United States Economic Outlook

Third quarter 2018

United States Unit

Creating Opportunities

BBVA Research

Index

1. Editorial 3
2. Global outlook: stable growth in the first half of 2018 4
3. U.S. Outlook: Summer blockbuster but not Academy award worthy 6
4. U.S.-China trade war: no end in sight 12
5. Economic overheating signs 18
6. Consumer credit quality and growth 21
7. Forecasts 26

Closing date: **27 July 2018**

1. Editorial

In recent months, concerns surrounding the financial health of the business sector have been on the rise. In particular, market participants are worried that higher price pressures, faster monetary policy normalization, and a trade war, amid stretched valuations, could trigger a significant decline in risk appetite. This would result in higher borrowing costs and tighter financial conditions. In this environment, financial pressures would increase significantly, particularly for businesses with lower credit ratings, high leverage, and in sectors struggling with profitability. At the macroeconomic level, a wave of corporate defaults and systemic financial stress will have a sizeable negative impact on investment and employment, and bring about an economic recession.

To some extent, these concerns seem justified, particularly when considering the massive increase in business leverage since the Great Recession and a greater share of lower credit quality debt. In 1Q18, nonfinancial corporate debt (securities and loans) reached a new high of $9.1tn, an increase of $2.9tn or 48% since 1Q10. As a result, in the last eight years, the ratio of debt to GDP has increased from 40% to an all-time high of 46%. In almost all recessions since the 1950s, this ratio has edged up significantly prior to the economic downturn. Thus, the sharp increase in business leverage could soon prove unsustainable if interest rates raise too fast, asset valuations decline, demand for high-yielding assets weakens, and lending supply from institutional investors –collateralized loan obligations, hedge funds, private equity firms, etc.- becomes constrained.

Evidence of excesses in credit markets is also concerning. In 2017, leveraged loans issuance reached a new record high; around 65% of new loan issuance was rated B- or less, and 75% of new institutional loans were covenant-lite (lacking usual protection for lenders). Around half of total borrowings were used to fund M&A activity, leveraged buyouts, dividends, and share buybacks. In addition, the share of speculative-grade corporate issuers rated B- or lower stands at its highest level (25%) since the financial crisis.

The large increase in leveraged loans and speculative bond issuance could become a source of risk if market conditions reverse. Although traditional metrics like price-to-earnings and price-to-book are below previous peaks, they remain elevated and are well above historical averages. Therefore, modest changes to the projected path of interest rates, equity risk premium or expected earnings could cause a major asset price correction. Already, default rates for high yield bonds and loans are trending up while yields for BBB- and BB-rated corporate bonds have increased around 70 and 100 basis points since year-end 2017, respectively. These developments resemble the decline in risk appetite for lower-rated borrowers that occurs during the later stages of the credit cycle. If that is the case, the adjustment could be more severe this time around given the higher reliance on leverage loans and increased influence of nonbank institutional investors.

Notwithstanding these trends, several factors show that the risks are still contained. Overall, monetary policy remains accommodative and both borrowing costs and bond spreads are lower than historical averages. In fact, a considerable share of speculative-grade debt expected to mature in 2018 and 2019 has already been refinanced. Total net interest payments for nonfinancial corporate business are growing below their historical average and the ratio of debt-to-net worth is slightly below its historical trend. In addition, distress ratios remain contained across sectors excluding retail, restaurants and telecommunications, which are undergoing structural disruptions. Moreover, profit growth is expected to remain robust supported by ongoing GDP growth, while recent business tax cuts will ease cash flow pressures and boost profits for several more quarters. In sum, although it is still early to sound the alarm bells, downside risks from elevated business leverage are likely to continue increasing.

2. Global outlook: stable growth in the first half of 2018

The accelerating growth rate of the U.S. economy –manily driven by fiscal measures-, and the recovery of global trade at the beginning of the year, continue to support the global recovery. Recent data suggest that global growth slowed slightly in the second quarter of the year (BBVA-GAIN: 1% quarterly after 1.1% in 1Q18). Although the pace of expansion remains solid, it is occurring in a less synchronized manner, with accelerating growth in the U.S., moderation in China and some emerging economies, and a pronounced slowdown in Europe. Nevertheless, global growth forecast remains solid at 3.8% for 2018 and 2019.

Global trends in the industrial sector continue to be cause for concern, as activity has not recovered from the poor performance recorded at the beginning of the year, especially in emerging markets. In addition, the data does not yet reflect the possible negative effects of protectionism and escalating trade tensions. This suggests an ongoing recovery of the industrial sector, but at a more moderate pace than previously expected. The service sector has been more resilient in developing economies, especially those in the Asia Pacific region, than the disappointing trends in developed countries.

In Europe, increasing uncertainty and higher oil prices are weighing on activity. For example, political risk in Italy resulted in a 250bp increase in risk premium. However, domestic demand in most European countries remains solid while exports will continue to benefit from the depreciation of the euro and global demand. In addition, somewhat more accommodative policies –lower lower interest rates for longer and fiscal loosening in some countries- will support economic activity. Despite the rebound of inflation in the short-run, core inflation will only increase gradually, especially in 2019.

In Asia, uncertainty over protectionist measures has impacted equity markets, especially in China, Korea, Malaysia and Singapore. In China, although economic activity remains somewhat more positive than expected, we continue to anticipate growth moderation in 2H18. Policies to address financial vulnerabilities remain in place, but mitigated by fiscal and monetary stimulus to support growth. Meanwhile, protectionism threatens the sustainability of exports, as well as the restructuring of the economy.

In terms of monetary policy, higher inflation and strong labor markets have given the Fed confidence to raise rates 50 basis points thus far in 2018. At its June meeting, the ECB announced that the Asset Purchase Program (APP) will be concluding in December of this year given the progress towards a sustained adjustment of the inflation path. The ECB reiterated that the bond purchase program will remain active, at a monthly pace of €30 billion per month until September, and €15 billion between October and December, when the net purchases of assets will end. With regard to interest rates, the monetary authority maintained the reference rate at 0% and the deposit rate at -0.40%, but announced that the reference rates will remain unchanged at least until the summer of 2019. In this context, our expectation of the first hike in interest rates is delayed to September 2019 and the official reference rate to December 2019.

The widening of the interest rate differential between the U.S. and other developed economies, and favorable growth prospects for the U.S., compared to the rest of the world, has resulted in a strong appreciation of the U.S. dollar. However, some fundamentals have been weakening in the last few months amid increasing policy uncertainty and

financial market volatility. After the U.S. withdrew from the nuclear agreement with Iran, oil market expectations had to adjust to a new environment and consequently prices increased. Although prices stabilized following OPEC's decision to increase production, we still expect oil prices to remain close to US$70 per barrel.

An additional factor of uncertainty has been the increase in trade tensions. The back-and-forth between countries and lack of transparency in the negations makes it difficult to precisely estimate what the net impact on trade and activity will be. In principle, the direct effect of higher import tariffs through the trading channel will be limited. However, the escalation of protectionist measures, together with possible retaliation by major trading partners, will have a significant negative effect on the global economy. Under a scenario of a large-scale trade conflict, the direct effects could subtract around 0.2 pp from global growth.

Not surprisingly, there has already been a readjustment in the perception of global risk, especially in emerging markets. Financial tensions in emerging economies have been widespread (see Figure 2.3), due to the depreciation of currencies and the widening of risk premiums; countries with higher external financing needs have been affected the most. For this reason, many central banks in these economies have tightened their monetary policy stance, as a way to battle the sharp depreciation of their currencies.

In sum, the global scenario continues to be subject to negative risks, which in recent months have increased. On the one hand, the risk of a trade war has intensified in the wake of the latest measures adopted by the U.S. and China, yet the thawing of tensions between the U.S. and EU is one sign of a possible de-escalation in the trade war. In addition, in a more volatile financial environment, systemic risk would increase in emerging economies. Rising protectionism and global trade barriers could amplify the risks to economies with weaker fundamentals, which were already under pressure from the Fed's policy normalization and a possible slowdown in the global economy. Lastly, political risks in Europe have also intensified. As a result, despite an upbeat outlook for global growth, risks continue titling to the downside.

3. U.S. Outlook: Summer blockbuster but not Academy award worthy

The U.S. economy, which has been in expansion for 110 months, remains strong despite the overhang from a full-scale trade war. As such, we continue to expect growth to be 2.8% in 2018 and 2019. While the downside risks to our outlook have increased, we have maintained our baseline scenario given that global growth is solid and conditions for investment, both public and private, are auspicious since the passage of the tax cuts and the budget deal. However, the changes to fiscal policy have led to a sharp drop in corporate and personal income tax revenues, and projections suggest that the annual deficit will be close to $1T in 2018 and surpass this mark by next year. Given that the economy is near full employment, we also expect inflation to continue to tick up, although we expect core prices to remain within the symmetric target of the Fed (1.5% to 2.5%). With stronger growth and higher inflation, we maintain our view that the Federal Reserve will raise rates two more times (25bp each) in 2018 and three additional times in 2019.

With annualized growth of 4.1% over the second quarter, the GDP report was at least short-term validation for the administration's economic agenda, but was not suggestive of a breakout year for growth going forward. The biggest surprise in the quarter was the significant rebound in consumer spending, which in the previous quarter grew at the slowest pace since 2013. With the labor market strong, discretionary incomes rising and consumer confidence surging, it is no surprise that spending contributed 2.7pp to the quarterly growth rate, the highest since the fourth quarter of 2014. However, it appears the tax reform has not prompted firms to increase investment substantially above previous levels, as private fixed investment decelerated to a quarterly annualized growth rate of 5.4%, even after including the strong contributions from the mining sector.

Net exports were also strong, which in the broader context of dollar appreciation, a surge in domestic consumption and stable global demand, should not have been the case. The risk of a full-scale trade war prompted firms and consumers to preemptively soften the negative impact of higher import tariff. In fact, nominal exports of food, feeds and beverages increased 22% while foreign purchases of civilian aircraft and engines also increased significantly. Meanwhile, sharp declines in imported automobiles and telecommunication equipment slowed total imports growth. As a result, net exports contributed 1.0pp to GDP growth in second quarter.

Other components also exhibited abnormal levels of volatility. In terms of fiscal spending, the budget deal struck in 1Q18 lifted contributions from federal, state and local governments to twice the average contribution since 2010. To the downside, the drop in inventories subtracted 1pp, the largest negative contribution since the first quarter 2014. This was partially explained by rising energy prices, which allowed firms to release oil and petroleum products inventories.

