PIMCO

January 2020

Cyclical Economic Outlook

Seven Macro Themes for 2020

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(Presented in Ireland)

Biographical information

Joachim Fels

Mr. Fels is a managing director and global economic advisor based in the Newport Beach office. He is a member of the Investment Committee and leads PIMCO's quarterly Cyclical as well as the Secular Forum process. Prior to joining PIMCO in 2015, he was global chief economist at Morgan Stanley in London. Previously he was an international economist at Goldman Sachs and a research associate at the Kiel Institute for the World Economy. He has 32 years of macro research experience and holds a diploma in international studies from the Johns Hopkins University School of Advanced International Studies in Bologna, Italy; a master's degree in economics from Universität des Saarlandes in Saarbrücken, Germany; and an undergraduate degree from Christian-Albrechts-Universität in Kiel, Germany.

Nicola Mai

Mr. Mai is an executive vice president in the London office and a sovereign credit analyst in the portfolio management group. He leads sovereign credit research in Europe, and is a member of the European portfolio committee. He is responsible for formulating key macro views for the region and for identifying and analyzing global macro and investment trends. Prior to joining PIMCO in 2012, Mr. Mai was senior euro area economist at J.P. Morgan for seven years. He started his career as an economist in the U.K. government, in a program run by HM Treasury. He has 17 years of investment and financial services experience and holds a graduate degree in economics from Universitat Pompeu Fabra in Barcelona and an undergraduate degree in economics from the London School of Economics.

Seven Macro Themes for 2020

1) "Time to recession" has increased

2) "Loss given recession" has increased

3) Potential cracks in corporate credit cycle

4) U.S. housing strength

5) The world leads, the U.S. lags

6) Inflation: The devil they prefer

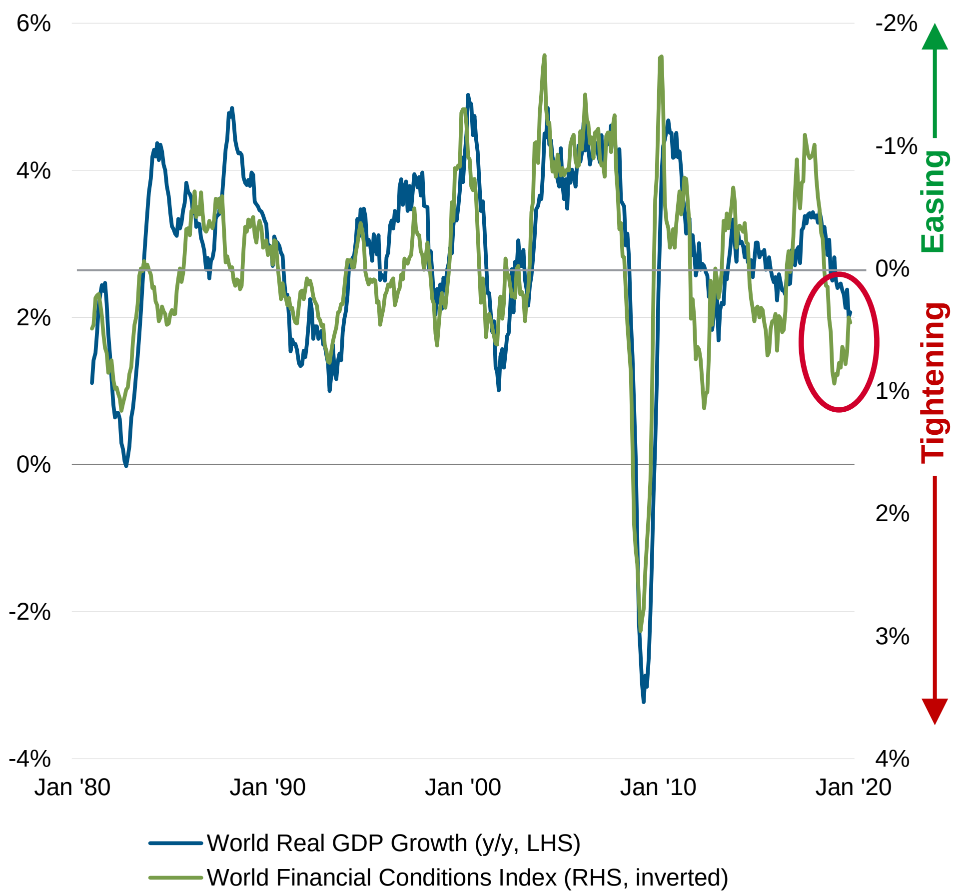
7) Dealing with disruption

Source: PIMCO

1) Time to recession has increased

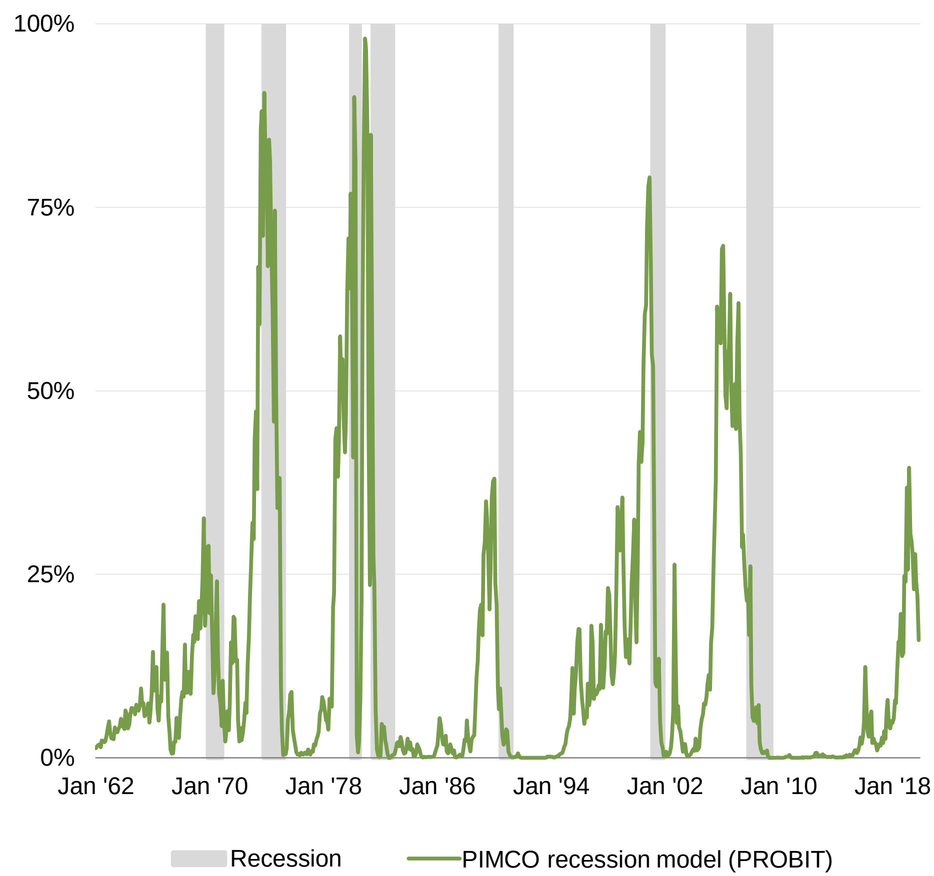
Central bank actions helped ease global financial conditions…

World GDP Growth and Financial Conditions



…and reduce the risk of recession in the near term

U.S. Probit Recession Model (12m)



For illustrative purposes only. Source: Haver Analytics, PIMCO calculations as of 1 November 2019. Left chart: World includes approximately 240 countries. Data is interpolated where unavailable. Note: The PIMCO World Financial Conditions Index (FCI) is a proprietary index that summarizes the likely impact on growth from a range of financial variables, including bond yields, equity prices, currency rates, house prices and money supply. In this inverted depiction, an increase in the FCI indicates an easing of financial conditions. Right chart:: Recession probability models are only 1 input into PIMCO's overall assessment of recession risk

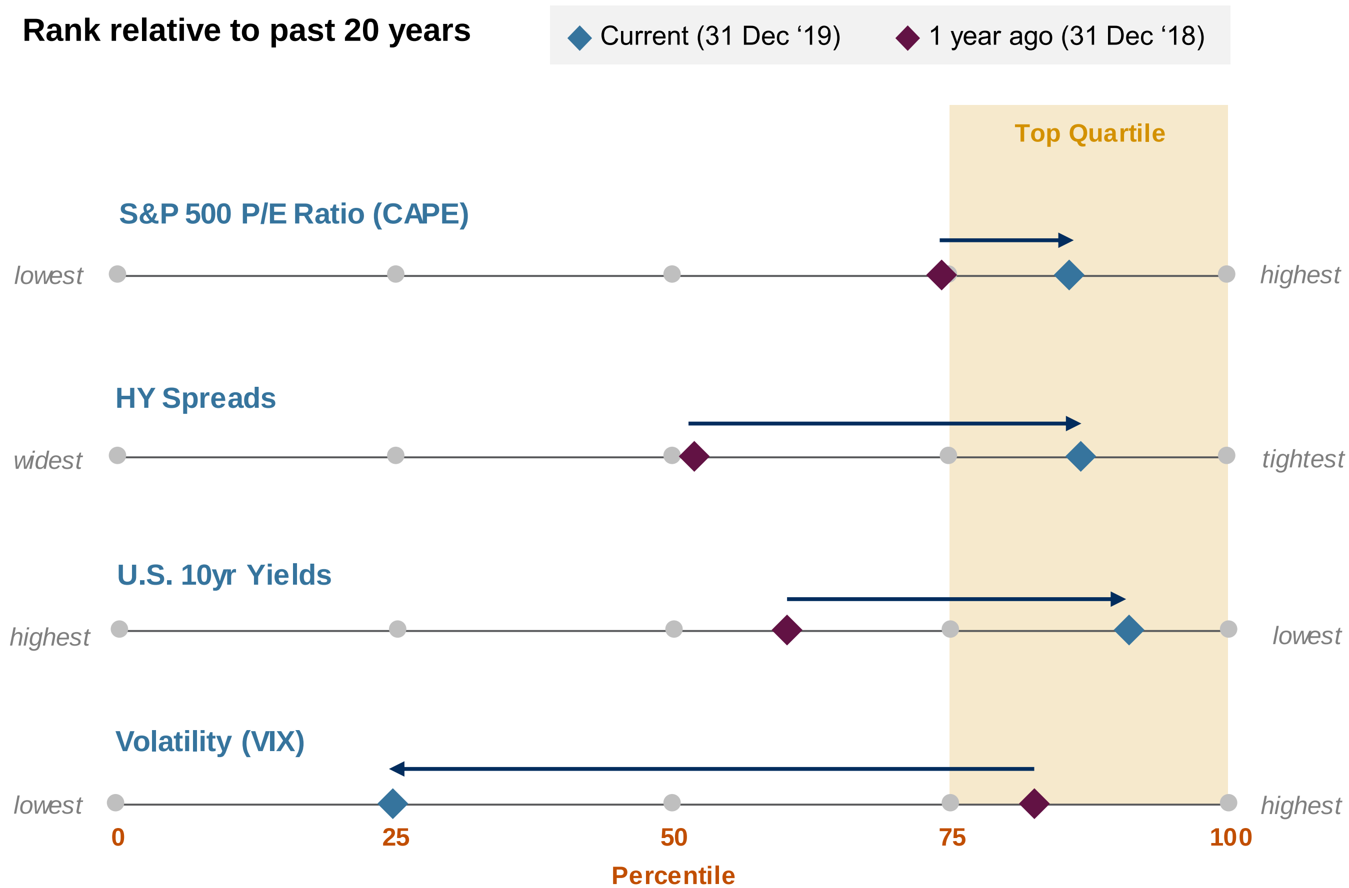
Refer to Appendix for additional forecast, outlook and risk information.

Investment implication: More constructive, but starting points matter

Highlights

- Positive carry from more diversified sources, biased toward higher-quality
- Overall duration closer to flat
- Less generic corporate credit exposure given valuations
- Modest overweight to equities

Rank relative to past 20 years

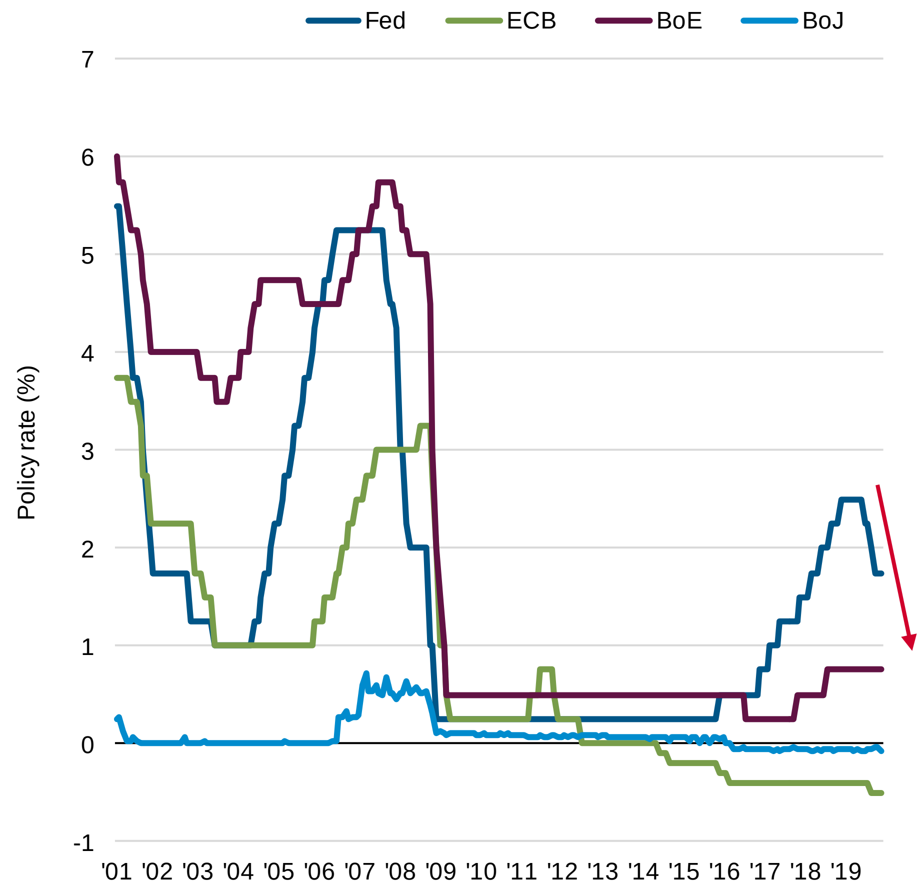


As of 31 December 2019.
Source: Bloomberg
High Yield (HY) spreads are represented by the Bloomberg Barclays US Corporate High Yield Avg OAS index.
Refer to Appendix for additional index, investment strategy, outlook and risk information.

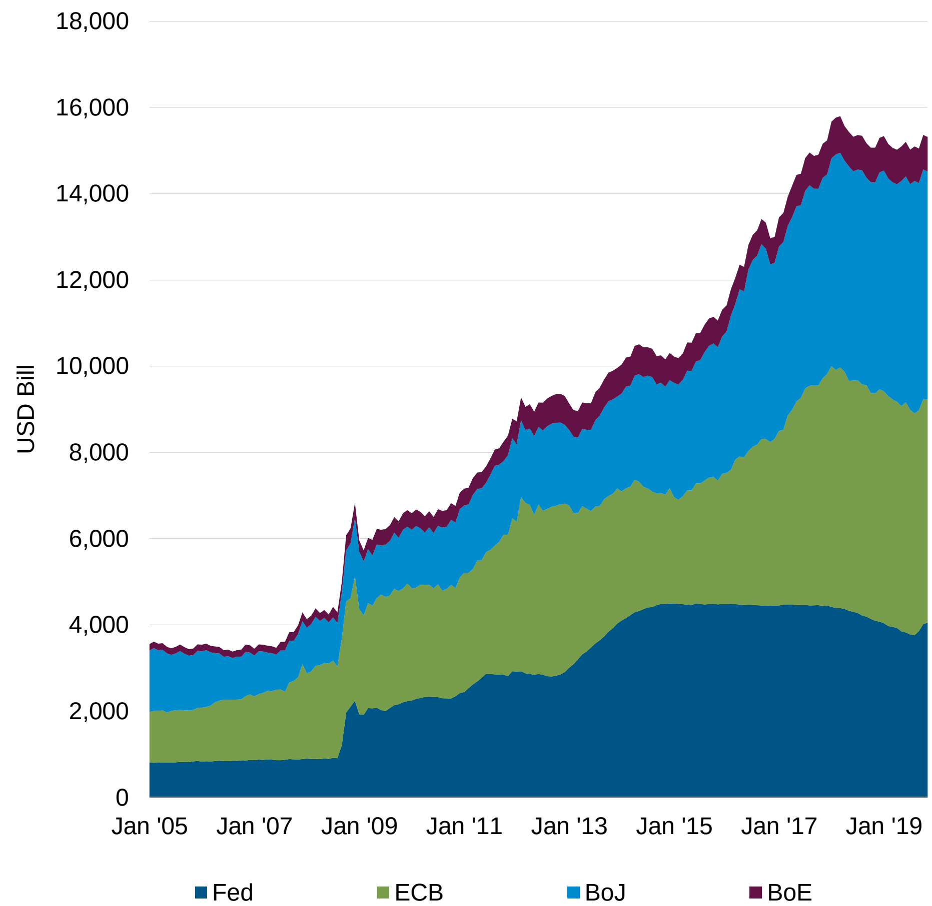
2) Loss given recession has risen

Central banks have exhausted more of their toolkit, leaving less policy space for future action

