BBVA Compass

US Regional Watch

Economic Research Department

Fourth Quarter 2009

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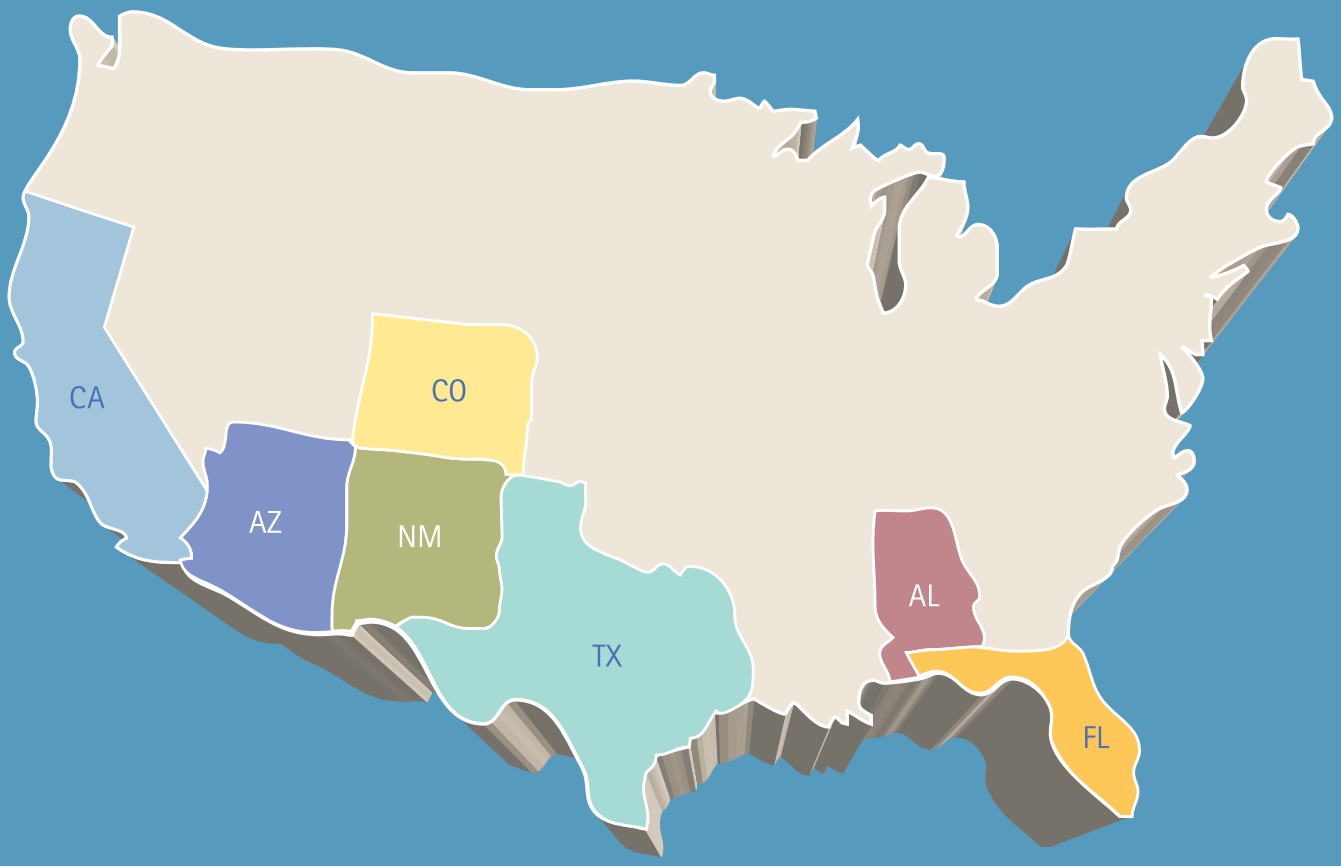

- Economic recovery will be gradual, in an environment of low inflation and stable interest rates
- In 2010, GDP growth in the BBVA Compass Sunbelt Region will exceed the average for the U.S.
- BBVA Compass Sunbelt Region will benefit from solid growth in emerging markets
- Long-term potential output growth in the Sunbelt Region will remain above the U.S. average

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Closing date: November 30, 2009

Fourth Quarter **2009**

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Editorial

Economic indicators suggest that the recovery process, which began in late summer, continued in the fourth quarter. In fact, the probability of a double-dip recession has diminished significantly and growth is expected to remain positive in the first quarter of 2010. This is consistent with our baseline scenario of sustained growth in 2010, but growth will be much softer than in previous post-recession periods. The uncertainty surrounding this outlook is still elevated as pressures on private consumption and investment are likely to persist.

Indeed, labor markets remain weak as the economy continues to lose more jobs than it creates and the unemployment rate is likely to remain elevated. In addition, modest income gains and reductions in debt levels will also continue limiting household spending. In an environment of excess capacity, weak demand and elevated uncertainty, firms could be reluctant to increase capital spending, which in turn will imply a slow rate of growth for non-residential investment. These trends suggest a period of higher output but moderate job creation leading to a "jobless recovery."

Positive news is likely to come from the export sector which will benefit the most from strong economic performance in emerging markets, mainly in Asia. In this issue we present an analysis covering those industries that have a possible advantage in this scenario, as well as the conditions in which states within the BBVA Compass Sunbelt Region are likely to benefit from these trends.

Excess capacity, elevated slack both in labor and product markets and moderate wage pressures have helped keep inflation expectations stable. Thus, we continue to forecast a period of positive but low inflation. In this environment, the Fed is likely to keep interest rates low for a considerable period of time, and the implementation of an exit strategy will be gradual depending on the strength of the recovery process.

At the state level, fiscal strains will continue for several more quarters and while the fiscal stimulus package is aiding state finances, the depth of the contraction in revenues and pressures on spending are likely to result in elevated fiscal gaps. In this issue we present an update on state finances which confirms these perspectives.

Our mid-term perspective has also weakened somewhat. We have revised our estimation of potential GDP for the U.S. downward, primarily as a result of softer employment and productivity gains. While these forecasts are subject to great uncertainty, in all likelihood potential output growth is likely to be lower than in the previous decade. At the state level, we present our results confirming this perspective. Yet, the analysis indicates that the BBVA Compass Sunbelt Region will continue to benefit from stronger performance than the national average.

We hope you enjoy reading this issue.

Sincerely,
Nathaniel Karp
BBVA Compass U.S. Chief Economist

Global Outlook

The global economy has entered a more positive phase since the last publication of the *US Regional Watch*. The free fall in economic activity has fortunately moderated, and in the second half of 2009 most economies have attained positive growth rates.

This reversal is attributed to the success of stimulus measures adopted on a global scale, both on the monetary and fiscal front. Official rates have decreased substantially in the vast majority of countries and a wide range of non-conventional measures have allowed a partial restoration of liquidity/credit conditions. Regarding fiscal policy, the large stimulus programs provided a significant impulse to key sectors, and a positive boost to household income.

Given the role played by economic policies in stabilization, the main risk for the global economy in the short-term lies in the appropriate timing and design of the unwinding of these measures. Doubts remain about whether private demand can take over the lead as the driver of the recovery. A complete restoration in the growth of internal demand is unlikely to occur for a few reasons. First, a very important factor in the strength of demand was excessive recourse to debt, a feature that is highly improbable in coming years. Also, the expected evolution of labor markets, where continued job loss is still very significant, will halt private expenditure.

Financial markets improve on the back of a recovery in risk appetite and ample liquidity

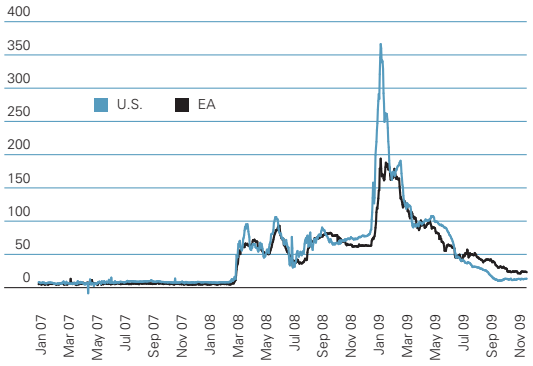
Advances in the stabilization of financial markets have continued in the second half of 2009. Liquidity injections pursued by the main central banks have been highly successful in containing tensions in interbank markets. This area has proceeded faster and OIS spreads now stand very close to their pre-crisis levels. This evolution, however, remains strongly dependent on the support afforded by central banks, and a premature withdrawal could reverse previous gains.

Trends in other markets have also been positive for most asset classes, with increasing signs of stabilization. Stock markets originating from the strong gains observed since the lows reached in March have moderated their pace in the last months. Credit market spreads, which noticeably improved in 2Q09, have lost steam since the summer. In fixed income, yields of sovereign debt have shown a remarkable upward resilience, despite the positive evolution of more risky investments. This pattern is mostly explained by the expectation that official rates will remain very low for a protracted period. Also, despite very low short-term interest rates, market participants remain concerned about the foundations of the ongoing recovery and these concerns have kept risk aversion high by historical standards. Both factors have facilitated the absorption of record high volumes of sovereign debt with limited pressures on long yields.

Emerging economies are a driver of global growth

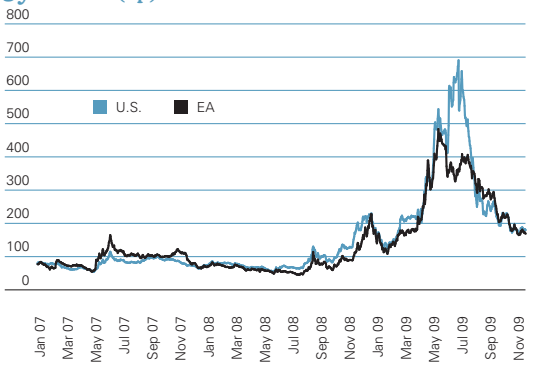
After a highly synchronized fall in activity in late 2008 and early 2009, the ongoing recovery is very heterogeneous across regions. Incoming data confirms that emerging markets' economic activity is clearly on a stronger path, a situation that is explained by the combination

Interbank Markets: 3 Month Rates Spread (3M LIBOR-3M OIS)



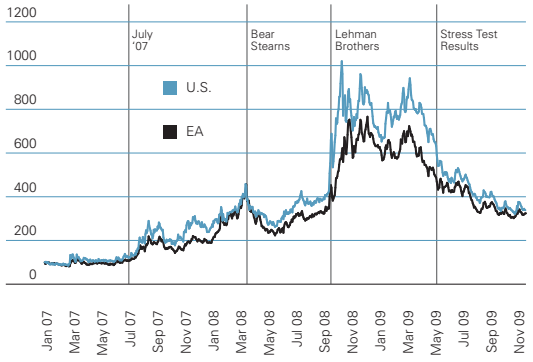
Source: BBVA ERD

Corporate Risk Index: Non Financial 5yr CDS (bp)



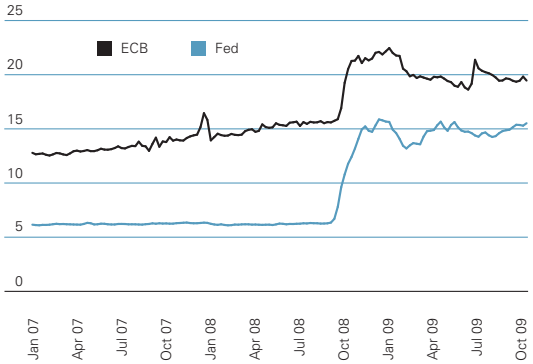
Source: Datastream

Financial Tensions Indicator (100 = January-07)



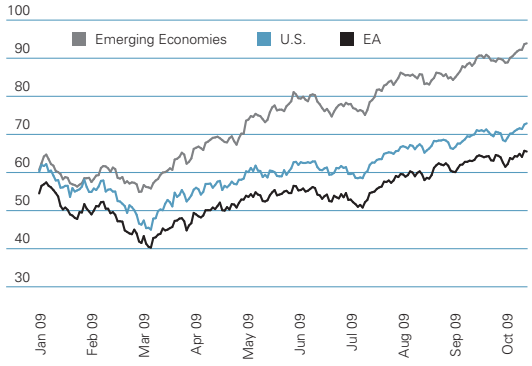
Source: BBVA ERD
First normalized principal component of the following series: OIS spread, implicit volatility & banking and corporate CDS spread

Central Banks: Total Assets (% GDP)



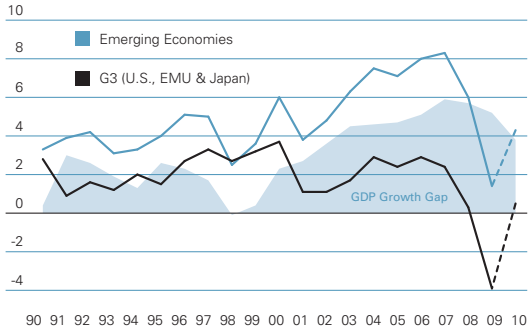
Source: Datastream

U.S., EA & Emerging Economies: Equity Markets (July 2007=100)



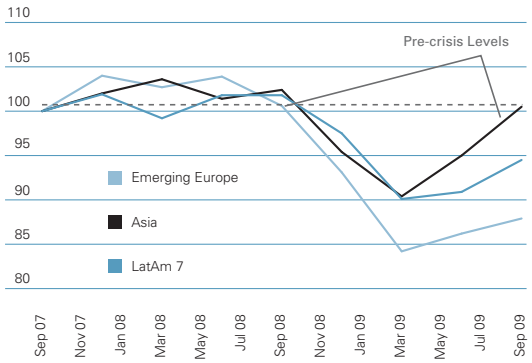
Source: Bloomberg & MSCI

Emerging Economies & G3: GDP Growth (YoY %)



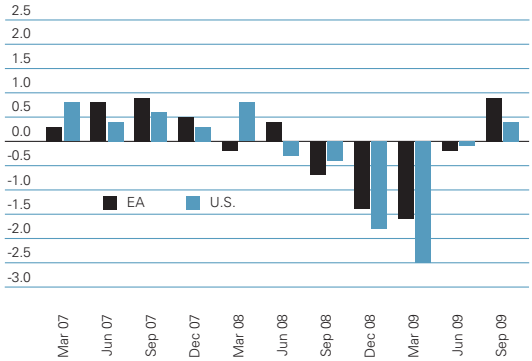
Source: BBVA ERD

Emerging Countries: Industrial Production (Index, 2007:3=100)



Source: Bloomberg

U.S. & EA: GDP Growth (QoQ %)



Source: BBVA ERD

of several factors. First, most of these countries were less exposed to the causes that originated the financial crisis. Also, they were able to use their monetary and fiscal policies to counteract the negative pressure on demand, and they did so to an extent that had not been possible in previous crisis periods. This impulse has lately been reinforced by the gradual recovery in global trade and commodity prices in the second half of 2009. These factors were, to a large extent, a direct consequence of previous efforts by emerging markets to implement sound economic policies aimed at macroeconomic stability. The continuation of these factors in 2010 make it likely that the growth gap between developed and emerging markets will widen in the future.

Among emerging markets, the indications of a recovery in economic activity are by now very clear, but not to the same extent in every region. The Chinese economy managed to show impressive growth in 3Q09 (8.9% year-over-year (YoY)) after a massive stimulus implemented through rapid increases in bank lending and fiscal expenditure. Other Asian economies are experiencing significant recoveries in the pace of activity, even if not as fast as the turnaround in China. Most Latin American countries returned to positive growth, and further acceleration is likely in 2010. Eastern European countries, however, face a more complicated situation. The depth of the activity adjustment has generally been larger, and the existence of significant financial and macroeconomic imbalances before the crisis complicates the adoption of economic policies to alleviate it.

The Euro area economy, for its part, experienced positive growth in 3Q09 (0.4% QoQ), following temporary boosts in consumption demand and improving contributions from exports. Inflation remains low with the core measure printing below 1% as excess capacity continues to exert downward pressures on price fixation. Nevertheless, the risk of a more persistent drag in prices is now lower and the European Central Bank is in the early phases of withdrawing the emergency support measures adopted after the collapse of Lehman Brothers. Bank restructuring efforts continue and the first measures aimed at correcting the competitive distortions introduced by national bail outs are being adopted. The most likely scenario for 2010, however, remains one of moderate growth as cyclical forces tend to have a larger degree of persistence in the Euro area economy and some countries will start decreasing the size of their fiscal support.

