FEDERAL RESERVE BANK OF SAN FRANCISCO

Western Economic Developments

Consumers keep home prices rising throughout the West



Figure 2: Change in home sales (percent change over year earlier) 30 2001: December 2002: March 25 20 15 10 5 -5 -10 US 12th AK AZ CA ID NV OR UT WA HI Source: National Association of Realtors.

Consumer spending has been the primary driver of recovery in the West, fueling growth in retail trade, travel and tourism, and many service-producing industries. Nowhere is the resilience of consumers as apparent as in Western housing markets. Data through the first quarter show nominal home prices and home sales rising relative to a year earlier in most Twelfth Federal Reserve District states (Figures 1 and 2). In the first quarter, District home prices rose 5.7% and home sales increased by 11% on a year-over-year basis, about the same as the nation. Housing markets have been especially strong in California, with home prices increasing 7.4% and home sales rising 20%. Elsewhere in the District, nominal price appreciation during the first quarter ranged from 6.1% in Hawaii to 1.9% in Utah. While these appreciation rates are below those recorded in 2001, they remain high relative to previous periods of economic slowing. In contrast to the fourth quarter of 2001, home sales have increased in most District states this year, with only Idaho and Utah recording year-over-year declines in home sales in the first quarter.

ALASKA

San Francisco

HAWAII

WASHINGTON

NEVADA

Los Angeles

IDAHO

UTAH

ARIZONA

OREGON

CALIFORNIA

The sustained strength of housing demand in the West has begun to spur new building. Except for Alaska, Nevada, and Utah, all District states showed increases in residential permits on a three-month

JUNE 2002

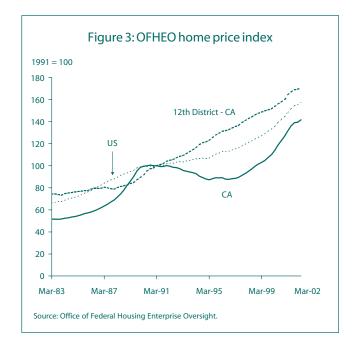
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average basis in April.¹ The pickup in home building is a boost to the construction industry, which has seen a sharp drop-off in demand for commercial development.

Housing market fundamentals

An important question going forward is what will happen to home prices. One concern is that the runup in real estate values has pushed prices to unsustainable levels, leaving owners open to large changes in wealth should home prices correct. While it is difficult to know the extent to which these concerns are warranted, it is possible to assess the risk of such a decline in the District relative to the rest of the U.S. based on trends in home price appreciation, residential permits, and jobs-to-housing ratios.

Figures 3 and 4 show trends in the OFHEO home price index and in residential permits, respectively, for California, the Twelfth District less California, and the U.S.² The series are indexed to 100 in 1991:Q1. As Figure 3 shows, over the course of the 1990s expansion, home price appreciation in the District outside of California generally outpaced price appreciation in the nation. Between 1991:Q1 and 2002:Q1 home prices in the District outside of California rose by 69%; prices rose by 57% in the nation over the



- 1 Nominal home price appreciation for major District MSAs are displayed in the State Highlights section, pp. 6-11.
- 2 Home price appreciation for the District less California is a weighted average of home price appreciation in Alaska, Arizona, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington with the weights equal to state employment shares.

Western Economic Developments

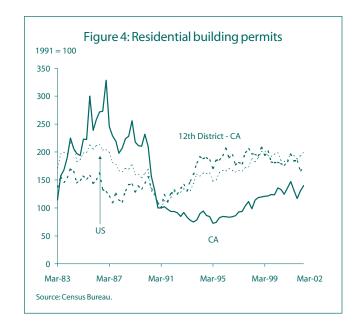
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Federal Reserve Bank of San Francisco

same time period. In contrast, home price appreciation in California lagged significantly, tempered by the deep recession in the early 1990s. As California began to expand in the latter half of the 1990s, home price appreciation rose sharply. However, over the entire U.S. expansion, home prices in California rose less than those in other parts of the nation. Home prices in California rose by 41% between 1991 and 2002. The experience in California in the 1990s contrasts with that during the 1980s expansion, when home price appreciation in the state outpaced that of the rest of the District and the nation.

