

Global Scenarios

Oxford Economics Global Scenario Service

June 2019

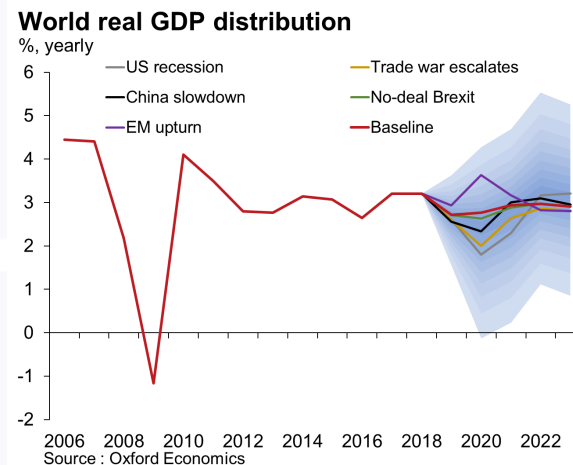
ABOUT OXFORD ECONOMICS

- **Oxford Economics is a world leader in global forecasting and quantitative analysis.** Our worldwide client base comprises over 1,500 international corporations, financial institutions, government organisations, and universities.
- **Founded in 1981 as a commercial venture with Oxford University's business college,** Oxford Economics is now a leading independent economic consultancy.
- **Headquartered in Oxford, with offices around the world,** we employ over 300 people, including 200 economists.
- **Our best-of-class global economic and industry models and analytical tools** give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.



GLOBAL SCENARIO SERVICE

- Our quarterly **Global Scenario Service** provides timely updates on the outlook to global risks and alternative scenarios.
- **Global Risk Survey** informs choice of scenarios.
- Scenarios Quantified using the Oxford **Global Economic Model**.



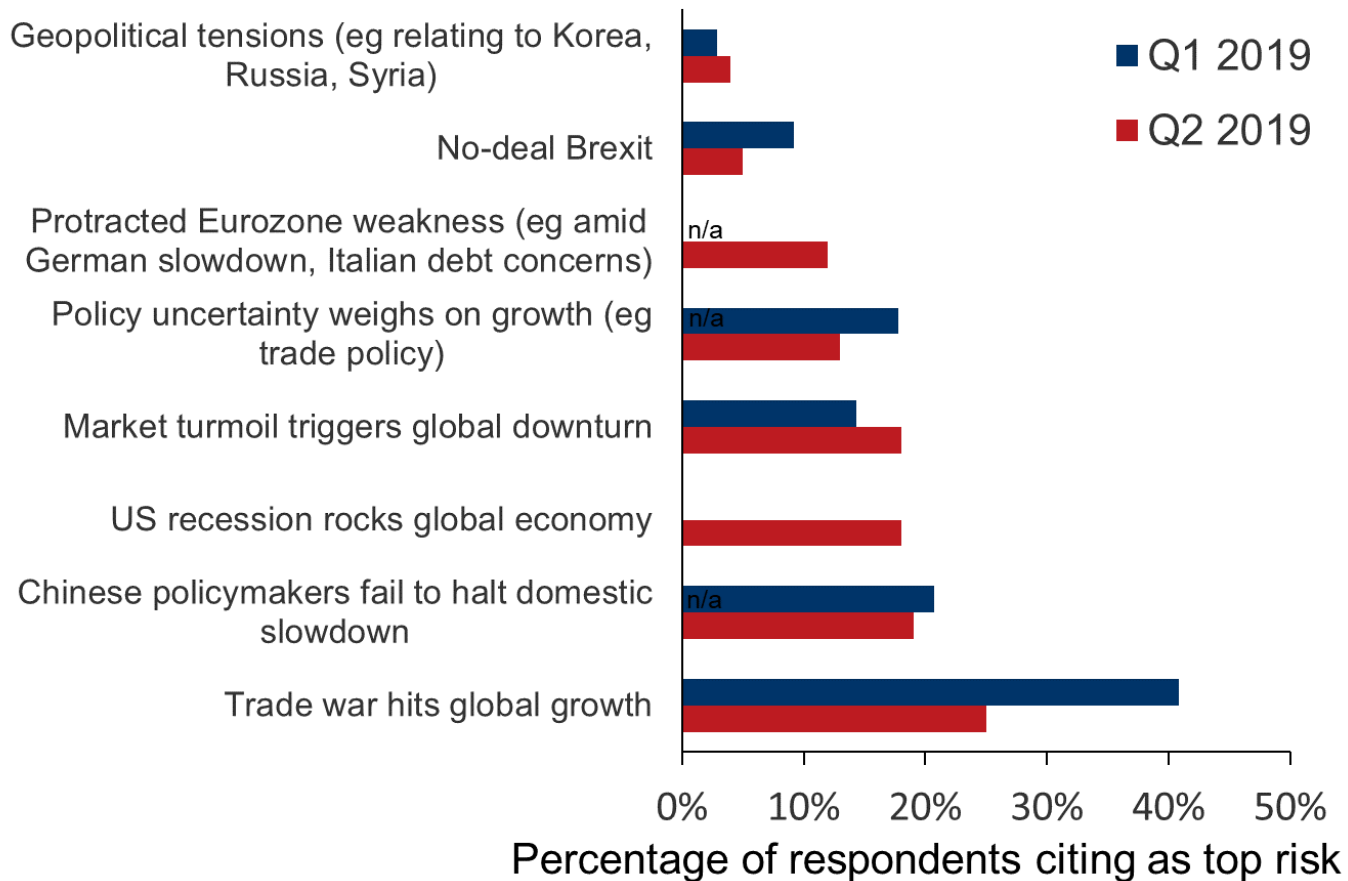
DRIVERS BEHIND THE MODEL

- The Oxford model is an eclectic model designed to capture the key relationships in the global economy.
 - Keynesian in the short run
 - Neo-classical in the long run
- In the short run, shocks to demand will generate economic cycles that can be influenced by fiscal and monetary policy.
- But over the long-run, output is determined by supply side factors: investment, demographics, labour supply, and productivity.



Trade war dominates...with the US an emerging concern

What do you see as the top 3 downside global economic risks over the next two years?



Source : *Oxford Economics Global Risk Survey*

Q2 2019 GSS scenarios

- 1. US recession**
- 2. Trade war escalation**
- 3. China slowdown**
- 4. No-deal Brexit**
- 5. EM upturn as trade war fears fade**

Scenarios quantified using the Oxford Global Economic Model



Trade War Escalation

15% GSS Weight

Trade War Escalation – scenario outline

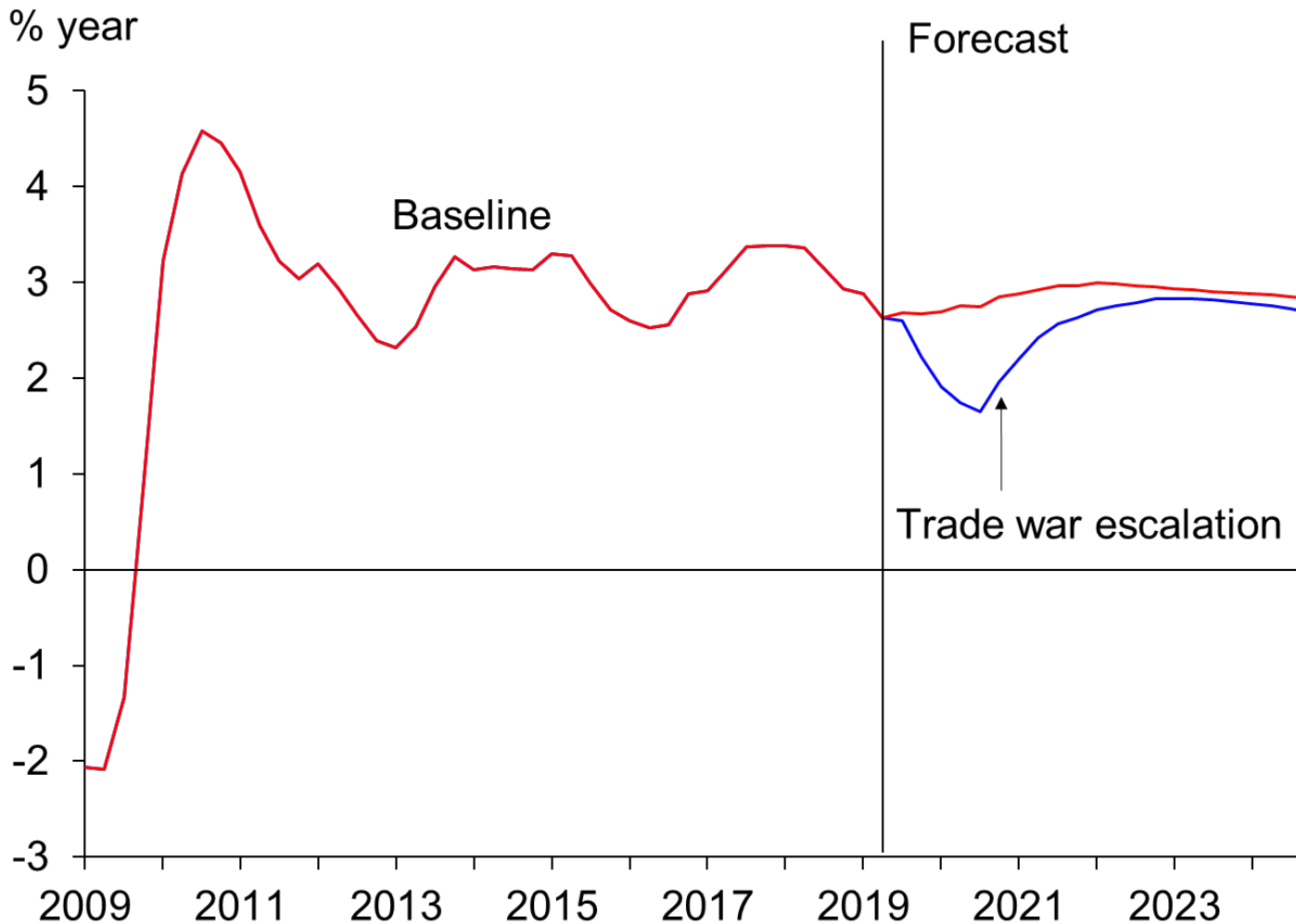
- **Trade tensions escalate dramatically on 4 fronts**

The US imposes:

- (i) 25% tariffs on goods imports from China
- (ii) 25% tariffs on goods imports from Mexico
- (iii) 25% tariffs on goods imports from the global auto sector
- (iv) 10% tariffs on goods imports from the EU
- In each case, trading partners **retaliate in kind**
- **Financial markets react immediately:** equities fall back sharply; advanced economy bond yields are compressed but EM risk premia rise; and the US dollar appreciates across most currencies

Global growth slows sharply...

