BBVA Research

U.S.
Macroeconomic Pulse

April 2020

Creating Opportunities

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Index

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01

Economic Outlook

Economic Outlook

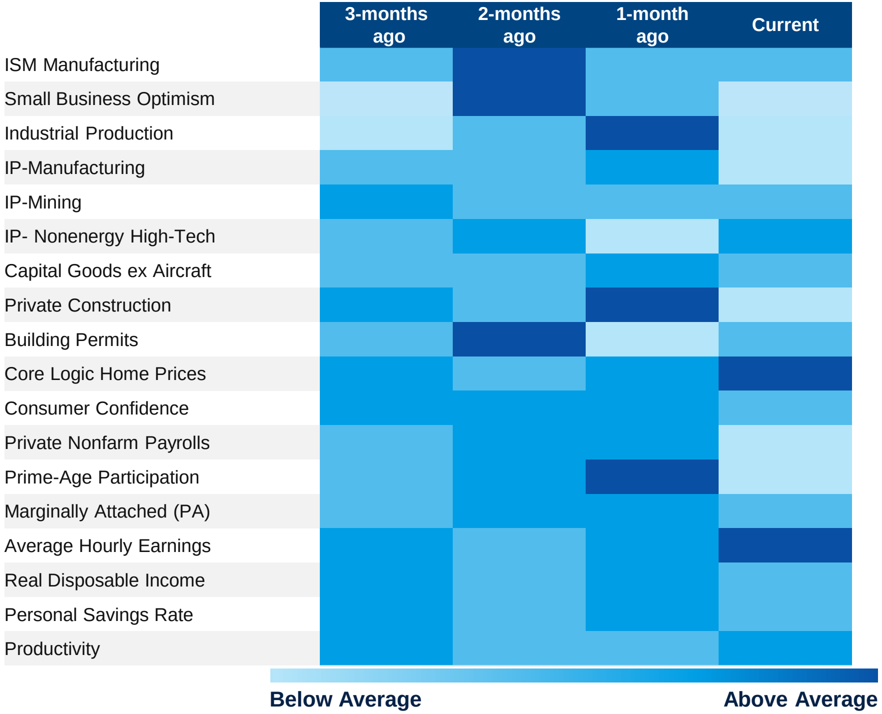
- Baseline assumes GDP declines by 4.4% in 2020
- GDP returns to pre-crisis levels by 2Q22
- Peak unemployment rate could surpass 15%
- With inflation headwinds building we expect CPI to drop by 0.1% in 2020
- Fed to keep rates at the Zero Lower Bound, balance sheet to grow to $7.5tn
- Long-term yields to remain close to current levels by year-end
- Oil prices to remain low in 2020
- Uncertainty remains over the depth and duration of the crisis
- Risks tilted to the downside

Macro Fundamentals

- Our estimates suggest GDP growth will drop by 4.7% in 1Q20 and 32.3% in 2Q20
- Our scenario assumes a major deterioration in consumption which drops by more than 40% on an annualized basis in the second quarter, but a strong rebound in 3Q20
- Real private fixed investment to drop 13.4% QoQa in 2Q20; decline 11.6% in 2020
- Total trade to fall 13.1% in 2020, while the trade deficit shrinks
- Strong federal government contributions as a result of the CARES Act
- Baseline assumes average growth of -4.4% in 2020 and 3.4% in 2021

Economic activity

REAL-TIME ECONOMIC MOMENTUM HEAT MAP

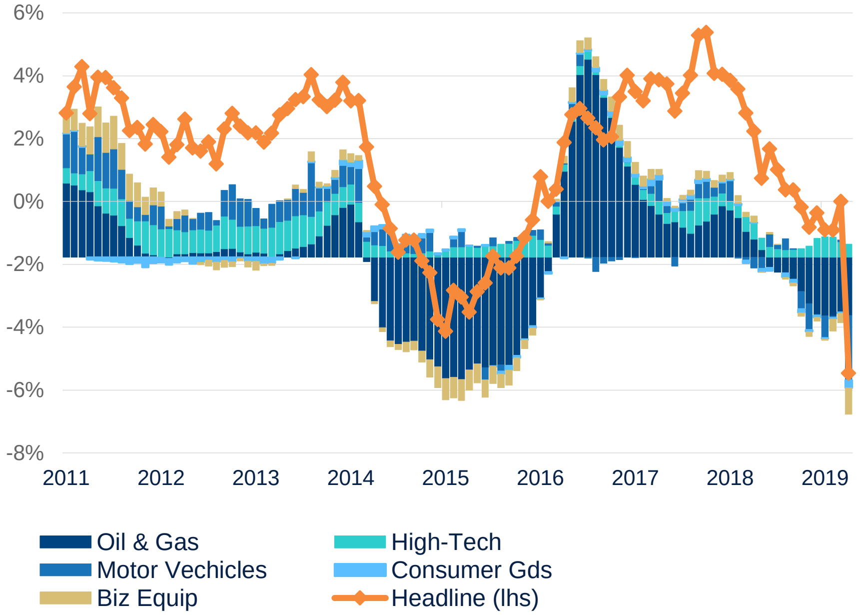


Source: BBVA Research

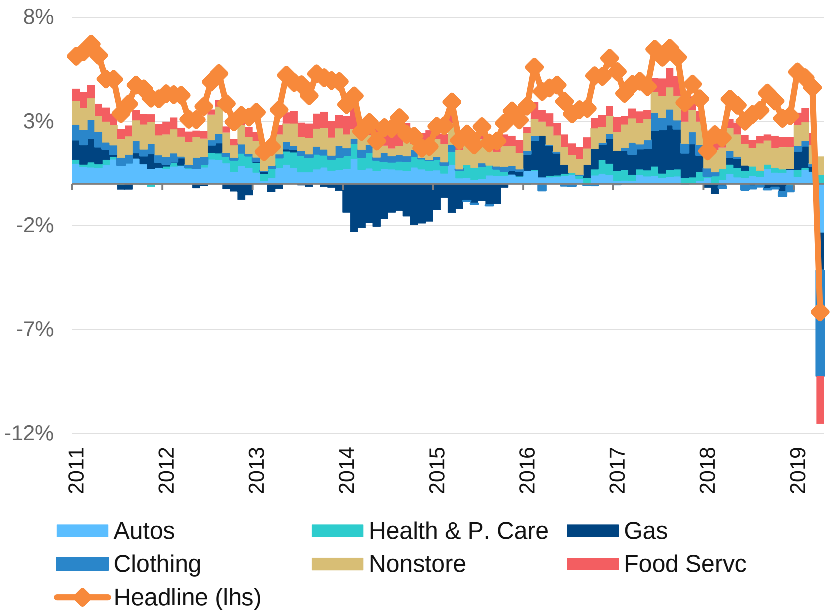
- Historic pressures build on supply-side, but high-tech sectors remain one bright spot
- Positive momentum in the housing sector wiped out with lockdowns and tepid demand-side outlook
- Labor force participation plummets with layoffs and furloughs, but inflows could increase if social safety net encourages attachment
- Relative to last year the worst drop in participation rates are among the 20-24 year olds, which are down 1.8pp YoY
- Small business confidence returns to pre-2016 election levels on COVID-19 uncertainty
- Precautionary personal savings to climb amid COVID-19 fears

Economic trends: Industrial production and retail sales record historic monthly declines of 8.7% and 5.4%, respectively

INDUSTRIAL PRODUCTION
(YEAR-OVER-YEAR % & CONTRIBUTIONS)



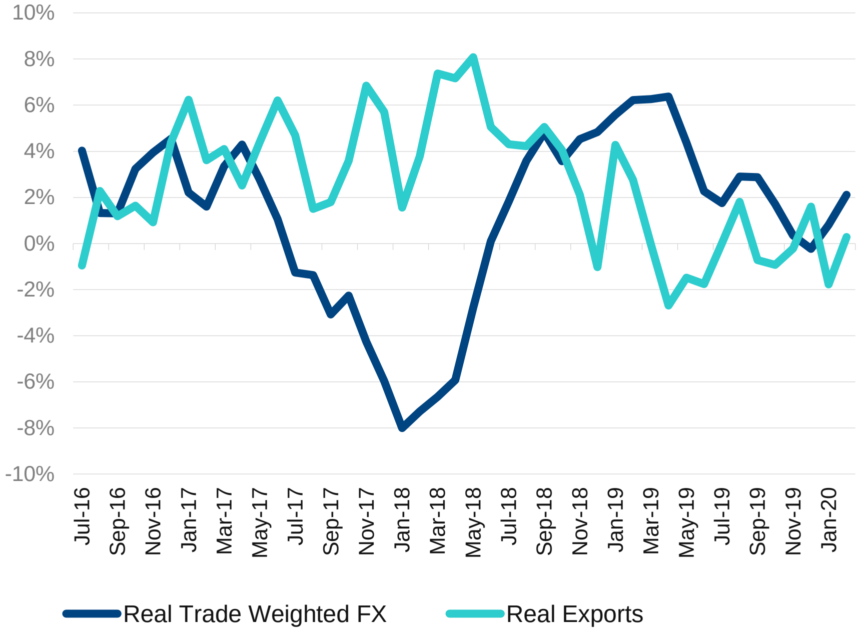
RETAIL SALES
(YEAR-OVER-YEAR % & CONTRIBUTIONS)



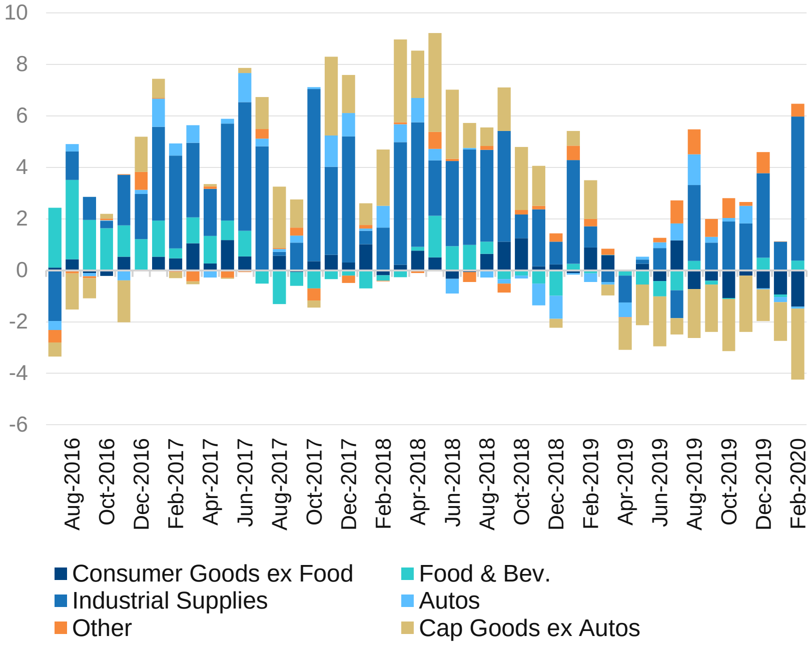
Source: BBVA Research, FRB & BEA

Economic trends: Positive residual effects from trade détente to give way to dramatic weakening in trade flows

REAL EXCHANGE RATE AND EXPORTS
(YEAR-OVER-YEAR %)



