Economics

BERENBERG
PARTNERSHIP SINCE 1590

UK economic outlook: ready for a Boris-bounce?

- **Could an election end the political mess?** Yes. On 12 December UK voters will head to the polls for the third time since 2015. Polling suggests that current Prime Minister Boris Johnson (Conservative) will likely win a majority. For two reasons, this outcome would be positive for the medium-term UK economic outlook: 1) it would put the UK on the path to an orderly Brexit on 31 January 2020; and 2) it would do away with the risk that Labour leader Jeremy Corbyn could ever become prime minister and damage the UK with left-wing economic policies.
- **Upgraded economic outlook:** If our base case prevails, rising confidence and reduced uncertainty can underpin a rebound in domestic demand growth. We therefore raise our 2020 call for GDP growth to 1.8% from 1.3% and our 2021 call to 2.1% from 1.8%.
- **Fiscal stimulus:** If re-elected, Johnson looks set to throw money at the economy through a combination of tax cuts and higher public spending. This will add to demand growth in the near term. It may elicit a positive market response – as did US President Donald Trump's fiscal stimulus in 2017/18. However, the risks would not be worth it, in our view. A stimulus will likely raise inflationary pressures and amplify existing long-run fiscal challenges linked to rising health costs and an ageing population. A push for pro-growth reforms would be welcome, though.
- **Gradual rate hikes ahead:** The Bank of England (BoE) has long signalled that it would raise rates in case of an orderly Brexit. We expect the BoE to hike rates by 25bp in Q3 2020 and again by 25bp in Q3 2021. This would take the Bank Rate to a still-low 1.25% by end-2021. The likelihood of a fiscal stimulus strengthens the case for a policy normalisation and tilts the risks to the path for rates to the upside.
- **Some uncertainty persists:** An orderly Brexit on 31 January 2020 reduces uncertainty by dramatically narrowing the range of scenarios for the UK's near-term outlook. This is a big plus. However, it does not end the uncertainty about the final shape of Brexit – ie the future UK-EU economic relationship – which could remain a modest drag on business activity. Also, the risk of a hard Brexit is not fully off the table in case the EU and the UK fail to strike a deal on their future economic relations – that leaves open the risk of a hard Brexit at the end of 2020.

Chart 1: UK headed for a cyclical upturn as Brexit clarity and fiscal stimulus lift momentum

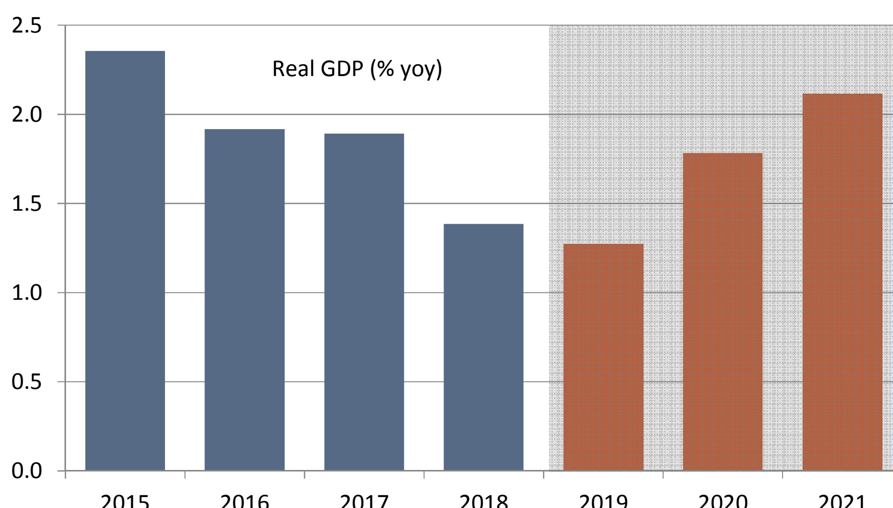


Chart shows annual change in real GDP (%).Grey area highlights Berenberg forecasts. Annual data. Source: Berenberg, ONS.