Trends in home building activity during the latest expansion reflected the relative strength of housing markets in all three regions (Figure 4). Growth in residential permits in the District (less California) and the nation was similar, with permits in both areas increasing at a more rapid pace than in California. Residential permit growth lagged noticeably in California but increased with home prices as the state began to recover.

To get a sense of how the relative balance of housing supply (measured by permits) and housing demand (measured by employment growth) evolved in these areas over the 1990s, Table 1 reports the average jobs-to-housing ratio over three periods: 1991–2000, 1995–2000, and 1991– 2002. The jobs-to-housing ratio is computed as changes in payroll employment relative to housing permits.³ Regional



3 Data from the Census Bureau on population and household size show no significant change in the number of persons per household over the period examined.

1.37	1.51	1.13
1.51	1.52	1.25
1.99	3.56	1.73
	1.51	1.51 1.52

planners generally consider 1.5 to be a target jobs-to-housing ratio.

As the table shows, building activity in the District outside of California closely follows that for the U.S. as a whole. Between 1991 and 2000, the District excluding California averaged 1.5 jobs per every new housing permit issued, only slightly above that for the nation and right on the 1.5 ratio. As the economy has slowed, the jobs-to-housing ratio in the District less California has fallen (the ratio for 1991–2002 is 1.25) but remains in line with the nation.

The experience in California has been far different, with building activity relative to job growth proceeding at a far slower pace than the rest of the nation during the 1990s expansion. Between 1991 and 2000, California averaged 2 jobs per new housing permit issued, well above the national ratio. Between 1995 and 2000, the jobs-to-housing ratio in the state rose to 3.6, more than twice that for the U.S. and the rest of the District. The growth in the jobs-tohousing ratio in California during this period is consistent with the acceleration in home price appreciation in the state observed in Figure 3. As the economy has slowed the jobsto-housing ratio in California has come down slightly but remains higher than for the rest of the District and the nation.

Overall, the trends in home price appreciation, residential permits, and the jobs-to-housing ratios suggest that the District is no more vulnerable to a retracing of residential real estate prices than is the rest of the nation. Supply appears to be in check in the District outside of California, with residential permit growth moderating as home price appreciation slows. In California, a relative backlog of demand (represented by a high jobs-to-housing ratio) should work to keep housing markets in the state tight in coming quarters.

Signs of life in District IT

Job losses in high-tech manufacturing and computer and data processing services continued in recent months. Still, there are signs that conditions among information technology firms are stabilizing and even improving in some areas. Strong demand for personal computers and consumer electronics as well as a pickup in business investment in IT products (see High-tech Watch) boosted orders and sales among manufacturers of computers, semiconductors, and semiconductor equipment in recent months. According to the Semiconductor Association of America (SIA), sales of semiconductors increased 18.9% at an annual rate over the three months ending in April, with particularly strong sales to Asia Pacific nations other than Japan. Orders for computers and office equipment also increased in March, and the pace of decline in shipments eased substantially.

An improved outlook among makers of semiconductors has begun to boost demand among makers of semiconductor manufacturing equipment. Data from SEMI (Semiconductor Equipment and Materials International) announced that their book-to-bill ratio (value of new orders relative to value of new shipments) rose to 1.20 in April, up from a low of 0.62 in August 2001. April marks the second consecutive month of a book-to-bill higher than one. Industry experts from SEMI noted in a June press release that recent announcements by leading foundries regarding capital spending plans for 2002 were strong relative to expectations.

Separate information from Compustat on sales by high-tech manufacturing and software firms headquartered in the District supports the trends observed in national figures.⁴ Overall, sales growth among District makers of semiconductors and computers has outpaced sales growth among communications equipment makers and software developers. Moreover, expenditures on research and development stabilized in the first quarter of 2002, following nearly a year of continuous declines. Finally, recent earnings announcements by a number of leading IT firms suggest that, outside of the telecommunications sector, profits have begun to stabilize.