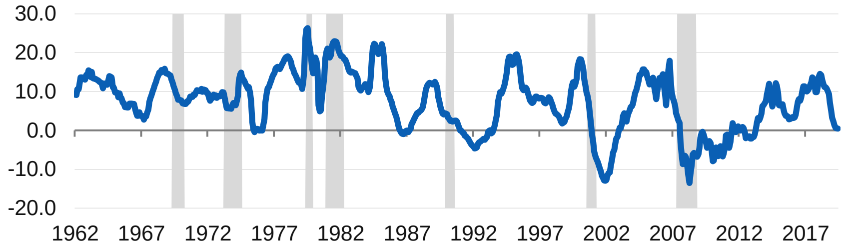
REAL EXPORTS
(CONTRIBUTION TO YEAR-OVER-YEAR %)



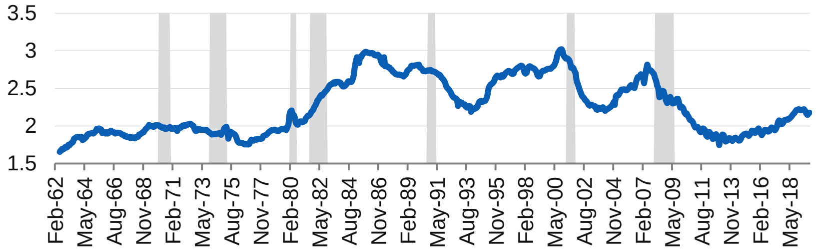
Source: BBVA Research, FRB & Census

Consumer credit cycle: Pre-COVID-19 balance sheet deleveraging should ease delinquency pressures in short-run

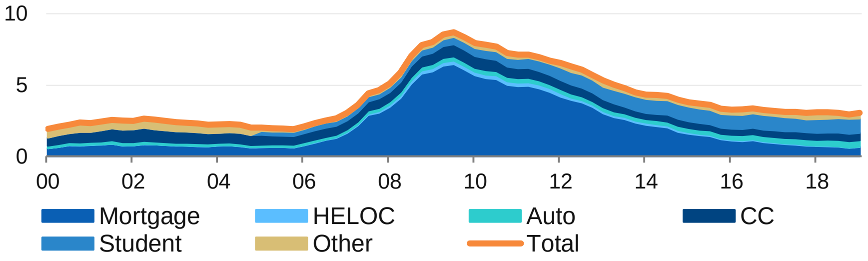
PERSONAL INTEREST EXPENSE
(YEAR-OVER-YEAR %)



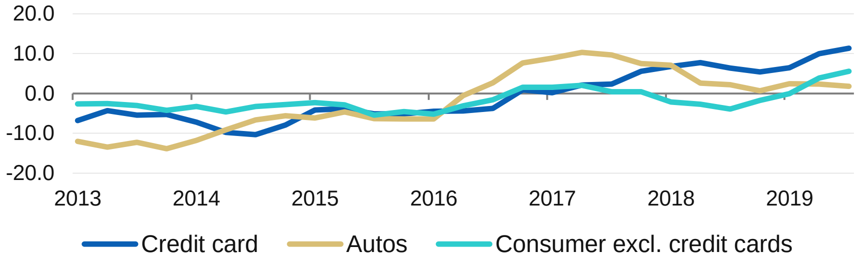
PERSONAL INTEREST EXPENSE TO DISP. INCOME
(RATIO, %)



CONSUMER SERIOUSLY DELINQUENT RATES
(90-DAY, CONTRIBUTION, %)



SENIOR LOAN OFFICERS LENDING STANDARDS (+ TIGHTENING / - LOOSENING)



Source: BBVA Research, FRB, NY Fed & BEA

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02

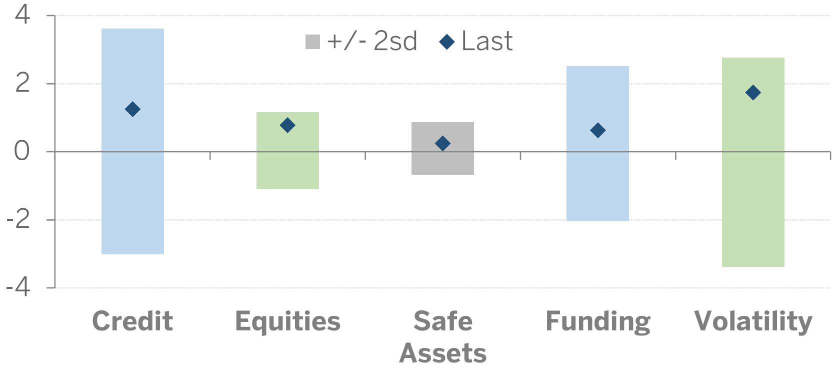
COVID-19

COVID-19

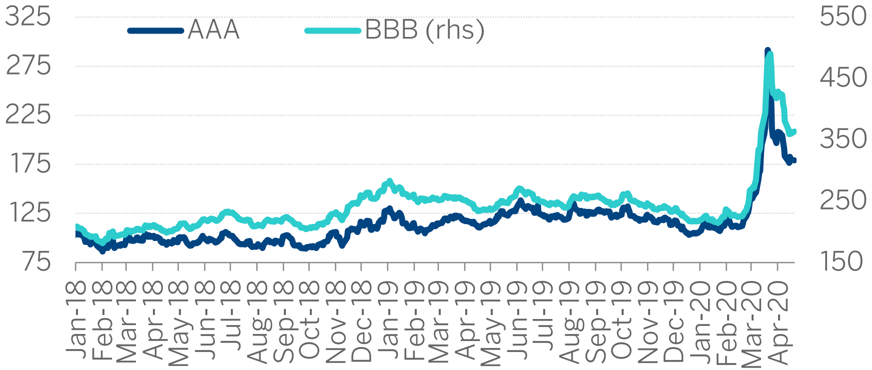
- After initial shock to expectations from the scale and scope of the lockdowns, financial tensions have eased somewhat
- Incoming data suggests that the pace of deterioration in the macroeconomic environment will be unprecedented, but should fade faster than past downturns
- Elevated uncertainty over the duration and magnitude of the crisis: GDP ranges between -3% and -7%. As well as on the pace of the recovery: V-shape, U-shape or L-shape
- Monetary policy actions enacted to respond to the pandemic vary in impact and duration
- Fiscal measures implemented during the crisis will surpass those enacted during the 2008-2009 Global Financial Crisis
- Federal deficits will likely grow to more than 16% of GDP in 2020, U.S. debt held by the public to surpass 100% of GDP

Respite in financial markets pressures

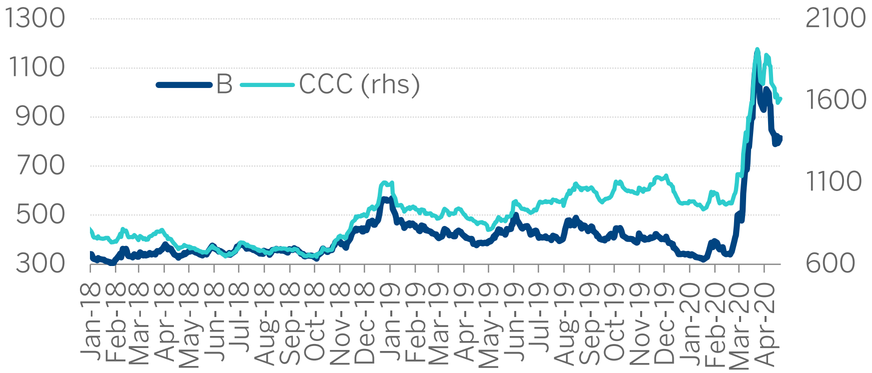
FINANCIAL STRESS INDEX, >0 STRESS



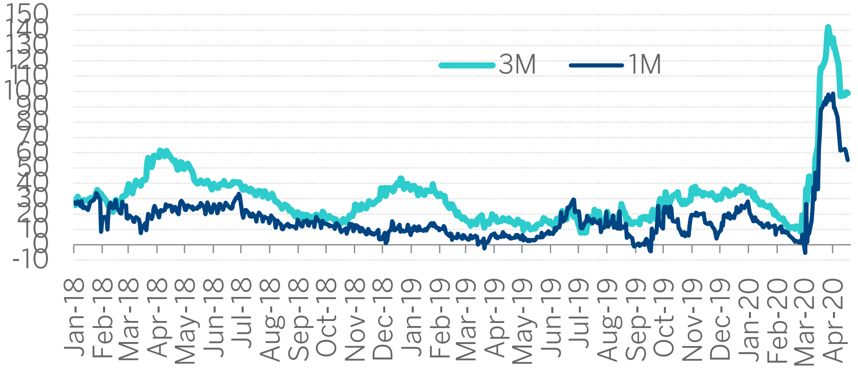
CORPORATE SPREADS, BP



CORPORATE SPREADS, BP



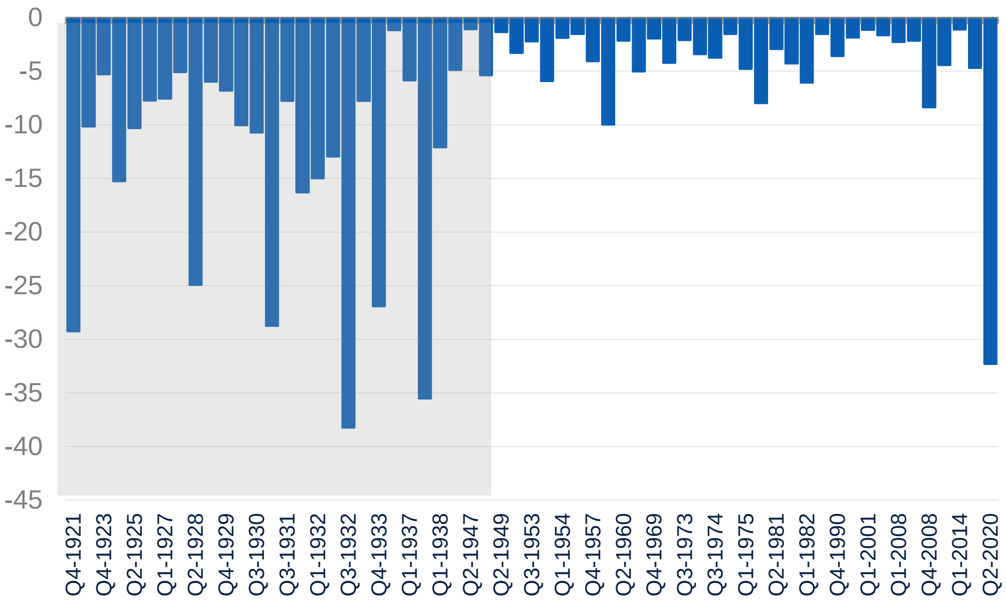
TED SPREAD, BP



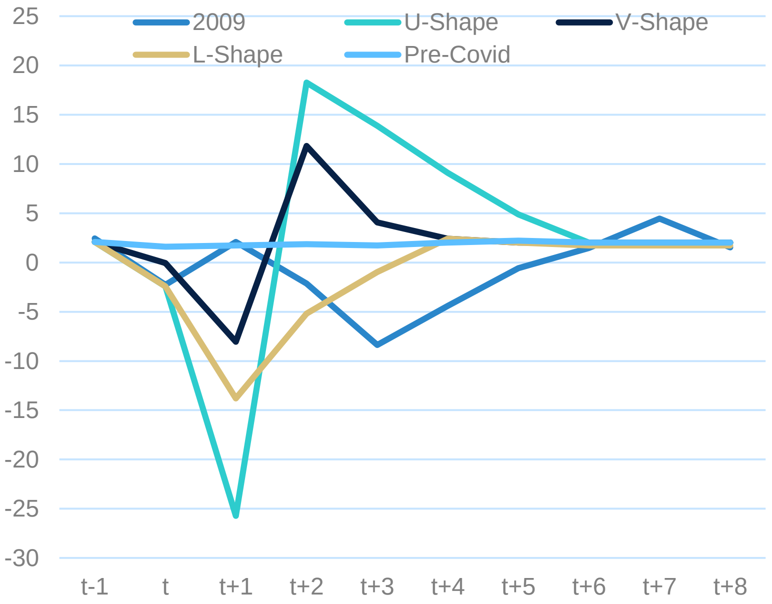
Source: BBVA Research & Haver Analytics

U.S. economy to experience its largest contraction in GDP growth since the Depression (-32.3% QoQa)