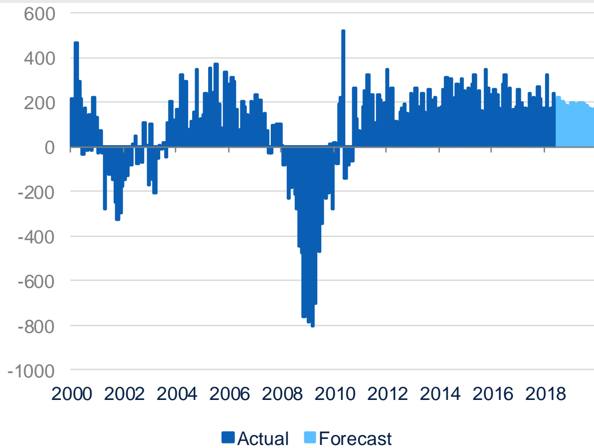
In addition, real private residential fixed investment contracted for the second consecutive quarter as the growth in nominal investment remained below price increases. For some time now, the housing market has been characterized by low supply of new and existing homes. This, together with the extended period of relatively low mortgage rates and solid income and employment growth, has led to strong home price appreciation of around 7% YoY in May.

However, these trends may be turning around. Existing home sales have plateaued at a rate below 5.5 million SAAR, indicating that some potential buyers are being affected by high prices and higher interest rates, and are deciding to sit out, at least temporarily. The plateauing of existing home sales increased available inventory, which will help tame the rate of home price appreciation. Meanwhile, housing starts increased 7.8% YoY in 2Q18. We expect existing home sales

to remain at or below their current levels and housing starts to continue increasing, which will provide some buyers' relief in terms of home price appreciation; our baseline assumes an average increase of 6.6% in 2018 and 5.5% in 2019.

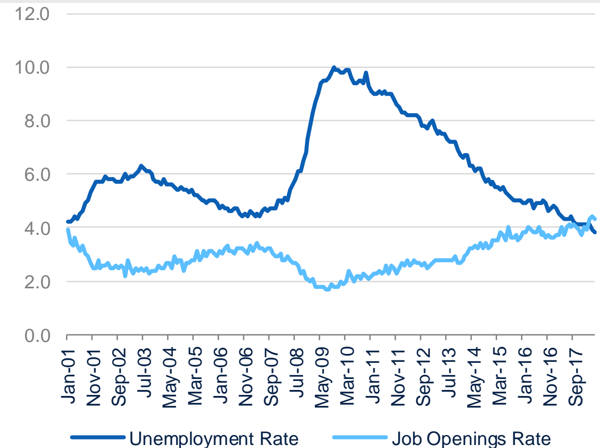
In 2Q18, the U.S. added 206K jobs per month while the unemployment rate ended at 4.0%. In addition, the job openings rate continues to trend at all-time high of 4.6%, while the so-called quits rate reached 2.7%, suggesting labor market churn and firm demand continues to be resilient despite escalating trade tensions and rising nonlabor supply-side costs. Furthermore, broader measures of the labor market strength such as the employment-to-population ratio and labor underutilization rate (U-6) improved from the previous quarter. Given the lack of substantial headwinds building in the third quarter that would derail the labor market momentum, average monthly payroll growth will be close to 215K jobs per month, and the unemployment rate trend will be close to 3.8%. Over the longer-run, we expect slack in the labor market to continue to diminish with the unemployment rate reaching 3.7% in 2019.

Figure 3.1 Nonfarm payrolls, K



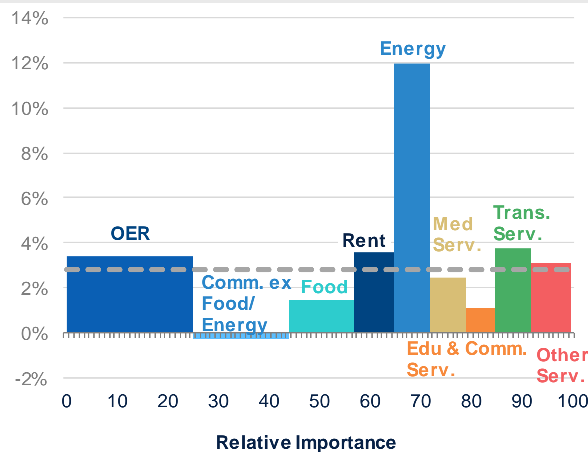
Source: BBVA Research & BLS

Figure 3.2 Job openings & unemployment rate, %



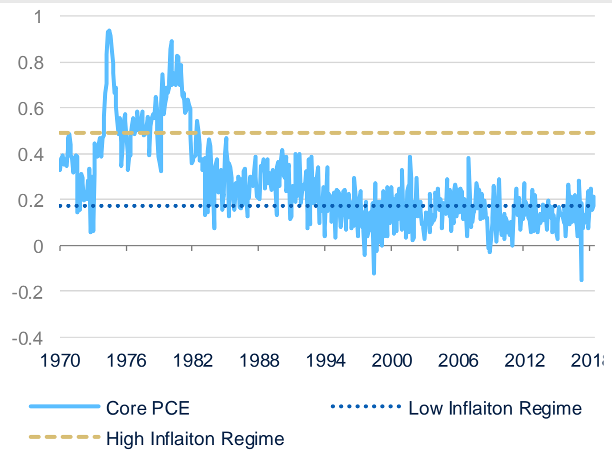
Source: BBVA Research & BLS

Figure 3.3 Consumer price inflation, YoY%



Source: BBVA Research & BLS

Figure 3.4 Core PCE, MoM%

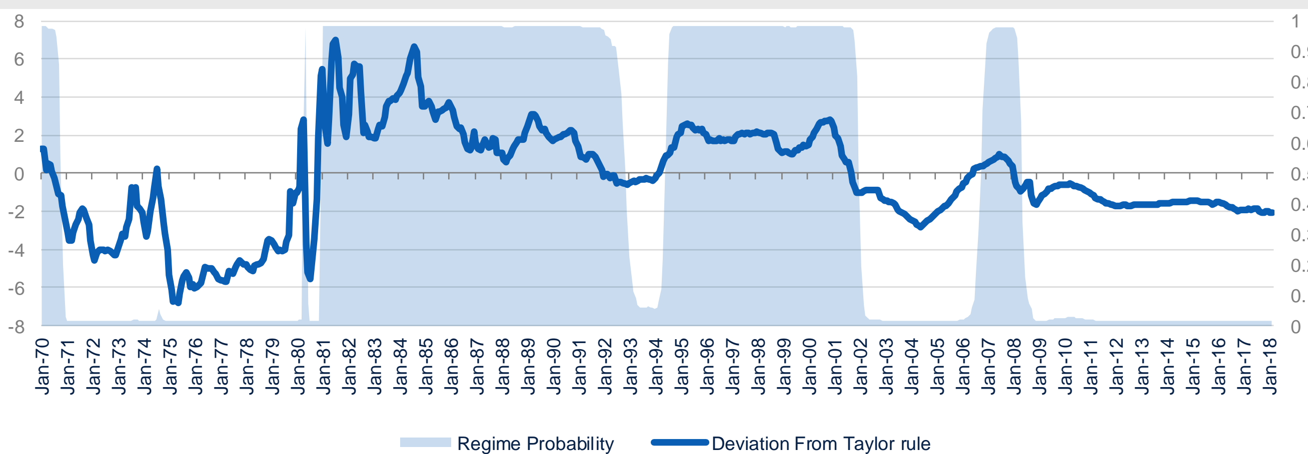


Source: BBVA Research & BEA

In June, headline CPI rose to 2.9% -the highest since 2011- with strong contributions of financial, household, healthcare and educational services, and recovery in internet and telephone services. Headline and core PCE increased to 2.2% and 1.9% year-over-year, respectively. With respect to headline inflation, previous increases in crude oil prices continue to pass through to prices at the pump, with gasoline prices up 0.5% over the month and 24.3% year-over-year. However, as energy prices stabilize these pressures will fade away. In contrast, prices for education and healthcare services, which had been a big drag on inflation pressures, are growing. However, new sources of competition and innovation trying to nibble off some of the $3.2Tr markets should contain price increases below rates observed prior to 2008. With this in mind our forecasts remains for a slight overshooting of the inflation target in 2018 and 2019 (CPI: 2.6% and 2.7%), with both core and headline measures returning to a level more consistent with the Fed's 2% target. If these conditions hold, we do not envisage any major risk of shifting to a high inflation regime, a finding supported by our Markov-switching analysis that found that the probability of entering a high inflation regime à la 1980s is nonexistent.

On balance, we expect financial conditions to remain supportive for growth without jeopardizing the soundness of the system. According to the Senior Loan Officer Survey, despite tepid demand for loans a majority of respondents reported loosening standards over the 2Q18 for C&I loans, residential, and consumer loans excluding credit cards and autos. Likewise, although equity prices declined over the quarter, as uncertainty over the escalating trade tensions negated the strong earnings momentum associated with the corporate tax reform, corporate credit spreads remained largely unchanged, suggesting favorable risk appetite and no major pressures on liquidity, particularly for investment-grade bonds. That being said, asset valuations appear rich and risks of a major correction are edging up, particularly for highly leveraged sectors in a rising rates environment. However, some easing in trade tensions at the beginning of the third quarter could reduce market uncertainty and support investment.

Figure 3.5 Implicit Taylor rule and probability of monetary policy regime change, %



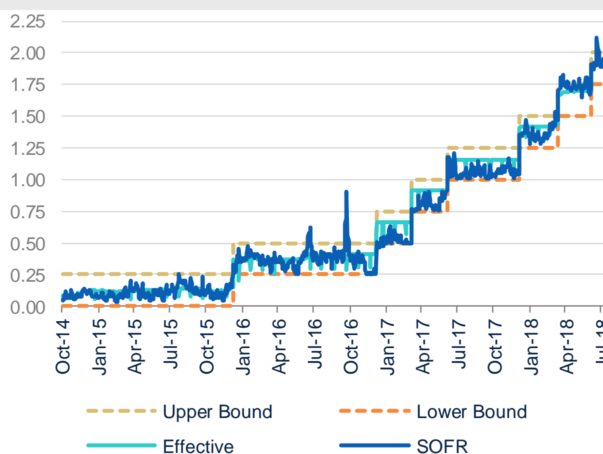
Source: BBVA Research

With respect to short-term rates and the Fed, despite the president's call for more accommodative policy and his preference for realignment with foreign central banks, we expect the Fed to continue on its current policy course. Inflation is at the Fed's 2% target after persistently failing to reach the threshold in previous years, the unemployment has reached historic lows and despite some evidence of slack existing in certain demographic segments, labor markets remain tight. This implies additional rate increases in September and December of this year and three hikes more in

2019. This path would imply a slight overshooting of equilibrium interest rates to minimize the risks of losing control over price stability, if inflation remains elevated for too long or stays on an upward trajectory. As a result, our baseline assumes a return to equilibrium levels in 2020 after a short period of explicit tightening in 2019 and 1H20.

