycle. For all intents and purposes, its timing and size has acted as a positive stimulus.

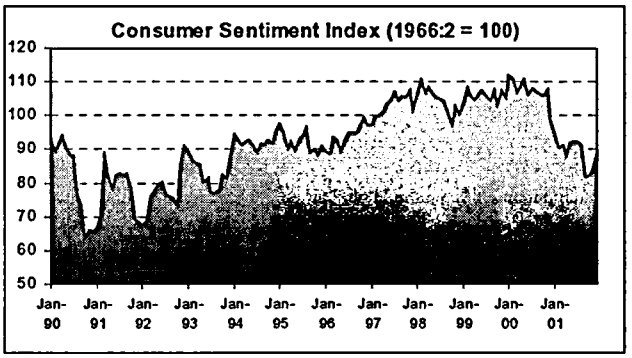
Second, in hindsight it is clear producers and retailers saw a recession in the making in late 2000. Inventory accumulation began slowing in 2000, and by 2001 everyone was slashing inventories. As we begin 2002, manufacturers and retailers alike will have to rebuild their depleted inventories, which should add an additional bump of about ½ percent to domestic GDP growth. Stronger consumer demand in the second quarter will provide all the signal needed to boost inventories.

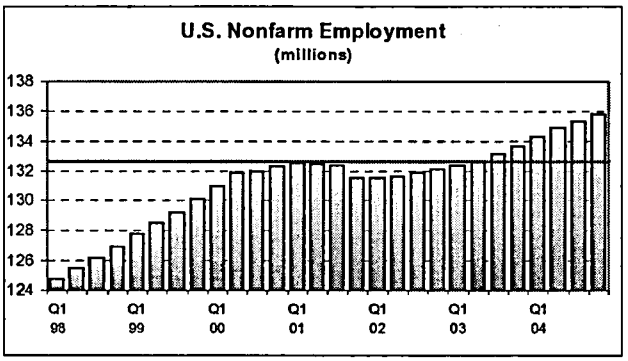


The U.S. macroeconomic forecast predicts consumer spending will bounce back in the second quarter of 2002 and accelerate to 4.1 percent by the 2003 Q1. Investments in fixed plant and equipment will lag behind consumption by another quarter before accelerating up to 11 percent by the end of 2003.

A one quarter lag in nonresidential fixed investments is further reflected in industrial production, where output did not ramp up until the third quarter of 2002. Industrial production peaks in 2003 before settling into a trend growth path between 2 and 3 percent growth per year.

Consumer confidence will be a key indicator of where the U.S. economy is in the business cycle. Consumer confidence hit bottom in September with the terrorist attacks on New York and Washington D.C. Since October the University of Michigan consumer sentiment index has been steadily rising, with a relatively large percentage jump in December 2001.

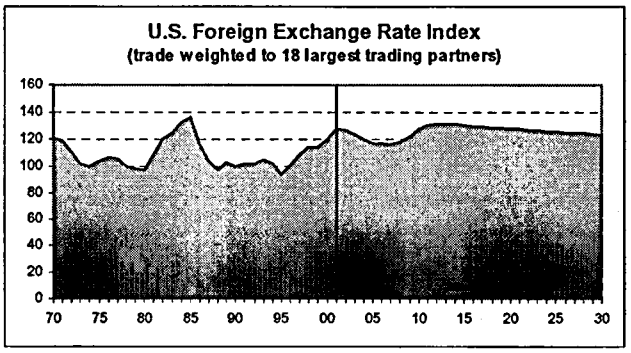


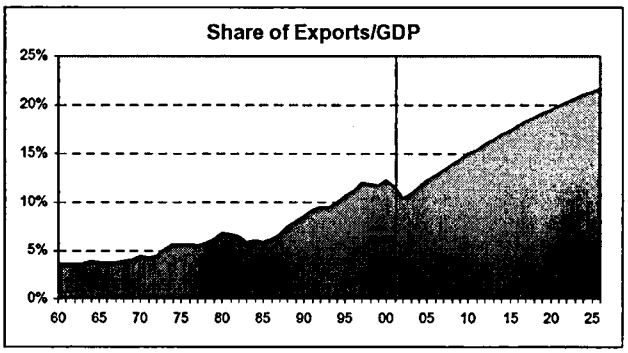


As this index continues to rise, and with expectations for employment gains just over the horizon, the U.S. recovery should begin to be felt as soon as summer arrives. However, it may still be a long wait – perhaps 2003 - before a complete thawing and the U.S. economy returns to warmer conditions. Economic conditions surely will begin to improve, but employment growth won't likely return to anywhere near pre-recession levels until mid-2003.

Global Setting

World trade is important to the U.S. economy. U.S exports currently contribute about 12 percent to total the Gross Domestic Product. Over the long-haul, the national forecast calls for exports to grow faster than other components of GDP. By 2030 the share of exports to U.S. GDP rises above 22 percent. International trade very much is expected to favor the U.S.





The U.S. carries a significant current account deficit, due to its own export deficit. However, due to the strength of the U.S. economy and the confidence this generates with respect to the rest of the world, the value of the U.S. dollar is expected remain relatively strong. This tends to dampen exports, but not by an inordinate amount, and exports are still expected to grow. The rest of the world will continue to expand and to drive up demand for U.S. goods, especially services. In the long-run, a flat or somewhat declining exchange rate will tend to help U.S. manufacturers export their goods to the world.

DRI-WEFA World Economy Forecast

This section presented by DRI-WEFA Global Forecast, February 2002.

DRI-WEFA World Market Overview

Recovery is in the air, at least in North America and Europe. Parts of Asia will follow along, but much of the region is struggling with the consequences of not following through on economic reforms. The region also has its share of political crises, many related to the war on terrorism. China, Russia, and most of the other former states of the Soviet Union continue unscathed from the high-tech collapse that pushed Europe and North America into recession. Japan and much of Latin America will continue to struggle with largely domestic political and economic problems.

Projected Growth Rates of Real GDP

(Percent)

	2001	2002	2003	Average 2004-06
United States	1.1	1.0	4.0	3.0
Canada	1.4	1.1	3.9	3.3
Japan	-0.4	-1.1	1.8	2.1
W. European Big 4 (a)	1.6	1.3	3.2	2.5
Mexico	-0.3	1.8	4.6	5.6
S. American 7 (b)	0.6	-0.4	2.7	4.0
Middle-Income Asia (c)	5.4	5.5	6.5	6.8
World	1.4	1.4	3.7	3.4

a. France, Germany, Italy, and the United Kingdom.
b. Argentina, Brazil, Chile, Columbia, Ecuador, Peru, and Venezuela.
c. China, India, Indonesia, Malaysia, Philippines, Thailand, Fiji, Maldives, Papua New Guinea, and Vanuatu.

Canada: Turning Around. The Canadian economy is probably now in the early stages of recovery from a mild recession. While recent indicators have been decidedly mixed, the first quarter of 2002, unlike the previous two quarters, is expected to show slight positive growth. Fiscal and monetary policies will be supplementary to the recovering U.S. economy as drivers of recovery in Canada. While the interest rate reductions of 2001 will provide stimulus over the next few quarters, the reductions have not been as significant in Canada as in the United States. It will probably be the third quarter before growth will be back up to potential, and 2005 before the output gap is eliminated. The Canadian economy is expected to grow 1.1% in 2002 and 3.9% in 2003.

Eurozone: Gaining Confidence. There are increasing signs that Eurozone economic activity is beginning to pick up gradually. Nevertheless, GDP may have contracted modestly in the fourth quarter of 2001, following minimal growth in the previous two quarters, as the negative economic repercussions of the September 11 terrorist attacks on the United States had an increased impact. Even before the attacks, the slowdowns in the U.S. economy, in particular, and elsewhere in the global economy had already had a substantial dampening effect on Eurozone activity. Following the terrorist attacks, the slowdowns in the manufacturing and service sectors intensified, while business and consumer confidence weakened further. Encouragingly, though, the latest data are generally showing modest improvement, and confidence is growing, showing that the downturn has bottomed out. Indeed, the service sector now appears to be expanding again.
On the assumption that the U.S. economy starts to recover in early 2002, we believe Eurozone activity should pick up modestly as the first half of 2002 progresses. Growth should gain increasing momentum in the second half, supported by low inflation and interest rates, modest real wage increases, and some fiscal stimulus in several countries. Inventories have also been reduced significantly. Even so, Eurozone GDP growth will be limited to 1.3% in 2002, after an estimated 1.6% expansion in 2001. Growth is then projected to accelerate to 3.0% in 2003.

Mexico: Both Victim and Beneficiary of Spillover. The Mexican economy suffered a sharp deterioration in 2001, primarily the result of adverse external conditions. The U.S. recession buffeted Mexico's exporting sector, which had been the one of the country's most dynamic. Meanwhile, declining oil prices also hurt, as the government found itself unable to increase fiscal spending to stimulate the faltering economy. In addition to negative external factors, Congress approved only a partial fiscal reform that will not give the government the extra resources it needs. We do not expect any of the aforementioned factors to improve significantly in the first half of 2002, and some will remain negative through the entire year. Nevertheless, the recovery of the U.S. economy in the second half of 2002 will allow the Mexican economy—and especially its exporting sector—to rebound. As a result, GDP should expand 2.0% in 2002, a clear improvement from the 0.4% contraction in 2001.

DRI-WEFA Forecast Summary of the U.S. Economy

This section presented by DRI-WEFA U.S. Executive Summary, January 2002.

