

AZB ARIZONA BUSINESS

ARIZONA STATE UNIVERSITY'S MONTHLY NEWSLETTER ON THE ARIZONA ECONOMY

Economic pace picks up in wake of national election

The best thing that happened to the national economy in the last few months is the end of the presidential campaign. Regardless of who won, the end of election season ended uncertainty — and uncertainty is bad for the economy. The local economy will benefit from the passing of election season because the national economy now is free to move on.

Uncertainty causes firms and individuals to postpone taking action on a variety of things. The economy always functions amid some degree of uncertainty, but in the period after 9/11 the level of uncertainty has been unusually high. There is little to be done about the possibility of terrorist attacks, at least in the short run. However, other factors such as the presidential election can be resolved — although the divisive spirit that dominated the recent national election discourse lingers.

In the immediate wake of the election, oil futures eased downward. The uncertainty over oil prices is unlikely to disappear soon, despite the post-election futures drop. The political situation in Nigeria and the Middle East certainly continues to cast a pall over the markets. The problems with oil go deeper than mere political instability, given the surge in demand from China. Chinese demand for a whole list of economic goods, from oil to steel, has been growing dramatically and is likely to continue, even amidst the Chinese government's stated goal of slowing the pace of economic growth. It is a foolish exercise to try predicting oil prices precisely, but they are unlikely to decline significantly for any length of time unless the Chinese economy implodes. Gasoline prices are significantly higher than they were a few short years ago, but they have yet to reach the inflation-adjusted level they attained during the last price spike in 1981. Consumers and firms spend a smaller fraction of total income on energy today than

they did in the past, which means consumers are less sensitive to price changes.

The national forecast did change this quarter, mostly for the better. Year-to-date Gross Domestic Product is growing at 4.6 percent through the third quarter, which caused a small upward revision of the GDP forecast for 2004. Industrial production is showing some strength, contributing to the upward revision, and housing starts were stronger than expected. Net exports continue to deteriorate somewhat faster than expected, which is a noticeable drag on GDP growth. Inflation and interest rates, while rising, remain well within the comfort zone for the economy.

Net exports are lower than expected, primarily because the Japanese central bank has been defending the U.S. dollar, which has slowed the decline that must occur in order for our exports to expand. The Japanese do not want the dollar to decline because that would hurt Japanese exports to the U.S. and other countries. There is an old economic dictum that a country cannot defend its own currency for very long, but the ability of a country to defend another's currency is much less constrained. It seems likely that the need for the dollar to go lower (which is substantial) will eventually overwhelm the will of the Japanese to prop it up — but in the meantime U.S. exports will suffer. Of course, net exports also suffer because the U.S. imports greater amounts of oil at increasingly high prices. Exports also respond to the economic health of our major trading partners, and while most of our partners are relatively healthy, they are not as strong as the United States — which reinforces the tendency of our

Fourth Quarter Economic Forecast

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AZB/Arizona Business to cease publication

The December 2004 issue of *AZB/Arizona Business* will be the last to be printed, though the content of the publication will continue to be available from the Web site of the Center for Business Research at: wpcarey.asu.edu/seid/cbr. After the December issue, articles previously included in the publication will be available separately online. More information regarding access to this information will be included in the December issue.

INSIDE

Economic Forecast: Fourth Quarter.....	1
Arizona Leading Index: September	4
Economic Base Study by City.....	5
CBR Population Estimates.....	6
Business Conditions Index: September	7
Arizona Economic Indicators.....	8

imports to grow faster than exports.

Housing starts continue at a surprising pace, which also contributes to better GDP growth. Homeowners are responding to low mortgage rates and the market is being further boosted by investors who see the housing market as the only viable place for investment right now.

The Federal Reserve is expected to keep raising the Federal Funds rate until it is

between 3 and 4 percent, which somewhat paradoxically should moderate the rise in long-term rates. The Fed directly controls only the Federal Funds rate, which is an overnight rate charged between banks that are lending and borrowing government securities on deposit with the Fed. The Federal Funds rate has a strong influence on the short-term rates banks charge their customers because it is a major determinant of their cost of funds

(and ultimately, how much banks are allowed to lend). Fed influence on long-term rates is primarily through inflationary expectations. If the Federal Reserve creates a perception that it is vigilant on inflation and it backs up that perception by action, lenders will require only a small inflation premium for long-term lending. Mortgage rates are expected to rise to somewhere between 7 and 8 percent, which is not enough to deter creditworthy potential