Consistent with improved sales of IT products, capacity utilization among high-tech manufacturers in the nation increased in recent months. As of April, capacity utilization

⁴ Compustat data include all publicly traded firms. Information technology firms were selected by SIC codes as defined by the American Electronics Association.

for computer, electronics, and communications equipment makers was 63.4%. At its low point capacity utilization was 59%.⁵ Detailed data for California show that utilization of labor also has increased in recent months. In April, weekly work hours in electronics and computer manufacturing averaged 42.4, about the same as the peak in December 2000. In contrast, work hours among makers of communications equipment remained well below prior levels.

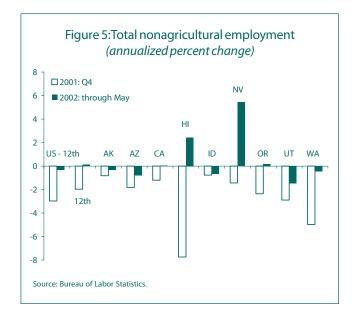
Although the sales outlook for District IT firms has improved in recent months, it is not clear when IT employment will expand. Pricing pressure continues to restrain earnings growth and, like other businesses in the District, makers of IT products cite cost-cutting efforts and caution regarding the outlook as reasons for holding employment steady. In addition, District contacts report that some IT sectors are in the process of restructuring, including shifting production and support functions offshore and permanently outsourcing specific tasks. In some cases this has meant plant closures in District states.⁶

Employment growth remains lackluster

Payroll employment in the District was little changed in May, leaving District payrolls for the first five months of 2002 up just 0.1% at an annual rate (Figure 5). In the rest of the U.S., employment declined slightly (-0.3% at an annual rate) over the same period. The very modest job gains likely understate output growth in the District. Reports from Beige Book contacts indicate that producers remain reluctant to hire new workers despite increased demand, waiting for signs of sustained recovery. Moreover, firms reportedly are working hard to increase efficiency in order to improve profits and remain competitive against increased import competition.

Within the District, only Hawaii, Nevada, and Oregon posted positive job growth for the five months ending in May. While job losses have attenuated relative to the fourth quarter in the remaining District states, the picture still is one of weakness in employment growth.

The durable manufacturing, construction, and transportation, communications, and public utilities (TCPU) sectors continued to shed jobs in May. Payroll reductions in high-



tech manufacturing and aerospace depressed job growth in durable manufacturing. Job losses in construction owed to a number of factors including the end of Olympics-related building in Utah, weakness in commercial office markets throughout the District, and slowing in public works projects funded by state government. TCPU employment reductions were broad-based, occurring in air transportation, railroads, trucking and warehousing, and communications. Water transportation employment fell in Washington but rose rapidly in California.

Job cuts also were recorded in the finance, insurance, and real estate sectors and in business services, which likely will put additional pressure on already weakened commercial real estate markets. More detailed data for California and Washington indicate that job cuts among computer and data processing firms continued to be a drag on business services employment. As in past months, positive job growth was limited to consumer-based sectors including trade and personal services.

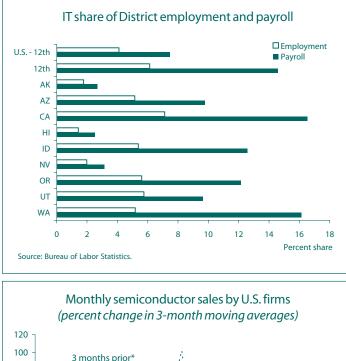
Average unemployment in the District was 6.2% in May, down 0.1 percentage point since December. Within the District, unemployment rates have fallen in seven of nine states since the end of 2001. The stability of the unemployment rate in part reflects a divergence in the household employment series (used to calculate the unemployment rate) and the payroll employment series, with the household series showing faster employment growth.

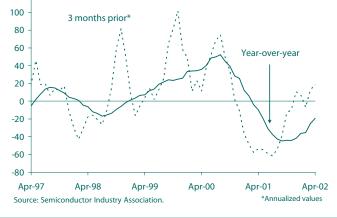
Contributions by Mary Daly, Financial and Regional Studies, Economic Research Department, FRBSF

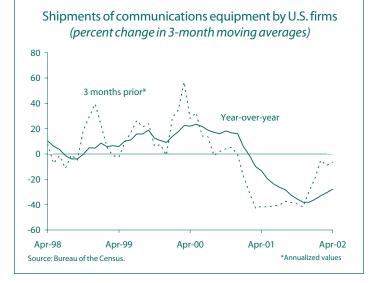
⁵ At its peak in May 2000, capacity utilization hovered near 88%. Over the 1990s expansion, capacity utilization averaged 82% among high-tech manufacturers.