The challenge posed by global current account imbalances and fiscal consolidation remains to be solved

The continuation of growth hinges on attaining a successful rebalancing of saving and investment patterns, both at the global and domestic levels. The trends that resulted in accumulation of very large external imbalances should be reversed if the ongoing recovery is to transform into a period of sustained growth. Private consumption should accelerate in those economies with large external surpluses, whose growth has been based on depreciated exchange rates, reserve accumulation and high saving rates. This process involves difficult challenges, particularly in avoiding an abrupt realignment of exchange rates. On the other side, the U.S. and other developed economies will have to adjust their saving upwards, a process that has already started but whose continuation is still uncertain.

U.S. Economic Outlook

At this time last year, the economy was sinking deeper into recession and was flooded with speculation that the U.S. could be spiraling into a second great depression. In 4Q09, it is clear that the worst of the recession has passed; the economy expanded in the third quarter, financial conditions are stabilizing, residential investment grew for the first time since 2005, consumer spending is picking up and business inventories are more in line with sales. Nevertheless, the economy is still weak, the unemployment rate broke 10% for the first time since 1983 and many challenges lie ahead. As a result, we are anticipating low growth in 4Q09 and throughout 2010.

While there are indications that household demand is resuming, the most significant hurdles to a strong recovery will target personal consumption expenditures. While job destruction is slowing, it is still prevalent, and job creation will likely be minimal. Furthermore, many households are still whittling down their debt and credit standards remain high for those that seek it. As a result, credit outstanding in the market dropped by more than $100bn in 2009. These factors will continue to constrain consumption in 4Q09 and 2010.

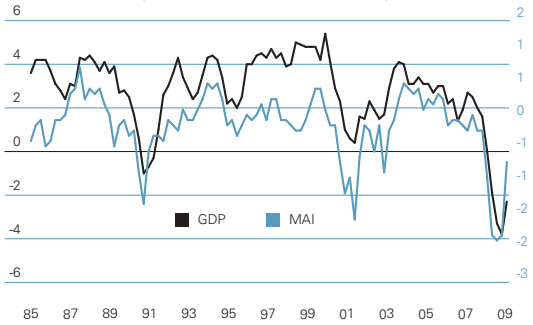
Growth in residential investment exceeded expectations in 3Q09 and is expected to continue to rise, albeit modestly. Low prices, attractive mortgage rates and the extension of the home buyers' tax credit will support demand, which will prompt more construction. On the other hand, the deterioration of commercial real estate fundamentals is eroding business investment in structures as credit is extremely limited. However, the negative impact to non-residential investment will be softened by further growth in the equipment and software component as businesses are motivated by cost-savings to replace technology.

Recent trends in international trade have shown that both domestic and foreign demand is recovering. While the latest data show that growth in imports has surpassed that of exports, the trend is expected to shift in the near future as recovery in emerging markets stimulates demand for exports. As a result, net exports could contribute to GDP growth.

Inflation is expected to remain low but positive. Although economic activity is increasing, it is emerging from a level so low that abundant resource slack will counteract upward pressures from fiscal and monetary stimuli. Businesses are operating at approximately 71% of capacity and the unemployment rate is expected to remain above 10% into 2010. As a result, wages, producers' primary cost, have dropped well below last years' levels. With producers' non-wage costs low as well, they are able maintain a profit without raising prices.

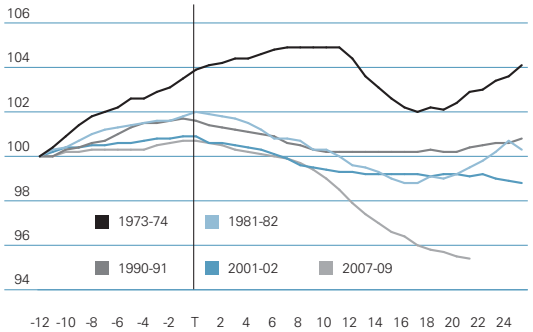
Given the slack in the economy, the Fed is expected to gradually wind down the monetary stimulus. The strategy is anticipated to focus first on the withdrawal of quantitative easing and then on raising rates. The Fed has been transparent in the tools it has available including: the wind-down of short-term lending, paying interest on reserves, time deposits for depository institutions, reverse purchase agreements and runoffs and asset sales. These expectations warrant the FOMC maintaining the target interest rate at 0.0-0.25% for a prolonged period, which is consistent with its message.

BBVA U.S. Monthly Activity Index & Real GDP (Index 2004-07=100 & %)



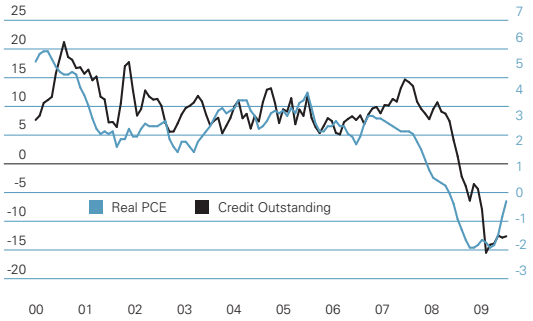
Source: BBVA ERD & BEA

Non-Farm Payrolls
(Index, T-12 months=100, T=start of recession)



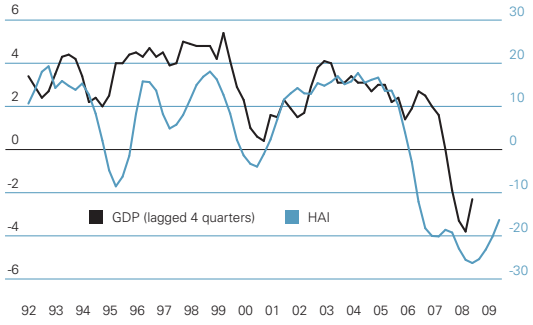
Source: BLS & BBVA ERD

Consumer Credit Outstanding & Real Personal Consumption Expenditures
(3mma of total change in $bn, 3mma YoY % change)



Source: Federal Reserve Bank & BEA

BBVA Housing Activity Index & Real GDP
(4-Q % change)

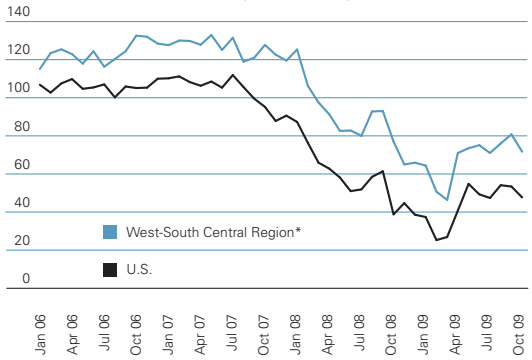


Source: BBVA ERD & BEA

BBVA State Monthly Activity Index: Texas (3mma)

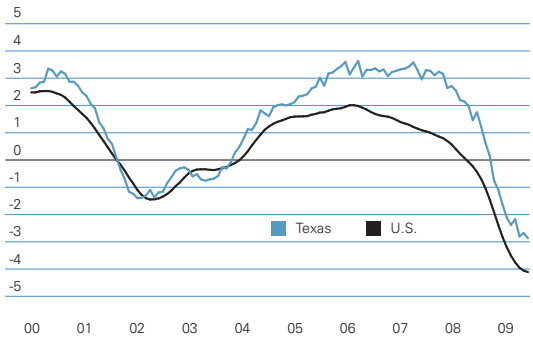
Source: BBVA ERD

Conference Board Consumer Confidence Index (1985=100)



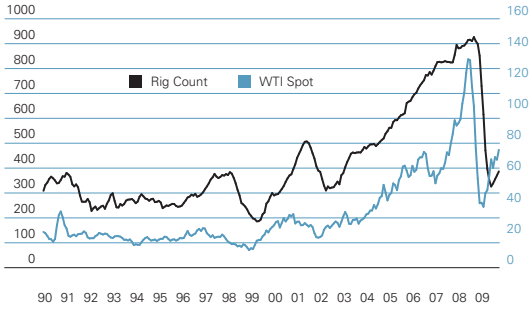
* Includes Texas, Arkansas, Louisiana and Oklahoma
Source: http://www.texasahead.org/economy/

Non-Farm Payroll (12-month % change)



Source: BLS

Oil Prices & Rotary Rig Counts ($ per barrel & units)



Source: Federal Reserve Bank of Dallas with data provided by Baker Hughes

Recent economic indicators suggest that the economy has stabilized. The BBVA Compass Monthly Activity Index rose to -3.12 in 3Q09 compared to -3.17 in 2Q09. The index has been in negative territory for sixteen consecutive months, suggesting that GDP will most likely contract in 2009. This trend is confirmed by the Texas Business Cycle Index, which has declined for fifteen straight months. However, the Dallas Fed Leading Index improved recently, suggesting better economic conditions in the near future.

Consumer spending showed a modest improvement in 3Q09. In fact, when adjusted for price changes, monthly retail sales have grown steadily since the second quarter; although they remain below the levels observed a year ago. Anecdotal evidence compiled in the Fed's Beige Book described sales as "soft but more in line with expectations." The Conference Board Consumer Confidence Index for the Southwest Central Region improved for the second straight quarter, averaging 76.2 in 3Q09, well above the 51.8 for the U.S. In October, the index slowed to 71.7, which remains higher than the U.S. average[1]. This suggests that consumer spending could improve in the near future.

Job losses tempered during the third quarter, suggesting that the worst of the adjustment is over. In fact, both mass layoffs and the number of initial claimants declined in 3Q09 compared to the levels registered in the first half of the year. Non-agricultural employment fell by 72,700 from -95,200 in 2Q09. Early in 4Q09, non-farm payroll increased by 41,700. From October 2008 to October 2009, Texas experienced a net lost of 253,400 non-agricultural jobs, with a third related to trade, transportation and utilities. In addition, the unemployment rate reached 8.3% in October, the highest rate since July 1987. However, even at this elevated level, Texas unemployment remained below the U.S. average. Meanwhile unemployment insurance claims moderated substantially, though they remain above historical levels.

Activity in the energy sector rebounded modestly. As of November 18, the West Texas Intermediate spot price had increased to $79.4 per barrel from a low of $39.2 in February. In addition, natural gas prices increased to $4.02 per million of BTU, the highest level since February. According to the Energy Information Administration (EIA), cooler weather in the Midwest and smaller-than-expected increases in inventories and pipeline maintenance helped boost prices in October. These developments have spurred energy activity in Texas. In fact, rotary rig count[2] increased to 387 from a low of 326 in July. A relatively small improvement compared to the levels of the previous year when both oil prices and rig count reached a peak at $134 per barrel and 926.5, respectively. Looking ahead, activity in the oil industry is likely to show continued improvement as futures discount further price increases over the next two years. Likewise, the EIA estimates that natural gas prices will increase in the next months although they are likely to remain low due to large storage levels.
The global economic downturn has taken its toll on Texas' interna-

1 Source: http://www.window.state.tx.us
2 Source: Federal Reserve Bank of Dallas with information provided by Baker and Hughes.

tional trade. Exports of manufactured goods contracted 16.7% in 3Q09, down from 24.6% in 2Q09. Although the sharp decline in both domestic and external demand has impaired manufacturing activity, the Industrial Production Index increased 0.1% in 3Q09 following two consecutive quarters of decline. In October, the Texas Manufacturing Outlook Survey[3] showed that production, capacity utilization and new orders continued to decline. Yet, the share of participants reporting no change is increasing, suggesting that manufacturing activity has probably reached its bottom. Moreover, prospects for the next six months have improved considerably.

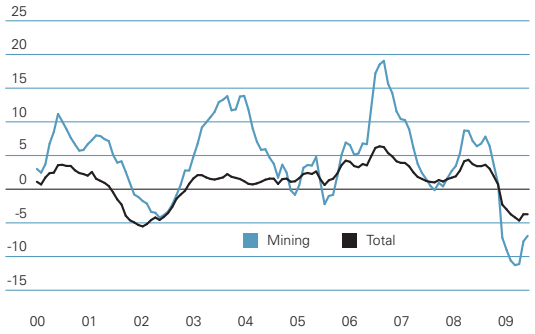
In the housing market, single-family building permits have increased steadily since May. In 3Q09, 17,598 single-family permits were issued, which is 17.8% more than the previous quarter but 2.9% less than the same period a year ago. Meanwhile, existing home sales increased 9.8% in 3Q09, the second consecutive quarterly increase. The Federal Housing Finance Agency Purchase-Only Index remained unchanged in 3Q09 from a year earlier. In October, Texas experienced 11,798 foreclosure filings, down from 13,216 in the previous month. The foreclosure rate remained fairly stable at 1 in every 799 housing units[4], significantly lower than that of Florida (1/167), California (1/155) and Arizona (1/199). As a result, the Texas foreclosure rate ranked 28th in the nation. In future quarters, the foreclosure rate could decline as the labor market stabilizes.

Future inflows of federal aid will have a positive impact on Texas' economic activity. As of November 8, 2009, $13.729 billion was awarded to the state as part of the American Recovery and Reinvestment Act. From this amount, $4.232 billion was received and $4.147 billion was spent.[5] This suggests that there is still room for further increases in federal aid that most likely will support the recovery process.

We expect the economy to contract by 0.4% in 2009 and to increase by 2.2% in 2010. In the next few quarters, ongoing tax credits for first-time home buyers, and now for repeat buyers, will continue to support activity in the housing sector. The expected recovery in external demand, particularly in emerging economies, will also provide a boost to overall economic activity. In addition, the state will continue to benefit from fast-growing sectors such as education, high-tech and healthcare services. There are some possible downside risks to our economic baseline. Primarily, a softer-than-expected recovery in the rest of the U.S. could result in a slower pace of expansion. Moreover, Texas is vulnerable to lower-than expected growth in top trading partners like Mexico, Canada and China. Finally, potential legislation from the American Clean Energy and Security Act of 2009 that intends to implement a cap and trade system to control carbon emissions could increase production costs for the energy industry, resulting in job losses. These risks are still contained and, although Texas has not been immune to the recession, we expect it to continue outperforming the rest of the nation.

3 Source: Federal Reserve Bank of Dallas
4 Source: Realty Trac
5 Excluding the stimulus for local Texas governments and other non-state entities. Source: http://www.window.state.tx.us/recovery/

Industrial Production
(12-month % change)

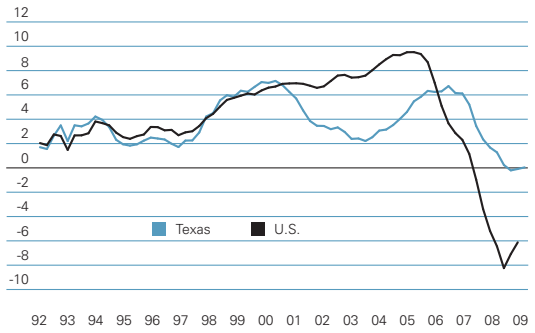


Source: Federal Reserve Bank of Dallas

Exports of Goods
(12-month % change)

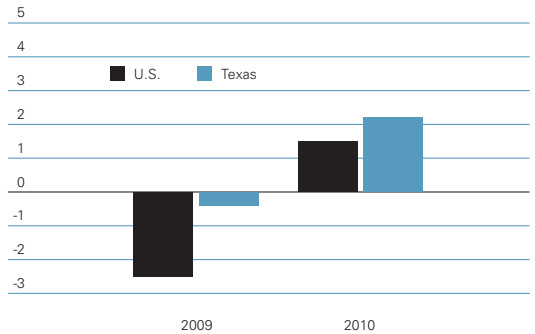
Source: Wisertrade

FHFA Home Price Index
(1991=100)



Source: FHFA

U.S. & Texas GDP Forecast
(YoY % change)

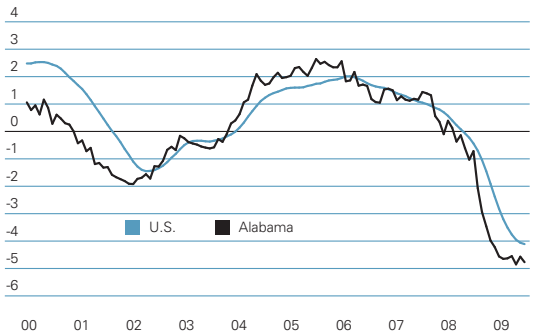


Source: BBVA ERD

BBVA State Monthly Activity Index: Alabama (3mma)

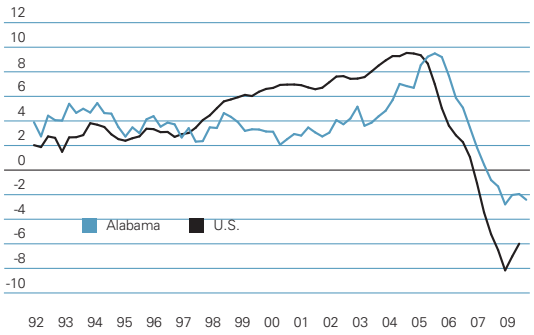
Source: BBVA ERD

Non-Farm Payroll (12-month % change)



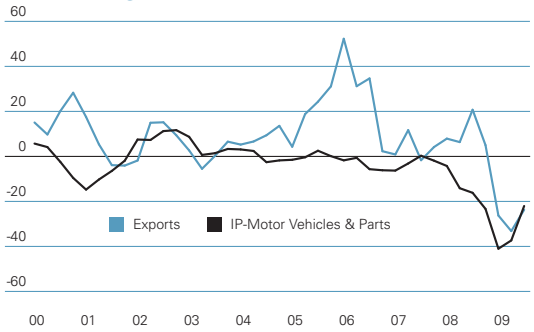
Source: BLS

FHFA Home Prices Index (1991=100)



Source: FHFA

National Industrial Production & Alabama's Exports (YoY % change)



Source: Federal Reserve Bank & Wisertrade

Economic conditions in Alabama are likely to improve slowly over the next few quarters, as suggested by the BBVA State Monthly Activity Index (SMAI), which jumped to -2.52 in 3Q09 from -2.82 in 2Q09. The SMAI trend is consistent with GDP contraction in 2009; however, third-quarter readings show that the worst is probably over.