TABLE 1
2004 AND 2005 ECONOMIC FORECASTS: UNITED STATES

	<i>Actual</i> 2000	<i>Actual</i> 2001	<i>Actual</i> 2002	<i>Actual</i> 2003	<i>Forecast</i> 2004	<i>Forecast</i> 2005
Gross Domestic Product						
Billions of 1996 Dollars	9,817.0	9,890.7	10,074.8	10,381.3	10,838.1	11,217.4
Percent Change	3.7	0.8	1.9	3.0	4.4	3.5
Industrial Production (Percent Change)	4.3	(3.4)	(0.5)	0.3	4.6	4.5
Net Exports (Billions of 1996 Dollars)	(379.5)	(399.1)	(472.1)	(518.5)	(580.0)	(575.0)
Housing Starts						
Number in Thousands	1,592.3	1,636.7	1,747.7	1,862.4	1,922.0	1,752.9
Percent Change*	(4.5)	2.8	6.8	6.6	3.2	(8.8)
Unemployment Rate (Percent)	4.0	4.8	5.8	6.0	5.5	5.2
Consumer Price Index (Percent Change)	3.4	2.8	1.6	2.3	2.5	2.8
Three-Month Treasury Bill Rate (Percent)	5.8	3.4	1.6	1.0	1.5	2.6
10-Year Treasury Note Rate (Percent)	6.0	5.0	4.6	4.0	4.3	4.9

*Calculated prior to rounding

TABLE 2
2004 AND 2005 ECONOMIC FORECASTS: ARIZONA

	<i>Actual</i> 2000	<i>Actual</i> 2001	<i>Actual</i> 2002	<i>Actual</i> 2003	<i>Forecast</i> 2004	<i>Forecast</i> 2005
Personal Income						
Millions of Current Dollars	132,558	138,741	143,681	150,295	159,914	170,788
Percent Change	9.7	4.7	3.6	4.6	6.4	6.8
Retail Sales						
Millions of Current Dollars	43,940	44,833	45,425	47,818	51,643	56,033
Percent Change	7.8	2.0	1.3	5.3	8.0	8.5
Unemployment Rate (Percent)	3.9	4.7	6.2	5.6	4.8	4.5
Wage and Salary Employment						
Number in Thousands	2,242.7	2,265.0	2,265.1	2,289.3	2,342.2	2,427.4
Percent Change	3.7	1.0	0.0	1.1	2.3	3.6
Population						
Number in Thousands	5,169	5,321	5,469	5,621	5,767	5,923
Percent Change	3.0	2.9	2.8	2.8	2.6	2.7
Single-Family Units Permitted						
Number	48,846	50,930	55,649	65,649	62,367	61,119
Percent Change	(5.6)	4.3	9.3	18.0	(5.0)	(2.0)
Multifamily Units Permitted **						
Number	10,920	10,414	8,830	7,135	6,707	6,774
Percent Change	(9.5)	(4.6)	(15.2)	(19.2)	(6.0)	1.0

** Apartment complexes of three or more units

Source (Tables 1 and 2): Bank One Economic Outlook Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

homeowners but may be high enough to deter investors. Housing starts should begin to decline in 2005 as the stock market improves and rates move up.

The forecast for interest rates incorporates the expected moves by the Fed at the short term and the market's responses at the long end. The biggest risk to the forecast is the anticipated retirement of Alan Greenspan in 2005, when his current appointment to the Fed board expires. If the president were to appoint a chairman viewed as softer on inflation or less capable than the current chairman, long-term rates could move up until the markets are more comfortable with the new regime.

ARIZONA

Arizona continues to outperform the nation as a whole, but it is clear that the national economy was a drag on the state. The weakest part of the national economy was employment, and even though Arizona was in the top 10 in terms of job growth, it lagged behind expectations. The two areas where the Arizona economy did not lag were retail sales and single-family home construction.

In terms of retail sales, it appears that the economy is well out of the recession. Sales levels are similar to those experienced just prior to the recession. It is difficult to forecast holiday sales precisely, but if current trends

continue the season should be healthy. The Michigan Index of Consumer Sentiment has been staging a rally since the election, which bodes well for holiday shopping both locally and nationally. It should be noted that *AZB's* retail sales figures include restaurant and bar sales, plus Category 17 retail sales which include cars. Retail sales growth that includes restaurants and cars has significantly exceeded sales growth of stores that sell holiday merchandise. The rise in oil prices may curtail auto spending or it may just move the spending away from SUVs and in the direction of smaller more fuel efficient cars.