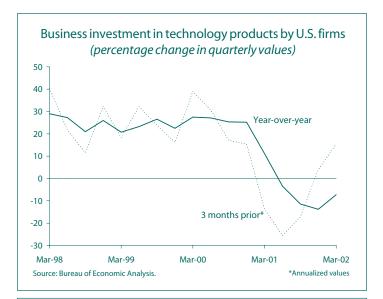
⁶ Three plants making printers, laptops, and flat screens reportedly closed in Oregon in recent months.

High-tech Watch

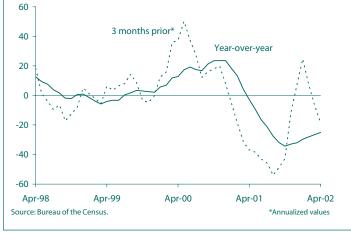


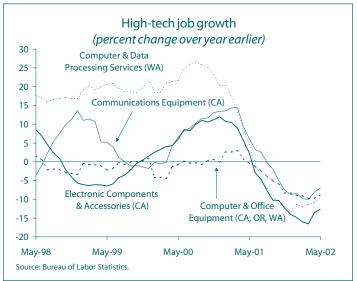










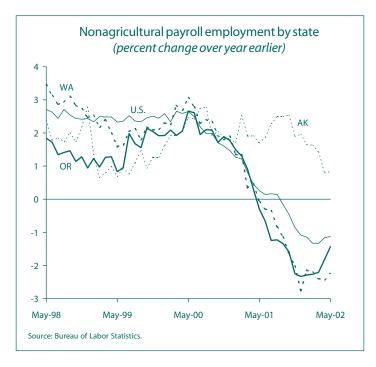


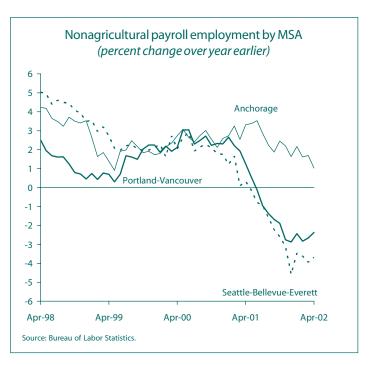
Western Economic Developments



STATE **H**IGHLIGHTS

Alaska • Oregon • Washington





Employment by Industry

·	Total Employed					То	otal Employec	1			
	(thousands)		Percent C	hange			(thousands)		Percent	Change	
	May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.		May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.
Alaska						Washington					
Total	291.0	1.7	-2.4	-0.3	0.8	Total	2,650.5	1.0	-1.3	-0.5	-2.2
Mining	10.5	-10.8	0.0	2.3	-11.0	Mining	3.1	48.2	-11.9	-7.3	-8.8
Construction	14.9	-21.3	-2.6	1.6	1.4	Construction	144.2	19.2	-3.3	-3.6	-7.9
Manufacturing	12.2	65.2	-31.3	-17.2	-6.9	Manufacturing	314.2	1.9	-2.0	-4.9	-8.2
T.C.P.U.	27.9	-12.0	-4.2	-1.7	-0.4	T.C.P.U.	137.4	-5.1	-9.3	-6.0	-7.5
Trade	58.6	4.2	-3.3	-0.8	1.2	Trade	624.6	-3.6	-2.0	0.1	-2.1
F.I.R.E.	12.9	-8.9	3.2	0.0	0.8	F.I.R.E.	143.7	-3.3	-2.2	-0.3	2.8
Services	74.4	12.0	2.7	2.3	2.8	Services	766.9	3.7	0.3	0.8	-1.6
Government	79.6	-3.0	-1.5	0.3	2.2	Government	516.4	0.2	0.7	2.4	2.5
Oregon						Unemployment Rates (%)					
Total	1,581.2	3.6	0.9	0.2	-1.4						
Mining	1.6	0.0	0.0	-13.5	-11.1		May-02	Apr-02	Mar-02	Feb-02	May-01
Construction	73.0	-22.9	-8.3	-5.1	-9.3						
Manufacturing	225.9	11.3	2.9	-2.6	-5.4	Alaska	6.0	6.6	6.3	5.7	6.3
T.C.P.U.	77.8	8.0	-4.5	-0.6	-2.4	Oregon	7.3	7.5	7.9	8.1	6.0
Trade	390.2	3.1	3.3	1.4	-0.3	Washington	7.1	7.2	6.8	7.0	6.1
F.I.R.E.	95.9	2.5	-0.8	1.8	1.4						
Services	444.8	3.9	0.4	0.0	-0.6	U.S.	5.8	6.0	5.7	5.5	4.4
Government	272.0	5.0	1.6	2.2	0.8						