	2001:2	2001:3	2001:4	2002:1	2002:2	2002:3	2000	2001	2002	2003	2004	2005
Composition of Real GDP (Annual percent change)												
Gross Domestic Product	0.3	-1.3	-0.9	-0.2	1.7	3.0	4.1	1.0	0.6	3.7	3.7	3.0
Final Sales	0.7	-0.5	-0.8	-2.2	1.0	2.8	4.3	2.0	0.0	3.4	3.7	3.1
Gross National Product	0.3	-1.3	-0.8	0.2	1.9	3.1	4.1	1.1	0.8	3.4	3.4	3.0
Total Consumption	2.5	1.0	2.2	-1.9	2.7	3.6	4.8	2.8	1.4	3.7	3.3	2.9
Durable Goods	7.0	0.9	19.4	-24.6	6.7	5.1	9.5	5.6	-1.0	7.6	5.0	2.9
Nondurable Goods	0.3	0.6	-1.8	0.8	2.0	4.2	4.7	1.5	1.1	3.6	3.4	2.9
Services	2.8	1.2	0.9	2.0	2.3	3.0	4.0	2.9	2.0	3.0	2.9	2.9
Nonres. Fixed Investment	-14.6	-8.5	-8.9	-4.2	-4.9	2.9	9.9	-2.8	-5.2	5.5	8.5	6.1
Equipment and Software	-15.4	-8.8	-6.1	-2.9	-3.8	6.5	11.1	-4.5	-3.7	8.3	10.5	7.7
Computers	-30.3	-26.8	3.1	4.6	9.6	8.4	39.1	-2.2	-1.0	16.3	19.1	20.0
Software	-3.7	4.3	2.3	6.9	10.7	9.7	12.1	2.8	6.3	10.6	10.6	10.7
Communications Equipment	-41.2	-25.8	-2.5	-2.4	-3.9	9.8	28.7	-18.4	-7.8	5.2	8.9	8.0
Light Vehicles	-2.6	-17.1	7.9	-6.9	-17.8	8.1	0.6	-7.7	-4.8	8.9	7.4	2.7
Other	-12.6	-4.1	-15.0	-7.4	-8.4	3.5	4.5	-3.8	-7.2	6.3	10.2	5.5
Private Nonres. Structures	-12.2	-7.5	-16.2	-7.9	-7.8	-6.4	6.2	2.2	-9.4	-2.3	2.6	1.2
Buildings and Other	-19.1	-0.8	-19.3	-6.1	-3.6	-5.2	5.1	-2.0	-8.5	-2.5	3.8	1.3
Residential Fixed Investment	5.9	2.4	-2.7	-7.8	-3.2	0.4	0.8	1.6	-2.3	0.5	0.7	1.8
Exports	-11.9	-18.8	-21.7	-8.4	-1.3	4.7	9.5	-5.3	-9.0	9.2	9.7	8.1
Imports	-8.4	-13.0	-6.0	-1.5	6.3	9.5	13.4	-2.6	-1.2	8.1	6.7	5.5
Federal Government	1.8	3.6	3.8	6.2	7.6	5.3	1.7	2.2	5.0	3.0	2.0	1.4
State and Local Governments	6.6	-1.3	2.5	2.4	2.6	3.0	3.2	3.6	2.2	1.7	1.7	1.7

Source: U.S. Economic Outlook, DRI-WEFA, January 2002

The approaching new year is a good time to look at what may go right in the economic arena during 2002. One sector worth looking at is high technology. Spending on high-tech equipment ran out of control in 2000, and we project only a slow recovery in 2002. The good news is that, even at its low, high-tech spending will still account for 47% of total spending on equipment and software and 4% of GDP. This direct spending—still much higher than in most other countries and higher than in the United States until the late-1990s boom—will continue to crank out productivity gains. A lot of recent (and future) innovations from Web access, e-commerce, and medical/biotech, for example, are free or priced below user value. That is bad news for innovator profits, and for "real" growth (which does not capture ideas), but the innovations generate a nice consumer surplus for users that in many cases also boosts productivity.

Cyclically, housing is much stronger now than during the average recession, and the inventory correction will be over sooner because it started sooner. We estimate that reversal of the inventory shrinkage will add 0.6 percentage point to GDP growth in 2002. Travel is already showing some early rebound, with dining out, sporting events, and flying all showing gains. As people make more reasonable risk calculations, consumer spending will rise further from today's depressed levels. Leisure industry employment could show an early turnaround, beating overall employment, which generally lags.

The federal government's boost to the economy is large and unusually well-timed. The large tax cuts voted before September 11 have now been enhanced by billions in new spending. The failure of Congress to enact a stimulus bill will do little to hold back the recovery. While the parties' contending bills would have provided some temporary income support to the unemployed, the added growth would be small, and unnecessary, in our baseline forecast.

The interest rate cuts began early, and rates are now down to extremely low levels. Inflation seems neither too hot nor too cold, meaning it is low enough for undistorted economic decisions and financial market confidence, but high enough to ease relative price adjustments.

Adding it all up, the U.S. economy is not out of the business cycle trough just yet, with the new year expected to bring a third consecutive quarterly decline in real GDP. By year-end 2002, though, real GDP should be forging ahead at a 4% annualized rate.

Long-range U.S. Macroeconomic Outlook

Recessions make up only a small "blip" in economic trends. There have been 10 recessions since World War II. On average, U.S. recessions have lasted between 12 to 15 months, with the most severe lasting as long as 18 months. Even with recessions sprinkled over the last 55 years, real GDP rose an average of 3.5 percent a year. Despite fears of global terrorism and the tragic aftermath of 9/11, the current recession will have very little impact over the long-run. The U.S. economy is expected to bounce back, perhaps a little more tired and more cautious, but with the similar vigor and vitality it had before the recession.

A recession, although hurtful to selected segments of the economy that bear the brunt of its force, is not always a bad thing. Recessions serve to root out weak firms and sagging industries. They weed out poor business practices and reveal ill-conceived business ventures. In the end, it leaves the economy stronger and better able to forge ahead, populated with healthier companies.

In peering into a hazy long range horizon necessary for regional planning, it is useful to view economic and population forecasting not in terms of 'Did the forecast accurately predict all growth?', but rather, to think instead about **when** we might achieve a certain level of growth, plus or minus 2 or 3 years. This turns forecasting on a different axis, and allows planning to proceed, without getting diverted by questions about the "right number". Planning may be viewed as the accommodation of growth up to a certain range, with policies that speed into implementation sooner when growth is faster and growth management strategies deferred when the economy is growing more slowly.

Sizing up the U.S. Long-term Forecast

The current U.S. recession is expected to bottom-out in the 2nd or 3rd quarter of 2002. U.S. Gross Domestic Product (GDP) is anticipated to accelerate through 2003-04, before moderating and tapering off to a more sustainable long run rate – absent of any business cycles. The DRI-WEFA national forecast calls for long-term inflation adjusted U.S. GDP to settle in to and annual growth rate of between 3.0 and 3.5 percent.

The fundamental underpinnings for the long run growth path of the U.S. depend on the projected growth rate of the labor force and increases in productivity.

U.S. long-run growth fundamentals:

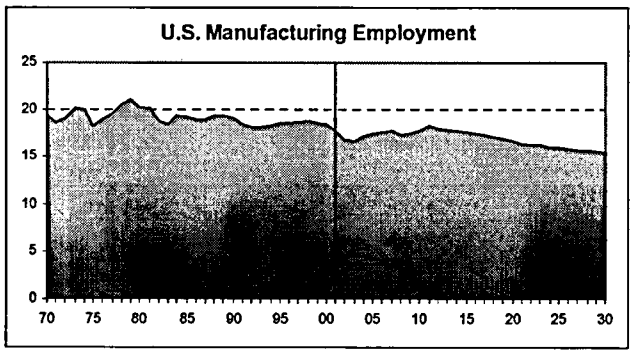
	Annual Average. Growth Rates	
	History (1970-00)	25 Year Forecast
Gross Domestic Product	3.1 percent	3.2 percent
Productivity	1.0 percent	2.1 percent
Labor Force	1.7 percent	1.2 percent

Source: DRI-WEFA U.S. 2001 4th Quarter U.S. Macroeconomic Outlook as derived by Metro Data Resource Center

The national forecast from DRI-WEFA calls for annual productivity rates to double, increasing to 2.1% from its historical rate of 1.0%. Productivity increases are assumed, as more and more U.S. and international firms continue to take advantage of automation and information processing resources. The current U.S. forecast view continues to incorporate significant amounts of "New Economy" growth into the long run macroeconomic forecast. Unlike the technology wave in prior decades, which replaced manual and less efficient means of producing goods and services, this second wave of information technology is creating innovation of a different sort. In the new economy paradigm, new technology assumes the form of new ideas and new products, which lift the overall wealth of the nation.

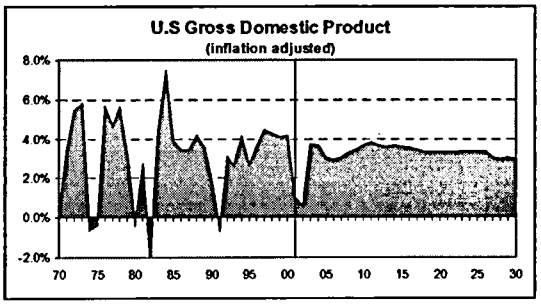
The significant increases in industrial plant and equipment growth forecasted for the investment in the computers and software category support this view. Over the long haul, the national outlook for high-technology investments is very robust – with an annualized growth rate of 6.8 percent per year. This is slower than the break-neck pace of high-technology investments of the 1990's, which saw rates shoot up to 22 percent and average over 16 percent a year. This projected investment in high-technology and other innovation will help to bolster productivity in the long run. This allows the nation to create more goods and services at lower costs.

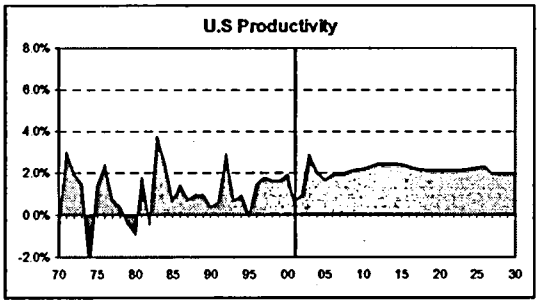
At the same time, employment in high-technology represents a bright spot in the manufacturing sector. Most other manufacturing industries are expected to slowly shed employment as more labor intensive production processes are shipped overseas. In addition, corporate outsourcing is expected to continue along its present path as more employment functions are re-classified into services. Higher productivity rates allow firms to do more with fewer people. With the exception of the current recession, employment growth in the technology sector continues to see expansion on the order of under 0.5 percent per year. For the whole of manufacturing, employment over the long-haul is expect to decline an average of -0.6 percent annually.

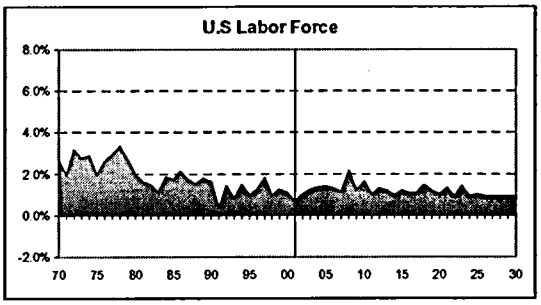


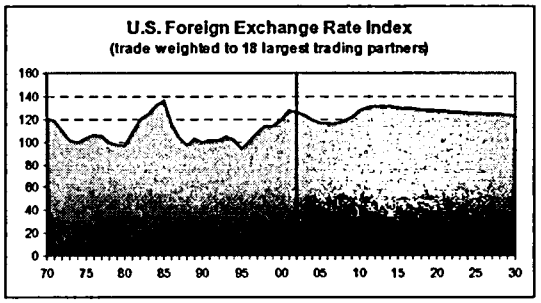
The next fundamental is the growth in the labor force. The U.S. labor force is not expected to grow as rapidly in the next 30 years as it has in the last. This slower rate of increase tends to dampen potential GDP growth. One factor which offsets the potential decline is immigration from abroad, which is expected to be higher than previously assumed. Retention of older workers in the workforce also serves to ameliorate the effect of the slowing of labor force growth.