Developed Market Central Bank Policy Rates



Developed Market Central Bank Balance Sheets



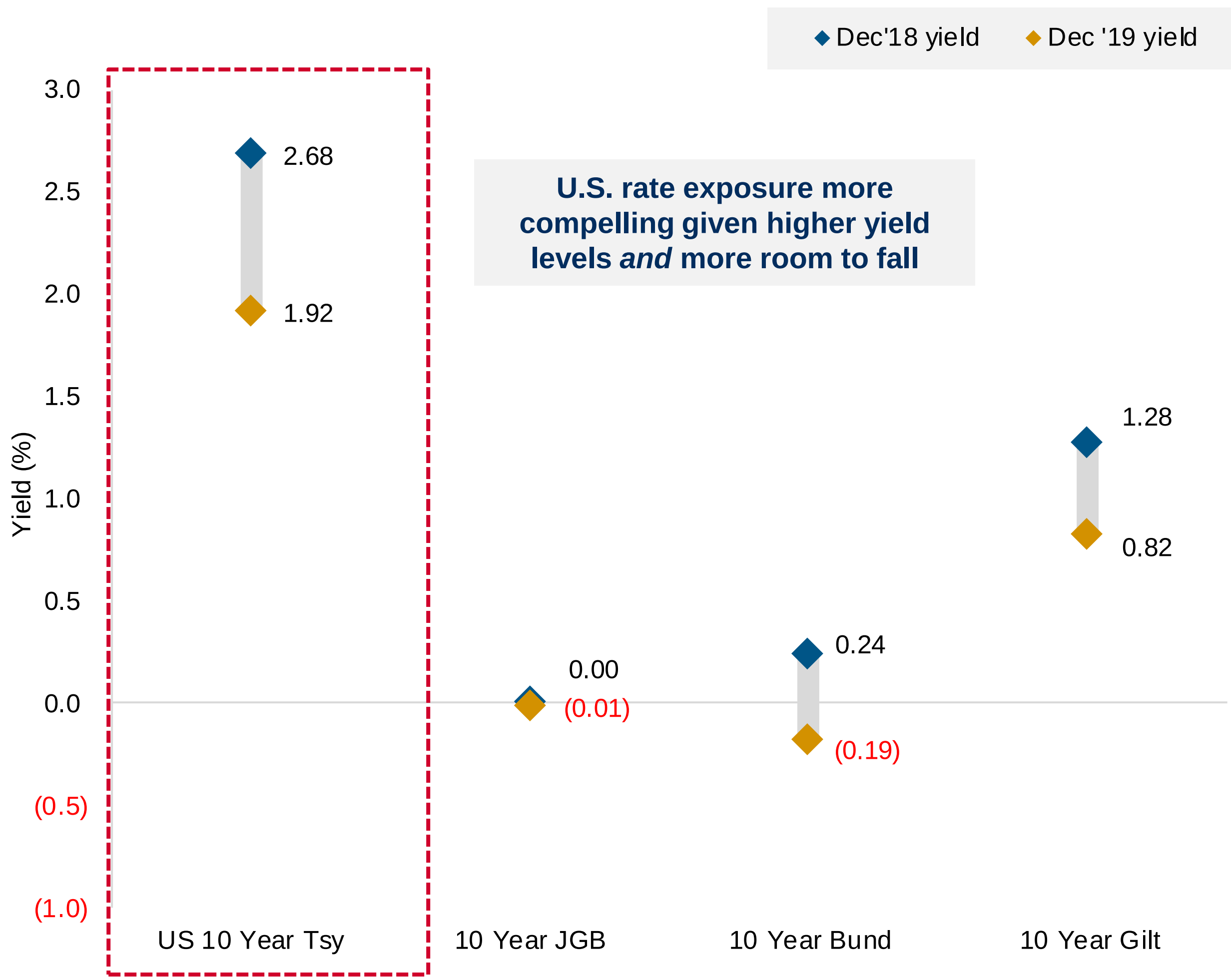
Source: Haver, PIMCO, as of 31 December 2019.

Investment implication: Favor U.S. duration, with less generic risk beta

Highlights

- Favor US duration over global alternatives given relative value and more potential for capital gains
- Long Japanese yen positions given risk-off exposure (and as proxy for duration)
- Cautious stance on generic credit risk

Comparison of current global yields to their respective lowest historic levels

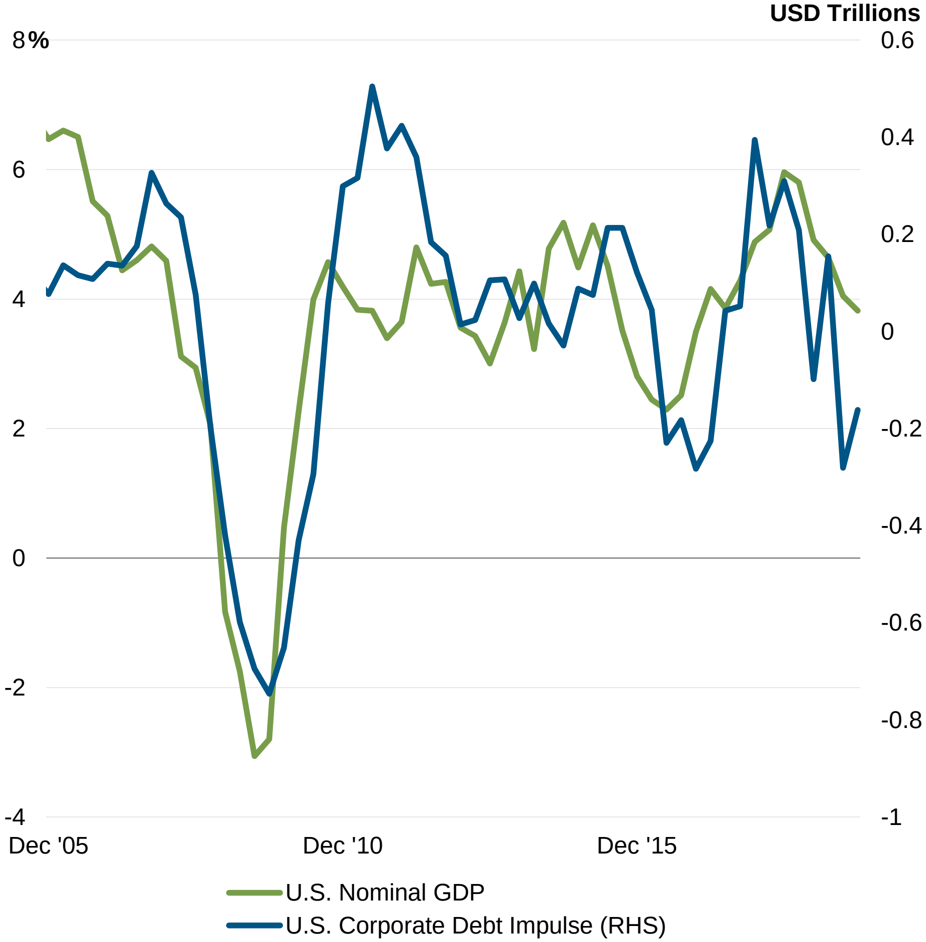


As of 31 December 2019
SOURCE: PIMCO, Bloomberg.
Refer to Appendix for additional investment strategy, outlook and risk information

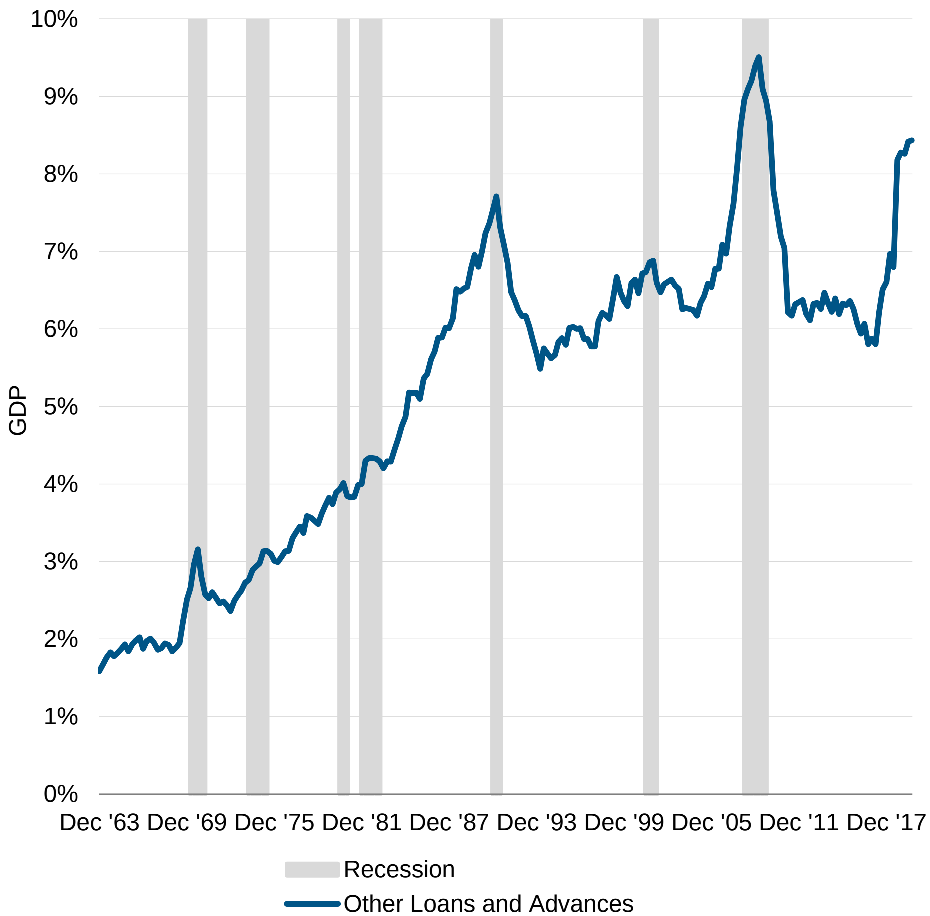
3) Cracks in the corporate credit cycle

Riskier segments of the credit market may be more vulnerable to pronounced growth slowdowns

U.S. Non-Financial Business Sector Debt Impulse



U.S. Domestic Private Debt

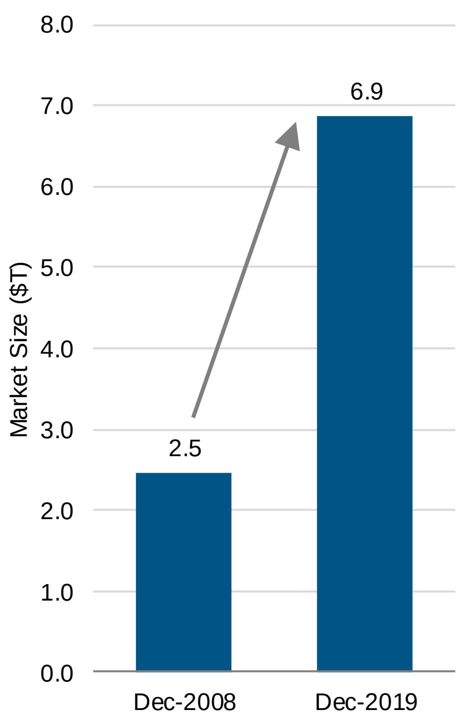


Source: Haver Analytics, U.S. Federal Reserve, PIMCO calculations as of 30 September 2019. Left chart: shows the close correlation between GDP and the ebb and flow of overall credit to the corporate sector. The debt impulse is the dollar change in overall corporate debt flows, including bank loans, corporate bond issuance and private credit from the Federal Reserve's flow of funds data. Right chart: other loans and advances is a proxy for private financing.

Investment implication: Cautious on generic corporate credit

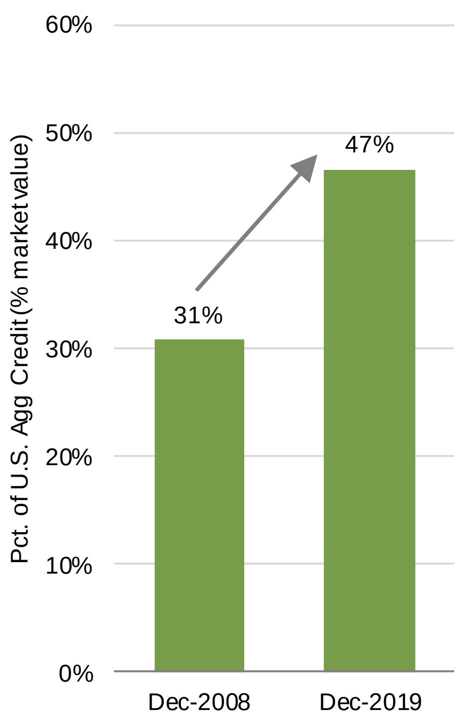
GROWING MARKET

The investment grade credit market has more than doubled since 2008



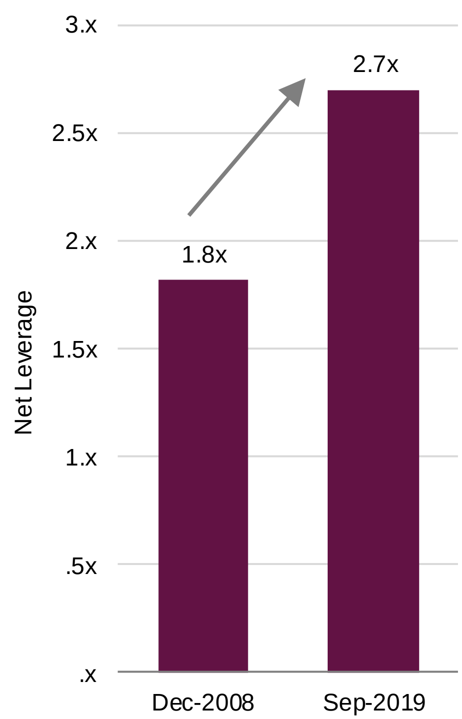
INCREASED CREDIT RISK

The share of BBBs in the U.S. Credit market has increased 16% since 2008. BBBs now make up <u>twice</u> the size of the high yield market vs. 1x in 2008



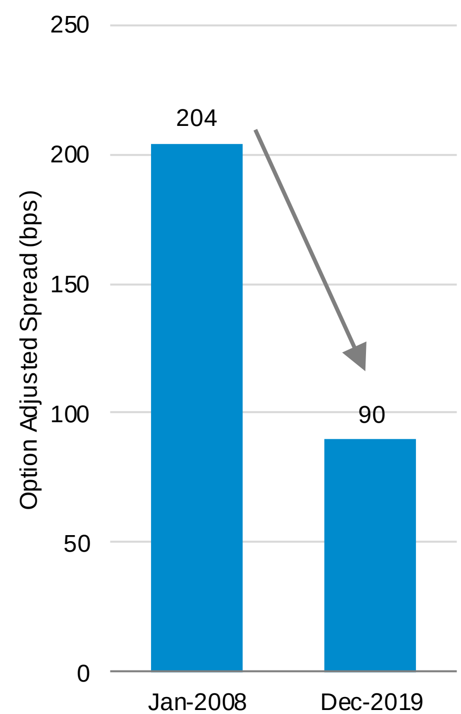
HIGHER LEVERAGE

Companies are taking on more debt and leverage in the investment grade credit market has increased 0.9x



REDUCED COMPENSATION FOR RISK

Companies can borrow at lower rates as credit spreads have come down over 100 basis points since the start of 2008

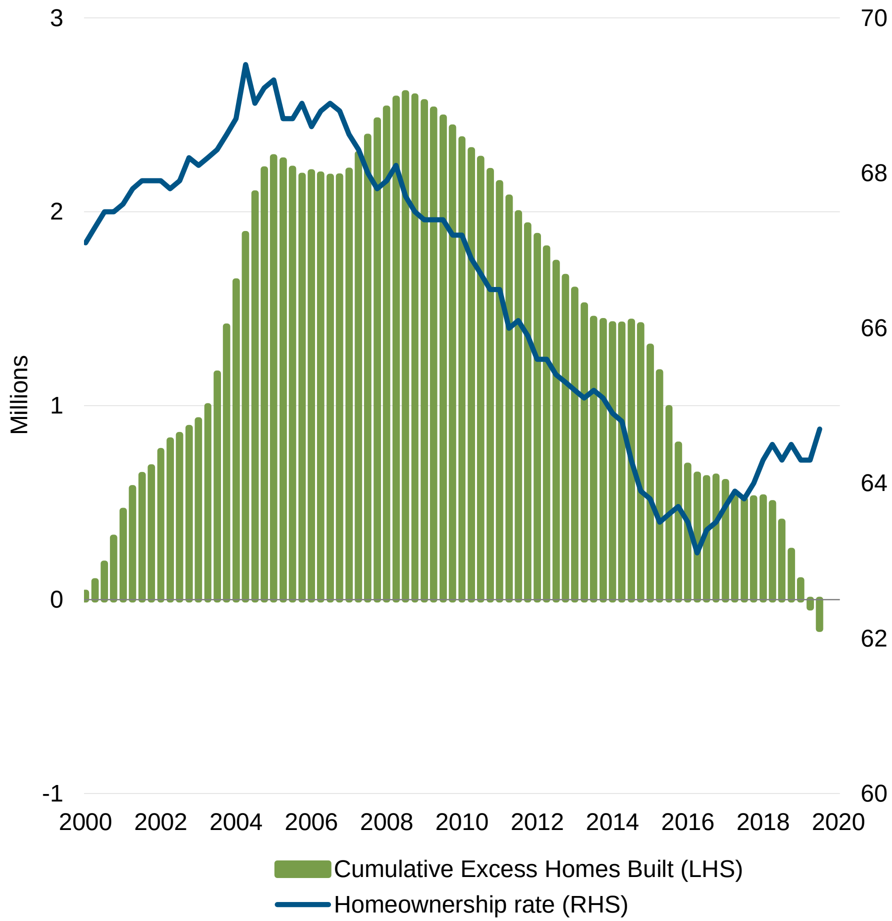


As of 31 December 2019. Leverage as of most recently available. Source: PIMCO, Bloomberg, Barclays
Market size, market value, and OAS based on Bloomberg Barclays U.S. Credit Index. Leverage based on IG CDX 32
Refer to Appendix for additional index, investment strategy, OAS, outlook, and risk information.