Unemployment rates are from the household employment survey; all other data are for nonagricultural payroll employment. All data are seasonally adjusted.

Source: Bureau of Labor Statistics.

6

Residential permits—April 2002

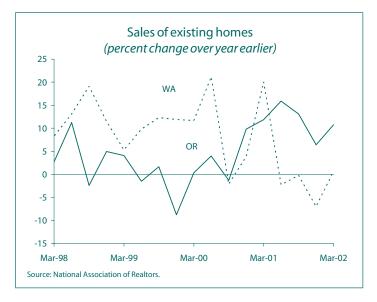
	3-mo. average	Moving average percent change	
	number	3-mo.ª 12	-mo.ª
Alaska	262.5	-6.2 2	27.5
Oregon	1,818.4	8.5	3.1
Washington	3,127.9	4.1 -1	0.7

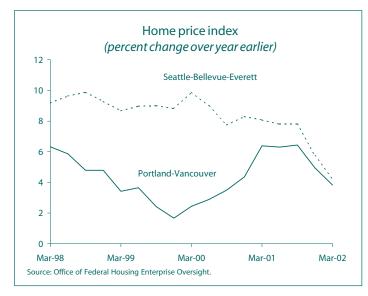
Source: Bureau of the Census.

Non-residential construction awards—April 2002

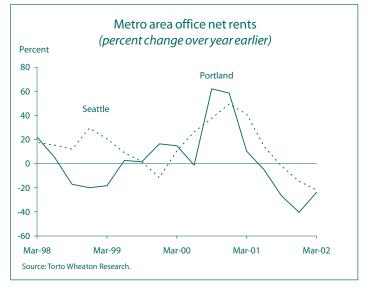
	3-mo. average	Moving aver percent chai	
	\$ millions	3-mo.ª	12-mo.ª
Alaska	58.6	21.7	2.4
Oregon	168.9	29.2	-14.3
Washington	213.6	-41.4	-32.5

^a Underlying data are seasonally adjusted moving averages. Source: F.W. Dodge.









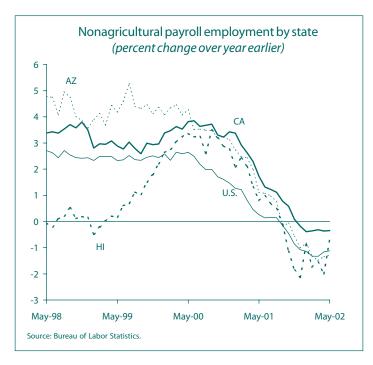
Export update										
	\$ bil	lions		12 - montl rcent Char						
	2001	April*	2000	2001	April*					
Alaska	2.4	0.8	-5.6	-2.0	4.0					
Oregon	8.0	2.7	6.6	-24.0	-6.2					
Washington	33.9	11.2	-13.1	8.5	-7.4					
* Indicate year-to-date values.										
ource: Census FT900 S	Supplemen	t, Origin of Mo	vement Series							

