



Economicwatch

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BBVA USA Regional Economic Forecasts

- The BBVA USA states will grow faster than the rest of the U.S.
- Texas and Alabama exhibit stable, strong growth for the next three years
- GDP and employment growth in Texas will be solidly over 3% and 2%, respectively, both of which are above their U.S. averages for the past decade
- Demand for automobiles underlies economic growth in Alabama, which could be larger than predicted if demand strengthens
- The housing market downturn is less likely to affect Texas, Alabama and New Mexico; however, the housing market downturn may restrain growth in other states

The Foundations of the Model

Econometric models for the individual BBVA USA states* indicate that they remain some of the best for business activity. Despite the challenges in the credit market and the forecasted economic slowdown, the real growth rates in the primary BBVA USA states will be above the U.S. average.

Our regional econometric models rely on a Bayesian vector autoregression procedure. The BBVA USA model jointly forecasts employment and real personal income on a quarterly basis for each state. In addition to these state variables, we use three national variables in the model: real U.S. GDP, the GDP deflator, and the three-month treasury bill rate. Research revealed that these five variables work well to forecast all state economies.

The states in the BBVA USA region have experienced sustained economic growth over the past several years. During this time, there has been a nationwide increase (in some states a rapid increase) in home prices and construction. We thus decided to add housing market variables to the model to better explain the acceleration in state growth. In our model, we included a state home price index, and both state and national building permits.

Between 2002 and 2005, Arizona experienced a four-fold increase in the contribution of the housing sector to state GDP and Florida saw a three-fold increase. California had a two-fold increase between 2003-2004. The share of the construction sector in GDP reveals differences among the states. For

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Base Scenario State Growth Rates

	Real GDP (y/y % change)			
	2007	2008	2009	2010
AL	3.0	2.8	3.0	3.3
AZ	3.8	2.7	2.9	3.7
CA	1.9	2.2	2.8	3.2
CO	3.8	3.2	3.4	3.5
FL	3.9	3.8	4.2	4.5
NM	5.0	4.2	4.6	4.8
TX	3.3	3.6	3.7	4.1
US	1.9	2.2	2.6	2.9

Risk Scenario State Growth Rates

	Real GDP (y/y % change)			
	2007	2008	2009	2010
AL	2.7	2.0	2.6	2.8
AZ	3.6	2.1	2.3	2.8
CA	1.9	1.6	1.8	2.0
CO	3.4	2.9	2.3	2.0
FL	3.6	3.0	3.3	3.9
NM	4.6	3.0	2.8	2.7
TX	3.2	3.2	3.2	3.5
US	1.7	1.3	1.7	2.2

* For the purposes of this study, we define the BBVA USA region to include the following states: Alabama, Arizona, California, Colorado, Florida, New Mexico and Texas.

2006, the U.S. share was 4.9%, while in Arizona and Florida it was 7.8%. In Colorado it was 6.2%. The other states were similar to the U.S. average.

Not surprisingly, we found that housing variables improved the forecast accuracy of real personal income in Arizona, employment in Colorado, and both employment and personal income in Florida over the past three years. Our analysis confirms the increased contribution of the housing sector in these states.

In New Mexico, which has a large government sector, and the more diversified economies of California and Texas, the results were less conclusive, as housing market variables tended to slightly improve 1-4 quarter ahead forecast accuracy at the expense of the 5-12 quarter ahead accuracy. For Alabama, which has not experienced a rapid appreciation in home prices, we found that the housing market variables improved the forecast accuracy of employment during the past two years.

State GDP Forecasts

To arrive at a forecast of state GDP growth, we use the forecasts of employment, real personal income and real U.S. GDP growth rates. Certainly, the evolution of the U.S. economy has a direct and significant effect on the growth of the states. Because state GDP is only available at an annual frequency, we decided not to include it explicitly in our model.

On the first page, we present tables of state GDP growth rates in both the base and risk scenarios. Each scenario is defined by the forecasts of the real U.S. GDP growth that we obtain from a separate model of the national economy. These forecasts are included in the last row of these tables.

To the right, we present the state forecasts of employment, real personal income and GDP growth rates in the base scenario. The row labeled "ST GDP" (where ST is the state), is our forecast for the likely GDP evolution for the state. Some states include an "Upper" or "Lower" row. These forecasts represent other possible realizations for the state economy. For states without these designations, the difference between the upper and lower forecasts from the reported forecast was negligible.

Concluding Remarks

Overall, the BBVA USA region's outlook remains healthy for employment, personal income and GDP growth. The recent downturns in the mortgage market, home construction and prices pose significant risks to the growth of the Arizona, Colorado and Florida economies. GDP growth in these states will likely be restrained for the next two years, as a significant share of recent growth in these economies was due to the housing boom.

The growth prospects for Alabama and Texas look healthy. The major risk in Alabama stems from a reduction in demand for automobiles. The auto manufacturing industry contributed 2.2% of 2005 state output (versus 0.8% for the U.S. as a whole). This percentage has doubled since 2001. The housing downturn could reduce the aggregate demand for durable goods through a reduction in personal wealth and hence consumer spending. During a slowdown, consumers postpone durable goods purchases as they concentrate on their immediate needs.

Fortunately for Alabama, although auto sales would likely decline in a slowdown, the risk of a collapse is mitigated by the dominance of foreign auto manufacturers in the state, as foreign manufacturers are gaining market share in the U.S. The Alabama economy could grow even more robustly if demand for automobiles remains stable or increases.

A subsequent technical paper will detail our model and methods. References are available upon request from the author.

Alabama Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp**	1.6	1.3	1.2	2.1	2.5
Real PI	2.7	3.2	2.8	2.8	2.8
AL GDP	3.3	3.0	2.8	3.0	3.3
Upper		3.1	2.9	3.5	3.8

Arizona Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	4.9	2.5	0.6	0.8	1.4
Real PI	5.2	3.9	2.4	2.5	2.4
AZ GDP	6.6	3.8	2.7	2.9	3.7

California Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	1.8	1.1	1.0	1.3	1.6
Real PI	3.0	2.8	2.0	2.3	2.7
CA GDP	4.0	1.9	2.2	2.8	3.2
Upper		3.0	2.6	3.1	3.7

Colorado Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	2.2	1.4	0.8	1.0	1.0
Real PI	3.8	2.8	2.5	2.5	2.8
CO GDP	4.7	3.8	3.2	3.4	3.5

Florida Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	2.0	1.5	0.9	1.6	2.2
Real PI	3.7	3.2	2.4	2.9	3.4
FL GDP	4.2	3.9	3.8	4.2	4.5

New Mexico Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	2.9	1.7	2.0	2.0	2.0
Real PI	4.3	4.7	4.1	3.6	3.3
NM GDP	6.0	5.0	4.2	4.6	4.8
Lower		3.2	3.4	4.0	4.6

Texas Forecasts (y/y % change)					
	2006	2007	2008	2009	2010
Emp	3.0	2.2	2.4	2.4	2.5
Real PI	5.1	5.0	5.2	5.1	5.3
TX GDP	4.9	3.3	3.6	3.7	4.1
Upper		4.4	4.5	5.1	5.6

** Emp (Employment)
Real PI (Real Personal Income)