4) Home, sweet home

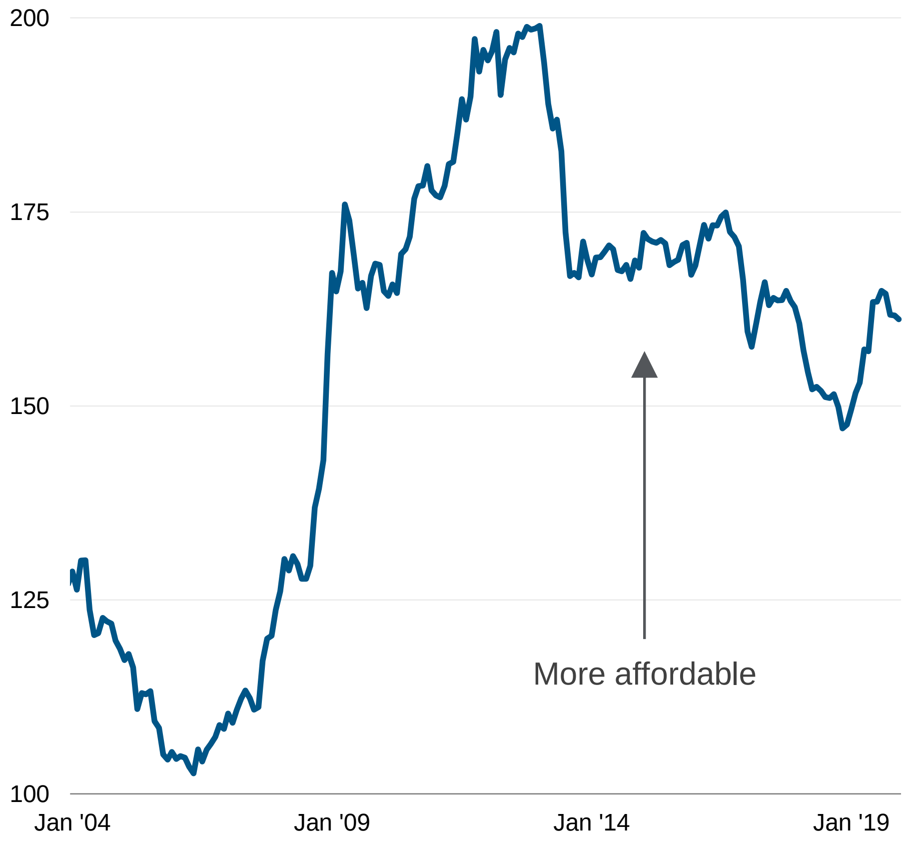
U.S. Housing supply has fallen while demand remains robust

Cumulative Excess U.S. Homes Built & Homeownership Rate



U.S. Housing affordability measures appear favorable

PIMCO U.S. Affordability Ratio



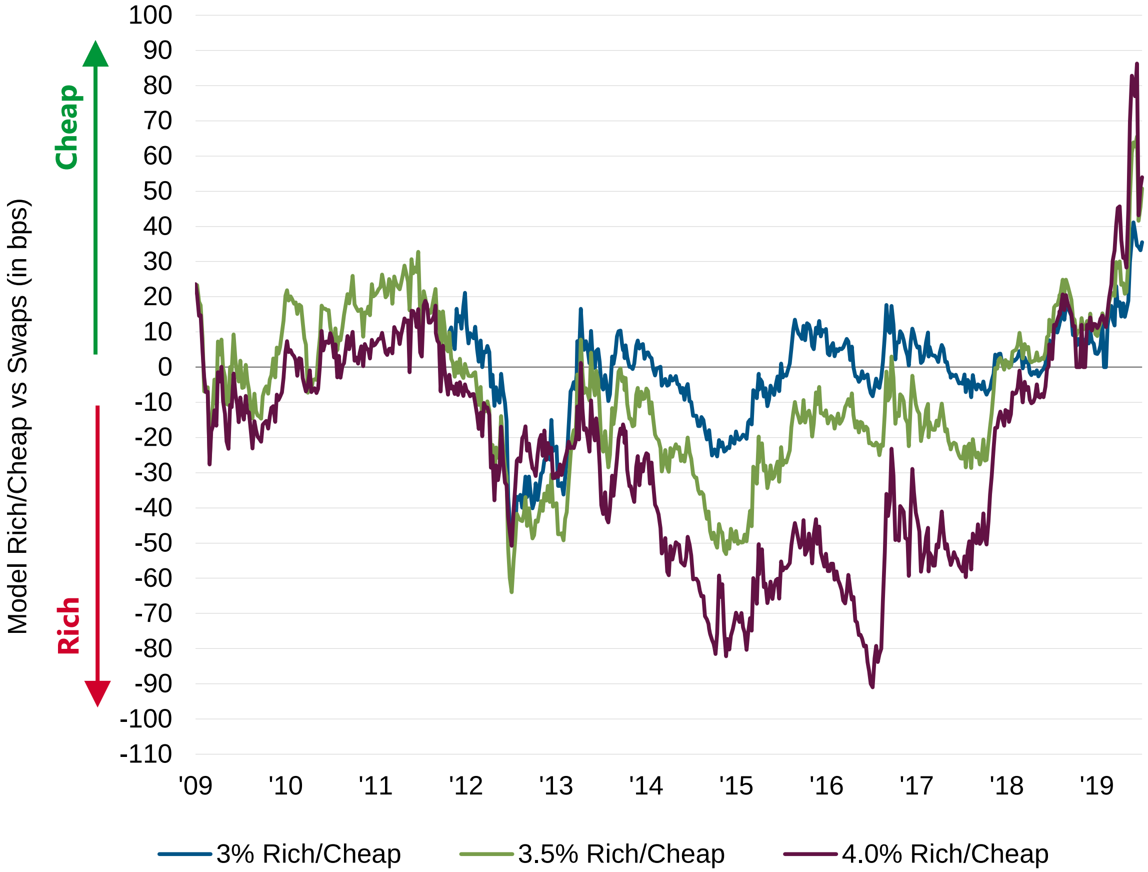
Source: Haver Analytics, Bloomberg, PIMCO calculations as of 30 September 2019. Left chart: Cumulative excess homes built is the cumulative difference between housing starts and household formations. Right chart: The PIMCO Affordability ratio is a seasonally adjusted measure of the affordability of a median priced home, based on median income and prevailing mortgage rates.

Investment implication: Preference for housing-related assets

Highlights

- Favor Agency MBS given compelling valuations, reasonable carry, and attractive liquidity profile
- Non-Agency MBS attractive as a more defensive source of credit and carry
- Select opportunities in other securitized (CMBS, U.K. residential assets)

Agency MBS Spread Valuation



As of 31 December 2019

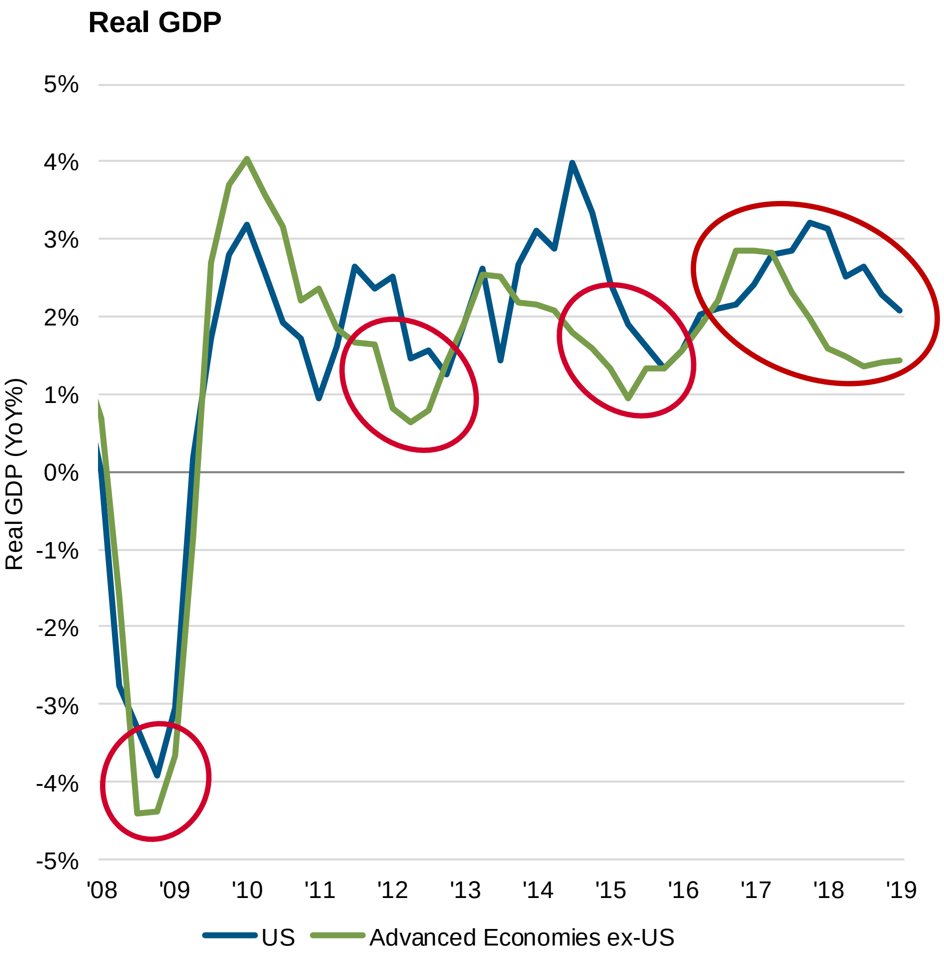
SOURCE: PIMCO

Rich/Cheap valuations are intended to represent the relative level of Agency MBS spread valuations. This represents our empirical spread which relies on a combination of rates, shape of the curve, interest rate volatility, and the refinanceability of the mortgage market.

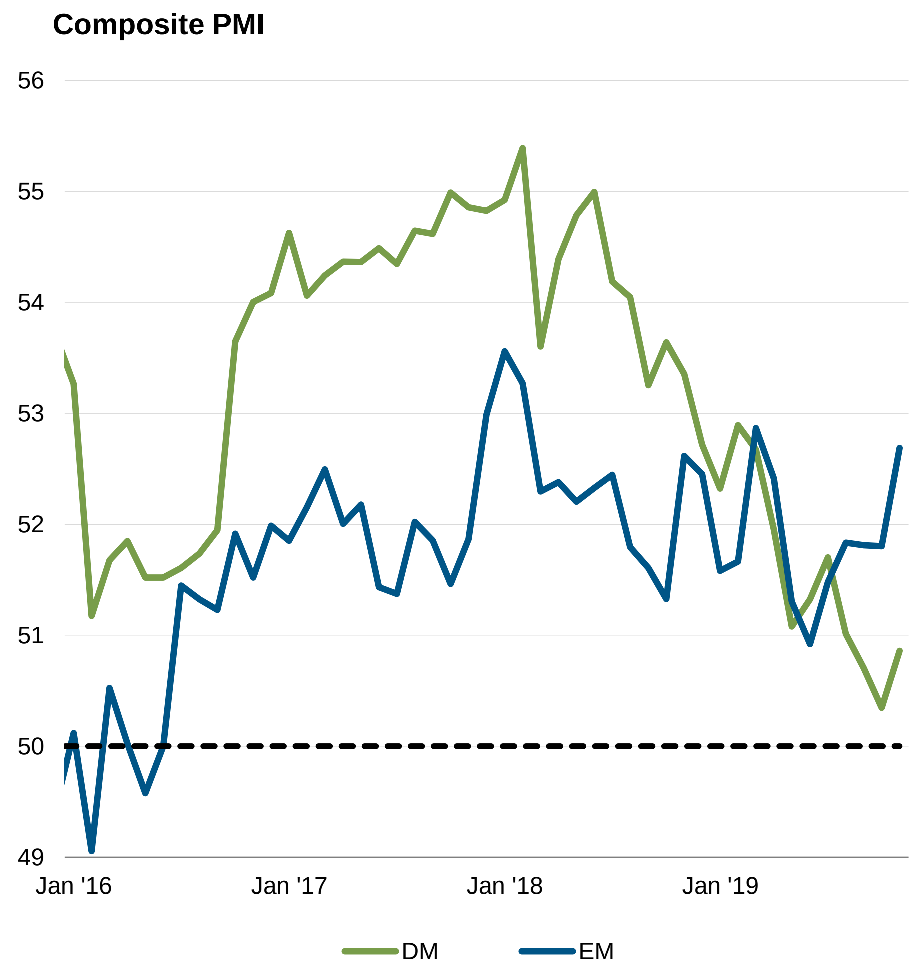
Refer to Appendix for additional investment strategy, outlook and risk information

5) The world leads, the U.S. lags

U.S. growth momentum slowed later – and less – than the rest of the world



Signs of a rebound have already begun to emerge



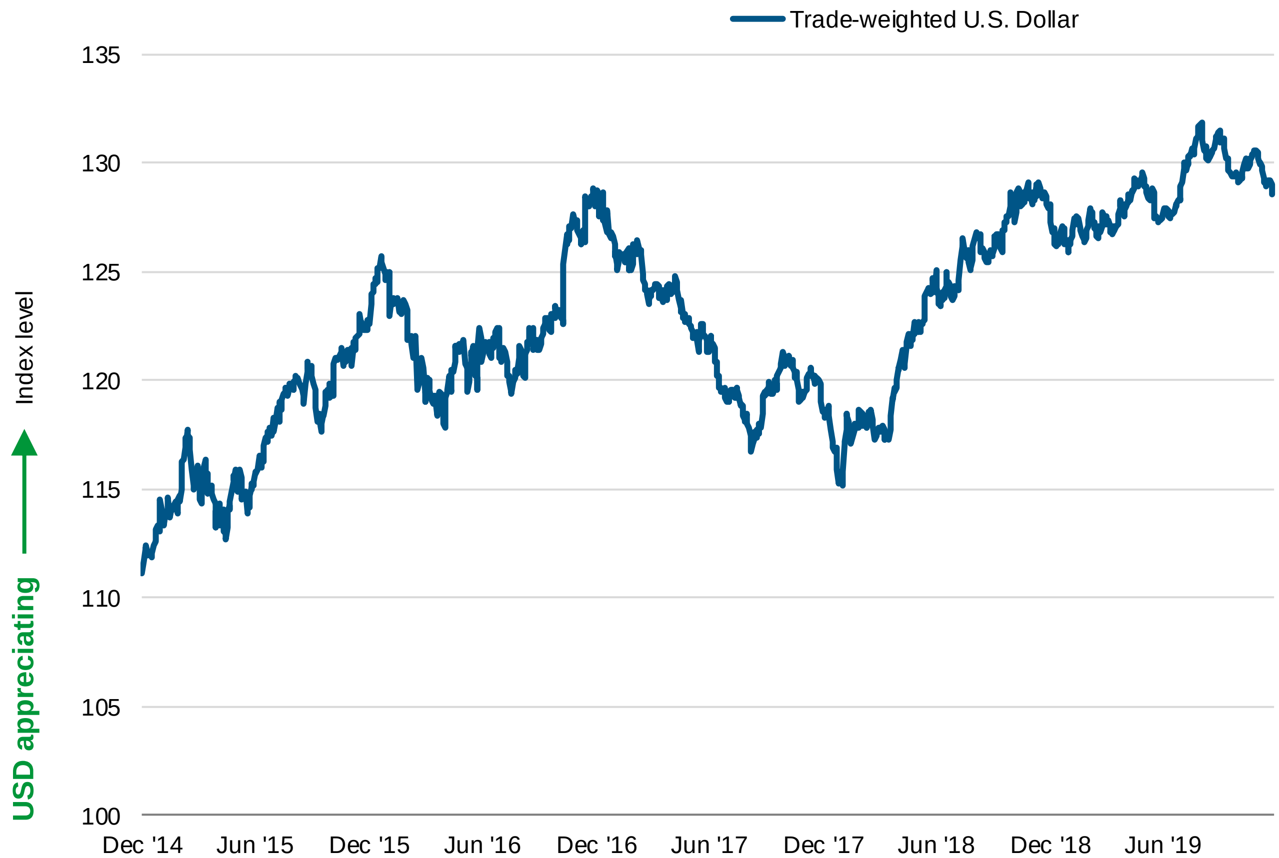
Source: Haver, PIMCO. Left chart as of 30 September 2019. Right chart as of 30 November 2019. DM: Developed Markets. EM: Emerging Markets.