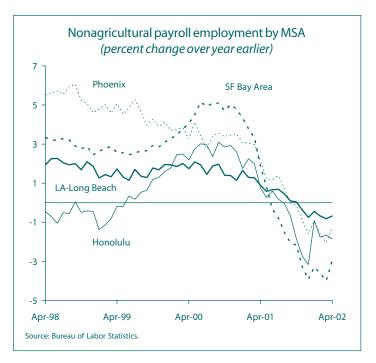
Western Economic Developments



STATE **H**IGHLIGHTS

Arizona • California • Hawaii





Employment by Industry

То	tal Employed					To	otal Employed				
((thousands)		Percent Cl	nange			(thousands)		Percent	Change	
	May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.		May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.
Arizona						California					
Total	2,239.6	-2.0	-0.5	-0.8	-1.3	Total	14,658.7	-0.7	-0.2	0.0	-0.3
Mining	9.0	31.0	9.4	-2.6	-5.3	Mining	23.5	0.0	-8.1	-5.9	-2.1
Construction	156.2	-3.8	0.5	-5.9	-6.7	Construction	754.7	-14.1	-8.1	-2.0	-2.1
Manufacturing	195.2	-4.2	-2.0	-8.2	-8.1	Manufacturing	1,825.8	-3.2	-2.9	-2.3	-5.0
T.C.P.U.	106.1	3.5	-3.7	-4.8	-5.5	T.C.P.U.	723.2	-1.6	-4.4	-3.7	-4.5
Trade	537.0	-0.4	1.6	0.8	0.9	Trade	3,361.2	-0.6	1.0	1.8	0.8
F.I.R.E.	149.3	-10.6	-4.2	-3.1	-0.9	F.I.R.E.	845.7	-1.7	-1.3	-1.5	0.6
Services	710.5	9.0	3.2	3.9	-0.1	Services	4,682.2	1.9	1.2	-0.2	-0.2
Government	376.3	-18.8	-7.4	-3.2	0.8	Government	2,442.4	1.2	2.1	2.3	3.0
Hawaii							Unem	ployment Ra	ates (%)		
Total	551.0	14.5	2.7	2.4	-0.7						
Mining							May-02	Apr-02	Mar-02	Feb-02	May-01
Construction	25.1	15.5	13.8	11.4	5.0						
Manufacturing	17.7	-6.5	4.7	0.0	-2.2	Arizona	5.7	5.7	5.9	6.0	4.4
T.C.P.U.	38.8	0.0	3.2	3.2	-10.4	Hawaii	4.2	4.3	4.6	4.7	4.3
Trade	132.8	1.8	0.6	0.7	-3.6	U.S.	5.8	6.0	5.7	5.5	4.4
F.I.R.E.	33.1	11.5	1.2	2.2	1.2						
Services	184.0	-2.6	0.0	0.7	-1.6		May-02	Apr-02	Mar-02	Feb-02	May-01
Government	119.5	83.6	7.3	5.6	6.6	California	6.3	6.5	6.5	6.2	5.1

Unemployment rates are from the household employment survey; all other data are for nonagricultural payroll employment. All data are seasonally adjusted.

Source: Bureau of Labor Statistics.

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Residential permits—April 2002

	3-mo. average	Moving average percent change	
	number	3-mo. ^a 12	2-mo.ª
Arizona	4,655.4 13,053.4 391.4	8.2	-4.2
California	13,053.4	10.7	-4.7
Hawaii	391.4	22.3	2.1

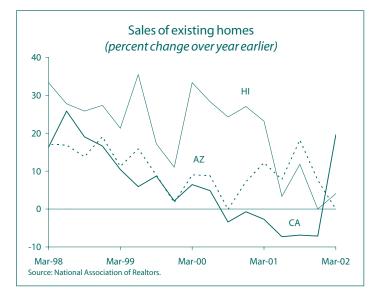
Source: Bureau of the Census.

