

A tall, modern glass skyscraper with the 'BBVA COMPASS' logo at the top. The building is set against a cloudy sky. A large blue rectangular overlay covers the middle-left portion of the image, containing the report's title and other text. A teal square is positioned at the top right of this blue overlay.

**BBVA** Research

# United States Economic Outlook

Fourth quarter 2018

United States Unit



Creating Opportunities

## Index

<b>1. Editorial</b>	<b>3</b>
<b>2. U.S. Outlook: Market jitters stoke recession fears</b>	<b>5</b>
<b>3. The advent of SOFR and its implications</b>	<b>11</b>
<b>4. The rise of the U.S. as an energy super power</b>	<b>15</b>
<b>5. Regional recession risks minimal, as tailwinds intensify</b>	<b>21</b>
<b>6. Global economy: Global growth is moderating slightly and risks are intensifying</b>	<b>27</b>
<b>7. Forecasts</b>	<b>30</b>

Closing date: **31 October 2018**

# 1. Editorial

On November 6, American voters will head to the polls in what is considered to be one of, if not the most, polarized midterm election in modern history. Common thinking suggests that a divided government does better at maintaining fiscal prudence while the need to negotiate with the opposition results in more moderate policies and less uncertainty, which tends to benefit investment, employment and asset prices. However, economic performance can also be stronger when one party has full control of government and is able to pass structural reforms and pro-growth legislation, while avoiding inefficient legislation that only benefits interest groups.

In practice, the short-term economic outlook should not change materially regardless of which party ends up controlling Congress after the midterm elections. First, it is hard to disentangle economic performance during the two years after the midterm elections from policies that were adopted during the first two years of the presidency or even during the previous administration. Second, the effects of major events such as the Great Recession, the disinflation process during the 90's, technological disruption, globalization and profound demographic changes in the last 10 years, extend well beyond short-term political cycles. Moreover, empirical evidence is limited; only in four of the last 39 post-midterm election years has one party governed with full control of government.

However, the long-term economic impact could be significant if extremism and populism replace sound and effective public policy choices. For example, federal spending on research and development as percentage of total outlays has been declining persistently for more than 50 years. In 2017, it reached the lowest share since 1955. Meanwhile, in five more years, 17 cents out of each dollar in fiscal revenues will go to finance federal debt, 50% greater than the average in the last 53 years.

When it comes to current party preferences, it is possible to infer different scenarios. If Republicans maintain control of both chambers, it is unlikely they will gain the 60 votes required to overcome Senate filibuster. However, through the budget reconciliation process, which requires only a simple majority, they could try another shot at repealing the Affordable Care Act and pass additional tax reform; many provisions of the 2017 Tax Act are set to phase out or expire over the 2023-2026 period. In addition, Republicans could try to avoid the expected 1.6% drop in discretionary spending in 2020. This could be done by raising the caps as they did for 2018 and 2019. However this would imply even higher deficits, or require rebalancing spending through cuts to mandatory programs. In any case, some support from the Democrats will be needed to pass budget legislation. In addition, a Republican-led Congress will try to move ahead with the border wall and roll back the regulatory authority of certain agencies, while supporting further deregulation efforts.

If Democrats gain control of one or both chambers, they could try to limit the president's power over trade policy on the basis of national security, block additional tax cuts and restrict cuts to welfare, Medicare and Social Security. In this scenario, the battles over immigration and health care are also likely to intensify, but neither party will have leverage. Notwithstanding the political differences, Democrats could negotiate with the Trump administration an infrastructure package. However, the power of the presidential veto implies that Democrats would not be able to implement their priorities. Still, they could limit appointments and initiate subpoenas related to the Russia investigations, corruption scandals and other controversial issues surrounding the Trump administration.

At the regional level, the election will determine the governor in 36 states and at least half of state senators in 42 states. In 34 states, the elected governor will be in office for the 2020 redistricting. In 30 states, half or more of state senators will also be in office for the next redistricting. Therefore, regional elections will have a significant impact on the electoral map for the next decade. In addition, majority control at the local level would encourage state legislatures to adopt more extreme agendas. A greater number of Democratic legislatures could also result in more legal and constitutional challenges.

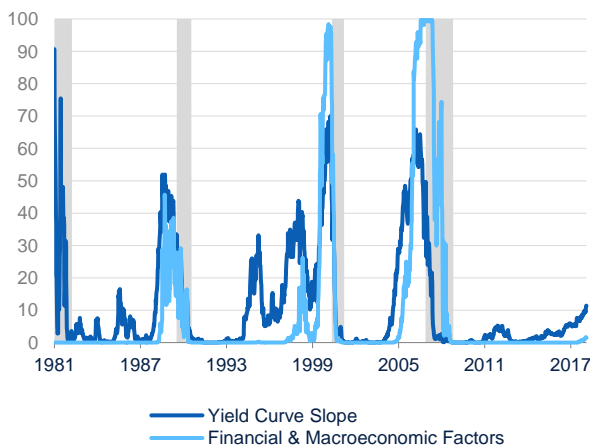
In sum, the midterms are not a major upside or downside risk to the short-term economic outlook, but the 2018 elections could defy all expectations and be remembered as the most important in a generation. Extreme policies implemented in recent years in an environment of labor market disruption, demographic and cultural changes, and rising inequality, guarantees elevated levels of polarization, identity politics, and frustration with traditional institutions. If these trends persist, the breakdown of the political landscape is likely to have significant consequences on policy choices and economic performance in years to come. Therefore, moving away from trivial partisan warfare toward more balanced and consensus policies is more likely to boost the well-being for the vast majority of Americans in the long-run.

## 2. U.S. Outlook: Market jitters stoke recession fears

Market volatility, rich equity valuations, inflationary pressures, a jolt of hawkish monetary policy and the length of the current expansion ratcheted up recessionary fears in the 3Q18. Based on empirical evidence and our judgement on the potential for imbalances within the U.S. economy, although the probability of recession within the next twelve months is edging up, it remains low. In fact, private domestic consumption remains strong while government consumption and investment is set to rise in response to the expansionary fiscal plans. In fact, we continue to expect above average growth in 2018 and 2019, but expect headwinds to start to accumulate in 2019, pushing GDP growth closer to potential thereafter. With growth above potential and ongoing labor market tightening, we expect the Fed to continue reducing the size of its balance sheet and normalizing interest rates at a gradual pace as long as inflationary pressures remain contained.

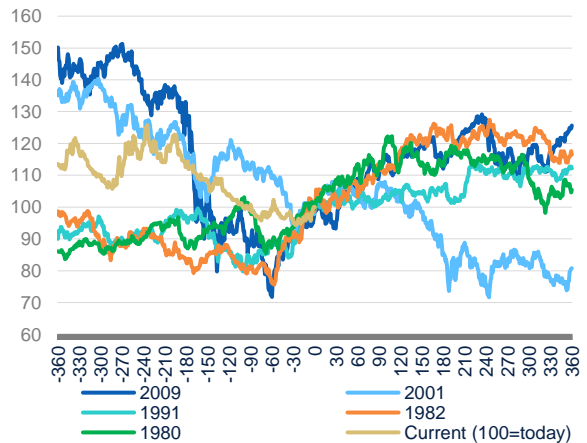
In fact, the third quarter GDP report showed an annualized increase of 3.5% in real output; a faster pace than we expected, but slower than the 4.2% gain in the previous quarter. On a year-on-year basis, growth was 3%, the highest rate since 2Q15. The strong growth in personal consumption was supported by solid gains in services (health care) and nondurable goods (recreational vehicles). A strong reversal in inventories added more than 2pp to quarterly growth while government consumption and investment increased 3.3%, the highest rate since 1Q16. However, nonresidential investment posted its weakest reading (0.8%) in seven quarters while residential investment declined 4%. In addition, net exports subtracted 1.8pp during the quarter, reversing the solid contribution (1.2pp) in the previous period.

Figure 2.1 Probability of recession within 12 months, %



Source: BBVA Research

Figure 2.2 S&P and business cycles, index 100=recession date

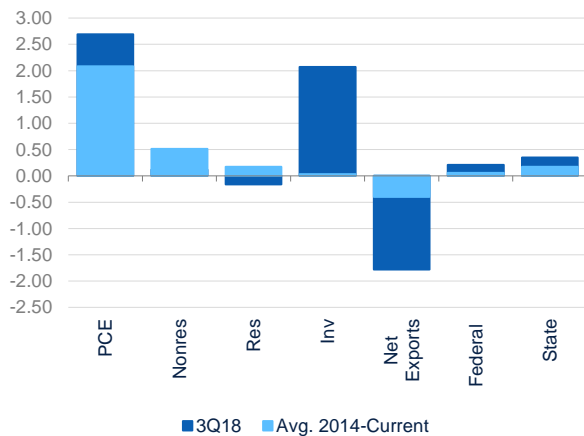


Source: BBVA Research & Haver Analytics

These trends confirm that the personal income tax cuts and the increase in fiscal outlays are boosting economic growth. However, private investment has been slow to respond to the fiscal impetus. On trade, the USD appreciation, lower domestic savings and tariffs are beginning to bite into the trade balance. Although government spending will continue adding to real GDP growth, without a major upward surprise on private investment, total output is likely to continue decelerating, as the initial boost from the tax cuts on personal spending fades away and foreign trade flows continue to rebalance. As a result, there is a high probability that growth in 2018 will be slightly higher than our

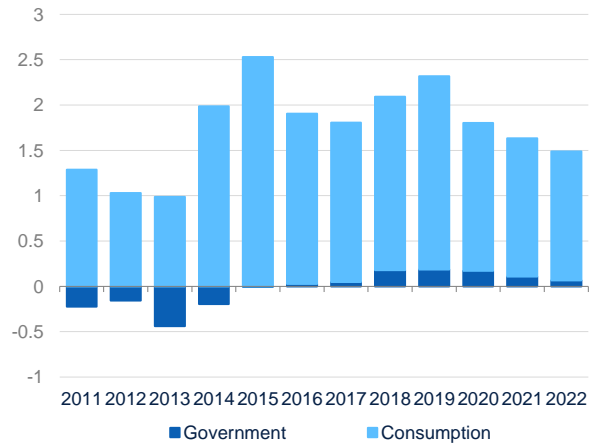
baseline forecast of 2.8% year-over-year, but anticipate conditions in 2019 will remain in line with our unrevised forecast of 2.8%.

Figure 2.3 Annualized quarterly GDP growth, contribution (pp)



Source: BBVA Research, BEA & Haver Analytics

Figure 2.4 Government and personal consumption, contribution (pp)



Source: BBVA Research, BEA & Haver Analytics

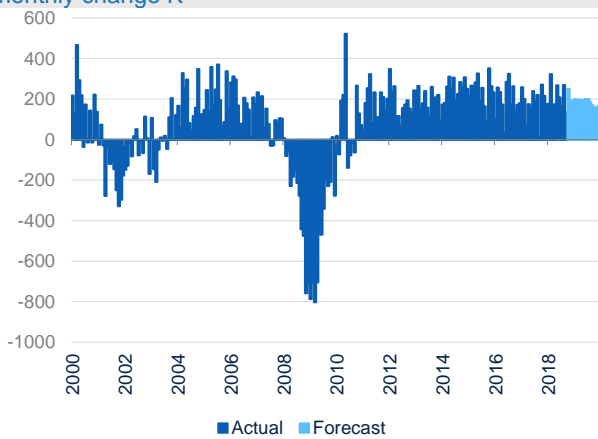
In terms of the labor market, the U.S. added 205K jobs per month in 3Q18, a rate slightly lower than the revised numbers from the 2Q18. In terms of industry trends, the quarter showed solid gains in professional and business services (50K per month), construction (20K per month), manufacturing (18K per month), and hospitality and leisure (17K per month). The strong employment growth and impact from the major hurricanes in the southeast pushed the unemployment rate to a 50-year low at 3.7%.

While the unemployment rate edged down, broader measures of the labor market strength such as the employment-to-population ratio and labor underutilization rate (U-6) deteriorated over the quarter while the participation rate held steady. That being said, the prime-age participation has continued to trend upwards. Going forward, we continue to expect further tightening in the labor market, with monthly job creation rates remaining around 200K per month. We expect the unemployment rate to hold steady for the rest of the year, as the noise generated from the hurricanes shakes out of the data.

Despite a tightening in labor market conditions, inflationary pressures eased somewhat in the 3Q18. On a year-over-year basis, both core and headline CPI lost some momentum with rates stabilizing at 2.2% and 2.6%, respectively. While shelter costs continue to trend well above 2%, areas that had been contributing strongly to rise in inflation such as medical services and commodities, and energy prices eased somewhat. With respect to personal consumption expenditures (PCE), data over the quarter were in line with our forecast for inflation to remain close to the Fed's 2% target. Moreover, the Fed's slightly hawkish communication has successfully kept inflation expectations anchored. Similar to last quarter, despite signs of rising fiscal deficits and extremely tight labor markets, the probability of entering a high inflation regime was negligible at 0.8%. As a result, we are maintaining our core PCE inflation forecast at 1.9% in 2019 and 2.1% in 2020.