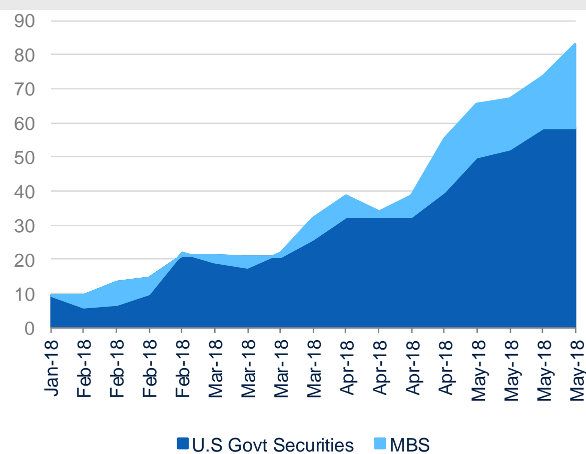
While the previous Fed Chair, Jane Yellen, once suggested that the Balance Sheet Normalization process would be like "watching paint dry on a wall", the recent volatility and upward drift in the effective Fed funds rate have some market participants concerned that the strategy could be at risk. Also, there is a growing sense that the equilibrium level of reserves could be higher than previously estimated due to regulation and structural changes in the industry, suggesting either a more gradual wind down or early termination of the normalization plan.

Figure 3.6 Fed Funds and Repo rates, %



Source: BBVA Research & FRB

Figure 3.7 Balance sheet attrition, $Bn



Source: BBVA Research & FRB

Given the insistence on the process being "gradual and predictable" we do not anticipate any change in the reinvestment caps, which are set to reach $30bn for Treasuries and $20bn for Mortgage Backed Securities (MBS) in October. Not doing so would spark something akin to the taper tantrum, a major concern for Fed policymakers. As a result, the most probable outcome in an environment with a higher demand for excess reserves could be a large balance sheet, above our current baseline estimate of around $2.5tr. In the short-run, in order to limit the risk of the effective rate breaking out of the upper bound the Fed will continue to adjust the interest paid on excess reserves (IOER). The move has had some success, and any additional upward drift in the effective rate would likely be met with another technical adjustment. In the long-run, the Fed could make some adjustments to its balance sheet normalization strategy, but only after a thorough analysis and with conclusive evidence that this is required. At the earliest, this would be closer to year-end 2018 or the first quarter of 2019.

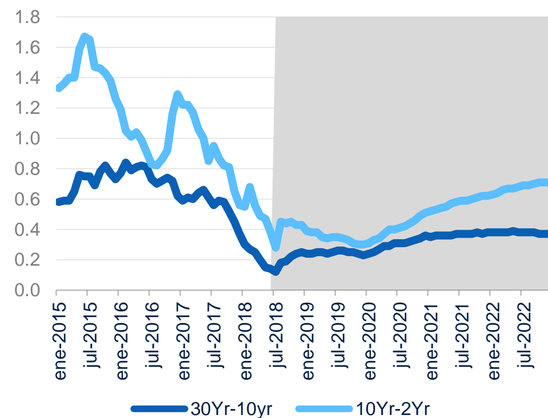
With respect to long-term U.S. Treasuries and the yield curve, our baseline continues to assume a gradual decompression in the longer-term term premium, leading to a steady rise in long-term yields and a positive slope. Although the 10-year Treasury yield has declined from May highs, it increased to 3% by the end of July. This upward trend should continue in 2H18 as inflation edges up and market expectations on monetary policy continue converging with the Fed's projections. While we do not expect a significant increase in the spread between the 10-year and 2-year Treasuries over the next 12-months, due to a steady rise in short-term rates faster than in the long-end of the curve, we continue to expect a positive yield curve slope. In fact, by 2022 we expect the slope to be close to 80bp. This rise

assumes that the demand-side effects from quantitative easing (QE) wind down and "operation untwisting" lead to a normalization of term premium. However, unexpected safe-haven flows stemming from growing global uncertainty or escalating trade war could put downward pressure on yields in the short-term. In addition, the rise in nontraditional market participants could lead to large and unexpected fluctuations in the yield curve slope.

Figure 3.8 10-Year Treasury yield decomposition, %

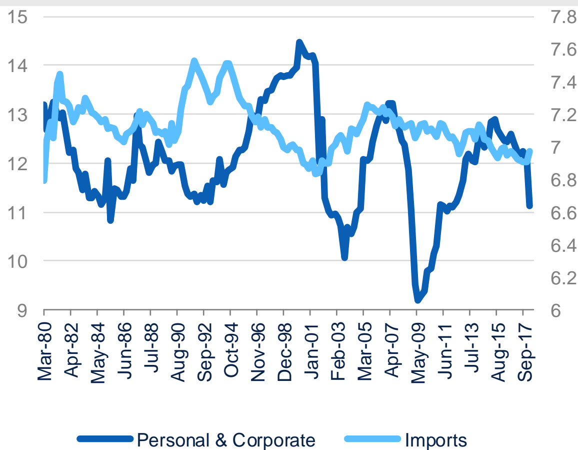
Source: BBVA Research & ACM

Figure 3.9 Yield curve slope, pp



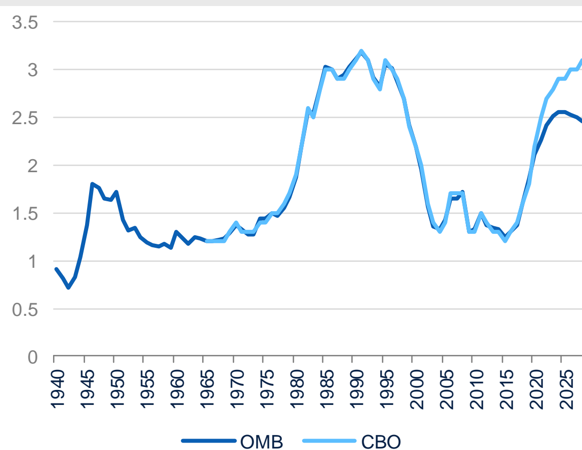
Source: BBVA Research

Figure 3.10 Federal receipts, share of GDP, %



Source: BBVA Research & BEA

Figure 3.11 Net interest payments, share of GDP, %



Source: BBVA Research, OMB & CBO

Although from a risk perspective trade has received a disproportional amount of attention, U.S. public finances appear to be worsening even according to highly optimistic projections of the OMB. In their annual mid-session review, the OMB added $926bn to their 10-year budget outlook. Around $744bn is related to the budget deal struck at the beginning of the year and $182bn is from higher debt service. The worsening of OMB's budget projections in just four months occurred despite having growth assumptions that are nearly 1pp higher each year than the CBO and Blue Chip consensus forecasts. OMB's new assumptions also imply rising debt-levels in excess of $20tr by 2022, representing 83% of GDP, the highest share since 1947.

In addition, revenues have been flat during 1H18 even as GDP growth accelerated by 5% in nominal terms, thereby putting into question the ability to increase revenues by lowering tax rates. In fact, corporate revenue as a share of GDP dropped to 0.9% in 1Q18, which is a historic low, as firms are likely taking advantage of key provisions in the reform such as the repatriation holiday, ability to deduct capital investments immediately and lower tax rates for pass-through entities. That said, personal income taxes remain close to the recent average at 10%, but are trending downwards as a share of GDP. The enacted tariffs are, however, having a net positive impact on revenues, as receipts from production and import duties have increased by $74.1bn (SAAR) since the first quarter 2017. As firms, individuals and multinationals adjust to the new tax policies there is a nontrivial probability that the revenue outlook will continue to tilt to the downside, which coupled with higher spending, could add pressures to fiscal sustainability.

On additional downside risks to the outlook, trade tariffs threaten to dampen aggregate demand and counteract the supply-side impetus of the tax reform with rising input costs and increased uncertainty. Meanwhile, building supply-side pressures and a rise in costs have increased the potential risks of shifting to a higher inflation regime. This would force the Fed to increase interest rates at a faster pace, thereby adding pressures on corporate profitability and forcing an asset price correction. The economy could also deteriorate if pressures on emerging markets intensify or growth in developed economies weakens. Whatever the trigger for the next downturn is, fiscal policy has become untenable and will likely have little spare capacity to respond adequately while the Fed has not fully normalized monetary policy, suggesting that their ability to lower rates in an effort to stimulate demand is limited. Moreover, the Fed’s independence has also been put into question after the President broke with recent precedent by openly criticizing current Fed policy; any sense of a lapse in Fed independence could be punitive.

Notwithstanding these risks, there remains a small probability that conditions continue to tilt to the upside. Firms, particularly small and medium sized ones, in their efforts to understand and develop tax strategies around the recently enacted tax legislation could have delayed major investment decisions. Now, after having time to either shift their corporate structure to take advantage of the benefits of becoming a pass-through entity, or in response to increased certainty, firms may embark on a wave of large capital investment projects that tilt growth further to the upside. Increased capital investment would also likely coincide with increased hiring given the complimentary nature of most current capital expenditures. If productive capacity increases, the overheating risks associated with current high levels of resource utilization would diminish. Conversely, trade tariffs that encourage import substitution could benefit sectors that are severely under capacity and have the potential to ramp up production quickly, giving a boost to short-term growth. In addition, the long-awaited rebound in productivity growth may be around the corner, which would also boost real incomes and GDP growth.

4. U.S.-China trade war: no end in sight

Trade war symptom of growing economic frustrations

During his campaign and leading up to his 2016 election, candidate Trump demonstrated his America first mentality by openly criticizing trade policies that he deemed to be unfair to American companies and workers. Since taking office, President Trump pulled the U.S. out of the Trans-Pacific Partnership (TPP) and the Paris Climate Agreement, established the Office of Trade and Manufacturing Policy, began discussions to renegotiate NAFTA, filed several cases at the WTO against major trading partners and implemented tariffs on around $100bn worth of imports of which around 50% are from China. Yet, given President Trump's trend towards American isolationism, his stance against China and Chinese exporters has always been especially pointed. Therefore, it seems that after the most recent exchanges in a long sequence of political back and forth between the U.S. and China, the likelihood of a protracted trade war has substantially increased.