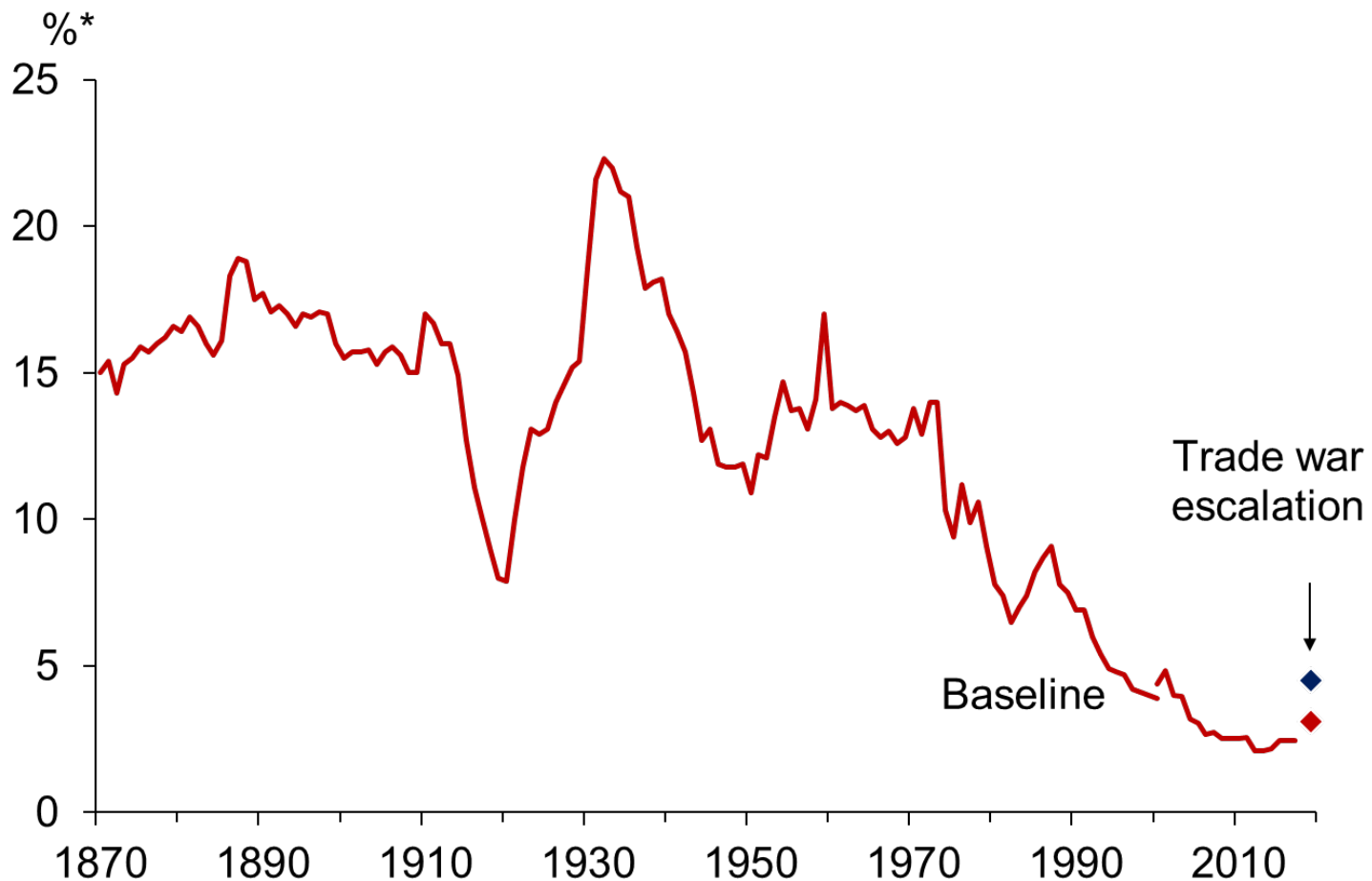
World: GDP



Source : Oxford Economics/Haver Analytics

...in response to the substantial rise in tariffs

World average tariff rate



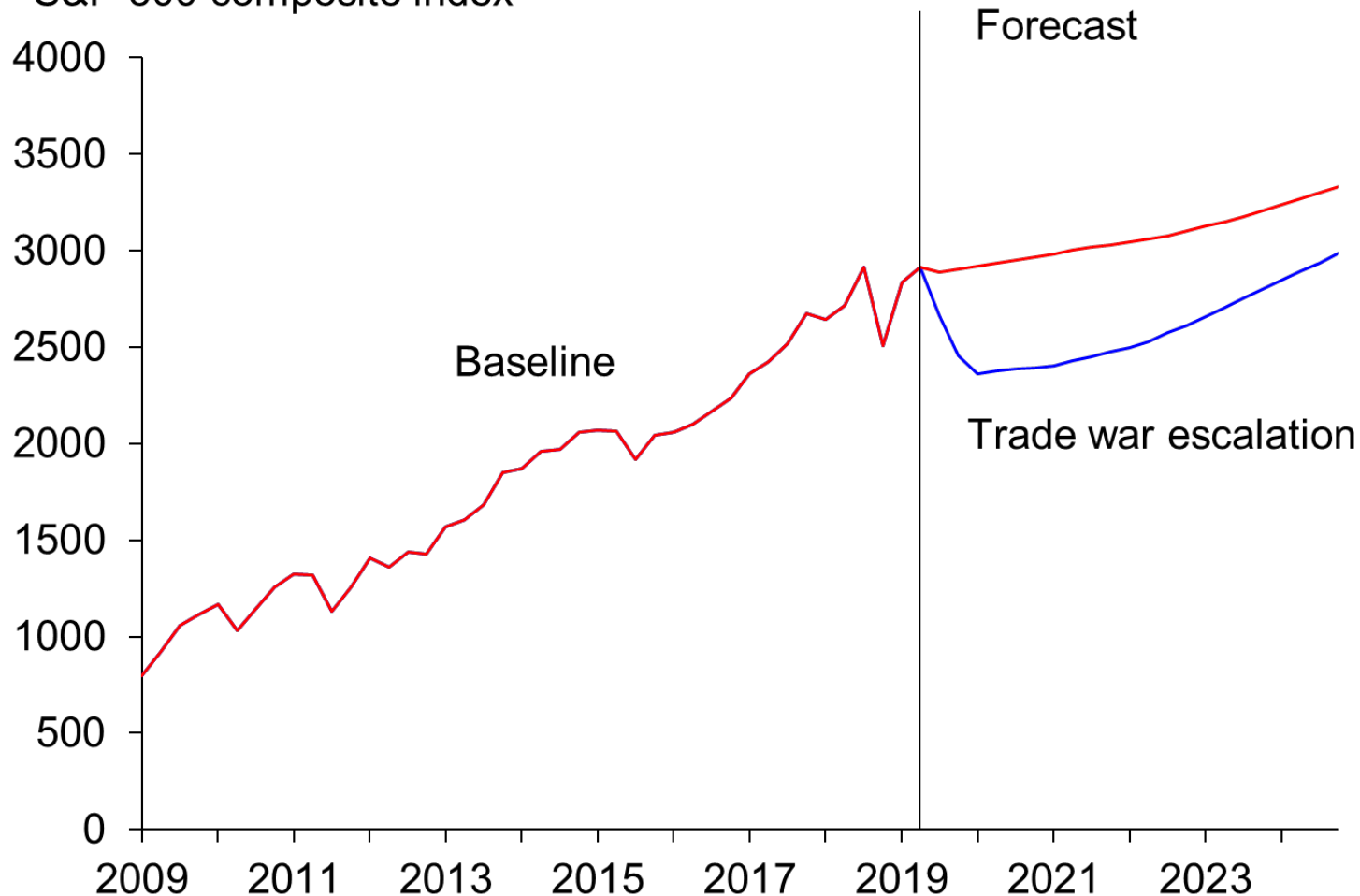
Source : Oxford Economics/Coatsworth & Williamson/World Bank

*21st c. data from World Bank; historical data from Coatsworth & Williamson (2002).