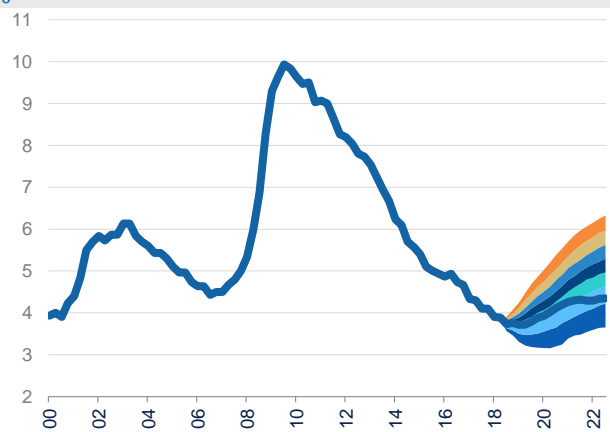
The drop in equity prices, increase in interest rates and appreciation in the U.S. dollar have led to a mild tightening of financial conditions. Political uncertainty associated with the midterms and ongoing tensions with China have the potential to continue to put pressures on the level of financial tensions. That being said, excluding credit cards, bank's willingness to lend has increased according to the Senior Loan Officer Survey, although the demand side conditions remain mixed. In addition, while the difference between corporate yields and benchmark rates have decompressed somewhat, there does not appear to be any immediate risk of nontrivial rise in spreads.

Figure 2.5 Nonfarm payroll employment, monthly change K



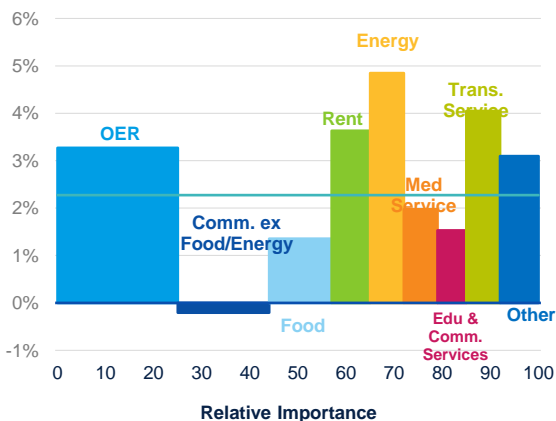
Source: BBVA Research, BLS & Haver Analytics

Figure 2.6 Unemployment rate, %



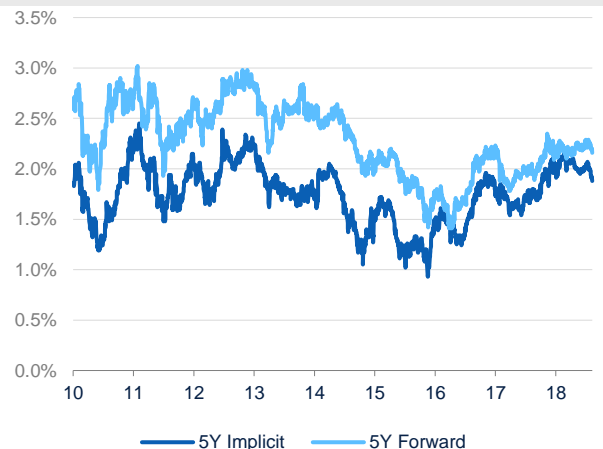
Source: BBVA Research, BLS & Haver Analytics

Figure 2.7 Consumer price inflation, 12 month change



Source: BBVA Research, BLS & Haver Analytics

Figure 2.8 Inflation expectations, %

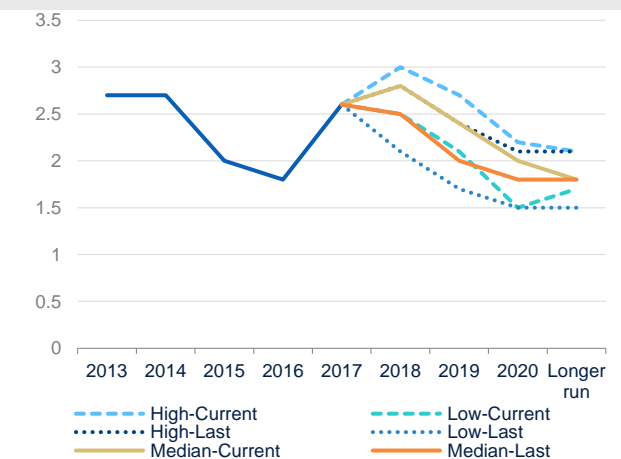


Source: BBVA Research, BLS & Haver Analytics

However, reduced monetary policy accommodation will continue to tighten financial conditions, particularly when considering the hawkish leaning of some FOMC members. In fact, the post-meeting communication from Chairman Powell and NY Fed President John C. Williams has tilted towards the hawkish side with both rhetorically downplaying the importance of the neutral interest and instead recalibrating the strategy to one that is data dependent. This

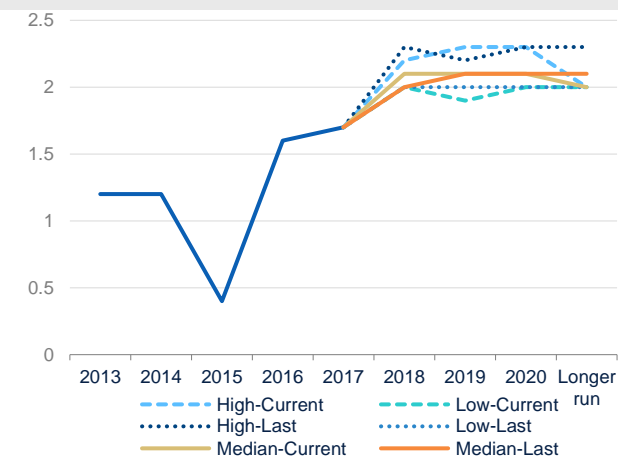
dependency, however, will be a shift in strategy, as the fine-tuning will be skewed towards containing potential inflationary pressures to the upside as opposed to defending against deflation and labor market slack. In other words, a correction in asset prices and financial markets is an expected and desirable outcome of policy normalization and thus far, the magnitude of this adjustment seems to be within Fed’s acceptable boundaries.

Figure 2.9 Summary of economic projections- GDP, %\*



Source: BBVA Research & FRB  
\*Current=September 2018, Last= June 2018

Figure 2.10 Summary of economic projections- PCE, %\*



Source: BBVA Research & FRB  
\*Current=September 2018, Last= June 2018

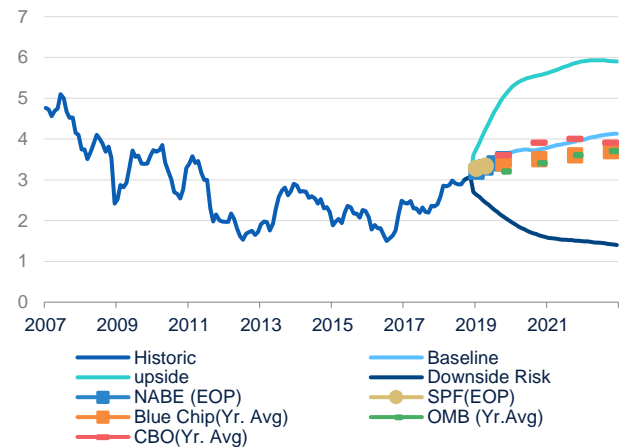
Moreover, the FOMC’s forecasts for GDP and inflation are extremely optimistic, as both are trending towards the upper bounds of the Summary of Economic Projections (SEP) from earlier this year. In addition, most members of the committee are convinced that, at least in the short-run, the tax stimulus and government spending will support stronger growth this year and next. This change in the committee’s outlook puts their economic outlook for 2018 and 2019 broadly in line with ours, which assumes growth of around 2.8% and inflation slightly above the target of 2.0%. With this in mind, we continue to believe that the Fed will raise rates one more time in December and three more times in 2019, a scenario markets are beginning to warm up to. However, market volatility and low reading on the personal consumption deflator has reduced market expectations for 3+ rates in 2019, which are now slightly above 30%.

After a period of substantial narrowing of the yield curve slope, there has been some decompression in the spread between 10-year and the 6-month U.S. Treasuries—the best predictor of recessions. The decompression was largely associated with a rise in the term premium that appears to be related to a reversion in global carry-trades, a shift in market expectations for future Fed funds rate increases and the strengthening of the domestic outlook for growth. This adjustment is consistent with our baseline that assumes some narrowing of the yield curve, but no yield curve inversion.

Going forward, the uncertainty associated with the escalating trade war, geopolitical risks in Europe and financial stress in large emerging market economies continue to present a downside risk to long-term yields. That said, mismatch between in the supply and demand for treasuries could grow as the Fed enters the final phase of balance sheet normalization, putting upward pressure on the term premium. We continue to view the risks to long-term yields as balanced, and as a result, our forecast for the 10-year U.S. Treasury remains unchanged at 3.6% by the end of 2019 and 3.8% by year-end 2019.

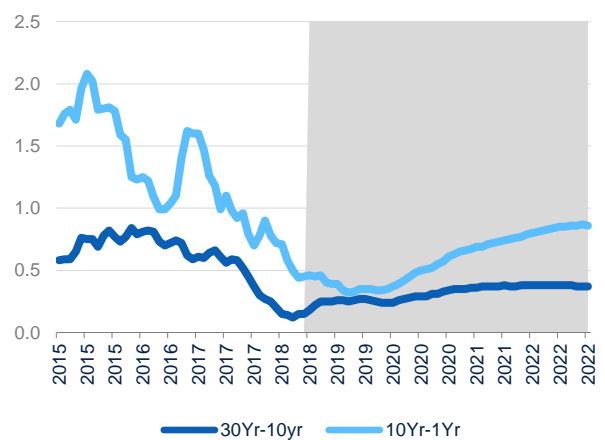


Figure 2.11 10-Year Treasury yield, %



Source: BBVA Research & Haver Analytics

Figure 2.12 Yield curve slope, pp



Source: BBVA Research & Haver Analytics

In terms of the risk balance, conditions appear to be edging to the downside given that the momentum from the fiscal expansion will begin taper down. Moreover, investment in equipment and structures has been tepid despite targeted changes to corporate taxes that were supposed to lift investment, particularly in the short-run. Without the added boost from stronger private investment, increased productivity and higher real wages, the implications for the U.S. fiscal outlook is dire. As it stands, annual deficits are projected to reach \$1.5 Trillion by 2028, and as a result, debt held by the public rises to 96.2% of GDP. While the immediate risks are small given the USD's ubiquity and importance, any shortfall in revenue or failure to keep expenditures contained could jeopardize U.S. long-term fiscal sustainability. Likewise, an unanticipated retrenchment in foreign demand for U.S. government bonds would also have a major impact on interest rates and confidence.

While threats to the medium-term outlook have become muddled by the rising political and geopolitical uncertainty, progress by the U.S., Canada and Mexico on the trade front should ease tensions somewhat. On the other hand, tensions between the U.S. and China have escalated and the threat of a full-scale trade wars seems imminent at this point based on communication from the White House. In addition, the steady rise in interest rates has stoked fears in some emerging markets with weaker fundamentals, and has led to some contagion and portfolio rebalancing domestically, thereby drawing the ire of President Trump.

While the U.S. experienced a nontrivial narrowing of the trade balance in the 2Q18, data from the third quarter suggest the trend was short lived, with net exports knocking 1.5pp off annualized quarterly growth. The reversal, while dramatic, is consistent with macroeconomic policy and the trade war, which should worsen the terms of trade in the short-term. In fact, our baseline assumes a moderate widening of the deficit; however, a more dramatic drop in domestic savings and equally large increase in domestic investment could further deteriorate the terms of trade. In a political environment supportive of modern mercantilism and politicized trade deficits, there is a risk that further deterioration of the current account balance could produce more insular and hostile trade policies that would could accelerate the vicious cycle of protectionism and nativism.

The threat of recession could further strain the fiscal outlook, but as of week of October 15<sup>th</sup> our recession probability model suggests that risk of recession within the next 12 months is less than one percent. After including the cyclically adjusted equity prices to earnings ratio the probability rises slightly to 1.5%; using only the spread between the 10-year

and 6-month Treasury, adjusted for the compressed term premium, implies a probability of 11.4%. Despite overall financial conditions being accommodative, a sharp correction in equities and corporate spreads is possible. That being said, economic fundamentals for households and financial institutions remain solid. While the downside risks for nonfinancial businesses and real estate are edging up amid high leverage ratios and rising interest rates, conditions remain below previous thresholds.

Moreover, the structural shifts that the economy has undergone in the past thirty years could encourage longer and less volatile business cycles, particularly with the rise in intellectual property investment. Traditionally, the Fed imparts the greatest influence on the business cycle through user cost of capital and interest rates. Intangibles, software and research and development, however, are far less sensitive to interest rates changes given their higher than average depreciation rates. Moreover, non-asset-based lending has illiquid or scant markets, and as a result, they represent a more difficult segment for traditional finance to lend to. This suggests that the transmission of monetary policy will diminish as the share of intangibles rises. Furthermore, if the 2017 tax changes promote lower levels of debt financing relative to equity, investment will be less rate sensitive and the investment cycle less volatile.<sup>1</sup>

With the trade war intensifying, increasing policy uncertainty and the tailwinds from fiscal stimulus likely to fade we believe that risks are titling to the downside. That being said, a Democratic victory in the house could soften the administration's agenda and potentially increase the chances of tackling infrastructure investment, a policy that traditionally has Democratic support and has the potential to buoy the president's economic agenda. In addition, although a Democratic victory would imply a divided government, the outcomes could become more predictable and less extreme, which could assuage market fears and lower political uncertainty. On the trade front, the tepid investment from the private sector in response to the costs and uncertainty related to the tariffs could be reversed with a sound compromise between the U.S. and its major trading partners. Doing so could also reinforce the president's chances of fulfilling his economic promises at a time when faith in the economic agenda may be waning.