The other hot spot in Arizona is single-family housing, which is far exceeding

TABLE 3
2004 AND 2005 ECONOMIC FORECASTS: MARICOPA COUNTY

	<i>Actual</i> 2000	<i>Actual</i> 2001	<i>Actual</i> 2002	<i>Actual</i> 2003	<i>Forecast</i> 2004	<i>Forecast</i> 2005
Retail Sales						
Millions of Current Dollars.....	30,167	30,605	30,690	32,371	35,090	38,178
Percent Change.....	8.4	1.5	0.3	5.5	8.4	8.8
Unemployment Rate (Percent).....	2.7	3.9	5.6	4.9	4.0	3.6
Wage and Salary Employment						
Number in Thousands.....	1,541.0	1,559.5	1,556.9	1,576.6	1,616.9	1,682.3
Percent Change.....	3.6	1.2	(0.2)	1.3	2.6	4.0
Population						
Number in Thousands.....	3,097	3,194	3,290	3,387	3,478	3,576
Percent Change.....	3.4	3.1	3.0	2.9	2.7	2.8
Single-Family Units Permitted						
Number in Thousands.....	33,107	33,428	35,360	41,056	38,182	38,182
Percent Change.....	(6.6)	1.0	5.8	16.1	(7.0)	0.0
Multifamily Units Permitted **						
Number in Thousands.....	9,490	8,964	7,268	5,407	5,083	5,159
Percent Change.....	(0.4)	(5.5)	(18.9)	(25.6)	(6.0)	1.5

** Apartment complexes of three or more units

TABLE 4
ARIZONA EMPLOYMENT FORECASTS: 2004 and 2005
(In Thousands)

	<i>Actual</i> 2000	<i>Percent</i> <i>Change</i>	<i>Actual</i> 2001	<i>Percent</i> <i>Change</i>	<i>Actual</i> 2002	<i>Percent</i> <i>Change</i>	<i>Actual</i> 2003	<i>Percent</i> <i>Change</i>	<i>Forecast</i> 2004	<i>Percent</i> <i>Change</i>	<i>Forecast</i> 2005	<i>Percent</i> <i>Change</i>
Manufacturing.....	209.9	1.2	201.7	(3.9)	183.5	(9.0)	174.0	(5.2)	172.3	(1.0)	173.6	0.8
Mining.....	9.8	(11.7)	9.6	(2.0)	8.7	(9.4)	8.0	(8.0)	8.2	2.5	8.3	1.0
Construction.....	168.1	4.5	173.6	3.3	172.2	(0.8)	176.6	2.6	190.9	8.1	192.8	1.0
TWU*.....	74.3	1.0	76.6	3.1	76.0	(0.8)	76.6	0.8	77.0	0.5	78.1	1.5
Information.....	54.4	15.5	53.9	(0.9)	51.7	(4.1)	49.4	(4.4)	46.9	(5.0)	48.1	2.5
Trade.....	363.5	3.8	364.0	0.1	364.9	0.2	368.2	0.9	374.1	1.6	387.2	3.5
Financial Activities.....	151.0	2.4	153.4	1.6	155.1	1.1	159.3	2.7	161.7	1.5	167.3	3.5
Services.....	845.0	4.2	854.5	1.1	862.5	0.9	883.7	2.5	911.1	3.1	963.9	5.8
Government.....	366.7	3.6	377.8	3.0	390.4	3.3	393.7	0.8	400.0	1.6	408.0	2.0
Total Wage and												
Salary Employment.....	2,242.7	3.7	2,265.0	1.0	2,265.1	0.0	2,289.3	1.1	2,342.2	2.3	2,427.4	3.6
Unemployment Rate.....	3.9%		4.7%		6.2%		5.6%		4.8%		4.5%	

*Transportation, Warehousing and Utilities

Source (Tables 3 and 4): Bank One Economic Outlook Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

the expectations and assumptions of most Arizona analysts. Housing is hot nationally, but more so in Arizona. Low mortgage rates remain a significant factor despite a recent modest rise in rates. However, an increasingly important factor in the markets has been activity by investors.

The investors really fall into two camps: the flippers and the renters. Flippers typically buy a home before it is built and make their money on the increase in value during the construction phase, plus the premium people are willing to pay because the house is finished rather than under construction. Renters buy a home either new or resale and rent it out for some period, then sell and pocket the housing appreciation. Investors became disenchanted with the stock market, so began investing in real estate. Housing appreciation was accelerating because low mortgage rates made homes more afford-

able. People who in past cycles might have rented for several years went straight into a single-family house. Arizona has the additional advantage of being close to California where price levels were much higher, thus enhancing the appeal of Arizona real estate. It has been estimated that investors comprise somewhere around 15 to 20 percent of the market, but it is likely that they are the driving force behind a much larger portion of the current housing appreciation.