Key macro reports

Understanding Germany: A last golden decade ahead
October 2010

Euro crisis: The role of the ECB
29 July 2011

The lessons of the crisis: what Europe needs
27 June 2014

After Trump: notes on the perils of populism
14 November 2016

Reforming Europe: which ideas make sense?
19 June 2017

Notes on the inflation puzzle
5 October 2017

Can productivity growth keep inflation at bay?
5 February 2018

10 years after: 10 lessons from the financial crisis
11 September 2018

China's slowdown has significant global effects
15 November 2018

Global outlook 2019: Coping with a cocktail of risks
6 January 2019

How weak is the German economy?
22 February 2019

European Progress Monitor: ready for a new shock?
10 May 2019

Global update: trade tensions take their toll
8 July 2019

30 October 2019

Kallum Pickering
Senior Economist
+44 20 3465 2672
kallum.pickering@berenberg.com

BERENBERG
PARTNERSHIP SINCE 1590

Economic outlook: short-term boost, long-term drag

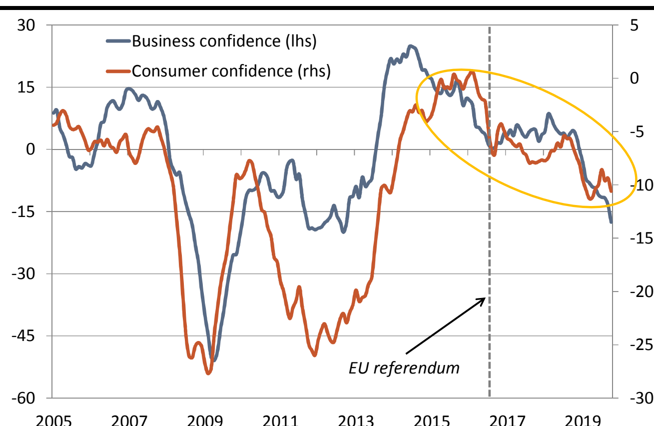
We have long warned about the risks Brexit poses to UK potential growth. All else equal, erecting barriers to trade, investment and migration with its biggest market – the EU – will reduce the rate at which the UK can sustainably grow in the long run. Inside the EU, the UK has a potential growth rate of c2.1% yoy. The future UK-EU relationship set out in the political declaration agreed by Johnson and EU leaders centres on a free-trade agreement (FTA) focused on goods, with only limited access to the EU market for services and finance. We estimate that this will lower UK growth potential to c1.7%. The UK's future policy on immigration, especially towards EU migrants as the UK leaves the single market for labour, could materially change this outlook. A more open approach to immigration could lessen the impact on potential growth.

In the short-term, however, UK economic growth will likely accelerate to above its new, lower potential rate for a while as the UK makes up for some of the lost output growth since June 2016. Rising confidence and reduced uncertainty about the economic outlook can underpin stronger gains in domestic demand. Having edged down consistently over the past three years, business and household confidence should begin to rebound soon (Chart 2).

We base our medium-term economic outlook on four assumptions.

1. The global economy will exit the ongoing trade and industrial recession in early 2020; China manages to stabilise its economy and the Eurozone recovers to its trend growth rate by mid-2020 – see Approaching the bottom?
2. In the upcoming snap election, the Conservative Party wins a majority and Johnson remains UK prime minister. This ends the political uncertainty for the next few years. It also materially reduces the risk that left-wing Labour leader Jeremy Corbyn could rise to power and damage the UK economy with a socialist agenda.
3. UK parliament passes Johnson's Brexit deal in time for the planned Brexit date of 31 January 2020. The UK and the EU enter an FTA following a transitional period that begins when the UK leaves the EU and lasts until at least the end of 2020.
4. The new Johnson administration undertakes a sizeable debt-financed fiscal stimulus comprising tax cuts (income tax, national insurance and corporation tax) plus increased spending on infrastructure, health and defence. These policy changes will mostly take effect from April 2020 – the start of the fiscal year – and hence help to sustain the momentum in consumption and investment beyond an upcoming short relief rally that follows the partial clearing up of Brexit uncertainty. We believe there is a modest chance of some pro-growth deregulation and positive supply-side reforms – see Fiscal stimulus ahead? Consequences and risks.

Chart 2: Lower uncertainty = confidence recovery



Data shows three-month moving average net balance. Business confidence is based on a weighted average of services (80%) and industrial (20%) confidence series. Monthly data. Source: European Commission, Berenberg.