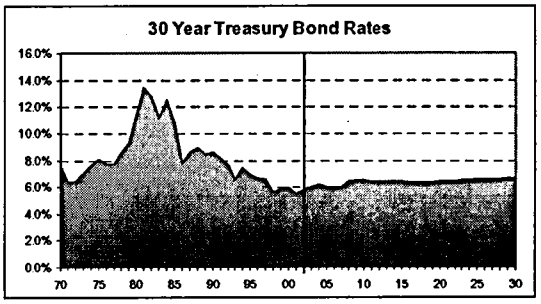
An economy's growth rate can fluctuate year-to-year with the rise and fall of the business cycle, but the long range trend of GDP growth is not likely to waver too far from its expected trend. Changes in monetary or fiscal policy, an unforeseen global recession, changes in capacity utilization, investments and inventory fluctuations are likely to cause economic growth to change as some of these factors play out in the current economic malaise. But these variables are transitory and will tend to fade into the background in the long-run. Determinants of the long-run are primarily the labor force and its productivity.

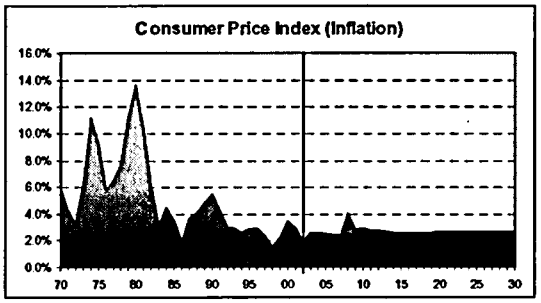


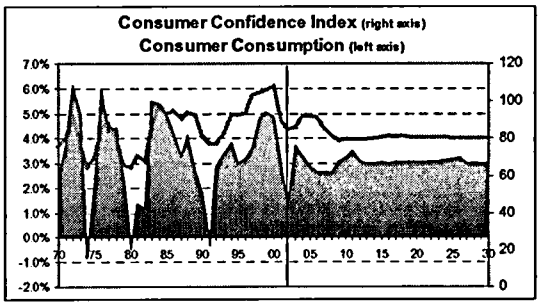


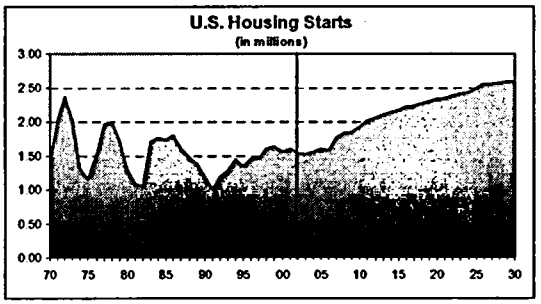








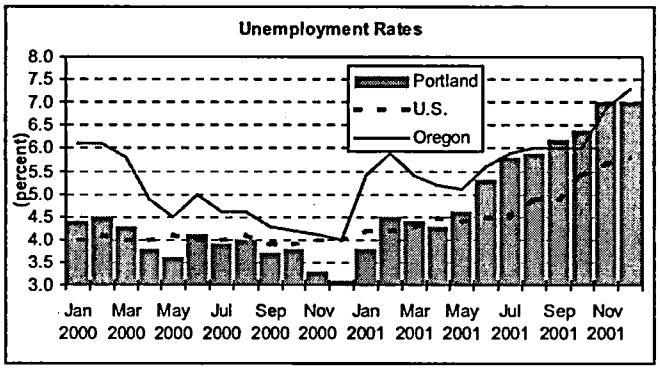




Portland-Vancouver Economic Conditions

(5 counties – Multnomah, Clackamas, Washington, Yamhill and Clark)

Economic conditions in the region during the past year have been much worse than the U.S. as a whole. In fact, Oregon brings up the rear in state unemployment rates with an unemployment rate of 7.5 percent[9]. And it's not just Oregon; the entire Northwest is suffering. In Washington State unemployment hit 7.1 percent. Things were so bad in November 2001 that for a brief while the Portland metro regional unemployment topped the State's unemployment rate.



Nonfarm employment growth slowed in 1998-99, before seeing a modest rebound in 2000. In 2001, the previous year's brief growth spurt turned negative. Employment news has not been this bad since 1991. Total nonfarm employment lost ground in 2001 as annual job figures for the region fell 0.34 percentage points (or a net loss of 3,200 jobs). The average number of unemployed rose to near 60,000, with peak unemployment soaring to 75,000 unemployed workers in November and December 2001.

The last four years of economic expansion – dating back to 1991 – have been much more turbulent than the previous six. Regional nonfarm job growth slowed for consecutive years in 1998 and 1999, with growth reaching only 1.8 and 1.4 percent, respectively. The roots for this region's economic slowdown can be traced to the world-wide high-technology slump happening then. The region's higher proportion of manufacturing – especially its concentration of high technology – made the region more susceptible to the so-called "Asian Flu". And the region's proportionally greater exposure to the Pacific Rim caused growth in the late 1990's to decelerate.

In 2000 employment growth exhibited a mini-rebound across the board. Manufacturing jobs edged up 1.5 percent and nonmanufacturing rose 2.5 percent. As 2001 drew nearer, it seemed at first possible that the region would be able to skirt the latest recession, as it had in 1990-91, but events unraveled and the terrorist attacks on September 11th were the last straw for an economy that was on the brink of a downturn. Even by mid-2001, most economic pundits were still hopeful that a regional bounce could be possible by September. Those hopes were destroyed.

The greatest weaknesses in the region's current economic state lies in its manufacturing sector. Employment declines appeared across almost every major industry group. Overall

[9] Seasonally adjusted. Source: Local Area Unemployment Statistics, Bureau of Labor Statistics, www.bls.gov/web/lauhsthl.htm

manufacturing jobs fell by 2.3 percent in 2001 with the steepest declines in transportation equipment, machinery, metals, and food processing.

Portland-Vancouver Regional Forecast

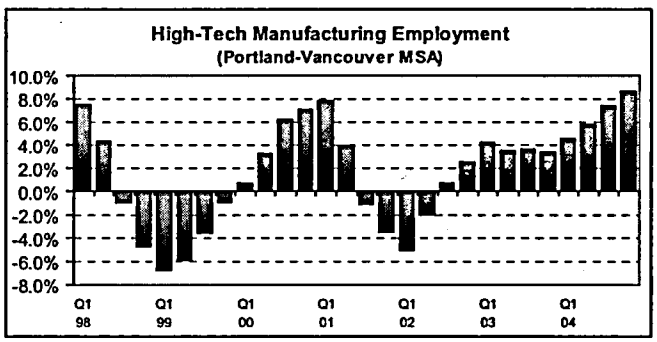
(5 counties – Multnomah, Clackamas, Washington, Yamhill and Clark)

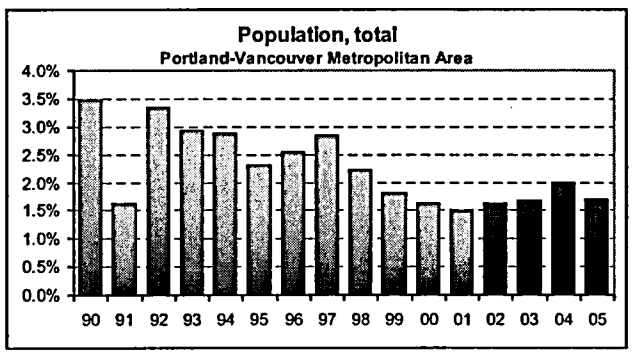
Regional Expectations.

The conditions that created the recession in the region may provide the possibility as well as the initial surge for a strong rebound in 2003 and 2004. However, until then, the regional economy will have to wait. We anticipate the recession to continue to exert its power over employment and regional growth through much of 2002. Prospects for a rapid rebound in 2002 are quite slim for the region, as a rebound for the nation is not expected until mid-2002. We anticipate a recovery for the region after the U.S., and growth rates to rebound more sharply as compared to the U.S.

This recession has been one that has been marked by a slumping high-technology industry. Negative returns triggered by the collapse in internet companies and rapid decline in information processing and software investments started what will be a three year decline in the non-electrical machinery and "second-dip" in the region's electronics and instrument industry. High-technology, which had been a mainstay for the region's rapid rise during the mid-1990's, has become this region's Achilles heel. For this reason, the regional economy has dipped lower than that of the U.S., but we anticipate a stronger resurgence in the region's high-tech sector than for the nation as a whole.

Moreover, this region's greater dependence on manufacturing firms to supply employment opportunities has turned into a manufacturers recession, with retail and other service sector industries being dragged down by the producer sector's weaknesses. As the region climbs, what was once a source of weakness will again become a source of strength for the region's future.





Despite current weakness in the economy, regionwide population estimates through this period have been surprisingly strong. Population growth had been slowing since 1998 with the regional economy winding down. With the recession upon the region, population still grew 1.6 percent in 2000 and 1.5 percent in 2001. The

last time population growth came anywhere close to 1 percent was back in the mid-1980's – which was a particularly weak period for the region. Stimulus from relatively moderate population increases in the last two years has helped bolster regional employment in industries that are strongly dependent on population growth, such as retail, services and government. This relatively strong employment growth, compared to our neighboring states, has in turn attracted more than 300,000 new residents since 1990[10].