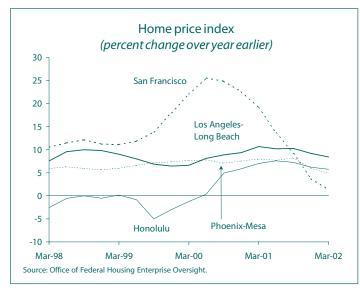
Non-residential construction awards—April 2002

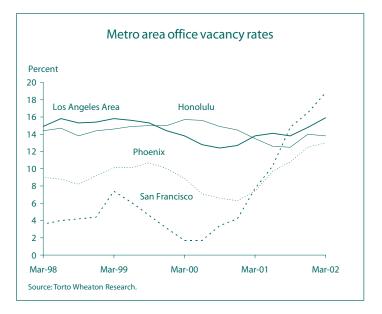
	3-mo. average	Moving ave percent ch	
	\$ millions	3-mo.ª	12-mo. ^a
Arizona	214.3	-4.3	-23.7
California	1,257.2	-0.3	-15.7
Hawaii	25.5	-58.5	25.1

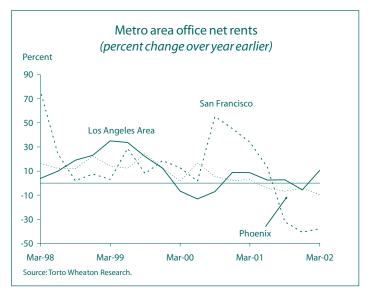
^a Underlying data are seasonally adjusted moving averages.

Source: F.W. Dodge.



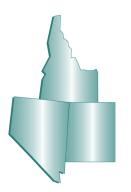




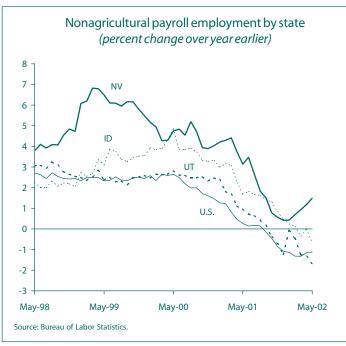


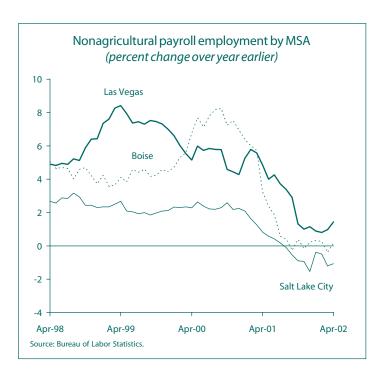
Export update											
	\$ bil	lions		12 - mont rcent Cha							
	2001	April*	2000	2001	April*						
Arizona	11.1	3.3	19.0	-15.6	-19.1						
California	90.7	25.5	19.5	-10.2	-23.9						
Hawaii	0.3	0.1	33.4	8.8	-50.5						
* Indicate year-to-date values.											
Source: Census FT900	Supplemen	t, Origin of Mc	ovement Series								

Western Economic Developments



State Highlights Idaho • Nevada • Utah





Employment by Industry

То	tal Employed					Тс	otal Employed	l			
	(thousands)		Percent C	hange			(thousands)		Percent (Change	
_	May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.		May-02	1-mo.ª	3-mo.ª	YTD ^a	12-mo.
Idaho						Utah					
Total	567.3	-5.1	-1.4	-0.7	-0.7	Total	1,067.0	-2.4	-4.7	-1.5	-1.7
Mining	1.9	279.9	56.0	30.6	-13.6	Mining	7.7	0.0	0.0	0.0	-2.5
Construction	35.5	-12.6	-4.4	-11.2	-6.3	Construction	63.1	-27.3	-7.3	-24.1	-10.1
Manufacturing	71.0	-6.5	-3.8	-5.2	-6.8	Manufacturing	119.5	-4.9	-7.6	-6.7	-6.3
T.C.P.U.	27.6	-8.3	0.0	-1.7	-2.1	T.C.P.U.	58.5	-4.0	-7.8	0.4	-4.1
Trade	139.8	-6.6	-0.6	0.7	-1.6	Trade	247.6	-4.3	-5.5	0.2	-1.9
F.I.R.E.	24.6	-4.8	0.0	-1.0	2.5	F.I.R.E.	59.7	-2.0	-3.9	-1.6	-0.2
Services	153.2	-6.8	-3.6	0.0	2.1	Services	319.5	2.3	-5.7	4.1	0.9
Government	113.7	1.1	1.8	3.2	3.0	Government	191.4	3.8	1.5	-0.9	1.1
Nevada						Unemployment Rates (%)					
Total	1,073.0	5.1	4.8	5.4	1.5						
Mining	9.1	0.0	-4.3	-12.0	-10.8		May-02	Apr-02	Mar-02	Feb-02	May-01
Construction	93.0	10.9	7.2	7.9	4.0						
Manufacturing	45.9	0.0	0.9	1.1	-1.7	Idaho	5.0	5.2	5.5	5.5	4.9
T.C.P.U.	57.3	11.1	4.3	3.4	-3.5	Nevada	5.5	5.5	5.8	6.1	4.8
Trade	227.6	1.1	5.5	6.3	3.1	Utah	5.3	5.8	6.0	5.5	4.1
F.I.R.E.	51.3	4.8	5.6	5.8	4.5						
Services	458.5	3.7	4.6	5.9	0.6	U.S.	5.8	6	5.7	5.5	4.4
Government	130.3	12.8	4.7	4.2	3.4						