Investment implication: Seek opportunities in select currencies

Highlights

- Expect an overweight to a basket of EM currencies against the US dollar
- Seek opportunities in G10 currencies against the U.S. dollar if more evident divergence in growth momentum
- Favor US duration over other regions

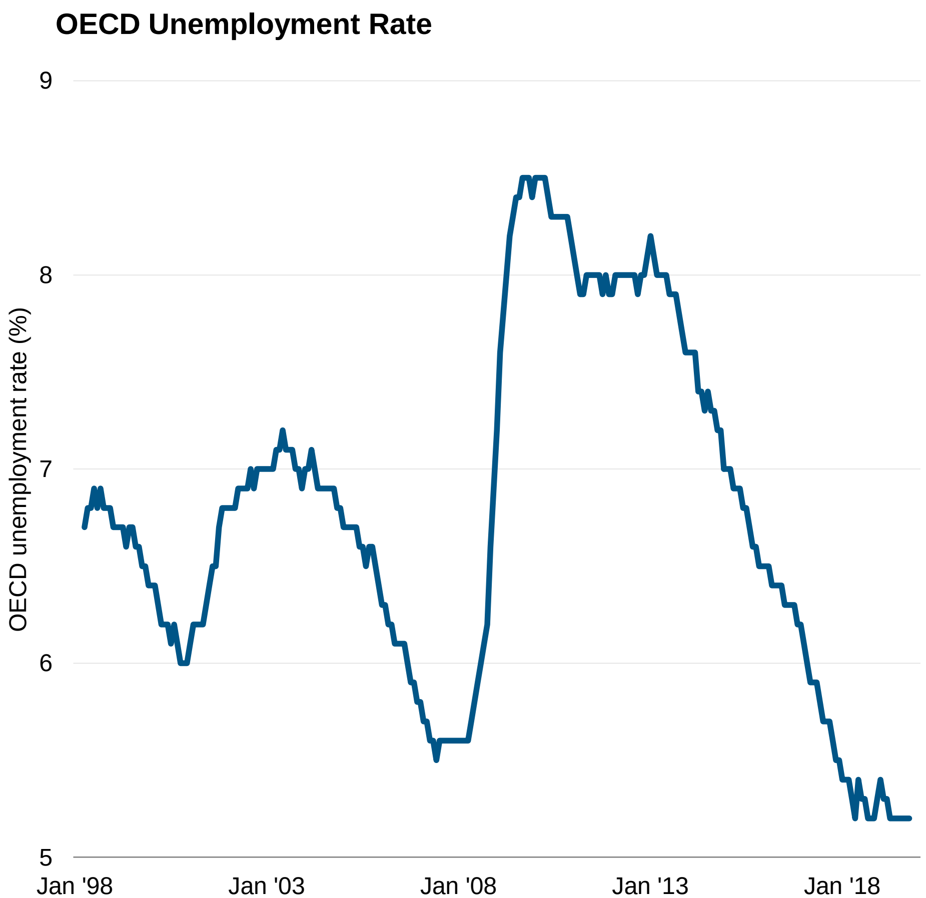
US dollar (trade-weighted)



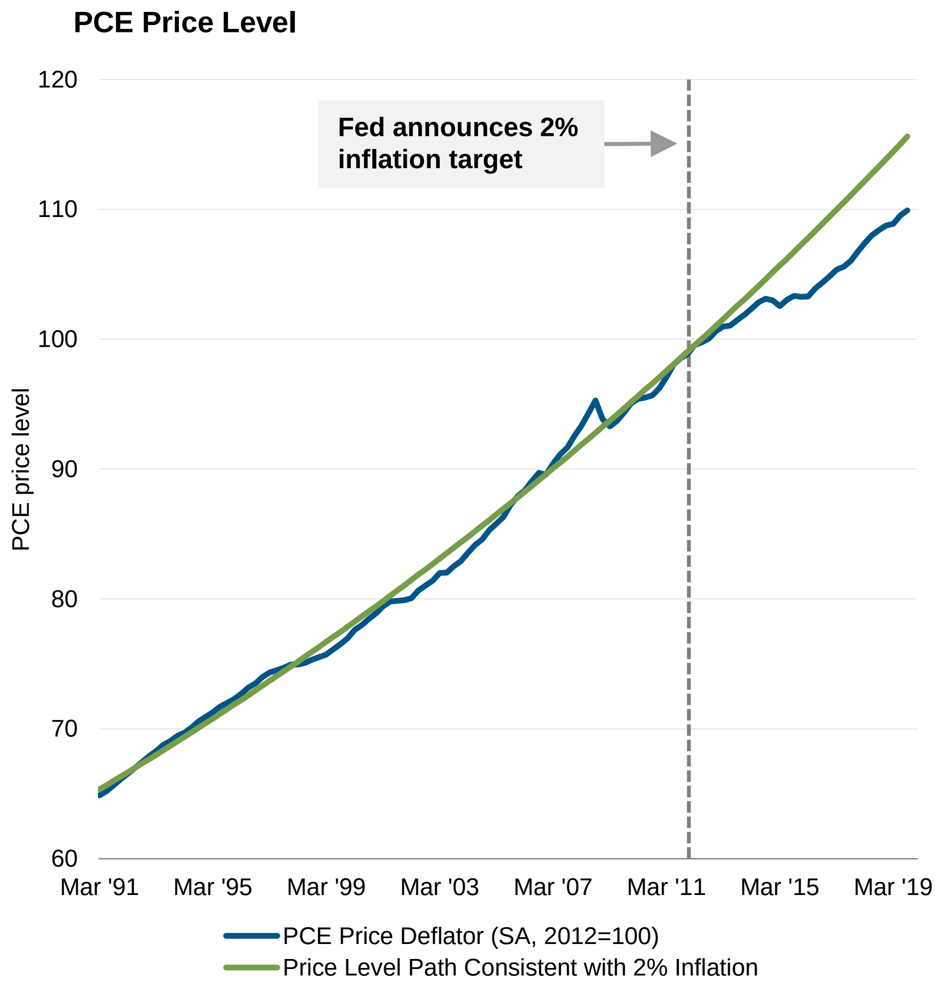
As of 31 December 2019
SOURCE: Bloomberg, PIMCO
Refer to Appendix for additional investment strategy, outlook and risk information

6) Inflation: The devil they prefer

Wage pressures from tight labor markets could cause an inflation surprise



Given extent of undershooting, U.S. Fed may allow inflation to overshoot



Source: Haver, PIMCO calculations, as of 30 September 2019.

The Organisation for Economic Co-operation and Development is an intergovernmental economic organisation with 36 member countries, founded in 1961 to stimulate economic progress and world trade. The personal consumption expenditures (PCE), or the PCE Index, measures price changes in consumer goods and services. Expenditures included in the index are actual U.S. household expenditures. Data that pertains to services, durables and non-durables are measured by the index.

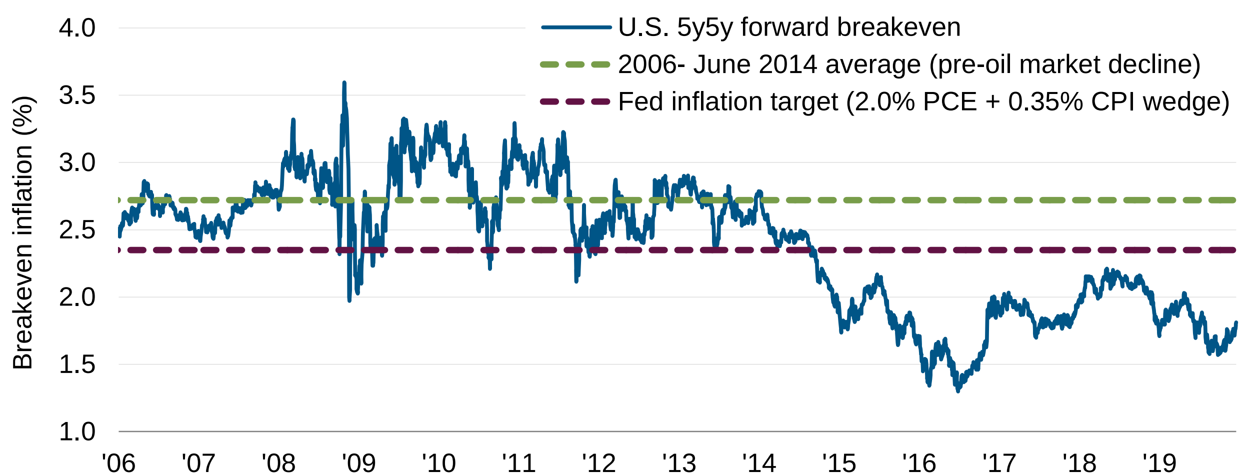
Investment implication: Bias for curve steepeners and inflation protection

Highlights

- Favor curve steepening positions given
  - Front-ends anchored by central banks
  - Potential for higher U.S. inflation expectations
  - Potential return of term premia
- TIPS valuations attractive given balance of risks skew toward higher U.S. inflation

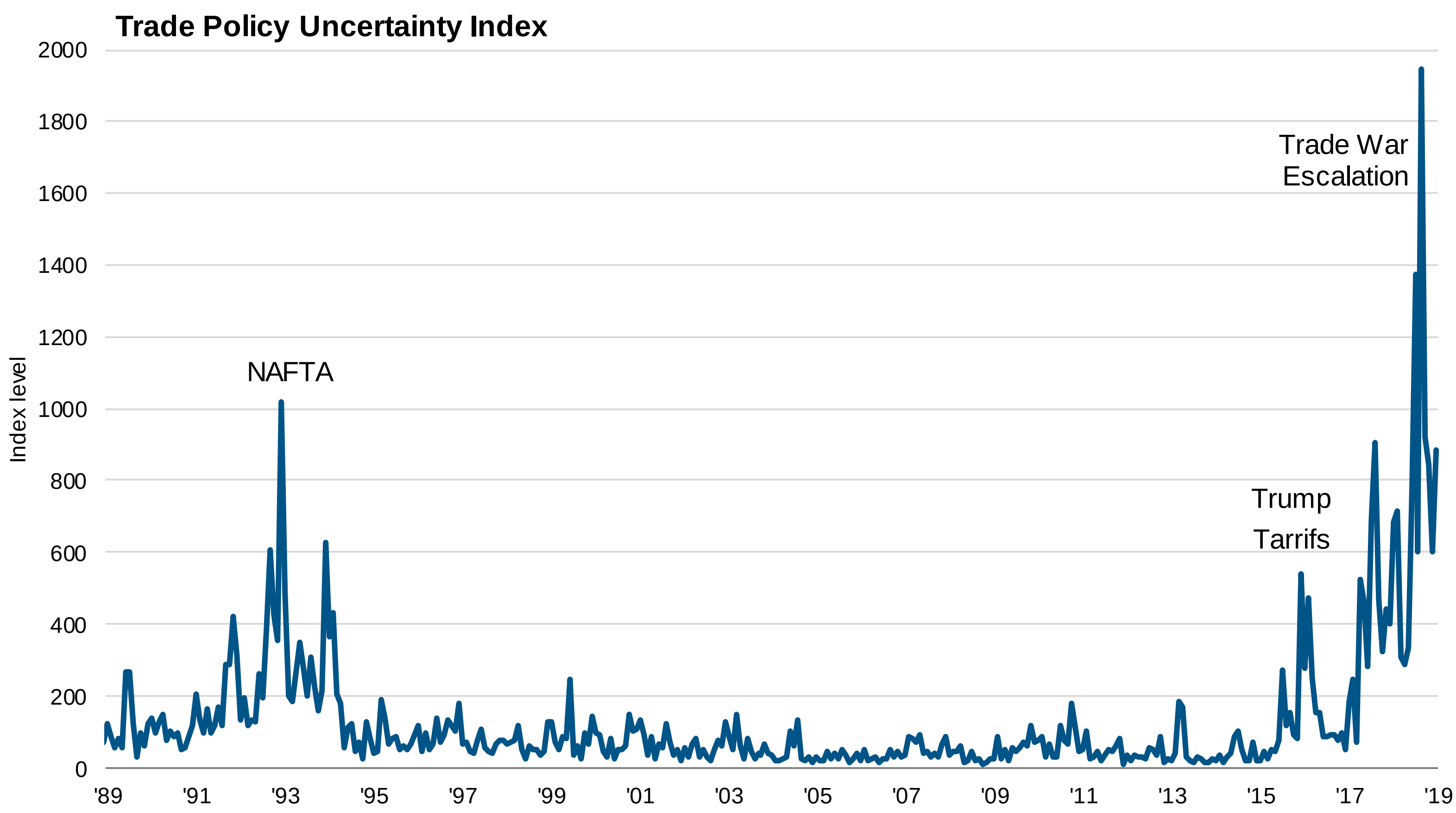
Change in shape of U.S. yield curve between 5- and 30yr

U.S. Inflation expectations in markets appear low



As of 31 December 2019
SOURCE: Bloomberg, PIMCO.
Refer to Appendix for additional investment strategy, outlook and risk information

7) Dealing with Disruption in trade policy



Source: Bloomberg, The Green Papers, as of December 31, 2019.

7) Dealing with Disruption in politics

A (possibly) long Democratic primary due to a crowded race, proportional allocation of delegates + less party power

Date	% of total delegates	Cumulative % of total delegates
Mar 3: Super Tuesday	37%	41%
Mar 10	13%	56%
Mar 17	13%	69%
Apr 28	15%	87%
June 2-16	6%	100%

We could see a winnowing of the race by early March

The *earliest* we could see a candidate secure a majority of delegates

New York and Pennsylvania could be important

If no candidate has a simple majority of delegates by June, we could see a brokered convention in July

Source: Bloomberg, The Green Papers, as of December 31, 2019.

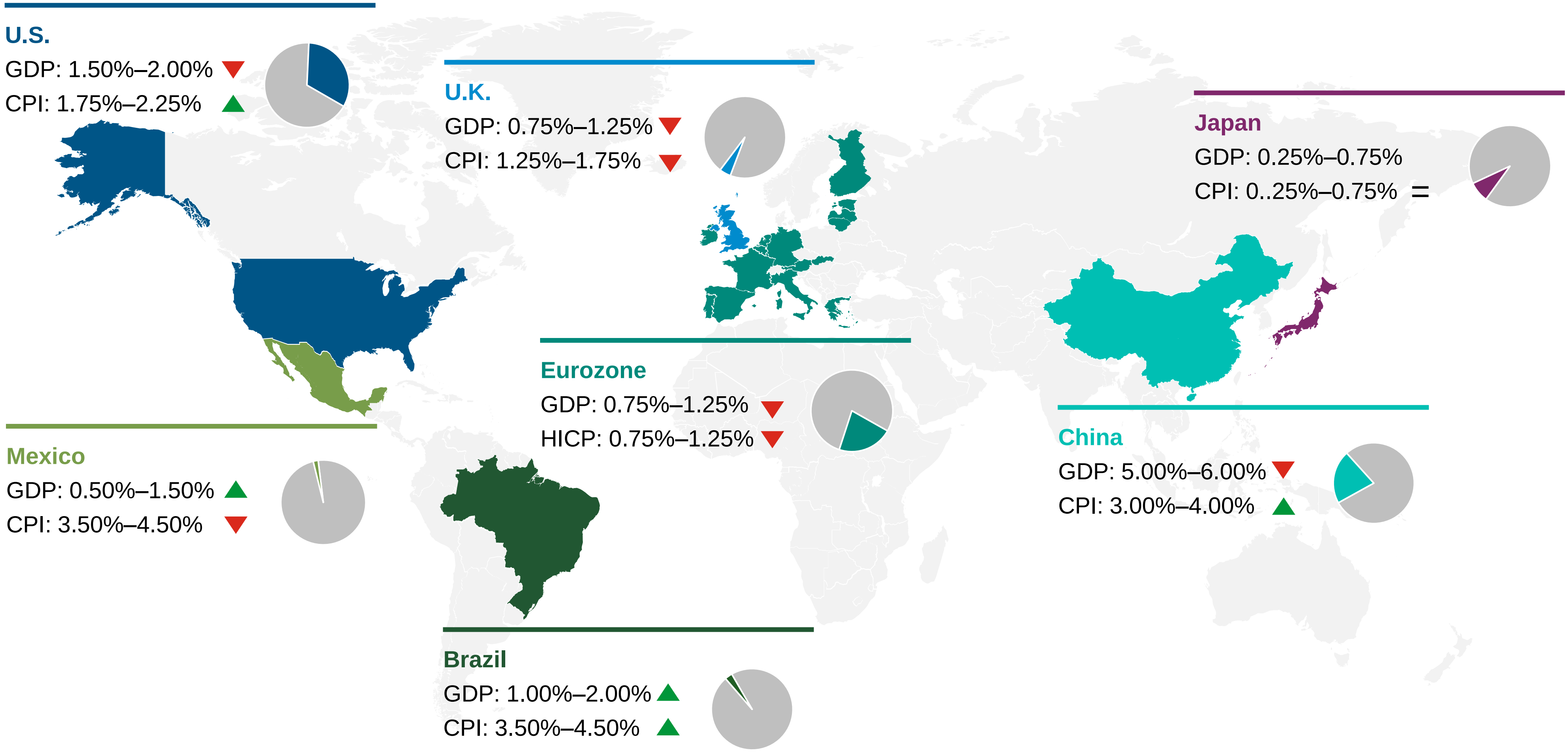
7) Dealing with Disruption from unrest in emerging markets

Protests increasingly frequent, geographically dispersed and with varied drivers

Recent Protests in EM

As of 28 November 2019. SOURCE: PIMCO

PIMCO's 2020 Cyclical Outlook



For illustrative purposes only.
PIMCO forecast ranges as of December 2019
Real GDP and inflation projections reflect the midpoints of PIMCO's forecast ranges.
Refer to Appendix for additional forecast, outlook and risk information.