Economics being the dismal science, analysts generally concentrate on how and when the current situation could go wrong. The fundamental problem now is that more new homes are being built than the underlying population growth can support. The longest the run could go (if the pace slows somewhat) is five to seven years, as the people who have been taking out seven-year interest-only mortgages (some starting two

years ago) reach the end of the mortgages and try to cash out their equity. The run could end sooner if mortgage rates rise enough to make further investment unprofitable and/or the stock market takes off and regains its allure for investors. The run might also end as renter-investors faced with rising vacancy rates (and at best flat and perhaps falling rental rates) decide to cash out early. Also relevant is how the end will come. The most likely scenario is a gradual exit of investors, leading to a lower, more sustainable rate of appreciation consistent with our population growth. However, if investors decide to exit the market en masse, there could be outright price declines, at least in the short run.

— Tracy Clark

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Bank One Economic Outlook Center

Bank One Arizona Leading Index rises in September

The Bank One Arizona Index of Leading Economic Indicators recovered in September to 125.2. The index was 0.07 percent above the revised 124.3 number for the previous month, and 2.4 percent above the September 2003 level of 122.3 (1987 = 100).

Positive values were recorded in the components of delivery times, employment from the Business Conditions Survey, the inflation-adjusted value of the M2 money supply, materials inventories and new orders. Negative values were recorded in production and the inflation-adjusted value of Maricopa County residential building permits. Sensitive materials prices and hours worked in manufacturing were neutral.

The index recovered the ground lost in August, indicating the possibility that the recent dip was an aberration. August was worrisome because the decline was broad-based, but the recovery in September was equally broad-based. For both the national and local Business Conditions Surveys, the manufacturing subindex has weakened somewhat in the last few months, although both are still above the 50-percent mark that indicates expansion. Manufacturing is not as large a part of the economy as it used to be, but it remains very important. Manufacturing accrued many of the productivity gains in the 1990s, which means that plants can produce the same amount of output with fewer workers. This is consistent with the lack of hiring locally in manufacturing. Unfortunately for

the Arizona economy, manufacturing jobs are also among the highest paid.

The best news for the Arizona economy is that the national economy will be less of a drag on local economies in the months to come. The national economy is expected to further improve with decent performance in GDP growth and employment growth happening simultaneously. The two biggest negatives nationally (and by extension, locally) will be the continued strong dollar which discourages exports and encourages imports and relatively high oil prices which discourages everyone.

There is also a possibility that monetary and fiscal policy will be working at cross

purposes in the coming months. The Bush administration's agenda for the second term, if enacted, will be very expansionary. The Federal Reserve is moving monetary policy to neutral, and if fiscal policy remains expansionary the Fed may actually have to move to a contractionary stance to compensate. The picture is further complicated by the possibility that Alan Greenspan will retire in 2005. The financial markets will not react well if his successor is perceived as less competent or less likely to keep inflation under control.

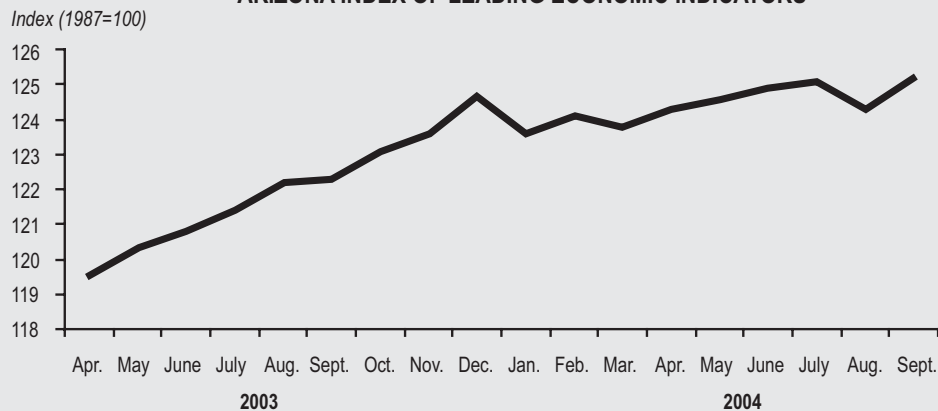
— Tracy Clark

Associate Director

Bank One Economic Outlook Center

FIGURE I

ARIZONA INDEX OF LEADING ECONOMIC INDICATORS



Source: Bank One Economic Outlook Center, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

Excess employment varies widely by city

Among the state's larger population centers, Tempe has the greatest excess basic employment relative to its population size. Less populous cities ranking higher than Tempe include the copper mining communities of Hayden, Clifton and Miami, tiny tourist-oriented Jerome, and Tolleson, an industrial center.