The shift in U.S. trade policy is part of a recent trend of American isolationism, brought about by the belief that labor market fragilities and widening socioeconomic gaps are partially the result of increased foreign competition, globalization and free trade agreements that underdelivered. However, the conflict is a symptom of larger structural shifts, representing more than just rhetoric from the current President. In fact, the backlash against free trade agreements is also occurring in other major economies, with growing skepticism towards the liberal trade order.

Prior to the financial crisis, China's position as the world's fastest growing economy was mostly attributed to its dominance in manufacturing and its export-oriented trade model. However, the 2008 global financial crisis encouraged China to accelerate its push toward domestic consumption, become a technology hub, and increase its presence in global value chains and capital flows. This prompted U.S. companies to greatly increase their positions in China, creating two source of conflict. Either U.S. firms were not benefiting as much as expected from selling in China or they were critized by not investing enough in the U.S.

These policies were perceived by the Trump administration as a threat to American economic dominance and success:

> *…the Chinese government uses foreign ownership restrictions… to require or pressure technology transfer from U.S. companies to Chinese entities… the Chinese government uses its administrative licensing and approvals processes to force technology transfer in exchange for the numerous administrative approvals needed to establish and operate a business in China.* [1]

Timeline of the conflict

On July 20, 2018, the trade war between the U.S. and China reached its peak when President Trump announced that his administration was prepared to impose retaliatory tariffs on $500bn worth of Chinese imports. By this, he is most likely referring to the entirety of Chinese imports based on 2017 figures. However, President Trump's anguish against Chinese exporters came to fruition in April of 2017, when the administration initiated an investigation against Chinese steel and aluminum products under Section 232 of the Trade Expansion Act of 1962. Such investigations are meant to

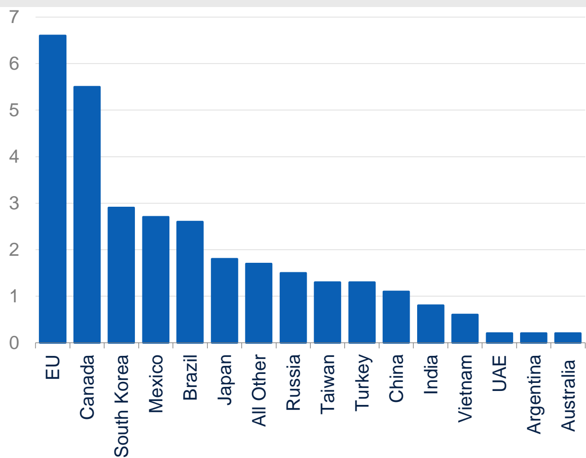
1: United States. Office of the United States Trade Representative. Findings Of The Investigation Into China's Acts, Policies, And Practices Related To Technology Transfer, Intellectual Property, And Innovation Under Section 301 Of The Trade Act Of 1974. 22 March 2018.

determine an import's effect on national security. Four months later, President Trump instructed the USTR to begin an investigation of unfair trade practices by the Chinese government against high-tech American companies in China. This investigation was initiated under Section 301 of the Trade Act of 1974 that gives the president the right to take action against trade policies that place an unfair burden on American commerce.[2,3]

News related to trade policy remained relatively quiet until January 22, 2018 when the Trump administration announced 50 and 30 percent safeguard tariffs on washing machines and solar cells respectively. These tariffs were based on recommendations made to President Trump by the United States International Trade Commission (USITC) in late October of 2017.

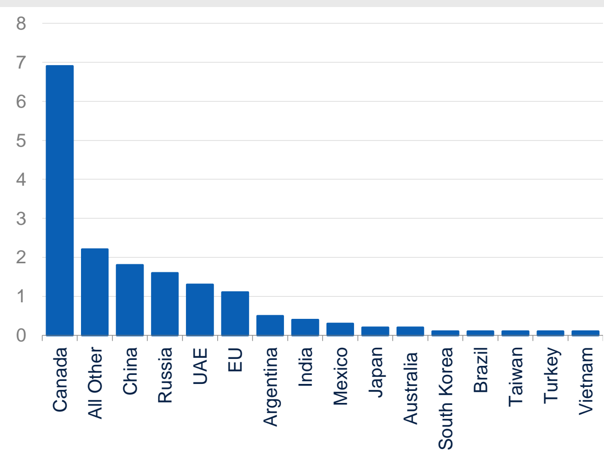
The Department of Commerce then concluded its Section 232 investigation in mid-February, and based on its findings, President Trump announced 25 and 10 percent tariffs on steel and aluminum imports, respectively. Given the threat of retaliatory tariffs, President Trump later temporarily exempted Canada and Mexico from the tariffs and the EU, Australia, Argentina, South Korea, and Brazil until May 1, 2018. On March 22, the day prior to the Section 232 tariffs going into effect, the USTR issued his report listing grievances against the Chinese government's unfair trading practices and prompting President Trump to announce tariffs on $60 billion worth of Chinese imports.

Figure 4.1 Steel imports, $Bn



Source: BBVA Research & Peterson Institute

Figure 4.2 Aluminum imports, $Bn



Source: BBVA Research & Peterson Institute

This announcement, compounded by existing tensions, marked the beginning of the trade war between the U.S. and China. In fact, on April 3, China's announcement of retaliatory tariffs (totaling $2.4 billion to counter the U.S.' steel and aluminum tariffs) was met by the Trump administration publishing a list of 1,333 products being considered for a 25 percent tariff, covering around $46.2 in imports. The Chinese government published its own list in response to these threats.

The state of negotiations remained fairly uncertain through April and May. Meanwhile, trade relations between the U.S. and its allies began to deteriorate. On June 1, the Trump administration followed through with previous arrangements

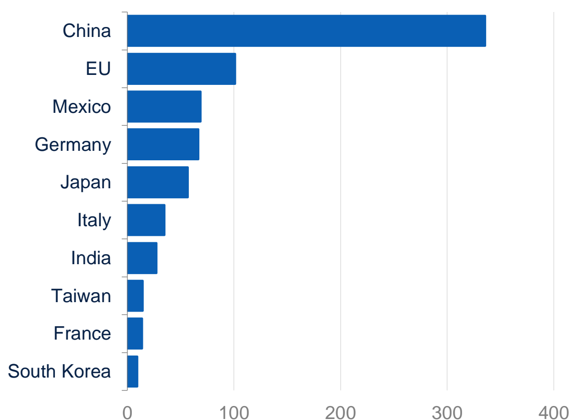
2: Since 1980, out of 14 Section 232 investigations, only three concluded findings of threat to national security. All of these cases involved petroleum products.
3: Previous administration used Section 301 extensively in cases primarily involving intellectual property, pharmaceuticals, and software. The usage of Section 301 slowed after the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights or TRIPS.

and removed all previous tariff exemptions. By early June, it seemed that tension with China had begun to unwind. Yet, the conflict re-escalated when the Trump administration released its final list of targeted Chinese imports valued at $46.3 billion, which China followed with its final list of tariffs that took effect on July 6.

Disparate economic costs from trade war

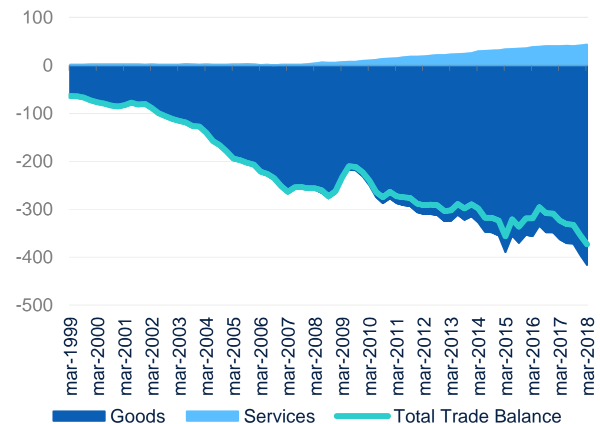
In terms of the prospects of reaching a compromise, the lack of common ground between the two parties suggests that tensions could last indefinitely. The Chinese government has demonstrated that it is not entirely keen on eliminating advantages that its domestic firms enjoy. Similarly, the U.S. government has shown little regard for seeking less extreme solutions. Unless there is a quick resolution, the current conditions suggest that the impact will be nontrivial and widespread. Meanwhile, some political analysts have expressed that the Trump administration will not commit to a serious negotiation process until after the mid-term elections, as a way to prove to his base that he can be tough on China, as promised during his campaign. As it stands, President Trump and Chinese President Xi Jinping have mutually anticipated 25% tariffs on select goods; however, threats of additional tariffs have been proposed. For example, President Trump has suggested that he is willing to expand his list of tariffed good to cover $100 billion.[4]

Figure 4.3 U.S. trade deficit, $Bn



Source: BBVA Research and Census

Figure 4.4 U.S.-China trade deficit , $Bn



Source: BBVA Research and Census

Estimates of the potential damage of a trade war are difficult given the complexity of global trade. Chinese exports to the U.S. make up 4.1% of China's GDP, as opposed to 0.6% for the U.S. However, the U.S. trade deficit with China is 30% smaller when measured in value-added terms than in gross exports terms because of the high foreign content in Chinese exports. According to a paper jointly published by the PIIE and the China Finance 40 Forum, the 25% tariffs initially proposed by President Trump would decrease China's GDP by 0.1% in the short term. However, if negotiations breakdown China's GDP could decline by as much as 0.8%. These sanctions would mostly affect manufacturers of mechanical and technology products. It could also affect textile manufacturers and agricultural goods, if the tariffs are expanded to cover these sectors.[5]

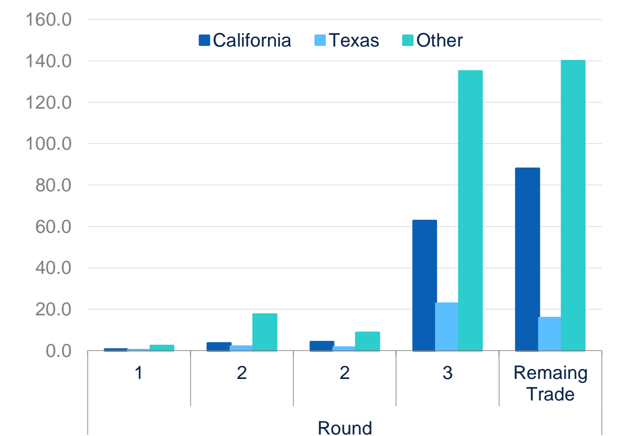
4: Ha, Jiming. "China-US Trade Conflict and Its Impact on the Two Economies," *US-China Economic Relations: From conflict to Solutions*. June 2018.
5: Ha et al., 2018

For the U.S., the intial impact to GDP growth will be modest relative to China. However, the U.S. may feel severe residual effects from the escalating tensions. Due to the specific and targeted nature of the retaliatory tariffs, the impacts are likely to be heterogeneous. Furthermore, the shock to global investor confidence and the underlying geopolitical tensions could reduce portfolio and investment flows to the U.S.; these effects could outweigh any direct impacts to growth from rebalancing bilateral trade deficits.