Seven Macro Themes for 2020

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Source: PIMCO

PIMCO

European Cyclical Outlook

January 2020

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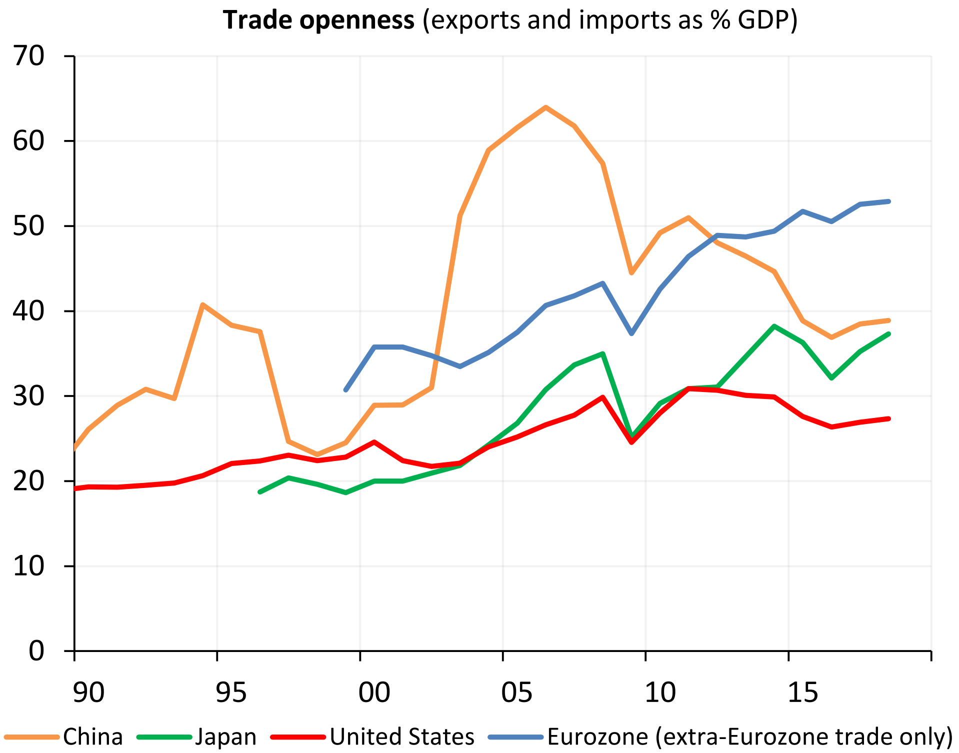
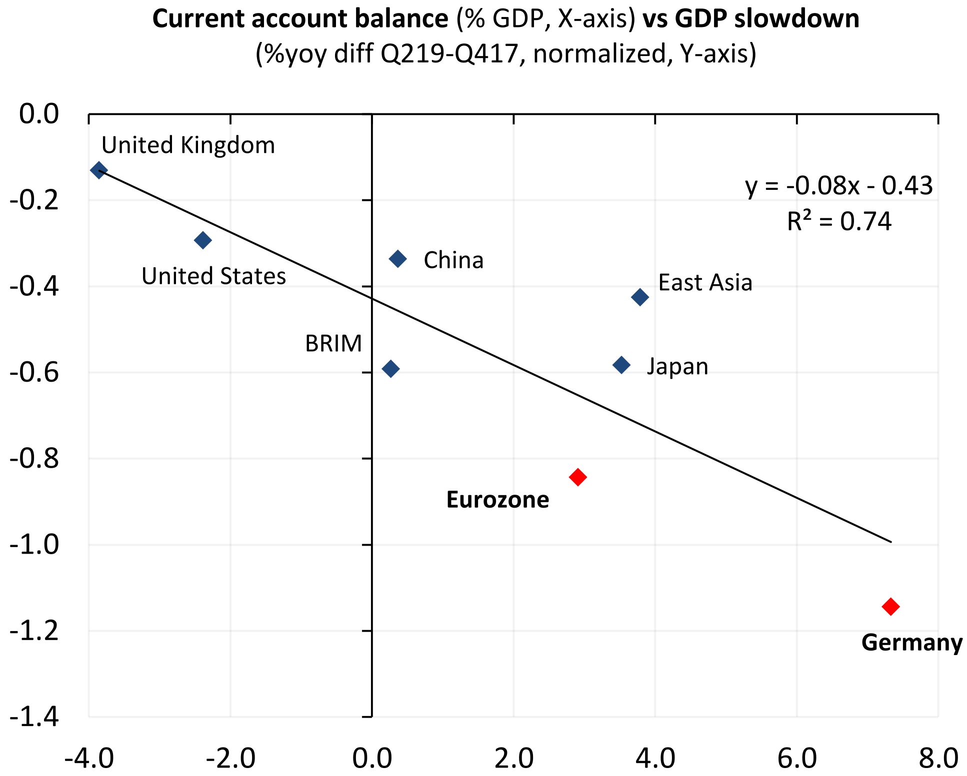
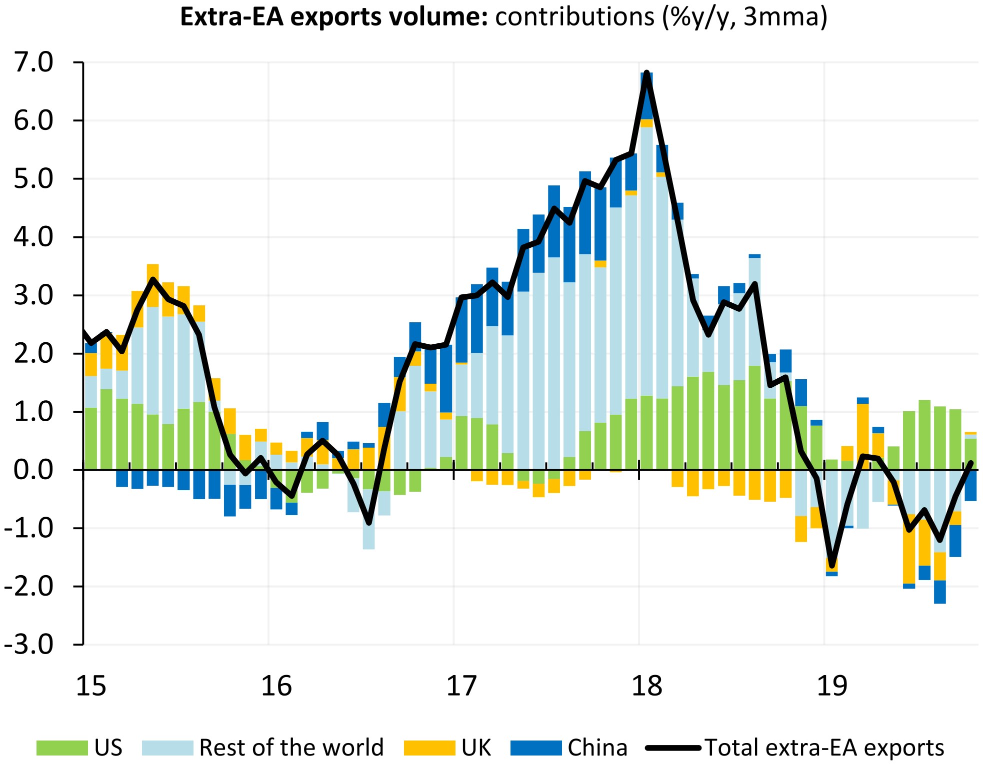
Most open economies were hit the hardest during the trade-driven slowdown

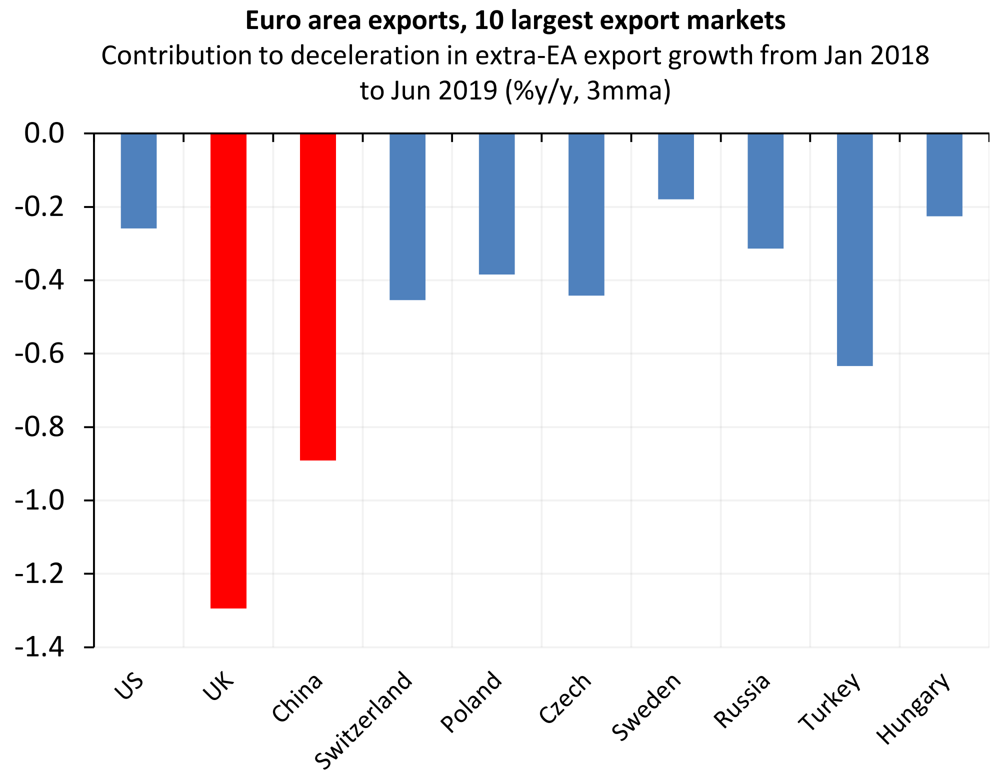




Source: PIMCO, IMF, various statistics offices.

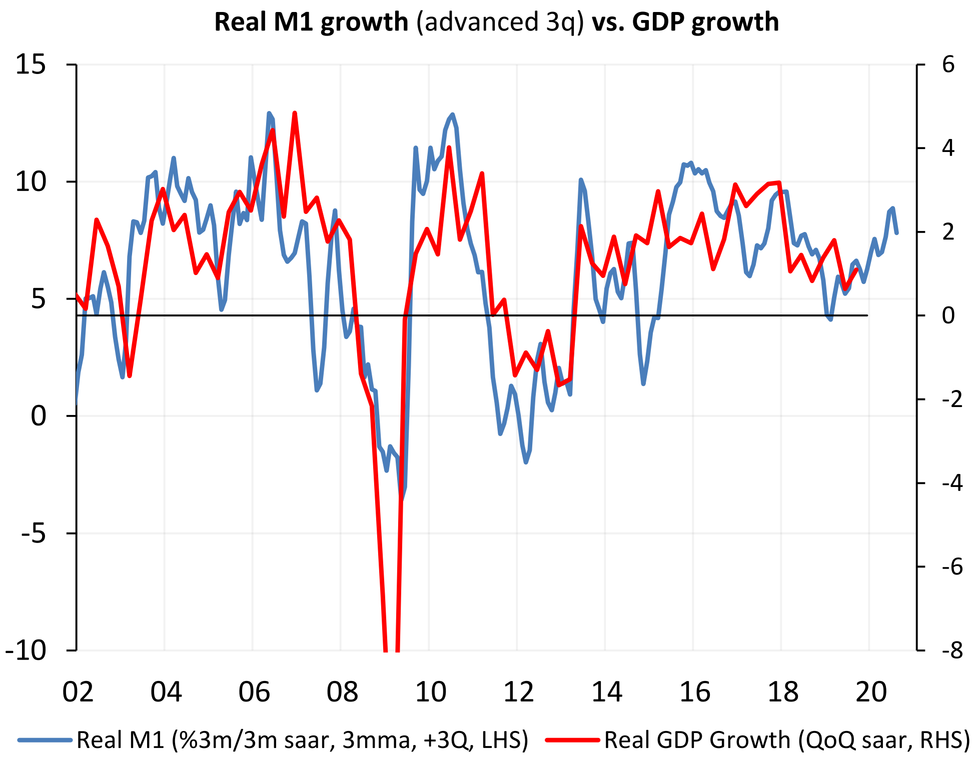
Eurozone exports slowed sharply and have room to rebound

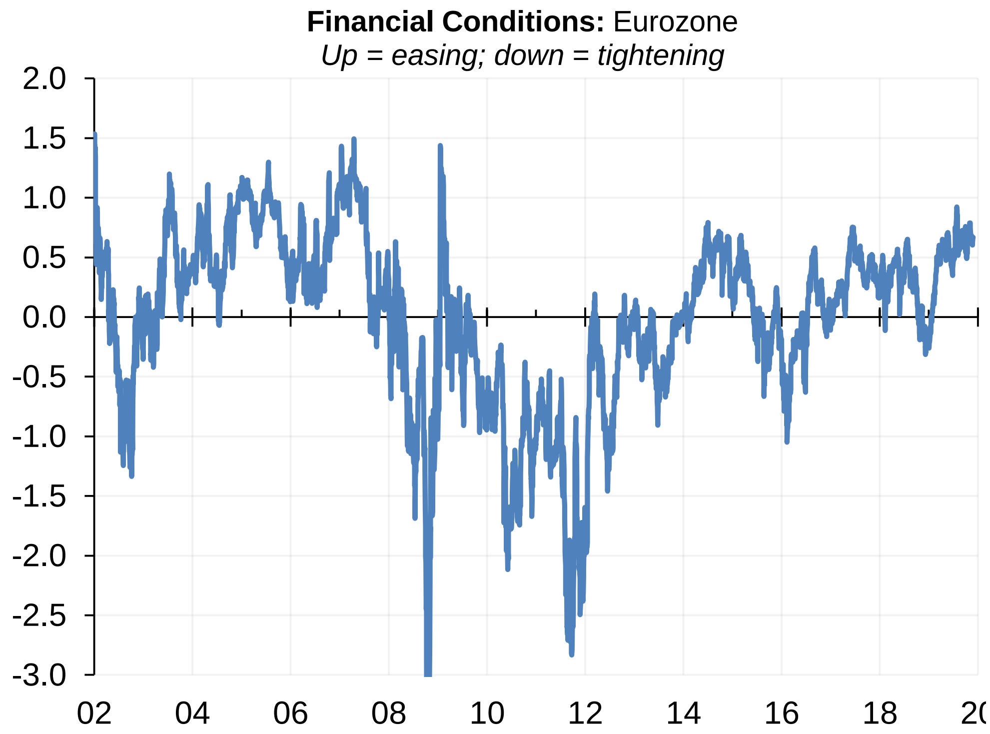




Source: PIMCO, Eurostat.

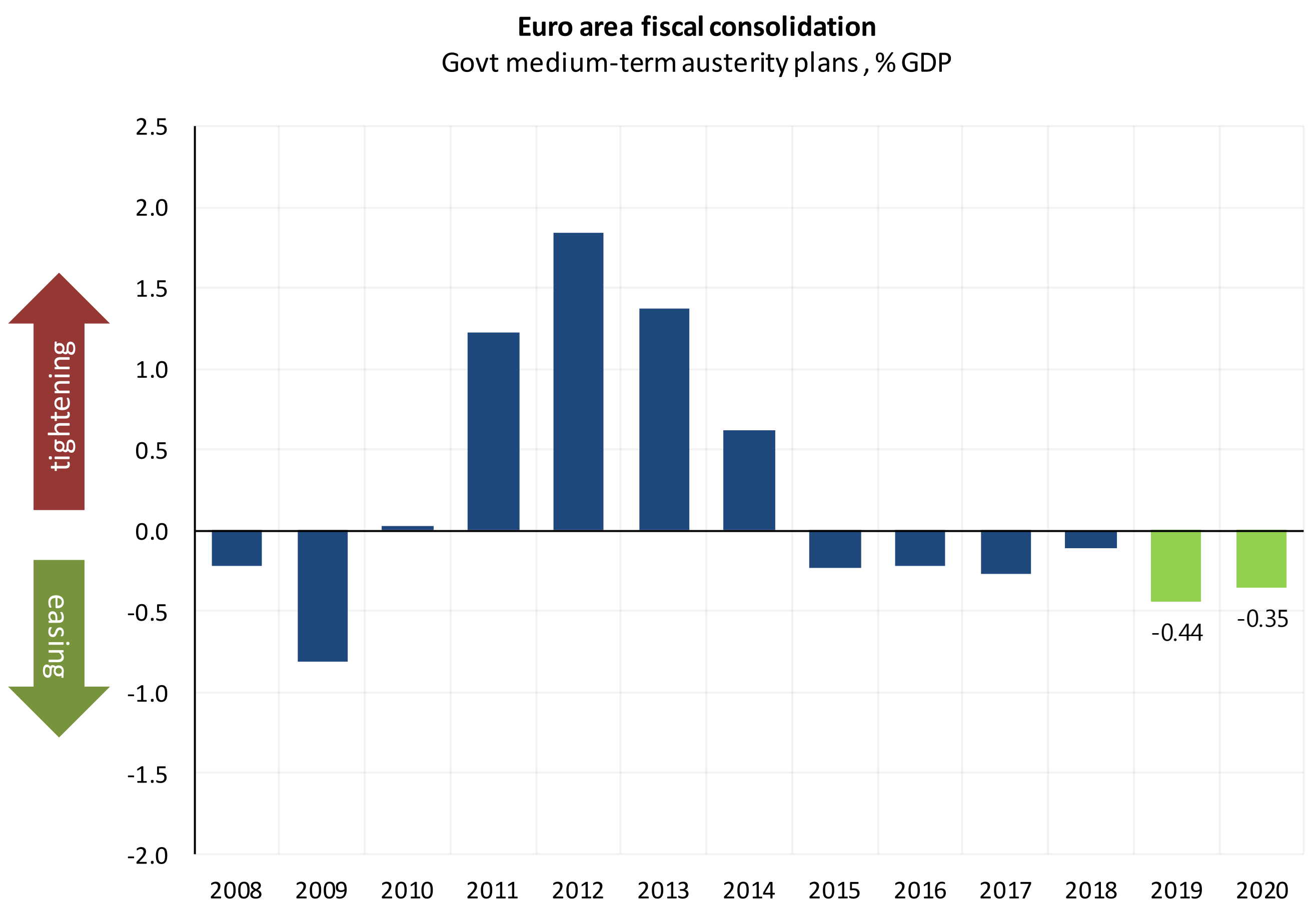
Financial / credit conditions remain supportive





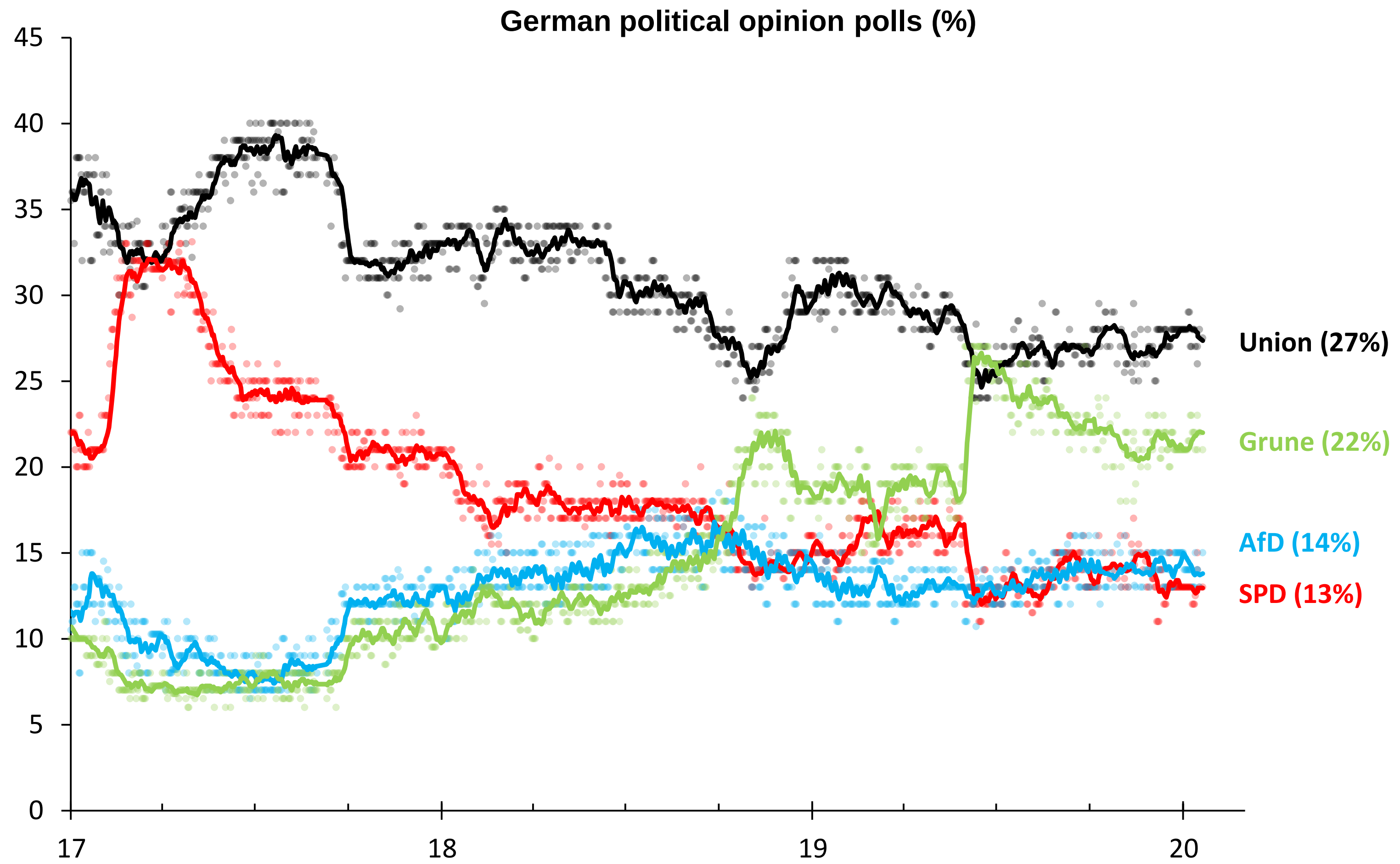
Source: PIMCO, Bloomberg, Markit, various central bank and statistics offices.