QUARTERLY NEGATIVE GDP*
(% CHANGE ANNUALIZED)



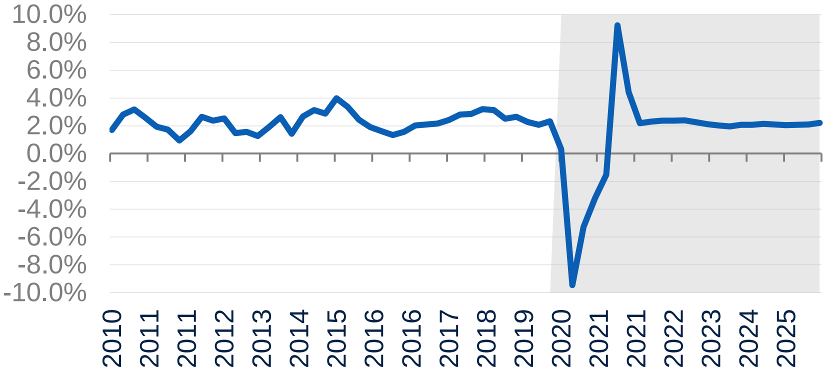
GDP SIMULATIONS: PRE-COVID VS V, U AND L-SHAPE
(QOQ % CHANGE, ANNUALIZED, T=START OF RECESSION)



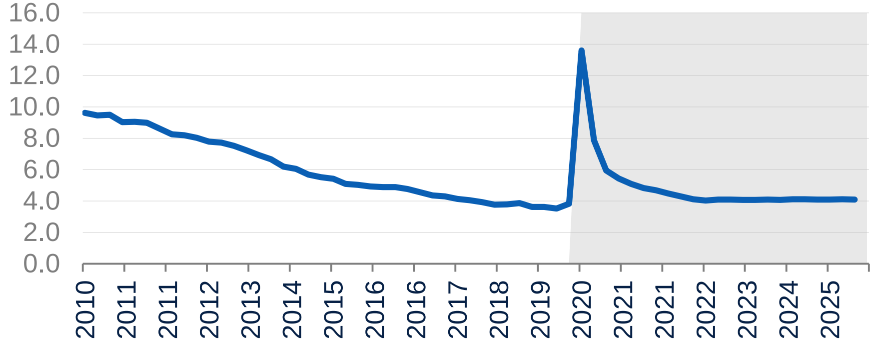
Source: BBVA Research, FRB & Census
*Shaded area=GNP

COVID-19 Macro Scenario

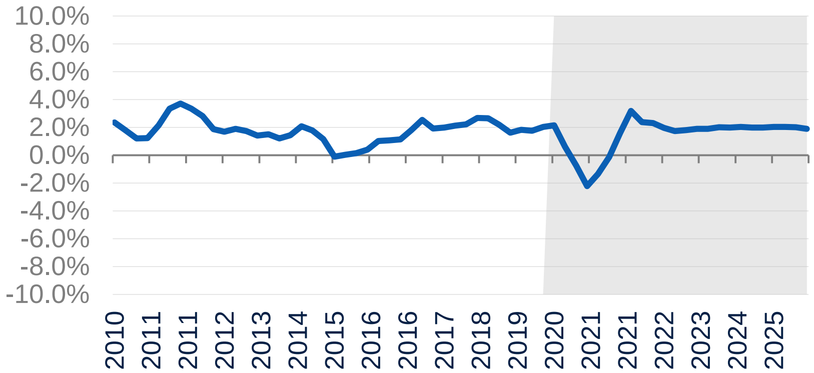
REAL GDP, YOY%



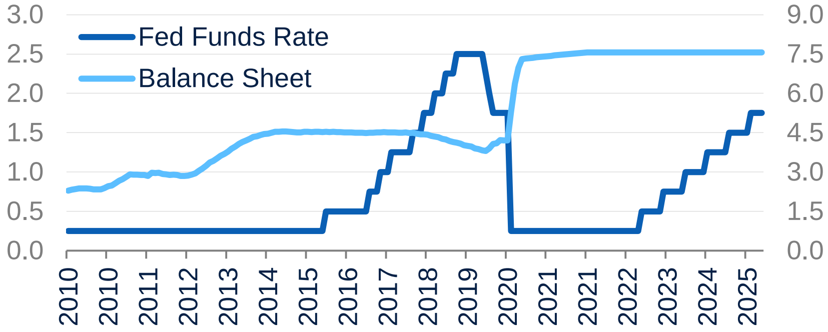
UR, %



CONSUMER PRICE INDEX, YOY%

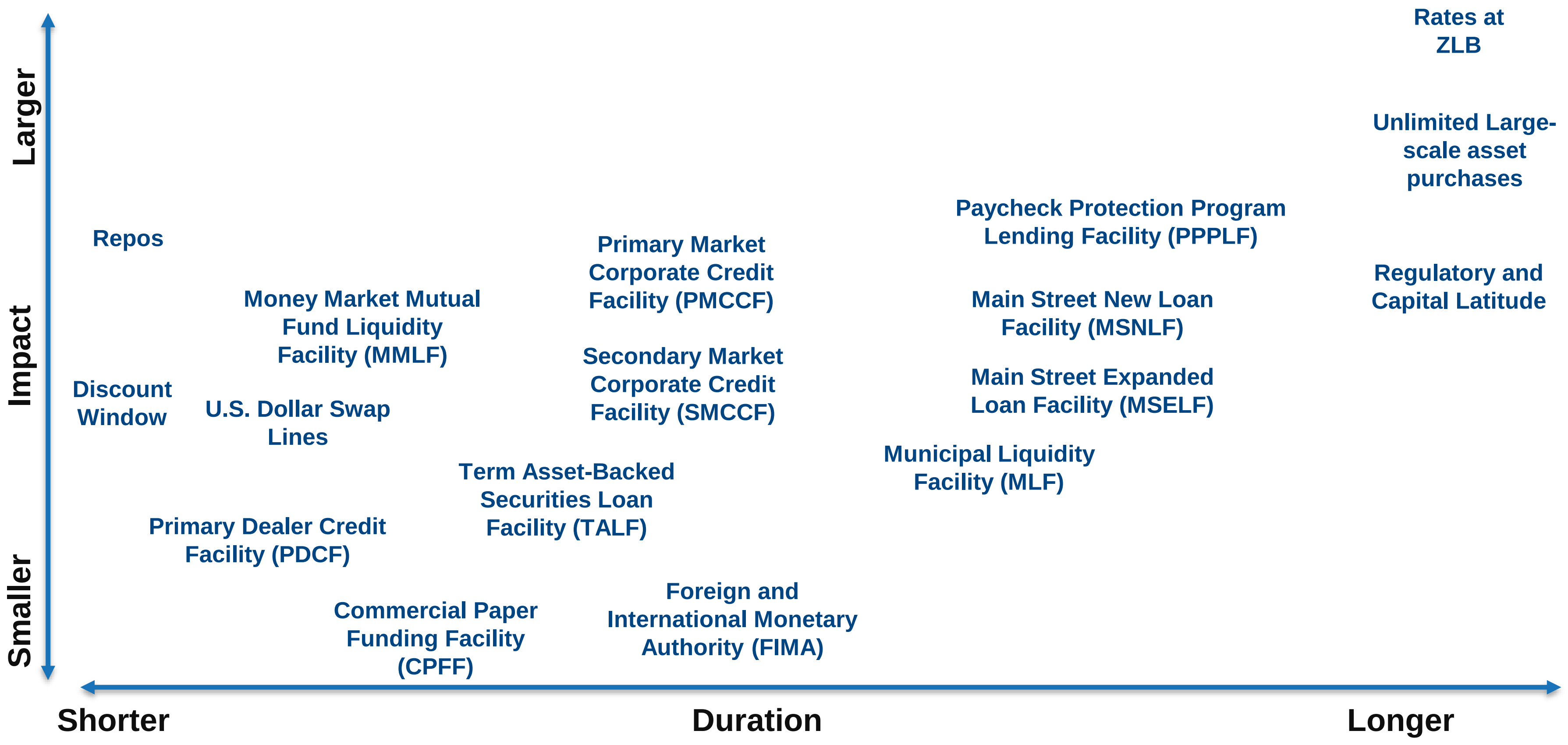


FED FUNDS RATE AND FED BALANCE SHEET, % & US$Tn



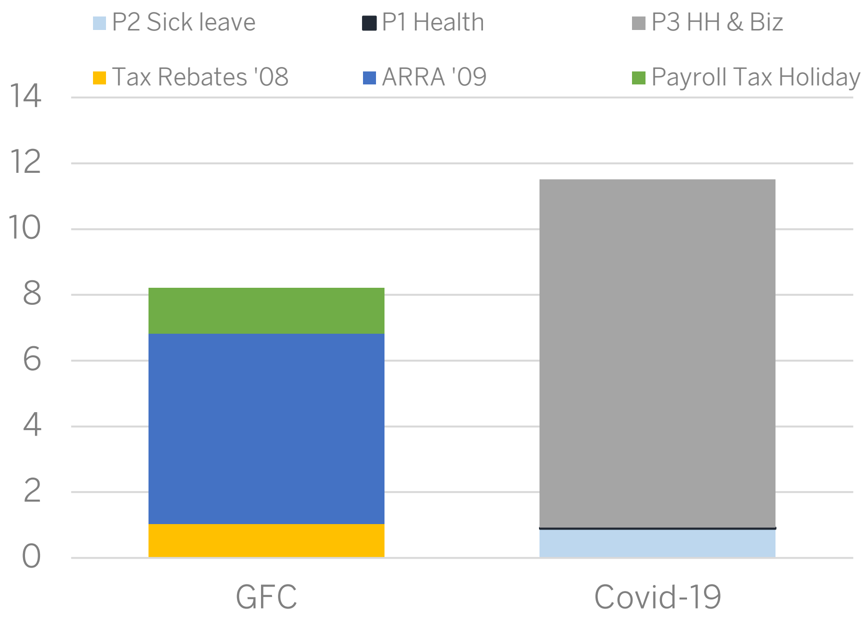
Source: BBVA Research

Fed COVID-19 Policy Action



A massive fiscal response to mitigate economic and social damages

FISCAL STIMULUS
(% of GDP)