Domestic demand could stabilize in the coming quarters. Non-agricultural employment increased by 3,600 jobs in October, the largest increase in a year. In addition, the Fed's six-district[1] Beige Book indicated that approximately half of participants anticipated "increased sales over the next three months". The housing market showed mixed results in 3Q09. Home prices continued to decline. The FHFA Purchase-Only Index dropped -2.4% YoY in 3Q09 (the second lowest reading on record), while existing home sales fell 9.6% YoY in 3Q09. However, building permits' six-month moving average has stabilized, suggesting that the market is close to bottom.

But despite these signs of stabilization, an eventual recovery is likely to be slow. October's employment gains are still limited to a few industries and total non-farm payroll is 4.8% below the levels of 2008, a faster decline than the national average. Meanwhile, excess capacity continued to increase as the unemployment rate reached 10.9%, well above the U.S. average.

Another element that suggests a slow upturn is Alabama's high dependency on manufacturing - an industry that has been severely impacted by the global recession. In fact, from October 2008 to October 2009, this sector shed 11.8% of its workforce, most of them in the motor vehicle and parts industry. Although early in 3Q09, the Cash for Clunkers program gave a significant boost to the auto industry, October's figures proved that this shock was transitory. In fact, nation-wide industrial production of motor vehicles fell 1.6% in October, while auto sales are 22% below Augusts' levels.

The international scope of the recession has also affected Alabama's exports of transportation equipment, which account for one third of total exports of goods and dropped 29% in 3Q09. Almost one third of total Alabama's exports of goods go to Germany and Canada, economies that are also likely to experience a slow growth path in the coming years.

In conclusion, we expect the economy of Alabama to contract at a rate similar to that expected for the U.S. in 2009. Although economic stabilization is in progress, the recent evolution of labor markets, together with a significant dependency on manufacturing, suggests that recovery is likely to be gradual. As a result, we expect the economy to expand at a slower rate than the U.S. in 2010. Going forward the state will continue benefiting from significant investments in the auto, military and aerospace industries. For instance, on December 2, Daimler announced plans to move production of the C-Class sedan to its Mercedes-Benz U.S. International plant. This movement is expected to add 1,000 more jobs to the economy of Alabama by 2014.

1 Includes Alabama, Florida, Georgia, and parts of Louisiana, Mississippi and Tennessee

California Economic Outlook

Overall, the economy of California remains weak. The unemployment rate reached 12.5% in October, the highest on record. Meanwhile, preliminary estimates showed that taxable sales decreased 3.8% in 2Q09[1], in line with anecdotal evidence recorded in the Fed's Beige Book[2] that depicted retail sales other than autos as "little changed on net." Nevertheless, the worst of the adjustment seem to be over as pointed out by the BBVA State Monthly Activity Index, which increased to -1.92 in 3Q09 from -2.33 in 2Q09. The index has moved up steadily since 1Q09, suggesting that economic activity is likely to improve further in the next few quarters.

In fact, non-agricultural employment experienced a net increase of 25,700 jobs in October, the first positive reading in almost two years. Although gains were widespread among services, they were partially offset by declines in construction, manufacturing and mining. In addition, initial unemployment insurance claims have also eased, suggesting that job destruction has probably bottomed out and that positive developments are likely in the coming months.

A similar trend is occurring in the housing market. Favored by tax incentives, declining prices and low interest rates, the market is getting better, albeit at a slower pace. Existing home sales continue to increase on a year-over-year (YoY) basis, while permits' trend[3] has flattened, suggesting that the downward adjustment is probably over. In 3Q09, home prices decreased 7.7% YoY from -15.5% in the previous quarter[4]. Things are different in the commercial real estate market where vacancy rates were, on average, 29.7% higher than in 3Q08, this rate is also above the national average of 24.3%[5].

Activity in the high-tech manufacturing industry went up in 3Q09. Production increased 2.6%, the first positive reading in more than a year. Meanwhile new orders of computers and electronic products rose 2.3% in 3Q09 for the second consecutive quarter, anticipating further production in the coming months. Going forward, activity in this sector will be supported by the recovery in fast-growing emerging economies.

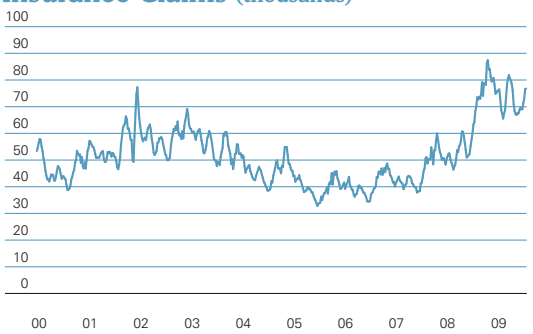
The intensity of the state's housing burst and the global recession will cause California's GDP to decline more sharply than the national average in 2009. However, we expect GDP to rebound in 2010. Growth will be supported by better affordability conditions in the housing market and a fast recovery in emerging economies that will boost exports, especially of high-tech products. Risks are tilted to the downside. Sub-optimal credit conditions and slower-than-expected employment growth could limit the recovery. Moreover, the economy could also be affected by lower-than-expected growth overseas. Finally, the ongoing budget crisis has the potential to cloud the outlook for California. In particular, further spending cuts on critical areas such as education and health care could damage productivity growth, eroding one of the state's most important competitive advantages.

1 California Department of Finances, http://www.dof.ca.gov.
2 Federal Reserve Board, http://www.federalreserve.gov/FOMC/BeigeBook/2009/20091021/12.htm
3 Calculated as the six-month moving average
4 Federal Housing Finance Agency, www.fhfa.gov
5 California Department of Finances

California: State Monthly Activity Index (3mma)

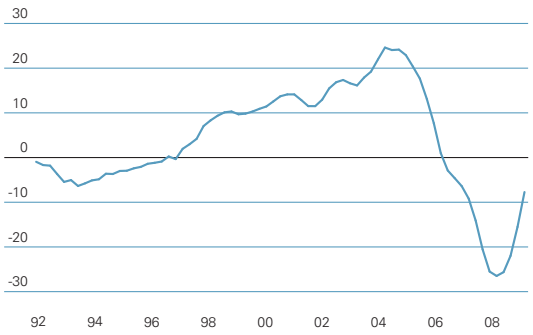
Source: BBVA ERD

California: Initial Unemployment Insurance Claims (thousands)



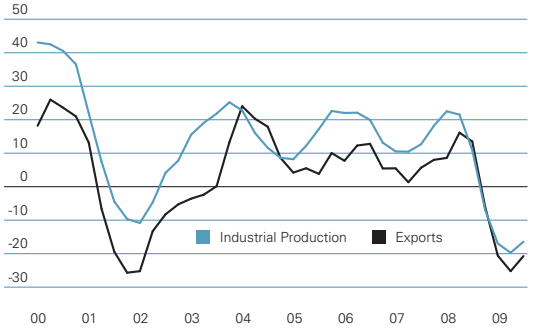
Source: BLS

Home Price Index (Purchase only, 4Q-4Q % change)



Source: FHFA

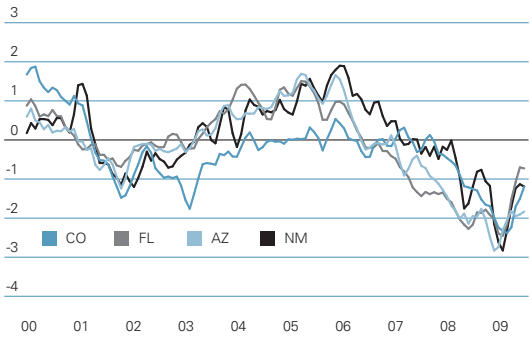
National High Tech Industrial Production & California's Exports of Goods Units (4Q-4Q % change)



Source: Federal Reserve & Wisertrade

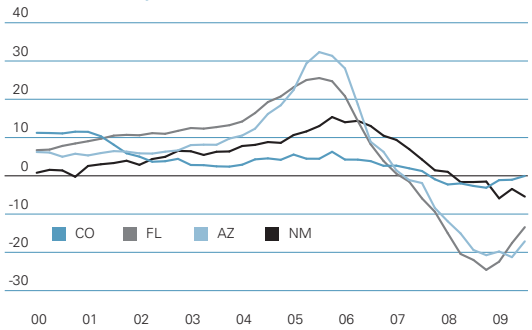
Arizona, Colorado Florida and New Mexico Economic Outlook

State Monthly Activity Index
(3mma)



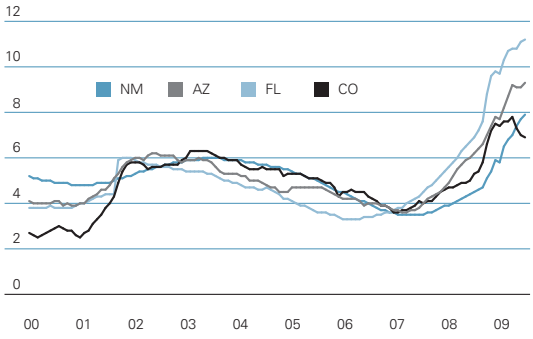
Source: BBVA ERD

Home Prices
(Purchase-Only, 12-month MA)



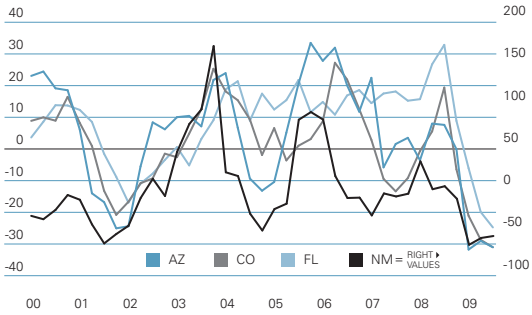
Source: FHFA

Unemployment Rate
(%)



Source: BLS

Exports of Goods
(12-month % change)



Source: Wisertrade

Overall, economic conditions in Arizona, Colorado, Florida and New Mexico remain weak. The State Monthly Activity Indices anticipate GDP contraction in 2009, although recent improvements suggest that the downward adjustment has probably come to an end.

Arizona:

The economy added 2,000 jobs in October; however, non-agricultural employment declined 6.5% from 2008. Economic slack continued to increase as the unemployment rate reached 9.3% in October, albeit well below the U.S. average. Home prices continue to decline substantially, although at a slower pace. In 3Q09, existing home sales increased on a YoY basis due to better affordability conditions. Meanwhile, exports decreased 31% YoY, the second lowest rate on record. Due to the depth of the housing downturn, Arizona's economy will contract more than the U.S. in 2009, with a slow recovery, thereafter, supported by further improvements in the housing market and a gradual recovery in the rest of the nation.

Colorado:

Contrary to conditions in the rest of the country, Colorado's unemployment rate is decreasing. In October, it declined to 6.9% from a peak of 7.8% in July. Home prices remained unchanged in 3Q09, although construction and sales continued to deteriorate compared to the previous year. International trade remained subdued as exports declined 31% on a YoY basis. Nonetheless, due to its well diversified, open and high-value-added oriented economy, Colorado will end 2009 in a better position than the nation as a whole. This will also allow the economy to take advantage of the recovery process and experience a growth rate similar to the U.S. in 2010.

Florida:

Similar to other areas in the BBVA Compass Sunbelt Region, job losses have moderated significantly. However, the unemployment rate continued to increase, reaching 11.2% in October, well above the U.S. average. Home prices are still falling at double digit rates (YoY), although at a slower pace. Declining prices and low interest rates resulted in existing home sales increasing by 36% YoY in 3Q09. Yet, the adjustment in building permits hasn't reached the bottom yet. In addition, exports continued to decline, affected by the global recession. Although Florida will experience a sharp contraction in 2009, recovery is likely to occur at a faster rate than in the U.S. due to the state's internal strengths such as diversification and trade openness.

New Mexico:

The economy is still contracting, although at a slower pace, according to the SMAI. Job losses eased on a YoY basis and the unemployment rate jumped to 7.9%, still below the national average. New Mexico exports experienced the sharpest drop within the Sunbelt Region declining by -53% in 3Q09. Home prices fell further in 3Q09, but existing home sales increased on a YoY basis for the first time in more than three years. A relatively mild housing adjustment and a lower-than-average unemployment rate will cause New Mexico's economy to contract at a slower rate than the U.S. in 2009. For 2010 the economy is expected to grow at a rate slightly below that expected for the U.S. economy.

Exports: Trends at the State Level

An Integrated World: The BBVA Compass Sunbelt Region Will Benefit from Growth Abroad

U.S. consumer demand, which has long been a source of growth for emerging markets, is expected to remain weak throughout the beginning of the recovery. Emerging market countries, particularly those in Asia and Latin America (LATAM), are leading the global recovery. They are surfacing from the recession much faster than the G3, which includes the U.S., European Union and Japan. As a result, the trade dynamic between the U.S. and the developing world could about-face. Emerging markets could become a source of growth for U.S. exports, increasing this component's contribution to economic growth.

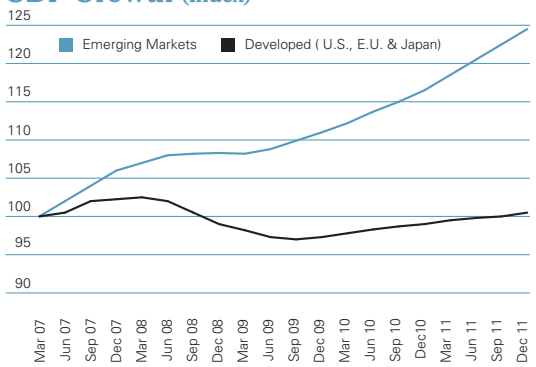
China and India are expected to lead the global recovery with forecasted average growth rates of 9.1% and 7.3% respectively for 2010-2012. These countries, with their robust, fast growing populations of over 1 billion, have the potential to experience strong growth in domestic demand. Combined with the rest of Asia, the region is expected to grow at an average rate of 5.0%, followed by LATAM, which will grow at an average rate of 3.5%

The U.S. is in an ideal position to take advantage of growth in LATAM and Asia because the economy is open and increasingly outward looking. While total exports were only 3.8% of GDP in the first quarter of 1954, they developed to make up 13.2% of GDP in 3Q08, which was the peak before the recent crisis eroded global demand. Furthermore, the percentage of exports of goods to Asia and LATAM has risen to 38.6% in 3Q09 from 30.3% in 1Q97. In fact, the percentage of exports to these emerging market countries rose to its peak levels from 4Q08 to 3Q09 while total exports were declining in the midst of the global recession.

The Sunbelt Region in particular is in a good position to take advantage of growth in emerging markets. Excluding California, the regions' share of exports has remained steady between 32% and 35% of total U.S. exports from 1997 to 2008. Including California, the region's share increases to 43% according to 2008 data, but the historical trend has declined due to a sharp drop in California's exports to Asia and LATAM from 44% in 1997 to 9% in 2008.

