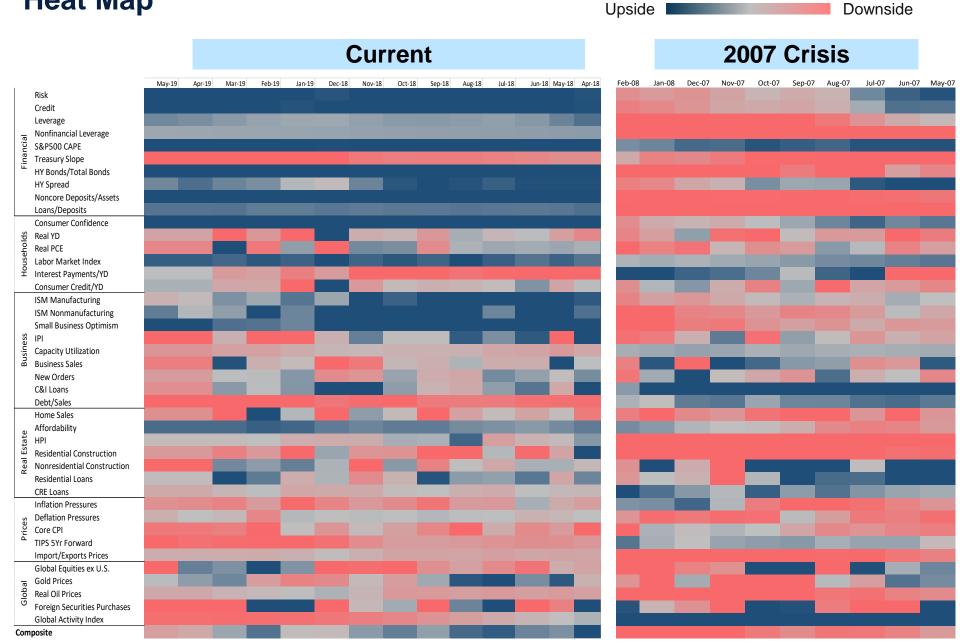


## **Highlights**

- Models suggest more than 70% probability of recession within the next 24 months
- Shadow banking, business debt and risk appetite represent major red flags
- Dovish Fed response has potential to negate downside risks in short-term
- Trade tensions weigh on business expectations and market sentiment
- Economic fundamentals for households and financial institutions remain solid
- Weak activity and higher financial stress abroad