Fiscal policy also a modest boost



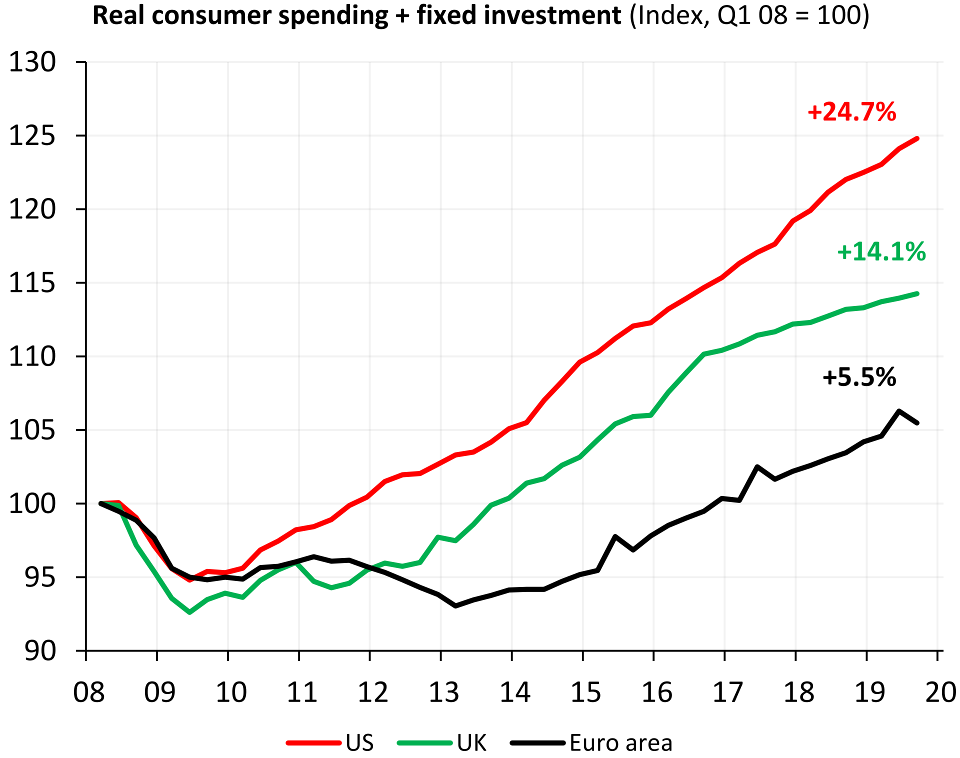
As of December 2019.
SOURCE: PIMCO, European Commission.

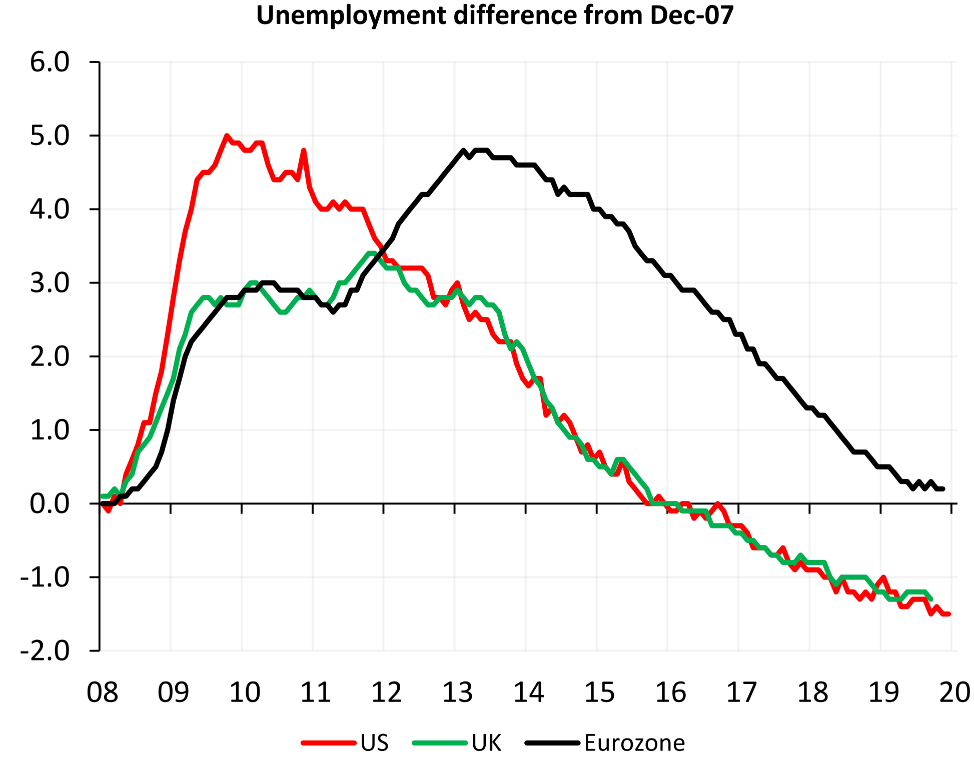
Large fiscal package not the base case though



Source: PIMCO, various pollsters. *Note:* Solid line is a 10-poll moving average.

Scope for pent up demand to be released in the Eurozone

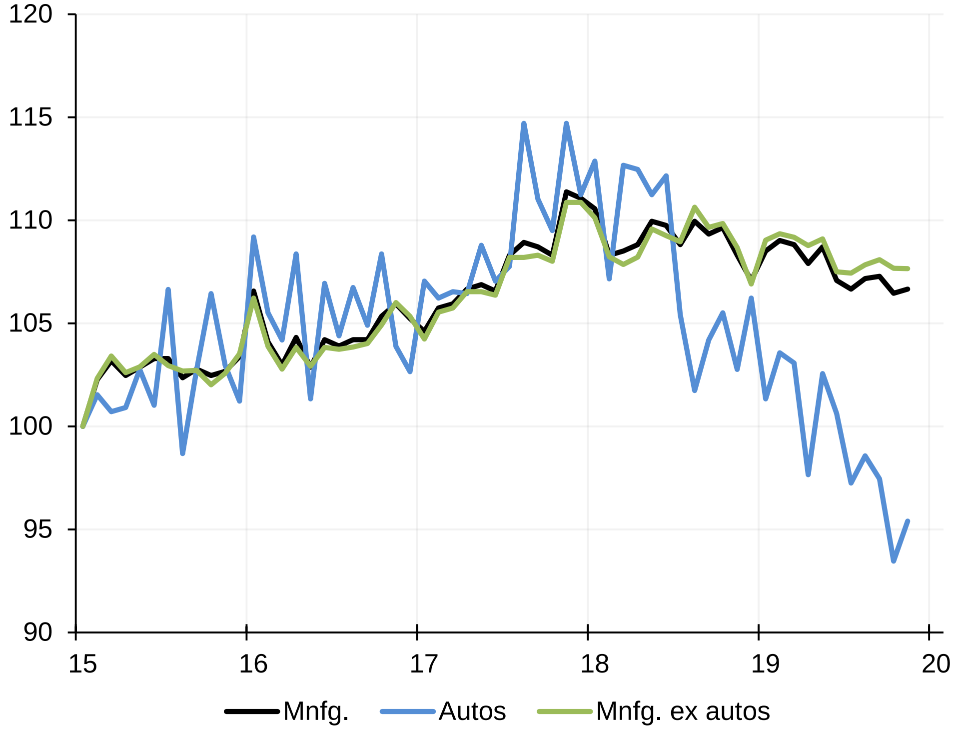




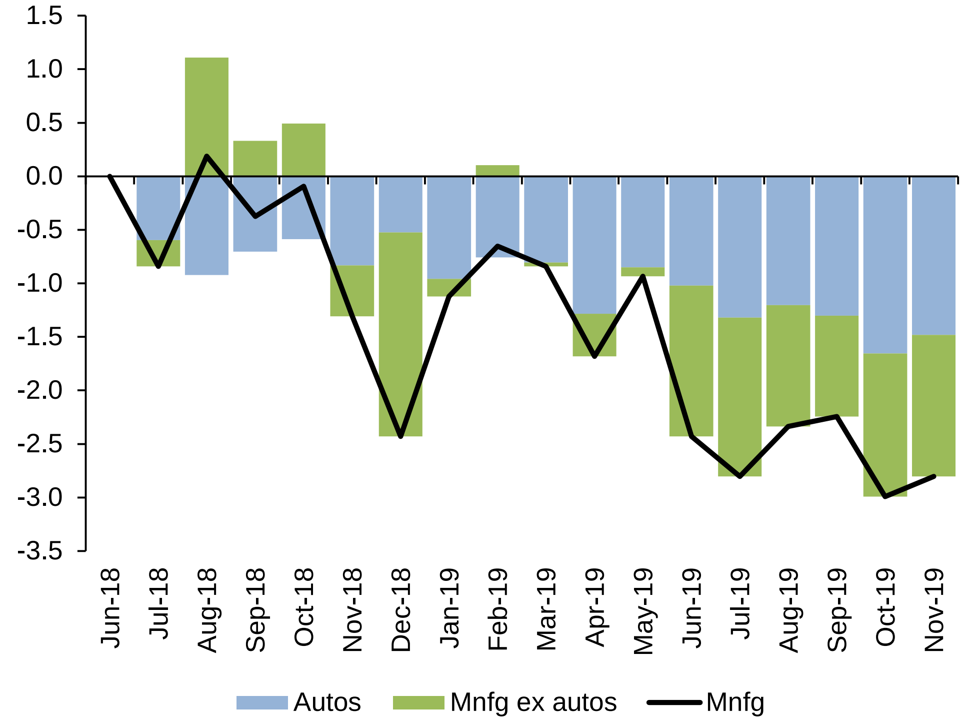
Source: PIMCO, various statistics offices.

Auto sector remains a headwind

Eurozone: Manufacturing (Index, 2015 = 100)

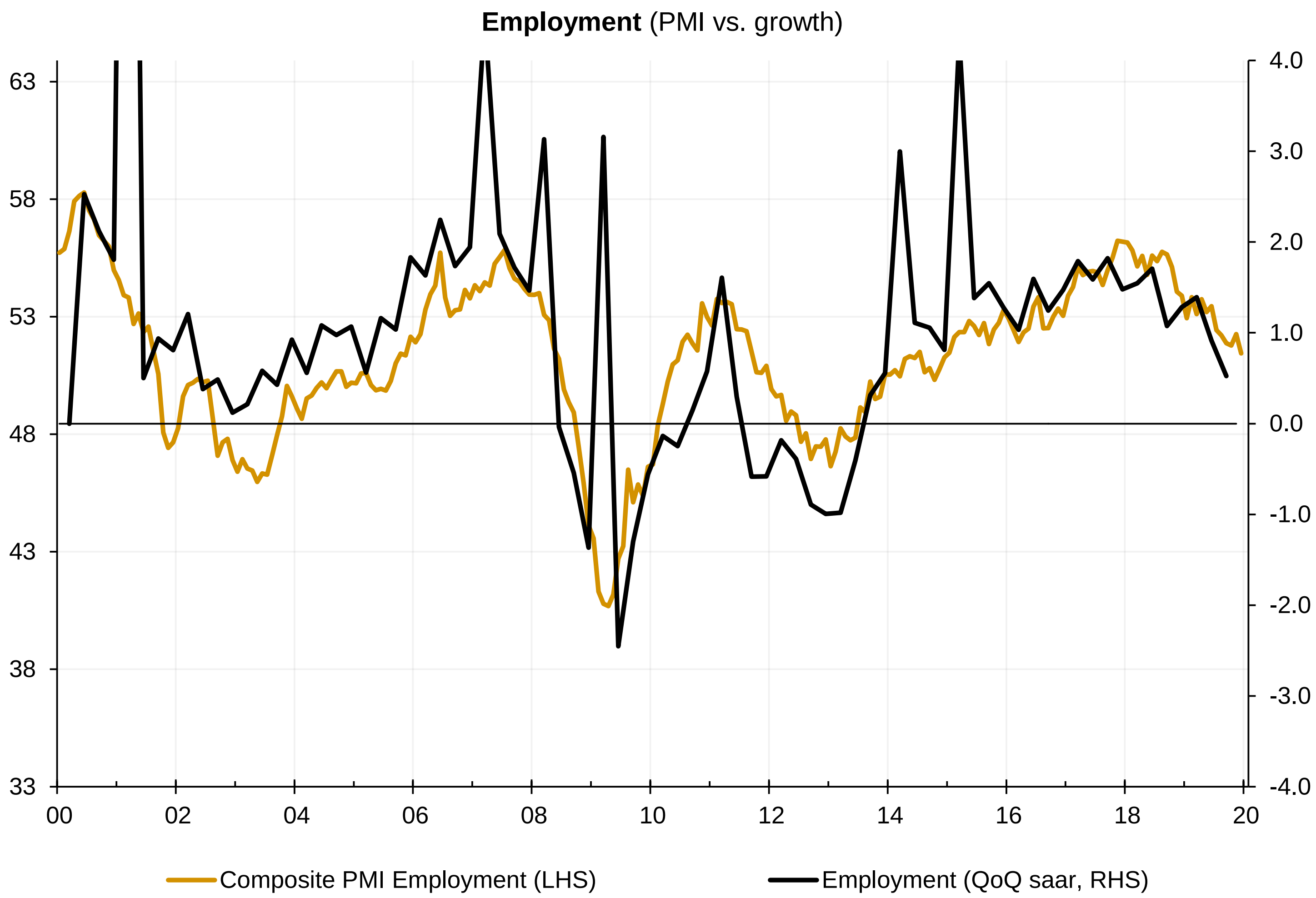


Cumulative decline (%) **in manufacturing:** Contribution



Source: PIMCO, various statistics offices.

Weakness “hangover” weighing on the labour market



Source: PIMCO, Markit, Eurostat.