...and the deterioration in market sentiment

US: Equity Prices

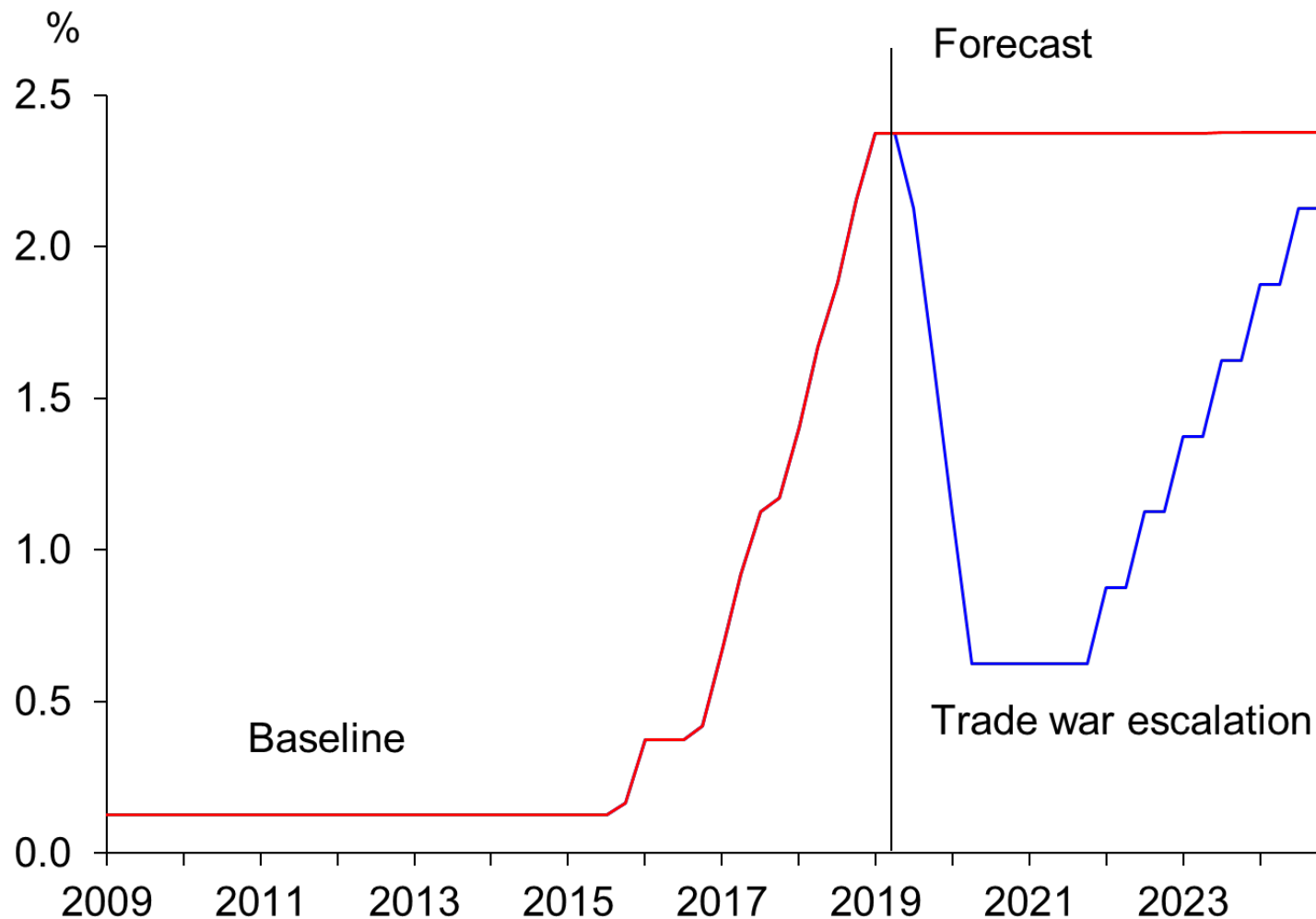
S&P 500 composite index



Source : Oxford Economics/Haver Analytics

...despite the Fed's aggressive reaction

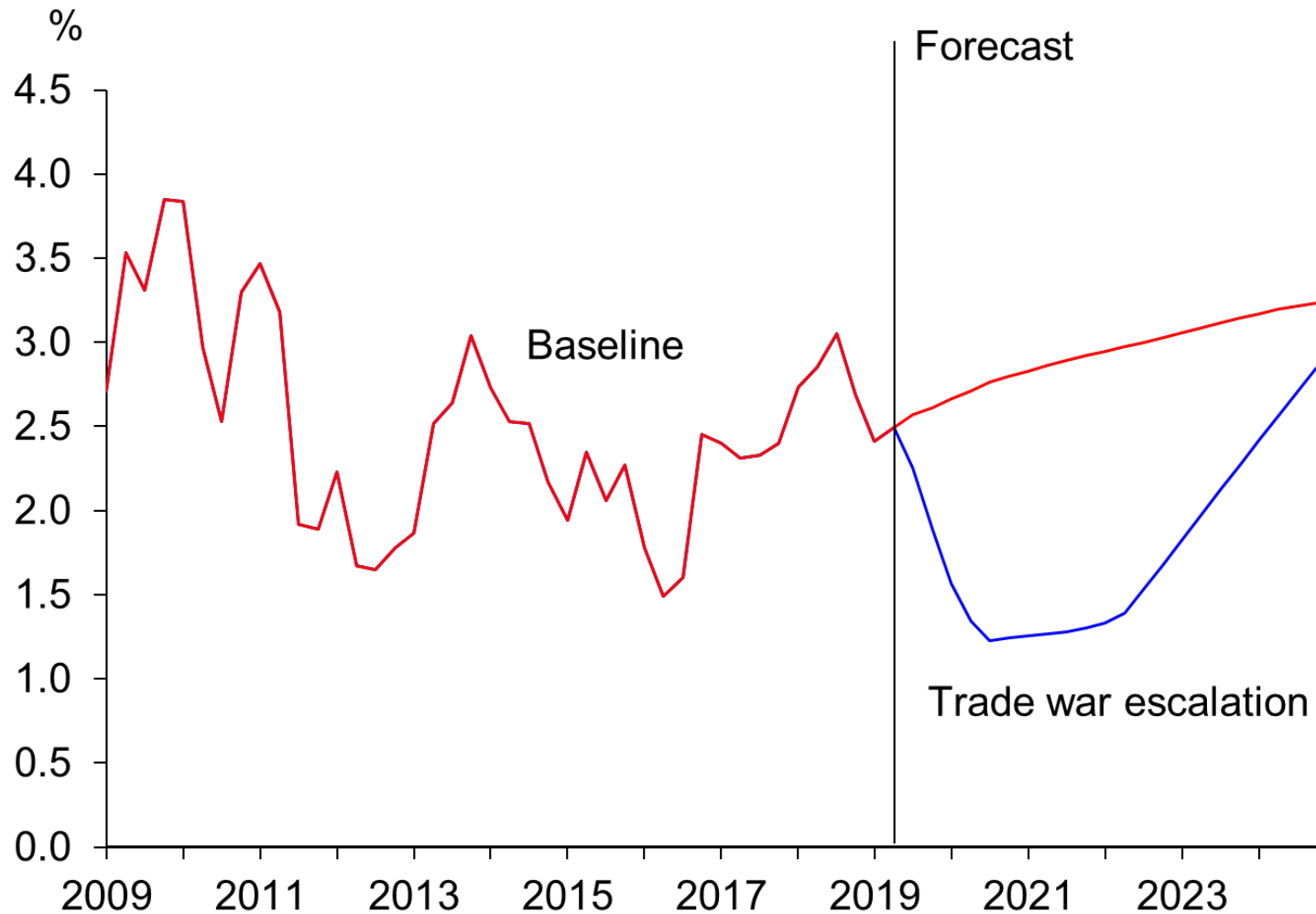
US: Policy rate



Source : Oxford Economics/Haver Analytics

...which drives a dramatic fall in Treasury yields

US: 10-year government bond yields

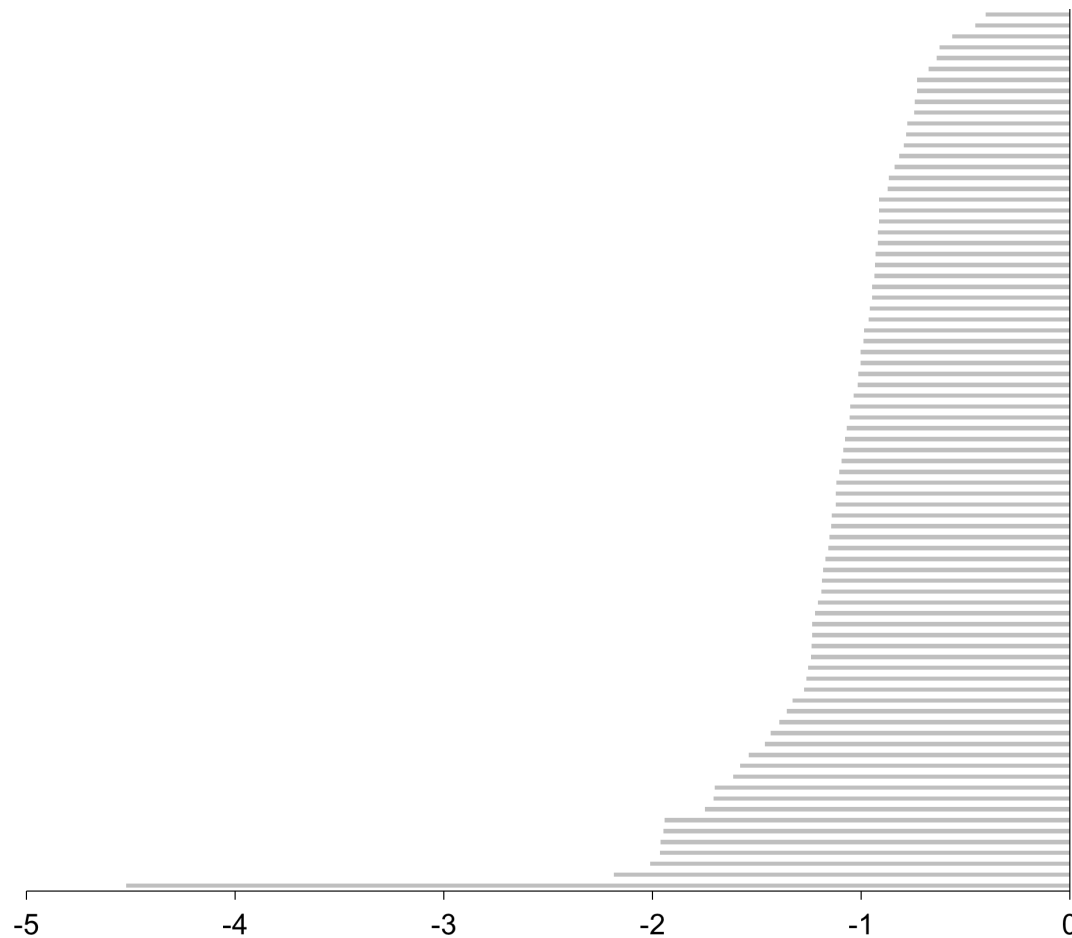


Source : Oxford Economics/Haver Analytics

Trade War Escalation– scenario results

Impact on GDP

% difference in level of GDP versus baseline, 2021

