Regional Analysis

Back to the Future: 2016 Growth to Mirror 1986 Regional Decoupling

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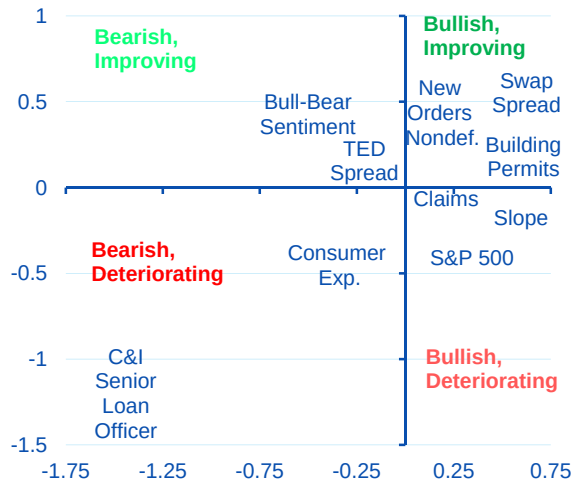
- **Decline in leading indicators likely a reflection of external factors and regional weakness**
- **Based on a state-by-state assessment, 2016 growth will remain somewhat strong, embodying similar features of past regional commodity cycles**
- **Although 14 states currently face a higher than 50% probability of recession and aggregate U.S. risk remains low, deterioration in external factors could tilt the balance**
- **Risk-adjusted opportunities emerging in West and Southeast from domestic rebalancing**

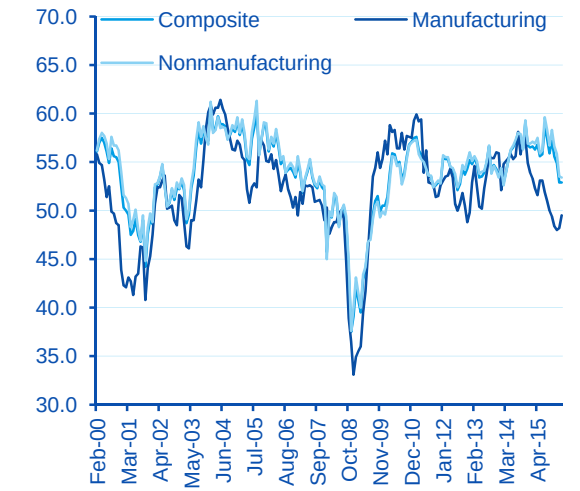
The notion that the U.S. would be edging closer to recession in 2016 was nearly as unthinkable as the hoverboard from the 1980's classic *Back to the Future 2*. However, thanks to human ingenuity, and science imitating art, the hoverboard became an infamous 2015 holiday sensation. While the likelihood of a U.S. recession is the highest it has been since the 2009 downturn, based on a state-by-state assessment, the overall probability remains low. A majority of states stand to benefit from strengthening domestic conditions in certain sectors, such as real estate, and solid consumption of durable goods, particularly autos. In addition, non-energy transportation sectors, along with state and local governments, will benefit from substantial reductions in energy expenditures. The concept of regional decoupling is reinforced by the fact that even with the strong investment cycle into U.S. shale exploration, oil and gas (O&G) activity still only accounts for a small percentage of the U.S. economy.

Chart 1
Leading Indicators
(QoQ change vs one-month ago)



Source: BBVA Research & Haver Analytics

Chart 2
ISM Services & Manufacturing
(<50 = contraction)



Source: BBVA Research & Haver Analytics

However, external headwinds obfuscated the domestic outlook. In fact, global trade volumes, according to the CBP, declined by 0.4% in January, and in USD terms have declined 12.1% since January of 2015. This comes at a time when confidence is waning in the ability of Chinese policy makers to steer the economy through mounting private debt, financial volatility and the transition from producer-to-consumer based economy. Chinese private nonfinancial sector debt-to-GDP ratio now stands at 240%– a figure 26% higher debt levels at the peak of the housing bubble in the U.S.[1] If negative trade flows intensify, it will reinforce the possibility of a global recession.