The most likely short-term outcome is higher costs, lower profit margins, a slowdown in hiring, and higher consumer prices. According to our estimates, the rise in average effective tariffs could increase core inflation 20bp all things equal. Any unanticipated rise in inflation could pull forward the Fed's plans to increase rates, possibly leading to a more abrupt and prolonged rise in interest rates. The more rapid relative rise in interest rates would most likely put upward pressure on the dollar, lower the U.S. export competitiveness and possibly widen the trade deficit —neutralizing Trump's push to lower the U.S. bi-lateral trade deficits through import tariffs.

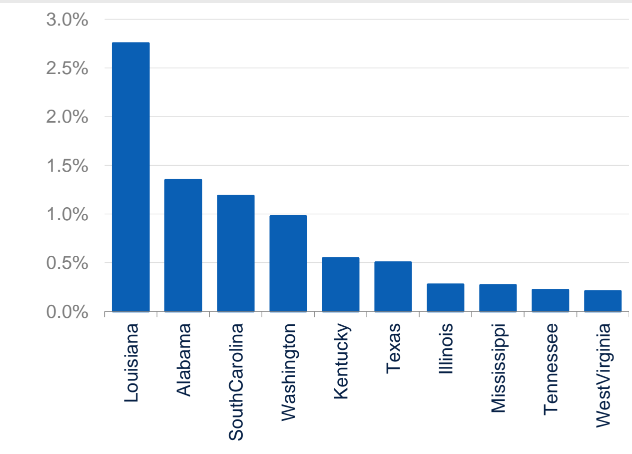
Additionally, domestic manufacturing firms, in order to avoid counter-tariffs in place against American exports, could move some of their production offshore. Higher input prices in sectors that do not directly benefit from the tariffs could also be large, as these sectors make up a nontrivial share of the economy. This, in turn, would drive up unemployment that currently sits at its lowest point in the last half a century. However, multinational firms with large exposures to foreign markets have not been adversely impacted by the trade tensions thus far.

Figure 4.5 Import exposure ot U.S. tariffs, $Bn



Source: BBVA Research and Census

Figure 4.6 Export exposure to Chinese tariffs, $Bn



Source: BBVA Research and Census

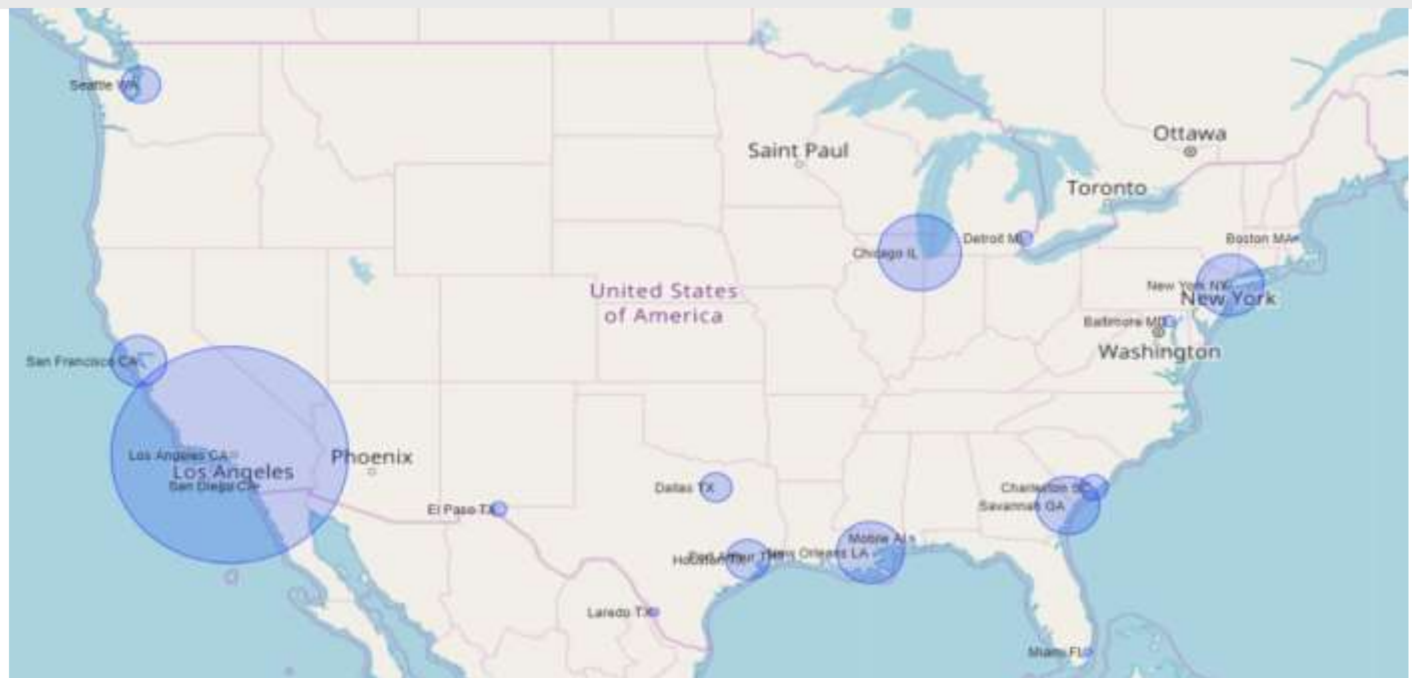
That being said, the U.S. tariffs, which went into effect on July 6 concentrate on machinery and mechanical appliances, transportation, metals, and chemicals used in manufacturing. These tariffs reflect the Trump administration's unrest against the unfair treatment of American high-tech firms. While such tariffs on consumer goods will result in certain benefits from a decrease in foreign competition, they will likely result in price increases and weaker demand for these products, depending on how easily firms and individuals can find new domestic or foreign substitutes.

American farmers and auto manufacturers were the primary targets of Chinese counter-tariffs. Soybean farmers rely heavily on demand from Chinese consumers. So much so, that the price of soybean futures across various deliveries fell to their lowest levels since the recession. Other non-energy commodities followed suit in anticipation of further

tariffs or counter-tariffs from other countries. Financial markets have fared better than most commodities. The DJIA, S&P 500 and the NASDAQ have mostly recovered their losses from Trump's mid-June announcement. However, most securities, especially those with international exposures, have been especially reactive to events coming out of the trade war. Moreover, most auto manufacturers have seen a large drop in price since mid-June after Trump threatened to imposse a 25 percent tariff on all imported vehicles. While strong corporate earnings are likely to offset some of impact from the trade tension, going forward there is a high probability that markets will face higher volatility and uncertainty.

With respect to regional impacts, the current tariffs put in place by both countries and those that are scheduled to take effect imply substantial variability at the state-level. For example, California and Texas imports amount to $71.1bn and $26.9bn of the $200bn of goods currently subject to U.S. tariffs on Chinese goods. While smaller, the impact to California and Texas exports will be nontrivial, as $4.3bn and $8.5bn are subject to Chinese retaliatory tariffs, respectively. The targeted nature of the tariffs suggests that agricultural producers and sectors with close ties to chemical manufacturing will feel the effects more acutely, but the overall impact on the economy will be minimal, as these exports account for only 0.2% and 0.5% of the economy. Conversely, as a share of GDP, 2.8%, 1.3% and 1.2% of Louisiana, Alabama and South Carolina exports are subject to current Chinese tariffs.

Figure 4.7 Total district trade exposure to China, proportional bubbles based on direct trade exposure ($Bn)



Source: BBVA Research & Census Bureau

In addition to the state-specific effects, there is a high probability that the slowdown in trade flows will adversely affect cities with large and economically important ports. For example, about 15% or approximately $77bn worth of goods that flow through the Los Angeles port district are subject to U.S. and Chinese tariffs. Similarly, 16.9% of the Dallas-Ft Worth district's goods are subject to current tariffs. While these figures could inflict damage on the port and industries with close ties to port activity, the amount of goods subject to the tariffs are small relative to the size of the local

economy. Houston is also exposed to the tariffs from a flow perspective with nearly $16bn of goods subject to existing tariffs, but remains insulated from any major shocks given that this accounts for only 3.3% of annual economic activity. If tensions rise with China and other major Asian trading partners, large ports with smaller and less diverse economies such as Savanah (GA) could see a disproportionate economic impact. Although Savanah's economy is about 1/50th the size of Los Angeles, the magnitude of trade flows subject to the tariffs relative to the economy is 123%.

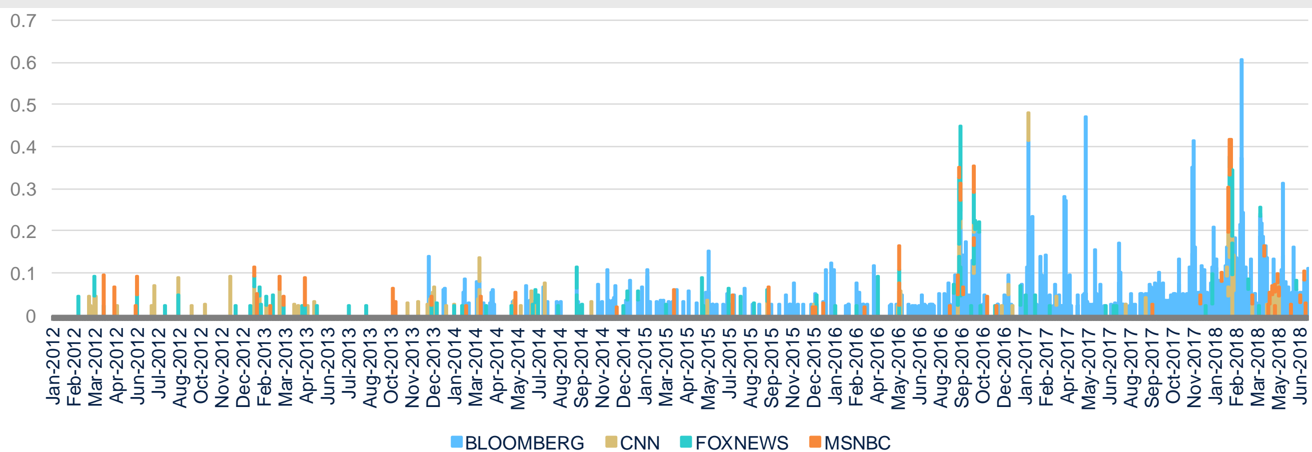
Conclusion

As it stands, the state of negotiations between the U.S. and China are uncertain, and there is little indication that the conflict will be resolved quickly. The Trump administration has made it clear that it will continue to target Chinese imports until its demands are met, yet the Chinese government seems apathetic to these threats. Nevertheless, there is little denying that the continued imposition of tariffs as a means of punishment will result in nontrivial damage to each economy. The sting of these tariffs will be felt in targeted sectors, namely agriculture and machinery manufacturing; however, residual symptoms will appear across the economy to varying degrees in the form of higher prices, job losses, and reduced consumer and corporate wellbeing. At this stage, one can only hope that both sides will agree to a mutual resolution similar to that between the U.S. and the E.U. Until then, the risks to the economic expansion will continue to accumulate. Alternatively, if the disruption to global trade brought about by the Trump administration results in a major transformation of global institutions and more free trade, the short-term costs of this trade war will be easily outweigh by the long-term benefits of reducing tariffs and other trade barriers. Given that we remain in the early stages of the trade war it is hard to determine what impact the tariffs will have on flows, yet it is clear that regions more dependent on foreign trade are exposed to a protracted and costly trade conflict.