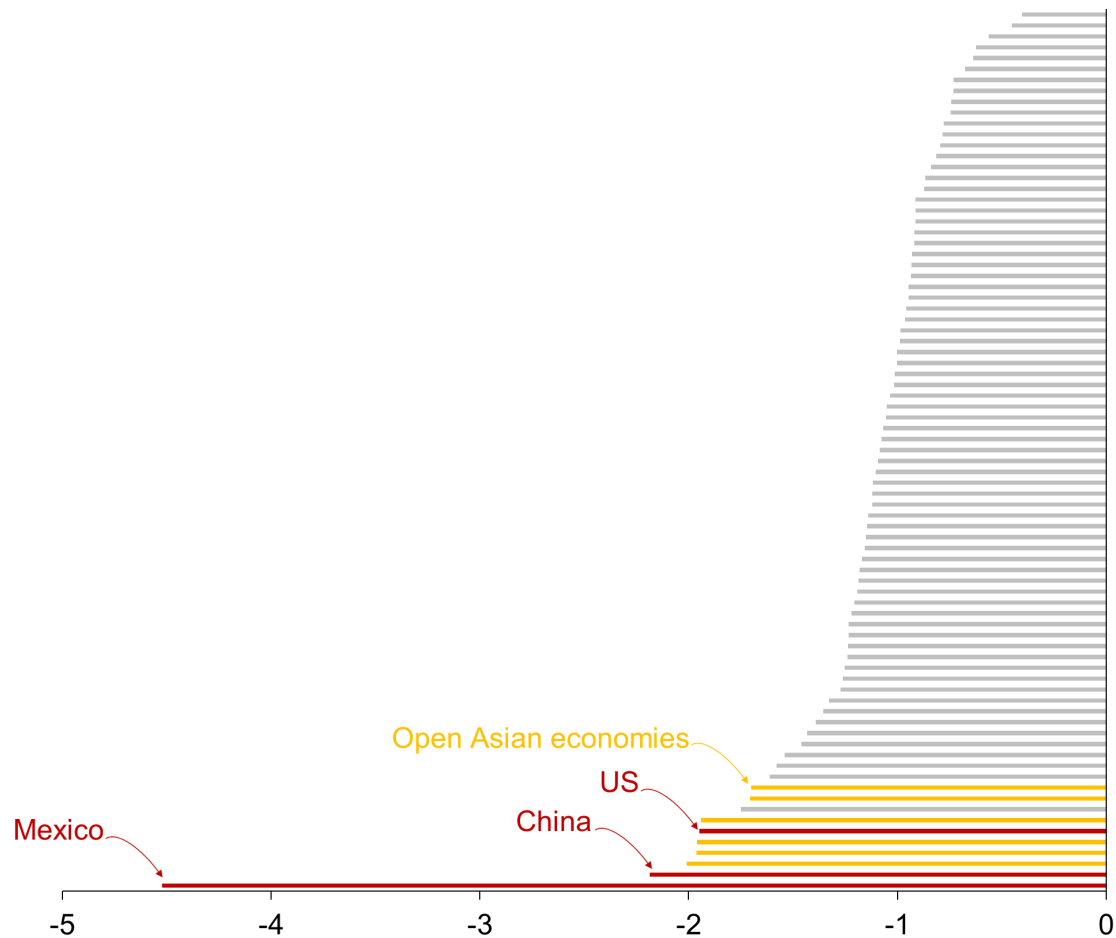


Source : Oxford Economics

Trade War Escalation– scenario results

Impact on GDP

% difference in level of GDP versus baseline, 2021



Source : Oxford Economics



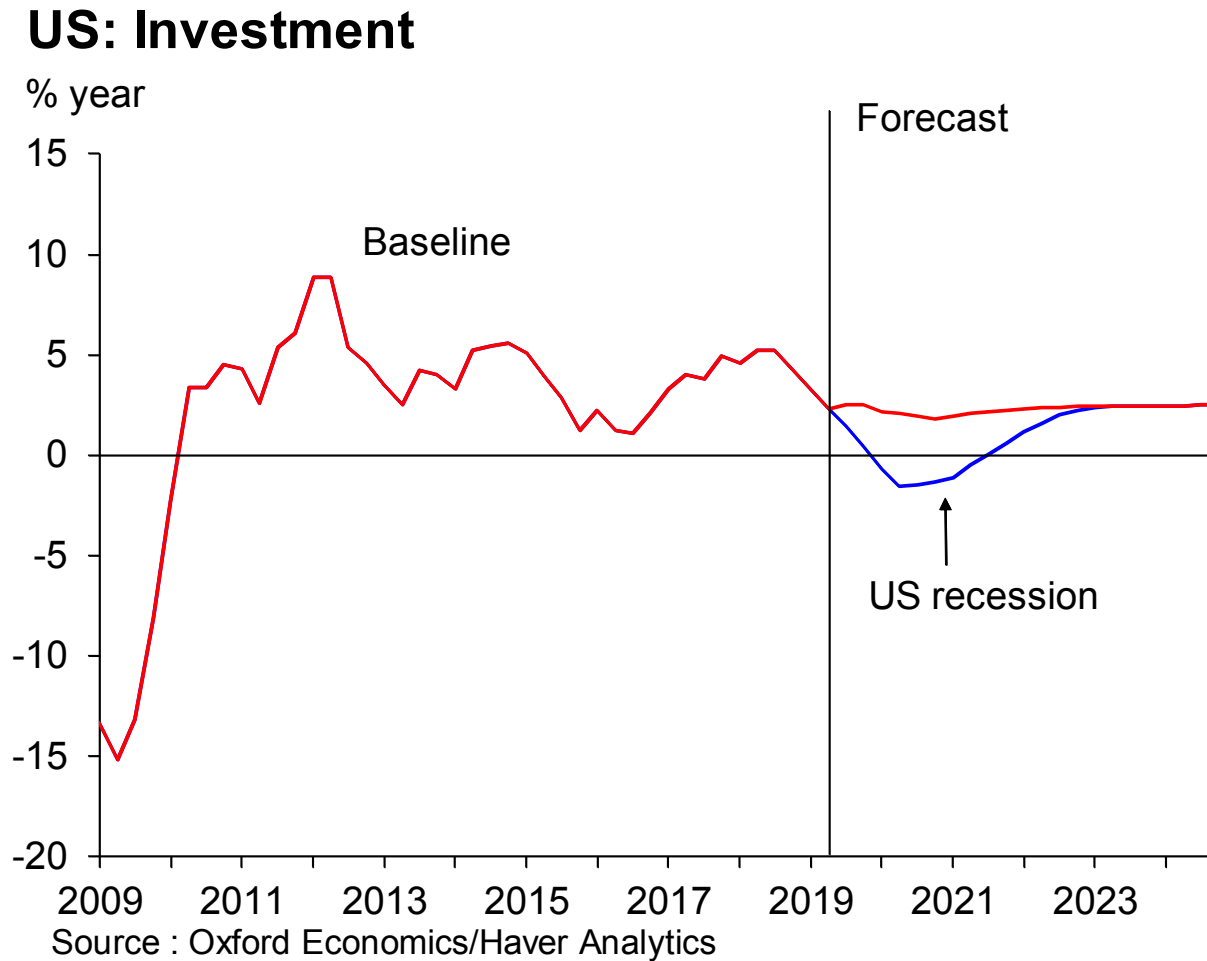
US Recession

10% GSS Weight

US Recession – scenario outline

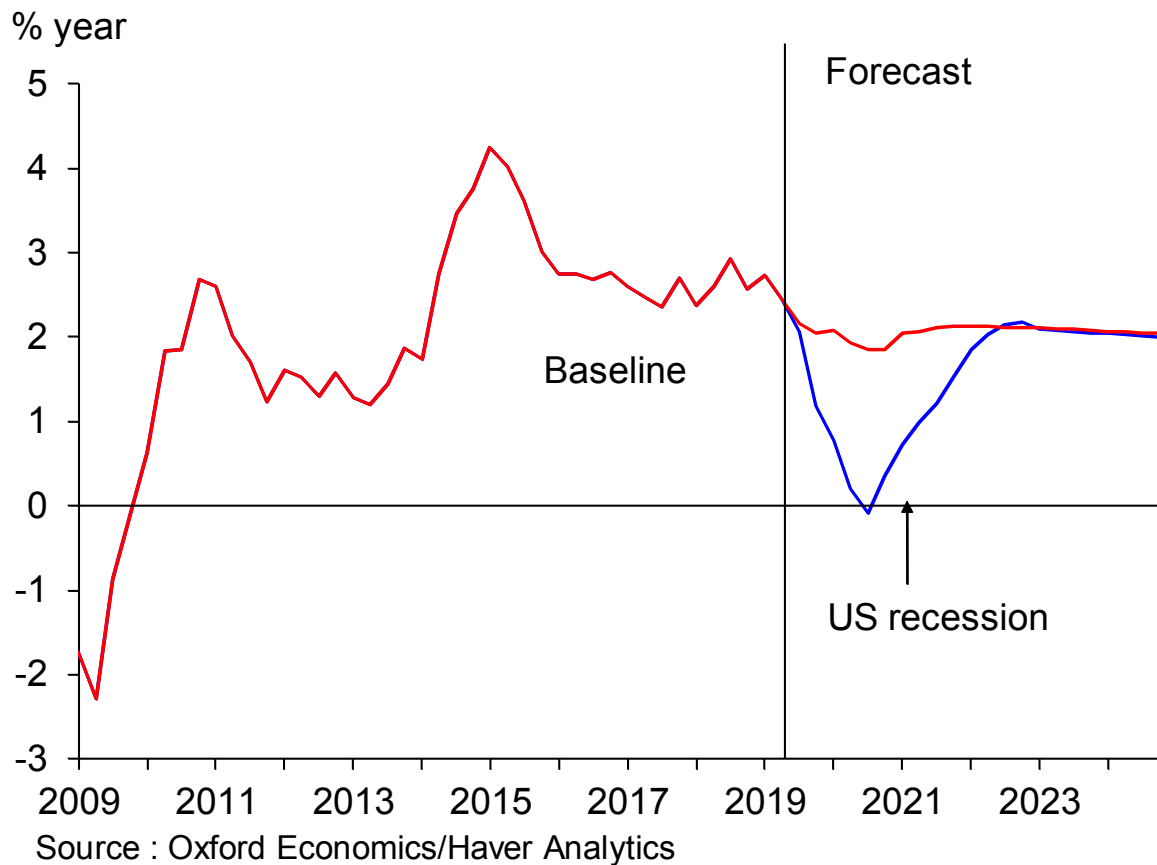
- **Domestic developments** trigger a deterioration in the late-cycle US economy
- **Corporate profits weaken**, with Q3 earnings reports surprising to the downside
- **Business and household confidence are shaken**