Forecast Summary for the Portland-Vancouver Region

(percentage growth rates)	1999	2000	2001	2002	2003	2004	2005	Annual Avg 2006-22
Population	1.8	1.6	1.5	1.6	1.7	2.0	1.7	1.5
Crude Birth Rate (per 1,000)	14.64	14.66	15.17	15.00	14.83	14.78	14.75	14.3
Crude Death Rate (per 1,000)	7.24	7.35	7.47	7.48	7.49	7.46	7.47	8.5
Labor Force Participation Rate (%)	69.0	69.1	69.1	68.9	68.6	68.4	68.4	69.7
Personal Income, nominal	5.6	7.5	3.5	2.0	6.4	6.3	6.5	5.5
Wage Disbursements	6.4	7.8	2.7	1.4	5.2	6.7	6.8	5.3
Social Insurance Contrib.	6.7	4.7	1.8	0.9	4.8	6.3	6.2	5.6
Other Labor Income	3.5	4.8	2.5	1.1	5.4	5.9	6.5	6.1
Transfer Payments	5.0	4.8	8.6	12.5	11.6	2.1	0.0	6.3
Proprietors' Income	7.4	4.1	2.0	2.2	8.1	4.4	4.8	6.5
Div., Interest & Rent	3.6	9.3	3.6	-1.6	5.5	8.1	5.1	5.3
Housing Price – Median avg.	2.6	3.8	2.3	0.6	3.2	4.7	5.8	4.0
CPI all items – Portland	3.3	3.1	2.7	3.2	3.6	3.3	3.2	2.7
Total Employment	1.7	2.5	0.6	-0.4	2.4	3.2	3.2	2.0
Proprietors	2.9	6.5	0.8	-0.4	1.7	2.5	2.4	2.6
Nonfarm – Wage & Salary, total	1.4	2.4	-0.3	-0.4	2.7	3.5	3.4	1.9
Manufacturing, total	-2.5	1.5	-2.3	-1.3	2.7	3.6	3.5	0.7
Food Processing	-6.3	-1.5	-4.9	-1.7	0.6	1.3	0.3	-1.2
Textile & Apparels	-10.9	-10.7	3.8	-0.7	6.2	5.0	1.5	-3.0
Lumber & Wood	-4.6	1.5	-2.2	0.8	-0.3	-1.8	0.4	-2.8
Paper	-2.9	9.6	-1.3	-0.6	0.1	1.4	0.8	-1.1
Printing	4.6	1.8	-0.3	3.4	2.9	2.3	2.0	0.6
Metals	-2.3	-1.0	-4.6	-2.7	3.1	2.8	2.3	-0.3
Machinery	-10.4	-4.5	-6.4	0.0	3.2	3.1	4.1	1.3
Electronic Equipment	-1.3	8.4	5.0	-1.3	3.5	6.4	5.9	1.3
Transport. Equipment	7.2	-3.4	-20.7	-5.4	3.6	3.0	3.5	0.8
Other Nondurables	-6.3	-0.6	-5.4	-3.8	1.2	2.7	4.1	2.3
Other Durables	2.2	1.1	3.2	-1.7	3.4	2.7	2.7	1.6
Nonmanufacturing	2.2	2.5	0.0	-0.2	2.6	3.3	3.4	2.1
Construction	-0.5	0.6	-1.4	0.4	4.0	3.2	3.6	1.6
Trans., Comm., Util.	2.2	2.2	-1.1	-0.5	1.2	2.7	2.9	1.5
Wholesale Trade	-2.1	-0.3	-2.5	-0.9	4.1	4.3	3.9	1.6
Retail Trade	3.0	2.0	0.0	-0.4	2.0	4.0	4.0	1.8
Fin., Ins., R.E.	-0.7	-2.6	0.1	-0.1	0.3	2.3	3.4	1.4
Health Services	1.5	-0.1	1.8	2.1	3.5	3.4	3.0	2.6
Other Services	3.6	5.2	0.7	-0.5	4.6	4.9	3.9	2.8
State & Local Gov.	5.4	5.2	1.1	-0.6	0.2	-.01	1.9	1.5

[10] We estimate from population estimates from the Census and Portland State University that the change in population for 1990 to 2000 was close to 450,000 persons, and migration accounted for about 300,000 of

Summary Population and Employment Demand Projections

(5 counties – Multnomah, Clackamas, Washington, Yamhill and Clark)

	POPULATION				EMPLOYMENT		
	Old Forecast	New Forecast	Diff.		Old Forecast	New Forecast	Diff.
2000	1,837,600	1,874,450	36,850	2000	1,147,300	1,208,900	61,600
2005	1,993,300	2,049,200	55,900	2005	1,274,900	1,320,600	45,700
2010	2,152,800	2,233,900	81,100	2010	1,406,400	1,483,800	77,400
2015	2,315,400	2,394,600	79,200	2015	1,537,900	1,631,700	93,800
2020	2,475,000	2,571,100	96,100	2020	1,673,700	1,795,400	121,700
2025		2,768,200		2025		1,979,200	
2030		2,955,300		2030		2,158,100	

Employment figures includes proprietors or self employed workers.

	Manufacturing Emp.*				Non-manufacturing Emp.*		
	Old Forecast	New Forecast	Diff.		Old Forecast	New Forecast	Diff.
2000	138,900	145,500	6,600	2000	780,600	812,500	31,900
2005	145,300	154,700	9,400	2005	870,000	888,800	18,800
2010	149,700	165,900	16,200	2010	961,700	1,002,700	41,000
2015	153,600	168,900	15,300	2015	1,015,200	1,104,200	89,000
2020	157,300	172,800	15,500	2020	1,142,600	1,214,900	72,300
2025		177,200		2025		1,338,200	
2030		182,900		2030		1,458,500	

* Employment figures in these two table above are wage and salary jobs only.

	HOUSEHOLDS				PER CAPITA INCOME ($1996)		
	Old Forecast	New Forecast	Diff.		Old Forecast	New Forecast	Diff.
2000	736,000	725,400	-10,600	2000	26,600	28,400	1,800
2005	812,100	799,600	-12,500	2005	28,100	27,900	-200
2010	891,500	876,700	-14,800	2010	29,300	28,800	-500
2015	972,000	946,900	-25,100	2015	30,500	30,400	-100
2020	1,052,000	1,021,600	-30,400	2020	31,800	33,000	1,200
2025		1,104,200		2025		35,500	
2030		1,177,800		2030		37,500	

Source: 1995-2015 Regional Forecast (old forecast used in Sept. 1999 Urban Growth Report)
2002-2022 Regional Forecast (new forecast for Dec. 2002 Urban Growth Report)

Population Trends. The latest Census figures for population in the Portland region have been released, and now show almost 37,000 more residents in 2000 than originally estimated. Higher levels of in-migration account for this larger population total. Migrants tend to be younger and of working age, which in turn raises the employment totals. The demographic composition of the region's population is also not exactly as we had anticipated. The downward trend in household size (i.e., persons per household) seems to have stabilized during the decade of the 1990's, instead of falling as previously expected. The region's average household size in 1990 was 2.57 people. Today, it is estimated to be near that same level. However, the new forecast returns to the longer run secular trend of declining household sizes, but assumes a less precipitous drop-off. As a consequence, the number of new households formed in the future as a result of regionwide population growth is actually less than previously predicted. Household sizes by 2020 are expected

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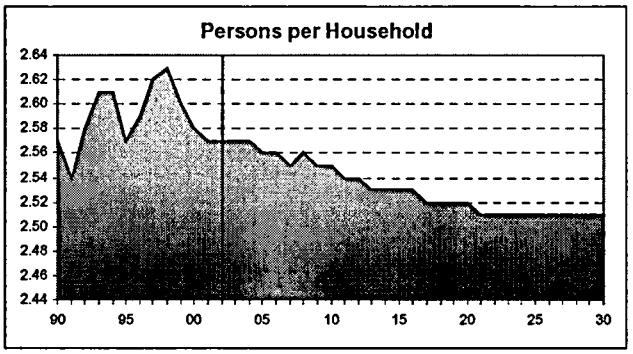
those residents, representing two-thirds of the region's population increase.

to stabilize at around 2.5 persons per household, as compared to 2.4 persons per household in the previous regional forecast.



Population growth from decade to decade has fluctuated up and down with major migrations of Americans, coming west over the Oregon Trail in the mid-1800's and moving to the north and west soon after World War II. More recently, in the 1990's people moved to the Portland area in search of a better place to live or a greater number of job opportunities. This was especially true for high-tech workers.

	Population at end of period	Avg. Growth in decade
1860-70	29,857	6.4%
1870-80	54,980	6.3%
1880-90	124,490	8.5%
1890-00	164,381	2.8%
1900-10	322,114	7.0%
1910-20	393,306	2.0%
1920-30	477,073	1.9%
1930-40	527,611	1.0%
1940-50	738,313	3.4%
1950-60	854,645	1.5%
1960-70	1,049,342	2.1%
1970-80	1,297,926	2.1%
1980-90	1,477,895	1.3%
1990-00	1,874,449	2.4%

Source: U.S. Census and PSU

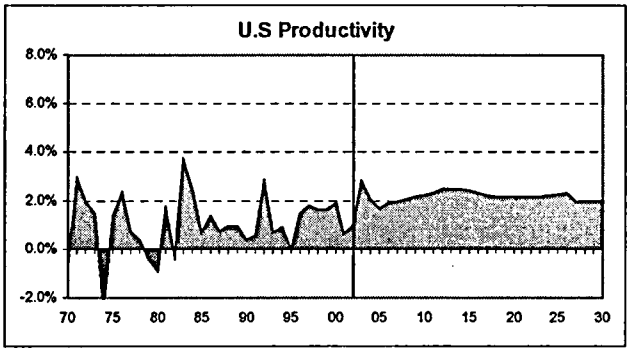
During the 1990's, about two-thirds of new residents had never lived in the Portland area before. Net in-migration will still be a force driving population growth in the future, but a lesser one. Only about half of the region's population increase during the next 20 years will come from migration; the remainder will be from residents having children and grandchildren.

The shape of future population growth in the region will depend on quality of life here in the region and the ability to generate good paying jobs for future workers. We anticipate population growth to shadow the future employment trends for the region. Regional population growth is expected to average about 1.6 percent per year through 2030, as compared to about 2 percent from 1970 to 2000. Population will increase more rapidly in the near term as current conditions favor an economic rebound, which will attract greater number of migrants. Over the long-haul, though, the average growth rate per year will start to taper off as regional economic growth moderates.

The Economy. The regional economy is approaching a crossroad of sorts. The current land supply situation is becoming tighter as more buildable land inside the UGB is absorbed by businesses and housing, but as yet not a limiting factor. This forecast assumes that current land market conditions and regional transportation accessibility do not interrupt growth trends that are evident today.

Total nonfarm employment for the region is expected to rise an average of 1.9 percent per year as compared to 1.1 percent in the U.S. This is somewhat slower employment growth than in the previous 30 years, which saw 3 percent average growth in the region. To a great extent, slower labor force growth is the culprit behind slower job growth. As the

labor force participation rate of women eventually reaches and exceeds male participation rates in the future, the rate of growth of the work force slows with the slowdown in labor force participation.