Chart 3: UK real GDP (annualised growth %)

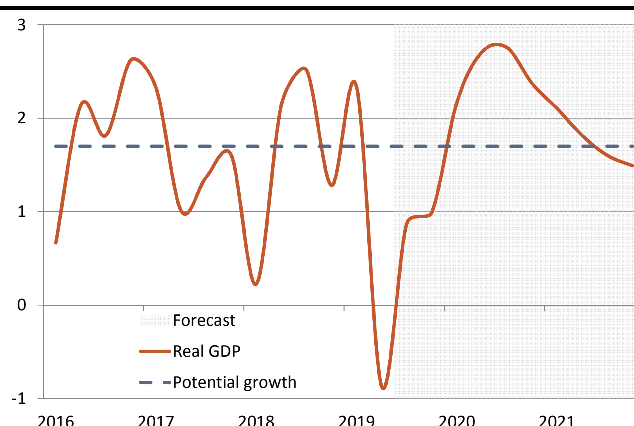


Chart shows annualised growth in real GDP (%).Grey area highlights Berenberg forecasts. Quarterly data. Source: Berenberg, ONS.

We raise our 2020 call for GDP growth to 1.8% from 1.3% and our 2021 call to 2.1% from 1.8% (Table 1 shows the full breakdown on a quarterly basis). Chart 3 shows our updated forecast in quarterly annualised terms relative to our estimate for UK potential growth.

Table 1: Berenberg UK economic forecasts

		2018	2019	2020	2021	1Q19	2Q19	3Q19	4Q19	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
GDP	% y/y	**1.4**	**1.3**	**1.8**	**2.1**	2.1	1.3	0.9	0.8	0.8	1.7	2.2	2.5	2.5	2.3	2.0	1.8
	% q/q					0.6	-0.2	0.2	0.2	0.5	0.7	0.7	0.6	0.5	0.5	0.4	0.4
	%q/q ann.					2.3	-0.9	0.9	1.0	2.2	2.7	2.8	2.4	2.1	1.8	1.6	1.5
Private Consumption	% y/y	**1.6**	**1.2**	**2.0**	**1.8**	1.2	1.0	1.1	1.3	1.6	1.9	2.2	2.3	2.2	2.0	1.7	1.6
	% q/q					0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.5	0.4	0.4	0.4	0.4
Government Consumption	% y/y	**0.6**	**3.9**	**4.6**	**2.8**	2.8	4.0	4.6	4.3	4.8	4.7	4.7	4.4	3.5	3.0	2.5	2.0
	% q/q					0.8	1.1	1.0	1.3	1.3	1.0	1.0	1.0	0.5	0.5	0.5	0.5
Investment	% y/y	**-0.1**	**0.1**	**2.3**	**3.4**	0.8	0.3	-0.9	0.0	-0.1	1.9	3.5	3.6	3.6	3.4	3.3	3.2
	% q/q					0.9	-0.9	-0.7	0.8	0.8	1.0	0.9	0.9	0.8	0.8	0.8	0.8
Final Domestic Demand [1]	% y/y	**1.1**	**1.5**	**2.5**	**2.3**	1.4	1.4	1.4	1.7	1.9	2.4	2.9	2.9	2.7	2.4	2.1	2.0
	% q/q					0.5	0.2	0.3	0.6	0.7	0.7	0.8	0.6	0.5	0.5	0.5	0.5
Net Exports [1]	% y/y	**-0.5**	**-1.5**	**0.2**	**-0.4**	-3.7	-0.3	-1.9	-0.1	2.1	-0.5	0.2	-0.9	-0.5	-0.4	-0.4	-0.4
	% q/q					-2.7	2.5	-0.9	1.1	-0.5	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
Stockbuilding [1]	% y/y	**0.2**	**0.5**	**-0.4**	**-0.4**	1.9	-0.2	1.2	-1.0	-1.4	-0.2	-1.0	0.5	0.2	0.2	0.2	0.2
	% q/q					0.9	-1.2	0.9	-1.5	0.4	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Current Account Balance	GBP bn	**-92.5**	**-116.4**	**-118.2**	**-103.8**	-33.1	-25.2	-29.6	-28.5	-30.9	-30.0	-29.1	-28.2	-27.3	-26.4	-25.5	-24.6
	% of GDP	**-4.3**	**-5.3**	**-5.2**	**-4.5**	-6.0	-4.6	-5.4	-5.1	-5.4	-5.3	-5.1	-5.0	-4.7	-4.6	-4.4	-4.2
Industrial Production [2]	% y/y	**0.1**	**-0.8**	**1.0**	**1.5**	-0.8	-0.9	-1.3	-0.4	-0.1	1.2	1.4	1.6	1.5	1.5	1.4	1.4
	% q/q					0.1	-0.8	0.1	0.2	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Unemployment Rate [2]	%	**4.1**	**3.9**	**3.8**	**3.7**	3.9	3.8	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.7	3.6	3.6
CPI [2]	% y/y	**2.5**	**1.9**	**2.3**	**2.3**	1.9	2.0	1.9	1.8	1.9	2.2	2.4	2.5	2.4	2.3	2.3	2.3
General Govt. Balance [3]	% of GDP	**-1.6**	**-1.6**	**-3.0**	**-2.6**												
General Govt Debt [3]	% of GDP	**87.5**	**86.4**	**86.9**	**87.6**												
BoE Bank Rate [4]		**0.75**	**0.75**	**1.00**	**1.25**	0.75	0.75	0.75	0.75	0.75	0.75	1.00	1.00	1.00	1.25	1.25	1.25