In spite of the ongoing adjustment in the O&G sector and knock-on risks to other industries, decreased dollar funding, rising inflation and increasing fiscal pressures in export-oriented and emerging market economies concerns of a liquidity crunch are fading domestically. For example, high-yield corporate spreads for energy firms have increased nearly threefold since 2014, but continue to decline from February 2016 highs. Overall appetite for credit has also improved, as spreads on BBB+ and AAA rated corporate have eased. However, in the past two quarters, the number of banks tightening C&I lending standards has increased, and on net is 7.4% and 8.2% higher. In addition to the largest net increase in tightening standards since 2009, demand for C&I loans has also trended downward.

Nonetheless, from the regional viewpoint risks remain muted and overall growth is expected to remain somewhat resilient. However, a la the 1986 regional cycle, the U.S. outlook will be nuanced, implying that states more exposed to foreign demand and commodities and less diversified will bear the brunt of the adjustment while other areas thrive. These "net importers" will become increasingly attractive from both a growth and risk perspective.

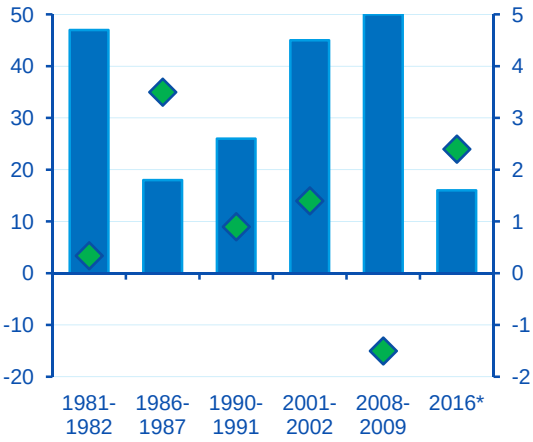
Recession Risk: A Stately Approach

Chart 3
Recession Statistics (1981-2016 YTD)

State Focus	
# Recessions	201
Most Recessions	10 (West Virginia)
Fewest Recessions	2 (Alaska)
Double Dips	15
Quad	1 (West Virginia)
Longest	20 Quarters (Michigan)
2nd Longest	14 Quarters (Michigan)

Source: BBVA Research

Chart 4
Cycle Synchronicity & GDP Growth
(# of states in recession & 2-year avg. U.S. growth)



Source: BBVA Research
*Projection based on number of states with a greater than 50% probability of recession

To better understand aggregate U.S. recession risk, we estimate independent probabilities of recession for each of the 50 U.S. states. With no readily available and consistent measure of state-level recessions, we define and

[1] http://www.economist.com/news/finance-and-economics/21693963-china-cannot-escape-economic-reckoning-debt-binge-brings-red-ink-rising

categorize a recession as at least two consecutive quarters of negative employment growth. Defining recessions using employment reduces the chances of misclassifying an idiosyncratic shock to income as a traditional business cycle.[2]

From 1981 to the present day, there have been 201 recessions, with each state experiencing an average of four recessions over this period. West Virginia, a state highly exposed to commodity cycles and industrial manufacturing, has had 10 recessions (the most), two double-dip recessions (only state), and a quadruple dip recession (only state). Alaska, with only two recessions since 1981, has had the fewest, although current indicators suggest that Alaska is at risk of entering recession within the next quarter.

One of the most remarkable takeaways from the data is the economic hardship that Michigan has endured in the 21st century. In fact, based on this methodology, both the first and second longest state recessions have taken place in Michigan since 2000. The fact that both of these recessions occurred between 2001 and 2010 implies that, during this period, Michigan was in recession for 34 out of 40 quarters or 85% of the time. In fact, in 2014, Michigan's real GDP per capita was lower than in 1999—a far worse performance than Japan over this 15-year period.

Although varying in intensity, 21st century recessions were largely consistent across the 50 states, supporting evidence for the synchronization of business cycles.[3] For example, in 2001, 45 states were concurrently in recession, with only Alaska, Maryland, Montana, New Mexico and Wyoming not entering recession in this period. Likewise, in 2008, during the financial crisis, all 50 states were in recession. The 81-82 recession, which had causes related to high inflation rates (>14%) and tight monetary policy (prime rate: 21%), was also far reaching, as 47 states entered recession; the three non-recessionary states were Alaska, Florida and Georgia.