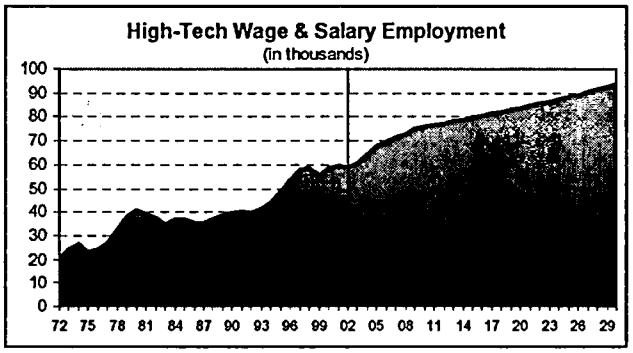


Productivity is projected to rise steadily over the next 30 years, but productivity is a "two-edged sword". On the one hand, productivity helps lift corporate profits, wages and salaries without causing additional inflation, but it also tends to cut into employment. On the other hand, when productivity can also bolster output and create new demand, this type of innovation makes employees more productive and valuable and has the effect of bolstering employment growth.

In older manufacturing situations, productivity does indeed reduce the need for more employment. When new machinery and innovative processes simply replace human activity without a corresponding increase in the demand for additional goods or services, then the need for labor is reduced and employment growth in that industry stalls. In this region, traditional industries such as food processing, metals, and other resource extractive industries are projected to improve their productivity by replacing people with machinery. Output may stay the same or increase, but projected employment growth declines.

On the other hand, when productivity and innovation can boost output and create new demand, the need for workers – particularly skilled ones – will become increasingly significant in these industries. The "New Economy" presupposes that high-tech industries such as computers, information processing, software, telecommunications and biotechnology firms will lead employment growth. The regional firms are well situated to take advantage of computer, information processing and software development. These regional industries are one of two classifications in manufacturing that will see employment actually increase from today's levels.

The combined high-tech industries in the region employed approximately 60,000 workers in 2001. The ranks of the high-tech workforce in the region are expected to swell to 94,000 by 2030. This represents an addition of two high-tech companies the size of Intel today. Possibly, some of this growth will be from an



agglomeration of smaller firms, but in order to facilitate this level of growth the region may perhaps attract another major high-tech player. However, the majority of industry growth will likely be attributed to the internal expansion and vitality of existing firms in the region.

The total number of regional jobs, including self-employed workers, is about 61,000 higher in 2000 in the new forecast than was previously forecasted. Job growth in high-tech electronics and semiconductors, construction, and the service sector showed the widest deviations. This is to be expected, given that the old forecast was completed before the wave of high-tech expansion and construction. Unanticipated service sector job growth can be attributed to faster-than-predicted population increases, and the economic downstream effect of more high-tech workers in the region. This new forecast incorporates these latest trends.

Risks to the Regional Forecast

The regional forecast assumes that the U.S. economy is in a mild recession, but that the monetary and fiscal boosts succeed in turning it around in early 2002. The regional forecast also assumes that, by spring 2002, consumers have shaken off their fears of flying and large crowds. Finally, it assumes that there are no further direct terrorist attacks on the United States, and that military action ends with the defeat of the Taliban, the rout of al Quaeda, and stability in the middle east. Any or all of these assumptions could prove too rosy.

On the other hand, the regional forecast could be overly pessimistic. Businesses may have overreacted to the plunge in spending that followed the September 11 attacks. This scenario carries its own risks. If activity is about to turn around on its own, the huge amount of monetary and fiscal stimulus in the pipeline could prove excessive. Rather than grease the wheels of the recovery, it would set up the conditions for a return of inflation and speculative investment. Nonetheless, in our estimation there is more downside risk than upside growth potential at this juncture of the business cycle.

A Deeper and Longer Recession Risk Scenario.

The excess capacity problem could prove to be even worse than the federal statistics suggest, resulting in a more protracted downturn in investment than the seven quarters shown in the U.S. baseline forecast – already the longest in at least the last 40 years. In this scenario a longer and steeper drop in investment could result in additional layoffs, further inventory liquidation, and no quick recovery in corporate profits. With corporate earnings failing to rebound, the stock market would turn down again, with consumer expections likely to follow suit.

Also, a decline in private-sector activity could be aggravated by difficulties in spending the money Congress has appropriated for homeland defense, public safety, intelligence, and military preparedness. That federal spending will rise is a given, but what is not known is how fast it can be ramped up, when many of the skills needed may be in short supply. A more protracted and severe U.S. downturn would also aggravate the global

recession, with negative feedback on demand for U.S. exports. There would be one bright spot in this otherwise gloomy scenario: lower oil prices.

The net result of all these negatives is a recession which lingers through until summer 2002. At the trough, spending on equipment and software worsens as compared to the baseline U.S. forecast assumed by the Metro regional forecast. Consumer spending falls sharply in the first quarter, as rising unemployment destroys consumer confidence and leads to a wave of mortgage foreclosures and bankruptcies. Real GDP falls 2.2%, peak to trough.

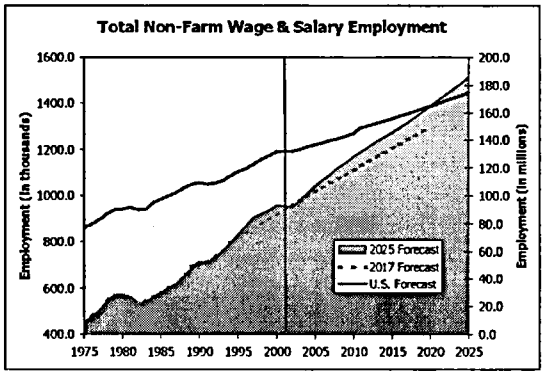
A longer recession would no doubt impact the region's struggling high technology sector and other durable manufacturers. The region's deeper dependence on manufacturing growth will worsen conditions in retail and services. The only bright spot is that if the regional recession deepens, the recovery should be much stronger. But that is no consolation to workers already unemployed.

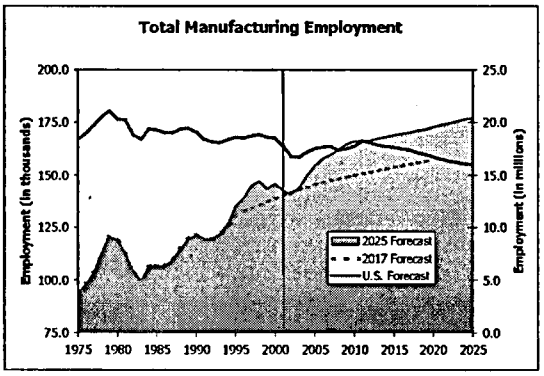
The Federal Reserve responds to the increasing severity of the downturn by pushing the funds rate target down to 1.50% at the January FOMC meeting. By next summer, the inventory liquidation is slowing down, businesses have delayed as much investment as possible, and consumers have worked their debt down to manageable levels. The U.S. unemployment rate continues to rise, peaking at 7.3% next autumn. But by then, with fiscal stimulus kicking in, growth is back on track.

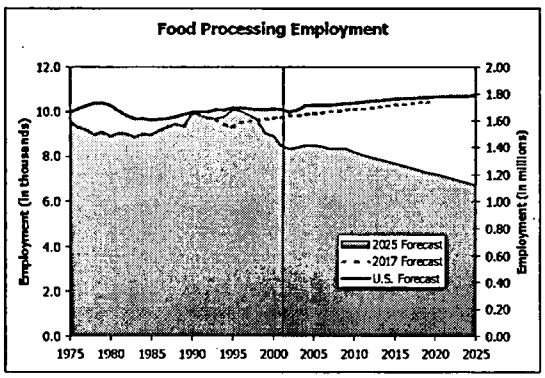
Although the likelihood of a more protracted recovery is possible, our belief is that the baseline scenario adopted by the Metro regional forecast is much more probable. The Portland-Vancouver metropolitan region is more likely to see employment rates begin to rise by late-fall of 2002.

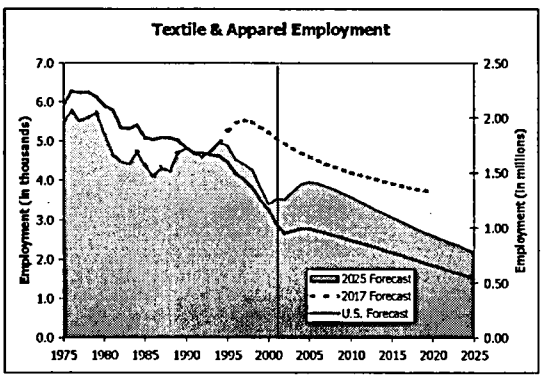
Industry Perspectives and Forecast Details.

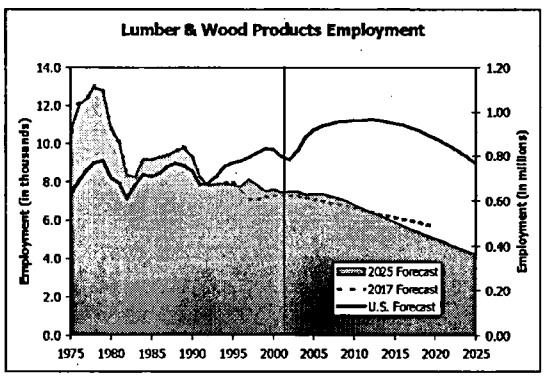
As we eluded earlier, the industries that were affected the most were in durable manufacturing sectors. (more on this later as I complete additional charts and tables.)