- **Investor sentiment deteriorates**, with US equities dropping by around 30%
- **Within a year, the US economy has fallen into recession**
- **Global spill overs**, particularly to vulnerable EMs

US businesses delay investment as profits weaken...



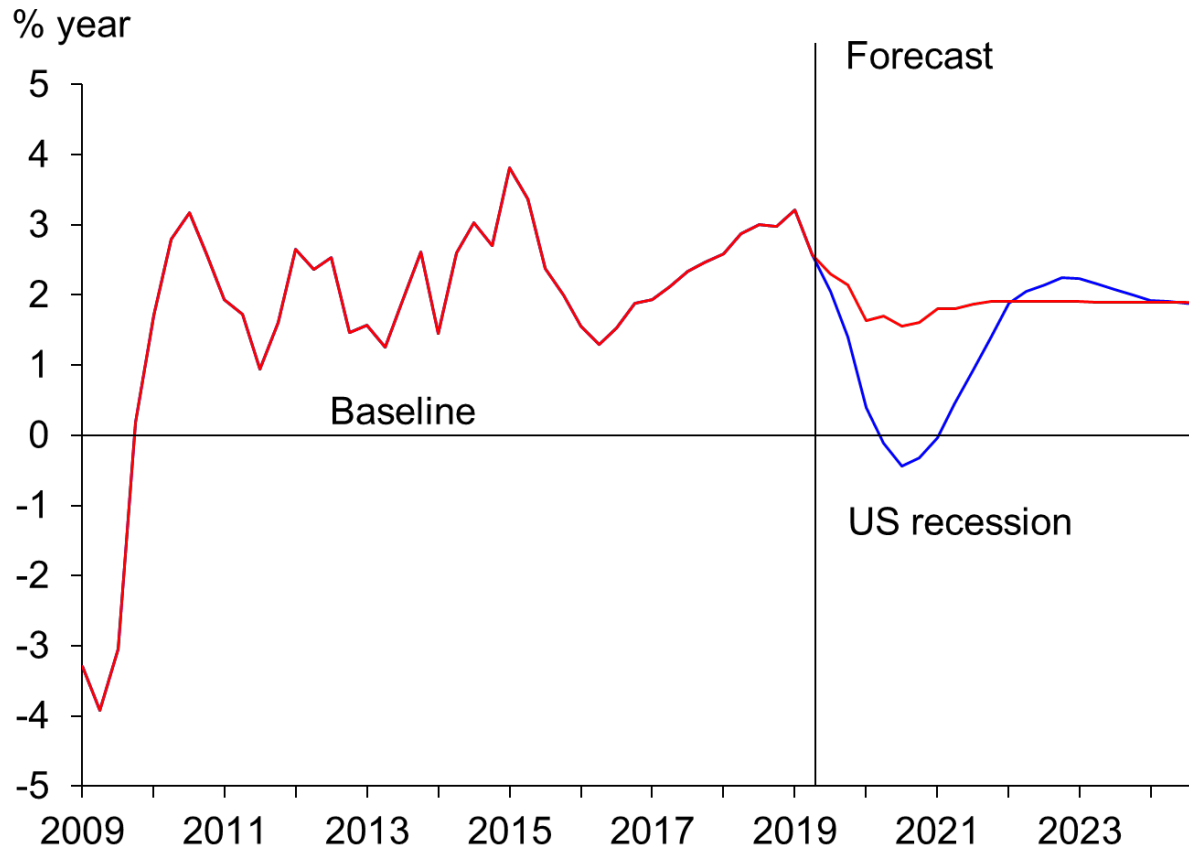
...and weaker confidence hits consumer spending

US: Consumption



The US falls into recession within a year...

US: GDP

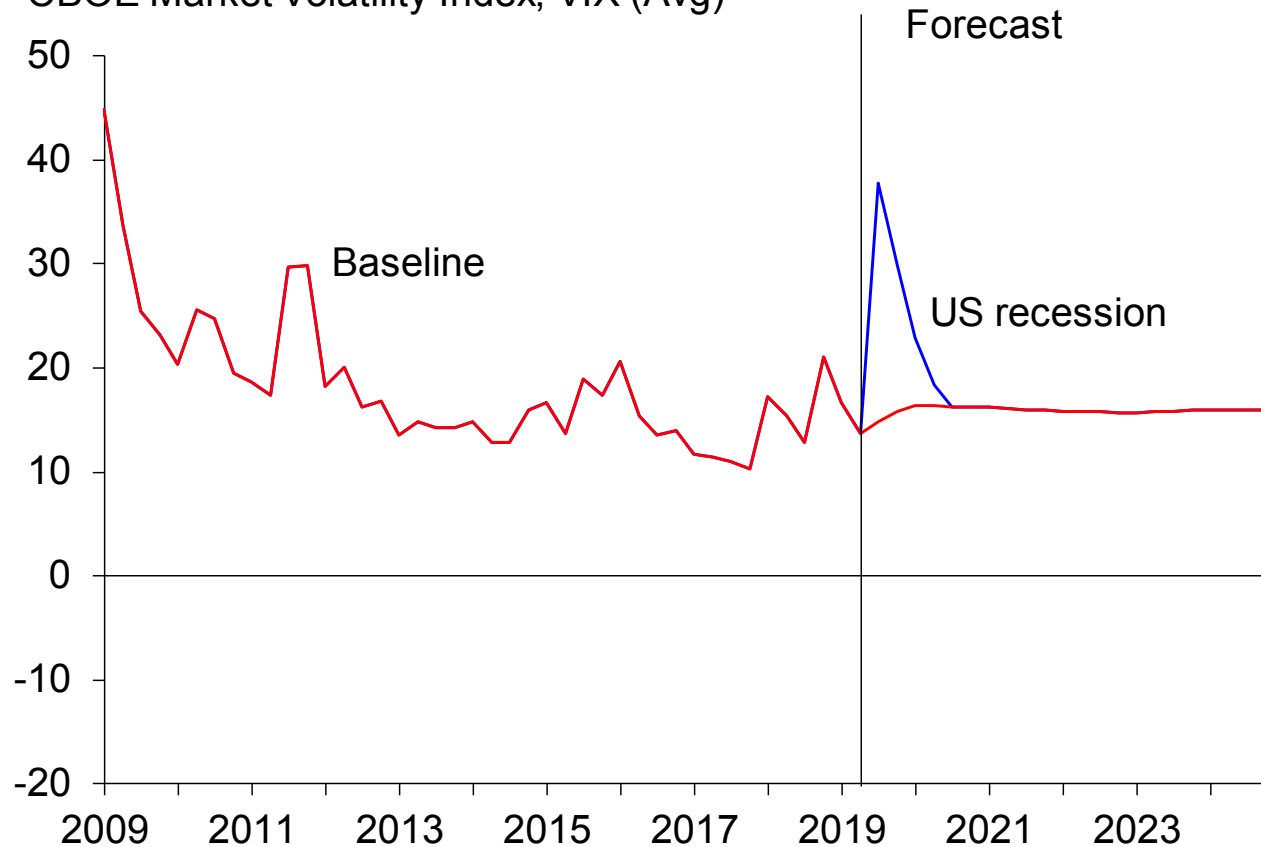


Source : Oxford Economics/Haver Analytics

...triggering spike in financial market volatility

US: VIX implied volatility

CBOE Market Volatility Index, VIX (Avg)