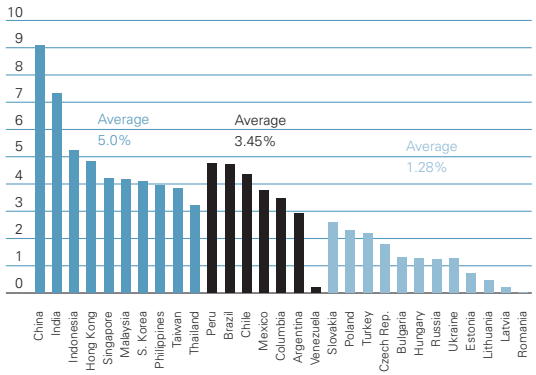
Furthermore, some of the states within the Sunbelt Region are more outward looking and better positioned to take advantage of growth abroad. The contribution of exports to GDP in Alabama, Florida and Texas is growing on an annual basis, while the same ratio in Arizona, California, Colorado and New Mexico is declining or remaining flat. Texas and Florida could benefit the most given their share of exports, 24% and 6% respectively, to Asia and LATAM and their openness to trade. California, on the other hand, has an 8% share of exports to the regions.

Developed & Emerging Markets: Real GDP Growth (Index)



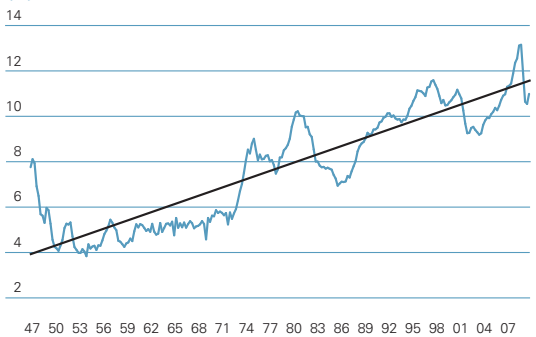
Source: BBVA ERD

Real GDP 2010-2012 Average Forecast (YoY % change)



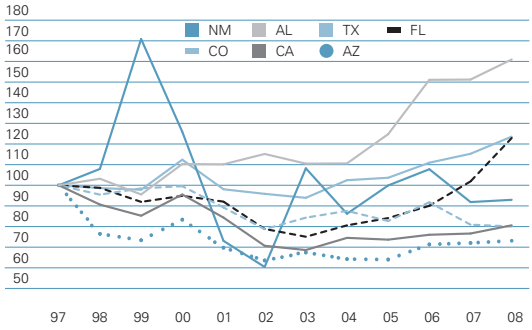
Source: Bloomberg, World Bank, IMF & BBVA ERD

U.S. Exports Share of GDP (%)



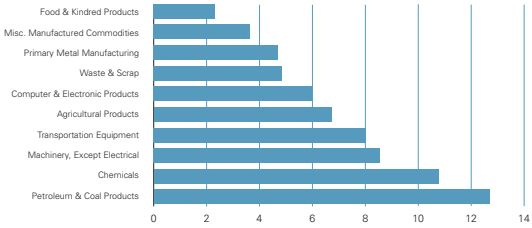
Source: BBVA ERD & BEA

Ratio of Exports of Goods to GDP
(Index, 1997=100)



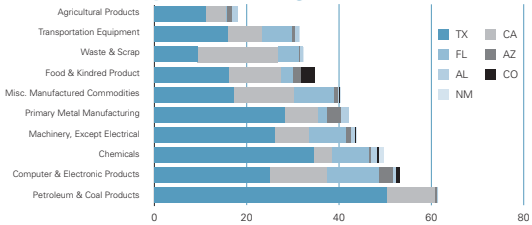
Source: Wisertrade, BEA & BBVA ERD

Projected Export Growth to Asia & LATAM in 2010-12
(Billions of dollars)



Source: BBVA ERD

Sunbelt Exports to Asia & LATAM
(as % of U.S. exports to the region)



Source: Wisertrade

The BBVA Compass Sunbelt Region specializes in the industries that will profit from growth in LATAM and Asia

Some industries are better positioned to take advantage of growth in LATAM and Asia than others. By assuming that each industry's exports to LATAM and Asia will continue to grow at its average pre-crisis YoY growth rate from 2004-2008, it is possible to forecast the industry's contribution to GDP in billions of dollars. Those that contribute the most can be considered "winning" industries.

According to the analysis, the top ten winning industries are: petroleum and coal products, chemicals, machinery (excluding electrical), transportation equipment, agricultural products, computer and electronic products, waste and scrap products, primary metals manufacturing, miscellaneous manufactured commodities and food and kindred products.

Except for agricultural products, the Sunbelt Region provides over 30% of U.S. exports for each winning industry. In fact, the region exports 61% of petroleum and coal products and 50% of chemicals products. However, the majority of exports for these two industries originate in one state, Texas. Due to Texas' abundance of oil, it has a natural competitive advantage in these sectors. In addition, California supplies 10% of petroleum and coal products, while Florida supplies 8% of chemicals.

After the top two industries, the Sunbelt Region exports 44% of machinery (except electrical), 31% of transportation equipment, 18% of agricultural products and 53% of computer and electronic products. The majority of these exports originate in Texas, California and Florida. Arizona, however, has a small but meaningful hold on the market for computers and electronic products with a 3% share of U.S. total exports. Exports of goods from winning industries to Asia and LATAM from Alabama, New Mexico and Colorado are minimal.

Due to Texas and Florida's increasingly outward facing economies, significant shares of total U.S. exports to Asia and LATAM and focus on winning industries, they could benefit the most from growth abroad. California will also take advantage of foreign expansion because of its large concentration of exports in high growth industries. Although its economy has focused more on domestic demand in recent years, it has the appropriate infrastructure in place, in terms of proximity and ports, to look abroad for economic growth.

The world's economies will continue to become more globalized and interconnected in the future, providing greater opportunities for those countries open to foreign trade. While exports could provide a boost to the Sunbelt states' economies in the upcoming years, states' should not solely depend on them for future growth. Foreign trade is vulnerable to politics and changes in leaders and policies. While the markets in Asia and LATAM are more stable now that they have been in the past, there will always be a level of uncertainty in the future. Furthermore, industrial demand could change. While Texas's petroleum industry is currently benefiting from China's thirst for oil, a future shift to green energy could be disadvantageous. The states that continue to seek a competitive advantage in a diverse group of industries as well as economic growth in a variety of sources will be the winners in the future.

State Economic Forecasts

Forecasts of Employment and Real Personal Income

During the last decade, the BBVA Compass Sunbelt Region enjoyed robust economic growth with annual average GDP growth rates that outpaced the U.S as a whole. For 2009, our analysis predicts that while all states in the region will register declines in their GDP, Texas and Colorado's percentage declines will be smaller than our U.S. forecast of -2.5%. California, Arizona, Alabama and Florida will register the largest GDP decreases in the region. Our analysis reveals the severity of the current recession, including job losses that have been rapid and deep. However, as the economy recovers, most states will see job creation by mid 2010.

Our regional econometric models rely on a Bayesian vector autoregression (BVAR) procedure. The BBVA Compass model, which is produced from multiple model specifications, jointly forecasts employment (EMP) and real personal income (RPI) on a quarterly basis for each state. The model specifications include combinations of state employment and real personal income along with real U.S. GDP, the GDP deflator, the three-month treasury bill rate, state housing prices and state and national building permits. Furthermore, we condition our forecasts with the BBVA Compass forecast of U.S. GDP growth to derive consistent forecasts across the states.

Why a Bayesian Vector Autoregression?

With a BVAR, we can flexibly capture the interaction of many variables to generate more accurate forecasts. With any VAR, however, as we add additional lag terms and additional variables, there are more parameters to estimate. Additional lag terms capture leading and lagging effects of changes in the model's variables, and additional variables can help to discover turning points. In order to have confidence in our forecasts, we need enough data to test the parameters of the model. Because we have a limited time series of data available, we rapidly exhaust the degrees of freedom that we need to use for forecasting and statistical inference. With Bayesian methods, we can assign a prior distribution to the parameters that we want to estimate. With a prior, we suppose that the value of the parameter is drawn from that distribution. Thus, we solve the over parameterization problem at the expense of having to take a stand on the form of the prior distributions.

Choosing the prior is a major drawback to the BVAR. A prior that is too tight or incorrect will stop interaction between many variables, and a prior that is too loose can cause spurious correlations between variables which affects the forecasts of the model (just as in a standard VAR). As the forecasts of employment and personal income are dynamic (the model produces forecasts of all the variables and uses them to predict the next time period), poor forecasts of the model's other variables will produce poor forecasts of the varaibles of interest. Researchers in the early 1980s suggested a specific format of the prior distributions to use and developed an easy way to specify the priors to limit the interactions of variables. These methods have been implemented in econometric software packages.

Alabama

	99-08	2008	2009	2010	2011
GDP-U				1.6	2.3
GDP	2.2	0.7	-2.3	1.2	2.1
GDP-L				0.6	1.8
EMP-U				0.0	1.8
EMP	0.5	-0.5	-4.3	-1.0	1.2
EMP-L				-1.9	0.6
RPI-U				2.2	2.5
RPI	2.5	1.3	-2.7	1.1	2.2
RPI-L				-0.1	2.0

Source: BBVA ERD

Arizona

	99-08	2008	2009	2010	2011
GDP-U				1.9	5.1
GDP	4.4	-0.6	-3.6	0.4	4.0
GDP-L				-1.0	3.0
EMP-U				-0.8	3.9
EMP	2.5	-2.1	-7.0	-2.4	2.6
EMP-L				-4.0	1.3
RPI-U				3.2	5.3
RPI	4.5	-0.1	-3.8	1.1	4.1
RPI-L				-0.1	2.8

Source: BBVA ERD

California

	99-08	2008	2009	2010	2011
GDP-U				1.3	2.1
GDP	3.4	0.4	-3.1	-0.5	1.3
GDP-L				-2.3	0.6
EMP-U				-0.6	0.7
EMP	1.1	-1.1	-4.7	-1.9	-0.1
EMP-L				-3.3	-0.8
RPI-U				2.6	1.1
RPI	3.0	-0.1	-4.0	0.0	0.6
RPI-L				-2.6	0.2

Source: BBVA ERD

Colorado

	99-08	2008	2009	2010	2011
GDP-U				1.8	4.0
GDP	3.3	2.9	-0.5	0.8	3.4
GDP-L				-0.1	2.8
EMP-U				0.2	3.1
EMP	1.4	0.8	-3.9	-1.0	2.3
EMP-L				-2.0	1.6
RPI-U				1.2	2.6
RPI	3.6	1.1	-3.6	-0.7	2.0
RPI-L				-2.6	1.5

Source: BBVA ERD

Florida

	99-08	2008	2009	2010	2011
GDP-U				1.9	3.9
GDP	3.4	-1.6	-2.2	0.8	3.3
GDP-L				0.0	2.7
EMP-U				-0.1	3.4
EMP	1.7	-3.2	-4.7	-1.1	2.5
EMP-L				-2.2	1.7
RPI-U				1.7	3.4
RPI	3.5	-1.3	-4.1	0.1	2.7
RPI-L				-1.4	2.1

Source: BBVA ERD

New Mexico

	99-08	2008	2009	2010	2011
GDP-U				2.0	2.8
GDP	2.8	2.0	-1.8	1.5	2.5
GDP-L				1.0	2.1
EMP-U				-0.8	1.2
EMP	1.7	0.4	-3.0	-1.9	0.4
EMP-L				-3.0	-0.4
RPI-U				2.4	2.4
RPI	3.5	2.8	-1.5	0.6	1.6
RPI-L				-1.3	0.8

Source: BBVA ERD

Texas

	99-08	2008	2009	2010	2011
GDP-U				2.7	3.0
GDP	3.4	2.0	-0.4	1.0	2.1
GDP-L				-0.8	1.1
EMP-U				1.1	1.8
EMP	1.8	2.1	-2.2	-0.5	0.8
EMP-L				-2.1	-0.2
RPI-U				5.3	3.3
RPI	3.7	2.5	-3.0	2.2	2.2
RPI-L				-0.8	1.1

Source: BBVA ERD

What's new?

While some forecasters previously developed 5 variable BVARs to forecast state employment and personal income with U.S. GDP, the GDP deflator and the three-month treasury bill rate, we introduce new variables to incorporate the housing sector. Due to the recent meltdown in the U.S. mortgage market and home construction, we included national and state building permits in the model, along with the state housing price index. Whereas changes in building permits tend to lead changes in employment and economic activity, the inclusion of building permits and home prices helps forecast the impact of the housing sector in the state economies. Adding these variables helped to improve our forecasts of turning points during this recession.

Each of the model specifications has benefits and costs. The specification with more variables has the most sources for error and the shortest time series of available data; however, it can help to identify turning points in the economy. The specification with the least number of variables has a longer history of data available; however, it's ability to foresee turning points is limited. Thus, to arrive at our final forecasts, we average the output from different specifications.

Because we condition on our forecast of U.S. GDP growth, we simulate the models to produce a range of possible values for growth rates. As the forecast horizon increases, the uncertainty also increases; however, the actual realized values are likely to fall within these ranges. As we receive positive or negative signals about the local economy, the forecast can be revised toward the upper or lower bounds.

The point forecasts that we present at the end of this publication derive from history and our analysis of the state's fundamentals. They are within the ranges that we present in the sidebar; our analysis may support an upper or lower bound.

From Employment and Personal Income to GDP growth

We do not explicitly include GDP growth in our model because the BEA only estimates state GDP on an annual frequency. We do, however, use the quarterly data and forecasts of employment and personal income to forecast state GDP growth. As GDP represents the value of economic output in the state, employment and personal income serve as good proxy variables for economic output. We compute upper and lower bounds of GDP growth with the upper and lower ranges of our employment and personal income forecasts.

The BVAR provides a flexible method for producing state economic activity forecasts that is easy to replicate across all states. Our forecasts predict economic growth will begin to take hold in 2010; however, growth will remain subdued in Alabama, California and Arizona. Alabama suffers from a fall in demand for autos, as the housing downturn affected demand for durable goods through a reduction in personal wealth and hence consumer spending. California and Arizona experienced some of the largest adjustments in the housing sector, and will thus take longer to recover. Since the recession hit Florida the earliest in 2008, our models suggest that its recovery is on the horizon for 2010. Texas, whose housing downturn has been limited, will lead the region.

Developing State GDP Forecasts with a Bayesian Vector Autoregression

Vector Autoregressions (VARs) became popular in the late 1970s to jointly forecast national macroeconomic variables, such as Gross National Product and the GNP Deflator. Conversely, there has been little work at the state level, as the necessary data was not readily available. Our new procedure integrates previously omitted state data. A VAR is modeled as:

$$X_t = \alpha + \sum_{j=1}^{5} \beta_j X_{t-j} = \varepsilon_t$$

Where X_t is a $n \times 1$ vector with the n endogenous variables of interest at time t; β_j is the vector of coefficients on the lagged dependent variables at time t-j. For the BVAR, we chose to use 5 lags because we are using quarterly data and we need the entire prior year data available for estimation. Additionally, the 5th lag helps remove any seasonality that might remain in the data after a seasonal adjustment.

While the simple multivariate construction of a standard VAR is appealing, their forecasting performance is often quite poor. VARs with many lags suffer from over parameterization problems and a lack of degrees of freedom because there are simply too many parameters to estimate given the amount of available data. To solve this problem, Robert Litterman suggested in 1980 that a prior distribution could be imposed on the regression coefficients, and a Bayesian procedure could be used to obtain the predictive density for the variable(s) of interest. This prior belief was that the coefficients in the VAR were close (but not identically equal) to zero.

BVARs often employ the so-called "Minnesota" prior which is derived from independent normal densities. The Minnesota prior sets the mean of the coefficient of the first lag of a variable to one in its own equation, otherwise it sets the coefficients to zero. Then, the prior requires us to specify the standard deviations in each of the distributions.

We can simplify our choice of a prior with either a symmetric or general prior. The symmetric prior can result in too much interaction of variables in a VAR. To limit interaction of variables across equations, we can specify a general prior. For example, in a vector autoregression with both national and state variables, the national variables can be assumed to influence both the forecasts of the national and state variables, but the state variables can be assumed to have little effect on the national variables while they still affect the forecast of the state variables. For each of our model specifications, we produce forecasts using symmetric and general priors for robustness.

As with any vector autoregression, a parsimonious specification for the VAR variables introduces less error into the forecasts. Research revealed models to forecast employment and personal income for individual states using only five variables. We include that specification in our forecasts; however, we create new specifications with the state Housing Price Index and Building Permits.