A recently completed study of the economy of each incorporated city in Arizona, along with unincorporated areas and regions, was reviewed in the July, September and October 2004 issues of *AZB/Arizona Business*. This study was performed by the Center for Business Research under contract to the Arizona Department of Commerce. The 125 reports produced for this project, along with the datasets, are available from the Department of Commerce's Web site: commerce.state.az.us (click on "Economic Info & Research" then on "Arizona Community Economic Base Studies").

This article focuses on excess employment by industry (see the October issue for a background on economic base studies) by incorporated city and town in Arizona. The excess industry figures were summed into broader categories and then put on a per capita basis so that cities of differing sizes could be compared. The data are for 2001, from *Zip Business Patterns*, produced by the U.S. Department of Commerce, Census Bureau.

The excess employment figures should be viewed as rough estimates for various reasons: (1) the city data are a sum of zip code data, thus do not correspond to city boundaries; (2) employment by industry had to be estimated; (3) the Census Bureau data set includes allocation errors (by zip code or industry); (4) agriculture and government employment was estimated by a different means; (5) the allocation of industry data to categories is subjective, as is the percentage of each activity that is basic. Many of the cities and towns among the top 10 in Table 1 are small in size. In some cases, the presence of one large company is largely responsible for the high figures.

Most of the cities with the highest per capita basic employment are small in size; Tempe-Guadalupe is the primary exception. Copper mines account for the high rank for Hayden, Clifton and Miami; a casino puts Maricopa into the top 10. Cities with little excess basic employment include some in the Phoenix area that primarily are "bedroom communities" (Avondale, Surprise and Peoria), mining com-

munities in which the mine has closed or is located in a nearby town (Kearny and Mammoth), and communities whose main driving economic activities are across the state line (Bullhead City and Colorado City).

The rankings in the partially basic category are considerably different if the analysis is limited to the private sector. Sierra Vista, St. Johns, Fredonia, Florence and Holbrook all are government centers and drop from the top 10, replaced by Goodyear-Litchfield Park, Scottsdale, Phoenix, Colorado City and Wickenburg.

While some of the highly ranked cities in the construction/real estate category make the list because of very rapid population growth, others serve nearby rapidly growing areas. Construction employment is geographically allocated by company address, not by work site location. Wholesale trade enterprises handling construction materials tend to be regionally located, not necessarily in a fast-growing community.

— Tom R. Rex
Associate Director

TABLE 1
PER CAPITA EXCESS EMPLOYMENT
Top 10 Arizona Incorporated Cities and Towns

Totals			
<i>Largely Basic</i>	<i>Partially Basic</i>	<i>Largely Nonbasic</i>	<i>Total</i>
Hayden	Tolleson	Paradise Valley	Hayden
Clifton	Tempe-Guadalupe	Tempe-Guadalupe	Tolleson
Tolleson	Sierra Vista	Youngtown	Tempe-Guadalupe
Jerome	St. Johns	Show Low	Paradise Valley
Miami	Nogales	Scottsdale	Jerome
Tempe-Guadalupe	Fredonia	Jerome	Clifton
Maricopa	Florence	Prescott	Scottsdale
Paradise Valley	Holbrook	Miami	Miami
Williams	Paradise Valley	Phoenix	Holbrook
Wellton	Clarkdale	Cottonwood	Sedona
Selected Largely Basic Categories			
<i>Export Manufacturing</i>	<i>Tourism/Seasonal</i>	<i>Agriculture</i>	<i>Mining</i>
Tolleson	Jerome	Wellton	Hayden
Tempe-Guadalupe	Paradise Valley	Willcox	Clifton
Queen Creek	Williams	Tolleson	Miami
Maricopa	Sedona	San Luis-Somerton	Sahuarita
Casa Grande	Maricopa	Coolidge	Chino Valley
Goodyear-Litchfield	Tombstone	Yuma	Superior
Chandler	Scottsdale	Buckeye	Bisbee
Kingman	Page	Parker	Williams
Eloy	Holbrook	Queen Creek	Marana
Prescott	Flagstaff	Thatcher	Taylor
Selected Partially Basic Categories			
<i>Other Manufacturing</i>	<i>Wholesale Trade</i>	<i>Construction/Real Estate</i>	<i>Government</i>
Tolleson	Tolleson	Paradise Valley	Sierra Vista
Goodyear-Litchfield	Nogales	Clarkdale	St. Johns
El Mirage	Goodyear-Litchfield	Tempe-Guadalupe	Fredonia
Jerome	Tempe-Guadalupe	Colorado City	Holbrook
Buckeye	Chino Valley	Queen Creek	Florence
Safford	Clarkdale	Scottsdale	Bisbee
Marana	Scottsdale	Sahuarita	Coolidge
Tempe-Guadalupe	Prescott Valley	Show Low	Page
Phoenix	Phoenix	Pinetop-Lakeside	Tempe-Guadalupe
Lake Havasu City	Chandler	Fountain Hills	Douglas

Source: Center for Business Research, L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University.