---

1: [https://www.bbvaresearch.com/wp-content/uploads/2018/09/180924\\_US\\_JustWhatTheDoctorOrdered.pdf](https://www.bbvaresearch.com/wp-content/uploads/2018/09/180924_US_JustWhatTheDoctorOrdered.pdf)

### 3. The advent of SOFR and its implications

Reference interest rates are one of the key pillars supporting the global financial system. They underlie hundreds of trillions of dollars of financial instruments and are also used for valuation and accounting purposes. While the primary reference rate in U.S. dollars today is the London Inter-bank Offered Rate (LIBOR), a transition process is underway away from U.S. dollar LIBOR onto a new U.S. dollar reference rate called Secured Overnight Financing Rate (SOFR).<sup>2</sup> There are several conceptual differences between the two rates, and the transition will have a significant impact across financial institutions.

#### LIBOR and SOFR - handing over the baton

LIBOR was established in the late 1960s and has come to underlie around \$200 trillion in U.S. dollar-based derivatives and loans<sup>3</sup>, which is approximately ten times current U.S. GDP, and hundreds of more trillion in other major currencies. The reference rate is produced by surveying a panel of banks. LIBOR was in the middle of one of the biggest scandals that emerged after the Great Recession, which brought to light manipulation of the reference rate over an extended period of time by some market participants. Central banks have been aware of certain LIBOR flaws for some time, the primary one being the decline in wholesale unsecured funding and thus transactions that could be used to support rate submissions, so the scandal became a call for action that resulted in not only stricter regulation of LIBOR, but also a search for alternatives. In November 2014, the Federal Reserve Bank of New York (FRBNY) convened the Alternative Reference Rates Committee (ARRC) with the task to identify a reference rate that could replace the U.S. dollar LIBOR. Last year, the committee proposed SOFR as the alternative to LIBOR, with a paced transition plan that should be implemented between 2018 and 2021.

Relative to LIBOR, SOFR is a broader measure of the cost of borrowing cash, as the borrowers and lenders do not have to be exclusively banks, and refers to overnight borrowing that is collateralized primarily by Treasury securities. SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data<sup>4</sup>. It is the broadest of all measures identified by the FRBNY to be in compliance with the International Organization of Securities Commission (IOSCO) Principles for Financial Benchmarks, which in turn were adopted in the wake of the LIBOR scandal. The other two reference rates adopted by the FRBNY are the Broad General Collateral Rate (BGCR) and the Tri-Party General Collateral Rate (TGCR). Both rates reflect a progressively smaller part of the repo universe (Figure 3.1). All three rates are published by the FRBNY every business day on its website at approximately 8:00 a.m.

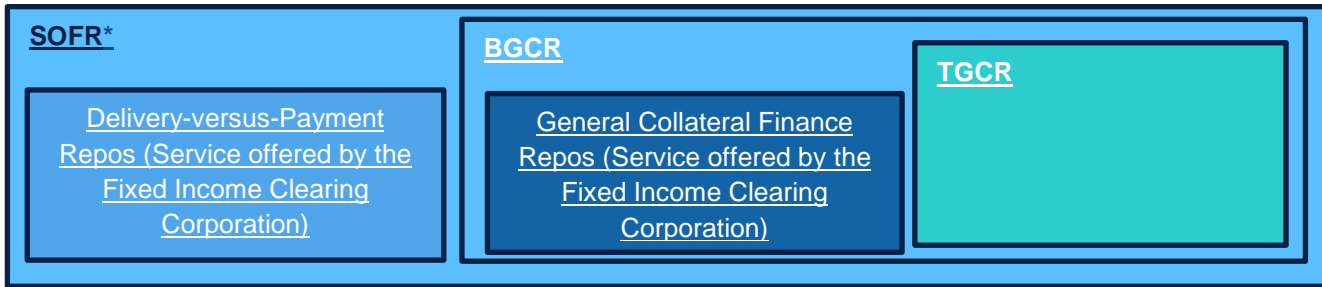
---

2: There is a LIBOR benchmark for each core currency: U.S. dollars, Euros, British Pounds, Japanese Yen and Swiss Francs. The alternative benchmark developed for each currency is different. This article focuses only on U.S. dollar LIBOR and SOFR.

3: Second Report. The Alternative Reference Rates Committee. March 2018

4: For more information see <https://apps.newyorkfed.org/markets/autorates/sofr>

Figure 3.1 SOFR, BGCR and TGCR



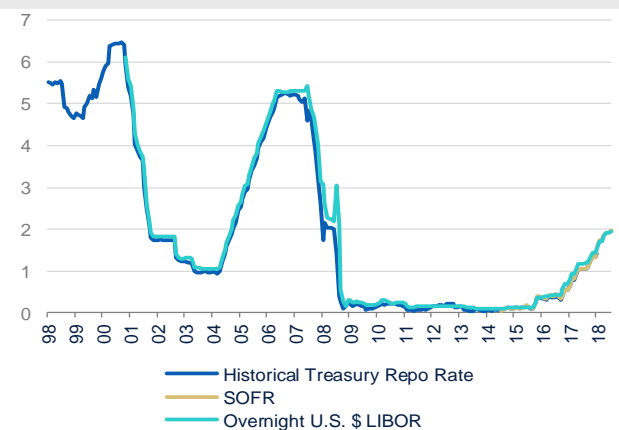
\* Filtered to remove a portion of transactions considered "specials"  
 Source: BBVA Research

Some market participants have started using the new benchmark since the start of the publication of SOFR in early April, and Fannie Mae broke the ice by issuing a \$6bn floating rate note in July while the World Bank issued a \$1bn floating rate bond in August. They were followed by private financial institutions, primarily global banks. While no major stumbling blocks have been identified so far, the transition away from LIBOR is still in its early stages and the differences between the two benchmarks could pose some challenges.

### Secured vs. unsecured

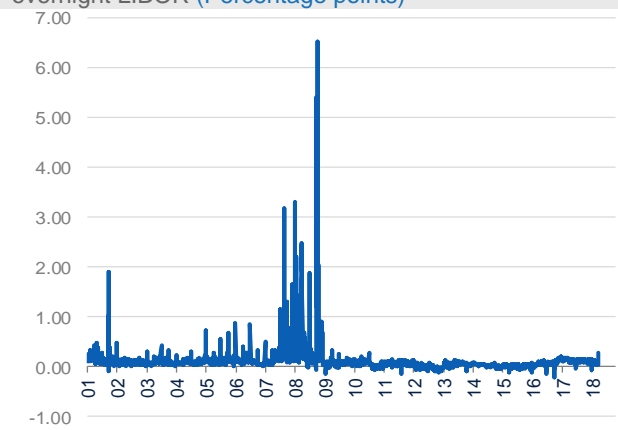
The first key difference between LIBOR and SOFR is that while LIBOR is a rate for interbank unsecured lending, SOFR is a rate that reflects lending secured with treasuries and other general collateral assets (treasuries and equivalent high quality, highly liquid securities). As such, SOFR is closer to the risk-free rate than LIBOR. While this difference might not matter most of the time (Figure 3.2), it could lead to significantly different behavior of the two rates under conditions of high financial stress. For example, the overnight LIBOR and the historical repo rates diverged significantly over the June 2007-December 2008 period, with a series of spikes in September and October 2008 – the time around the bankruptcy of Lehman Brothers. The peak in divergence between LIBOR and historical repo rates occurred on September 30<sup>th</sup>, when the two rates diverged by 6.5 percentage points (Figure 3.3).

Figure 3.2 Reference interest rates (%)



Source: BBVA Research and Haver

Figure 3.3 Spread between historical repo rates and overnight LIBOR (Percentage points)



Source: BBVA Research and Haver

The divergence between the two rates does not only come from LIBOR's unsecured nature, but also because of the combination of SOFR being virtually risk-free and short-term, which could lead to it falling below some of the other risk-free benchmarks in high stress circumstances. For example, there were multiple instances in the eve of the Great Financial Crisis when repo rates fell below the Federal Funds Rate due to liquidity hoarding by some market participants (Figure 3.4). This so-called "rally risk" (when the value of the contract increases as interest rates fall) could also affect the pricing and behavior of financial instruments that are based upon it.

Because of the different properties of the two rates, the behavior of LIBOR cannot be extrapolated onto SOFR. Since LIBOR underlies a large amount of instruments, particularly derivatives, this implies that the transition from LIBOR to SOFR could have some impact on financial markets going forward and will require adjustments in expectations and models.

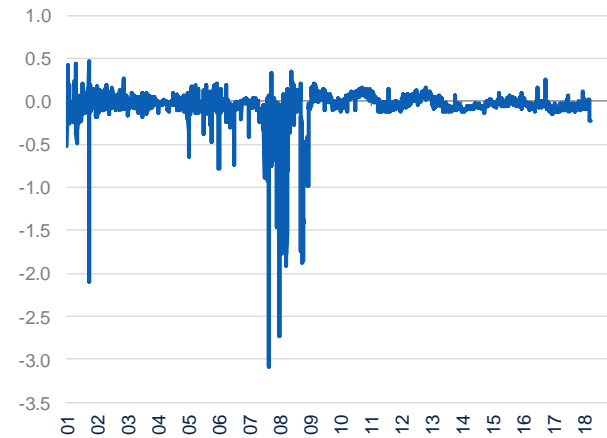
## Overnight vs. term

The second key difference between LIBOR and SOFR is that besides being available for overnight borrowing, LIBOR is also priced for terms of one week and one, two, three, six and twelve months, whereas SOFR is by definition only a rate for overnight lending. The three month LIBOR is of particular importance for banks, as a vast majority of bank products use it as the reference rate. To overcome the problem that emerges from unavailable term information, the ARRC worked with the Chicago Mercantile Exchange (CME) to establish futures based on SOFR. In May of this year, the CME launched the 1- and 3-month SOFR futures and is working on additional instruments which would help generate a SOFR-based yield curve to provide reference rates at different term horizons. The trading volume for these futures is still low, which is understandable since the value of debt instruments based on SOFR that are outstanding at the moment is less than \$10bn. Nevertheless, the futures trading volume has been increasing. Market activity has also emerged in SOFR swaps, with market participants trading in SOFR vs. Fed Funds and SOFR vs. LIBOR swaps since July. This will help build liquidity in the SOFR derivatives market, which would then be the basis for calculating longer term reference rates based on SOFR, as well as helping to smooth the transition from one rate to the other. In any case, the shape of the SOFR-based yield curve should be similar to the U.S. treasury yield curve, since SOFR is based on lending secured by U.S. treasuries and equivalent instruments. In contrast, LIBOR incorporates a credit risk premium over the Treasury curve that reflects the creditworthiness of large international banks when they lend money to each other.

## Transition

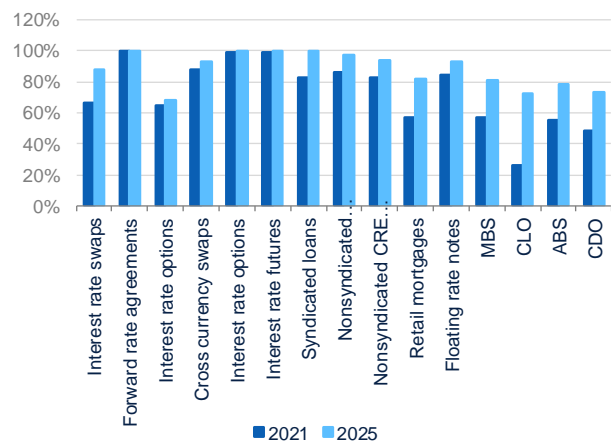
The transition to a post-LIBOR world will be a significant undertaking for market participants due to both the need to address the conceptual differences between the two reference rates and the operational adjustments that will have to be implemented. The adjustment roadmaps at most institutions will have to approach the transition in two ways. First, by moving away from LIBOR into SOFR-based instruments at the same time as existing LIBOR exposures mature, but with LIBOR still in existence, which is at least until the end of 2021. Second, by adjusting up to \$36tn in LIBOR exposures that mature beyond 2021, in an environment where LIBOR potentially ceases to exist. Based on data from the Federal Reserve, around 82% of the USD LIBOR exposure matures by the end of 2021 and 92% matures by the end of 2025. Forward rate agreements have the highest share of instruments maturing before the end of 2021 and collateralized loan obligations have the lowest share (Figure 3.5).

Figure 3.4 Spread between historical repo rates and Fed funds rates (percentage points)



Source: BBVA Research and Haver

Figure 3.5 Share of estimated U.S. dollar LIBOR footprint maturing by 2021 and 2025 (%)



Source: BBVA Research and Federal Reserve

In regards to the amendments needed for new financial contracts, the ARRC released guiding principles for the development of fallback language in July 2018. Trade associations have drafted some recommendations for members on meeting this challenge and have established working groups. For example, the Loan Syndications and Trading Association is encouraging market participants to review the long-term suitability of existing fallbacks in credit agreements and the flexibility to amend agreements to select a new rate.<sup>5</sup> The American Bankers Association is holding discussions regarding implementation considerations among loan officers, credit officers, in-house legal counsel, regulatory or compliance staff, risk managers, financial function staff, etc.<sup>6</sup> The International Swap Dealers Association (ISDA) is also working on fallback language for derivatives transactions.

The transition challenges go beyond adjusting expectations, models and legal contracts. The Transition Roadmap published by ISDA and other associations<sup>7</sup>, grouped the transition challenges in nine themes, seven of which will need to be addressed by market participants internally: Valuation and Risk Management, Tax, Regulatory, Legal, Liquidity, Accounting, and Governance and Controls. Each financial institution will face somewhat different challenges based on its different exposure, regulatory environment and practices.