5. Economic overheating signs

Ever after expansionary fiscal policies such as tax cuts and increased government spending were brought to the table in late 2016, economists have repeatedly been warning that fiscal stimulus during an expansion cycle could contribute to economic overheating, which in turn would cause price pressures and higher interest rates. Not surprisingly, as we can see from Figure 5.1, the media coverage of the word "overheating" has significantly increased since 2017. This coverage was especially intense in February 2018, after Congress passed a spending and budget deal, which included lifting the statutory budget caps by $296bn in two years, and provided $89bn in additional funding for disaster relief.

Figure 5.1 Percentage of airtime for the word overheating (%)



Source:: Internet Archive Television News Archive, GDELT and BBVA Research

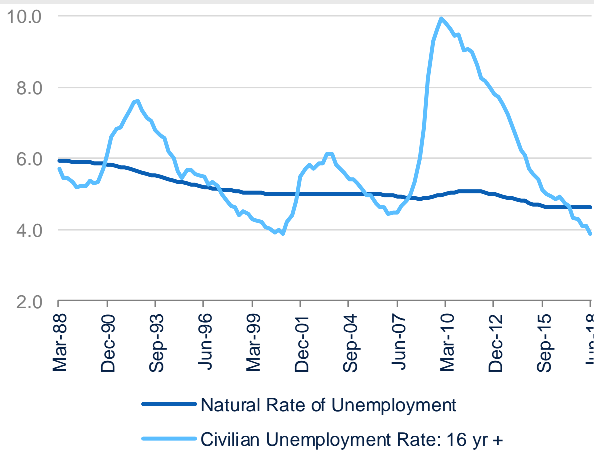
In a previous analysis[6], we examined the potential misalignment of financial market conditions and found little evidence of a credit bubble for domestic debt. In this section, we focus on two key metrics that could signal possible overheating of the real economy: unemployment, and inflation.

Labor market

Since the end of the Great Recession, employment has increased steadily. In Table 5.1, we can see that the U.S. economy is experiencing its longest streak of nonfarm payroll gains ever recorded. Moreover, considering that the economy added more than 200 thousand jobs in both May and June of this year, the labor market does not seem to be losing momentum, and we could continue experiencing solid employment gains for several more months.

6: https://www.bbvaresearch.com/en/publicaciones/u-s-are-equity-prices-overvalued/.

Figure 5.2 Unemployment rate vs. NAIRU (%)



Source: BLS, CBO, Haver and BBVA Research

Table 5.1 Longest nonfarm payroll gain streaks since 1939

No.	Months	Start	End
1	93	Oct-2010	---
2	48	Jul-1986	Jun-1990
3	46	Sep-2003	Jun-2007
4	45	Jul-1975	Mar-1979
5	33	Aug-1940	Apr-1943
5	33	Sep-1997	May-2000
5	33	Sep-1983	May-1986
8	29	Nov-1964	Mar-1967
9	25	Apr-1993	Apr-1995
10	24	Aug-1972	Jul-1974

Source: BLS, Haver and BBVA Research

While a tight labor market signals the strength of the economic recovery, employment beyond the full-employment level is unsustainable and may indicate overheating of the real economy. In macroeconomics, unemployment in a full-employment economy is only caused by labor market frictions, skill mismatch, or is voluntary, and therefore cannot be lowered without cyclical tailwinds. The unemployment rate when the economy is operating at full-employment is called the "natural rate of unemployment."

On the one hand, empirically estimating the natural rate of unemployment proves to be a challenging task, as economists are still far from quantitatively understanding the factors that drive the natural rate.[7] On the other hand, the extremely low reading of the unemployment rate[8] seems to suggest that the economy has already reached full-employment. As we can see from Figure 5.2, the current unemployment rate remains below the natural rate of unemployment calculated by the CBO. Therefore, even if we assume that the Great Recession and structural factors, such as the changing demographics, have lowered the natural rate of unemployment relative to previous expansion periods, it seems that current labor market conditions are consistent with some level of economic overheating.

Inflation

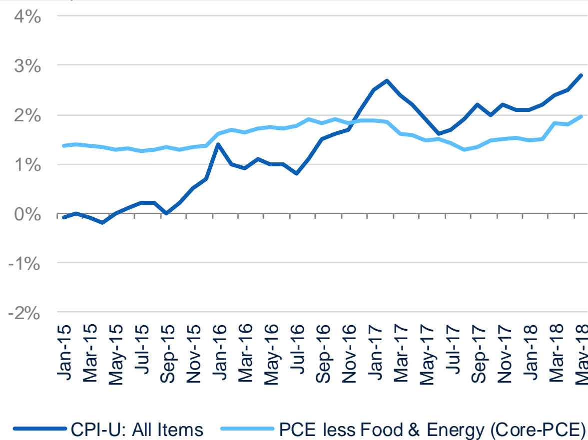
Another important indicator of economic overheating is rising inflation. When the economy is growing above potential and supply cannot catch up with demand, price pressures will cause inflation to edge up. However, in Figure 5.3, we can see that the year-over-year CPI inflation is still below 3%. In other words, price levels have not shown serious signs of lag in production capacity. However, we can also see an upward trend in CPI inflation since 2015. If inflation keeps accelerating at its current pace, it will reach rates that will generate significant concerns for policymakers and businesses.

It is worth noting that fluctuations in energy prices significantly contribute to the rise of CPI inflation. Therefore, we look at another essential measure, core inflation, which removes food and energy prices from the calculation. Figure 5.3

7: Blanchard, O., & Katz, L. F. (1997). What we know and do not know about the natural rate of unemployment. *Journal of Economic Perspectives, 11(1)*, 51-72.
8: The unemployment rate for May 2018 is 3.8%. The last time when the unemployment rate was below this number was in December 1969.

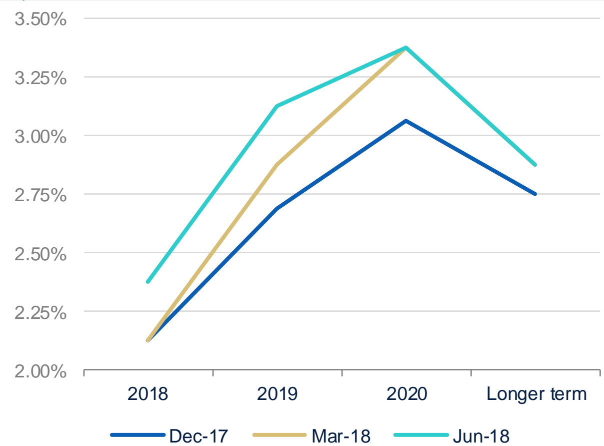
shows that inflation measured by the core PCE index is much milder than inflation measured by CPI. Moreover, the core PCE inflation just reached the FOMC target of 2% in May 2018, after remaining below this threshold for six years. In other words, according to the core PCE index, inflation has just returned to what could be considered a long-term equilibrium rate. However, similarly to CPI inflation, core PCE inflation also displays an upward trend since July 2017. Once the value goes above 2.5%, it could indicate overheating of the economy.

Figure 5.3 CPI and core PCE inflation (% YoY)



Source: BLS, Haver and BBVA Research

Figure 5.4 Policymakers' Federal Funds rates forecasts (%)



Source: FRB and BBVA Research

The central bank's key response to combat price pressures is raising the interest rate. Higher interest rates encourage saving and suppress demand for consumption goods, which helps to "cool down" price inflation. In Figure 5.4, we plot median forecasts of Federal Funds rates of FOMC voting members in the last three meetings based on the “dot plots” released by the Fed. We can see that policymakers have become more hawkish since December 2017, which confirms increasing concerns about rising inflation within the Fed. Although interest rate normalization is a critical part of the economic recovery after the Great Recession, the increasingly hawkish stance of the Fed in response to higher inflation could negatively affect investment if interest rates increase above their neutral level.

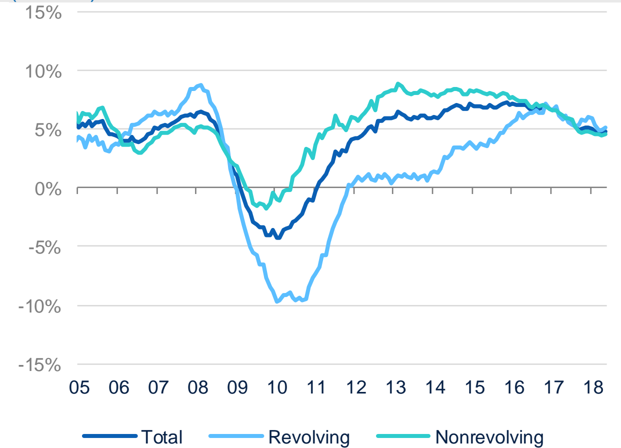
Conclusions

While it is still too early to tell how sustainable the current economic expansion is, the unemployment and inflation data suggest that we should pay more attention to signs of overheating. Employment beyond the equilibrium level is known to be counter-productive and unsustainable. Policies that aim to buoy up employment without increasing potential output could twist the labor market and backfire in the future. Meanwhile, although the U.S. has enjoyed price stability for more than three decades and inflation is unlikely to rise significantly, there are signs that some price pressures are building up. If inflation accelerates at a fast pace, the Fed's efforts to normalize monetary policy and curb potential price pressures could become more hawkish.