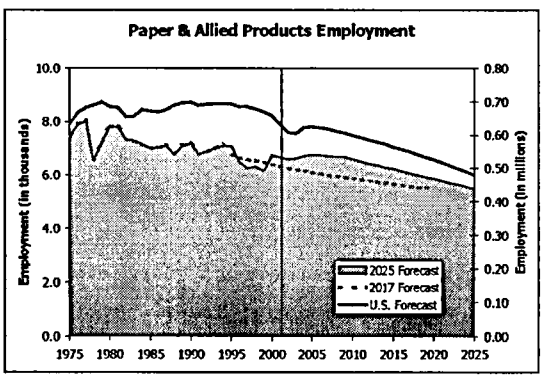

Total Non-Farm Wage & Salary Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast

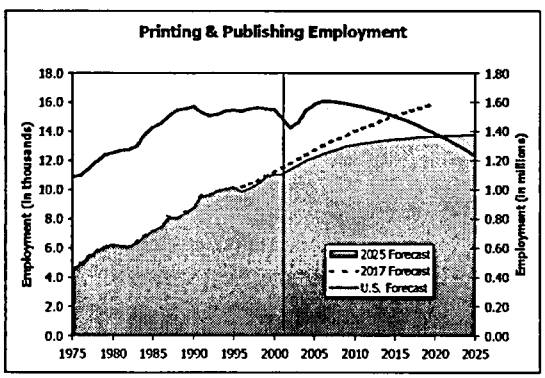

Total Manufacturing Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast


Food Processing Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast


Textile & Apparel Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast


Lumber & Wood Products Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast


Paper & Allied Products Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast


Printing & Publishing Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast

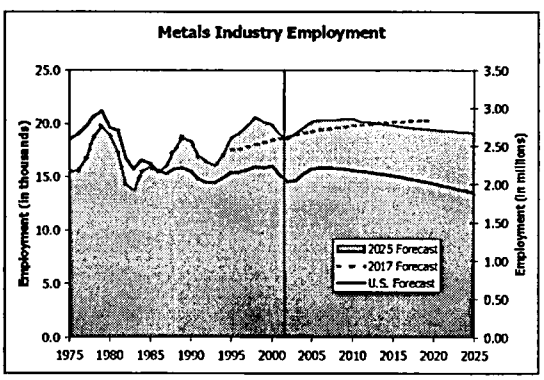

Metals Industry Employment
Employment (In thousands)
Employment (In millions)
2025 Forecast
2017 Forecast
U.S. Forecast

Table 1

Baseline Regional Employment Forecast

(Region in Thousands, U.S. in Millions)

	1995	1996	1997	1998	1999	2000	2001	2002
Total Non-Farm Employment								
Portland-Vancouver	830.5	869.3	906.9	922.9	936.1	958.0	954.8	951.2
Rate		21.2%	24.0%	21.8%	18.1%	15.4%	9.8%	4.9%
U.S. National	117.2	119.6	122.7	125.8	128.9	131.8	132.2	131.8
Rate		10.5%	13.0%	13.7%	12.9%	12.4%	10.6%	7.4%
Total Manufacturing								
Portland-Vancouver	135.0	139.2	145.0	147.0	143.3	145.5	142.2	140.4
Rate		16.2%	21.9%	20.5%	13.1%	7.8%	2.2%	-3.2%
U.S. National	18.5	18.5	18.7	18.8	18.6	18.5	17.7	16.8
Rate		0.5%	3.1%	4.0%	1.3%	-0.3%	-4.2%	-10.2%
Total Non-Manufacturing								
Portland-Vancouver	695.6	730.1	761.9	776.0	792.7	812.5	812.5	810.9
Rate		22.2%	24.4%	22.0%	19.1%	16.8%	11.3%	6.4%
U.S. National	98.7	101.1	104.0	107.0	110.3	113.3	114.5	115.0
Rate		12.5%	14.9%	15.6%	15.2%	14.8%	13.3%	10.6%
Food Processing								
Portland-Vancouver	10.1	10.0	9.8	9.7	9.1	8.9	8.5	8.4
Rate		1.6%	1.2%	-0.4%	-7.4%	-11.6%	-15.2%	-15.1%
U.S. National	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Rate		1.5%	1.3%	0.2%	0.3%	-0.5%	-0.5%	-1.2%
Textiles & Apparel								
Portland-Vancouver	4.9	4.5	4.4	4.3	3.8	3.4	3.5	3.5
Rate		-3.6%	-4.0%	-10.2%	-23.3%	-30.5%	-22.5%	-20.6%
U.S. National	1.6	1.5	1.4	1.4	1.2	1.2	1.0	1.0
Rate		-10.8%	-14.4%	-18.1%	-24.4%	-27.4%	-30.6%	-33.7%
Lumber & Wood Products								
Portland-Vancouver	7.8	7.7	8.1	7.9	7.5	7.6	7.5	7.5
Rate		-6.0%	3.7%	-0.2%	-4.8%	-2.7%	-3.7%	-7.3%
U.S. National	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Rate		15.2%	17.0%	14.7%	10.7%	8.1%	2.5%	-1.4%
Paper & Allied Products								
Portland-Vancouver	7.1	6.5	6.3	6.3	6.1	6.7	6.6	6.6
Rate		-4.1%	-8.8%	-9.6%	-13.5%	-5.0%	2.0%	5.3%
U.S. National	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
Rate		-0.6%	-1.1%	-2.1%	-3.5%	-5.2%	-7.1%	-11.0%
Printing & Publishing								
Portland-Vancouver	10.2	9.9	10.1	10.4	10.9	11.1	11.0	11.4
Rate		2.9%	4.7%	4.6%	8.1%	8.8%	11.8%	13.1%
U.S. National	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.4
Rate		0.3%	3.0%	3.1%	1.0%	0.1%	-3.2%	-8.2%

Table 1

2003	2004	2005	2010	2015	2020	2025	2030	AARG 1970 - 2000	AARG 2000 -2030
976.4	1009.2	1043.4	1168.6	1273.0	1387.6	1515.4	1641.4		
5.8%	7.8%	8.9%	12.0%	8.9%	9.0%	9.2%	8.3%	-0.7%	-1.2%
132.9	135.1	136.8	144.9	155.6	164.7	174.2	183.1		
5.6%	4.8%	3.8%	5.9%	7.4%	5.8%	5.8%	5.1%	-0.2%	0.2%
144.2	149.4	154.7	165.9	168.9	172.8	177.2	182.9		
-1.8%	4.2%	6.3%	7.3%	1.8%	2.3%	2.6%	3.2%	3.4%	2.0%
16.7	17.1	17.5	17.7	17.6	16.7	16.0	15.5		
-11.2%	-7.6%	-5.4%	1.2%	-0.5%	-5.4%	-3.9%	-3.1%	-0.2%	-0.6%
832.2	859.8	888.8	1002.7	1104.2	1214.9	1338.2	1458.5		
7.2%	8.5%	9.4%	12.8%	10.1%	10.0%	10.2%	9.0%	3.4%	2.0%
116.2	117.9	119.3	127.2	138.0	148.0	158.2	167.6		
8.6%	6.9%	5.3%	6.6%	8.5%	7.3%	6.9%	6.0%	2.7%	1.3%
8.4	8.5	8.5	8.2	7.7	7.2	6.7	6.3		
-13.1%	-6.1%	-4.5%	-3.8%	-6.1%	-6.3%	-6.9%	-6.2%	-0.7%	-1.2%
1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.8		
-0.5%	1.4%	1.9%	0.9%	1.5%	1.0%	0.5%	0.1%	-0.2%	0.2%
3.7	3.9	4.0	3.6	3.1	2.6	2.2	2.0		
-13.0%	2.5%	16.5%	-9.7%	-14.4%	-14.9%	-15.9%	-8.4%	-1.8%	-1.7%
1.0	1.0	1.0	0.9	0.8	0.7	0.5	0.5		
-28.8%	-20.3%	-14.7%	-10.5%	-12.6%	-15.2%	-17.4%	-10.4%	-2.3%	-2.9%
7.5	7.4	7.4	6.8	5.9	5.0	4.2	3.6		
-4.8%	-2.0%	-3.1%	-7.9%	-13.3%	-14.6%	-16.4%	-15.1%	-0.7%	-2.5%
0.8	0.9	0.9	1.0	0.9	0.9	0.8	0.7		
1.4%	6.4%	10.5%	4.6%	-1.2%	-7.1%	-12.8%	-7.2%	0.8%	-0.5%
6.6	6.7	6.8	6.6	6.2	5.9	5.5	5.2		
4.5%	9.1%	0.3%	-2.5%	-5.7%	-5.8%	-6.4%	-5.2%	-0.4%	-0.9%
0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5		
-10.9%	-7.0%	-5.0%	-4.2%	-5.7%	-7.0%	-8.3%	-5.7%	-0.2%	-1.2%
11.7	12.0	12.2	13.1	13.5	13.7	13.7	13.8		
12.9%	10.5%	10.7%	7.1%	2.7%	1.5%	0.6%	0.3%	3.4%	0.7%
1.5	1.5	1.6	1.6	1.5	1.4	1.2	1.2		
-6.5%	-0.7%	2.4%	-0.2%	-4.7%	-7.9%	-11.0%	-6.5%	1.1%	-1.0%

Table 1

Baseline Regional Employment Forecast

(Region in Thousands, U.S. in Millions)

	1995	1996	1997	1998	1999	2000	2001	2002
Metals								
Portland-Vancouver	18.6	19.0	19.8	20.6	20.1	19.9	19.0	18.5
Rate		11.6%	20.0%	28.2%	17.9%	7.0%	-0.2%	-6.5%
U.S. National	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.0
Rate		3.9%	8.1%	10.0%	6.4%	4.0%	-1.2%	-7.3%
Nonelectrical Machinery								
Portland-Vancouver	18.7	19.9	20.9	19.8	17.8	17.0	15.9	15.9
Rate		31.7%	42.1%	23.7%	4.9%	-9.3%	-20.2%	-23.8%
U.S. National	2.1	2.1	2.2	2.2	2.1	2.1	2.0	1.8
Rate		5.8%	12.4%	14.3%	7.4%	2.6%	-4.7%	-16.7%
Electrical Machinery & Instruments								
Portland-Vancouver	30.7	34.2	37.1	39.0	38.5	41.7	43.8	43.2
Rate		34.9%	47.2%	52.2%	41.4%	36.1%	28.0%	16.4%
U.S. National	2.5	2.5	2.6	2.6	2.5	2.6	2.5	2.3
Rate		-1.9%	4.0%	6.6%	3.9%	4.2%	-1.7%	-8.9%
Durable Goods (other)								
Portland-Vancouver	8.2	8.1	8.3	8.2	8.4	8.5	8.7	8.6
Rate		11.9%	13.2%	3.3%	5.5%	3.7%	8.3%	3.1%
U.S. National	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4
Rate		5.5%	7.2%	7.7%	5.6%	6.4%	3.3%	-4.4%
Nondurable Goods (other)								
Portland-Vancouver	8.1	8.8	9.0	8.5	8.0	8.0	7.5	7.2
Rate		50.5%	40.9%	25.4%	6.0%	-1.5%	-14.9%	-19.9%
U.S. National	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1
Rate		1.5%	1.1%	0.6%	-0.8%	-1.0%	-3.3%	-5.9%
Transport., Comm., & Utilities								
Portland-Vancouver	47.8	49.4	51.7	53.1	54.2	55.4	54.8	54.5
Rate		17.5%	21.8%	22.4%	20.7%	16.0%	10.9%	5.4%
U.S. National	6.1	6.3	6.4	6.6	6.8	7.0	7.1	6.9
Rate		8.7%	12.0%	13.7%	14.2%	14.4%	13.1%	8.4%
Wholesale Trade								
Portland-Vancouver	61.8	63.6	67.9	68.9	67.4	67.2	65.6	65.0
Rate		14.9%	22.5%	21.6%	13.2%	8.8%	3.1%	-4.3%
U.S. National	6.4	6.5	6.6	6.8	6.9	7.0	7.0	7.0
Rate		6.6%	10.9%	13.7%	12.1%	10.1%	8.4%	5.3%
Retail Trade								
Portland-Vancouver	147.0	153.1	157.6	160.1	164.9	168.1	168.1	167.4
Rate		19.1%	20.4%	18.7%	16.0%	14.3%	9.8%	6.2%
U.S. National	21.2	21.6	22.0	22.3	22.9	23.3	23.5	23.4
Rate		12.0%	13.5%	12.8%	11.5%	10.0%	9.0%	6.6%