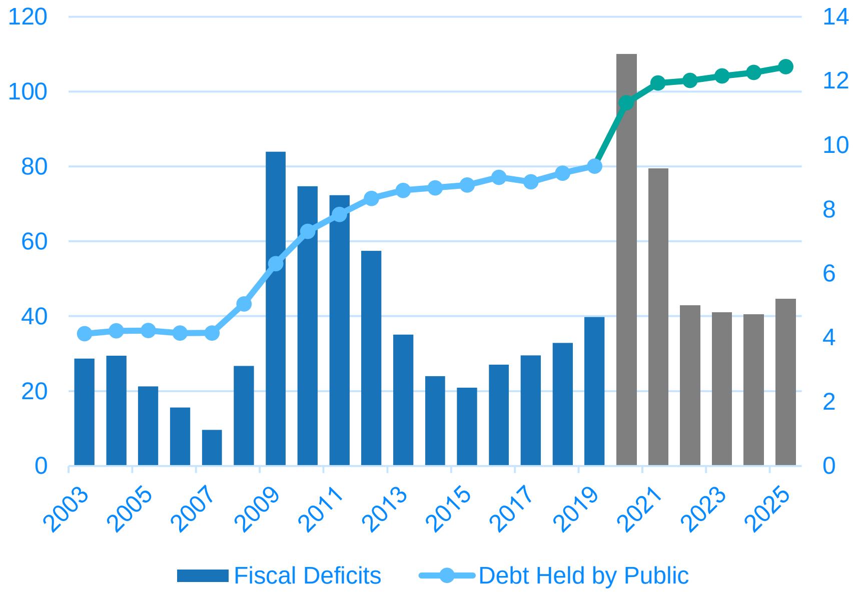
Source: BBVA Research, CBO, BEA, JCT, CRFB and Haver Analytics

CARES Act
(Coronavirus Aid, Relief, and Economic Security)

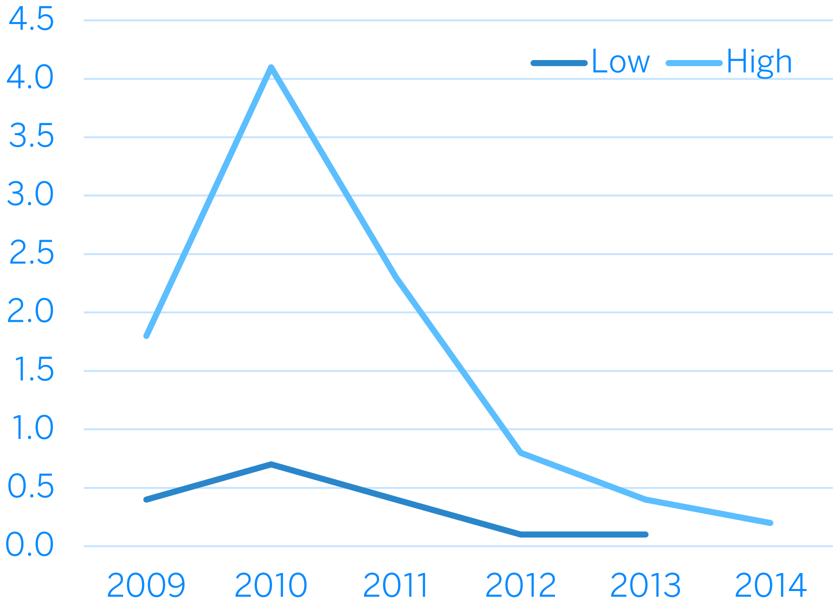
Provision	Amount $bn
Expand & Extend Unemployment Benefits	260
Issue One-Time Checks	290
Provide Small Business Loans & Grants	377
Support Loans & Loan Guarantees for LB & G	510
Support Fed Facilities	*$454*
Support State & Local Governments	150
Increase Health-Related Spending	180
Support the Safety Net	42
Increase Disaster Assistance	45
Increase Education Spending	32
Support Transportation Providers & Industries	72
Reduce Individual Taxes	20
Cut Business Taxes	280
Other spending	25
TOTAL	**2,283**

Massive fiscal stimulus implies more than 10pp increase in U.S. public debt

FISCAL DEFICITS & U.S. DEBT HELD BY THE PUBLIC
(% of GDP)



ESTIMATED ARRA ECONOMIC IMPACT ON GDP
(FY %)



Source: BBVA Research

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03

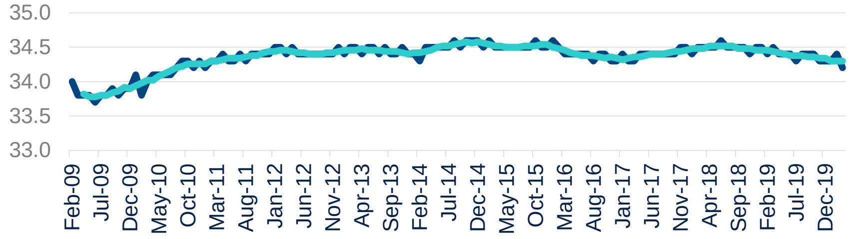
Labor Market

Labor Market

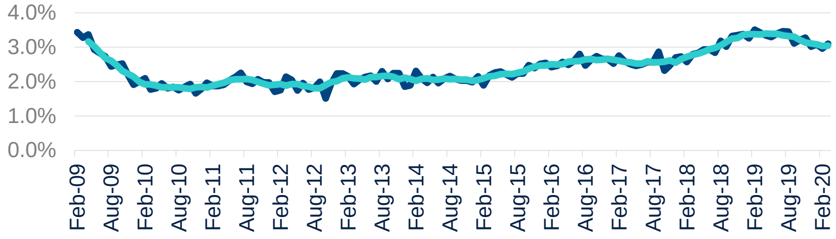
- Over the past four weeks 22M people have filed for unemployment insurance
- In March, the unemployment rate increased to 4.4%, which was the largest month-over-month percentage point increase since January 1975
- Nonfarm payrolls decreased by 701K in March
- Weaknesses in leisure and hospitality (-459K) of which 90% occurred in food service and drinking places
- Industries such as health care and social assistance (-61K), professional and business services (-52K), retail trade (-46K), manufacturing (-18K) and construction (-29K) were not immune to the pandemic
- Our baseline assumes the unemployment rate peaks at 15.3% in June, returning to 4.6% by the end of 2021

Labor market: wage growth remains solid despite nontrivial weakening in the labor market

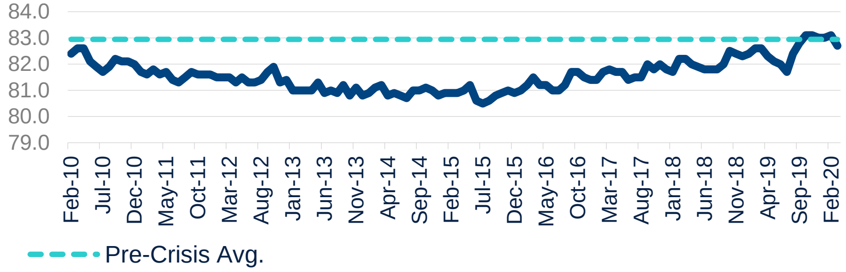
AVERAGE WEEKLY HOURS
(NUMBER & 5MCMA)



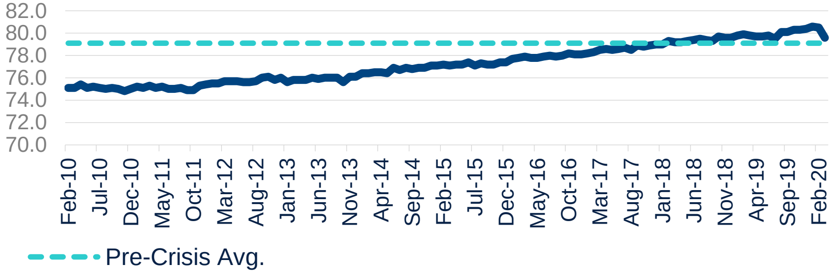
AVERAGE HOURLY EARNINGS
(YOY% & 5MCMA)



PRIME AGE LABOR FORCE PARTICIPATION
(%)



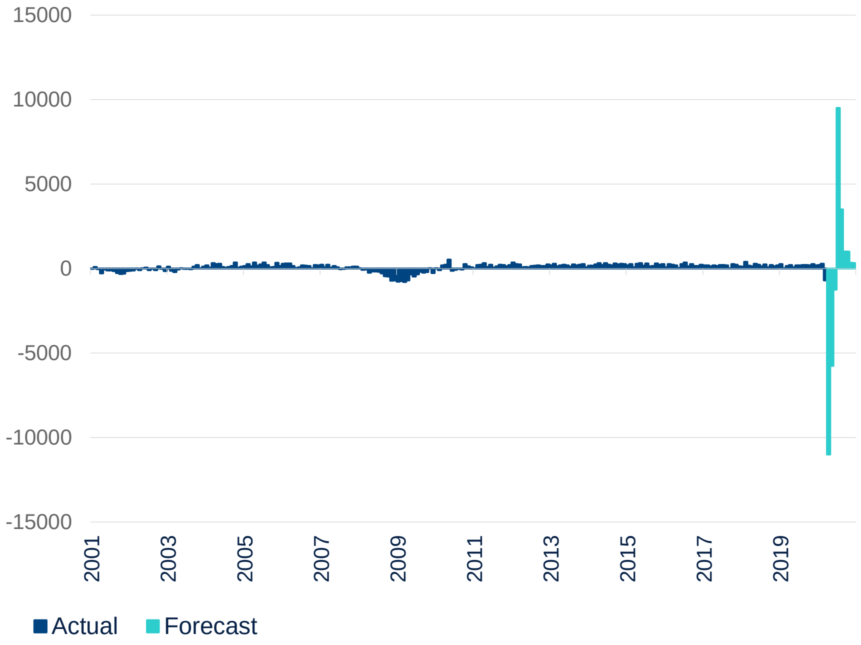
PRIME AGE EMPLOYMENT-TO-POPULATION
(%)



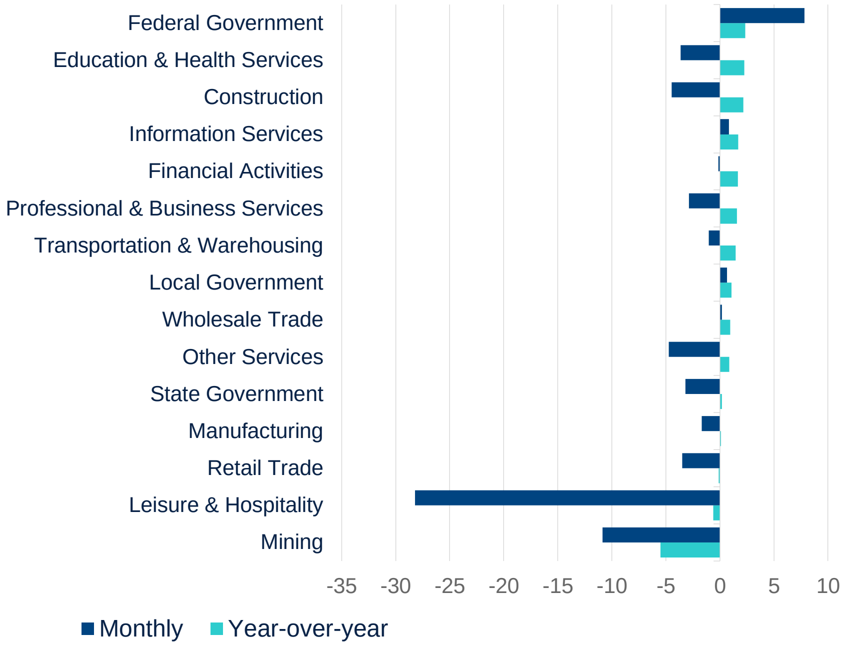
Source: BBVA Research & BLS

Labor market: Nonfarm payrolls could shrink by more than 18M before recovering in the 3Q20