[1] Contribution to GDP growth [2] Period averages [3] Maastricht basis [4] End period

Source: Berenberg, ONS

- **Rising investment:** Driven by gains from both the private and government sectors, we look for gross fixed capital formation (the broadest measure of investment) to rise by 2.3% in 2020 and by 3.4% in 2021 after stagnating in 2018 and 2019. Having held back on major projects in the past three years, businesses should feel more confident to unleash some pent-up investment spending. However, the persisting hard-Brexit risk at the end of the transitional period will likely constrain the rebound in private investment somewhat. On the government side, Johnson has signalled a significant step-up in public investment in the coming years. Still, our projection is modest by historical comparison. In the three years to the referendum, annual investment growth averaged 4.9%.

- **Stronger household consumption:** Labour demand and employment have edged a little lower in recent months amid heightened global risks and Brexit uncertainties. We expect the labour market to rebound on the back of rising business confidence and demand. Employment remains at a near-record high (c76% for 16-64 year olds) and real wages are expanding solidly (up c2% yoy in August). A stronger sterling exchange rate will further lift real incomes in the coming months. Credit conditions remain supportive and net wealth is at a near-record high. We forecast that real private consumption growth will accelerate from 1.2% yoy in 2019 to 2.0% in 2020 before slowing a little to 1.8% in 2021. Possible income tax cuts and a higher threshold at which workers pay national insurance tilt the risk to the outlook for consumption to the upside.

- **Government spending is a wild card:** The precise details of Johnson's tax and spending plans will be announced shortly after he is re-elected. We project sustained strong growth in public spending that picks up from 3.9% yoy in 2019 to 4.6% in 2020 before slowing a little to 2.8% in 2021. This represents a major acceleration relative to the 10-year average to Q2 2019 of 1.0%. In our view, a large demand-side stimulus at this stage of the economic cycle would be misguided and carries risks. It would add to inflationary pressures and amplify existing long-run fiscal challenges linked to rising health costs and an ageing population. While markets may respond well to the initial sugar high of fiscal easing, the risks are not worth it.

- **Stock building corrects and trade drags:** After adding 0.5ppt to annual GDP growth in 2019 as firms built up inventories in case of a hard Brexit, firms will likely de-stock over the medium term as the outlook has become more certain and the no-deal risk is

largely off the table. We project that destocking will subtract 0.4ppt from annual growth in 2020 and 2021. Due to a likely stronger exchange rate, net trade is likely to drag on annual growth by c0.1ppt per quarter beginning in Q2 2020 as import growth picks up.