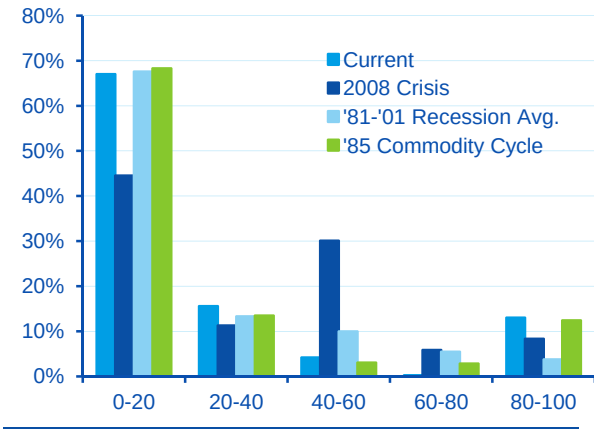
However, unlike the downturn in '81-'82 and 21st century cycles, in 1986, the U.S. experienced a regional and nonsynchronous cycle with only 36% of states entering recession. In this case, growth in oil dependent areas such as Alaska, North Dakota and Oklahoma contracted 16.4%, 6.7% and 5.2%, respectively. Despite severe downturns in commodity rich areas, growth remained positive in the U.S., growing 3.5% year-over-year.

Commodity-Driven Nature of Cycle Implies Nuanced Outlook

Similar to the 1986 regional cycle, that saw oil prices decline by similar magnitudes– 58% (1986) vs. 71% (2016) – activity in the O&G sector has slowed, with strong reductions in planned expenditures for future projects and investment. Companies focused on upstream activities have seen equity valuations trend downward in line with prices. As would be expected, the scenario implies higher risk of recession for states that are commodity-intensive, less diversified and home to smaller leveraged firms at risk of bankruptcies. Based on these assumptions, there will likely be second and third round effects to firms closely tied to commodity industries and to the broader economy. In fact, similar to one quarter prior to the 1986 commodity cycle, 13% of U.S. GDP, or seven states, currently have a higher than 80% probability of recession. Recent data confirms that headwinds have begun to intensify in these states, with GDP declines in North Dakota, New Mexico and Wyoming of 2.9%, 1.2% and 1.6%, respectively, on an annual basis.[4]

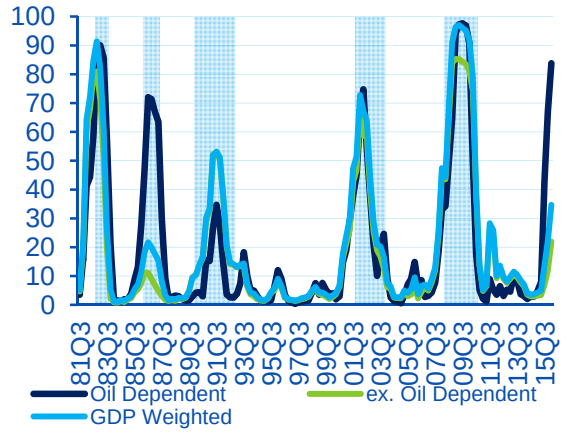
[2] As is the case with national estimates of personal income, state-level estimates are subject to large swings in income that are associated with strong non-economic fluctuations e.g. changes in tax and spending policies associate with dividends, interest, and transfer payments
[3] Optimum Currency Area and Business Cycle Synchronization Across U.S. States
[4] Figures are based on a quarterly prototype estimate of state GDP. Latest available data is for the 3Q15

Chart 5
State-by-State Recession Risk (GDP weighted)