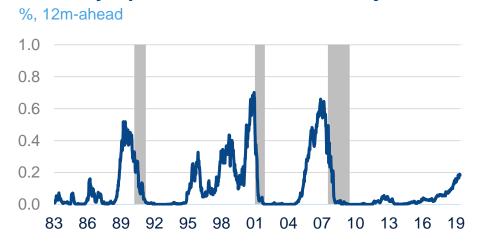
Downside

# **Heat Map**



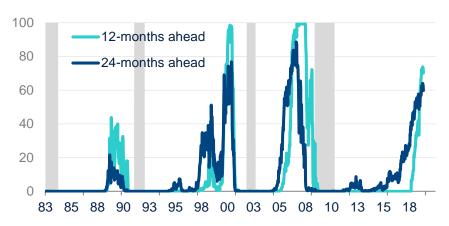
# **BBVA U.S. Recession Probability**

#### **Treasury Spread Term-Premium Adjusted**



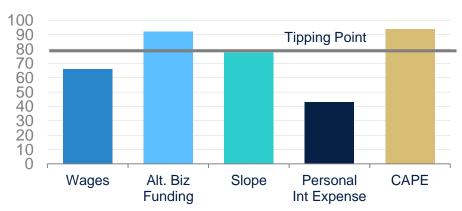
#### **Recession Probability Factor**

%, 12-months & 24-months ahead



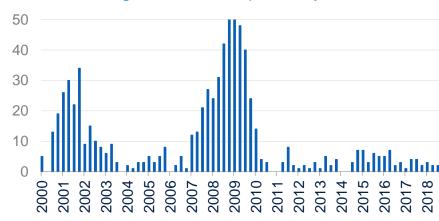
#### **Risk Factors**

#### Percentile Rank



#### **Regional Conditions**

# of States with greater than 30% probability



Source: BBVA Research

# **Recession Probability**

#### **Treasury Spread Model**



#### **Dynamic-Factor Markov-Switching Model**



### **Credit Spread Model**



#### **Survey of Professional Forecasters**

93 95 97 99 01 03 05 07 09 11

40

20

Probability of decline in real GDP next quarter, %



Source: BBVA Research, Federal Reserve Board, FRBNY, FRBSL, FRBP and Haver

# **Credit Cycle and Recession Timing Indexes**

# Risk of systemic crisis remains low. Timing of next recession is narrowing

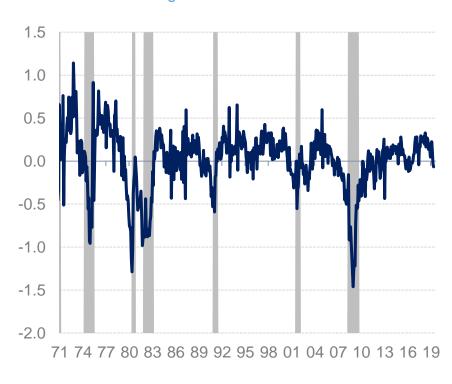
#### **BBVA U.S. Credit Cycle Risk Index**

Above 0 = above average risk



#### **BBVA U.S. Recession Timing Index**

Below 0 = shorter lag to recession



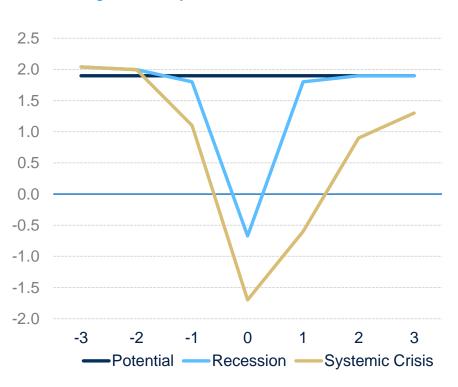
Source: BBVA Research and Haver

#### **Scenarios**

# A painfully slow U-shape recovery is more likely under less effective monetary and fiscal response

#### **Recession Severity**

Real GDP growth; t=0 year of recession



Outcome	Probability 2019-2021	t	t+1
No recession	55%	2.1 (Baseline avg. 2019-21)	
Recession	45%	-0.7	1.8
Systemic crisis	4%	-1.7	-0.6

Source: BBVA Research

#### **Risk Matrix**



Source: BBVA Research; This assessment is not static and can change significantly depending on future developments

<sup>\*</sup> Includes trade war, macro conditions in China, Euro Area, Brexit, Emerging Markets \*\* Includes non-economic factors: Climate, Cybersecurity, Pandemic, Terrorism, Migration, etc.