Table 1

2003	2004	2005	2010	2015	2020	2025	2030	AARG 1970 - 2000	AARG 2000 -2030
19.1	19.6	20.2	20.5	19.8	19.4	19.1	19.0		
-7.5%	-2.4%	1.2%	1.6%	-3.2%	-2.0%	-1.6%	-0.5%	1.3%	-0.2%
2.1	2.1	2.2	2.2	2.1	2.0	1.9	1.8		
-7.7%	-3.7%	-1.8%	-0.5%	-3.3%	-4.8%	-6.2%	-2.4%	-0.8%	-0.6%
16.4	16.9	17.6	20.2	20.9	21.9	23.0	24.2		
-17.3%	-4.8%	3.9%	14.5%	3.5%	4.6%	5.1%	5.3%	2.6%	1.2%
1.5	1.4	1.4	1.6	1.8	1.9	2.1	2.1		
-32.1%	-35.3%	-33.6%	16.8%	9.1%	7.8%	6.5%	3.1%	0.2%	0.0%
44.7	47.6	50.4	56.4	59.3	62.3	65.8	69.9		
14.7%	23.5%	20.8%	12.0%	5.1%	5.1%	5.6%	6.2%	4.2%	1.7%
2.4	2.4	2.4	2.4	2.4	2.5	2.6	2.6		
-8.5%	-6.7%	-6.4%	1.3%	-0.5%	1.5%	3.6%	2.1%	0.2%	0.0%
8.9	9.1	9.4	10.3	11.1	11.9	12.8	13.5		
8.4%	8.9%	10.6%	9.8%	7.6%	7.2%	7.5%	5.8%	0.8%	1.6%
1.4	1.5	1.6	0.0	0.0	0.0	0.0	0.0		
-5.2%	0.0%	2.8%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.1%	#NUM!
7.3	7.5	7.8	9.0	10.1	11.3	12.3	13.4		
-14.2%	-6.0%	-1.6%	14.4%	12.3%	12.4%	9.1%	8.5%	2.5%	1.8%
2.2	2.3	2.4	0.0	0.0	0.0	0.0	0.0		
-3.1%	3.3%	6.4%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	0.1%	#NUM!
55.2	56.7	58.4	64.9	69.9	75.2	80.9	86.5		
4.0%	4.6%	5.3%	11.2%	7.8%	7.5%	7.7%	6.9%	2.0%	1.5%
6.9	7.1	7.2	8.0	8.4	8.7	9.0	0.0		
5.1%	3.8%	2.8%	11.3%	4.5%	3.2%	3.3%	#NUM!	1.5%	#NUM!
67.7	70.6	73.3	81.6	87.9	94.4	101.6	108.6		
-1.8%	4.6%	9.0%	11.3%	7.7%	7.4%	7.6%	6.9%	2.5%	1.6%
7.0	7.1	7.2	0.0	0.0	0.0	0.0	0.0		
3.4%	3.2%	2.6%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	1.9%	#NUM!
170.8	177.7	184.8	207.0	225.6	245.3	266.3	287.0		
6.7%	7.8%	9.9%	12.1%	9.0%	8.7%	8.6%	7.8%	3.4%	1.8%
23.5	23.9	24.0	0.0	0.0	0.0	0.0	0.0		
5.4%	4.4%	3.1%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	2.5%	#NUM!

Table 1

Baseline Regional Employment Forecast

(Region in Thousands, U.S. in Millions)

	1995	1996	1997	1998	1999	2000	2001	2002
Finance, Insurance, Real Estate								
Portland-Vancouver	59.8	63.0	66.3	66.7	66.2	64.5	64.6	64.5
Rate		17.2%	19.3%	13.0%	8.3%	7.9%	2.4%	-2.8%
U.S. National	6.8	6.9	7.1	7.4	7.6	7.6	7.6	7.7
Rate		4.0%	7.7%	9.3%	9.6%	11.1%	10.3%	8.3%
Services (Non-Health)								
Portland-Vancouver	169.9	180.3	190.7	196.4	203.5	214.2	215.6	214.5
Rate		36.3%	36.5%	31.6%	29.3%	26.0%	19.6%	12.5%
U.S. National	23.9	25.0	26.3	27.7	29.1	30.4	30.7	31.0
Rate		23.9%	28.1%	29.1%	28.7%	27.1%	22.8%	17.8%
Health Services								
Portland-Vancouver	56.1	57.7	60.2	61.3	62.2	62.1	63.3	64.6
Rate		16.1%	19.0%	16.4%	14.6%	10.7%	9.6%	7.2%
U.S. National	9.2	9.5	9.7	9.9	10.0	10.1	10.3	10.7
Rate		15.8%	14.3%	12.5%	11.0%	9.4%	9.2%	10.0%
Government (State & Local)								
Portland-Vancouver	90.6	93.9	95.1	97.9	103.2	108.5	109.7	109.0
Rate		13.4%	10.9%	12.6%	16.4%	19.8%	16.8%	14.6%
U.S. National	16.5	16.6	16.8	17.1	17.5	17.9	18.2	18.5
Rate		7.8%	7.5%	7.6%	7.9%	8.6%	9.5%	9.8%
Government (Federal Civilian)								
Portland-Vancouver	17.6	17.5	17.8	17.9	17.6	18.5	17.9	18.1
Rate		-1.4%	-3.1%	-1.2%	0.1%	5.4%	2.3%	2.0%
U.S. National	2.0	2.0	2.0	2.0	2.0	2.2	2.0	2.0
Rate		-1.5%	-2.5%	-1.2%	-0.9%	5.5%	-0.5%	2.1%

Table 1

2003	2004	2005	2010	2015	2020	2025	2030	AARG 1970 - 2000	AARG 2000 -2030
64.7	66.2	68.4	74.2	80.1	85.3	90.2	94.7		
-2.9%	0.0%	6.1%	8.5%	8.0%	6.4%	5.7%	5.0%	3.2%	1.3%
7.7	7.8	8.0	8.2	8.6	9.2	9.8	10.3		
4.6%	3.8%	5.5%	2.9%	4.8%	6.3%	6.8%	5.4%	2.5%	1.0%
224.4	235.4	244.5	284.8	326.3	373.5	427.4	479.8		
14.2%	15.7%	14.2%	16.5%	14.6%	14.5%	14.4%	12.3%	5.1%	2.7%
31.8	32.3	32.8	36.9	40.5	44.1	48.0	51.4		
15.0%	11.3%	8.1%	12.4%	9.9%	8.9%	8.8%	7.1%	4.3%	1.8%
66.8	69.1	71.2	82.3	93.5	105.2	118.9	133.6		
9.1%	11.1%	14.5%	15.7%	13.6%	12.5%	13.0%	12.4%	3.4%	2.6%
11.0	11.3	11.6	13.0	14.4	16.0	17.7	19.5		
11.5%	13.4%	15.0%	11.7%	11.3%	10.9%	10.4%	10.3%	4.1%	2.2%
109.2	109.1	111.2	121.0	129.7	139.5	150.8	161.1		
11.5%	5.8%	2.5%	8.8%	7.2%	7.6%	8.1%	6.8%	2.6%	1.3%
18.5	18.6	18.6	19.9	20.7	21.8	22.8	0.0		
8.2%	6.0%	4.2%	6.6%	4.2%	5.1%	4.9%	#NUM!	2.0%	#NUM!
18.0	17.9	17.9	19.3	19.4	20.3	21.2	21.8		
0.9%	2.0%	-3.6%	7.8%	0.8%	4.8%	4.4%	2.6%	0.9%	0.5%
2.1	2.1	2.1	2.2	2.2	2.3	2.4	2.5		
1.9%	1.5%	-4.5%	7.4%	1.2%	4.5%	4.1%	2.5%	0.8%	0.5%

Table 2

Previous Forecast vs. 2000 - 2030 DRAFT Regional Forecast

Total Non-Farm	2000	2020	Rate
Old Forecast	919.50	1299.92	1.7%
New Forecast	958.02	1387.63	1.9%
Difference	38.5	87.7	
% Diff	4.2%	6.7%	

Total Manufacturing	2000	2020	Rate
Old Forecast	138.92	157.29	0.6%
New Forecast	145.51	172.80	0.9%
Difference	6.6	15.5	
% Diff	4.7%	9.9%	

Food Processing	2000	2020	Rate
Old Forecast	9.72	10.49	0.4%
New Forecast	8.93	7.22	-1.1%
Difference	(0.8)	(3.3)	
% Diff	-8.2%	-31.1%	

Textiles & Apparel	2000	2020	Rate
Old Forecast	5.26	3.71	-1.7%
New Forecast	3.40	2.61	-1.3%
Difference	(1.9)	(1.1)	
% Diff	-35.4%	-29.8%	

Lumber & Wood Products	2000	2020	Rate
Old Forecast	7.31	5.71	-1.2%
New Forecast	7.63	5.04	-2.1%
Difference	0.3	(0.7)	
% Diff	4.3%	-11.8%	

Paper & Allied Products	2000	2020	Rate
Old Forecast	6.40	5.51	-0.7%
New Forecast	6.73	5.85	-0.7%
Difference	0.3	0.3	
% Diff	5.1%	6.2%	

Printing & Publishing	2000	2020	Rate
Old Forecast	11.18	15.94	1.8%
New Forecast	11.06	13.67	1.1%
Difference	(0.1)	(2.3)	
% Diff	-1.1%	-14.2%	