Source: BBVA Research

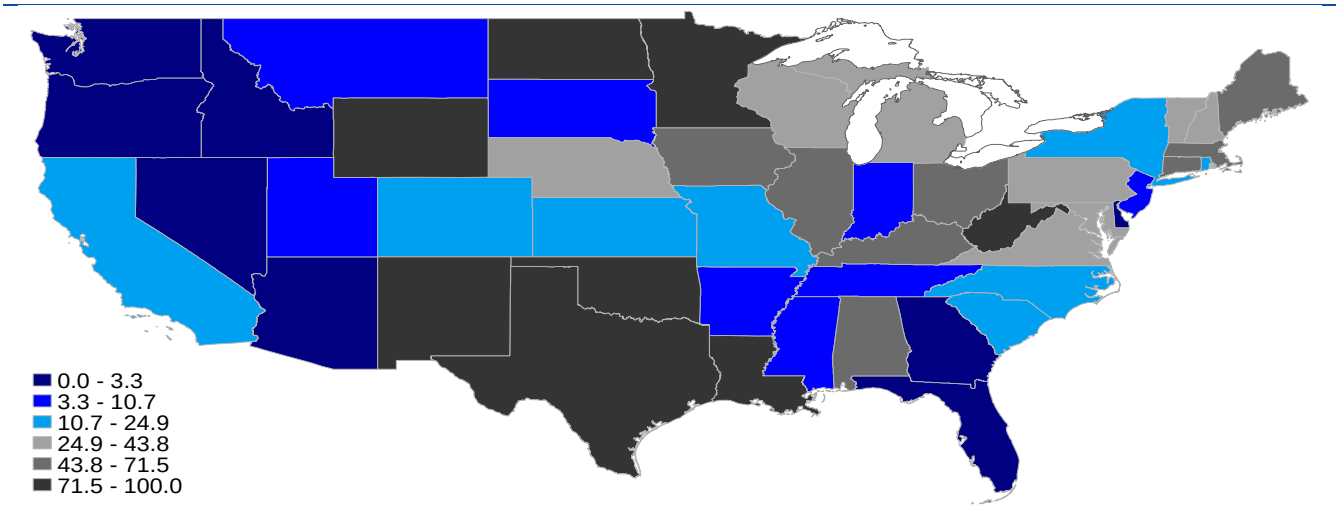
Chart 6
Aggregate U.S. Recession Risk (%)



Source: BBVA Research

In total, 13 states have a higher than 50% probability of recession as of 1Q16, when changes in unemployment insurance claims and business bankruptcies, and the state-specific output gap are considered. These states all have exposure to a combination of O&G, commodities or manufacturing.[5] Although nontrivial, the oil-dependent states only account for 11% of U.S. GDP, with Texas accounting for over 80%. Furthermore, our baseline continues to be that Texas will experience a mild recession in 2016, returning to positive growth in 2017, limiting overall impact on the U.S. economy. This helps explain why, despite a severe contraction in a handful of smaller states, the impact to aggregate U.S. output will be mild. In total, we expect that the oil specific impact will reduce overall GDP growth by less than 0.1pp in 2016.

Chart 7
First Quarter 2016 Recession Probability (%)