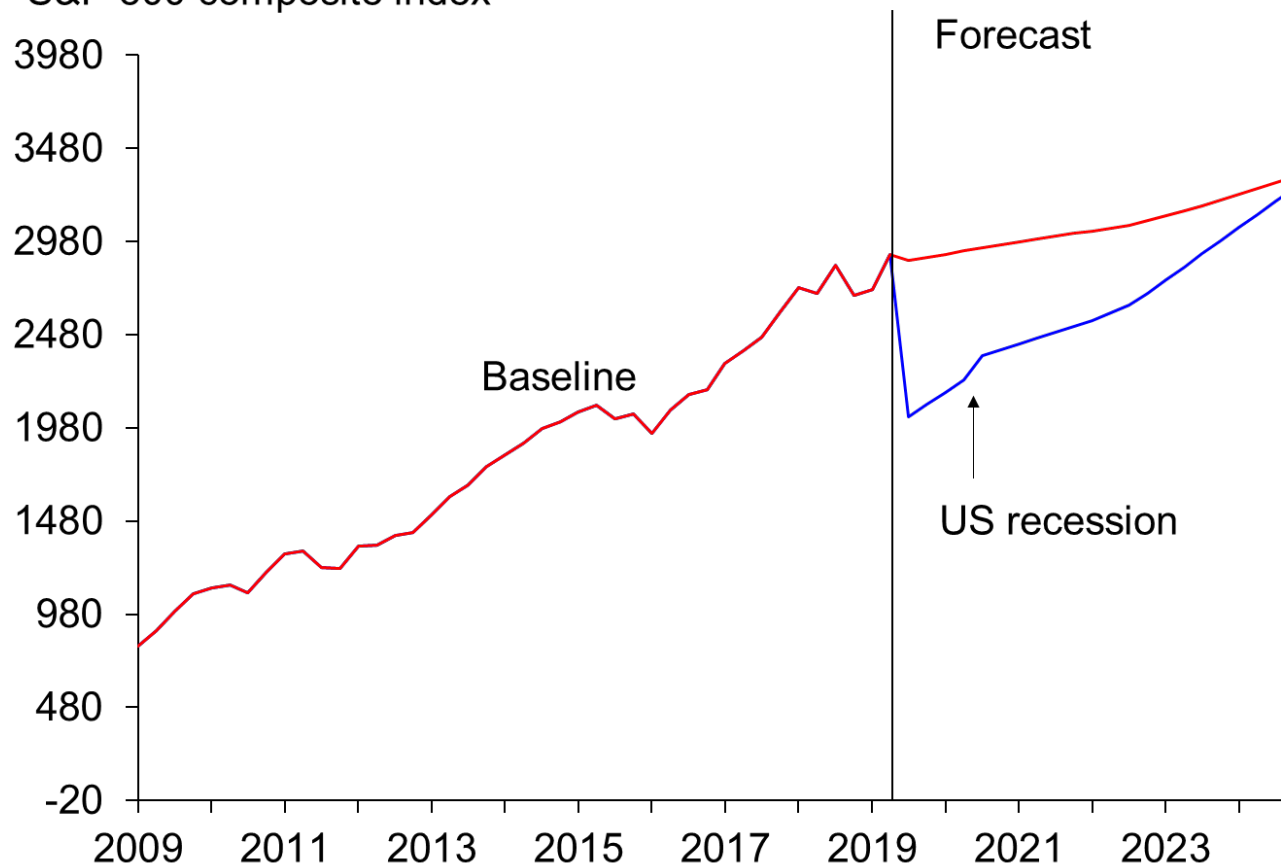


Source : Oxford Economics/Haver Analytics

...as investor sentiment deteriorates

US: Equity prices

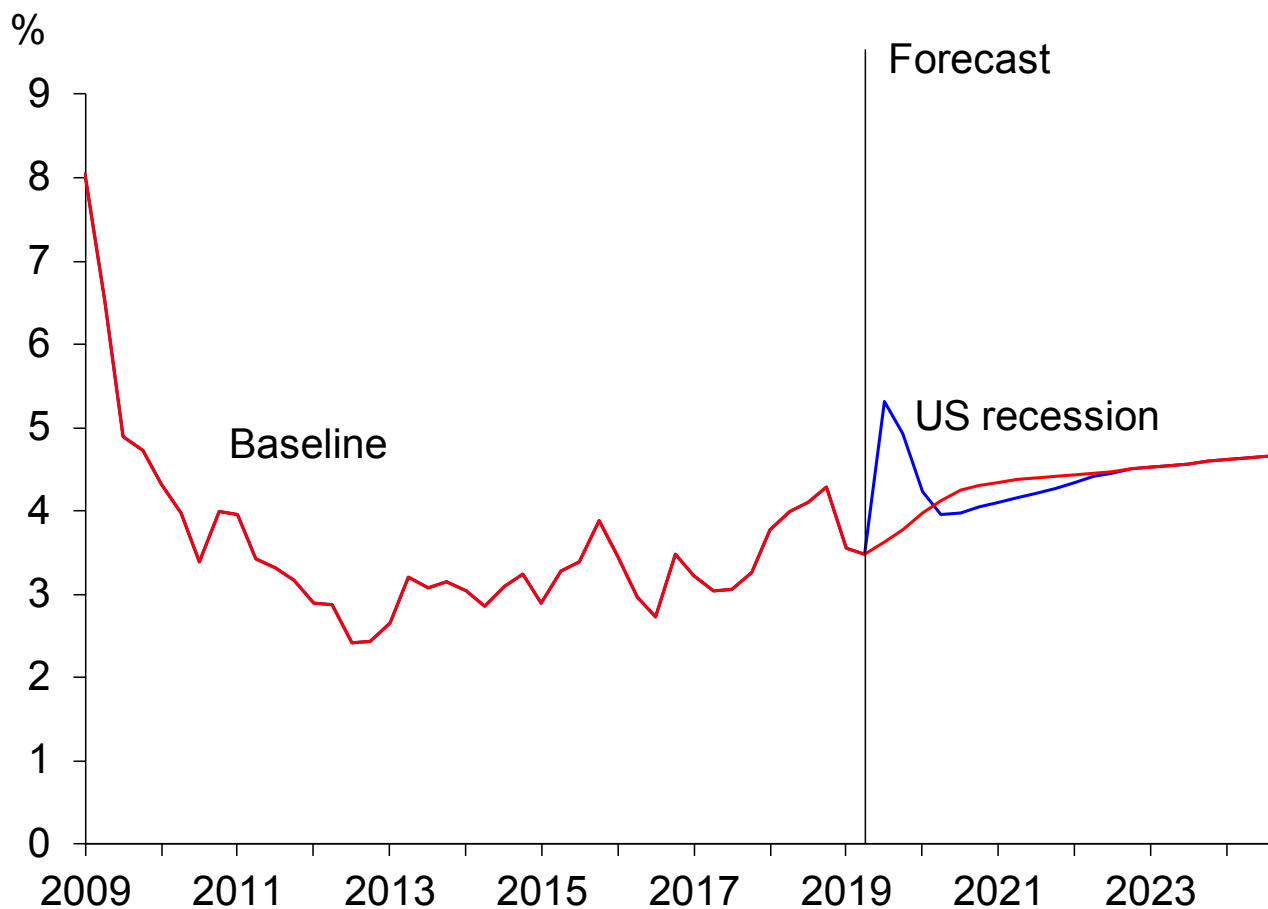
S&P 500 composite index



Source : Oxford Economics/Haver Analytics

...and corporate spreads widen

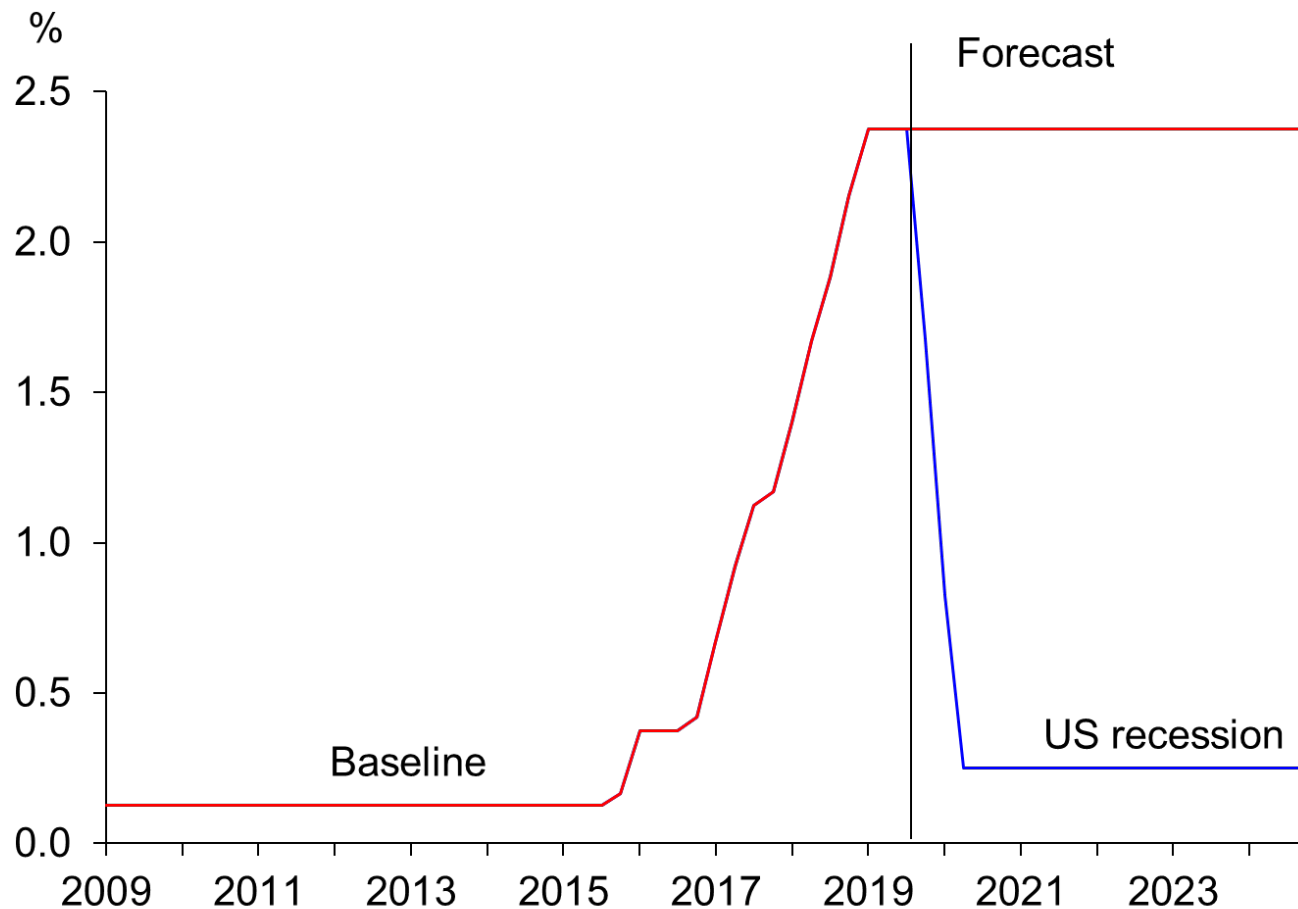
US: Corporate borrowing rate



Source : Oxford Economics/Haver Analytics