## Bottom line

The transition from LIBOR to SOFR is still in its initial stage at most financial institutions. The size of the exposure to U.S. dollar LIBOR and the differences between the two reference rates are significant enough to warrant careful attention by all market participants. While the transition towards SOFR is progressing according to plans laid out by regulators, the SOFR market still lacks the robustness needed for a reference rate that could make LIBOR obsolete. Nevertheless, the question is not if the transition will be completed, but when. Financial institutions should expect significant investment in time and resources to ensure that the transition proceeds smoothly over the coming years. In any case, the transition toward a more transparent and market-based system should buttress financial stability.

5: LSTA. LIBOR Fallbacks: A Snapshot of Syndicated Loans. <https://www.lsta.org/news-and-resources/news/libor-fallbacks-a-snapshot-of-syndicated-loans>

6: ABA Banking Journal. From Libor to SOFR. <https://bankingjournal.aba.com/2018/02/from-libor-to-sofr/>

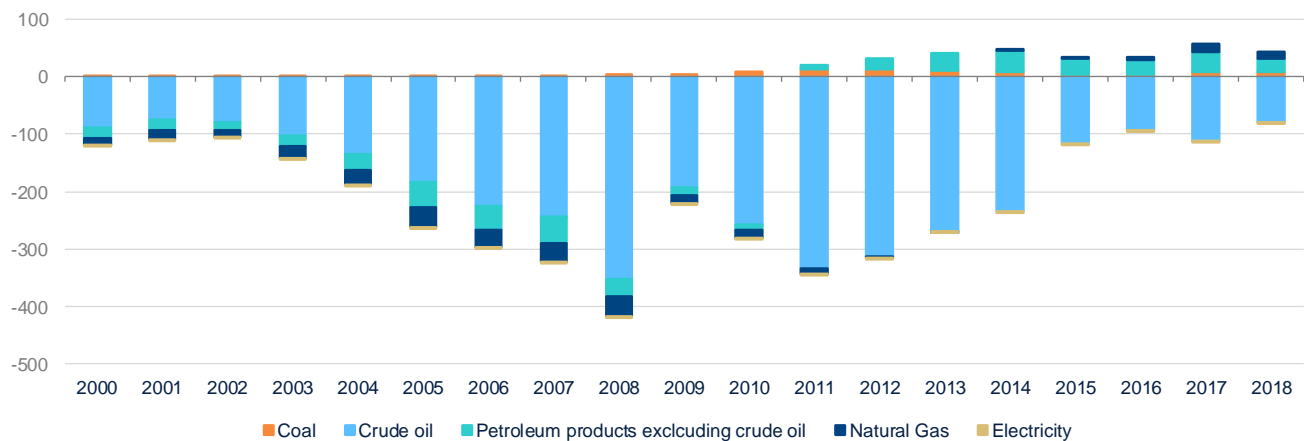
7: See ISDA (2018). Transition Roadmap. <https://www.isda.org/a/q2hEE/IBOR-Global-Transition-Roadmap-2018.pdf>

## 4. The rise of the U.S. as an energy super power

The U.S. energy trade balance has improved significantly over the last ten years, and it is rapidly moving from deficit to surplus. If current trends continue, it could be just a matter of time before the country starts exporting more energy than what it will be importing. In the following paragraphs we summarize the major trends underlying this transformation and the economic and geopolitical implications.

According to data from the Census Bureau, the energy trade deficit reached its highest point in 2008 at 2.8% of GDP, equivalent to \$415 billion. Crude oil accounted for 85% of it due in large part to high prices, which peaked in the same year. After experiencing some volatility in the two subsequent years, the deficit narrowed consistently, reaching 0.3% of GDP (or \$56 billion) in 2017, the smallest figure in two decades. The decline in the energy trade deficit coincides with three important events. First, the country became a net exporter of petroleum products (excluding crude oil) in 2011. Second, the trade balance for natural and manufactured gas experienced a dramatic shift in 10 years from being negative by \$34 billion in 2008 to turning positive in 2014, and reaching a surplus of \$13 billion in 2017. Third, the trade deficit for crude oil has narrowed from 2.4% in 2008 to less than 1% of GDP in 2017.<sup>8</sup>

Figure 4.1 Energy trade balance (\$ billion)

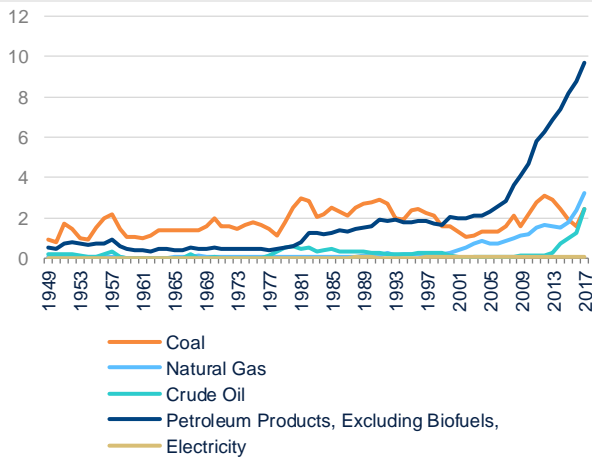


Source: BBVA Research and U.S. Census Bureau. 2018 data is as of August

Figures from the Energy Information Administration (EIA) show a similar pattern. Net imports of energy commodities (including biomass) peaked at 30.2 quadrillion British thermal units (Btu) in 2005. But by 2017, they had gone down to 7.5 quadrillion Btu (the lowest level since 1982) supported by a sharp increase in exports, which reached their highest historical level at 18 quadrillion Btu. At this pace, the U.S. could become a net exporter of energy by 2020. Between 2008 and 2017, exports of crude oil, petroleum products and natural gas experienced double digit growth (CAGR of 45%, 10% and 13% respectively) while imports contracted (CAGR of -2%,-4% and -3% respectively). Coal exports, on the other hand, experienced a CAGR of 1% while imports contracted by 16%.

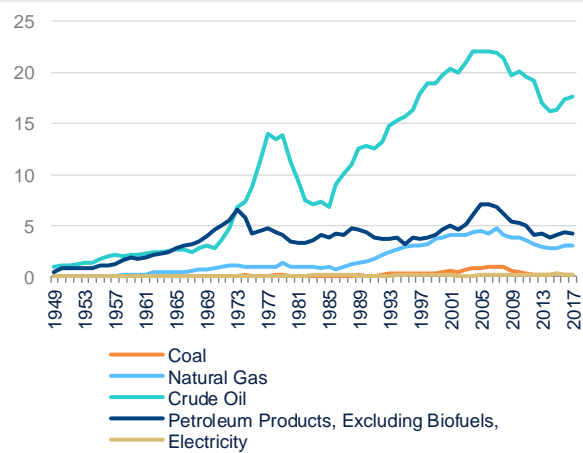
<sup>8</sup> Figures were calculated using [U.S. Census Bureau imports and exports data](#) from 1996 to present, using 2- and 3-digit SITC codes. Imports were taken at customs value.

Figure 4.2 Energy exports (Quadrillion Btu)



Source: BBVA Research and Energy Information Administration

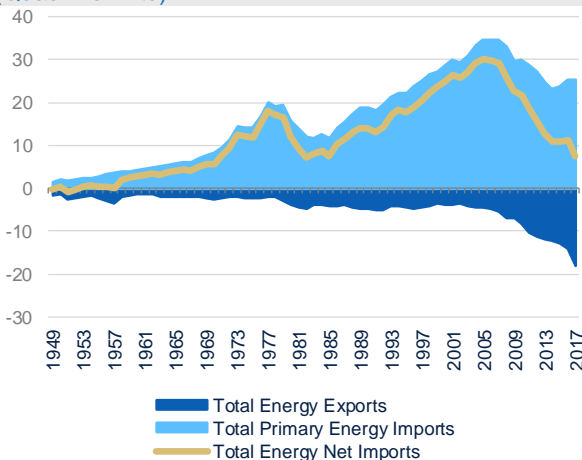
Figure 4.3 Energy imports (Quadrillion Btu)



Source: BBVA Research and Energy Information Administration

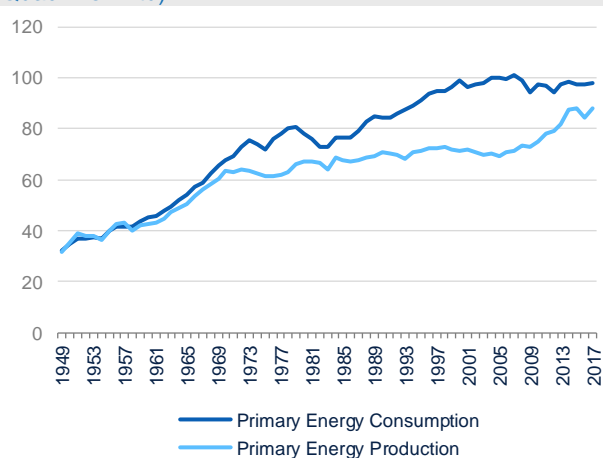
Since 2008, the production of energy has grown faster than consumption. Both production and consumption have deviated significantly from their historical growth rates. This reflects, on the one hand, a more energy efficient economy, and on the other hand, a significant increase in energy production capacity. Crude oil and natural gas account for most of the change in U.S. energy production. To be clear, the country still consumes more energy than what it produces (97.8 vs. 88.1 quadrillion Btu in 2017), but if current growth rates remain, production will most likely outpace consumption by 2024. This would leave the U.S. with a surplus of energy to be traded overseas.

Figure 4.4 Energy trade balance (Quadrillion Btu)



Source: BBVA Research and Energy Information Administration

Figure 4.5 Energy production and consumption (Quadrillion Btu)



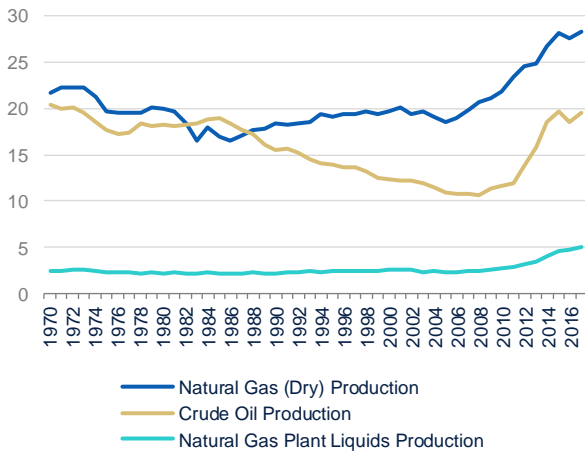
Source: BBVA Research and Energy Information Administration

At the core of the changing trade balance is the shale boom, which has allowed production of oil and natural gas to reach record-high levels. The commercial application of hydraulic fracturing and horizontal drilling has increased the availability of cheaper domestic inputs to refineries, which in turn have become more competitive relative to their foreign counterparts. Five additional refineries were built since 2014, the largest round of construction since the 1970s.



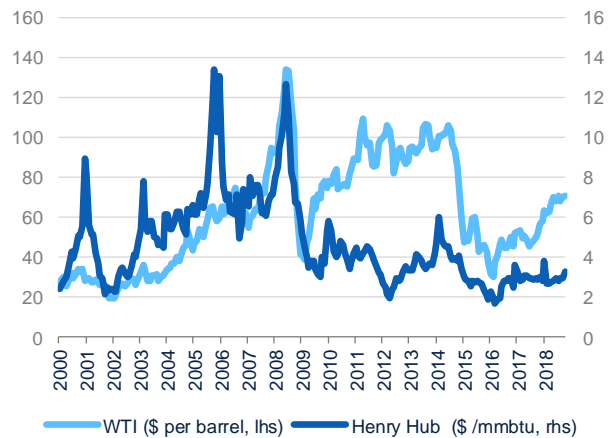
Existing refineries have also invested in capacity and technology to process the light crude that keeps flowing from the Permian basin and other shale formations. Meanwhile, sustained economic growth after the Global Financial Crisis has supported a robust demand for gasoline, jet fuel and diesel, particularly in middle-income countries. In 2017, petroleum products<sup>9</sup> made more than half of total energy exports on a Btu basis.

Figure 4.6 Crude oil and natural gas production (Quadrillion Btu)



Source: BBVA Research and Energy Information Administration

Figure 4.7 Crude oil and natural gas prices



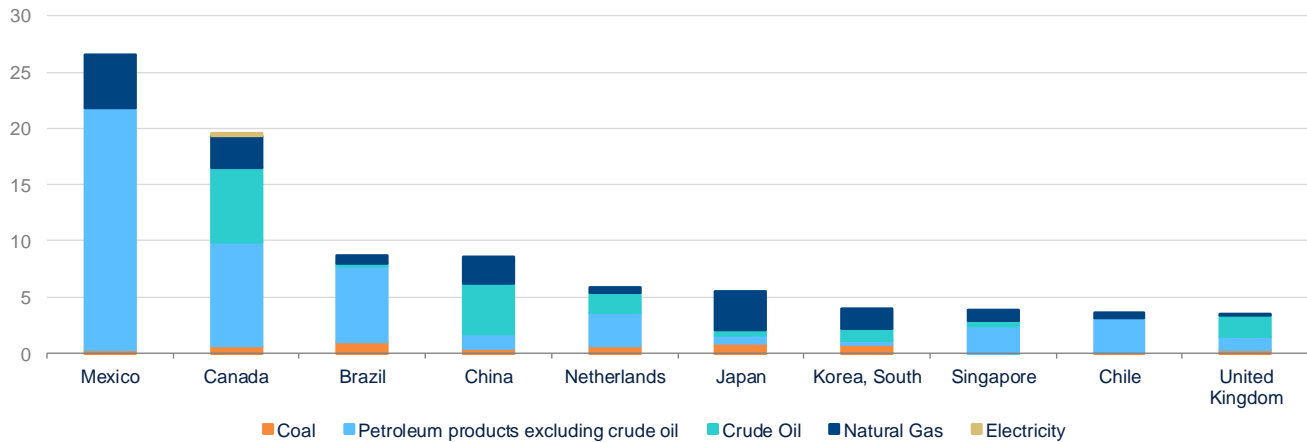
Source: BBVA Research and Haver Analytics

Higher output has prompted producers to find new markets overseas while intensifying trade with Mexico and Canada. This is true particularly for natural gas, whose price plummeted as a result of higher production. A low and stable Henry Hub gas price benchmark has incentivized producers to seek higher margins in the liquefied natural gas (LNG) market. In 2017, the country exported 707.5 billion cubic feet (cf) of LNG, the highest level on record with half of the volume going to China, Mexico and South Korea.