6. Consumer credit quality and growth

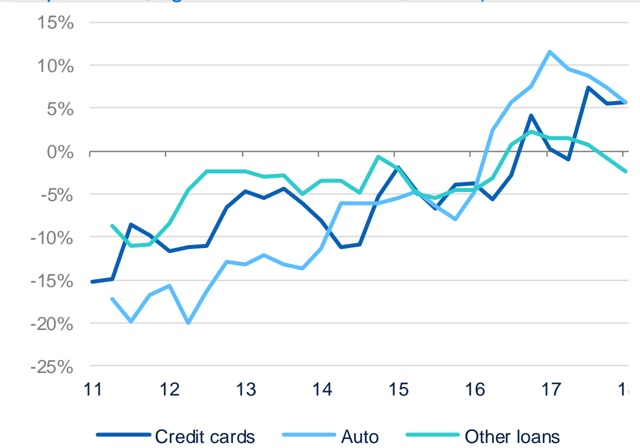
The growth of consumer credit has slowed down significantly since the end of 2016. In May 2018, outstanding consumer credit grew at a rate of 4.8% YoY, compared to an average of 6.9% during 2014-2016, even though economic growth has accelerated in nominal terms for more than two years. The slowdown in consumer credit occurred in both the revolving and non-revolving segments, with the deceleration in non-revolving loans being more gradual (Figure 6.1). The causes lie primarily in the tightening of credit standards (Figure 6.2), which occurred as delinquency rates started to inch up in 2015.

Figure 6.1 Consumer credit (% YoY)



Source: BBVA Research and Federal Reserve

Figure 6.2 Credit standard tightening (net % balance of respondents, tightened minus eased, 2QMA)

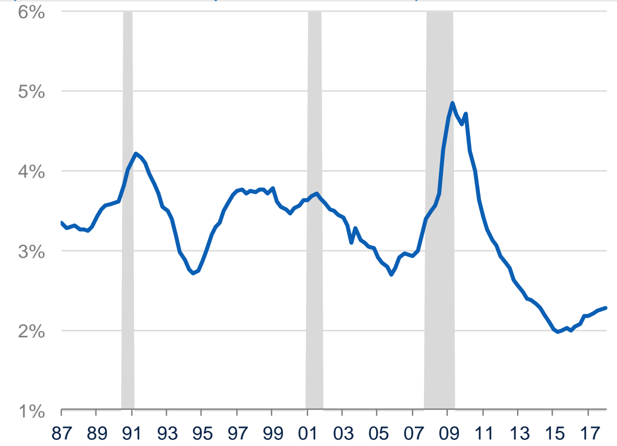


Source: BBVA Research and Federal Reserve

The increase in consumer credit delinquency has been partly the result of the slowdown in the oil-and-gas exposed regions of the country, which occurred when the price of oil collapsed in the second half of 2014. Nevertheless, the increase is also consistent with cyclical trends, as delinquencies tend to bottom out around the middle of the business cycle expansion (Figure 6.3).

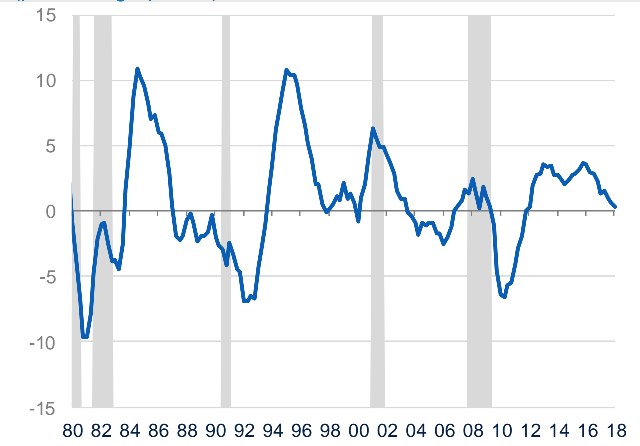
Consumer credit growth over the long term remains constrained by the growth in nominal personal consumption expenditures (PCE), which is in turn limited by the growth in income and leverage. Consumer credit growth tends to outpace PCE growth in the first stage of each economic expansion and equal or lag behind it in the latter stage (Figure 6.4). This phenomenon is in line with microeconomic theory and lenders' business decisions. This article explains the microeconomic factors behind these patterns, analyzes the current stage of the credit cycle, and provides a mid-term outlook for consumer lending.

Figure 6.3 Consumer credit delinquency rate
(%, shaded area represents recession)



Source: BBVA Research and Federal Reserve

Figure 6.4 Consumer credit growth minus PCE growth
(percentage points)



Source: BBVA Research, BEA and Federal Reserve

Marginal costs, vintage delinquencies and consumer credit growth

The best way to analyze the growth of consumer credit is from a microeconomic perspective. Based on theory, a business entity is justified in increasing the quantity of goods or services provided as long as the marginal cost per unit is lower than the marginal revenue. This logic also holds for financial companies. Assuming there are no fixed costs and the only costs lenders face are funding costs and credit losses, then the supply of credit will increase as long as annual credit losses are lower than the spread between the lending and the funding interest rates. Once marginal costs reach marginal revenue, the incentive to increase lending further disappears. If we approximate credit losses using the delinquency rate[9], the end of the credit expansion in our simplified example will occur when annual delinquencies reach the interest rate spread; measured in percentage points. When this happens, credit growth slows to or below its fundamentals-determined rate, which is the growth in PCE. Because of this, an analysis of delinquency rates by vintage for each of the main consumer credit categories – autos, credit cards and personal loans – can shed light on their mid-term growth prospects, despite it being an approximation with some limitations.

Auto loans

Auto loans were the first type of consumer loans whose growth picked up after the Great Recession, aside from the predominantly government-funded student loans. Auto loan growth peaked at above 8% YoY in 2015, decelerating gradually thereafter. An inspection of delinquency rates by vintage (Figure 6.5) shows why. As the cycle progressed, lenders extended increasingly more credit, expanding the credit box to borrowers with lower credit scores, resulting in a deteriorating risk profile by vintage. The cumulative delinquency rate at 12 months approached the relevant interest rate spread in 2015 (Figure 6.6). As lenders started facing losses that were exceeding their margins in parts of their portfolios, the signal that the credit box expansion had reached its limit became unmistakable. This was the tipping point when lenders decided to tighten standards for clients with lower credit scores. After almost two years of credit tightening, auto loans grew at a rate of 3.3% YoY in 4Q17 and 1Q18. Such a growth rate is below the increase in PCE

9: The delinquency rate can be an appropriate indicator of credit losses, as in the case of consumer loans its average equals the average charge-off rate over 2001-2018

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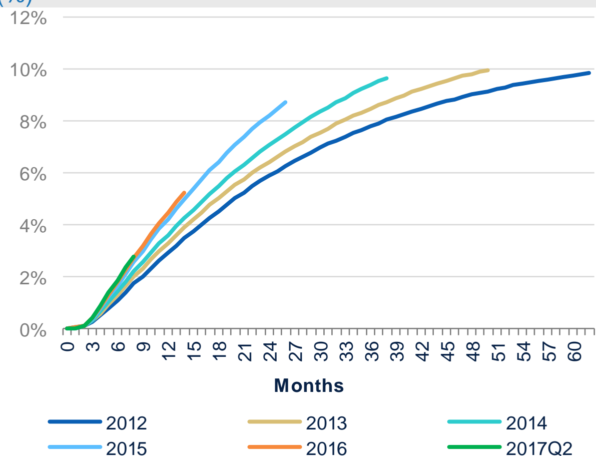
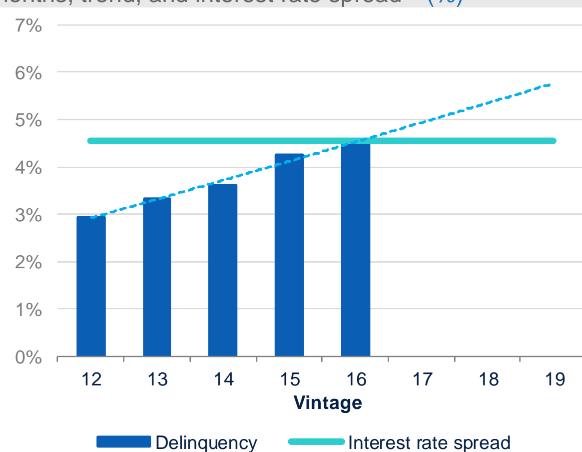
and roughly in line with the rate of growth of disposable personal income, and thus seems sustainable. With credit standards tightened to a degree where there is no further deterioration of credit quality by vintage, the growth in auto loans will remain around the current level in a steady economic environment. Given no macroeconomic shocks, delinquencies are expected to continue increasing further since older, higher-quality vintage loans will be paid off, and more recent vintages will mature. That said, the deterioration will proceed at a slower pace due to tightened credit standards.

Figure 6.5 Auto loans, vintage delinquency rate (%)



Source: BBVA Research and TransUnion (Q1 2018 Industry Insights Review)

Figure 6.6 Auto loans, vintage delinquency rate at 12 months, trend, and interest rate spread[10] (%)



Source: BBVA Research, TransUnion, Rate Watch, Federal Reserve and FDIC

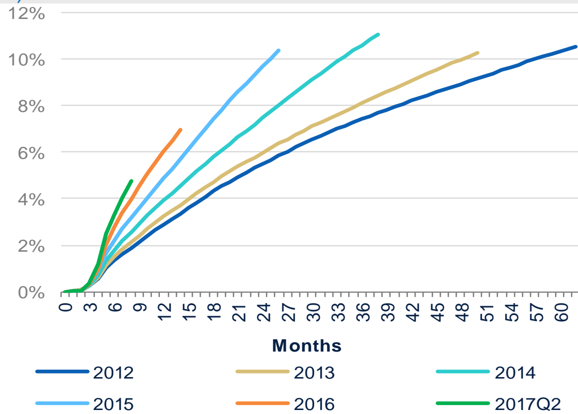
Credit cards

Credit card growth picked up considerably later in the cycle compared to auto loans, and peaked at a rate above 7% in late 2016. While growth has slowed since then, it remains solid at above 5% YoY. Cumulative delinquency rates by vintage show a significant deterioration in credit quality (Figure 6.7), which nevertheless remains manageable by lenders as evidenced by the less aggressive tightening of standards compared to auto loans. The most likely reason is that there is still some space for further expansion (Figure 6.8) because of higher interest rate spreads. This is likely to lead to the credit card segment outperforming non-revolving credit in the short- to mid-term. That said, the level of risk inherent to the credit card business model is high, as delinquency rates for credit cards tend to be higher and increase faster in adverse environments compared to other types of consumer loans (Figure 6.9). This is the reason why credit card issuers require much higher margins in order to achieve comparable risk-adjusted returns (Figure 6.10)[11]. Lenders will continue to exercise a high level of caution going forward, particularly if they perceive that the current economic expansion is nearing its end.