CBR suspends production of population estimates

Changing socioeconomic conditions and continuing data inadequacies have caused the Center for Business Research (CBR) to suspend its work in making population estimates and projections. The Center will continue to present and analyze demographic data from sources such as the U.S. Census Bureau and the Internal Revenue Service.

The CBR has produced quarterly population estimates for Maricopa County since 1987. In addition, annual population estimates and projections have been made for Arizona, Maricopa County, Pima County, and the balance of the state. When this work began, stable demographic conditions allowed for the production of reasonably accurate population estimates despite a shortage of reliable data. Since then, socioeconomic conditions have changed and data availability has lessened somewhat.

The CBR has used the housing unit method (HUM) or variants of this method to estimate population. The HUM requires three primary pieces of information: number of housing units, vacancy rate (defined broadly to include all vacant residences and residences not lived in year-round), and persons per household. Estimates of these three measures are available every 10 years from the decennial census.

The housing stock numbers have been regularly updated with information on housing starts or completions. Vacancy rates from the Phoenix Metropolitan Housing Study have been used to estimate the more broadly defined census vacancy rate. (The rates of other types of vacancies than those counted in the housing study — particularly seasonal units — were relatively steady historically.) No information is available on household size except from the decennial census, but for the first 200 years of this country's history, average household size steadily declined. Thus, reasonable assumptions regarding the change in household size could be made based on historical data. Further, since changes in net in-migration lag behind employment growth by several months to a year, the population estimates could be compared (and controlled as necessary) to the employment numbers.

Other methods exist to estimate population, but these methods largely require accurate "symptomatic" data such as school enrollment and drivers licenses. Historically, the accuracy of such data in Arizona has not been adequate to make population estimates of a reasonable quality.

The first factor to affect the quality of the population estimates was the elimination in the mid-1990s of quarterly vacancy rate by housing type data from the Phoenix Metropolitan Housing Study. This forced the CBR to make more assumptions regarding the vacancy rate, using the annual vacancy rate by type data and quarterly apartment vacancy rate data that remained available.

Another factor affecting the accuracy of the population estimates also began to have a significant impact in the mid-1990s. Until then, undocumented immigration had existed in relatively small and steady numbers. A combination of conditions (peso devaluation, a shortage of young Americans entering the workforce, and an employment boom in Arizona) caused a substantial increase in undocumented immigration. Though accurate counts of these immigrants are unavailable, historically such precise knowledge was not necessary when using the HUM. However, once the 2000 census became available, it was clear that this influx of immigrants had contributed to the rise in household size measured between the 1990 and 2000 censuses, making the assumption of slowly declining household size no longer acceptable. Further, the working status of the immigrants (a lower proportion working in the wage and salary jobs counted in most employment series) affected the historical relationship between population growth and employment.

A third factor complicating population estimation for Maricopa County has been of increasing importance since the late 1990s. Until then, although the Phoenix metropolitan area technically included Pinal County, the vast majority of residents lived, and new housing starts occurred, in Maricopa County. A substantial number of housing units occupied by people who work in Maricopa County now are being built in Pinal County, affecting the relationship between population and employment in Maricopa County. Thus, Pinal County no longer can be ignored when making population estimates for the urbanized area, but much of the county effectively remains separate from the Phoenix urbanized area and vacancy rate information for Pinal County is not available.

More recently, a new and unidentified fourth factor has had a significant impact on the relationship between population and employment. Since 2001, the number of new dwelling units in Maricopa County relative to job growth in the county has greatly exceeded historical norms. Yet vacancy rates have dropped despite this surge of new housing. The use of these housing stock and vacancy rate data results in estimates of population growth far in excess of the prior record — despite job growth just half that of much of the 1990s.