Some uncertainty persists – still a risk of a hard Brexit

An orderly Brexit on 31 January 2020 would reduce economic uncertainty by dramatically narrowing the range of likely scenarios for the near-term economic and political outlook. However, it would not end the uncertainty about the final shape of Brexit – ie the future UK-EU economic relationship. This could remain a modest drag on business activity.

During the transition period in which the entire UK would still be a member of the EU single market and its customs union, the key aspects of the future relationship would still need to be nailed down. A future detailed post-Brexit treaty between the EU27 and the UK may even deviate from the general statement on future relations that is part of the Brexit deal agreed.

Hardline Brexiteers within the Conservative Party could still campaign for an even looser relationship that would give the UK maximum scope to deviate from EU regulations at the expense of losing privileged access to the vast EU market – with an uncertain and probably negative net-net impact on UK growth potential.

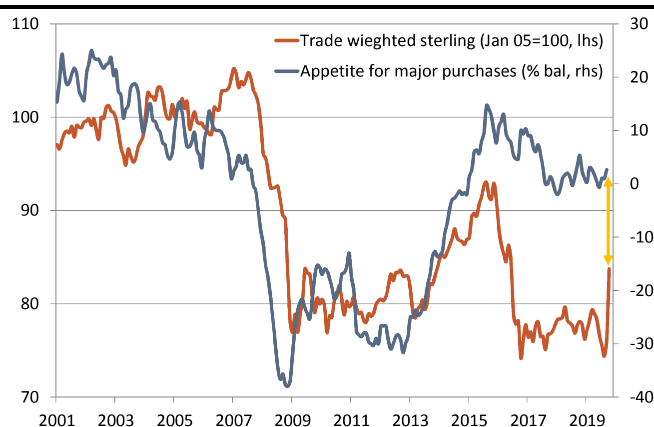
Critically, if the UK and the EU do not manage to agree to an FTA in time for the end of the transitional period, the UK could still have a hard exit from the single market and customs union at the end of 2020. That would not apply to Northern Ireland as the emergency protocol to keep the Irish border open would take effect at that point. While the UK could ask the EU to extend the transitional period beyond 2020, a UK government with a hardline-Brexit tilt could decide to forgo that option and instead leave the single market without a trade agreement that goes beyond the basic World Trade Organization rules.

Stronger growth and reduced risks should lift sterling and bond yields

Exchange rates and bond yields reflect a range of economic and market factors. For nearly four years, trends in sterling and gilts have mainly reflected financial markets' shifting probability-weighted assessment of the UK economic outlook in the wide range of Brexit scenarios (from hard Brexit to no Brexit) plus additional risks such as the risk of a left-wing administration led by Labour leader Corbyn.

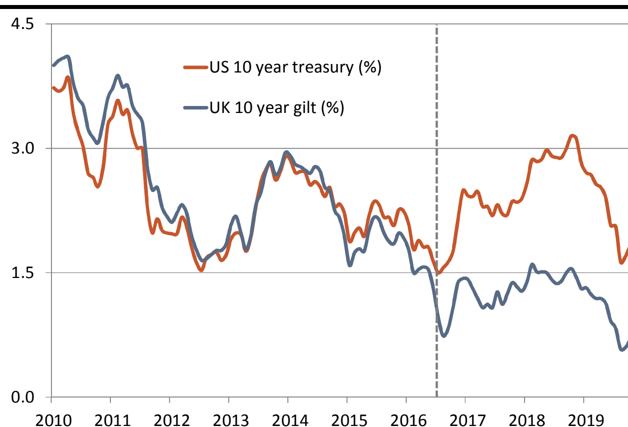
Sterling and bond yields declined in the run-up to the June 2016 referendum as markets began to price in the prospect of slower growth from a Brexit vote. Sterling fell sharply following the referendum, reflecting an anticipated slump in near-term demand and weaker future trend growth. After peaking in November 2015, trade-weighted sterling dropped by 20% to a post-Brexit vote low in October 2016. Meanwhile, 10-year gilt yields declined from 2.0% in November 2016 to a low of 0.7% in August 2016.

Chart 4: Sterling gap is not yet closed despite latest rebound



Monthly data. Consumer confidence based on three-month rolling average. Source: BoE, GfK

Chart 5: UK and US 10 year-government bond yields (%)



Monthly data. Source: Bank of England, US Treasury.