The WTI crude oil benchmark did not experience a permanent shock in prices as a result of higher production because oil prices are determined primarily by global market developments. Yet, a persistent gap between WTI and Brent (which is a more global benchmark) as well as growing appetite for light crude oil in other parts of the world made exports of crude oil an attractive business. This, together with the fact that oil shortages are no longer a threat to national security, led Congress to lift the export ban for crude oil in 2015, effectively creating the conditions for the development of a crude export industry. At peak, the U.S. moved a record 2.2 million barrels of crude oil overseas in June 2018. Ongoing investments in export capacity could double this figure in the next couple of years.

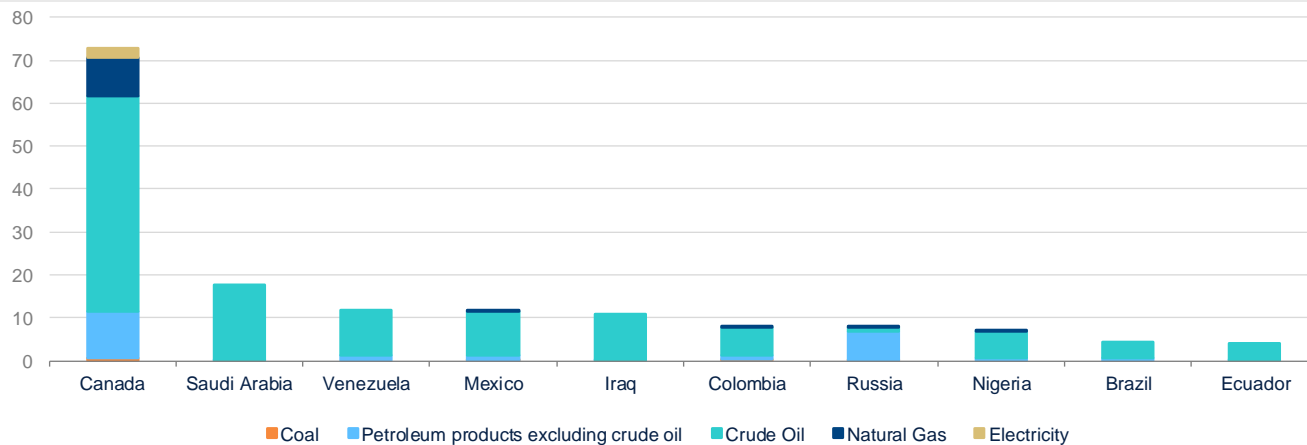
9: According to the EIA, "petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products."

Figure 4.8 Exports of energy commodities by trading partner in 2017 (\$ billion)



Source: BBVA Research and U.S. Census Bureau

Figure 4.9 Imports of energy commodities by trading partner in 2017 (\$ billion)

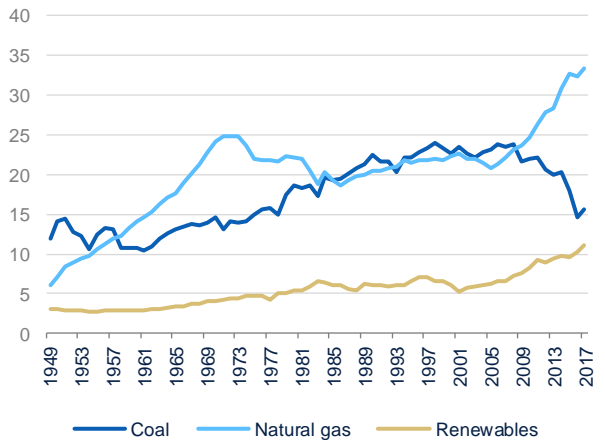


Source: BBVA Research and U.S. Census Bureau

The U.S. has always been a net exporter of coal. However, in the years following the Great Recession, exports of coal have averaged 2.3 quadrillion Btu per year, a level not seen since the 1990s. This could be explained not only by the global economic recovery, but also by domestic factors. Contrary to oil and natural gas, coal has not gone through the equivalent of a shale boom. In fact, it has been shrinking. From 2008 to 2017, coal production declined by an average CAGR of 4.1%. As natural gas becomes more competitive, coal continues to be displaced as a primary input for power generation. In 2017, natural gas accounted for 32% of electricity production leaving behind coal with 29%. The gap is likely to expand in the following years given the abundant reserves, more competitive prices and lower carbon emissions of natural gas. In California for example, there is only one remaining coal-fired power plant, which accounts for 0.2% of total production, and electricity imports from coal-fired plants in neighboring states are expected to drop from 4% of total generation to zero by 2026. Another factor behind the domestic decline of coal is the growth of renewable energy, which has expanded by 4.3% in the same period. Nevertheless, since roughly 30% of global energy

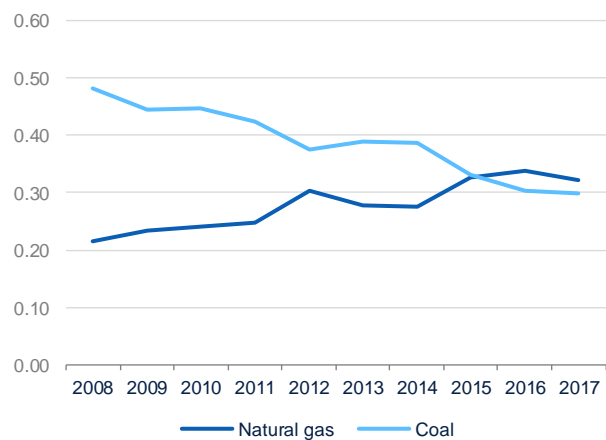
consumption still comes from coal, the U.S. coal industry can still look at exports as an alternative to shrinking domestic markets.

Figure 4.10 Energy production (Quadrillion Btu)



Source: BBVA Research and Energy Information Administration

Figure 4.11 Net generation of electricity by energy source (Utility scale facilities, share of total)



Source: BBVA Research and Energy Information Administration

The development of export oriented energy industries will bring multiple benefits to the U.S. economy. Already, the oil and gas industry supports around 10 million jobs, a figure that could expand further with the construction of export terminals and pipelines to move the inputs from production to export centers. From a national accounts perspective, investments in export-oriented infrastructure and higher net energy exports will add to GDP growth.

The U.S. is on the road to consolidate as the largest crude oil producer in the world, surpassing Saudi Arabia for the first time in decades. Soon it will also be the third largest exporter of LNG in the world behind Australia and Qatar. The transformation of the U.S into an energy super power will dramatically change the way the country interacts with its allies and opponents. This could be particularly important for Canada and Mexico, since the region as a whole already produces more energy than what it consumes. Stable and cheap sources of energy for highly integrated supply chains in NAFTA (USMCA) will increase competitiveness and reduce uncertainty.

Moreover, U.S. energy exports could be a way to foster new alliances or strengthen existing ones, but it could also be a way to extract concessions from rivals. Access to U.S. energy exports could relief countries that depend on less stable sources like Iran, Nigeria, Libya or Venezuela. The prospect of the U.S. becoming an energy superpower could also bring a change in foreign policy that prioritizes the defense of U.S. interests in the international energy markets.

But the prospects of the U.S. becoming an energy superpower are not free from risks. In the short-run, protectionism could put a break to energy trade. The latest retaliation of China includes a 10% tariff on U.S. exports of LNG that could have negative implications for current and future investment projects that require access to the Chinese LNG market to be profitable. In the mid- and long-run, as more people, businesses and governments benefit from exports of fossil fuels, the chances that the U.S. will transit to a clean energy economy diminish.

The Trump administration withdrawal from the Paris Agreement and the replacement of the Obama's Clean Power Plan for looser restriction on carbon emissions are examples of how stakeholders in the new energy paradigm can shift government priorities towards fossil fuels. This will certainly offset the efforts that other countries are making to contain the average global temperature from rising to catastrophic levels, and put the U.S. in a different path relative to other countries, most notably China, which is taking aggressive steps to accelerate its transition to clean energy.

Even in an economy driven by innovation and risk taking like the U.S., excessive reliance on fossil fuels could crowd out investments and technological progress in critical areas like renewables and electric vehicles. If clean energy continues to increase its share of total energy consumption with significant multiplier effects across other industries, the U.S. could lose more than just technological superiority against other countries. In other words, the negative implications of abnegating non-fossil energy sources extend to production, investment, employment, productivity, national security and global competitiveness.

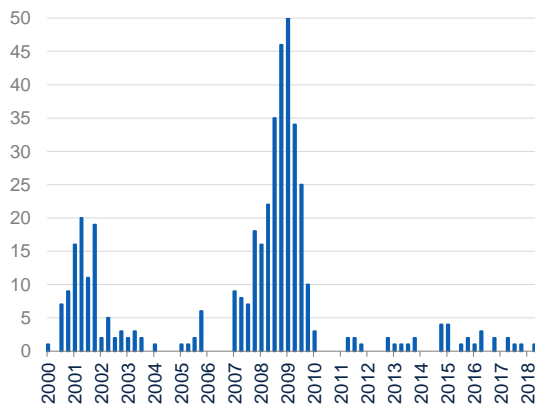
Therefore, even if the U.S. economy continues to rely ever more on its domestic sources of oil and gas, the best strategic approach continues to be an “all-of-the-above” where renewables and other alternatives continue to develop as other nascent industries were allowed to grow in the past. Only then, the U.S. will become the indisputable energy super-power, but most importantly a more efficient and competitive economy.

## 5. Regional recession risks minimal, as tailwinds intensify

With the recent correction in asset prices and surge in U.S. treasuries, investors are trying to disentangle the possible signals: are these early signs of economic recession or healthy correction in rich equity valuations, and will the consequences be limited or widespread? At the state-level, based on our state-specific recession probability indicators economic conditions are extremely auspicious, as 49 out of 50 states have less than 50% probability of being in recession within the next 12 months. In other words, similar to our findings at the national level, the probability of an economic correction, when considering the importance of the economy, is low (<4.8%).<sup>10</sup>

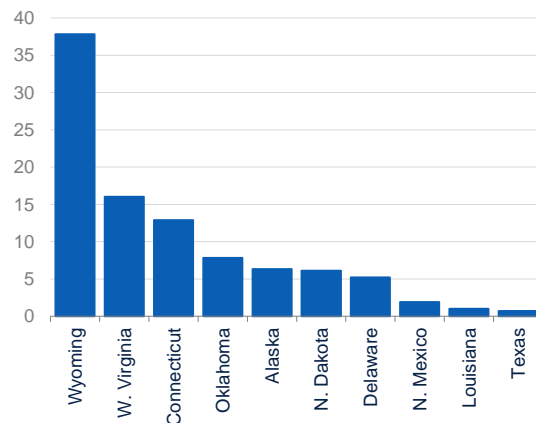
As recent as 2016, economic conditions were tilting in the other direction for some regions. The drop in commodity prices and the growing importance of Oil & Gas investment domestically produced an industrial-regional economic recession. In fact, North Dakota, an area that had enjoyed a booming economy prior to the commodity price shock, saw GDP drop by nearly 10 percent from its peak in 2015. In total, ten states saw some form of economic correction, ranging from mild correction in Texas (-0.4%) to severe downturn in Oklahoma (-3.8%).

Figure 5.1 States at risk of recession, %



Source: BBVA Research

Table 5.2 Recession probability & mining exposure, %



Source: BBVA Research

Today oil prices have recovered to levels that make Oil & Gas drilling viable, and as a result, the probability of a recession in the next twelve months in these areas is 9.6%. In addition, sky-high consumer confidence, fiscal stimulus from lower taxes and higher spending, a more optimistic investment outlook and a historically strong labor market underlie the below average probability of recession in the non-oil dependent areas.