Volatile politics still a headwind

Key political considerations for 2020

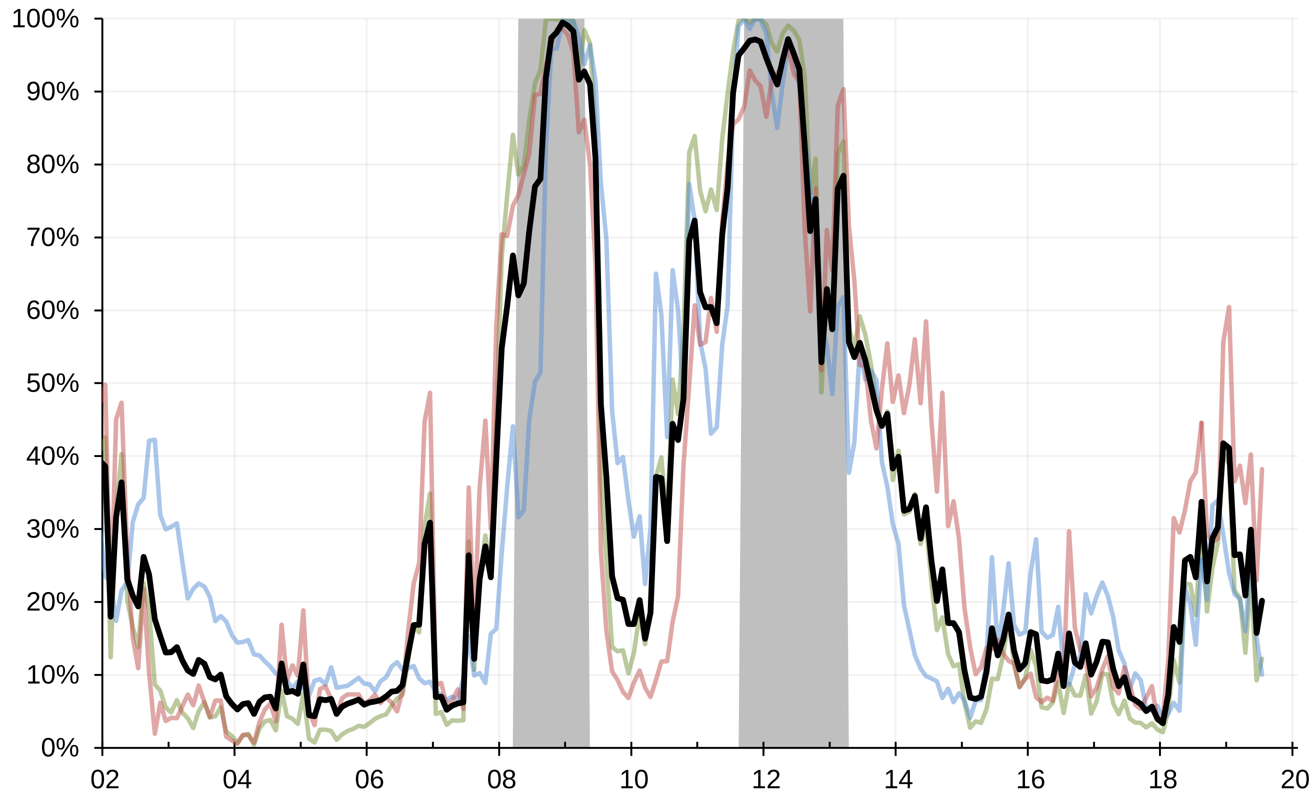
- ? US-China “fragile truce”
- ? US-EU trade disputes still a risk (auto tariffs not yet off the table)
- ? Italian politics remains volatile
- ? More Brexit drop-dead dates this year

Source: PIMCO.

On balance, recession risks have fallen

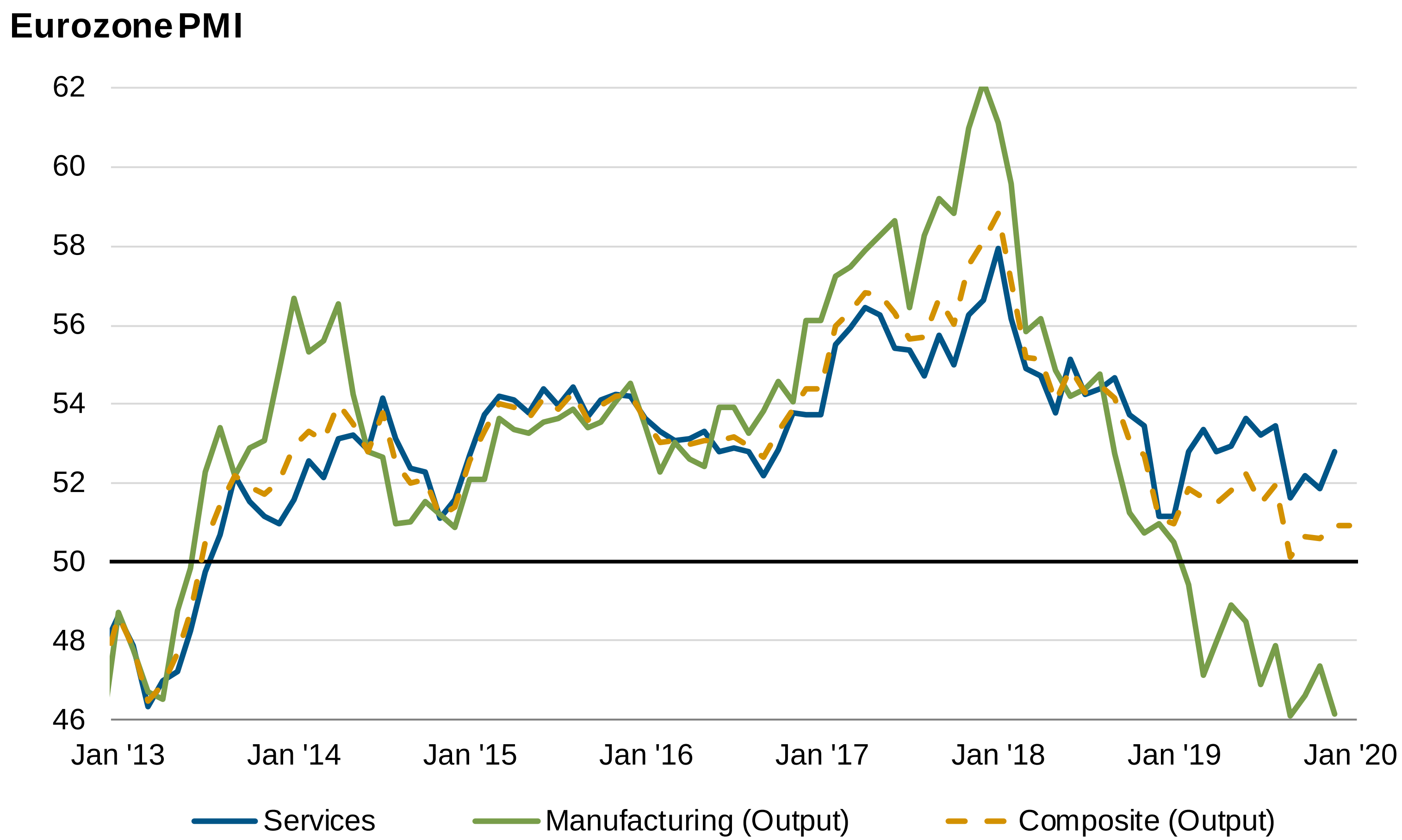
- Lower sovereign and corporate spreads have eased financial conditions , and lowered the recession probability in our models.

Recession Probability: Eurozone



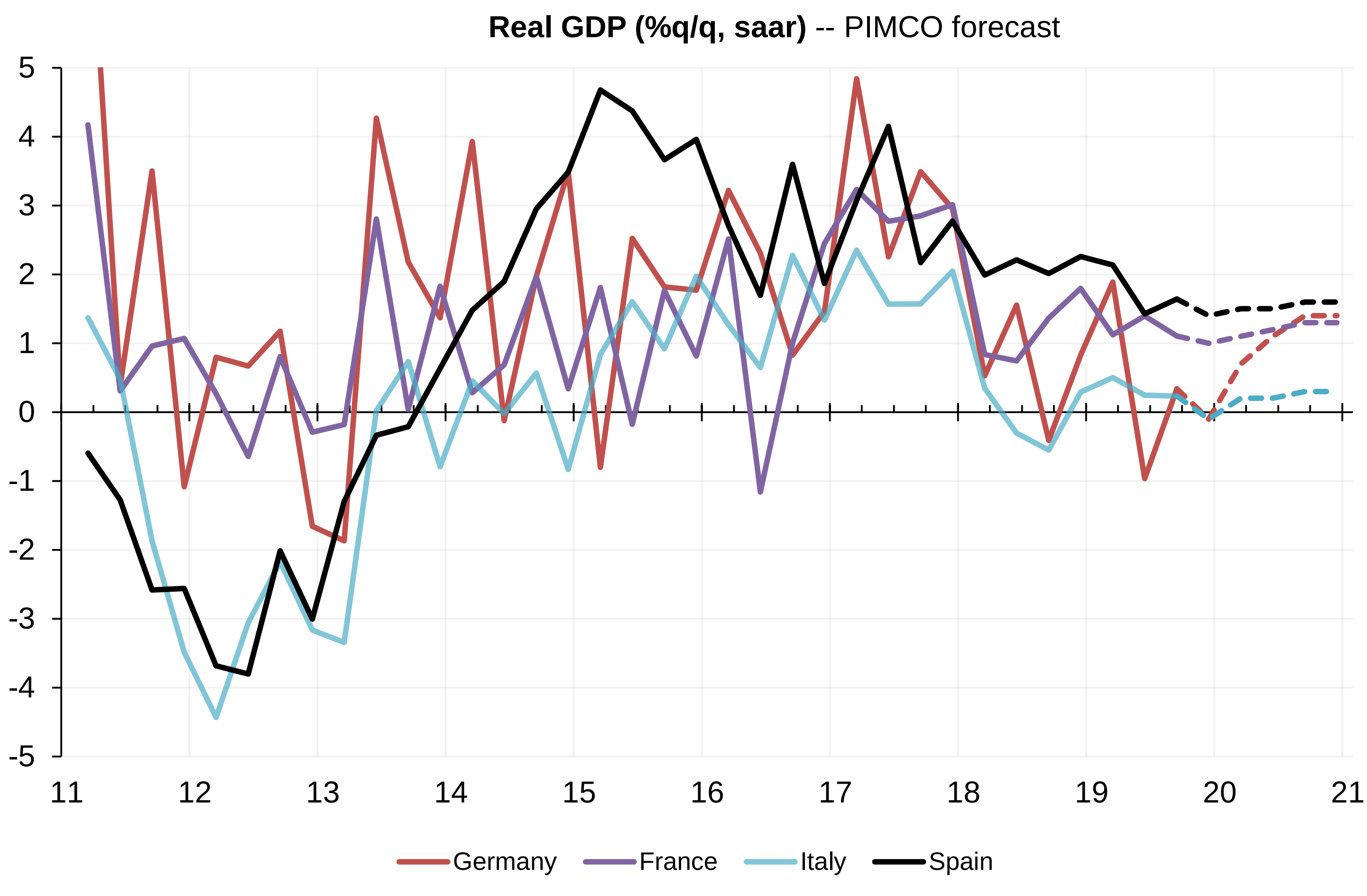
Source: PIMCO, various statistics offices, Bloomberg.

Tentative signs of a turn in activity



As of January 2020.
SOURCE: PIMCO, Eurostat, Markit, Haver.

We expect a gradual reacceleration ahead , led by Germany

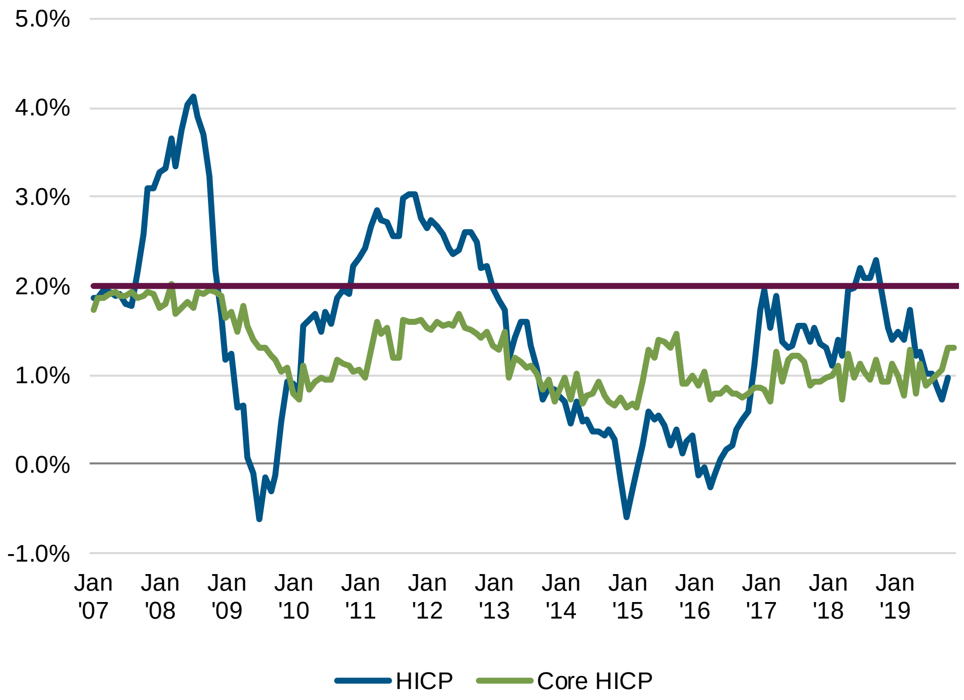


As of December 2019.
SOURCE: PIMCO, Eurostat, Markit, Haver.

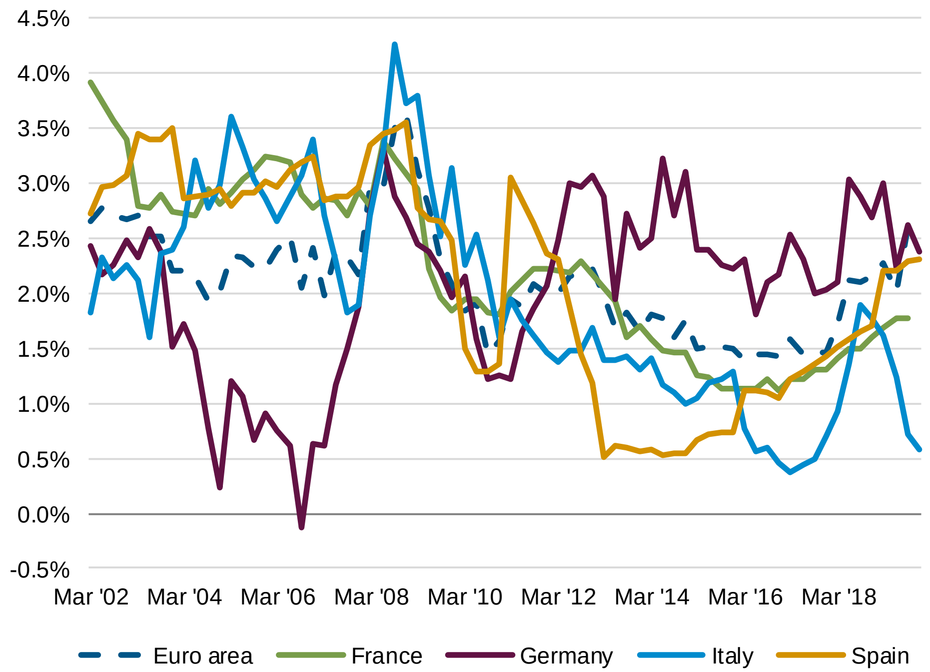
Inflation to remain well below target through 2020

- Inflation looks set to remain low. We see some pass-through of recent wage increases into core services inflation. But the rise is likely to be muted, as wage inflation is likely to flat-line in an environment of weaker growth.

Eurozone inflation, %yoy



Collective wage bargaining (% yoy)



As of December 2019.
SOURCE: PIMCO, Haver, Eurostat.

ECB on autopilot: Negative policy rates and QE infinity

Actions from September Meeting

- ✓ 10bps rate cut to -0.5%, rates low until ECB sees meaningful uptick in inflation
- ✓ Strengthen forward guidance on rates & reconfirm forward guidance on reinvestments
- ✓ Restarting asset purchase program (APP) at €20bn until further notice
- ✓ TLTRO borrowing costs are cut, operation extended from two to three years
- ✓ Tiering on excess deposits for banks

"The answer is fiscal policy."

- ECB signaling to fiscal policymakers that interest rate policy has reached its limits, but asset purchases will be there to support fiscal policy for as long as necessary.
- The ECB has, like the BoJ, handed over the baton to elected government officials

Expect the ECB to keep rates unchanged over the cyclical horizon

- Given proximity to effective lower bound and greater focus on fiscal policies we expect the ECB's focus from here to remain on forward guidance, TLTROs and asset purchases

Source: PIMCO, Bloomberg

Where do yields go from here?