Recently, these trends have partly reversed as markets anticipated improved chances of an orderly Brexit soon and a lower risk of a hard Brexit. Compared to the 8 August 2019 low, sterling has risen by c7% versus the US dollar and nearly 8% against the euro. As Chart 4

shows, sterling still remains weak relative to economic fundamentals such as consumers' appetites for major purchases. This gap between sterling, which reflects diminishing risks, and mostly healthy economic fundamentals should close in the coming months.

The rebound in gilts yields is so far more modest. However, that partly reflects global risks linked to trade wars and the ongoing trade and production recession, which has led to higher demand for safe assets globally. After a 15 August 2019 low of c0.4%, 10-year gilt yields have risen to 0.7%. The gap that has emerged between the US 10-year treasury yields and UK 10-year gilt yields since 2016 reflects the Brexit vote on the UK side and the fiscal stimulus plus tighter Fed policy relative to the BoE (Chart 5). We expect this spread to narrow somewhat over the medium term as the risks on the UK side fade and the monetary policy outlook reverses.

We look for sterling and gilt yields to rise further over the next year, conditional on: 1) a cyclical upturn in UK economic growth; 2) Johnson winning the 12 December 2019 snap election before stimulating growth via fiscal policy and deregulation; and 3) gradual rate hikes by the BoE.

We expect the re-pricing to be front-loaded. We look for sterling to rise versus the euro from its current rate of 1.15 to 1.20 by end-2020 before oscillating around this rate over the course of 2020. Versus the US dollar, sterling could appreciate from its current rate of 1.28 to 1.34 by end-2019, with a continued rise to 1.39 by end-2020. We project that 10-year gilt yields will increase to 0.9% by end-2020, continue to rise over the course of next year and finish 2020 at 1.7%.

Downside risks

The risks to our upgraded economic outlook are tilted to the downside. We identify three key risks.

1. The US-China trade war escalates and/or the ongoing China slowdown intensifies. In turn, the global economic downturn deepens in 2020 with the recession in industrial production and trade spreading to services and consumption. The Eurozone economy starts to stagnate or enters recession.
2. Johnson fails to win a majority in snap elections. The expected sizeable fiscal stimulus does not happen. Instead, an election ends with a hung parliament, or with Labour's Corbyn in power (unlikely) with some non-Conservative coalition or, perhaps, with a Labour majority (highly unlikely) – the UK economy faces new uncertainties pertaining to the domestic economic policy outlook and, crucially, Brexit.
3. Johnson wins a majority in the election and parliament passes his Brexit deal but UK-EU talks on the future relationship break down and no FTA is in place when the transitional period ends at the close of 2020. Even if the UK and the EU agree an FTA in time to avoid a hard Brexit, noisy and uncertain negotiations during 2020 could weigh heavily on business investment by more than we already anticipate and hold back headline GDP growth in 2020, especially in the second half of the year.

Monetary policy impact

In recent weeks, markets have reacted positively to the improved chance of a Brexit deal and lower Corbyn risk. Following on from that, market-implied inflation expectations have fallen sharply (Chart 6). On its own, the rise in sterling will dampen near-term inflationary pressures by lowering import costs. Does this change the policy outlook for the BoE? Not much, in our view.

After dipping in the near term due to the weaker oil price and a rise in sterling, we expect inflation to gradually drift above the BoE's 2% inflation in the second half of 2020 lifted by accelerating wage growth (Chart 7) that supports stronger gains in domestic demand. Nominal wage growth has risen towards 4% yoy in recent months. We look for a further modest acceleration over the medium term in response to tight UK labour markets. Unemployment, at 3.9%, is below consensus estimates of full employment. Vacancies remain near record highs.