A combination of two conditions may have led to the strong housing market at the same

TABLE 1
POPULATION ESTIMATES AS OF JULY 1
In Thousands

	2000	2001	2002	2003
Arizona	5,165.8	5,297.7	5,441.1	5,580.8
Apache	69.2	67.8	67.5	68.1
Cochise	118.1	119.0	120.3	122.2
Coconino	116.6	117.5	119.9	121.3
Gila	51.4	51.3	51.5	51.4
Graham	33.5	33.5	33.2	33.1
Greenlee	8.5	8.4	7.9	7.5
La Paz	19.7	19.6	19.5	19.5
Maricopa	3,096.3	3,196.4	3,294.9	3,389.3
Mohave	156.2	159.9	165.5	171.4
Navajo	97.9	98.9	101.9	104.3
Pima	848.6	862.1	878.7	892.8
Pinal	181.4	186.9	194.7	204.1
Santa Cruz	38.6	39.1	39.7	40.3
Yavapai	169.0	173.7	179.0	184.4
Yuma	160.7	163.5	166.9	171.1

Source: U.S. Department of Commerce, Census Bureau

time that employment growth remains weak. First, the performance of the stock market in the late 1990s provided many households with substantial gains. The weakness in the stock market since 2001 has caused these investors to seek another type of investment with better returns. The influx of funds into real estate appears to have caused the high housing appreciation rates experienced over much of the country in recent years. Second, many of those households that have shifted their investments into real estate are either headed by adults approaching retirement age or by members of the baby-boom generation reaching early retirement age.

The investment in real estate may be taking one or both of two forms. First, some people may be purchasing second homes in the Phoenix area (and elsewhere in the country), intended for seasonal use while retaining their primary dwelling elsewhere. These people cannot be counted as residents of the Phoenix area. Second, others may be moving to the Phoenix area on a permanent basis without joining the local workforce, investing their gains in high-end housing and/or retaining those gains to live on in their early retirement. Some of these early retirees may be

supplementing their retirement/investment income by doing consulting work not counted in the employment figures; some may intend to rejoin the workforce later when the opportunity arises.

Unfortunately, no data exist to substantiate an increase in seasonal residents and/or early retirees in the Phoenix area. If these groups are responsible for the increase in housing unit absorption relative to job growth, average household size may again be declining, or not rising as fast as in the 1990s. However, this effect may be limited since the baby-boom generation is 40-to-58 years old and many still have their children living with them. Again, no data are available.

Even if the hypothesis that an increase is occurring in seasonal residents and early retirees proves to be correct, the relative importance of the seasonal resident versus retirement migrant stream is of significant importance to the estimation of the resident population. Again, data are lacking.

Thus, in combination with the earlier problems, the lack of data to support either an increase in the percentage of seasonal dwellings or an increase in the retirement population makes it impossible for the CBR

to issue accurate population estimates for the Phoenix area (and the rest of Arizona). The CBR is suspending all population estimates and projections.

Other sources of population estimates (annually) are the U.S. Census Bureau and the Arizona Department of Economic Security (DES). While the accuracy of the DES estimates also are affected by the factors discussed above, the Census Bureau has the advantage of accessing certain administrative records that disclosure laws preclude being released to others. Thus, the Census Bureau estimates [see Table 1] may be more accurate than those of the CBR or DES.

In coming years, data from the American Community Survey (ACS), which is now gearing up to be fully implemented, will enhance the accuracy of annual population estimates by providing more up-to-date estimates of household size and vacancy rates. Once the full ACS data have been available for a couple of years, the CBR will review the practicality and need to issue population estimates and projections.

— **Tom R. Rex**
Associate Director

Arizona Business Conditions Index jumps in September

The seasonally adjusted Arizona Business Conditions Index rose to 67.0 in September from 62.0 the previous month, a 8.1 percent increase. An index reading over 50 indicates the local economy is growing; below 50 suggests a slowdown in the overall level of economic activity in the near term.

ANALYSIS

Showing resiliency, the Arizona Business Conditions index maintained its place in the upper end of the range of growth where it has hovered for almost a year.

One of the more encouraging signs was the 9.2 point increase (to 67.8) in the employment component of the overall index. In August, the employment subindex had dropped significantly, from 67.6 to 58.6. The volatility is evidence that a single month's movement does not constitute a trend. The only component of the overall index to fall in September was production, by half a point. Still, it remained well above the critical 50-point mark, registering a level of 67.9.