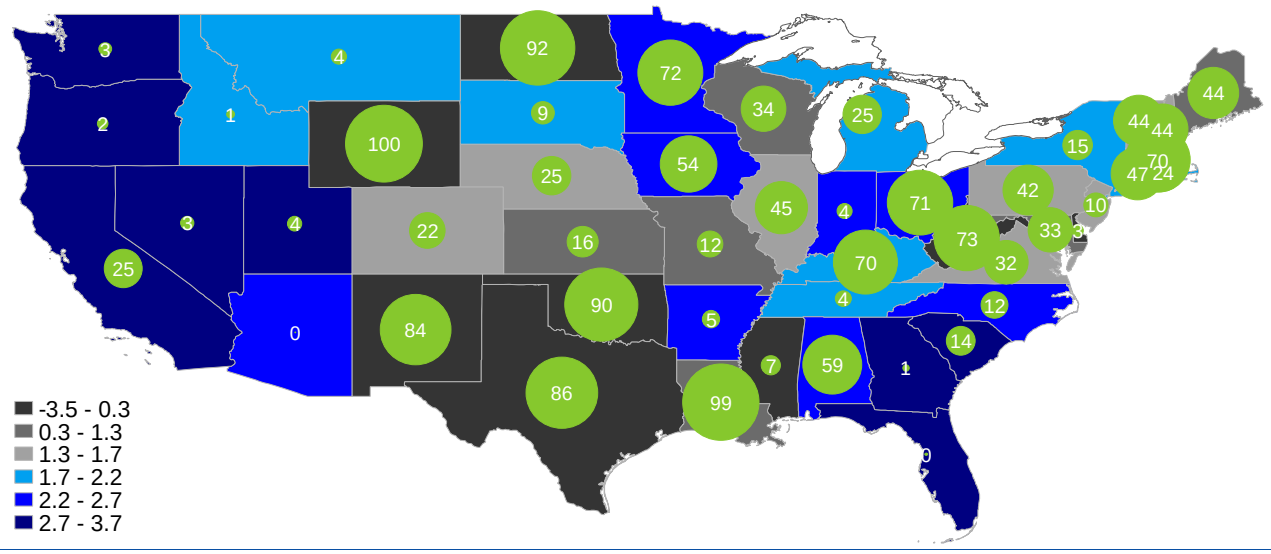
Source: BBVA Research

[5] Specifications for oil-dependent areas include oil prices as an additional explanatory factor. State (probabilities of recession): AK (89.1%), KY (82.8%), LA (89.9%), ND (83.3%), NE (58.8%), NM (91.9%), TX (86.2%) and WY (61.4%). Based on our results, West Virginia began exiting recession in 1Q16

As “net importers” of crude oil products, most states will benefit from low oil prices. For the U.S., the low oil price environment should, at worst, have no impact on growth, and all else equal, should be a positive influence for growth in 2016 and possibly 2017. In fact, the last era of low-stable oil prices in the 1990s was a period associated with rapid growth, high levels of productivity and innovation, and declining U.S. deficits. Despite the significant negative effects of a stronger U.S. dollar and weaker global demand, only 16 states have an export to GDP ratio greater than 10%, and of those, in only two states, the ratio is greater than 20%. Since many of these states that are exposed to global weakness are also commodity dependent, such as Louisiana and West Virginia, the impact of the global economy is somewhat mitigated by the strength of the domestic sectors in less open states.

Identifying Opportunity in Regional Malady

Chart 8
State 2016 GDP Growth & Recession Probabilities (%)



Source: BBVA Research

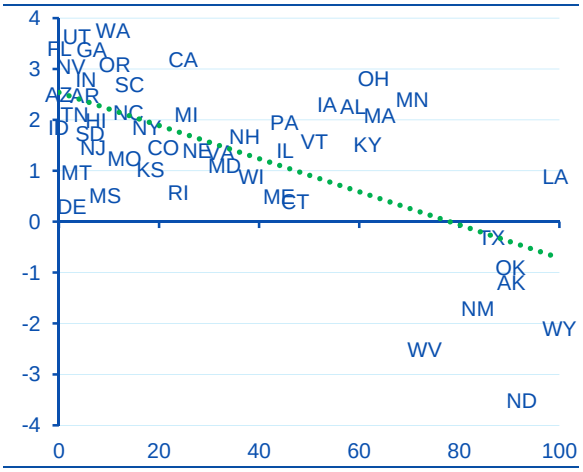
Global economic activity is immersed in one of the largest rebalancing cycles in decades. Commodity producers are reorienting their growth models to accommodate a more competitive market that is also facing structural changes in demand. In addition, monetary policy in the developed world is decoupling, at a time when central banks in emerging markets are trying to address liquidity concerns, currency depreciations, slowing growth and rising inflation. In addition, countervailing fiscal and monetary policies in major developed economies also dampens the outlook for long-run potential growth. However, with uncertainty comes opportunity, and the fact that the transition is in its earliest phases suggests that there is no better time to evaluate the strength of major U.S. markets both internally and against their global peers.