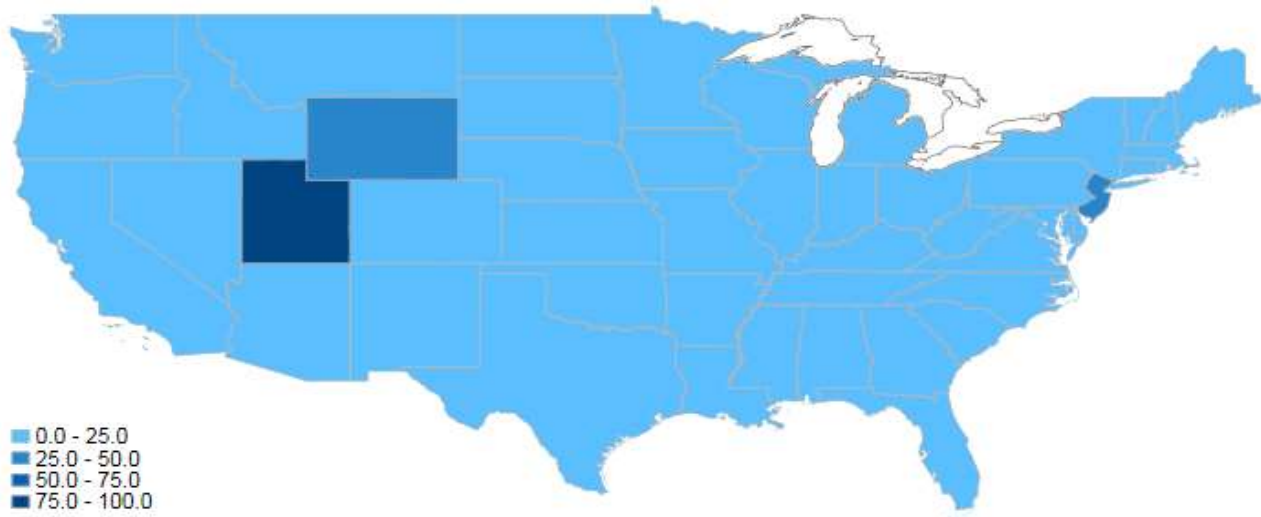
In the three largest economies— California, Florida and Texas— the unemployment rate was 4.1%, 3.5% and 3.8% respectively, as job growth continues to trend above the U.S. average. For Texas and Florida, the impacts from Hurricane Harvey and Irma in the 3Q17 were short-lived, as job growth continues to accelerate into the 4Q18. The effective responses from local, state and federal authorities suggests that Hurricane Michael will not produce persistent

10: [Link to national recession brief](#)



level off. In terms of recession, risks appear to be contained given that all of these states face below average probabilities of a recession within the next twelve months.

Figure 5.4 State recession probability within 12 months (%)



Source: BBVA Research  
 \* Darker represent above average recession risk

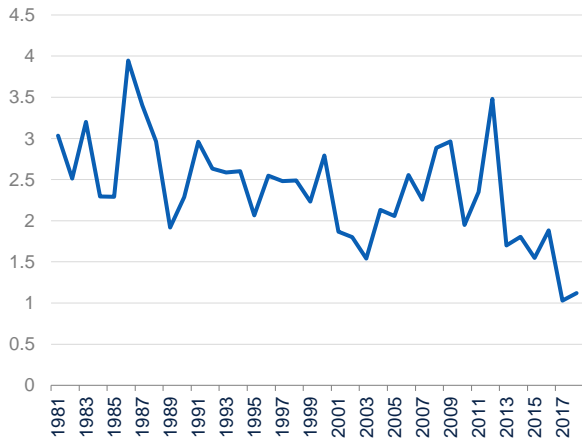
One of the promises made by the current administration was to revive areas of the country adversely impacted by globalization, regulation and technology. To date, there are signs that the administration’s policies may have helped close the growth gap among states. In fact, data suggests that growth convergence has accelerated among states. Specifically, Kentucky, West Virginia, and Ohio have seen a surge in real output per worker, and as a result, growth rates have gone from being -0.1%, -0.2% and -0.3%, respectively to 2.5%, 2.7% and 2.4%. The probability of recession has also dropped dramatically, and is currently below historical average for each of these states— Kentucky (12.3%), West Virginia (16%) and Ohio (10.5%). For Alabama, a state that has faced structural challenges related to an aging population and low productivity growth has seen a rebound in growth, as a nontrivial number of individuals have re-entered the labor force. As a result, the probability of recession within the next twelve months is 9.2%, which is 7bp lower than average

While the U.S. is currently enjoying a widespread economic boom, protectionism, rising interest rates and structural headwinds in the labor market have the potential to derail the momentum. For example, if the U.S. continues to escalate the trade conflict with China, and both countries retaliate in kind, some states could see a nontrivial impact to their economies. On the export side, as a share of GDP, Alabama, Louisiana, South Carolina and Washington have more than one percent of their exports subject to current Chinese tariffs. However, if China imposes across-the-board tariffs on U.S. exported goods, there could be significant exposure for the Texas Oil & Gas sector, Chemical manufactures in the Gulf Coast region, the auto sector in Washington, and computer and electronic manufacturers in California and South Carolina.

With the threat of U.S. automobile import tariffs looming, there is also a chance that other countries will retaliate by imposing new tariffs or increasing existing ones. While some states like Washington, California, Connecticut, South Carolina and Kentucky have strong automotive trade ties to Europe and China, the largest state exposures in the auto sector are to Latin America and NAFTA (USMCA) trading partners, which under the current agreement would be

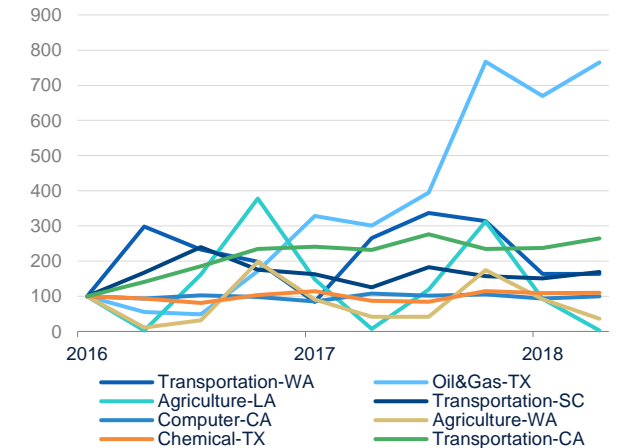
excluded from these tariffs. If trade talks broke down on the USMCA agreement, and Mexico and Canada impose automotive tariffs on U.S. exports, Texas, Michigan, Indiana and Kentucky would be at risk.

Figure 5.5 State GDP growth convergence\*



Source: BBVA Research  
\* Based on standard deviation of Annual Real Gross State Product

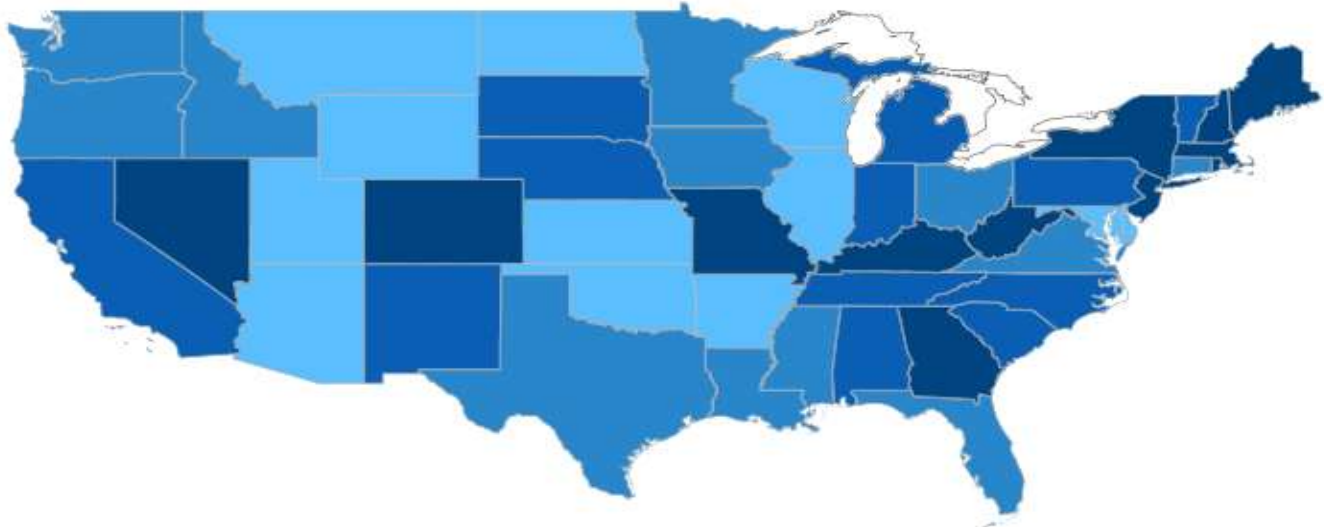
Table 5.6 Top state-industry exposure to China, Index: 2016Q1=100



Source: BBVA Research

In terms of imports, it is a bit more difficult to disentangle the channels for which the import tariffs will affect state economies, as the final demand and state of entry may not be linked and thus the impact of the tariffs could be biased towards states that have large ports such as California, New York and Texas. Nonetheless, there is a risk of margin pressures and rising consumer prices in certain states. Currently, Idaho has the largest exposure to Chinese import tariffs, as they currently represent around 2.8% of GDP. However, if the situation escalated, Tennessee that imports about 6% of its GDP from China and California that imports around 5.8% of its GDP, would face the most substantial headwinds.

Figure 5.7 Two year change in prime-age labor force participation (%)

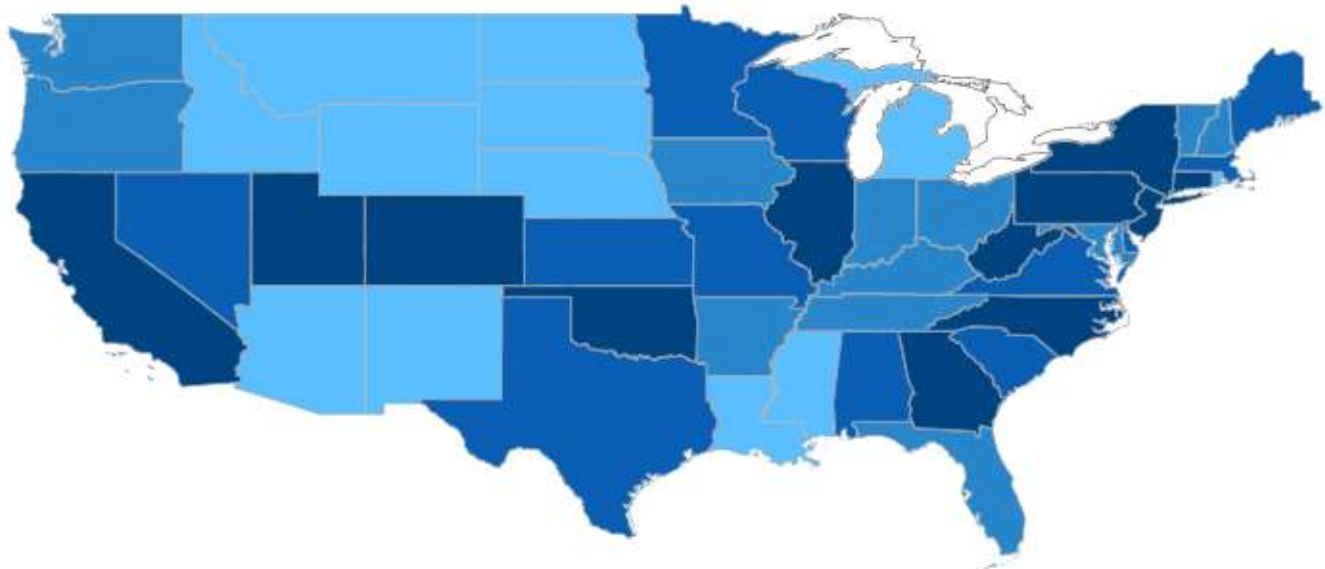


Source: BBVA Research, CPS & IPUMS  
\* Darker represent higher relative growth



An upside risk could be that nascent signs of labor market tightness accelerate quickly as the number of available prime-age workers shrinks. A closer look at regional prime-age participation suggests that since 2016, there has been a rapid rise in prime-age participation in a nontrivial number of states. In fact, 33 states have seen prime-age participation rise by 50bp, on average; since January of 2017, Rhode Island, Nevada, Maine and West Virginia experienced increases of more than 2pp. As of September 2018, while only seven states have prime-age participation rates that are less than one percentage point below peak levels, the statewide trends are biased to the upside. This is striking considering that the younger generations faced unusual post-crisis challenges such as delayed retirement from Baby Boomers, high costs (financial and opportunity) associated with reenrolling in higher education, stagnant wage growth and a tepid labor market recovery, a skills gap, increased polarization and policy gridlock. With transition of generations underway, there is a possibility that some states could see a sharp tightening of the labor force, as competition for skilled and able-bodied workers grows.

Figure 5.8 State interest rate sensitivity



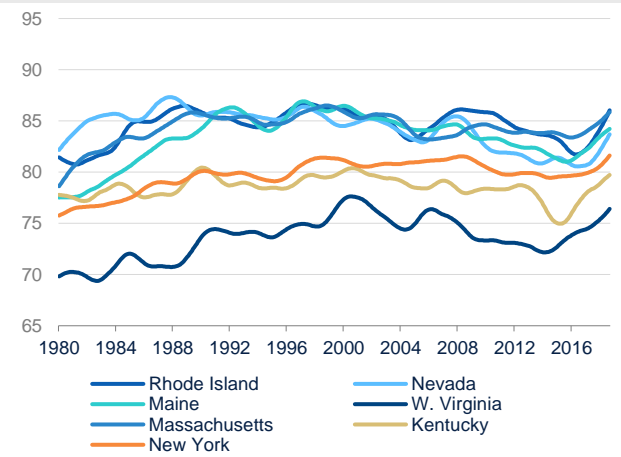
Source: BBVA Research  
 \* Darker represent higher cycle sensitivity to yield curve inversion

Rising interest rates and a compressed yield curve (inversion) could present unique challenges for the regional economic outlook. States with rate sensitive consumers or those that have higher than average leverage and financial exposures, asset price imbalances or rate sensitive industries could also lead the downturn if borrowing costs rise faster than income or profits. In fact, states such as North Dakota, Oklahoma, Iowa, Alaska and Michigan are more sensitive to rising interest rates, where a 25% increase in short-term rates could lower real GDP growth by 35%, 9%, 7%, 7% and 6%, respectively. Other states such as Hawaii, Tennessee, South Carolina and Minnesota could also feel the pinch in a raising interest rate environment.