Quarterly BVAR Model

	State Variables				National Variables			
S	E	RPI	BP	HPI	GDP	GDP	GDP	GDP
1	•	•	•	•	•	•	•	•
2	•	•		•	•	•	•	•
3	•	•			•	•	•	

S (Model Specification)
E (Non-Farm Employment-BLS, Seasonally Adjusted)
RPI (Personal Income-BEA, adjusted by GDP Deflator)
BP (Building Permits-Census);
HPI (All Transactions House Price Index-FHFA)
GDP (Real Gross Domestic Product-BEA)
DEF (GDP Deflator-BEA)
TB (3-Month T-Bill Rate-Secondary Market)

We also chose these variables because the data is readily available from official sources at a quarterly frequency. Following standard procedure, we estimate the BVAR in log levels.

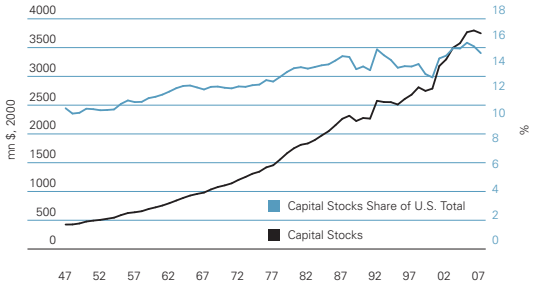
We condition our state forecasts on our BBVA Compass forecast of U.S. GDP for consistency across states. Furthermore, to obtain possible ranges of growth rates, we use a Monte Carlo simulation to generate the 5th, 50th and 95th percentiles. All quarterly growth rates are computed as year-over-year (YoY) rates, and the annual growth rate is the 4 quarter average of the YoY rates.

Finally, we have annual state real GDP estimates from the BEA. We distribute the annual GDP numbers to a quarterly frequency to aid our forecasts. Rather than including GDP in the model, we perform the following regression in levels of log state GDP (y_t) on log employment (e_t) and log real personal income (m_t). We estimate the following equation and use it for dynamic GDP forecasting:

$$y_t - \rho y_{t-1} = \alpha(1-\rho) + \beta_e (e_t - \rho e_{t-1}) + \beta_m (m_t - \rho m_{t-1}) + u_t$$

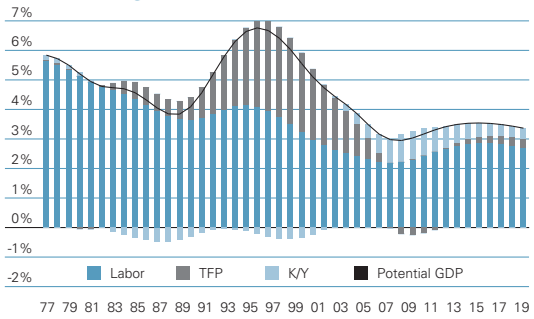
We use a Cochrane-Orcutt numerical estimation procedure to estimate α, β_e, β_m and ρ. The method tracks GDP growth well, and further work will determine its out-of-sample forecast performance.

CA: Capital Stock



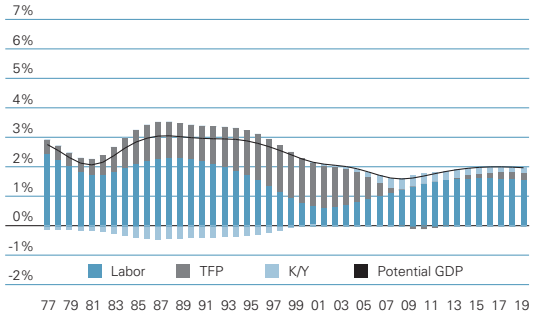
Source: BBVA ERD

Arizona
(Real % change)



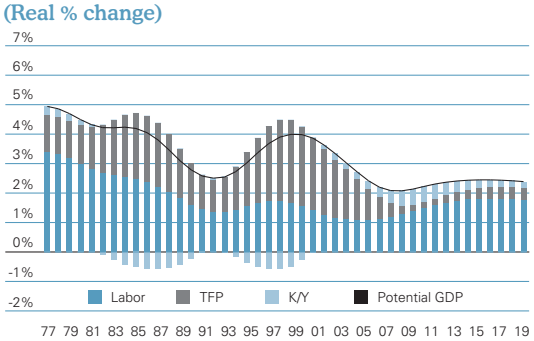
Source: BBVA ERD, BEA, BLS, CBO

Alabama
(Real % change)



Source: BBVA ERD, BEA, BLS, CBO

California
(Real % change)



Source: BBVA ERD, BEA, BLS, CBO

In the 3rd quarter edition of *US Regional Watch*, we estimated state-level capital stocks of the BBVA Compass Sunbelt Region. As promised, we used these estimates to calculate potential growth of each state in our region. Since the last issue, BBVA Compass acquired the banking operations of Guaranty Bank, which expanded our presence into CA. Therefore, we applied our methodology to CA and estimated its capital stock.

As expected, CA has the highest capital stock among Sunbelt states in terms of its share and level. Historical data indicates that CA's share in total U.S. capital stock increased significantly, rising to 16%, but started declining in 2006. This trend is expected to continue in the short term due to the financial crisis in the U.S. and CA economies.

Up to this point, little research has been done on the potential growth of the states in the Sunbelt Region. To calculate potential output we assume constant returns to scale Cobb-Douglas production function, which is frequently used in the literature. In logarithmic terms, it can be written as:

$$1nY_t = 1nA_t + \alpha \times 1nK_t + (1-\alpha) \times 1nL_t \qquad (1)$$

where Y is the output (i.e. GDP), A is the total factor productivity (TFP) or Solow residual, K is the total capital stock, L is employment, α and $(1-\alpha)$ are the output elasticities of capital and labor, respectively. The parameter α for the U.S. is generally accepted equal to 0.3 and we also assumed it to be valid for each state.

The production function in the equation above can also be written as:

$$1nY_t = [\frac{1}{1-\alpha}] \times 1nA_t + [\frac{\alpha}{1-\alpha}] \times 1n[\frac{K_t}{Y_t}] + 1nL_t \qquad (2)$$

We have labor and output data for the 1977-2008 period and capital stock data for 1977-2007. Using simple time series models (i.e. autoregressions), we can forecast all variables, except GDP, until 2020. We use the BBVA Compass baseline scenario for GDP until 2012 and time series models onwards. After gathering all series until 2020, we employ the Hodrick-Prescott (HP) filter[1] on K and L to get their trend components which are basically their potential levels. Then, plugging Y, K, L and α, in the log-linear production function, we reach our TFP estimate.

Potential output can be calculated by replacing the original series with their trend values. It is also possible to decompose the rate of potential growth using the growth rate of each input as:

$$\Delta 1nPotY_t = [\frac{1}{1-\alpha}] \times \Delta 1n\hat{A}_t + [\frac{\alpha}{1-\alpha}] \times \Delta 1n[\frac{\hat{K}_t}{Y_t}] + 1n\hat{L}_t \qquad (3)$$

where ^ denotes HP-filtered series. The table below summarizes our results. Based on average potential growth rates over the last two decades, AZ has the highest potential growth whereas AL has the lowest. Parallel to U.S. potential estimates, potential growth of the states has decreased significantly since the mid-90's. The decrease has been much more apparent in the past three years. Our estimates

1 HP filter is a mathematical algorithm which calculates the long-term trend of the series by removing short term fluctuations.

indicate that the decrease in potential growth rates will hit bottom in 2009, except in TX and CO. TX's recovery is expected to begin in 2010 due to distinctive characteristics of the TX economy. As we analyzed in our previous issue, the financial crisis hit TX later and affected the state less when compared to the U.S. economy. In CO, recovery has already started though. In fact, our findings indicate that potential output of CO economy was not affected by the financial crisis.

Furthermore, fluctuation in potential growth rates within each state gives an important perspective about the state economies. For example, although AL has the lowest potential growth within the BBVA Compass Sunbelt Region, it has the smoothest potential growth series indicating a very stable economy with low risk. On the other hand, Colorado has significant swings indicating a less stable economy.

Potential Growth in the BBVA Footprint (%)

	1990-1999	2000-2008	2009-2012	**2013-2020**
AL	2.8	2.0	1.7	**2.0**
AZ	5.8	4.2	3.1	**3.5**
CA	3.1	3.0	2.2	**2.4**
CO	5.2	2.8	2.6	**3.0**
FL	3.8	3.2	2.4	**3.0**
NM	5.1	2.6	1.8	**2.4**
TX	4.5	3.2	2.7	**3.1**

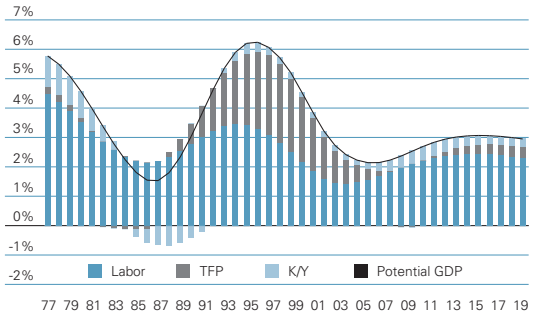
Source: BBVA ERD

More detailed information about the states' potential growth rates can be calculated by using Eq (3). Figures on the right depict sources of potential growth (i.e. growth accounting) for each state in terms of labor, productivity (TFP) and capital/output ratio.

Our results indicate that in all of the states in the region, the main contributor for potential growth is labor, although its contribution has decreased significantly. While TFP made significant contribution to potential growth in the 90's, its contribution in 2008 and 2009 is either negative or close to zero in most of the Sunbelt Region due to the financial crisis. However, our findings imply that TFP will have positive contribution during the recovery period.

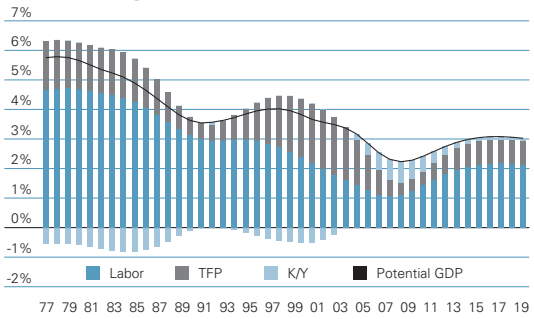
Furthermore, the contribution of the capital/output ratio is calculated to be low or negative in most of our sample. However, its contribution during the crisis and recovery period is expected to be positive. Keep in mind that zero contribution of capital/output ratio does not mean capital does not contribute to potential growth. For example, if the contribution of the ratio were zero and output grew at 3% then, contribution of capital to potential growth would be positive but lower than 3%.

Colorado
(Real % change)



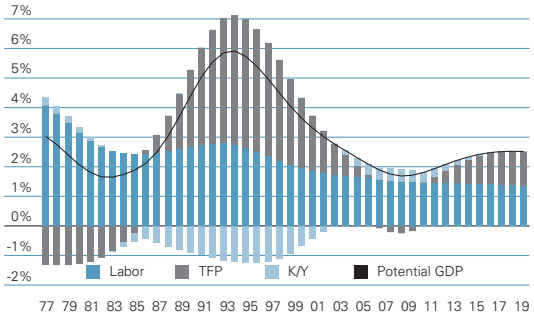
Source: BBVA ERD, BEA, BLS, CBO

Florida
(Real % change)



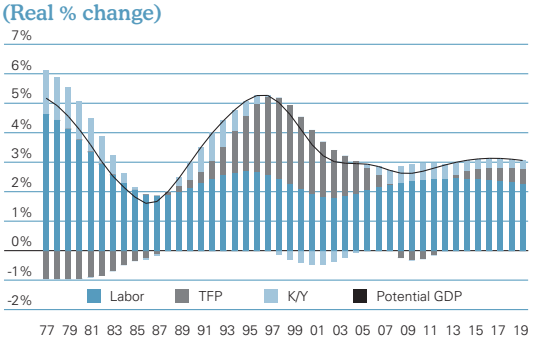
Source: BBVA ERD, BEA, BLS, CBO

New Mexico
(Real % change)



Source: BBVA ERD, BEA, BLS, CBO

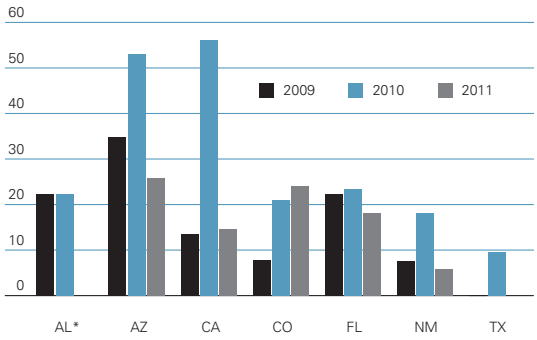
Texas
(Real % change)



Source: BBVA ERD, BEA, BLS, CBO

State Fiscal Update: Still in the Red

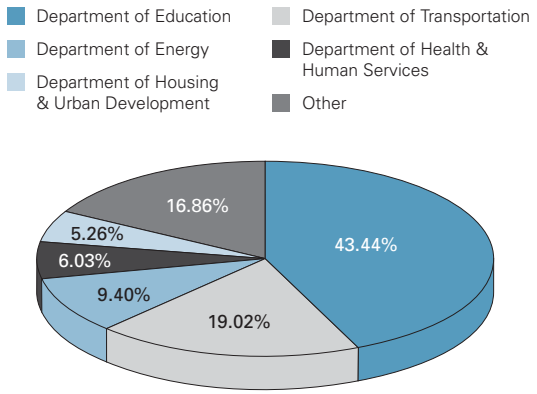
State Budget Shortfalls
(as % of general fund)



* Alabama has identified a budget shortfall for FY2011, but has not reported the size

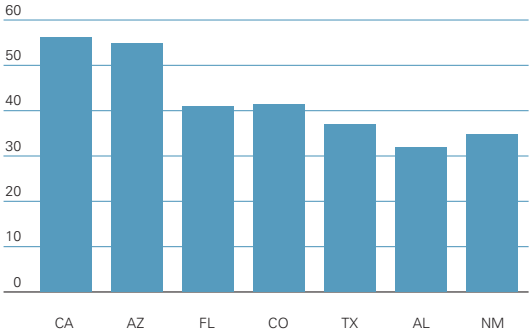
Source: Center for Budget & Policy Priorities

Fiscal Stimulus Spending by Agency in the Sunbelt States
(% of Total=$4.5B)



Source: www.recovery.gov

Stimulus Funds Paid-Out
(as % of funds available)



Source: www.recovery.gov

Amid falling tax revenues and recession-invoked increases in expenditures for support programs, such as Medicaid and unemployment benefits, state governments have had to make difficult budgeting decisions, from cutting funding to important healthcare and education programs to increasing taxes, in fiscal years 2009 and 2010. However, the most recent data show that the states' plight is not yet over. Total tax revenues dropped 10.7% YoY in 3Q09 for the fourth consecutive quarter, reflecting the effects of high unemployment and weak demand on core inflows such as income, corporate and sales taxes. Even though the economy has returned to growth, the recovery is expected to be slow and national unemployment is forecasted to remain above 10% through 2Q10. The implication of this outlook is that tax revenues could continue to drop, forcing states to make additional difficult budgeting decisions that could further slow their recovery.

Even though states have already made significant budget cuts, they are reporting mid-year budget gaps for 2010 and 2011. Within the BBVA Compass Sunbelt Region, total budget shortfalls amount to $76.7 billion in 2010 and $23.7 billion in 2011. The hardest hit states are Arizona and California with budget gaps amounting to 53% and 56.2% of their general funds in 2010 and 25.7% and 14.6% in 2011, respectively. Texas, however, has only reported a 9.5% budget shortfall for 2010, which is well below the U.S. average of 27.7%.

Federal stimulus funds will end before budget shortfalls

One source of fiscal relief for states has been federal funds from the American Recovery and Reinvestment Act. According to the Center for Budget and Policy Priorities, federal stimulus will cover approximately 30% to 40% of state budget gaps. The Departments of Education (DOE), Transportation (DOT) and Health and Human Services (HHS) are among the top five agency recipients in each state within the BBVA Compass Sunbelt Region. Funds going to the DOE and HHS will limit the size of the funding cuts to these economically important sectors, while DOT funds for infrastructure projects will help to spur job creation.

States are using the funds at varying paces. California and Arizona have both used over 50% of the funds available to them, while Texas, Alabama and New Mexico have used less than 40%. There are advantages and disadvantages to using the funds at a faster or slower pace. California and Arizona have had to resolve the largest budget shortfalls and California has the highest unemployment rate, so the stimulus funds were used to provide immediate fiscal relief and job creation. On the downside, the quick use of funds means that these states will have less of a buffer for the future. Alabama, on the other hand, has only used 31.8% of its available funds, so it will have more available to use as a buffer against its anticipated 2011 budget gap.