#### **Financial Markets**

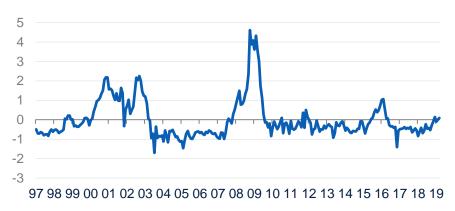
#### Forward PE ratio of S&P 500 Firms

25
20
15
10 Forward price-to-earnings ratio
75th percentile
25th percentile

#### **Corp. Bond Premium over Expected Losses**

92 93 95 96 98 99 01 02 04 05 07 08 10 11 13 14 16 17 19

#### **Standard Deviation**

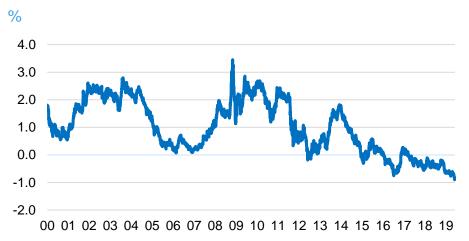


#### **S&P Spread Forward EP Ratio to Real 10YTN**

PP



#### **Term-Premium on Nominal 10YTN**

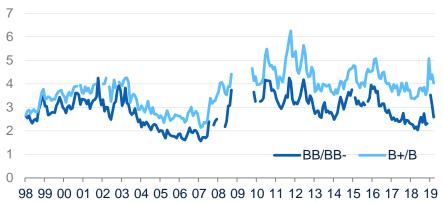


Source: BBVA Research, FRB and Haver

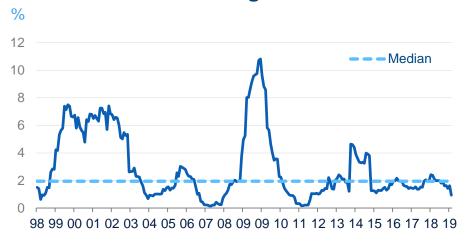
#### **Financial Markets**

#### **Newly Issued Institutional Leveraged Loans**

Spread, PP

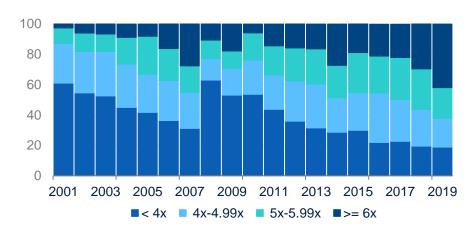


#### **Default Rates of Leveraged Loans**



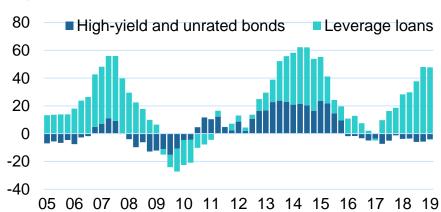
#### **Large Institutional Leveraged Loan Volumes**

Debt-to-EBITDA ratio, %



#### **Net Issuance of Risky Business Debt**

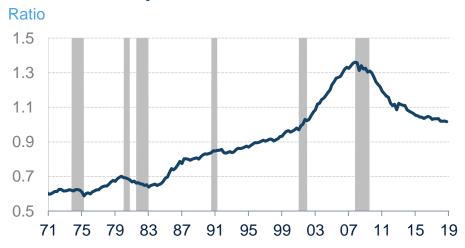
US\$bn



Source: BBVA Research, FRB

#### Households

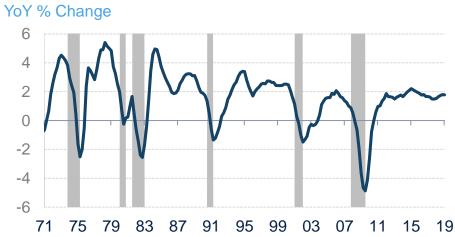
#### **Liabilities/Disposable Income**



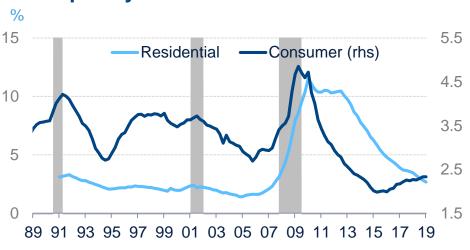
#### **Interest Payments/Personal Income**