10: Interest rate spread calculated as the weighted average interest rate for financing of new and used vehicles by commercial banks and finance companies minus the interest rate of a 5-year certificate of deposit, average over 2012-2017

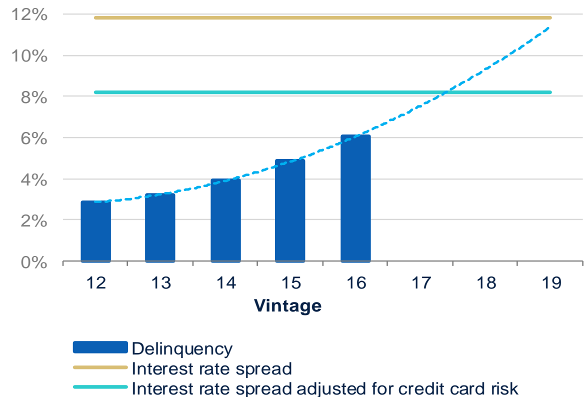
11: The Sharpe ratio is used as an indicator of risk-adjusted returns. It represents the return earned in excess of the risk-free rate per unit of volatility measured by the standard deviation of returns

Figure 6.7 Credit cards, vintage delinquency rate (%)



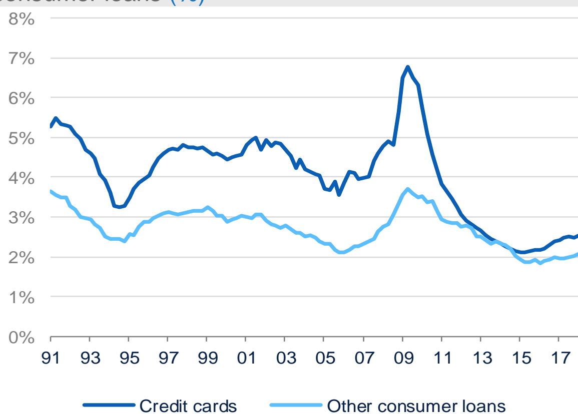
Source: BBVA Research and TransUnion (Q1 2018 Industry Insights Review)

Figure 6.8 Credit cards, vintage delinquency rate at 12 months, trend, and interest rate spread[12] (%)



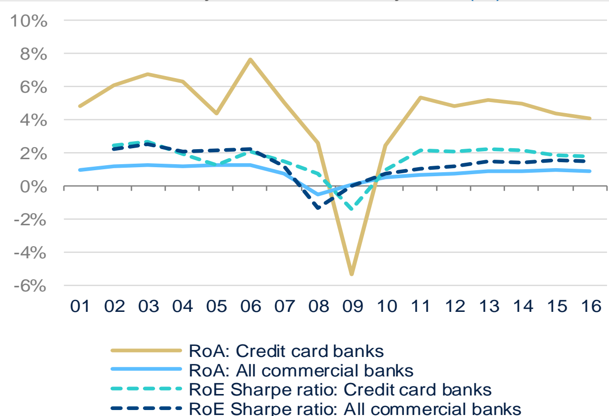
Source: BBVA Research, TransUnion, Federal Reserve and FDIC

Figure 6.9 Delinquency rates, credit cards versus other consumer loans (%)



Source: BBVA Research and Federal Reserve

Figure 6.10 Indicators of profitability of credit card banks and all banks, unadjusted and risk-adjusted (%)



Source: BBVA Research calculations based on FDIC data

Personal loans

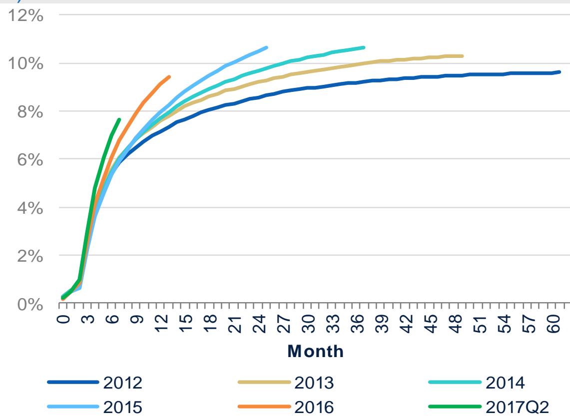
In 1Q18, personal loans represented a relatively small segment of consumer loans: $120bn versus $1,183bn in auto loans and $858bn in credit cards, according to TransUnion. Nevertheless, they have become very attractive to traditional lenders over the past several years, particularly after fintech companies such as Lending Club and Prosper brought them to the fore in the wake of the financial crisis. For consumers, personal loans are a simpler and more manageable alternative to high-cost credit card debt and lower interest rates make them useful tools for credit card debt consolidation and refinancing. On the side of lenders, their transparency makes them an ideal candidate for digital

12: Interest rate spread calculated as average commercial bank credit card interest rates for all accounts minus interest rate on a 2-year certificate of deposit over 2012-2017. The adjustment for higher risk is done using the average differential in Return on Assets between all banks and credit card banks during 2001-2016 (calculations based on FDIC data)

sales channels, which they are actively developing. Because of this, personal loans have grown at a fast pace, with balances in 1Q18 up 17.6% YoY[13].

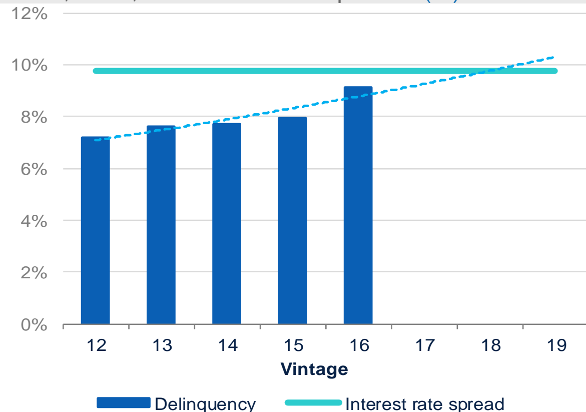
The risk profile of personal loans shows that delinquencies increase quickly after loan origination but level off soon after and can remain at favorable levels under prudent underwriting (Figure 6.11). The comparison of the cumulative delinquency rate at 12 months and the interest rate spread indicates that personal loans have space for faster growth compared to autos, but are also reaching a level of saturation that would lead to a slowdown in growth. The recent wave of expansion in personal loans also adds a layer of uncertainty about their performance when the credit cycle ultimately turns. The fact that most have been used to consolidate credit card debt could mean that their delinquencies behave more like credit card delinquencies rather than delinquencies of other non-revolving consumer loans. This points out to a need for prudence in underwriting going forward.

Figure 6.11 Personal loans, vintage delinquency rate (%)



Source: BBVA Research and TransUnion (Q1 2018 Industry Insights Review)

Figure 6.12 Personal loans, vintage delinquency rate at 12 months, trend, and interest rate spread[14] (%)



Source: BBVA Research, TransUnion, Federal Reserve and FDIC

Conclusions

The analysis of consumer credit delinquencies by vintage suggests that the high rates of growth due to the expansion of the credit box are behind us. Overall growth is likely to remain at or around the rate of growth of PCE, which is forecasted to average 4.6% during 2018-2020. We expect outstanding consumer loans at all commercial banks to increase on average 4.8% YoY during this period. Credit cards and personal loans have more space for faster expansion than auto loans. Delinquencies are currently low compared to historical values, but our models point to an ongoing increase in the coming quarters. While lenders could theoretically lend more aggressively by increasing interest rate spreads or charging higher fees, mainstream financial companies are not likely to pursue this course of action due to reputational and regulatory risks. This is particularly the case at a time when debt servicing will become more difficult for consumers due to monetary policy tightening and resulting increases in overall interest rates.

13: Source: TransUnion Q1 2018 Industry Insights Review
14: Interest rate spread calculated as average of the commercial bank interest rate on a 24-month personal loan minus the interest rate on a 2 year certificate of deposit over 2012-2017

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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**	**1.8**	**1.5**	**1.4**	**1.3**
Gross Investment	1.6	1.1	0.9	0.8	-0.2	0.8	**0.7**	**0.8**	**1.0**	**1.0**	**0.8**
Non Residential	1.2	0.5	0.9	0.3	0.1	0.7	**1.1**	**1.0**	**0.9**	**0.8**	**0.7**
Residential	0.3	0.3	0.1	0.3	0.2	0.1	**0.0**	**0.1**	**0.2**	**0.1**	**0.1**
Exports	0.5	0.5	0.6	0.1	0.0	0.4	**0.7**	**0.6**	**0.7**	**0.7**	**0.8**
Imports	-0.5	-0.3	-0.9	-1.0	-0.3	-0.8	**-0.7**	**-0.7**	**-0.8**	**-0.9**	**-0.9**
Government	-0.4	-0.5	-0.2	0.3	0.3	0.0	**0.2**	**0.3**	**0.2**	**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**
Average Monthly Nonfarm Payroll (K)	179	192	250	226	195	182	**207**	**188**	**159**	**129**	**104**
CPI (YoY %)	2.1	1.5	1.6	0.1	1.3	2.1	**2.6**	**2.7**	**2.6**	**2.4**	**2.3**
Core CPI (YoY %)	2.1	1.8	1.7	1.8	2.2	1.8	**2.3**	**2.4**	**2.4**	**2.4**	**2.3**
Fiscal Balance (% GDP)	-6.8	-4.1	-2.8	-2.4	-3.2	-3.5	**-3.9**	**-4.6**	**-4.5**	**-4.8**	**-5.3**
Current Account (bop, % GDP)	-2.6	-2.1	-2.1	-2.2	-2.3	-2.3	**-2.5**	**-2.6**	**-2.7**	**-2.7**	**-2.8**
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	**6.6**	**5.5**	**5.4**	**5.7**	**5.9**
10-Yr Treasury (% Yield, eop)	1.72	2.90	2.21	2.24	2.49	2.40	**3.10**	**3.65**	**3.76**	**3.97**	**4.13**
Brent Oil Prices (dpb, average)	111.7	108.7	99.0	52.4	43.6	54.3	**72.3**	**70.3**	**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

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