One challenge facing states is that the majority of federal stimulus will end in 4Q10 and early 2011, but budget shortfalls are expected into 2012. While the funds are providing a buffer for state budgets now, if states do not take early measures to account for the end of the stimulus, they will have to make even more severe budget cuts or tax increases later.

The Next Stage: Loan Loss Reserves

Today the U.S. banking system demonstrates greater stability than a year ago, but remains under considerable pressure. It is not surprising that in the aftermath of a collapse in housing prices and rising unemployment that banks' delinquencies and loan charge-offs have reached heights reminiscent of the Great Depression. At this point, we believe it is now relevant to consider an additional metric in measuring the health of the banking system: the amount of loan loss reserves at banks. These reserves reflect earnings set aside for loans that could potentially result in a loss. Loan loss reserves represent a lagging indicator of crisis, but their decline signals future increases in banks' profitability. We will therefore undertake a close examination of the dynamics of loan loss reserves and investigate forecasts for some states in the BBVA Compass Sunbelt Region and the nation as a whole.

The role of loan loss reserves on bank balance sheets

Since we have established that loan loss reserves will gain increasing attention in the coming months, we outline below the relationship between bank balance sheets, loan loss reserves and provision expense. From a probabilistic view of the banks' expected losses, loan loss reserves are explained as complementary to banks' risk capital. Lastly, we illustrate some stylized facts about the behavior of loan loss reserves as derived from existing research on the subject.

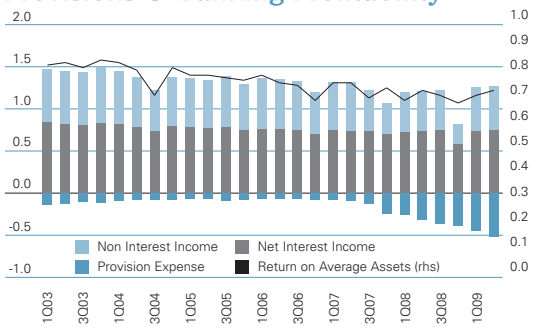
Loan loss reserves constitute the total amount of funds a bank sets aside for loan losses. The bank adds to its reserves when loans become impaired. When a loan reaches the charge-off stage, the bank incurs a loss and deducts funds first from its loan loss reserve and then from its risk capital. Loan loss reserves are typically established by the bank declaring an increase in net charges for provisions out of its pre-tax operating profit. Pre-tax profit comprises net interest income, noninterest income, noninterest expenses and provision expense.

Essentially, the bank maintains two lines of defense against a swath of bad loans. First, the bank records provision expense against impaired loans that may or may not become a write-off. Second, the bank holds capital as the last source of strength for the bank. Leverage represents the ratio between assets and this equity. This is precisely why leverage remains a concern for regulators as they view it as the ultimate indicator for the bank's ability to absorb losses.

The probability distribution demonstrates the chance of a certain level of losses occurring (losses are increasing on the horizontal axis). The vertical axis demonstrates the level of the probability. In normal times, banks expect losses to be between points O and A on the horizontal axis, which is reflected in the fact that the probability distribution is the highest over this range. Banks will never be able to make one hundred percent of their loans without any incident of impairment. Provisions set aside for expected losses on impaired loans therefore provide the first line of defense. However, there are extreme times when losses overwhelm the bank.[1] Consider losses beyond point B: the probability distribution suggests that this is unlikely to happen, but in the case of these extreme events in the edge of the tail, banks need to draw on their credit risk capital.

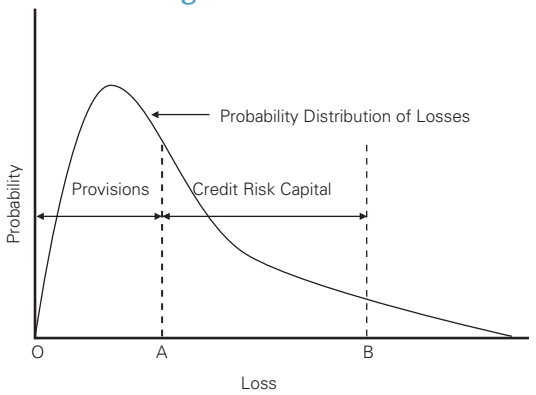
1 Cavallo, Michele, Majnoni, Giovanni (2001) "Do Banks Provision for Bad Loans in Good Times?" *World Bank Policy Research Working Paper 2619*

Provisions & Banking Profitability



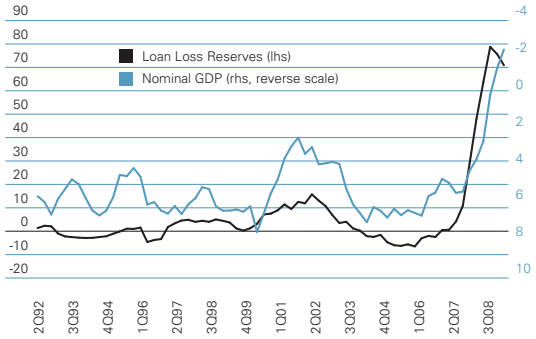
Source: SNL Financial

Understanding Loan Loss Reserves



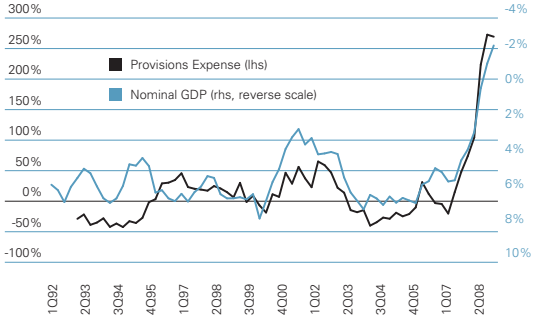
Source: BBVA ERD

Nominal GDP & Loan Loss Reserves
(YoY % change)



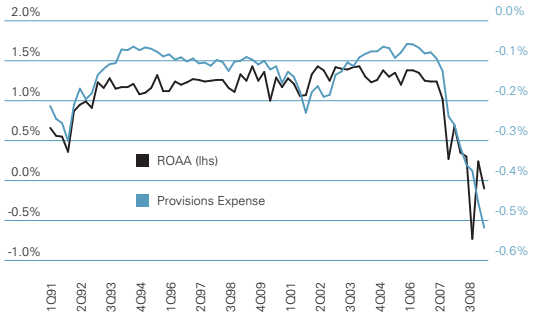
Source: SNL Financial

Provisions Expense & Nominal GDP
Provisions Lagged 4 Quarters, YoY % change



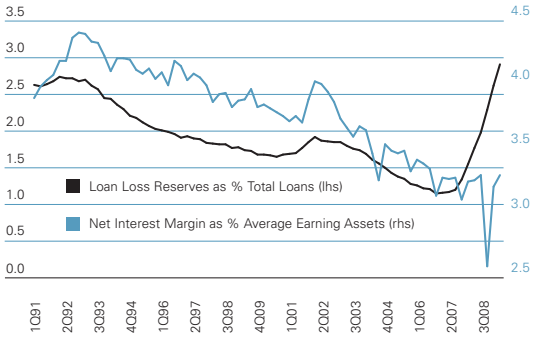
Source: SNL Financial

Provisions Expense & Return on Assets
As % Average Assets



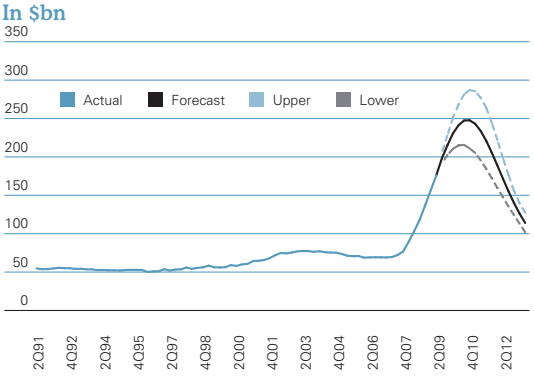
Source: SNL Financial

Net Interest Margin & Loan Loss Reserves



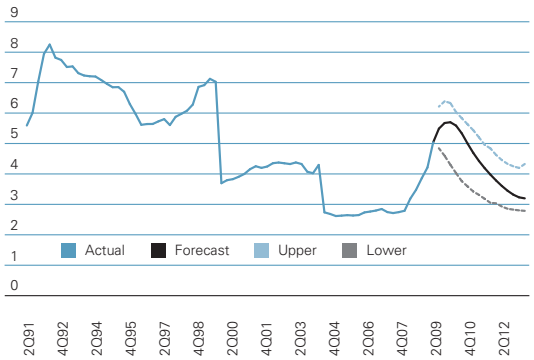
Source: SNL Financial

U.S. Banking Loan Loss Reserves
In $bn



Source: BBVA ERD

CA Banks Loan Loss Reserves
In $bn



Source: BBVA ERD

Thus, between points A and B, banks will exhaust their provisions and incur capital charges. This is the rationale behind a bank's capital buffer.

Given the above conceptual understanding of reserves, researchers offer a variety of possible motivations for understanding the level of loan loss reserves. Some argue that banks attempt to smooth their profitability over time for investors. Other researchers argue that banks attempt to manage their tax exposure or capital usage through adjustments in the level of loan loss reserves. A number of panel-level studies that encompass data on hundreds of firms have attempted to differentiate between these possible explanations. One clear trend that emerges from these analyses is that loan loss reserves are typically procyclical, meaning that they increase during periods of stress.[2] A graph of YoY growth in nominal GDP versus provision expense lagged four quarters demonstrates that banks moved to build reserves at the fastest rate nearly a year before the trough of the current recession.

Overall, we have explained the role of loan loss reserves as a first barrier along with risk capital against loan write-offs. Loan loss reserves reflect past crisis in asset quality, but at the same time loan loss reserves represent the major metric indicating the return of health in the banking sector. The extent to which we can forecast the level of loan loss reserves for the U.S. and the BBVA Compass Sunbelt Region is addressed below.

Loan loss reserves and the U.S. banking system

Broadly speaking, the level of loan loss reserves for the aggregate U.S. economy relates to variables reflecting the asset quality of the banking system. This may include items such as the unemployment rate, the total delinquency rate, home price indexes, changes in nominal or real GDP, stock market indexes, commercial real estate returns or various measures of interbank lending conditions. Only a few of these variables fit the data well enough to proceed to the forecasting stage via conditional vector autoregression, an approach explained by the accompanying methodology article.

The banking data used for the analysis is derived from SNL Financial and the Federal Deposit Insurance Corporation (FDIC). Macroeconomic and other financial variables are taken from the Bureau of Economic Analysis, Bureau of Labor Statistics, the Federal Reserve Board of Governors and Bloomberg.

The results for the U.S. suggest that we will expect, roughly, an additional $75bn in loan loss reserves to build over the next six quarters from a 2Q09 level of $176bn to a 4Q10 level of $247bn. To put this into perspective, $75bn is nearly 1.1% of the banking system's 2Q09 $6.428tr in net loans and leases. The level of loan loss reserves for the banking system is expected to peak in 4Q10, nearly two years after the crisis began in 4Q08. This is not unusual given that banking crises often create lasting impressions on the economy as banks represent the essential infrastructure of financial flows.[3] This forecast is also consistent with unfolding trouble in commercial real estate. We next turn to state-level data.

2 Bikker, JA, Metzemakers, PAJ (2002) "Bank Provisioning Behavior and Procyclicality," *De Nederlandsche Bank Research Series Supervision No. 50.* Kearns, Allan (2004) "Loan Losses and the Macroeconomy: A Framework for Stress Testing Credit Institutions' Financial Well-Being," *Bank of Ireland Financial Stability Report.* Pain, Darren (2003) "The Provisioning Experience of the Major UK Banks: a Small Panel Investigation," *Bank of England Working Paper No. 177.*

Dynamics of loan loss reserves in the BBVA Compass Sunbelt Region

A caveat is always necessary when first discussing FDIC banking data at the state level. The data sometimes exhibit wide changes in value as a result of mergers, for example, a California-chartered bank purchased by a New York-chartered bank. In cases of clear shifts in the level of the loan loss series, we utilize a dummy variable (often called an indicator or qualitative variable) that accounts for the shift in the data. Some states' data, like New Mexico and Arizona, offer too few banks to be considered aggregate enough for a meaningful forecast (we discuss some of these issues in the accompanying methodology article). Therefore, we will focus on California, Florida, Alabama, Colorado and Texas.

Turning to the forecasts for California, we expect a peak in the state's loan loss reserves in the middle of 2010. California was one of the first states to enter the economic downturn and we should expect its banking system to demonstrate peak loan loss reserves earlier than the U.S., but California also experienced one of the steepest housing bubbles. On average, the forecast appears sensible as the state is currently consolidating its extrication from a deep downturn.

Florida, on the other hand, shows a more persistent loan loss reserve forecast. This is likely due to the fact that the state's banking system is one of the most distressed in the country. The persistence of loan loss reserves in the forecast is also reasonable given the damaged state of commercial real estate in Florida. However, the forecast for Florida peaks earlier than our first instincts, thus making it sensible to bias our expectation towards the upper forecast for Florida, with a peak in loan loss reserves during the middle of 2010.

In contrast to Florida and California, Alabama, Colorado and Texas show a different pattern. Alabama appears to be early in its loan loss reserve cycle. The state's build of reserves, according to the forecast, will be appreciable but short-lived. This is congruent with the fact that Alabama escaped most of the housing bubble's effects. Colorado's forecast suggests that the state will experience a very early peak in its loan loss reserves, somewhere in the beginning of 2010. This is due to the state's resiliency to the downturn and housing overexpansion. The forecast for Texas is somewhat similar to Colorado, in that Texas' loan loss reserves show little response over time. Texas, like Colorado, has performed well during the economic downturn as compared to the rest of the U.S.

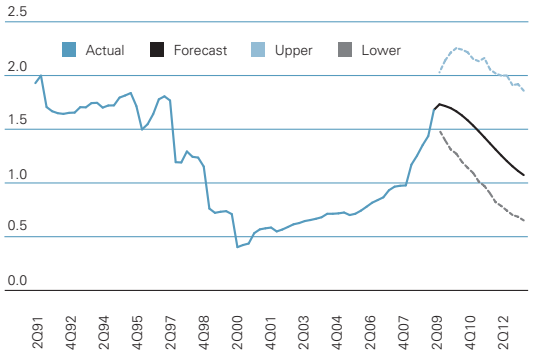
Bottom line

Looking beyond the crisis, the next metric to watch is the banking system's level of loan loss reserves. We expect loan loss reserves to peak for the U.S. as a whole at the end of 2010. The states in the Sunbelt Region, however, should, on average, peak before the rest of the country, largely due to either resiliency or crisis vintage. Regulatory changes may radically alter these tendencies if countercyclical provisioning becomes enforced. A "dynamic provisioning" regime would not demonstrate as much procyclicality as shown historically.

3 Reinhart, Carmen, Rogoff, Kenneth (2009) *This Time is Different: Eight Centuries of Financial Folly,* Princeton University Press.

FL Banks Loan Loss Reserves

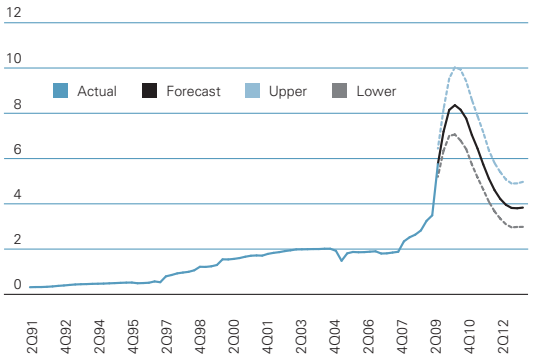
In $bn



Source: BBVA ERD

AL Banks Loan Loss Reserves

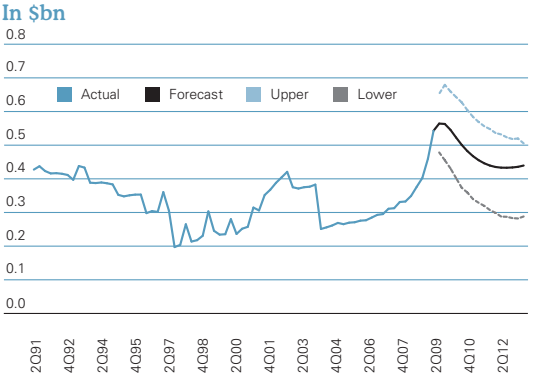
In $bn



Source: BBVA ERD

CO Banks Loan Loss Reserves

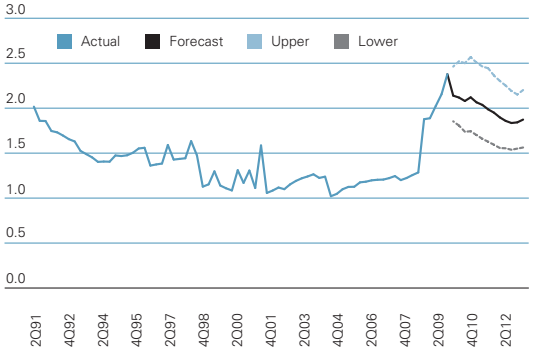
In $bn



Source: BBVA ERD

TX Banks Loan Loss Reserves

In $bn



Source: BBVA ERD

Conditional Forecasting of Loan Loss Reserves

This brief section outlines some of the major issues of forecasting loan loss reserves at the national and state level. A variety of possible methods are available to us at any given time to investigate loan loss reserves, but our conditional vector autoregression approach illustrates a simple and straightforward method of understanding loan loss reserves. Some notable data quality issues also arise from the state level and motivate us to find proxy variables for estimation purposes.