NONFARM PAYROLLS
(MONTHLY CHANGE, K)



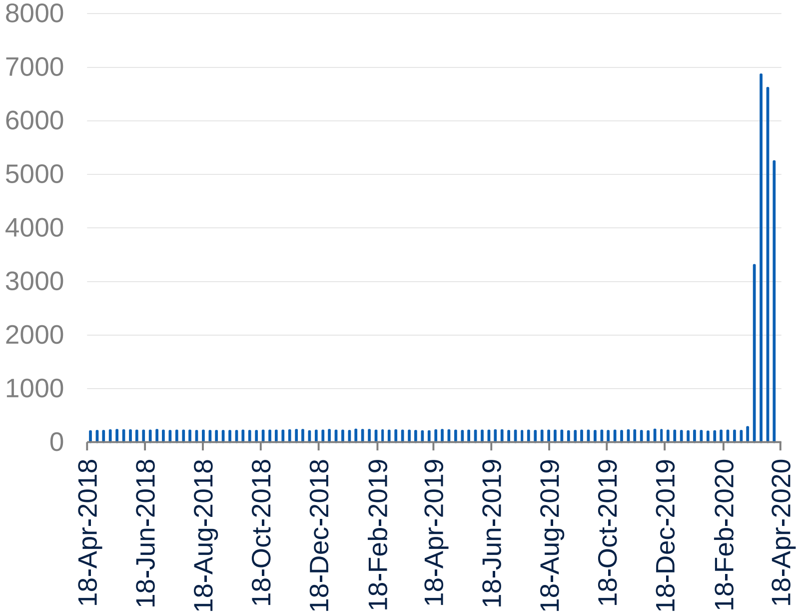
INDUSTRY EMPLOYMENT
(ANNUALIZED % CHANGE)



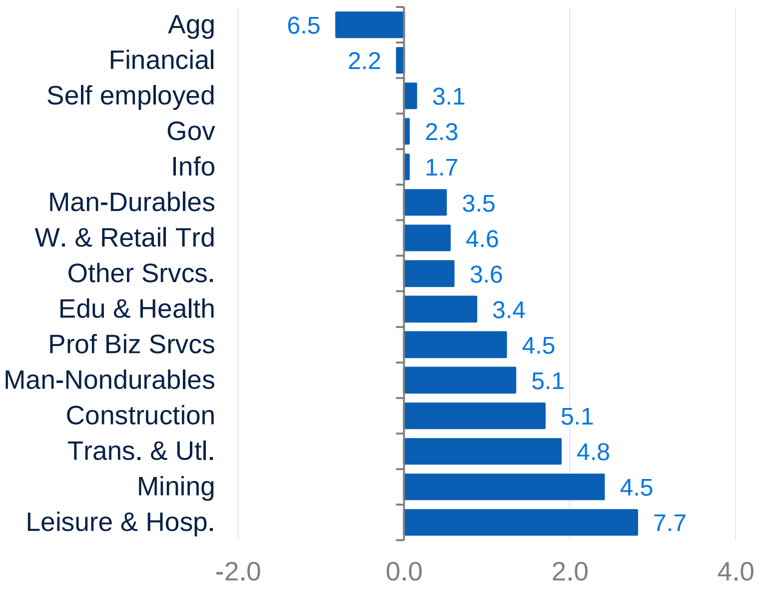
Source: BBVA Research & BLS

Labor market: Bulk of the 22M unemployment insurance claims concentrated in a handful of sectors

Unemployment Insurance Claims
(K)



INDUSTRY UNEMPLOYMENT
(BARS=PP CHANGE SINCE JANUARY, LABELS= SA UR(%))



Source: BBVA Research & BLS

04

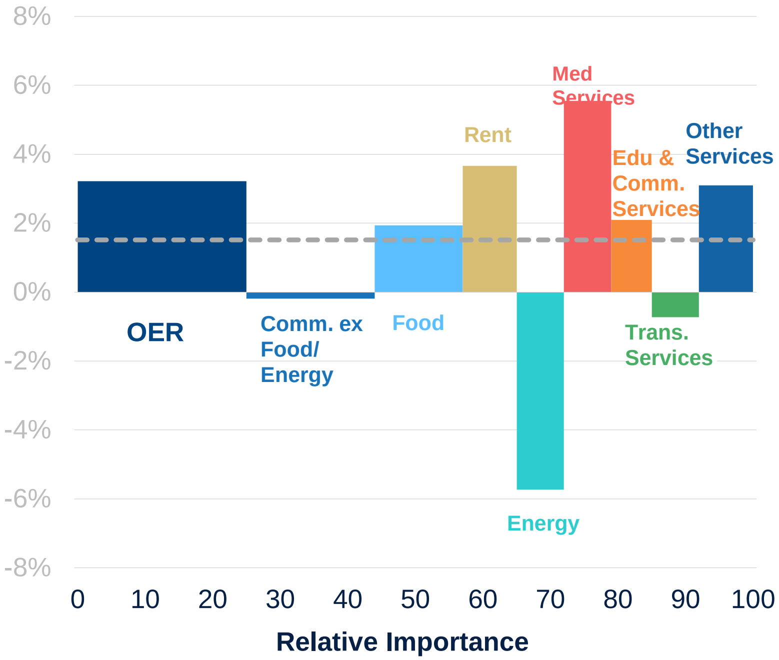
Inflation

Inflation

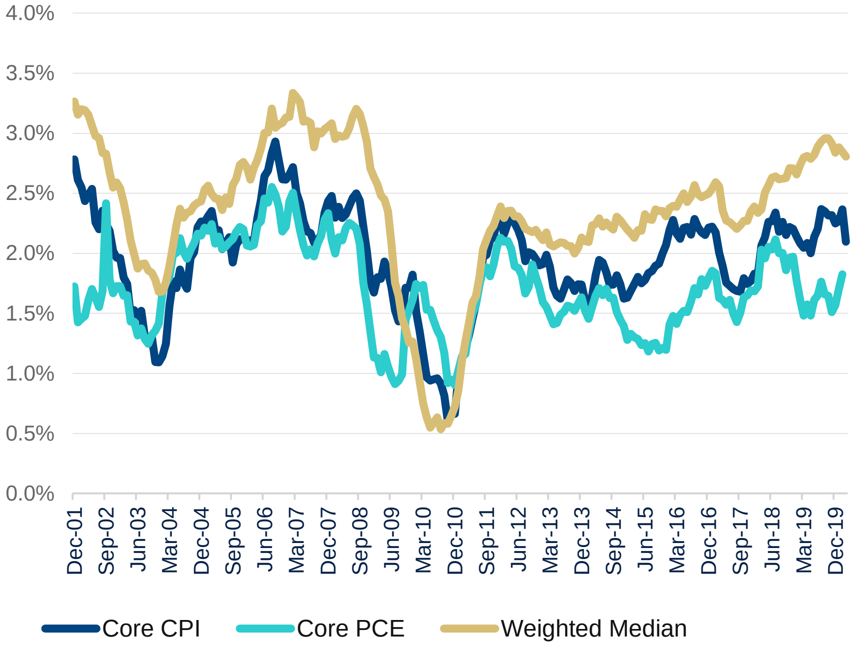
- Due to the containment efforts from COVID-19, the behavioral impact of the pandemic and elevated uncertainty, consumer prices experienced a nontrivial drop in March
- On a 12-month basis, headline consumer prices decelerated to 1.5%
- The impact on core prices was more muted with prices dropping 0.1% over-the-month; overall core CPI increased 2.1% over the past 12-months
- At 0.6%, 5-year implicit inflation expectations are the weakest they have been since the 2008 financial crisis
- Going forward, we expect the historic weakening in the labor market, global supply and demand shocks and major drop in energy prices will contribute to a nontrivial drop in prices in 2020

Inflation: Disinflationary headwinds building during lockdown

CONSUMER PRICE INFLATION
(12M CHANGE)



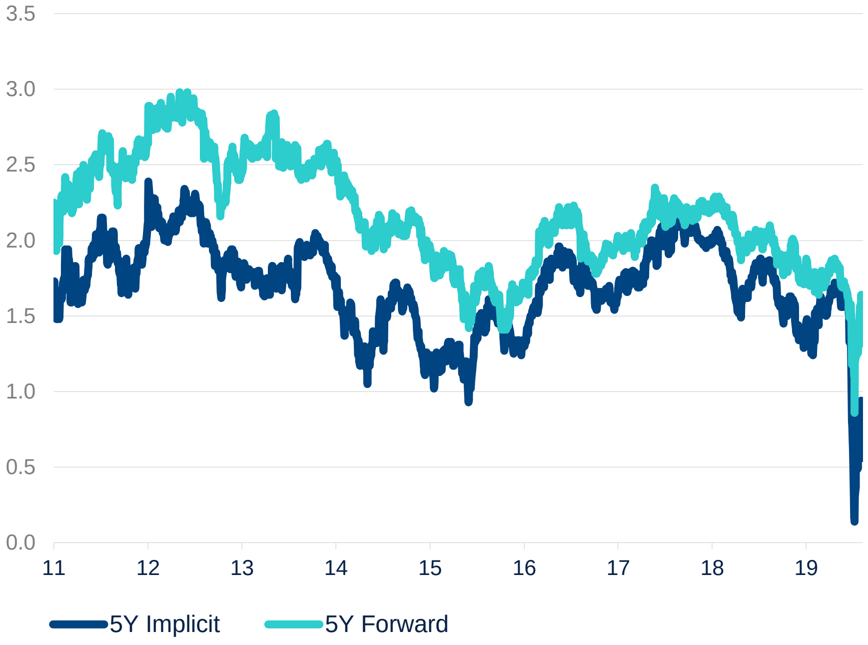
CORE INFLATION MEASURES
(12M CHANGE, %)



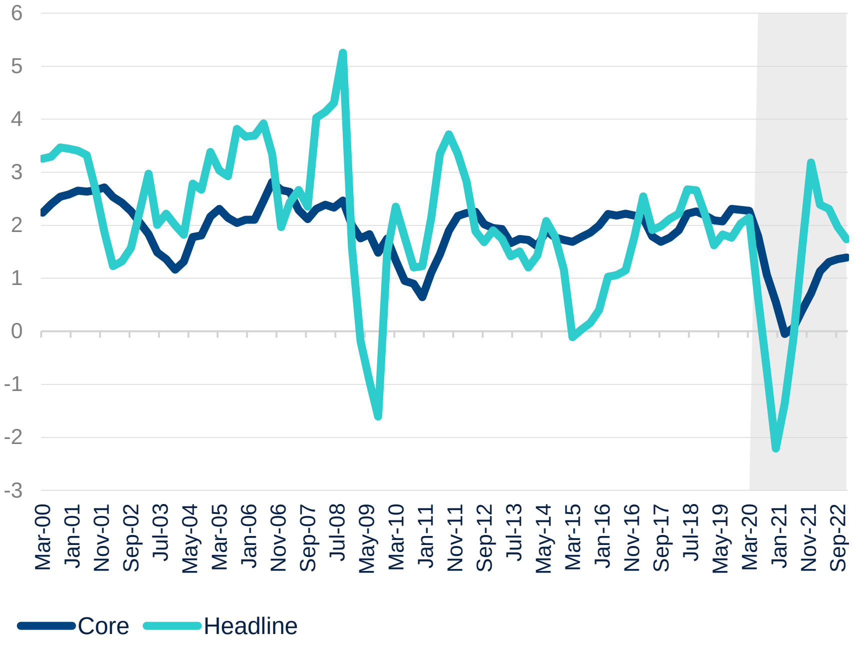
Source: BBVA Research, BLS & BEA

Inflation: Our baseline assumes a significant drop in inflation in 2020

INFLATION EXPECTATIONS
(%)