Metals	2000	2020	Rate
Old Forecast	18.41	20.38	0.5%
New Forecast	19.92	19.41	-0.1%
Difference	1.5	(1.0)	
% Diff	8.2%	-4.7%	

Nonelectrical Machinery	2000	2020	Rate
Old Forecast	20.50	25.10	1.0%
New Forecast	16.99	21.88	1.3%
Difference	(3.5)	(3.2)	
% Diff	-17.1%	-12.9%	

Electrical Machinery & Instruments	2000	2020	Rate
Old Forecast	34.65	43.10	1.1%
New Forecast	41.74	62.35	2.0%
Difference	7.1	19.2	
% Diff	20.5%	44.6%	

Durable Goods (other)	2000	2020	Rate
Old Forecast	8.16	8.70	0.3%
New Forecast	8.47	11.86	1.7%
Difference	0.3	3.2	
% Diff	3.7%	36.4%	

Nondurable Goods (other)	2000	2020	Rate
Old Forecast	7.56	9.99	1.4%
New Forecast	7.96	11.31	1.8%
Difference	0.4	1.3	
% Diff	5.3%	13.2%	

Total Non-Manufacturing	2000	2020	Rate
Old Forecast	780.59	1142.62	1.9%
New Forecast	812.51	1214.86	2.0%
Difference	31.9	72.2	
% Diff	4.1%	6.3%	

Transportation, Comm & Utilities	2000	2020	Rate
Old Forecast	49.10	64.77	1.4%
New Forecast	55.41	77.97	1.7%
Difference	6.3	75.2	
% Diff	12.8%	116.1%	

Wholesale Trade	2000	2020	Rate
Old Forecast	65.95	85.33	1.3%
New Forecast	67.24	94.40	1.7%
Difference	1.3	9.1	
% Diff	2.0%	10.6%	

Retail Trade	2000	2020	Rate
Old Forecast	161.05	228.27	1.8%
New Forecast	168.11	245.26	1.9%
Difference	7.1	17.0	
% Diff	4.4%	7.4%	

Finance, Ins & Real Estate	2000	2020	Rate
Old Forecast	69.09	96.87	1.7%
New Forecast	64.50	85.29	1.4%
Difference	(4.6)	(11.6)	
% Diff	-6.6%	-12.0%	

Services (Non-Health)	2000	2020	Rate
Old Forecast	208.89	338.48	2.4%
New Forecast	214.16	373.47	2.8%
Difference	5.3	35.0	
% Diff	2.5%	10.3%	

Health Services	2000	2020	Rate
Old Forecast	64.27	108.60	2.7%
New Forecast	62.15	105.20	2.7%
Difference	(2.1)	(3.4)	
% Diff	-3.3%	-3.1%	

Government (State & Local)	2000	2020	Rate
Old Forecast	99.49	136.55	1.6%
New Forecast	108.52	139.54	1.3%
Difference	9.0	3.0	
% Diff	9.1%	2.2%	

Government (Federal Civilian)	2000	2020	Rate
Old Forecast	18.45	23.04	1.1%
New Forecast	18.54	20.35	0.5%
Difference	0.1	(2.7)	
% Diff	0.5%	-11.7%	

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Westside Consortium for Economic Health

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Westside Economic Study Highlights

Economic Analysis

- A Critical Economic Driver. The Westside economy accounts for nearly one-fourth of all economic activity in the Portland metropolitan area. Westside employment has doubled in the last 12 years; the Westside has outperformed the regional economy every year for the last three decades.

- Connected to the Regional Economy. The Westside economy is tightly connected to the overall economy of the Portland metropolitan area. The Westside is connected by enormous daily flows of commuting workers, the large scale and continuing migration of people within the region, and by the ties of economic transactions between different parts of the region. Because of state government's substantial reliance on income taxes, the Portland metropolitan area and the Westside make disproportionate contributions to the state's revenues.

- The Westside Plays a New Role in the Region. The Westside Economy has experienced rapid economic growth, particularly during the last decade. The Westside's is no longer a collection of bedroom suburbs, but instead is a net provider of jobs and income to the region. It accounts for the vast majority of the region's high tech base and manufacturing job growth.

- Clusters, particularly high tech, drive the Westside Economy. The expansion of the Westside economy has been driven by the competitive success of industry clusters that characterize the distinctive economic specializations of the Westside. In particular the growth of the high technology industry cluster has been the dominant reason for the growth in this part of the region. The growth of other clusters, most notably the growth of the apparel/sporting goods cluster centered on Nike, has also helped propel Westside growth.

- Economic development is continuous evolution. The Westside economy has evolved continually over the past several decades, and continues to evolve today. Certain critical decisions, many taken decades ago, continue to have an enormous impact on the shape of the Westside economy. The Westside's role as a high tech center owes primarily to the decision by Tektronix to build its primary operations in Beaverton at a time when the company was highly profitable and rapidly growing. This established a local labor force concentration that attracted Intel and other firms in the 1970s and 1980s, triggering a successful agglomeration of high technology firms. Other subsequent public and private decisions have enabled this cluster to flourish on the Westside.

This project is funded in part by the Oregon State Lottery through the Multnomah-Washington Regional Investment Board for the purpose of promoting economic and community development.

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Looking Ahead: Economic Outlook for the Westside

- Critical mass in high tech, now what: growth, maturity, or decline?
- Future growth is likely to be slower than in the 1990s
- Sub-regional labor markets for high technology
- Industrial land supply is becoming constrained
- The region lacks an explicit economic strategy
- Weak regional assets for training knowledge workers

21st Century Economic Strategy

- Creating economically valuable new knowledge is the key to success in the global economy. The globalization of economic activity is an accomplished fact and will continue to dominate the course of economic development for the foreseeable future. The overall growth of the economy will be driven by the production of economically valuable new ideas; those persons, companies and places that are most proficient in generating and applying new ideas will prosper; those that do not will struggle economically. Traditional sources of economic advantage, like access to raw materials, will dwindle in importance.

- Success will occur in clusters, not randomly. Knowledge advancement and commercial success will primarily occur in conjunction with the development of industry clusters, dense networks of closely-related producers and consumers who push and feed on their collective knowledge-creating skills.

- Regions, not states or nations, are the key. Regions, particularly metropolitan areas, will be the competitive units in the new global economy. Place matters as a source of knowledge-creation and the locus for important institutions that shape knowledge and encourage entrepreneurship.

- Quality of life reinforces knowledge creation. Livability will be a paramount issue in determining which places can establish, maintain and continuously regenerate the concentration of human capital (people with knowledge) on which knowledge based growth depends.

- Local Policies Matter. Local institutions and public policies will play an increasingly important role in establishing the underlying conditions for success in the knowledge-based economy.

Principles for 21st Century Economic Strategy

- Explicit Goal: Improved standard of living
- Fact-Based: Understanding of regional economy
- Widely-Accepted: Regional consensus on strategy
- Cluster Driven: Organize by cluster
- Innovation Focused: Emphasize innovation and knowledge creation.
- Authentic: Tailored to the unique needs and values of the region
- Forward-Looking: Geared to the economy as it will be, not as it was
- Sustainable: Leading to enduring, not temporary, prosperity and quality of life
- Measurable: With clear benchmarks to gauge progress

03/12/02cc-04

SUSTAINING THE WESTSIDE ECONOMY

Please mark you calendar for April 3. Why?

Portland's Westside economy has reached a critically important juncture. The communities west and southwest of Portland have benefited from a cooperative spirit and foresight. The result has been five decades of impressive growth. Will it continue?

In early 2001 The Westside Consortium for Economic Health, a group of business leaders, organizations and public sector jurisdictions agreed to initiate a study of the area's economy to identify the key factors in the development and evolution of the region's economy, and to identify 21st Century strategies for sustaining a strong economy while maintaining the livability of the area.

Please join us in planning for the Westside's next chapter.

Westside Economic Summit
Wednesday, April 3, 2002, 8 a.m. – 3 p.m.
Embassy Suites, 9000 SW Washington Square Road, Tigard
Registration fee $40

Key to regional success

The Westside Consortium for Economic Health will make public the results of a study that catalogues the Westside's contribution to the region's standard of living, livability and economic vitality. The goal of the Summit is to assess the region's successes and reflect on how they were achieved. More importantly, the Summit will highlight the challenges and questions facing the Westside if it is to continue to be a success story. Joe Cortright of Impresa, Inc, a Portland consultant, produced the economic study.

The Westside Story

Key to Regional Success

Economic development experts to appear at Summit

We are fortunate to have nationally recognized economic development experts as speakers and panelists to provide critical analysis of the Westside's past and future, including keynote speaker **Brian Dabson** of Washington DC-based Corporation for Enterprise Development. Three guest panelists include: **Brian Bosworth**, Boston-based FutureWorks; **Lee Munnich**, University of Minnesota; and **Mary Jo Waits**, Morrison Institute for Public Policy, Arizona State University.

WESTSIDE ECONOMIC SUMMIT

April 3, 2002

Embassy Suites Hotel-Washington Square

The Westside Story

Key to Regional Success

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Washington County • Multnomah-Washington Regional Investment Board

Agenda

7:30am – 8:00am	Registration/Check-In
8:00am – 8:15am	Opening: Objectives, Background
8:15am – 9:15am	The Westside Economy (Joe Cortright) - describe project findings
9:15am – 9:30am	Break
9:30am – 11:00am	Challenges for the Region: Expert Panelists - each speaker will set some challenges for the region. Topics: • Metropolitan Areas, Quality of Life and Growth - Mary Jo Waits • Education, Workforce - Brian Bosworth • Developing Sector Strategies for Your Region - Lee Munnich
11:00am – 12:00pm	Breakout Sessions: 3 sessions – same as speakers
12:00pm – 1:30pm	Lunch Luncheon Keynote: 21st Century Economics - Brian Dabson
1:30pm – 2:15pm	Reconvene to summarize results Report back led by Expert Panelists & Local Respondents
2:15pm – 2:30pm	Wrap Up

Registration

Fee is $40.

How to Register:

- Register on line at www.westside-alliance.org (see calendar section)
- Or call the registration hotline at 503-968-3100 or
- Or Fax the following registration form to 503-624-0641
- Or mail the following registration form to:

Westside Economic Alliance
10200 SW Nimbus Ave, Ste G-3
Portland, OR 97223

Registration Information:

Name_____

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Address_____

Phone #_____ FAX #_____ E-mail _____

Method of Payment:

Check Enclosed: $_____
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Please charge my credit card:

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Card #_____ Expiration _____

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