Rates effectively return to the zero lower bound...

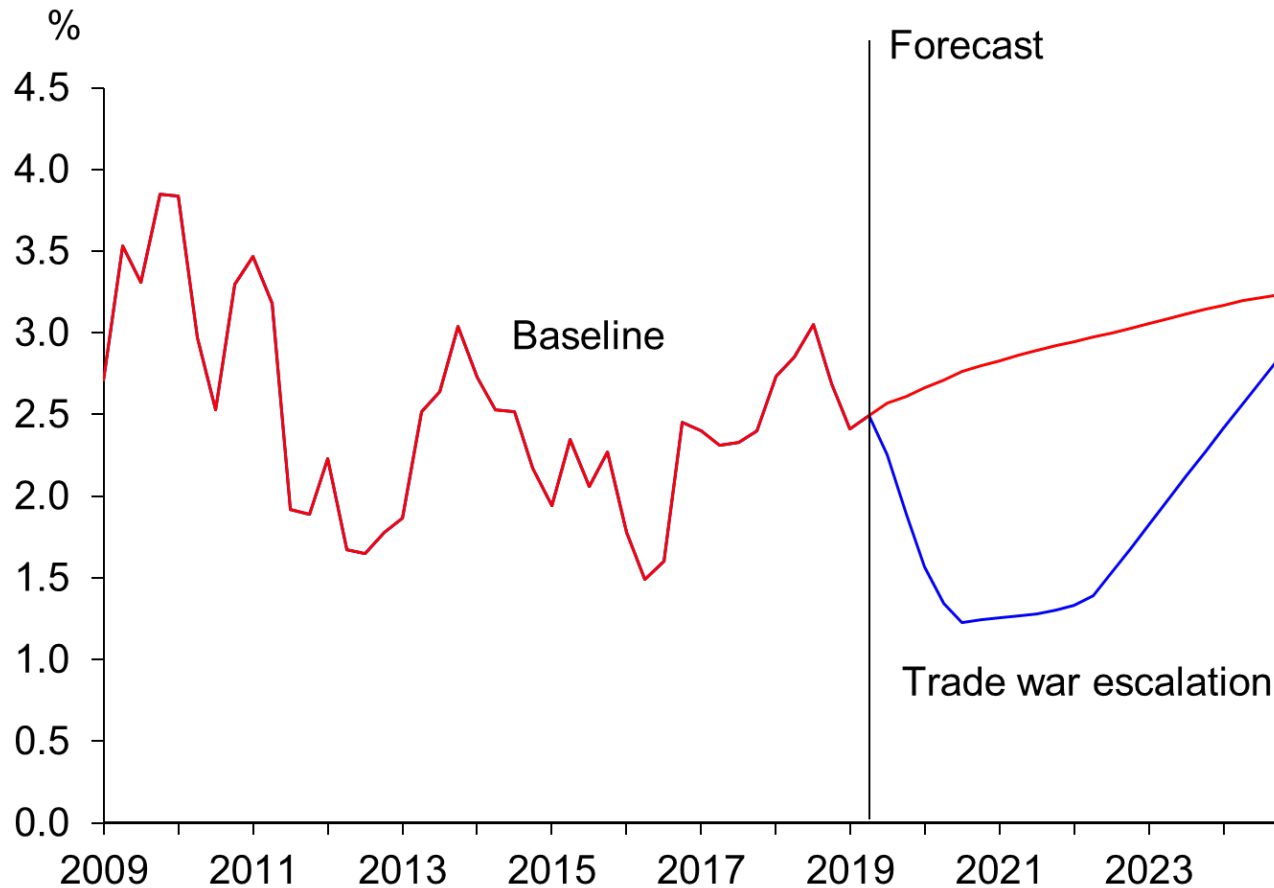
US: Policy rate



Source : Oxford Economics/Haver Analytics

...which drives a dramatic fall in Treasury yields

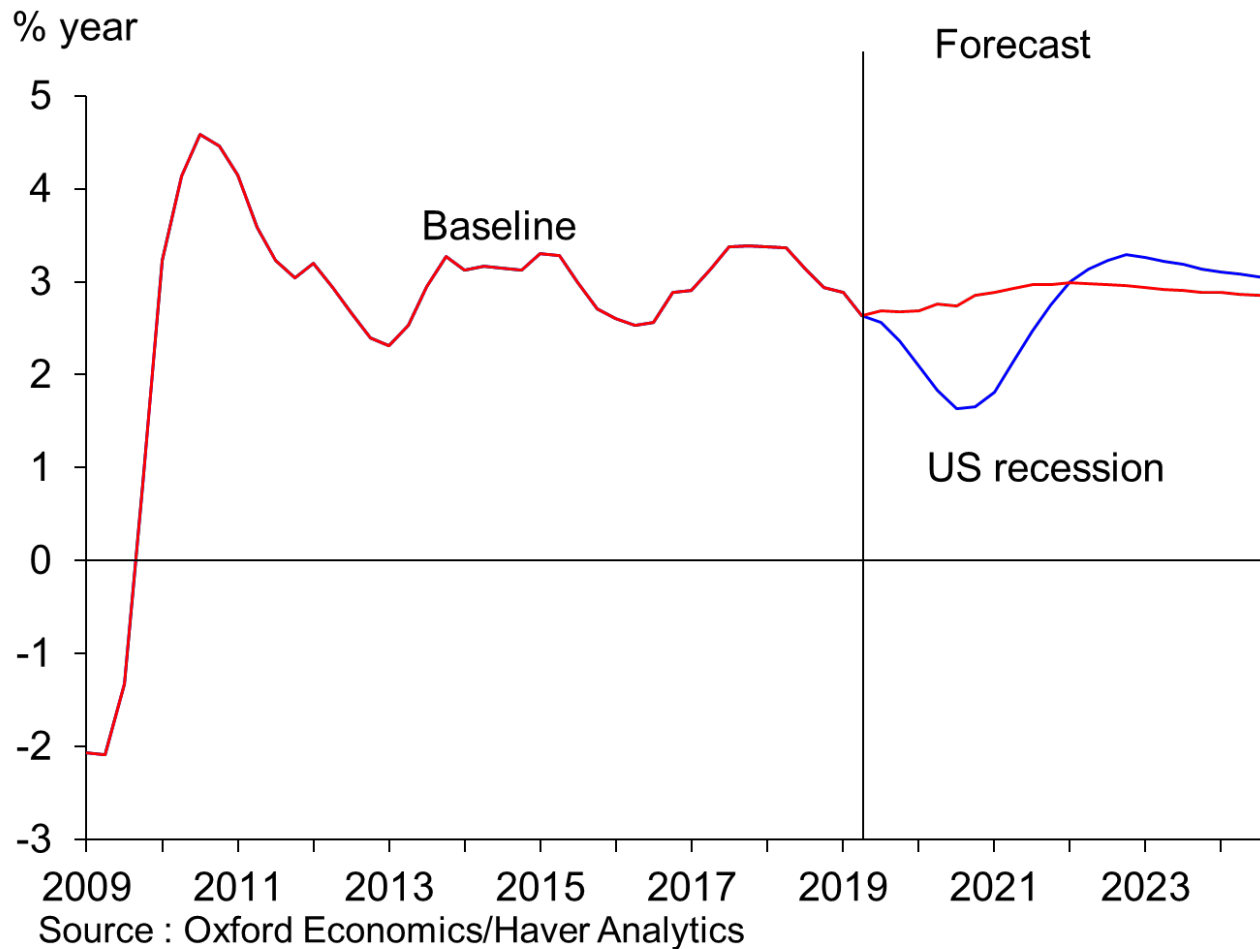
US: 10-year government bond yields



Source : Oxford Economics/Haver Analytics

The US shock spills over globally...