Unemployment rates are from the household employment survey; all other data are for nonagricultural payroll employment. All data are seasonally adjusted.

Source: Bureau of Labor Statistics.

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Residential permits—April 2002

	3-mo. average	Moving average no. average percent change		
	number	3-mo.ª	12-mo.ª	
Idaho	919.1	5.8	-2.7	
Nevada	2,380.7	-8.6	-9.3	
Utah	1,500.3	-0.4	4.9	

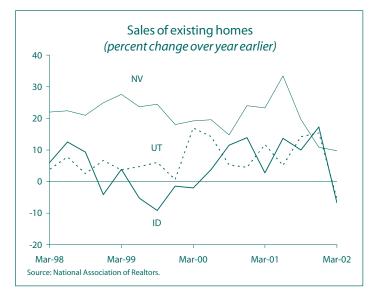
Source: Bureau of the Census.

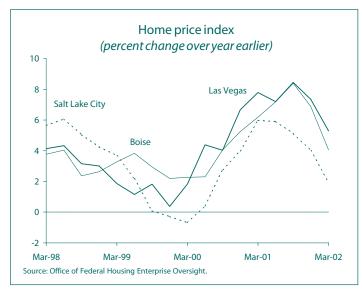
Non-residential construction awards—April 2002

	3-mo. average	Moving average percent change		
	\$ millions	3-mo.ª	12-mo.ª	
Idaho	47.6	-3.6	-16.3	
Nevada	128.8	-40.5	7.1	
Utah	120.9	-15.6	-4.5	

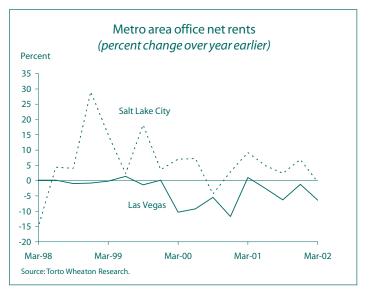
^a Underlying data are seasonally adjusted moving averages.

Source: F.W. Dodge.









Export update						
\$ billions		12 - month Percent Change				
2001	April*	2000	2001	April*		
1.9	0.5	53.6	-41.7	-35.5		
1.1	0.3	21.8	13.9	-11.3		
3.4	1.4	1.7	9.3	22.0		
* Indicate year-to-date values.						
	2001 1.9 1.1 3.4	\$ billions 2001 April* 1.9 0.5 1.1 0.3 3.4 1.4	\$ billions Per 2001 April* 2000 1.9 0.5 53.6 1.1 0.3 21.8 3.4 1.4 1.7	\$ billions 12 - mont \$ billions Percent Chan 2001 April* 2000 2001 1.9 0.5 53.6 -41.7 1.1 0.3 21.8 13.9 3.4 1.4 1.7 9.3		

2002 Issues

Mailing Dates

March	March 26
June	July 2
September	October 1
December	December 17

Four additional updates to statistical charts are available online during interim periods at http://www.frbsf.org/publications/economics/wed/index.html.

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Federal Reserve Bank of San Francisco 101 Market Street San Francisco, California 94105

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