Early estimates for what impact low oil prices would have on global and U.S. growth were unequivocally positive. In fact, at a global level, IMF estimates in 2015 suggested that with a full pass-through to domestic end-user prices, global growth would be 1% higher in the first two years, and with limited pass-through, the effect could be closer to 0.6%.[6] However, those expectations have been tempered by the fact that there have been larger contractions in oil-exporting and emerging markets and little to no transfer to importing developed economies. As

[6] https://www.imf.org/external/pubs/ft/sdn/2015/sdn1515.pdf

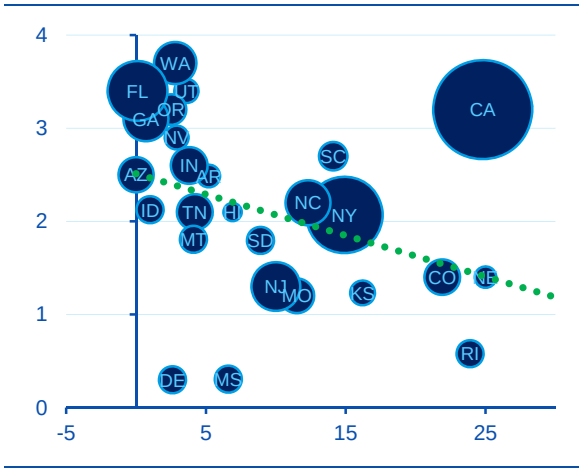
such, U.S. growth will likely fall in-between the overly optimistic expectation for a significant increase in GDP and the overly pessimistic scenario for a negative multiplier from lower oil prices, based on the fact that only a small fraction of U.S. economic activity is exposed to the downside of low oil prices. [7]

Chart 9
1Q16 Recession Risk & 2016 GDP Growth



Source: BBVA Research & Haver Analytics

Chart 10
1Q16 Recession Risk & 2016 GDP Growth (<25%)



Source: BBVA Research

For example, growth in California, Florida and Washington has continued to be resilient amidst headwinds from abroad and unceasing pressure on the dollar, as GDP in these states has increased at an annual rate of 4.2%, 3.5% & 4.1%, respectively, as of 3Q15. Labor markets in California and Florida, which saw unemployment rates rise during the crisis above 11% and 12 %, respectively, are also seeing steady inflows back into the labor force and dramatic reductions in the unemployment rate. At the end of 2015, unemployment rates in both states were at eight-year lows. Meanwhile, although Washington is highly exposed to global demand, exports are mostly related to aerospace and high-tech, which have not been impacted as much and are still benefiting from backlogged orders. Likewise, Utah, Hawaii, Georgia and Nevada all saw growth above the U.S. average as of the third quarter of 2015. Although only a small sample in terms of the number of states, together these states represent one-fourth of U.S. GDP. Other areas are also poised to the benefits from low oil prices, but the West Coast and Southeast are likely to be the brightest spots in the U.S. economy in 2016.

In risk-adjusted terms, the potential is even higher for states poised to benefit from the internal transfer from commodity producer to consumers. At the aggregate level, the U.S. has a 23% probability of recession as of 1Q16; for the oil-dependent areas the average weighted probability is 86.4%. However, after excluding oil-dependent states, the GDP-weighted probability of national recession is 12.3%. Moreover, states that stand to benefit the most from lower oil prices[8] and that are insulated from shocks to the manufacturing sector from the strong dollar have an average probability of recession of 7.8%. Florida, for example, currently has a 0% probability of going into recession and at the same time is poised to grow 3.4%–the third fastest U.S. growth rate. Likewise, California has a 20% probability of recession, but is expected to grow 3.2% in 2016. Other high growth, low risk areas include Washington, Oregon, Nevada, Arizona, Utah and Georgia, North.

[7] The bottom up estimate for GDP in 2016 is **1.9%;** national forecast is for 2.5% in 2016
[8] HI, NH, WA, ID, TN, NJ, MN, OH, IN, NV, PA, CA, IL, CT, FL & NC

To a great extent, low interest rates, declining energy prices and growth in real incomes have boosted the recovery in the real estate sector; in turn, this has allowed faster job creation in the construction sector, which had been a laggard during the post-recession period. Ultimately, none of these trends are at immediate risk of reversal, and because they tend to have large positive secondary and tertiary effects, there is the potential for this cycle to continue to reinforce growth in 2017 and possibly in 2018, suggesting that strategic opportunities may still exist within the U.S.