Base case

- PIMCO's expectation is that risk free yields will **remain at or close to current levels for the foreseeable future**

Rates Moving Lower

- Negative rate policy does **not have much further room to run** given risk of:
  - Impairment to banking system
  - Challenges for other parts of financial system (insurance companies, pension schemes)
  - Negative nominal rates encouraging more, not less, savings

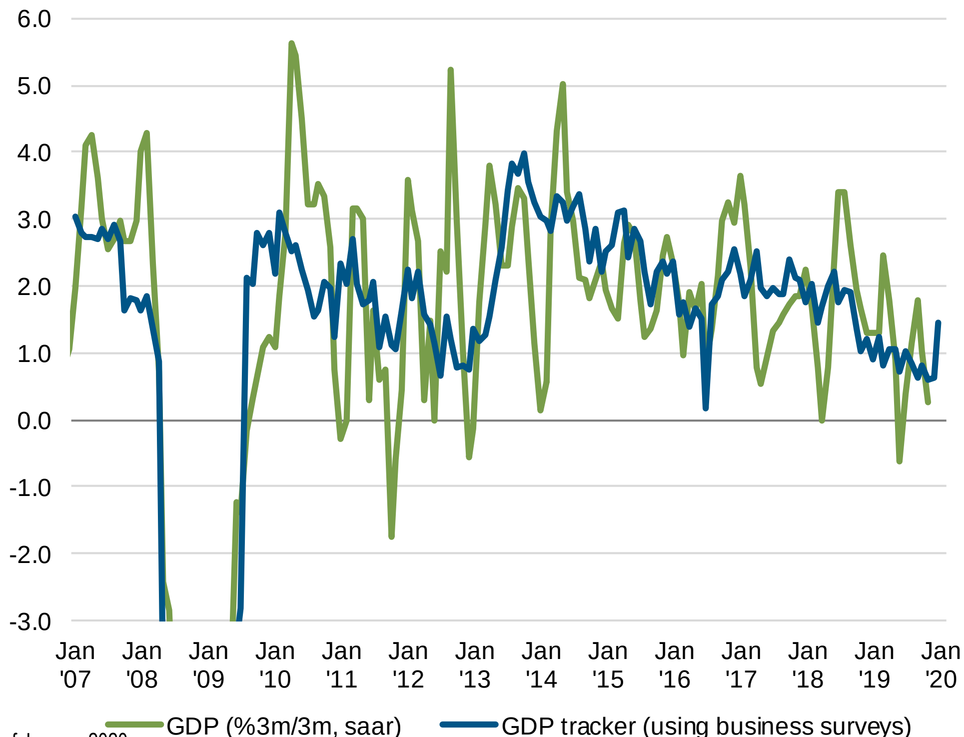
Rates Moving Higher

- ECB unlikely to increase policy rate in the foreseeable future;
  - Outlook for both growth and inflation remain subdued
  - Efficacy of policy in question
  - Signalling increase would have an adverse effect on Euro
- **Inflation surprise** to upside may move rates higher
  - Would require a shift in fiscal policy in Germany, likely as a result of government change
- A **lift in global interest rates** (e.g. action by the US Fed) could have contagion effects for sovereign yields in the Eurozone

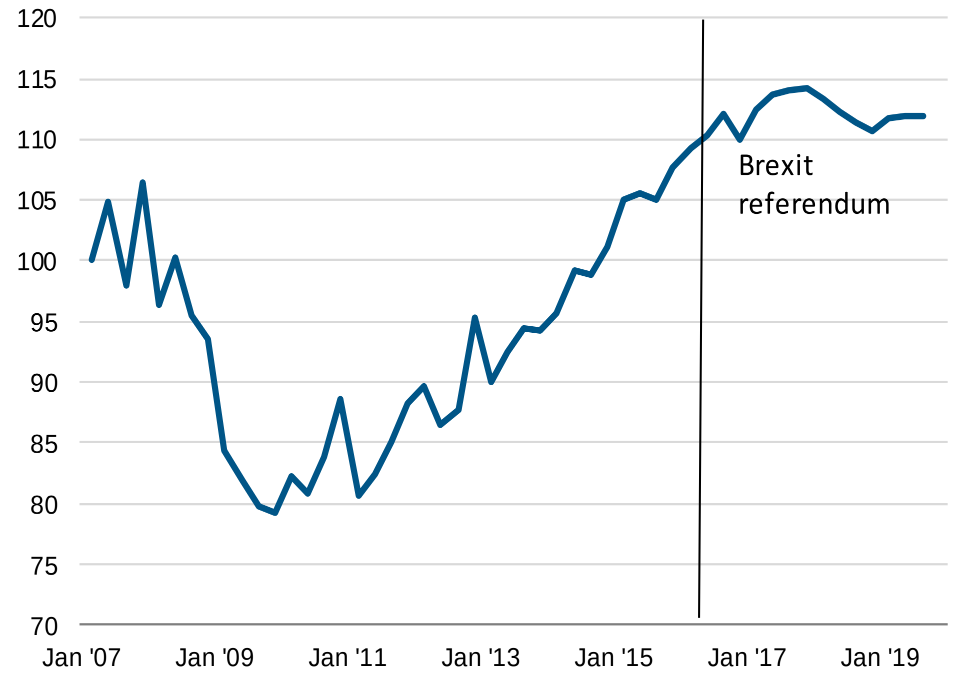
UK: Volatile but slowing GDP growth

- GDP growth has been choppy, largely because of Brexit-related factors. Through the noise, underlying growth has slowed to below trend.
- We expect a modest and gradual recovery through 2020, as global trade improves and fiscal easing feeds through in the second half of the year. Against that, uncertainty about the precise future trading arrangement between the EU and UK will likely continue to weigh on business investment and sentiment.

UK: Growth tracking



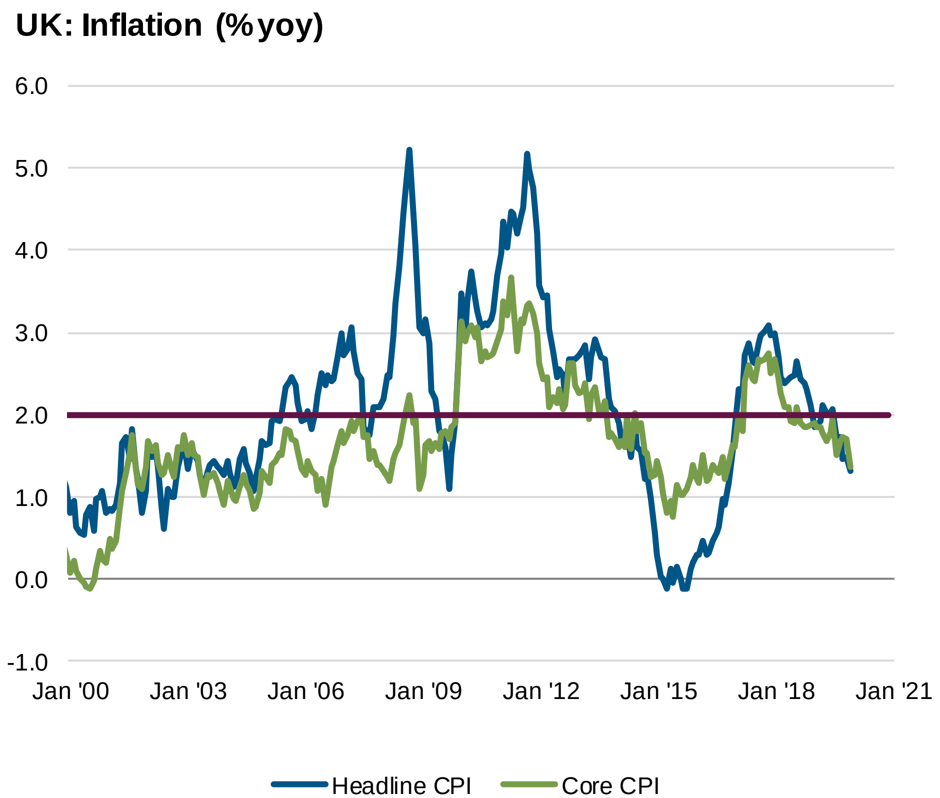
Business investment (index, 2007 =100)

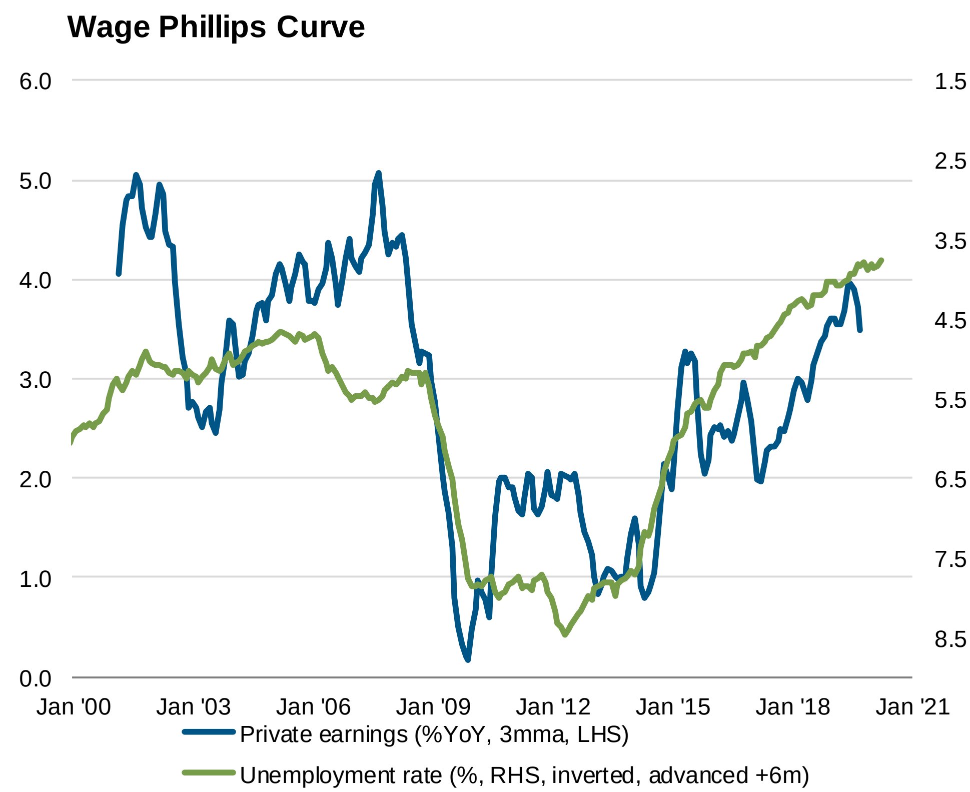


As of January 2020
SOURCE: PIMCO, Markit

UK: Inflation to remain subdued

- Inflation looks set to be below the Bank of England's 2% target in 2020, in part because of scheduled cuts in regulated electricity and energy prices.
- Wage growth remains relatively high, but we do not expect it to meaningfully feed into higher consumer prices



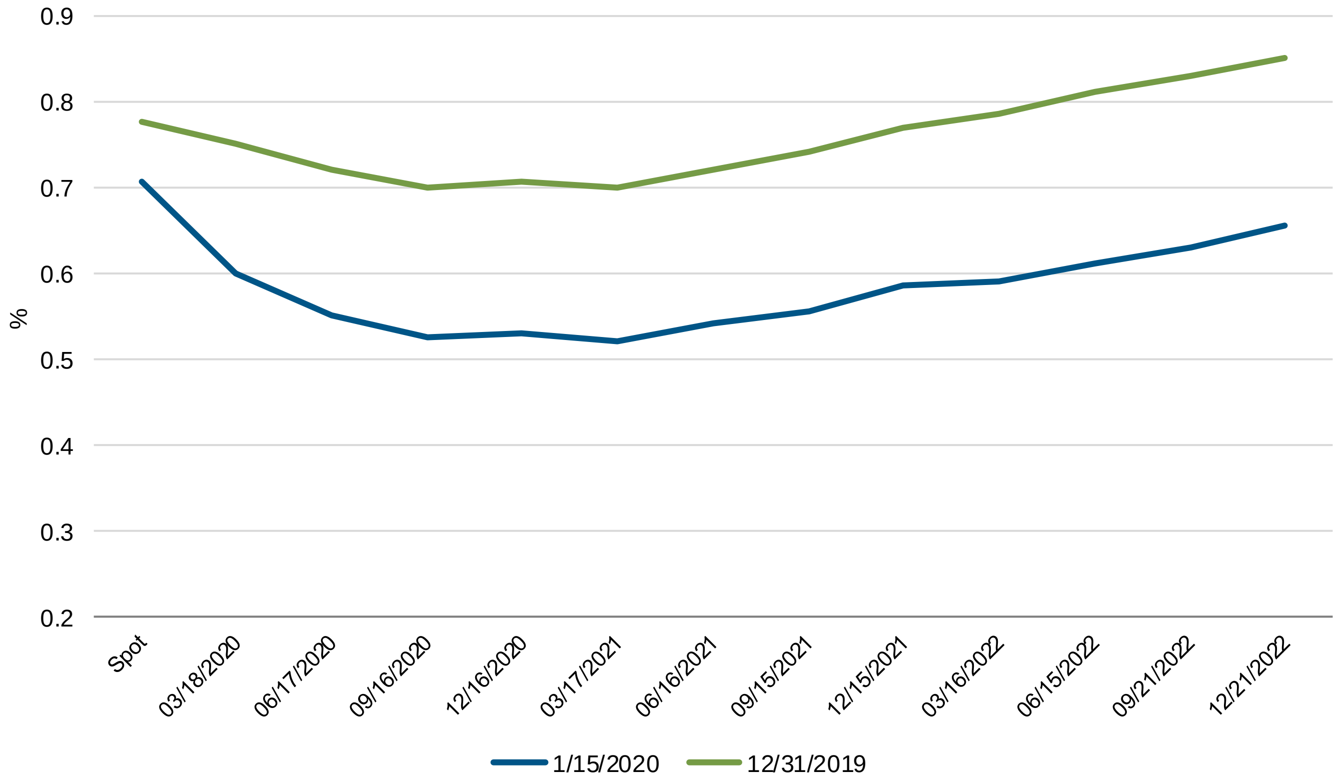


As of December 2019
SOURCE: ONS, PIMCO

UK: We expect the BoE to remain on hold, with risk tilted towards a cut in the first half of the year

- We expect the BoE to be on hold in the near term, conditional on a modest pickup in domestic activity in the coming months. If activity fails to pick up, we expect the BoE to cut its policy rate in the first half of the year.

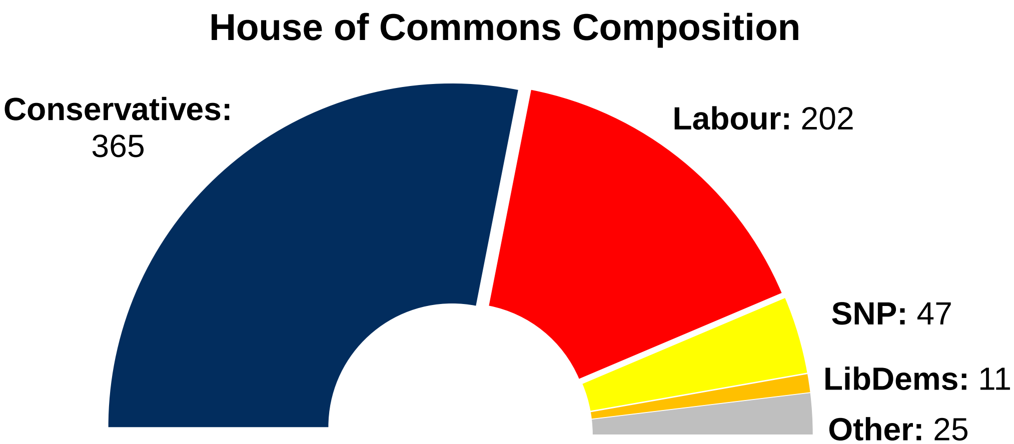
UK short term interest rate expectations



As of 31 December 2019
SOURCE: London International Financial Futures & Options Exchange (LIFFE)
Refer to Appendix for additional outlook information.

UK: Brexit… The end of the beginning

- With an outright majority of 80 seats, PM Johnson can govern without having to pander excessively to the right wing of the Conservative party or Northern Ireland's DUP.
- We expect the UK and EU to negotiate a limited free trade agreement, concentrated on goods. If the trade negotiations are inconclusive, we expect the EU to agree to a very narrow deal or to implement temporary side deals, in effect smoothing the transition into WTO trading terms. In any event, we see the risk of the UK ending the transition period with no deal as low.



Key dates on the current Brexit timeline

Jan 31: UK leaves EU but stays in transition period

↓

March: UK-EU trade negotiations begin

↓

June 30: Deadline to extend the transition period

↓

Dec 31: Transition period set to end

As of December 2019
SOURCE: House of Commons, PIMCO

Key European investment themes

Interest Rate Exposure	• Favour US treasuries over European or UK government bonds • Within German government bonds (Bunds), focus on 10 year point of the curve vs shorter/longer ends
Regional Focus	• Modest overweight to peripheral Eurozone countries, particularly Italy and Spain given attractive spreads and a supportive stance from the ECB
Volatility	• Sell Volatility on European rates as it continues to appear elevated relative to the level of rates
Financials	• Favour financial credits, in particular in the UK given strong capital, a more liquid balance sheet and attractive valuations • Favour exposure to select peripheral banks
Securitized	• We view securitized credit favorably, particularly UK RMBS and Danish callable mortgages, AAA rated assets which are an attractive source of "safe spread"
Currency	• Modest overweight to GBP based on our view of a more organized Brexit outcome

Source: PIMCO.

Appendix

Past performance is not a guarantee or a reliable indicator of future results.

Forecast
Forecasts, estimates and certain information contained herein are based upon proprietary research and should not be interpreted as investment advice, as an offer or solicitation, nor as the purchase or sale of any financial instrument. Forecasts and estimates have certain inherent limitations, and unlike an actual performance record, do not reflect actual trading, liquidity constraints, fees, and/or other costs. In addition, references to future results should not be construed as an estimate or promise of results that a client portfolio may achieve.

Hypothetical Example
Hypothetical example for illustrative purposes only. Hypothetical and simulated examples have many inherent limitations and are generally prepared with the benefit of hindsight. There are frequently sharp differences between simulated results and the actual results. There are numerous factors related to the markets in general or the implementation of any specific investment strategy, which cannot be fully accounted for in the preparation of simulated results and all of which can adversely affect actual results. No guarantee is being made that the stated results will be achieved.

Investment Strategy
There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest long-term, especially during periods of downturn in the market.

Outlook
Statements concerning financial market trends are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions, and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market. Outlook and strategies are subject to change without notice.

Risk
Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and the current low interest rate environment increases this risk. Current reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. **Commodities** contain heightened risk, including market, political, regulatory and natural conditions, and may not be suitable for all investors. **Currency rates** may fluctuate significantly over short periods of time and may reduce the returns of a portfolio. **Derivatives** may involve certain costs and risks, such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. **Equities** may decline in value due to both real and perceived general market, economic and industry conditions. Investing in **foreign-denominated and/or -domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in emerging markets. **Sovereign securities** are generally backed by the issuing government. Obligations of U.S. government agencies and authorities are supported by varying degrees, but are generally not backed by the full faith of the U.S. government. Portfolios that invest in such securities are not guaranteed and will fluctuate in value.

Appendix

High yield, lower-rated securities involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Mortgage- and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and while generally supported by a government, government-agency or private guarantor, there is no assurance that the guarantor will meet its obligations. Income from **municipal bond**s may be subject to state and local taxes and at times the alternative minimum tax. **Swaps** are a type of derivative; swaps are increasingly subject to central clearing and exchange-trading. Swaps that are not centrally cleared and exchange-traded may be less liquid than exchange-traded instruments. **Inflation-linked bonds (ILBs)** issued by a government are fixed income securities whose principal value is periodically adjusted according to the rate of inflation; ILBs decline in value when real interest rates rise. Treasury Inflation-Protected Securities (TIPS) are ILBs issued by the U.S. government. Certain **U.S. government securities** are backed by the full faith of the government. Obligations of U.S. government agencies and authorities are supported by varying degrees but are generally not backed by the full faith of the U.S. government. Portfolios that invest in such securities are not guaranteed and will fluctuate in value.

Strategy Availability

Strategy availability may be limited to certain investment vehicles; not all investment vehicles may be available to all investors. Please contact your PIMCO representative for more information.

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