#### **Nonfarm Payroll**



#### **Delinquency Rate**



Source: BBVA Research, Federal Reserve, BLS, BEA and Haver

#### **Businesses**

#### **Gross Balance Sheet Leverage**

Public nonfinancial corporations, %



# **Interest Expense Ratio**

Public nonfinancial corporations, %

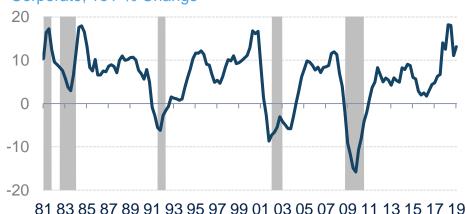


#### **Nonfinancial Corporate Profits**



#### **Nonfinancial Short-term Liabilities**

Corporate, YoY % Change

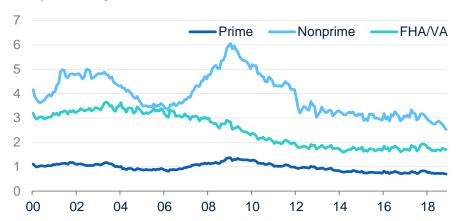


Source: BBVA Research, Federal Reserve, BEA and Haver

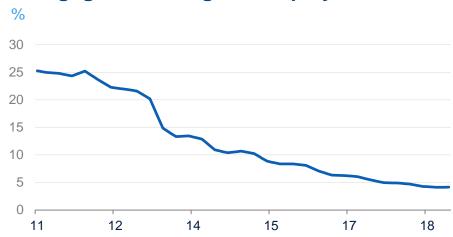
#### **Real Estate**

#### **Mortgage Transition Rates into Delinquency**

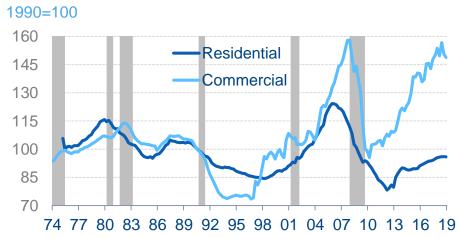
% of previously current loans



#### **Mortgages with Negative Equity**



#### **BBVA Real Estate Price Misalignment**



#### **Cap Rates to 10-Year Treasury Yield**

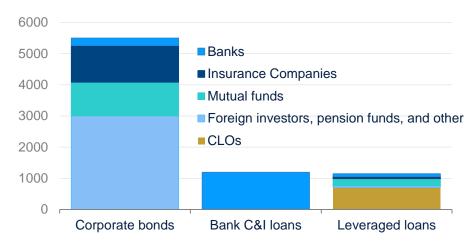


Source: BBVA Research, Federal Reserve, Census, BEA, CoreLogic and Haver

#### **Financial Sector**

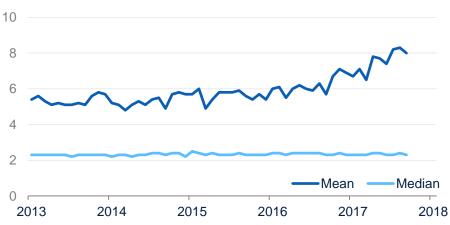
#### Corporate Debt, by Type of Debt and Holder

#### US\$Bn



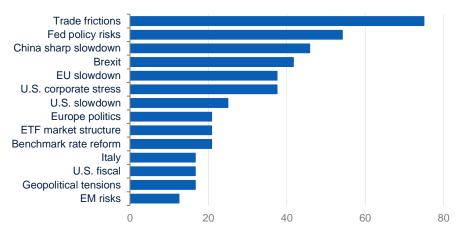
#### **Gross Leverage of Hedge Funds**

#### Ratio



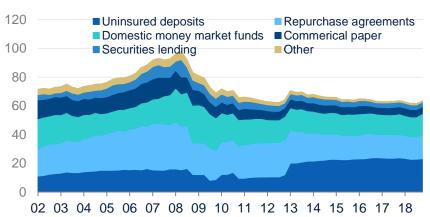
#### **Concerns-Potential Shocks**

Share of contacts citing shock, % of total



#### **Runnable Money-Like Liabilities**

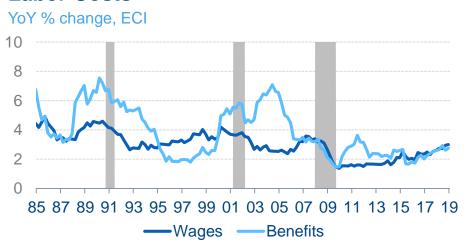
#### % share of GDP



Source: BBVA Research, FDIC, Federal Reserve and Haver

#### **Prices**

#### **Labor Costs**



#### **Nonlabor Costs per Unit of Real GDP**

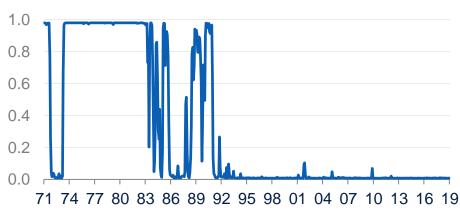


#### **Market Inflation Expectations**



#### **BBVA Inflation Regime Probability**





#### **Global Conditions**

#### **Advanced Economies Financial Stress**

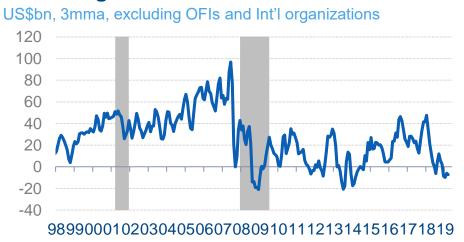


#### **Emerging Markets Financial Stress**



00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19

#### **Net Foreign Purchases of U.S. Securities**



#### **Global Activity Leading Indicator**



#### For more information

Recent economic briefs and presentations:

All things come to an end, but is the U.S. headed for recession?

Corporate debt in the twilight of the credit cycle

Just what the doctor ordered: real-time recession forecasts

Recession risk monitor January 2019

Recession risk monitor March 2019

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