Due to some persisting Brexit uncertainty linked to the risk of a hard Brexit at the end of 2020, the rebound in business investment may be modest relative to the rebound in other components of final domestic demand, which will be underpinned by a sizeable income-tax driven fiscal stimulus. On the back of a rise in household and business confidence,

BERENBERG
PARTNERSHIP SINCE 1590

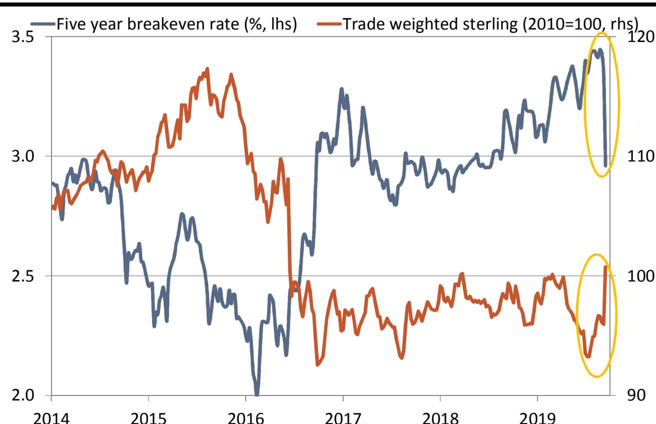
workers and vendors alike will try to bargain up wages and prices more aggressively. We project a rise in inflation from 1.8% yoy in Q4 2018 to a peak of 2.5% by Q4 2019.

Reacting to the inflation risks, we expect the BoE to gradually raise rates over the medium term. In its most recent policy statement following the 19 September 2019 monetary policy committee (MPC) meeting, the BoE continued to guide towards further interest rate hikes:

> "In the event of greater clarity that the economy is on a path to a smooth Brexit, and assuming some recovery in global growth… the Committee judges that increases in interest rates, at a gradual pace and to a limited extent, would be appropriate".

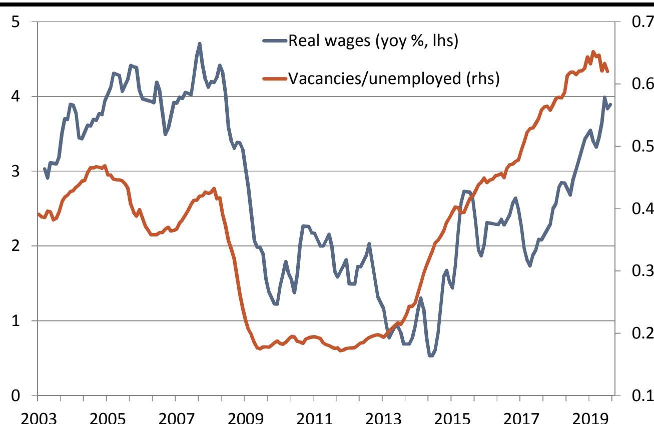
The BoE has maintained similar forward guidance since hiking rates in August 2018 some 14 months ago. We expect the BoE to hike rates by 25bp in Q3 2020 and again by 25bp in Q3 2021. This would take the bank rate to a still low 1.25% by end-2021.

Chart 6: Sterling versus inflation expectations



Monthly data. Source: Bank of England, Bank for International Settlements.

Chart 7: Wage growth accelerating amid tight labour markets



Monthly data. Source: Source: ONS, Berenberg calculations.

If our base case unfolds, the prospect of a large fiscal stimulus tilts the risks to the outlook for rates to the upside. By how much the BoE would step up the pace of rate hikes if a fiscal stimulus goes ahead is not obvious. It would likely react to an anticipated stimulus only once the details of the fiscal policies had become clear.

The BoE would probably take its cue from market-implied indicators of inflation expectations and changes in long-term bond rates as markets judge the implications of any policies. A big jump in market expectations for growth and inflation would likely prompt a swift reaction by the BoE, whereas more muted reaction by markets would give the BoE some room to wait and see how the data develop.

BERENBERG
PARTNERSHIP SINCE 1590

Disclaimer

This document was compiled by the above mentioned authors of the economics department of Joh. Berenberg, Gossler & Co. KG (hereinafter referred to as "the Bank"). The Bank has made any effort to carefully research and process all information. The information has been obtained from sources which we believe to be reliable such as, for example, Thomson Reuters, Bloomberg and the relevant specialised press. However, we do not assume liability for the correctness and completeness of all information given. The provided information has not been checked by a third party, especially an independent auditing firm. We explicitly point to the stated date of preparation. The information given can become incorrect due to passage of time and/or as a result of legal, political, economic or other changes. We do not assume responsibility to indicate such changes and/or to publish an updated document. The forecasts contained in this document or other statements on rates of return, capital gains or other accession are the personal opinion of the author and we do not assume liability for the realisation of these.