HEADLINE & CORE CPI
(YEAR-OVER-YEAR %)



Source: BBVA Research & Haver Analytics

05

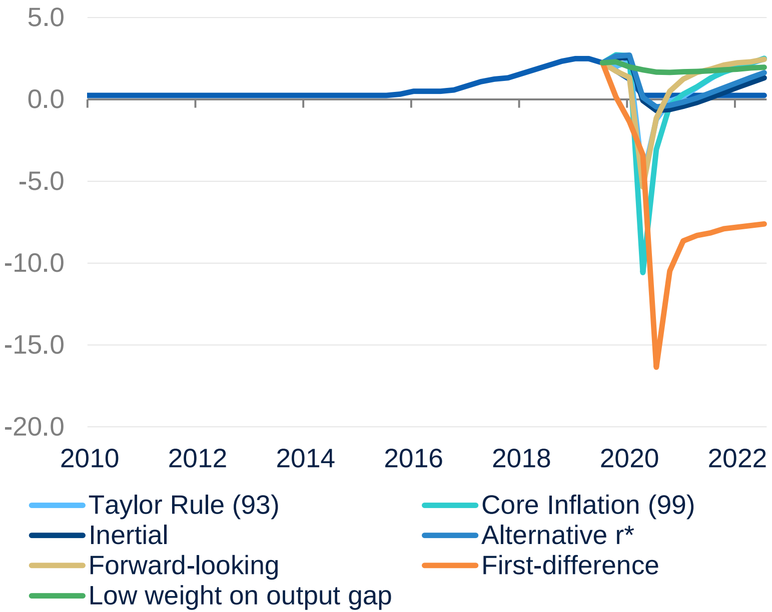
Monetary Policy

Monetary Policy: Federal Reserve

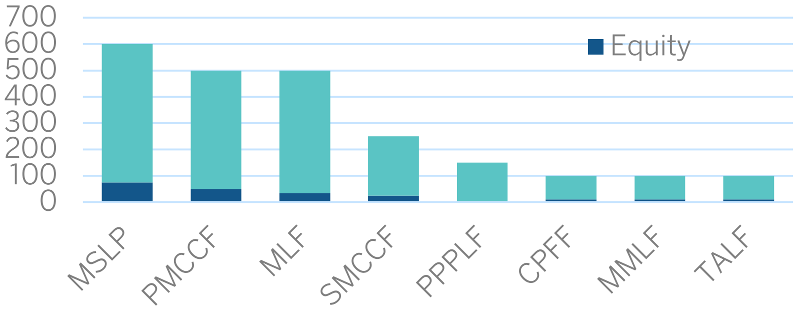
- In terms of its traditional monetary policy tools, to combat the coronavirus, the Fed has cut the fed funds rate to zero, lowered the interest rate on discount window loans and announced unlimited large-scale asset purchases
- Additional emergency liquidity and credit programs, USD swap lines, regulatory adjustments aimed to free up capital and liquidity for financial institutions and lowering the reserve requirement to zero have also been enacted to supplement traditional tools
- The emergency lending facilities provide up to $2.3 trillion, but have additional capacity via the CARES Act
- Fed balance sheet to grow to $7.5BN by the end of 2020
- Our baseline assumes rates remain at the ZLB until 2023

Monetary policy: Unprecedented measures taken to compensate for lack of capacity to lower rates further

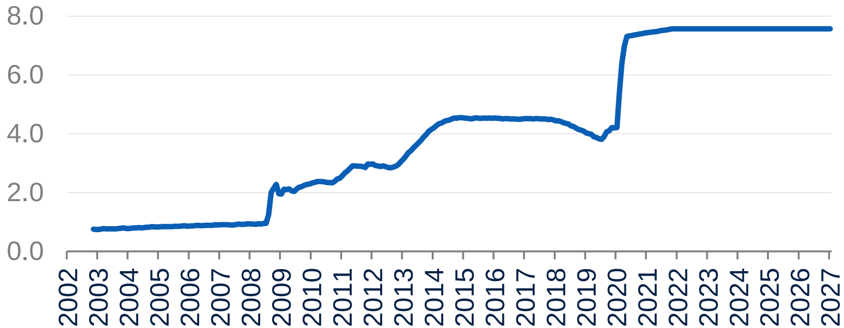
IMPLIED FED FUNDS RATE BASED ON "TAYLOR RULES" (%)



FED SUPPORT THROUGH FACILITIES (US$BN)



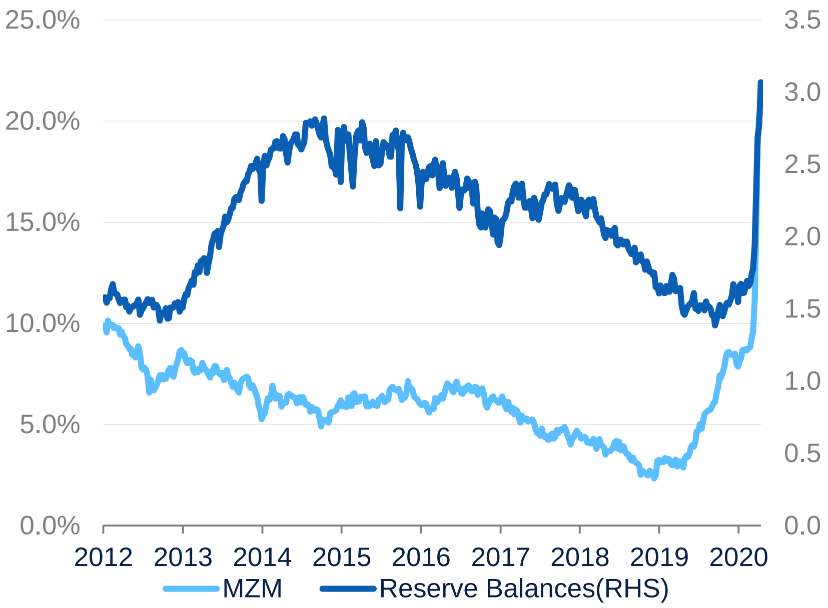
FED BALANCE SHEET ASSETS (US$TN)



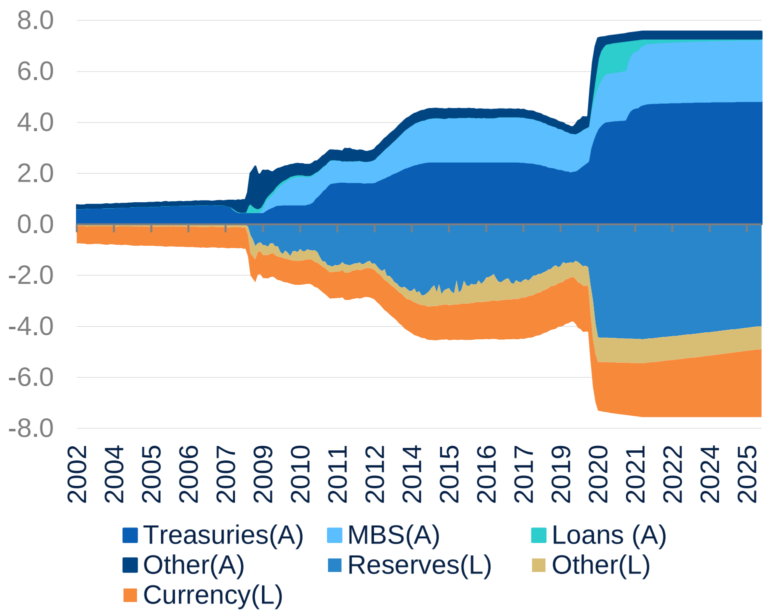
Source: BBVA Research, Cleveland Fed, FRB & Bloomberg

Announced measures and market response suggests Fed balance sheet could reach close to $7.5TN by end of 2020

RESERVE BALANCES & MZM
(US$TN, YEAR-OVER-YEAR %)



FACTORS SUPPLYING & ABSORBING FUNDS ON FED BALANCE SHEET (US$TN)



Source: BBVA Research, FRB & Haver Analytics

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06

Interest Rates

Interest Rates

- 10-yr and 2-yr Treasury yields steadying around 0.6% and 0.2%, respectively
- Fed actions and commitment to maintaining financial stability have eased frictions in fixed income markets
- Negative term-premium holding steady amid “unlimited” QE and global uncertainty
- Inflation expectations plummet on fears of disinflationary pressures
- T-Bills yields remain positive despite proximity to ZLB
- Unprecedented conditions imply positive yield curve slope in spite of the major deterioration in the macroeconomic environment
- Baseline assumes 10-yr yields at 0.6% and 1.2% by year-end 2020 and 2021, respectively

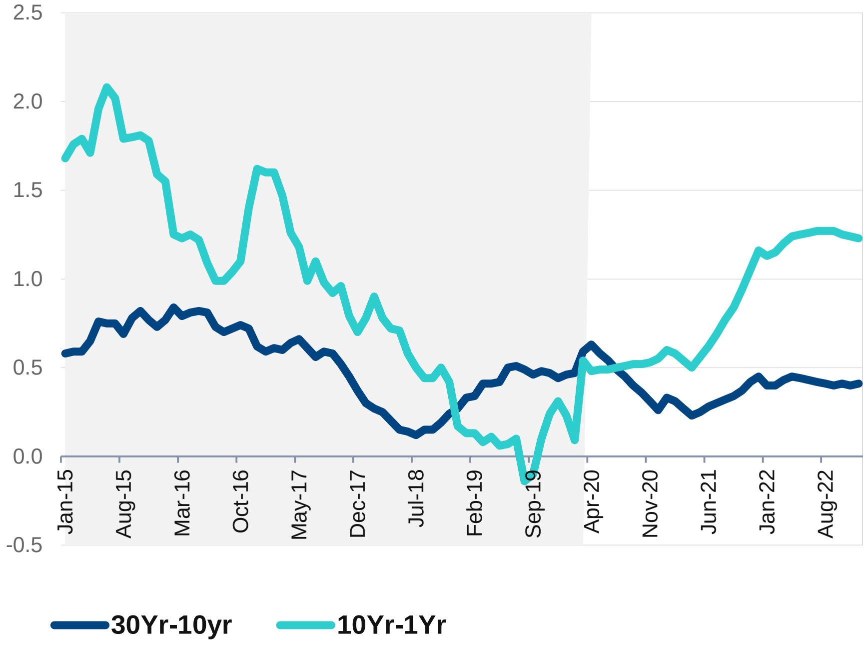
Interest rates: Plunge in inflation expectations explains significant portion of drop in long-term yields