The Price Index rose by 9.7 points to reach 73.3. Prices jumped in February of

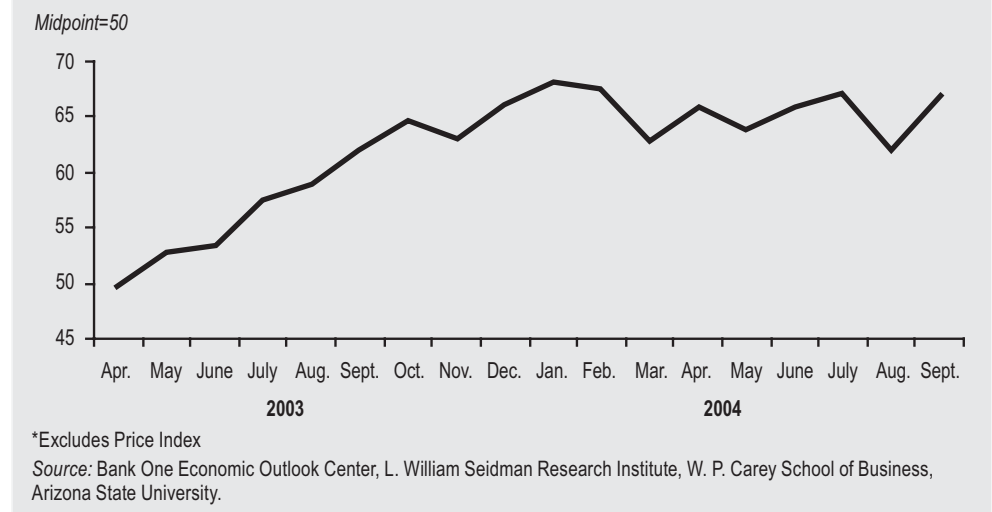
this year and have remained in the 70s since then, with the only exception being a sudden drop in August.

Fuel prices are among the primary drivers of higher prices, but aluminum products are also included. A flurry of activity at the maquiladoras (border manufacturing plants) in Mexico, especially in chemical products

that have also been seeing higher prices, indicates these price pressures may be driven by fundamentals within the market rather than speculative price inflation.

— **Dawn McLaren**
Research Economist
Bank One Economic Outlook Center

FIGURE I
ARIZONA BUSINESS CONDITIONS INDEX*





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Arizona State University vigorously pursues affirmative action and equal opportunity in its employment activities and programs.

A R I Z O N A E C O N O M I C I N D I C A T O R S

	Month or Quarter	Current Value	Previous Value	Percent Change Previous Period	Percent Change from Year Ago	Year-to-Date	
						Value	Percent Change from Year Ago
LEADING ECONOMIC INDEX (1987 = 100)							
Arizona	September	125.2	124.3 r	0.7	2.4	NA	NA
BUSINESS CONDITIONS INDEX							
Arizona	September	67.0	62.0	8.1	8.0	NA	NA
BUILDING PERMITS (Thousands of \$)							
Maricopa County	August	1,195,260	1,248,374 r	-4.3	38.3	8,747,384	34.8
Pima County	August	178,998	169,679	5.5	3.0	1,300,587	10.7
Balance of State	August	316,490	357,522 r	-11.5	21.0	2,534,141	27.2
Arizona	August	1,690,748	1,775,575 r	-4.8	30.1	12,582,112	30.3
TOTAL HOUSING UNITS AUTHORIZED							
Maricopa County	August	4,974	6,225	-20.1	25.2	39,899	30.0
Pima County	August	956	858	11.4	8.1	7,298	8.7
Balance of State	August	2,338	2,737 r	-14.6	26.4	18,839	25.3
Arizona	August	8,268	9,820 r	-15.8	23.3	66,036	25.9
HOME SALES							
Maricopa County – Number.....	August	17,480	13,180	32.6	80.8	107,370	38.1
Maricopa County – Median Price(\$).....	August	175,725	174,375	0.8	10.5	167,900	9.5
HOUSING AFFORDABILITY INDEXES							
Metropolitan Phoenix – New Homes	2nd Quarter	100	113	-11.5	-13.0	NA	NA
Metropolitan Phoenix – Resale Homes	2nd Quarter	112	127	-11.8	-14.5	NA	NA
MORTGAGE RATES (30-year Fixed)							
Maricopa County	September	5.6	5.6	0.0	-3.4	NA	NA
POPULATION ESTIMATES (Thousands)							
Maricopa County	1st Quarter	3,476	3,444	0.9	3.4	NA	NA
Pima County	1st Quarter	918	913	0.6	2.3	NA	NA
Balance of State	1st Quarter	1,365	1,353	0.9	3.2	NA	NA
Arizona	1st Quarter	5,759	5,710	0.9	3.2	NA	NA
RETAIL SALES (Millions of \$)							
Maricopa County	July	2,751	2,922	-5.9	10.5	20,047	9.5
Arizona	July	4,094	4,307	-4.9	9.6	29,460	9.0

Note: The above figures reflect the latest data available as of date of publication and are subject to revision.

NA = Not Applicable r = Revised

Source: Center for Business Research, Arizona Real Estate Center, and Bank One Economic Outlook Center, affiliates of the L. William Seidman Research Institute, W. P. Carey School of Business, Arizona State University. Retail sales data are from the Arizona Department of Revenue.