Conditional Vector Autoregression

Previous research on loan loss reserves in the banking system typically assumed a panel data approach. This means that researchers gathered balance sheet data information on dozens, if not hundreds, of firms. The panel data benefits from the fact that a wide variety of indicators are gathered together into one place. Also, controls may be utilized to rule out other influences on the indicator in question. However, it is difficult to make extrapolations about the future based on panel data.

Given this problem, we turn to conditional forecasting for vector autoregression (VAR) to analyze loan loss reserves. VARs are dynamic models of a group of time series and have become a prominent tool in econometric analyses of the economy. A conditional forecast is one which assumes certain values of explanatory variables during the forecast period as fixed in advance. Typically we utilize this method in order to create forecasts consistent with our base economic outlook.

Variable Choice and Data Issues

In order to pin down the most useful variables, models were predominantly evaluated on the basis of the decomposition of variance attributable to each variable. We decompose the forecast error variance into the part due to each innovation process. The national model used the S&P 500 index, total banking delinquency and nominal GDP. The stock market index captures the wealth effect on consumer loans and the funding environment for securities-market-based banks. GDP and total delinquency reflect fundamental drivers of asset quality. The state models used different combinations of the S&P 500 index, state total delinquency, state Philadelphia Federal Reserve Coincident Activity Index and the state nonfarm employment payroll.

There are no reliable, timely estimates of nominal GDP at the state level as there are for the national level. As a result, we proxied for state nominal GDP changes through the Coincident Activity Index or the level of employment. We also assumed that certain macroeconomic variables like the S&P 500 index would affect states in a similar manner as the national level. However, certain states' variability in loan loss reserves was more or less affected by this stock market variable. For example, Florida's loan loss reserves were strongly affected by the S&P 500 index, but the index did not affect Alabama's loan loss reserves at all. This likely reflects the financing sources of Alabama versus Florida banks and also the structure of the respective state economies. Florida's role as a retirement destination may suggest that stock return effects on 401(k) levels loom larger in comparison to some other states.

Throughout the analysis we assumed the importance of different loss given default values for loans in each state to be negligible. It is conceivable that either the probability of loss or the degree of recoverable value may differ between states. This difference would therefore cause banks to calculate their loan loss reserves on a different basis. For the purposes of our analysis, we focused on the fact that macroeconomic conditions are largely driving the differences in loan loss reserves between the states.

A second important factor is to consider future changes in regulatory requirements. The data as revealed in the adjoining article assumes that laws in place today will be in place tomorrow. However, if regulations were adopted to require banks to provision more strongly during profitable or high asset quality years, then the typical procyclical loan loss reserve relationship with GDP will break down.

A third issue with the analysis is that the FDIC data collected on states relates only to the charter of the bank, meaning loans registered as Alabama may in fact actually pertain to another state. Despite this serious issue, our experience suggests that the delinquency rates, based on the FDIC data, broadly reflect the conditions on the ground in the state. Some states like New Mexico and Arizona have very few state-chartered banks. When a merger or failure happens in one of these states, it causes a wide swing in the ratios and levels in the data.

Loan Loss Reserves and Modeling Choice

The conditional VAR approach represents a useful avenue for analyzing loan loss reserves. In our opinion, this approach minimizes some of the existing hazards in the data and takes a novel view of an important banking indicator.

The Recession and Workforce in Alabama

By Sam Addy, Director, Center for Business and Economic Research, The University of Alabama

In spite of the current economic conditions, this first decade of the 21st century has been one of Alabama's best. The state and its agencies involved in economic and workforce development have seen considerable success and won many accolades. Several cities have been high on "best places" lists for living and doing business. Alabama per capita income reached its highest levels as a share of the U.S. average. Population growth has outpaced the Census Bureau's earlier projections. The automotive production sector grew rapidly, with two new original equipment manufacturers and many suppliers investing heavily in the state and providing high-paying jobs. The growth of the auto industry has catapulted Alabama to fifth nationally among auto producing states. Alabama exports have more than doubled, with transportation equipment becoming the state's top export.

Economic development efforts are diversifying the state's economy and creating more and better paying jobs resulting in the highest average annual wages in the state's history. The diversification has targeted primarily biotechnology, healthcare, aerospace, national defense and high-paying manufacturing industries. Tourism and convention traffic has seen significant growth, spurred in part by the development of the Robert Trent Jones golf trail. The Alabama Reading Initiative and the Alabama Math, Science and Technology Initiative gained national recognition. Education funding reached its highest level, although it has recently retreated.

Unemployment hit a record low 3.5 percent for 2006 and 2007, with the state's unemployment rate falling below the national rate from 2002 through 2008. A record low monthly unemployment rate of 3.3 percent was reached in February 2007 (seasonally adjusted). Things were going so well that underemployment rates had to be estimated to determine the available labor pool as workforce development focused on the availability of workers to keep pace with economic development. Job growth was expected to begin to exceed population and labor force growth. From a 2006 base, worker shortfalls of about 141,000 and 406,000 were expected by 2016 and 2025, respectively. Workforce development also continued to look at issues such as skills, educational attainment, cost and health.

Enter the Recession, which nearly tripled unemployment from 3.8 percent in December 2007 to 10.9 percent in October 2009. The number of employed residents fell by 229,720 (or nearly 11 percent) and the labor force shrank by about 89,500 (4.1 percent) as many workers became discouraged about job prospects. Tax revenues declined and education funding dropped sharply. The Governor called for back-to-back proration, while emptying rainy day and proration prevention accounts. The number of jobs lost totals 123,800 through October, with most of the decrease in the 12 months ending in June 2009; the first six months of the recession registered a modest 15,500 job loss. With job losses spread across the nation, workers are likely not leaving the state. Moving companies report drastic reductions in moves and Alabama's population continues to increase.

Expected Worker Shortfall
2008 Projections

	2006-2016	2006-2025
Total population growth (%)	8.1	15.0
Age 20-64 population growth (%)	6.8	7.6
Job growth (%)	13.3	26.4
Worker shortfall (%)	6.5	18.7
Worker shortfall (number)	140,606	405,909

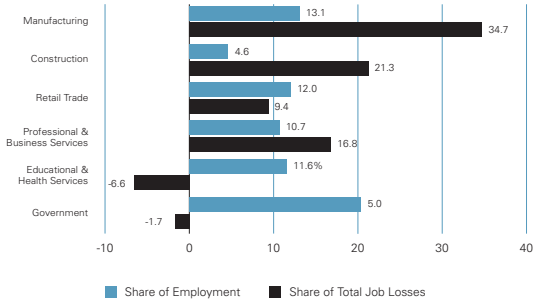
Source: Center for Business & Economic Research, The University of Alabama

Job Losses in the Recession

	Number of Jobs	Change	Percent Change
December 2007	2,026,700		
June 2008	2,011,200	-15,500	-0.8
December 2008	1,962,300	-48,900	-2.4
June 2009	1,917,600	-44,700	-2.3
October 2009	1,902,900	-14,700	-0.8

Source: Alabama Department of Industrial Relations

Sector's Share of Employment vs. Share of Job Losses in Alabama
October 2008 to October 2009 (%)



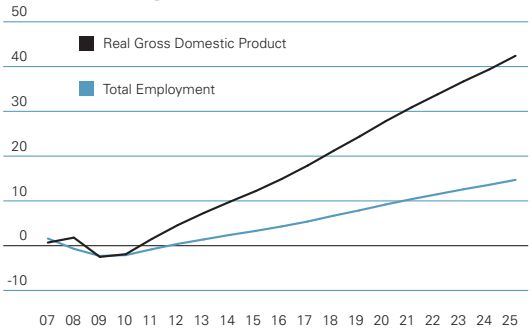
Note: *Negative share indicates an increase in jobs*
Source: Estimates based on Alabama Department of Industrial Relations Nonagricultural Employment Data.

Nonagricultural Employment by Metro Area

	October 2009	Change from October 2008	
		Number	Percent
Alabama	1,902,900	-95,600	-4.8
Anniston-Oxford	51,100	-1,800	-3.4
Auburn-Opelika	53,100	-2,600	-4.7
Birmingham-Hoover	507,800	-20,100	-3.8
Decatur	55,300	-3,200	-5.5
Dothan	60,100	-1,900	-3.1
Florence-Muscle Shoals	54,800	-2,100	-3.7
Gadsden	37,500	-500	-1.3
Huntsville	210,000	-4,700	-2.2
Mobile	180,400	-4,600	-2.5
Montgomery	173,900	-6,000	-3.3
Tuscaloosa	95,900	-3,200	-3.2
Net Jobs in Metropolitan Areas		-50,700	
Net Jobs in Nonmetro Counties		-44,900	

Note: *Nonagricultural employment (jobs) is by place of work.*
Source: Alabama Department of Industrial Relations

Real GDP & Total Employment from 2006 (% change)



Source: Center for Business & Economic Research, The University of Alabama

Expected Worker Shortfall
2009 Projections

	2006-2016	2006-2025
Total population growth (%)	9.3	16.9
Age 20-64 population growth (%)	8.0	9.4
Job growth (%)	4.3	14.7
Worker shortfall (%)	-3.6	5.3
Worker shortfall (%)	-79,054	115,626

Source: Center for Business & Economic Research, The University of Alabama

While about 77 percent of the job losses occurred in the 12 months ending in October 2009, the two most recent months recorded a significant 7,000 job gain. Four sectors—manufacturing, construction, retail trade and professional and business services—accounted for 82.2 percent of the losses. Except for retail trade, these sectors pay higher than average wages, making the impact of their job losses more pronounced. Educational and health services and government sectors both saw job gains. Every metro area shed jobs in the 12-month period, with Decatur and Gadsden registering the largest and smallest percentage losses, respectively. Alabama's September and October 2009 job gains, U.S. GDP growth in the third quarter and other indicators suggest that the recession is over for both the nation and the state.

Alabama nonagricultural employment peaked at nearly 2.1 million in 2007. The state is not expected to see such employment levels again until sometime in 2013 or 2014, mainly due to low industrial capacity utilization levels, the severity of the Recession, productivity gains and the lagging nature of employment in economic recoveries. As jobs return, however, the unemployment rate will remain relatively high because an improving employment situation is likely to bring previously discouraged workers back into the labor force, while the educational systems graduate new entrants.

The large number of jobs lost in the recession has drastically reduced the expected worker shortfall previously estimated for the state. From a 2006 base, a worker surplus of about 79,000 for 2016 and a worker shortfall of almost 116,000 for 2025 are expected. A focus on worker skills and other qualitative workforce development issues must be a priority through 2016, after which both skills and the expected shortfall are priorities for 2025. However, worker shortfalls for critical occupations will need to be addressed throughout the projection period.

The Recession's effects highlight the need for a broad focus on all aspects of workforce development, especially since it is critical to economic development. A worker shortfall indicates the need to address all aspects of workforce development (e.g., availability, skills, cost, preparedness, work ethic, health, etc.). It is important to note that an expected worker surplus does not necessarily mean that worker availability is no longer an issue as available workers may not have the necessary education and training, skills and experience to meet job demand.

The Alabama Development Office and economic developers across the state have indicated that there are a number of projects in the pipeline. If the state is successful at landing these prospects, workforce availability will continue to be of concern even though the state was able to meet the demand in this decade. Hopefully, the recovery will improve tax revenues and provide needed funding for workforce development efforts, which must include: (1) improvements in education and its funding; (2) continuation and enhancement of programs to assess, retrain and place dislocated workers; (3) lowering the high school dropout rate; (4) focus on hard-to-serve populations (e.g. out-of-school youth); (5) use of economic opportunities to attract new residents; (6) encouragement of older worker participation in the labor force; and (7) facilitation of in-commuting.

Arizona-Sonora Economic Region

U.S. Recession Affects Remittances to Mexico

By Lora Mwaniki-Lyman, Vera Pavlakovich-Kochi and Nguyen Ho, Eller College of Management, The University of Arizona

The U.S. led global recession has drastically affected the amount of money Mexican immigrants in the United States are sending back home. For the first time in more than a decade, growth in remittances from the United States to Mexico declined between 2007 and 2008. Remittances to Mexico dropped by 3.6 percent to approximately $25.1 billion in 2008 from their peak of $26.1 billion in 2007. This decrease is in contrast to the annual year-over-year (YoY) increases reported in prior years (Graph 1). Remittances previously increased at an average rate of 21.3% annually between 2000 and 2007.

This decline in 2008 remittances did not diminish the importance of remittances to Mexico. It is the second highest foreign exchange earner in Mexico after oil, and is followed by maquiladora[1] exports. According to data from Banco de México, Sonora received 318 million U.S. dollars, ranking it 24th out of 32 states listed.

Sonora's remittances declined 5.2 percent from the previous year, far more than Mexico's 3.6 percent average decline. The six border states in Mexico combined received over 2.2 billion U.S. dollars, about 9.1 percent of all remittances to Mexico, which is a relatively small share (Table 1). Researchers at the Federal Reserve Bank of Dallas[2] suggest that the northern states are probably not the origin of most low-skilled Mexicans immigrants in the U.S. since they are among the wealthiest states in Mexico. In addition, the chances of informal money transfers not measured by Banco de México are higher among border states, as border crossers can easily carry money back home with them. Three of the six Mexican border states reported a decline in remittances in 2008 with Sonora accounting for the second largest decline after Nuevo León (-7.7 percent).

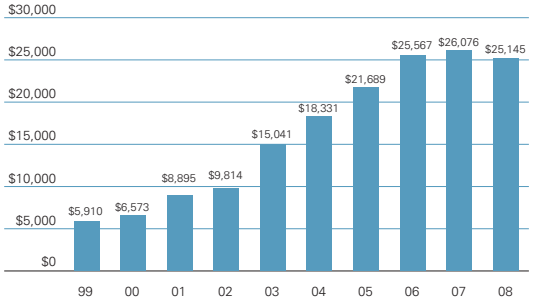
The economic importance of remittances by immigrants with family ties in Mexico is substantially high. It translates to an annual income of $235.70 per Mexican resident in 2008 dollars. Compared to 2007, this is a decline in income of about $11 per person in 2008. States in central and western Mexico benefited more from remittances, with Michoacán topping the list in 2008 with an annual remittance of $2,186.27 per resident.

While the economy in Mexico is highly influenced by fluctuations in the U.S. economy, the rapid increase in remittances to Mexico prior to the 2007 recession cannot be fully explained by normal economic forces, such as increases in the Mexican immigrant population in the U.S., rise in income levels, prior recessionary periods, exchange rate variations or strength of cross border social relations. The Federal Reserve Bank of Dallas' research team attributes the increases primarily to declines in money-transfer costs and the new techniques used by Banco de México to measure the remittances.