10-YEAR TREASURY YIELD DECOMPOSITION

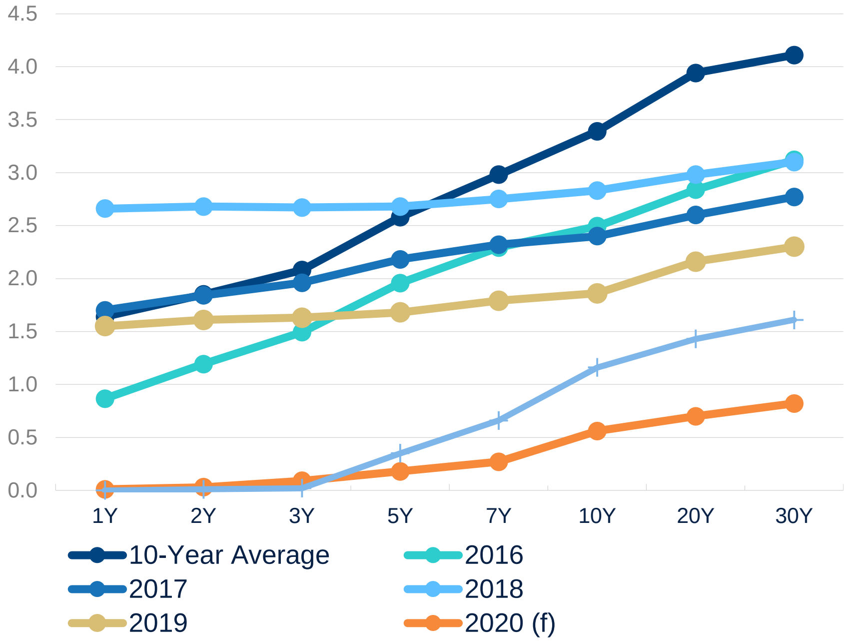
Source: BBVA Research, ACM & Haver Analytics

Interest rates: Yield curve slope to remain positive amidst major economic weakening

YIELD CURVE SLOPE
(BP)



YIELD CURVE
(%, EOP)



Source: BBVA Research

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07

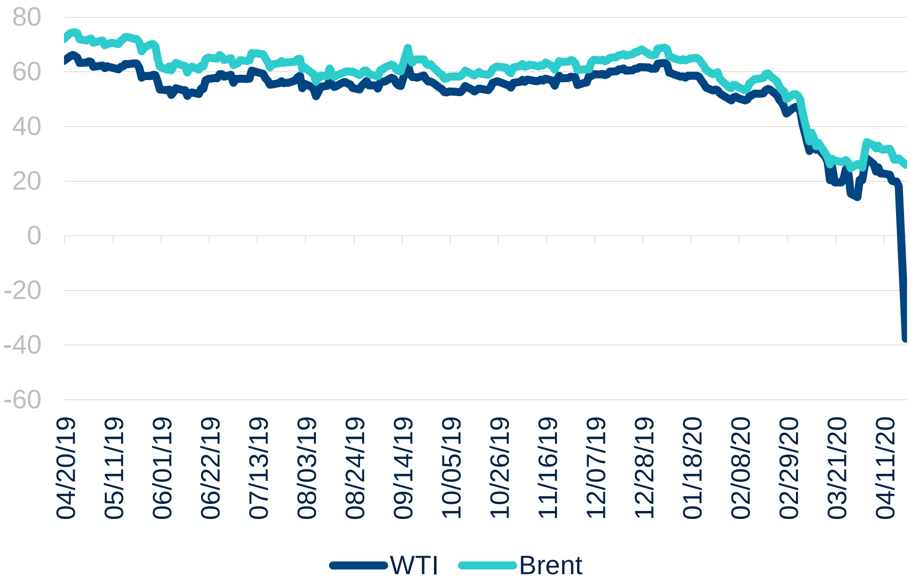
Oil Prices

Oil Prices

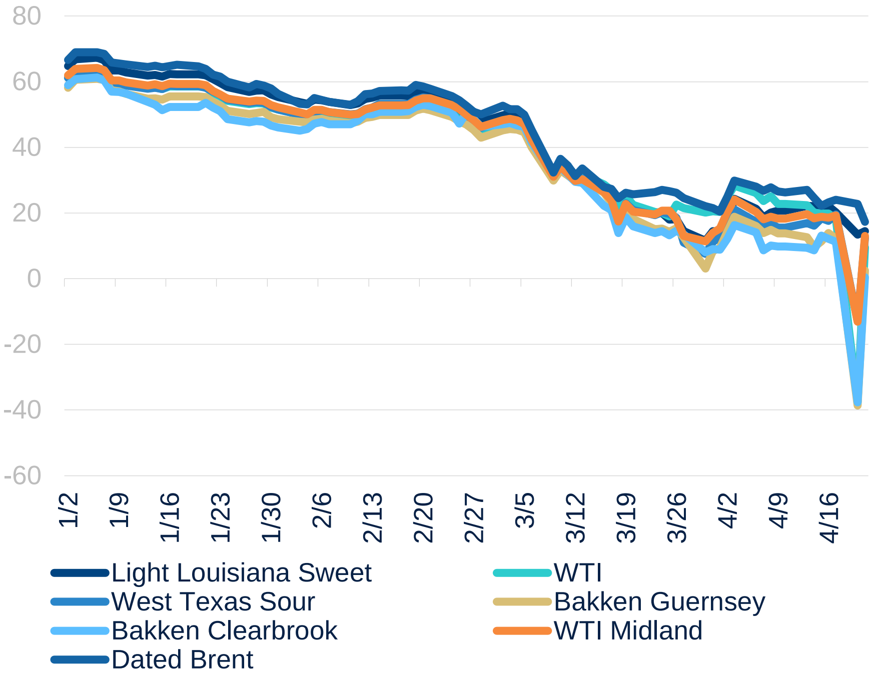
- Excess net supply of crude oil between 1Q20 and 2Q21, exerting downward pressures on prices
- Oil prices are expected to remain very low in 2Q20, but to recover in 2H20 as the worst of the pandemic is left behind
- Despite massive fiscal and monetary responses globally, prices will most likely remain subdued
- Price pressures could lead OPEC+ to accelerate committed output cuts and consider new ones
- Although demand will most likely recover in 2H20, it will remain weak as key economic sectors take time to return to pre-COVID19 levels
- U.S. crude oil markets severely dislocated: plunge in demand and storage near capacity
- Government intervention could help alleviate some of the pressures
- A new wave of bankruptcies and consolidation in the shale industry seems likely
- Risks are tilted to the downside: inventory accumulation, uneven control of the pandemic across regions, uncertainty on the implementation of output cuts, etc.

WTI went into negative territory for the first time ever. Its collapse reverberated across regional benchmarks

CRUDE OIL PRICES 2019 ($ PER BARREL)



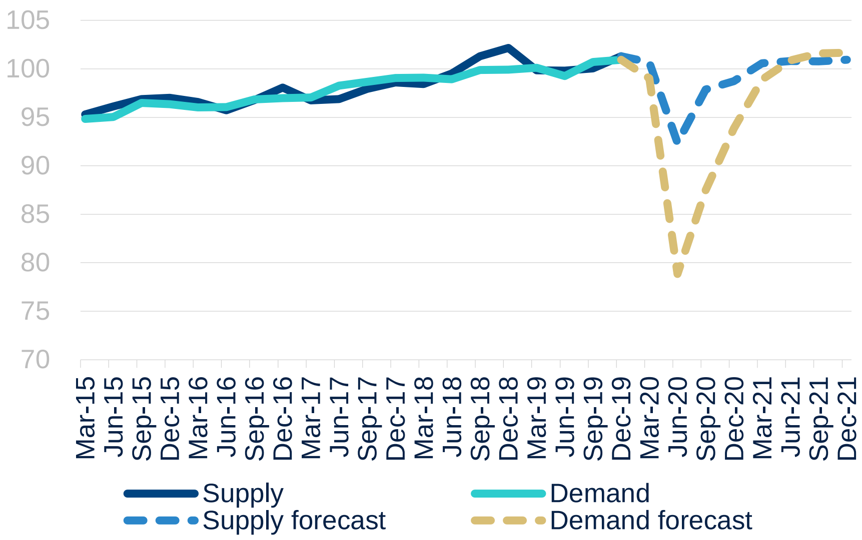
U.S. REGIONAL BENCHMARKS ($ PER BARREL)



Source BBVA Research and Haver Analytics

OPEC+ and G20 output deal is not enough to compensate for the sharp decline in global demand

OIL SUPPLY AND DEMAND (MILLION BARRELS PER DAY)

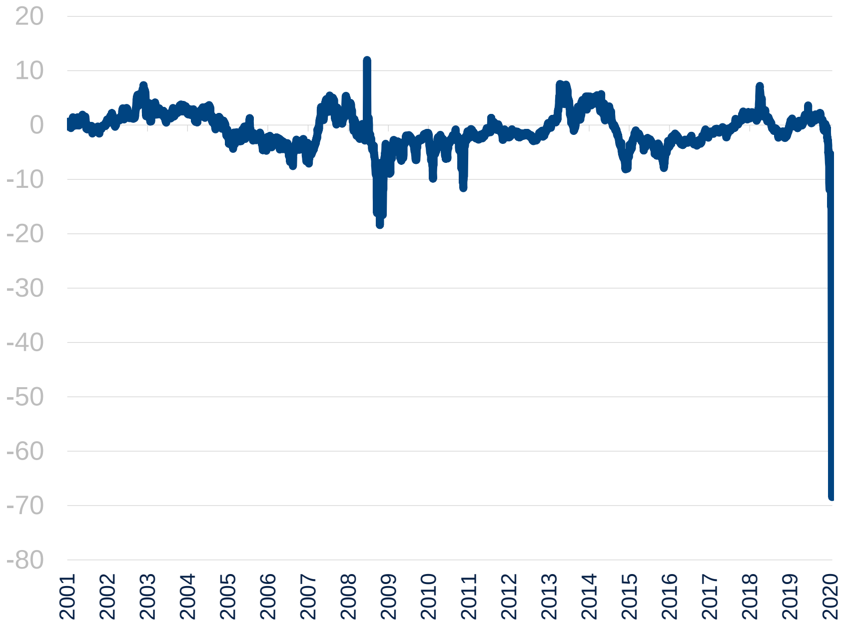


Source BBVA Research and Haver Analytics

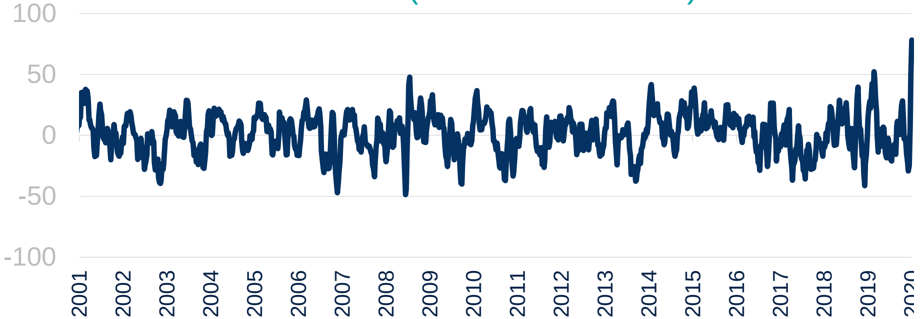
- Oil demand is likely to remain subdued through the rest of the year as the economy won't return to pre-crisis levels before 2021
- The implementation of OPEC+ cuts is subject to a high degree of uncertainty.
  - Only a few countries can comply with their quotas in a short-period of time
  - Most countries will let their production decline organically, which could take several months.