The saying “as California goes, so goes the rest of the country” rings true when analyzing the impact that a compressed yield curve has on regional economic growth. Of all 50 states, California’s probability of recession is the most sensitive to marginal changes in the slope of the yield curve while New York’s economy is the second most sensitive to changes in the yield curve. This suggests that keeping a close watch of the two most populous states could also provide an additional early warning signal of a deceleration in U.S. growth.

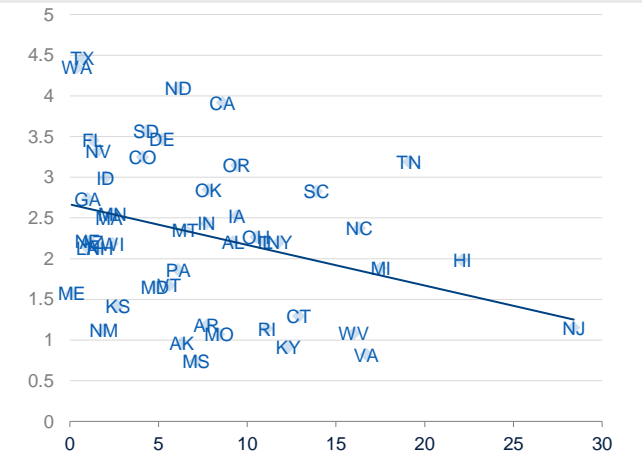
With economic headwinds growing and uncertainty associated with the next economic downturn rising, there will be an increased premium for identifying strong risk-adjusted opportunities at the regional level in 2019 and 2020. In terms of the balance between growth and the possibility of recession within the next 12 months, we believe Texas, Washington, California Florida and Colorado strike an optimal balance of risk and reward. For example, in 2019 we expect Texas to growth 4.5% and face a nearly nonexistent recession risk of 0.7%. Similarly, Washington’s growth is likely to be 4.4% with a risk of recession 0.4% while Florida’s growth should top out at 3.5% with only marginally higher recession risk of 1.3%. While Colorado and California face modestly higher recession risk at 4.1% and 8.6%, respectively, the potential for above average growth is high, as the pace of expansion in both states will be above 3%.

Figure 5.9 Prime-age labor force participation, %



Source: BBVA Research, CPS & IPUMS

Table 5.10 2019 GDP growth & state recession risk, %



Source: BBVA Research

As with every business cycle, timing matters. In the case of regional growth and risks, it appears that now is a time of ubiquity and prosperity.

## 6. Global economy: Global growth is moderating slightly and risks are intensifying

The global economy continues to display positive signs, in spite of growing uncertainty. Fiscal stimulus in the U.S. and stability in the China and Europe have buoyed global growth. Data available up to September suggest that global growth slowed down in the third quarter of the year —BBVA-GAIN: 0.92% QoQ— but remained elevated. The growth of the industrial sector moderated and still has not recovered from the poor performance at the beginning of the year. The subpar growth reflected the worsening outlook for emerging countries and not trade frictions, as export performance in Asia-Pacific countries was strong. However, it is still too early to assess the possible negative effects of the protectionist escalation given that some of the improvements may be related to pre-emptive moves from countries and industries facing new tariffs.

Beside the growing trade tensions and emerging market imbalances, markets have been focused on Europe for two reasons. First, the risk linked to Italy increased during the summer following the government's fiscal proposal, which deviates from the path preferred by European Commission. Contagion to peripheral countries has been limited despite the rise in Italian risk premium that was up 300 basis points. Second, Brexit negotiations are at an impasse, increasing the likelihood of a “no deal” exit from the EU.

Confidence indicators also point to a gradual moderation in global growth, although they remain at high levels. Lower employment expectations and weak foreign demand weighed on confidence in the manufacturing sector, mainly Germany and Japan. Expectations about the evolution of the services sector have also deteriorated, although they remain well above the historical average, partly supported by the strength of domestic demand in developed economies. In fact, retail sales grew at a relatively robust pace, so consumption will likely continue to support global growth.

With regard to price trends, the rise in inflation before the summer has moderated more recently due to the evolution of commodity prices. Core inflation remains contained, but is expected to rise gradually as a result of robust domestic demand and supply-side pressures in advanced economies and currency depreciations in emerging economies.

In terms of monetary policy, the Fed is poised to continue its normalization strategy. After raising rates three times this year, the Fed is poised to raise rates 25 basis points more, bringing the benchmark rate to 2.5%. The ECB also reaffirmed its commitment to its exit strategy. In line with expectations, at the two meetings held during the summer period the ECB reiterated that the asset purchase program (APA) would conclude in December this year. With regard to interest rates, the ECB is maintaining the reference rate at 0% and the deposit rate at -0.40%, but reiterated that the reference rates will remain unchanged until at least summer 2019. Against this backdrop, with no change in the direction of monetary policy, our expectation of the first rise in interest rates remains unchanged, with a first rise in the deposit rate in September (+15 bps)

With the end of the asset purchase program in sight, the focus in the coming months will be on how the policy of reinvestment of the principal payments acquired under the PPP purchase program will be implemented, and when and at what pace interest rates will rise. So far, the ECB seems to be satisfied with market expectations (discounting a first rate hike in October 2019), and does not seem to be in a hurry to make any change in its forward guidance; although, in the first part of 2019 we expect it to start giving clues about its interest rate guidance.

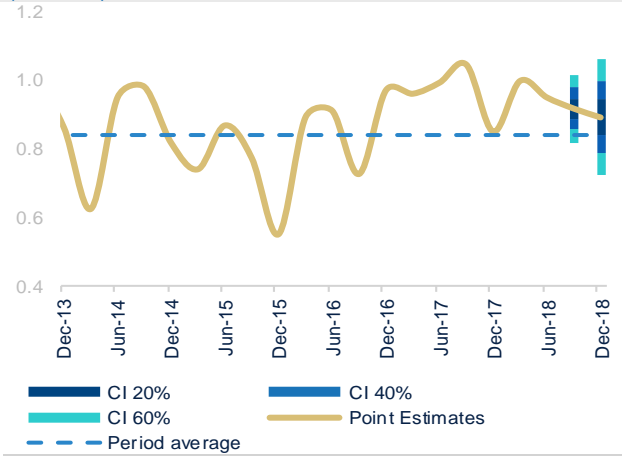
In this context, both the Federal Reserve (Fed) and the European Central Bank (ECB) continue to make progress in normalizing monetary policy, which means a gradual tightening of global financial conditions that will continue to put pressure on emerging economies in the coming quarters. Argentina and Turkey currencies depreciated by 30% and 24% while their risk premium increased markedly. However, tensions eased after both countries made efforts to assuage market fears.

Uncertainty about protectionist also remains high. Although trade tensions between the U.S. and some areas have eased for the time being, the agreement with Mexico and Canada has yet to be ratified and negotiations on the automotive sector with Europe could be reopened after the US mid-term elections in November. That being said, the US has already approved a 10% tariff on US\$200 billion worth Chinese imports, in addition to the 25% tariffs on US\$50 billion already in place. China has also retaliated with 10% tariffs on US\$60 billion of US goods and 25% US\$50 billion worth of goods. The direct impact to GDP for will be around 0.1% for China. However, lower confidence among economic agents and spillovers into financial markets could add to China's economic woes; these indirect effects could subtract around 0.1 pp from growth. If negotiation efforts by the U.S. and China fail, the 10% tariff approved in September could rise to 25% in January 2019. In this scenario, and assuming that China reacts in kind, the impact on growth would already be much more significant, possibly reducing Chinese growth by 0.7pp and the U.S. growth by 0.2 pp.

The global scenario continues to be subject to mostly negative risks. On the one hand, the risk of a trade war remains unabated and could worsen after the November elections in the US, especially with China. Negotiations with the EU and Japan will also be reopened in important sectors such as automobiles. While the direct impact of the measures would be limited, the risk of a trade war could act as a drag on confidence, increase risk aversion in the markets and curb global flows of direct investment. Political risks in Europe have also intensified. In Italy, the expected increase in the deficit could raise doubts about the sustainability of its public accounts, which could further raise the risk premium of the economy and lead to a potential resurgence of financial tensions in peripheral bond markets. We also cannot rule out a possible UK exit from the EU without a deal. On the other hand, in a more volatile financial environment and an unanticipated tightening of global financial conditions could increase financial tensions in emerging economies especially in those with accumulated vulnerabilities.

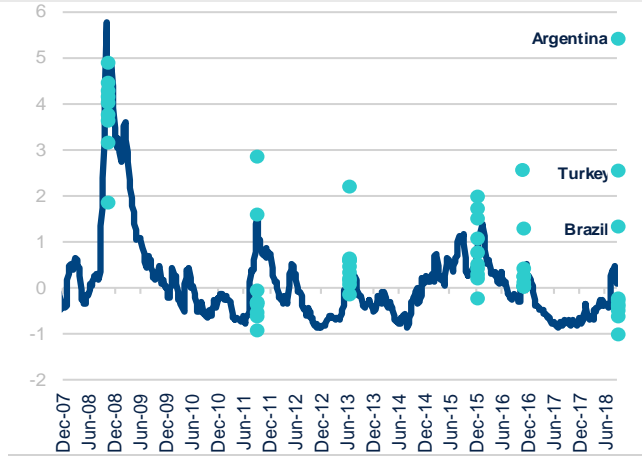
Nevertheless, the global growth forecast for 2018 and 2019 is 3.7% and 3.6%, respectively since we now expect the slight moderation. This slowdown in global activity is mainly explained by the slower growth from some emerging economies, especially those with greater vulnerabilities in a context of tighter global financial conditions. In the US, the increase in consumption and the strength of investment keep providing support for the forecast of 2.8% growth in 2018-19. In China, the authorities are implementing more accommodative policies to try to curb the slowdown in domestic demand and counteract the rise of protectionism. After the strong performance in the first half of the year we have revised our growth forecast slightly upwards by 0.2 pp to 6.5% in 2018; the 2019 forecasts remains unchanged at 6%. In the euro zone, strong domestic demand and accommodative policies (both monetary and fiscal) could compensate for increased uncertainty and moderation in global demand. As a result, we are maintaining our growth forecast at 2% in 2018 and 1.7% in 2019

Figure 6.1 World GDP growth (QoQ, %)



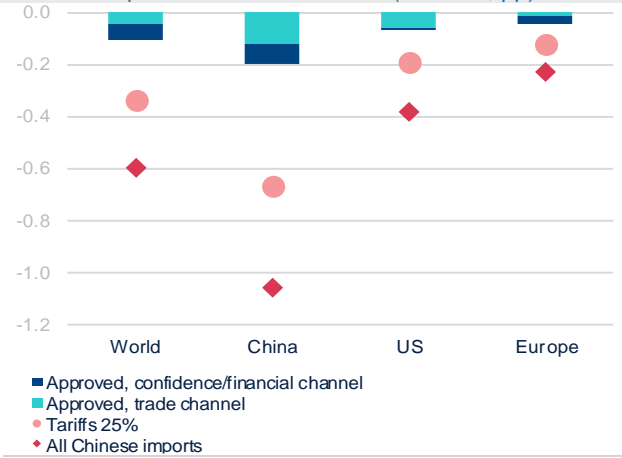
Source: BBVA Research

Figure 6.2 BBVA index of financial tensions for emerging economies



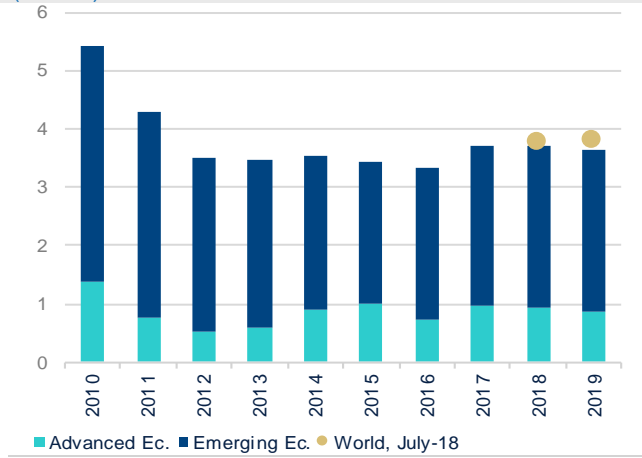
Source: BBVA Research

Figure 6.3 Effect on GDP growth due to US tariff hikes and the response of other countries (2018-19, pp)



Source: BBVA Research

Figure 6.4 Forecasts of world GDP growth (% YoY)