1 We use the term "maquiladora" to encompass other programs in Mexico in support of exportation to foreign markets.

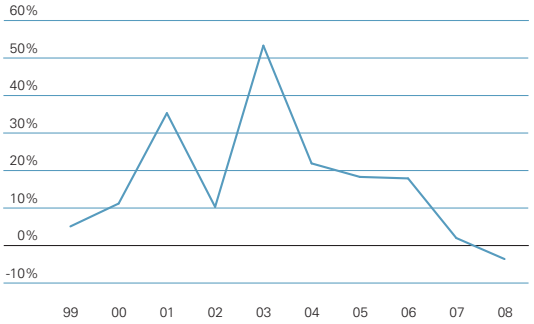
2 Cañas, J., R. Coronado and P. M. Orrenius, "Explaining the Increase in Remittance to Mexico", Southwest Economy, Federal Reserve Bank of Dallas, Issue 4, July/August 2007

Remittances to Mexico, 1999-2008
(Mn $)



Source: Bank of Mexico, "Family Remittances in 2008", January 2009 Issue

Remittances to Mexico, 1999-2008
(YoY % change)



Source: Bank of Mexico, "Family Remittances in 2008", January 2009 Issue

Remittances to Mexican Border States
2008

Border State	U.S. Dollars (Mn)	Share (Percent)	Population	Per Capita (Dollars), 2008
Baja California Norte	342	1.4%	5,595,760	61
Sonora	318	1.3%	2,473,678	129
Chihuahua	475	1.9%	1,661,813	286
Coahuila	300	1.2%	2,684,330	113
Nuevo León	331	1.3%	1,267,087	261
Tamaulipas	512	2.0%	6,960,799	74
Total Border States	2,278	9.1%	20,607,467	154
Rest of the States	22,867	90.9%	65,467,584	349
National	25,145	100.0%	106,682,518	235.70

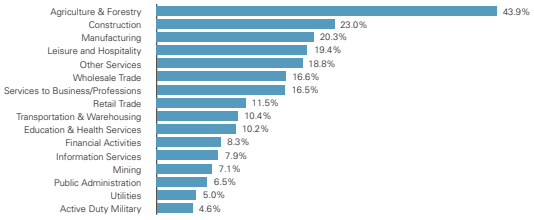
Source: Bank of Mexico, "Family Remittances in 2008", January 2009 Issue and National Council of Population; Mexico (CONAPO)

Mexico States Ranked by Remittances
(Mn $), 2008

Rank	Mexico States	U.S. Dollars
1	Michoacán	2,458
2	Guanajuato	2,325
3	México	2,096
4	Jalisco	1,943
5	Veracruz	1,621
6	Puebla	1,568
7	Oaxaca	1,457
8	Gerrero	1,402
9	Distrito Federal	1,106
10	Hidalgo	940
11	Chiapas	800
12	San Luis Potosí	758
13	Zacatecas	678
14	Morelos	621
15	Tamaulipas	512
16	Sinaloa	489
17	Chihuahua	475
18	Durango	450
19	Querétaro	442
20	Nayarit	384
21	Baja California Norte	342
22	Aguascalientes	332
23	Nuevo León	331
24	Sonora	318
25	Coahuila de Zaragoza	300
26	Tlaxcala	299
27	Colima	198
28	Tabasco	160
29	Yucatán	129
30	Quintana Roo	100
31	Campeche	74
32	Baja California Sur	36

Source: Bank of Mexico, "Family Remittances in 2008", January 2009 Issue

Immigration as % of Arizona's Workforce
by industry



Source: U.S. Census Bureau, 2004

Declines in the cost of transferring funds over the years are a result of increased competition by new entrants to the transfer system. This has lowered service fees and improved technologies in the formal transfers of funds. The use of Matricula Consular identification (MCAS) cards as an acceptable form of identification, in addition to immigrants becoming more aware of transfer options, has lead to the increases in formally transmitted remittances and reduced the amount of money sent to Mexico using informal methods.

The decline in remittances to Mexico in 2008, for the first time in over a decade, is mostly attributed to the severe economic downturn in the U.S., especially in the construction and service sectors where most immigrants have sought employment. A study by the University of Arizona Udall Center[3] identified the top three industries where immigrants/non-citizens worked in 2004 as Agriculture & Forestry (43.9%), Construction (23.0%) and Manufacturing (20.3%).

As employment opportunities have dwindled, so has the number of immigrants from Mexico securing jobs and crossing to the United States for work. This has also been reflected in the volume of non-documented immigrants attempting to cross the border. The number of apprehensions made by the Border Patrol declined by more than 64 percent from their mid-decade peak of 1,189,000 in 2005 down to 724,000 in 2008. Analysts at the U.S. Department of Homeland Security, Office of Immigration Statistics[4] attribute it to both the declining U.S. economic growth and enhanced border enforcement efforts.

While there is no record showing which states the remittances to Mexico are coming from, studies have linked flows of remittances from regions in the U.S. to migration patterns. A Working Paper by World Bank[5] has linked remittances from immigrants in the Yuma and Tucson metro areas to Sonora, Mexico. However, the University of Arizona Udall Center's study reported about 65 percent of immigrants in Arizona live and work in Maricopa County. In 2004, immigrants made up 14% of the Arizona workforce, contributing about $6.1 billion in income and $460 million in tax revenues. Immigrants from Mexico account for about 54 percent of immigrants in Arizona according to the 2000 Census. While immigrants from Sonora may still comprise the bulk of Mexican immigrants in Arizona, the flow of immigrants from other Mexican states has increased in recent years. Without better data it is difficult to gauge what geographical implications Arizona's economic slowdown has had on Mexico through declining remittances. It is expected that remittances to Mexico from immigrant workers in the United States will lag behind the recovery of the U.S. economy and until job creation picks-up, remittances will remain at lower levels. As of July 2009, remittances to Mexico in the last seven months were 12.6% lower than remittances to Mexico from January to July of 2008.

3 Gans, J. Immigrants in Arizona: Fiscal and Economic Impacts, the University of Arizona, Udall Center for Studies in Public Policy, 2008.
4 Rytina, N. and J. Simanski, Apprehensions by the U.S. Border Patrol: 2005 – 2008, U.S. Department of Homeland Defense, Office of Immigration Statistics, June 2009.
5 The U.S.-Mexico Remittance Corridor: Lessons on Shifting from Informal Transfer Systems, World Bank Working Paper series.

Fact Sheet

	Alabama	Arizona	California	Colorado	Florida	New Mexico	Texas
Selected Rankings compiled by SBE Council[1]							
State & Local Government Five-Year Spending Trends, 2001-02 to 2006-07	15	36	38	7 (tie)	48	43 (tie)	12
Highway Cost Effectiveness, 2006	29	26	44	31	41	3	12
State and local property taxes	1	24	16	20	38	5	39
Per-capita state and local government expenditures, 2006-07	15	10	47	28	24	37	5
State rankings of crime rate	45	47	24	22	49	46	42
Top corporate income tax rate	7	25	42	8	15	29	1
Top personal income tax rate	12	16	48	17	1 (tie)	19	1 (tie)
Top corporate capital gains tax rate	8	26	43	10	17	30 (tie)	1 (tie)

Top Eight Industry Concentration (based on location quotients)[2]

	Alabama	Arizona	California	Colorado	Florida	New Mexico	Texas
1	Forestry and logging	Lessors of nonfin. intangible assets	Agr. and forestry support	Oil and gas extraction	Water transp.	Postal service	Oil and gas extraction
2	Apparel mfg	Mining, except oil and gas	Motion picture and sound recording	Support for mining	Amusements, gambling, and rec.	Support for mining	Support for mining
3	Textile mills	Postal service	Apparel mfg	Lessors of nonfin. intangible assets	Crop production	Oil and gas extraction	Pipeline transp.
4	Primary metal mfg	Agr. and forestry support	Crop production	Publishing, except internet	Scenic and sightseeing transp.	Animal production	Petroleum, coal products mfg
5	Wood product mfg	Comp. and elec. product mfg	Other info svcs	Telecommunications	Accommodation	Mining, except oil and gas	Rail transp.
6	Textile product mills	Air transp.	Comp. and elec. product mfg	Air transp.	Agr. and forestry support	Pipeline transp.	Heavy and civil engr. constr.
7	Transp. equipment mfg	Admin. and support svcs	Beverage and tobacco product mfg	Beverage and tobacco product mfg	Real estate	Heavy and civil engr. constr.	Air transp.
8	Paper mfg	Credit intermediation and related	Rail transp.	Animal production	Support for transp.	Constr. of buildings	Leather and allied product mfg

Social Indicators	U.S.	Alabama	Arizona	California	Colorado	Florida	New Mexico	Texas
Educational attainment[3]								
Population 25 years and over	197,794,576	3,052,298	4,082,038	23,237,728	3,189,198	12,566,850	1,258,320	14,807,376
Less than 9th grade	6.4%	6.3%	7.4%	10.6%	4.6%	5.7%	8.2%	10.4%
9th to 12th grade, no diploma	9.1%	12.8%	8.9%	9.2%	6.8%	9.4%	9.8%	10.4%
High school graduate	29.6%	32.2%	26.1%	22.4%	24.1%	30.8%	27.4%	26.5%
Some college, no degree	20.1%	20.5%	24.4%	20.8%	22.0%	20.0%	22.5%	21.2%
Associate's degree	7.4%	6.7%	7.8%	7.6%	7.5%	8.4%	7.2%	6.3%
Bachelor's degree	17.3%	13.7%	16.1%	18.8%	22.5%	16.7%	14.3%	16.9%
Graduate or professional degree	10.1%	7.8%	9.2%	10.6%	12.5%	9.0%	10.6%	8.2%
Percent high school graduate or higher	84.5%	80.9%	83.7%	80.3%	88.6%	84.9%	82.0%	79.2%
Percent bachelor's degree or higher	27.4%	21.5%	25.3%	29.4%	35.0%	25.7%	24.9%	25.1%
Crime Statistics[4]								
Violent crime rate in 2007 (per 100,000 population)	467	448	483	523	348	723	664	511
Difference from 1997	-144	-117	-141	-276	-15	-301	-189	-92
Property crime rate in 2007	3,264	3,972	4,414	3,033	3,006	4,089	3,726	4,121
Difference from 1997	-1,048	-354	-2,157	-1,034	-1,281	-2,159	-2,328	-757
Burglary Rate	723	980	912	648	591	996	964	955
Difference from 1997	-197	-34	-407	-279	-205	-464	-488	-79
Larceny theft rate	2,178	2,685	2,738	1,784	2,069	2,689	2,308	2,773
Difference from 1997	-709	-270	-1,544	=647	-1,008	-1,368	-1,576	-547
Motor vehicle theft rate	363	308	763	600	345	404	454	393
Difference from 1997	-143	-49	-207	-109	-68	-328	-263	-131

1 Small Business & Entrepreneurship Council , Small Business Survival Index 2009. **2** Top ten industries in each state whose share of employment is greater than the U.S. share of employment. Source: BLS CEW2008. **3** 2006-2008 American Community Survey 3-Year Estimates. **4** U.S. Department of Justice.

Forecasts

Year-over-year % change Forecasts in bold

	2008	1Q09	2Q09	3Q09	4Q09	2009	2010	2011
US								
Real GDP	1.3					**-2.5**	**1.5**	**2.2**
Employment	-0.4	-3.1	-3.9	-4.2	**-3.6**	**-3.7**	**0.1**	**2.4**
Personal Income	2.9	-1.6	-2.6	-2.7	**1.5**	**-1.4**	**5.3**	**2.5**
Home Sales	-5.1	-7.0	-6.0	-5.0	**-3.0**	**-5.3**	**1.2**	**3.1**
Home Prices	-16.1	-10.4	-5.2	4.3	**9.8**	**-0.4**	**1.4**	**5.6**
Arizona								
Real GDP	-1.4					**-3.6**	**1.2**	**3.0**
Employment	-2.1	-6.6	-7.3	-7.5	**-6.6**	**-7.0**	**-0.8**	**1.3**
Personal Income	-0.1	-4.3	-4.7	-3.3	**-3.0**	**-3.8**	**1.1**	**2.8**
Home Sales	-11.9	-13.8	-15.7	-13.6	**-6.5**	**-12.4**	**-1.2**	**2.4**
Home Prices	13.4	50.2	41.5	10.4	**22.5**	**31.2**	**2.0**	**3.0**
Colorado								
Real GDP	2.0					**-0.5**	**1.6**	**3.4**
Employment	0.8	-2.5	-4.1	-4.7	**-4.2**	**-3.9**	**0.2**	**2.3**
Personal Income	1.1	-3.5	-3.9	-3.6	**-3.5**	**-3.6**	**1.2**	**2.0**
Home Sales	0.8	0.4	-1.1	-1.7	**-3.4**	**-1.5**	**0.5**	**2.0**
Home Prices	-11.0	-17.0	-18.2	-14.1	**-9.0**	**-14.6**	**-1.0**	**3.2**
New Mexico								
Real GDP	1.7					**-1.8**	**1.2**	**2.5**
Employment	0.4	-1.4	-2.7	-3.8	**-4.0**	**-3.0**	**-1.9**	**0.4**
Personal Income	2.8	-1.5	-2.3	-1.1	**-1.3**	**-1.5**	**0.6**	**1.6**
Home Sales	-0.1	-2.8	-3.8	-3.5	**-4.9**	**-3.8**	**2.2**	**2.6**
Home Prices	-25.6	-29.0	-15.9	3.8	**12.6**	**-7.1**	**-1.6**	**0.4**

	2008	1Q09	2Q09	3Q09	4Q09	2009	2010	2011
Alabama								
Real GDP	0.3					**-2.3**	**0.6**	**2.1**
Employment	-0.5	-3.9	-4.6	-4.7	**-4.1**	**-4.3**	**-1.0**	**1.2**
Personal Income	1.3	-2.8	-4.0	-2.2	**-1.7**	**-2.7**	**1.1**	**2.2**
Home Sales	2.5	1.1	0.1	-1.1	**1.8**	**0.5**	**1.6**	**2.0**
Home Prices	-28.8	-25.3	-21.0	-9.6	**6.9**	**-12.2**	**4.8**	**3.2**
California								
Real GDP	-0.2					**-3.1**	**1.3**	**2.1**
Employment	-1.1	-3.8	-4.9	-5.0	**-5.0**	**-4.7**	**-0.6**	**0.7**
Personal Income	-0.1	-3.5	-4.7	-3.9	**-3.8**	**-4.0**	**2.6**	**1.1**
Home Sales	-17.3	-15.9	-12.6	-8.4	**-6.9**	**-11.0**	**-0.3**	**2.0**
Home Prices	28.2	66.2	20.7	3.9	**-12.8**	**19.5**	**5.5**	**3.0**
Florida								
Real GDP	-2.0					**-2.2**	**1.9**	**3.9**
Employment	-3.2	-5.0	-5.0	-4.8	**-4.1**	**-4.7**	**-0.1**	**3.4**
Personal Income	-1.3	-4.3	-5.1	-3.6	**-3.3**	**-4.1**	**1.7**	**3.4**
Home Sales	-14.7	-14.7	-13.9	-12.4	**-11.8**	**-13.2**	**-2.8**	**3.4**
Home Prices	-7.2	25.0	20.8	36.8	**23.0**	**26.4**	**3.0**	**3.0**
Texas								
Real GDP	1.9					**-0.4**	**2.2**	**3.0**
Employment	2.1	-0.5	-2.0	-2.6	**-3.5**	**-2.2**	**1.1**	**1.8**
Personal Income	2.5	-2.6	-3.7	-2.5	**-3.2**	**-3.0**	**1.5**	**3.3**
Home Sales	3.2	2.2	1.2	0.5	**2.1**	**1.5**	**1.7**	**4.4**
Home Prices	-15.4	-22.1	-17.1	-1.9	**2.7**	**-9.6**	**0.2**	**2.0**

Source: BBVA ERD, BEA, BLS, NAR, Census Bureau & FHFA

Economic Structure

	US	AL	AZ	CA	CO	FL	NM	TX
GDP (2008, $ Billions)	14,441	170	249	1,847	249	744	80	1,224
Population (2008, Thousands)	304,060	4,662	6,500	36,757	4,939	18,328	1,984	24,327
Labor Force (3Q09, Thousands)	154,926	2,097	3,195	18,418	2,682	9,204	957	12,035
NonFarm Payroll (3Q09, Thousands)	131,692	1,902	2,421	14,220	2,246	7,356	817	10,352
Unemployment Rate (3Q09)	9.6	10.4	9.1	12.2	7.4	10.9	7.4	8.0
Median Household Income (2008)	52,029	42,586	51,009	61,017	57,184	47,802	43,719	50,049
Housing Units (2008, Thousands)	129,065	2,159	2,723	13,394	2,152	8,800	872	9,599
Houses/1000 Hab, (2008)	424.5	463.0	418.9	364.4	435.7	480.1	439.3	394.6
Home Price (3Q09, YoY Change (%))	-6.5	-1.1	-13.6	-8.4	-1.7	-12.4	-3.5	0.5
Exports of Goods (2009, YTD $ Billions)	762.9	7.9	9.2	91.8	6.0	34.0	0.9	92.1
Change in Exports (YTD YoY Change (%))	-23.9	-24.9	-31.2	-21.3	-20.9	-13.0	-19.9	-22.3

Source: BEA, BLS, Census Bureau & FHFA

BBVA Compass

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