Bottom Line

Although some pundits are claiming that the global, and potentially the U.S., economies are headed for a repeat of the 2008 global financial crisis, the most probable sequel to debut in 2016 is a remake of the 1986 commodity cycles that led to recession in commodity producing states and solid growth elsewhere. As a result, the risk of recession in 2016 based on a state-by-state assessment is 23% for the U.S., 12.3% for the U.S. excluding oil producing areas and 86.4% for oil producing areas. Despite near certainty of recession in major commodity producing states, the facts that Texas is likely to face only a modest recession, and that the remaining commodity exposed states are a small share of U.S. GDP, suggest that the total impact will be less than 0.1pp of U.S. growth. That being said, states such as North Dakota, New Mexico, Louisiana and Wyoming will face significant challenges in 2016 & 2017. In the end, however, states such as Florida, Washington and California that account for a nontrivial share of overall U.S. GDP are likely to enjoy the economic tailwinds associated with low oil prices and stronger overall growth, becoming increasingly attractive from both a growth and risk perspective.

Chart 11
Forecast Table

	Recession Probability	2016 GDP Growth	Unemployment Rate (EOP)	Home Prices (EOP)
Alaska	90.4	-1.2	6.3	2.4
Alabama	58.8	2.3	6	1.9
Arkansas	5.2	2.5	4.8	1.7
Arizona	0	2.5	5.6	4.9
California	24.8	3.2	5.4	5.6
Colorado	21.9	1.4	3.1	5.3
Connecticut	47.2	0.4	5	3.2
Delaware	2.6	0.3	5	2.5
Florida	0.1	3.4	4.8	9.6
Georgia	0.7	3.3	5.4	2.9
Hawaii	6.9	2.1	3	4.7
Iowa	53.6	2.3	3.3	2.6
Idaho	1	2.1	3.8	5.1
Illinois	45.2	1.4	5.8	2.7
Indiana	3.8	2.7	4.5	1.9
Kansas	16.2	1.2	3.7	2.4
Kentucky	69.7	1.9	4.8	1.5
Louisiana	99.2	0.9	5.7	3.3
Massachusetts	70.5	2.2	4.9	4.6
Maryland	33.1	1.1	5.2	3.7
Maine	44	0.5	3.9	3.8
Michigan	25.5	2.1	5.1	3.5
Minnesota	71.7	2.4	3.4	4.1
Missouri	11.5	1.2	4.4	3.0
Mississippi	6.6	0.3	6	1.4
Montana	4.1	1.8	3.6	3.8
North Carolina	12.3	2.2	5.7	3.0
North Dakota	92.5	-3.5	2.7	7.2
Nebraska	25	1.4	2.9	2.5
New Hampshire	43.5	1.6	3	0.9
New Jersey	10	1.3	5.1	4.7
New Mexico	83.7	-1.7	6.8	-3.7
Nevada	2.9	2.9	6.1	5.4
New York	14.9	2.1	4.7	3.9
Ohio	71.4	2.6	4.6	2.3
Oklahoma	90.3	-0.9	5.8	-1.7
Oregon	2.1	3.2	5.2	5.1
Pennsylvania	42.4	1.5	4.8	2.7
Rhode Island	23.9	0.6	4.9	5.1
South Carolina	14.1	2.7	5.7	3.3
South Dakota	8.9	1.8	2.8	2.8
Tennessee	4.2	2.1	5.5	3.2
Texas	86.5	-0.3	5.9	-1.6
Utah	3.6	3.6	3.4	1.2
Virginia	32.3	1.4	4	2.6
Vermont	43.6	1.5	3.7	3.6
Washington	2.8	3.7	5.4	6.3
Wisconsin	34.2	1.1	4	2.9
West Virginia	73.1	-2.5	6.4	-2.4
Wyoming	100	-2.1	5.5	0.0

Source: BBVA Research