Source: BBVA Research

## 7. Forecasts

Table 7.1 U.S. macro forecasts

	2012	2013	2014	2015	2016	2017	2018 (f)	2019 (f)	2020 (f)	2021 (f)	2022 (f)
Real GDP (% SAAR)	2.2	1.8	2.5	2.9	1.6	2.2	2.8	2.8	2.5	2.3	2.1
Real GDP (Contribution, pp)											
PCE	1.0	1.0	2.0	2.5	1.9	1.8	1.9	2.1	1.6	1.5	1.4
Gross Investment	1.6	1.1	0.9	0.8	-0.2	0.8	0.9	0.9	0.9	0.8	0.7
Non Residential	1.2	0.5	0.9	0.3	0.1	0.7	0.9	0.9	0.8	0.8	0.7
Residential	0.3	0.3	0.1	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Exports	0.5	0.5	0.6	0.1	0.0	0.4	0.6	0.5	0.6	0.7	0.7
Imports	-0.5	-0.3	-0.9	-1.0	-0.3	-0.8	-0.9	-1.0	-0.9	-0.9	-0.9
Government	-0.4	-0.5	-0.2	0.3	0.3	0.0	0.3	0.4	0.3	0.1	0.1
Unemployment Rate (% average)	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	4.0	4.3	4.3
Avg. Monthly Nonfarm Payroll (K)	179	192	250	226	195	182	208	185	161	122	107
CPI (YoY %)	2.1	1.5	1.6	0.1	1.3	2.1	2.5	2.6	2.6	2.4	2.3
Core CPI (YoY %)	2.1	1.8	1.7	1.8	2.2	1.8	2.1	2.2	2.3	2.3	2.3
Fiscal Balance (% GDP, FY)	-6.8	-4.1	-2.8	-2.4	-3.2	-3.5	-4.2	-4.6	-4.5	-4.8	-5.2
Current Account (bop, % GDP)	-2.6	-2.1	-2.1	-2.2	-2.3	-2.3	-2.3	-2.4	-2.5	-2.5	-2.5
Fed Target Rate (% eop)	0.25	0.25	0.25	0.50	0.75	1.50	2.50	3.25	3.00	3.00	3.00
Core Logic National HPI (YoY %)	4.0	9.7	6.8	5.3	5.5	5.9	6.0	5.3	5.4	5.6	5.7
10-Yr Treasury (% Yield, eop)	1.72	2.90	2.21	2.24	2.49	2.40	3.11	3.66	3.77	3.97	4.13
Brent Oil Prices (dps, average)	111.7	108.7	99.0	52.4	43.6	54.3	73.9	72.7	64.9	60.9	60.0

(f): forecast

Source: BBVA Research

Table 7.2 U.S. state real GDP growth, %

	2013	2014	2015	2016	2017	2018 (f)	2019 (f)	2020 (f)	2021 (f)
Alaska	-4.4	-3.6	-1.6	-3.6	0.3	2.3	1.0	0.5	0.2
Alabama	0.9	-0.3	1.2	1.1	1.2	2.1	2.2	1.9	1.7
Arkansas	2.9	1.3	0.4	1.0	1.1	1.0	1.2	0.9	0.5
Arizona	0.5	1.8	2.1	2.0	3.2	3.1	2.2	1.9	1.9
California	2.5	4.2	4.6	3.0	3.0	3.6	3.9	3.2	3.2
Colorado	3.2	4.7	3.6	1.4	3.6	4.3	3.2	2.7	2.4
Connecticut	-1.4	-0.7	1.1	-0.3	-0.2	2.2	1.3	1.0	0.7
Delaware	-1.4	5.7	3.0	-1.0	1.6	2.9	3.5	3.2	2.7
Florida	2.1	2.8	4.2	2.6	2.2	2.6	3.5	3.5	3.1
Georgia	1.4	3.3	3.0	3.4	2.7	2.7	2.7	2.4	2.0
Hawaii	1.1	0.9	3.6	2.0	1.7	2.1	2.0	1.8	1.5
Iowa	0.5	4.0	3.8	2.1	0.5	0.9	2.5	2.4	2.1
Idaho	2.9	2.4	2.6	3.5	2.7	3.5	3.0	2.4	1.9
Illinois	-0.3	2.0	1.2	0.9	1.2	2.4	2.2	1.9	1.6
Indiana	2.4	2.5	0.0	2.6	2.1	2.3	2.4	2.1	1.8
Kansas	0.2	1.9	1.4	1.7	-0.1	1.6	1.4	1.4	1.1
Kentucky	0.9	0.5	0.5	1.1	1.8	1.4	0.9	1.2	1.0
Louisiana	-3.4	2.2	1.1	-0.4	-0.2	2.1	2.1	1.0	0.5
Massachusetts	-0.2	1.8	4.0	1.2	2.6	2.8	2.5	2.4	2.1
Maryland	0.2	1.3	1.5	2.5	1.5	2.1	1.7	1.3	1.0
Maine	-0.6	1.8	0.6	2.0	1.4	2.5	1.6	1.3	1.0
Michigan	1.4	1.5	2.6	1.9	2.3	2.7	1.9	1.7	1.4
Minnesota	2.1	2.8	0.8	2.7	1.9	1.7	2.5	1.9	1.5
Missouri	1.6	0.3	0.9	0.2	1.1	1.4	1.1	0.8	0.4
Mississippi	0.6	-1.0	0.1	2.0	0.3	1.4	0.7	0.5	0.2
Montana	0.7	2.8	2.9	0.7	0.6	1.4	2.4	2.1	1.7
North Carolina	1.7	2.1	2.8	1.2	2.3	2.3	2.4	2.0	1.6
North Dakota	2.4	6.9	-2.5	-4.9	1.0	4.1	4.1	4.5	4.1
Nebraska	2.5	3.7	2.5	1.9	0.6	2.4	2.2	2.1	1.9
New Hampshire	0.6	2.0	2.9	2.0	1.9	2.8	2.1	1.8	1.4
New Jersey	1.4	0.2	1.3	0.6	0.9	1.8	1.2	0.9	0.6
New Mexico	-1.0	2.7	1.6	-0.1	0.8	1.7	1.1	0.9	0.6
Nevada	0.5	1.6	4.1	2.1	3.5	4.1	3.3	3.0	2.7
New York	-0.3	1.7	2.0	0.5	1.1	1.5	2.2	2.0	1.7
Ohio	1.0	3.3	1.0	0.8	1.9	3.2	2.3	1.7	1.5
Oklahoma	4.4	5.5	2.9	-3.8	0.5	2.1	2.8	2.7	2.3
Oregon	-2.0	1.0	4.8	3.8	2.5	3.4	3.1	3.0	2.6
Pennsylvania	1.6	2.0	2.6	0.9	1.8	2.2	1.9	1.7	1.4
Rhode Island	0.4	0.8	1.9	0.5	1.6	2.3	1.1	0.8	0.5
South Carolina	2.0	3.0	3.2	2.2	2.3	2.5	2.8	2.5	2.2
South Dakota	1.1	0.9	2.6	1.6	0.3	3.2	3.6	3.4	3.0
Tennessee	1.6	1.6	3.3	2.8	2.5	3.3	3.2	2.9	2.6
Texas	5.1	3.5	4.4	-0.4	2.6	4.6	4.5	4.1	3.7
Utah	2.5	3.6	4.2	3.3	3.1	3.6	2.9	2.5	2.3
Virginia	0.0	0.2	1.8	0.5	2.0	1.7	0.8	0.6	0.3
Vermont	-0.2	0.5	0.7	1.5	1.1	1.6	1.7	1.3	1.0
Washington	2.4	3.3	3.8	3.9	4.4	4.3	4.4	4.0	3.7
Wisconsin	1.3	1.5	1.9	1.9	1.7	2.8	2.2	2.1	1.8
West Virginia	0.5	0.4	0.2	-0.8	2.6	2.5	1.1	0.9	0.6
Wyoming	1.0	0.2	1.2	-3.4	2.0	3.6	3.7	2.7	2.4

(f): forecast

Source: BBVA Research

## DISCLAIMER

This document and the information, opinions, estimates and recommendations expressed herein, have been prepared by Banco Bilbao Vizcaya Argentaria, S.A. (hereinafter called "BBVA") to provide its customers with general information regarding the date of issue of the report and are subject to changes without prior notice. BBVA is not liable for giving notice of such changes or for updating the contents hereof.

This document and its contents do not constitute an offer, invitation or solicitation to purchase or subscribe to any securities or other instruments, or to undertake or divest investments. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

**Investors who have access to this document should be aware that the securities, instruments or investments to which it refers may not be appropriate for them due to their specific investment goals, financial positions or risk profiles, as these have not been taken into account to prepare this report.** Therefore, investors should make their own investment decisions considering the said circumstances and obtaining such specialized advice as may be necessary. The contents of this document are based upon information available to the public that has been obtained from sources considered to be reliable. However, such information has not been independently verified by BBVA and therefore no warranty, either express or implicit, is given regarding its accuracy, integrity or correctness. BBVA accepts no liability of any type for any direct or indirect losses arising from the use of the document or its contents. Investors should note that the past performance of securities or instruments or the historical results of investments do not guarantee future performance.

**The market prices of securities or instruments or the results of investments could fluctuate against the interests of investors. Investors should be aware that they could even face a loss of their investment. Transactions in futures, options and securities or high-yield securities can involve high risks and are not appropriate for every investor. Indeed, in the case of some investments, the potential losses may exceed the amount of initial investment and, in such circumstances, investors may be required to pay more money to support those losses. Thus, before undertaking any transaction with these instruments, investors should be aware of their operation, as well as the rights, liabilities and risks implied by the same and the underlying stocks. Investors should also be aware that secondary markets for the said instruments may be limited or even not exist.**

BBVA or any of its affiliates, as well as their respective executives and employees, may have a position in any of the securities or instruments referred to, directly or indirectly, in this document, or in any other related thereto; they may trade for their own account or for third-party account in those securities, provide consulting or other services to the issuer of the aforementioned securities or instruments or to companies related thereto or to their shareholders, executives or employees, or may have interests or perform transactions in those securities or instruments or related investments before or after the publication of this report, to the extent permitted by the applicable law.

BBVA or any of its affiliates' salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to its clients that reflect opinions that are contrary to the opinions expressed herein. Furthermore, BBVA or any of its affiliates' proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. No part of this document may be (i) copied, photocopied or duplicated by any other form or means (ii) redistributed or (iii) quoted, without the prior written consent of BBVA. No part of this report may be copied, conveyed, distributed or furnished to any person or entity in any country (or persons or entities in the same) in which its distribution is prohibited by law. Failure to comply with these restrictions may breach the laws of the relevant jurisdiction.

In the United Kingdom, this document is directed only at persons who (i) have professional experience in matters relating to investments falling within article 19(5) of the financial services and markets act 2000 (financial promotion) order 2005 (as amended, the "financial promotion order"), (ii) are persons falling within article 49(2) (a) to (d) ("high net worth companies, unincorporated associations, etc.") Of the financial promotion order, or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the financial services and markets act 2000) may otherwise lawfully be communicated (all such persons together being referred to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons. The remuneration system concerning the analyst/s author/s of this report is based on multiple criteria, including the revenues obtained by BBVA and, indirectly, the results of BBVA Group in the fiscal year, which, in turn, include the results generated by the investment banking business; nevertheless, they do not receive any remuneration based on revenues from any specific transaction in investment banking.

BBVA is not a member of the FINRA and is not subject to the rules of disclosure affecting such members.

**"BBVA is subject to the BBVA Group Code of Conduct for Security Market Operations which, among other regulations, includes rules to prevent and avoid conflicts of interests with the ratings given, including information barriers. The BBVA Group Code of Conduct for Security Market Operations is available for reference at the following web site: [www.bbva.com / Corporate Governance](http://www.bbva.com / Corporate Governance)".**

**BBVA, S.A. is a bank supervised by the Bank of Spain and by Spain's Stock Exchange Commission (CNMV), registered with the Bank of Spain with number 0182.**



## This report has been produced by the United States unit

Chief U.S. Economist  
Nathaniel Karp  
nathaniel.karp@bbva.com  
+1 713 881 0663

Filip Blazheski  
filip.blazheski@bbva.com

Kan Chen  
kan.chen@bbva.com

Boyd Nash-Stacey  
boyd.stacey@bbva.com

Marcial Nava  
marcial.nava@bbva.com

## BBVA Research

Chief Economist BBVA Group  
Jorge Sicilia Serrano

Macroeconomic Analysis  
Rafael Doménech  
r.domenech@bbva.com

Digital Economy  
Alejandro Neut  
robertoalejandro.neut@bbva.com

Global Macroeconomic  
Scenarios  
Miguel Jiménez  
mjimenezg@bbva.com

Global Financial Markets  
Sonsoles Castillo  
s.castillo@bbva.com

Long-Term Global Modelling and  
Analysis  
Julián Cubero  
juan.cubero@bbva.com

Innovation and Processes  
Oscar de las Peñas  
oscar.delaspenas@bbva.com

Financial Systems and  
Regulation  
Santiago Fernández de Lis  
sfernandezdelis@bbva.com

Digital Regulation and Trends  
Álvaro Martín  
alvaro.martin@bbva.com

Regulation  
Ana Rubio  
arubiog@bbva.com

Financial Systems  
Olga Cerqueira  
olga.gouveia@bbva.com

United States  
Nathaniel Karp  
nathaniel.Karp@bbva.com

Spain and Portugal  
Miguel Cardoso  
miguel.cardoso@bbva.com

Mexico  
Carlos Serrano  
carlos.serranoh@bbva.com

Middle East, Asia and  
Big Data  
Álvaro Ortiz  
alvaro.ortiz@bbva.com

Turkey  
Álvaro Ortiz  
alvaro.ortiz@bbva.com

Asia  
Le Xia  
le.xia@bbva.com

South America  
Juan Manuel Ruiz  
juan.ruiz@bbva.com

Argentina  
Gloria Sorensen  
gsorensen@bbva.com

Colombia  
Juana Téllez  
juana.tellez@bbva.com

Peru  
Francisco Grippa  
fgrippa@bbva.com

Venezuela  
Julio Pineda  
juliocesar.pineda@bbva.com

### CONTACT DETAILS:

BBVA Research USA: 2200 Post Oak Blvd. Houston, TX 77025 United States.  
bbvaresearch@bbva.com - www.bbvaresearch.com