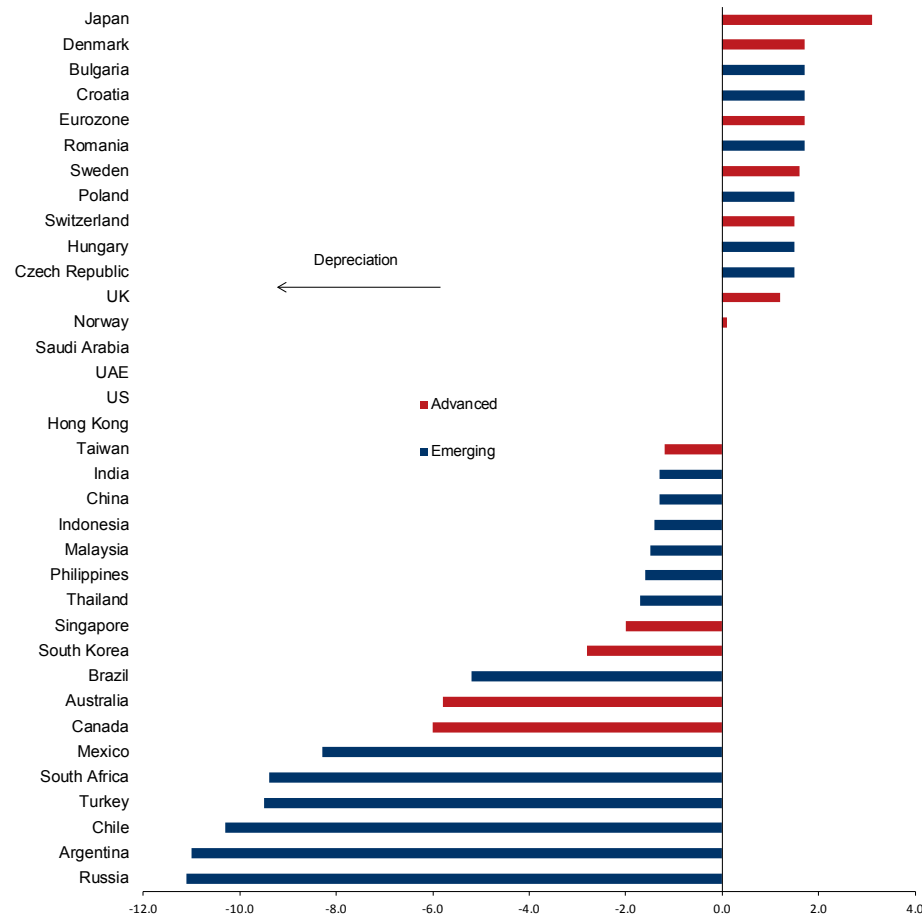
World: GDP



...with vulnerable EM exchange rates depreciating

World: US dollar exchange rates - US recession

% difference in level of US dollar exchange rates versus baseline, 2020



Source : Oxford Economics



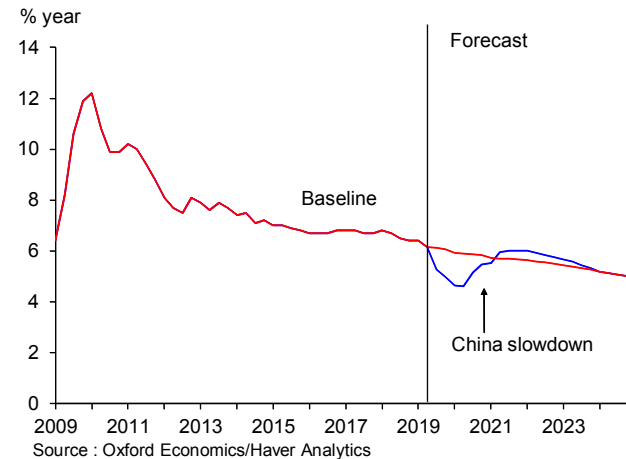
China Slowdown

10% GSS Weight

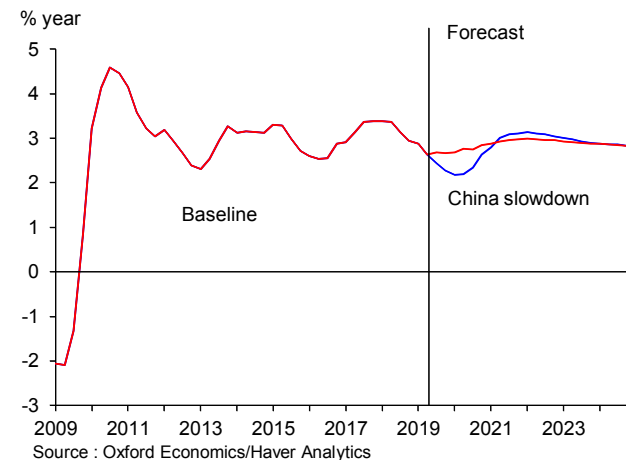
China Slowdown – key impacts

- **Global GDP growth falls to 2.6% in 2019 and 2.3% in 2020** (compared with 2.7% and 2.8% in the baseline).
- **Most affected:**
 - (i) China
 - (ii) Open Asian economies
 - (iii) Commodity exporters
- At the global level, weaker activity and subdued commodity prices cause **inflationary pressures to weaken considerably**
 - Oil prices fall to around \$45/brl by 2020

China: GDP



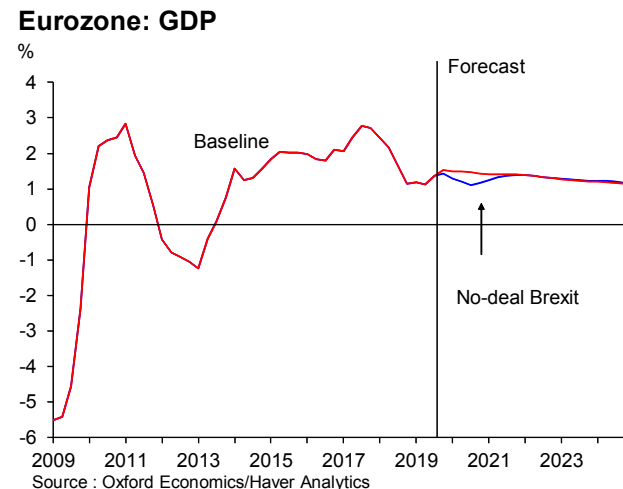
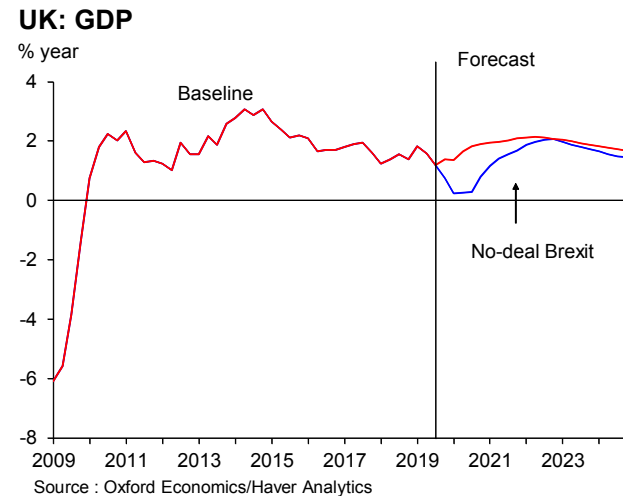
World GDP



No-Deal Brexit

No Deal Brexit – key impacts

- **Global GDP growth barely affected!**
- **Most affected:**
 - (i) UK (1.7% below baseline by end 2020)
 - (ii) Ireland (1% below baseline by end 2020)
- Overall impact on eurozone growth is relatively limited
 - Eurozone GDP is just 0.4% below baseline by the end of 2020



Conclusion

- **Trade tensions** remains the biggest concern for businesses, based on our latest **risk survey** – but a **US recession** is an emerging concern
- Our modelling suggests that:
 - Trade war escalation (with US measures v China, Mexico, EU and global auto sector) could take 1ppt off 2021 global growth
 - A US recession triggered by domestic developments could be similarly harmful for the global economy in the near term
 - Brexit presents risks mainly to the UK and Ireland, and to a lesser extent Europe
 - But upside risks remain – we find that trade peace and looser policy in China could support a 0.9ppt boost to global growth

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