Extreme "contango" in the futures market incentivizes stock accumulation. Inventories fill at unprecedented speed

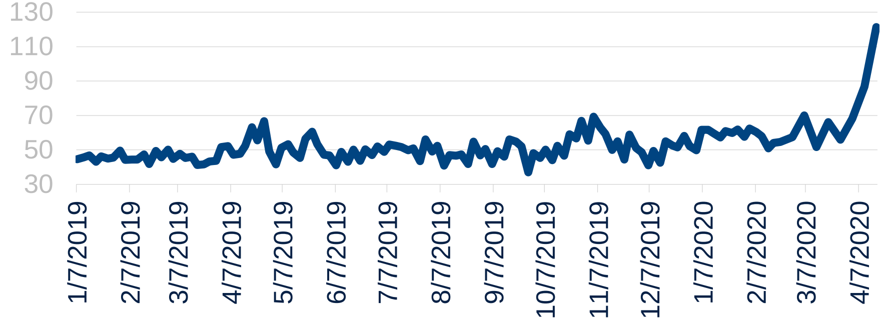
WTI SIX-MONTH TIME SPREAD ($ PER BARREL)



US STOCKS OF CRUDE OIL AND PETROLEUM PRODUCTS EXCL. SPR (4-WEEK CHANGE)



GLOBAL CRUDE OIL FLOATING STORAGE (MILLION BARRELS)



Source: BBVA Research, Haver Analytics, and Bloomberg

U.S. Government intervention could take various forms

Policies

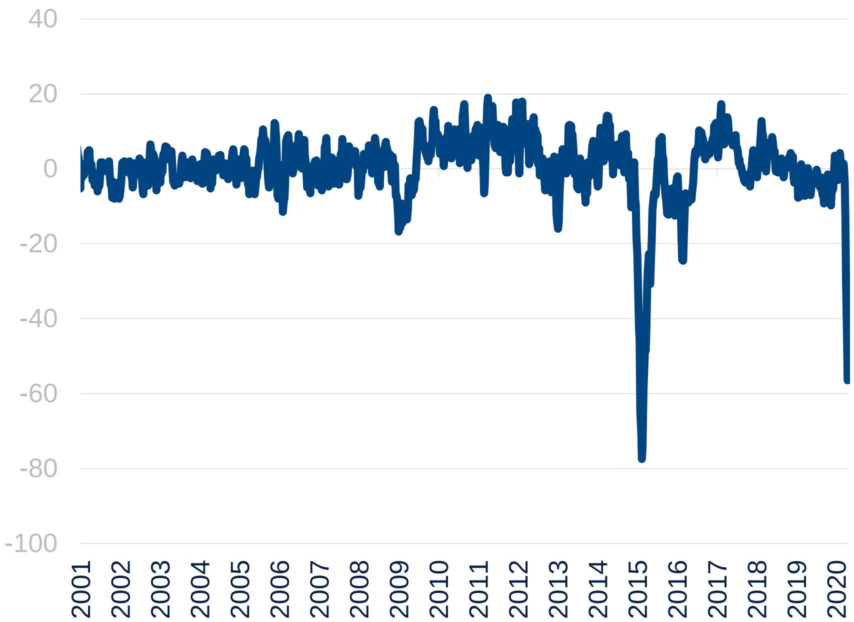
1. Buy untapped crude reserves and incorporate them to the country's emergency stockpile
2. Release oil and gas produced on federal lands and waters from royalties
3. Deem some companies "critical to national security", with access to additional resources
4. Expand Fed lending facilities for distressed sectors and companies with low credit ratings
5. Create a specific program for O&G companies (similar to airline industry under CARES Act)
6. Pressure G-20 countries to buy U.S. oil

Limitations

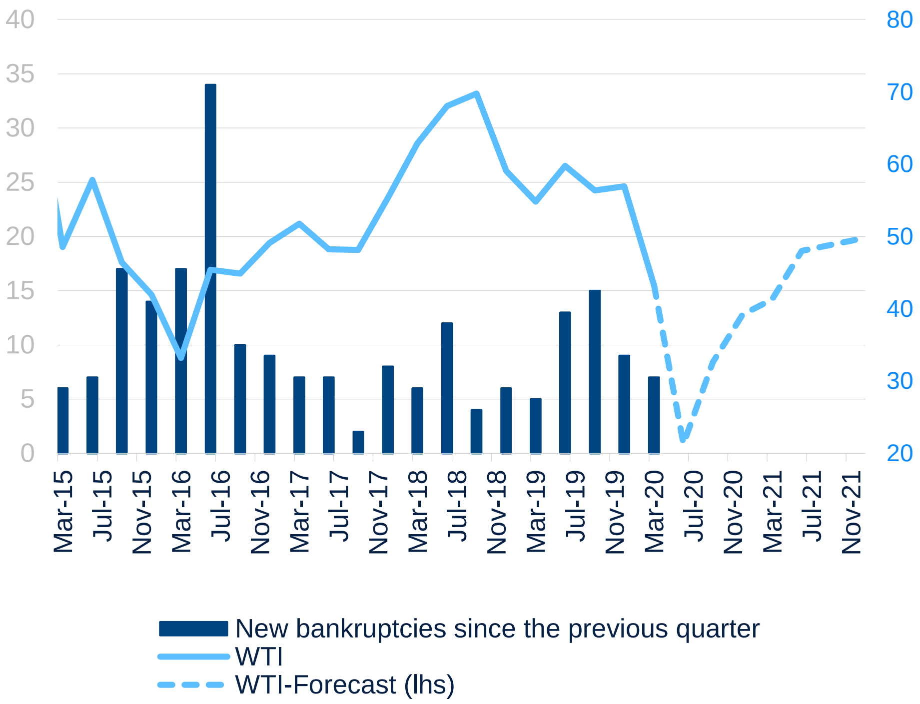
1. Requires authorization from Congress, which already refused to spend $3bn for SPR
2. White House shows willingness but only on a case by case basis
3. Will benefit large producers but small companies may be excluded
4. Higher risk to the taxpayer and political backlash
5. Could provide biggest relief depending on resources, but constrained by political divide
6. Not enough to significantly reduce the glut

A decline in production and consolidation in the industry is imminent

BAKER HUGHES ACTIVE RIG COUNT: OIL RIGS (WEEKLY CHANGE)



NORTH AMERICA E&P BANKRUPTCY FILINGS AND WTI (NO. OF FILINGS AND $ PER BARREL)

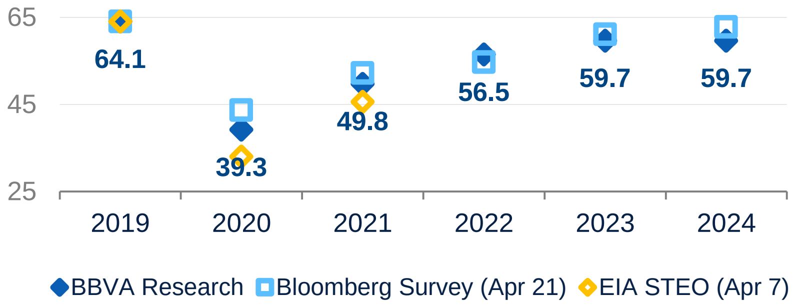


Source: BBVA Research, Haver Analytics, and Haynes and Boone

Prices will recover but will remain subdued due to excess supply and a gradual economic rebound

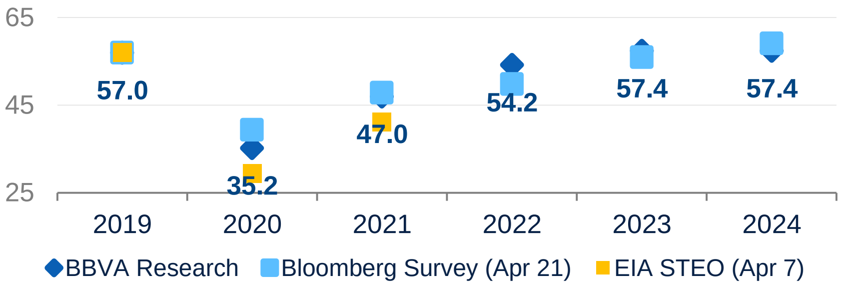
BRENT PRICES FORECAST
($ PER BARREL)

	BBVA Research (baseline)	Bloomberg Survey (Apr 21)	EIA STEO (Apr 7)
2018	71.1	71.1	71.1
2019	64.1	64.1	64.1
2020	**39.3**	**43.7**	**33.0**
2021	**49.8**	**52.2**	**45.6**
2022	**56.5**	**54.8**	
2023	**59.7**	**61.1**	
2024	**59.7**	**62.9**	



WTI PRICES FORECAST
($ PER BARREL)

	BBVA Research (baseline)	Bloomberg Survey (Apr 21)	EIA STEO (Apr 7)
2018	65.0	65.0	65.0
2019	57.0	57.0	57.0
2020	**35.2**	**39.3**	**29.3**
2021	**47.0**	**47.9**	**41.1**
2022	**54.2**	**49.8**	
2023	**57.4**	**56.0**	
2024	**57.4**	**59.1**	



Macroeconomic Outlook

	2015	2016	2017	2018	2019 (e)	2020 (f)	2021 (f)	2022 (f)
Real GDP (% SAAR)	2.9	1.6	2.4	2.9	2.3	**-4.4**	**3.4**	**2.4**
Real GDP (Contribution, pp)								
PCE	2.5	1.9	1.8	2.1	1.8	**-3.7**	**2.8**	**1.7**
Gross Investment	0.9	-0.2	0.8	0.9	0.3	**-2.2**	**0.1**	**0.7**
Non Residential	0.3	0.1	0.6	0.9	0.3	**-1.2**	**-0.4**	**0.6**
Residential	0.3	0.2	0.1	0.0	0.0	**0.0**	**-0.1**	**0.0**
Exports	0.1	0.0	0.5	0.4	0.0	**-1.6**	**-0.2**	**0.5**
Imports	-0.9	-0.4	-0.8	-0.8	-0.2	**2.6**	**-0.1**	**-0.9**
Government	0.3	0.3	0.1	0.3	0.4	**0.6**	**0.8**	**0.4**
Unemployment Rate (%, average)	5.3	4.9	4.3	3.9	3.7	**7.8**	**5.0**	**4.2**
Avg. Monthly Nonfarm Payroll (K)	227	195	176	193	178	**-211**	**181**	**108**
CPI (YoY %)	0.1	1.3	2.1	2.4	1.8	**-0.1**	**0.8**	**2.1**
Core CPI (YoY %)	1.8	2.2	1.8	2.1	2.2	**1.4**	**0.3**	**1.3**
Fiscal Balance (% GDP, FY)	-2.4	-3.2	-3.4	-3.8	-4.6	**-12.8**	**-9.3**	**-5.0**
Current Account (bop, % GDP)	-2.2	-2.3	-2.3	-2.4	-2.3	**-1.9**	**-2.0**	**-2.2**
Fed Target Rate (%, eop)	0.50	0.75	1.50	2.50	1.75	**0.25**	**0.25**	**0.25**
10-Yr Treasury (% Yield, eop)	2.24	2.49	2.40	2.83	1.86	**0.56**	**1.16**	**1.39**
WTI (dpb, average)	48.7	43.2	50.9	65.0	57.0	**35.2**	**47.0**	**54.2**

Source: BBVA Research
*Forecasts subject to change

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U.S. Macroeconomic Pulse

April 2020

Creating Opportunities