This document is only for information purposes. It does not constitute a financial analysis within the meaning of § 34b or § 31 Subs. 2 of the German Securities Trading Act (Wertpapierhandelsgesetz), no investment advice or recommendation to buy financial instruments. It does not replace consulting regarding legal, tax or financial matters.

Remarks regarding foreign investors

The preparation of this document is subject to regulation by German law. The distribution of this document in other jurisdictions may be restricted by law, and persons, into whose possession this document comes, should inform themselves about, and observe, any such restrictions.

United Kingdom

This document is meant exclusively for institutional investors and market professionals, but not for private customers. It is not for distribution to or the use of private investors or private customers.

United States of America

This document has been prepared exclusively by Joh. Berenberg, Gossler & Co. KG. Although Berenberg Capital Markets LLC, an affiliate of the Bank and registered US broker-dealer, distributes this document to certain customers. This document does not constitute research of Berenberg Capital Markets LLC. In addition, this document is meant exclusively for institutional investors and market professionals, but not for private customers. It is not for distribution to or the use of private investors or private customers.

This document is classified as objective for the purposes of FINRA rules. Please contact Berenberg Capital Markets LLC (+1 617.292.8200), if you require additional information.

Copyright

The Bank reserves all the rights in this document. No part of the document or its content may be rewritten, copied, photocopied or duplicated in any form by any means or redistributed without the Bank's prior written consent.

© 2019 Joh. Berenberg, Gossler & Co. KG

Economics

BERENBERG
PARTNERSHIP SINCE 1590

JOH. BERENBERG, GOSSLER & CO. KG

Internet www.berenberg.com

E-mail: firstname.lastname@berenberg.com

EQUITY RESEARCH

GENERAL MID CAP

MID CAP - DACH

Name	Phone
Carl-Oscar Bredengen	+44 20 3753 3160
Marta Bruska	+44 20 3753 3187
Charlotte Friedrichs	+44 20 3753 3077
Gustav Froberg	+44 20 3465 2655
James Letten	+44 20 3753 3176
Alexander O'Donoghue	+44 20 3207 7804
Gerhard Orgonas	+44 20 3465 2635
Benjamin Pfannes-Varrow	+44 20 3465 2620
Lasse Stueben	+44 20 3753 3208

MID CAP - EU core

Name	Phone
Beatrice Allen	+44 20 3465 2662
Fraser Donlon	+44 20 3465 2674
Remi Grenu	+44 20 3207 7806
Christoph Greulich	+44 20 3753 3119
Andreas Markou	+44 20 3753 3022
Anna Patrice	+44 20 3207 7863
Trion Reid	+44 20 3753 3113
Jan Richard	+44 20 3753 3029

MID CAP - UK

Name	Phone
Calum Battersby	+44 20 3753 3118
Joseph Bloomfield	+44 20 3753 3248
Robert Chantry	+44 20 3207 7861
Sam Cullen	+44 20 3753 3183
Ned Hammond	+44 20 3753 3017
Tom Horne	+44 20 3207 7913
Edward James	+44 20 3207 7811
Kieran Lee	+44 20 3465 2736
Lush Mahendrarajah	+44 20 3207 7896
Benjamin May	+44 20 3465 2667
Alex Medhurst	+44 20 3753 3047
Anthony Plom	+44 20 3207 7908
Eoghan Reid	+44 20 3753 3055
Owen Shirley	+44 20 3465 2731
Donald Tait	+44 20 3753 3031
Sean Thapar	+44 20 3465 2657

BUSINESS SERVICES, LEISURE & TRANSPORT

BUSINESS SERVICES

Name	Phone
Tom Burlton	+44 20 3207 7852

LEISURE

Name	Phone
Jack Cummings	+44 20 3753 3161
Stuart Gordon	+44 20 3207 7858
Annabel Hay-Jahans	+44 20 3465 2720

TRANSPORT & LOGISTICS

Name	Phone
Conor Dwyer	+44 20 3753 3216
William Fitzalan Howard	+44 20 3465 2640
Joel Spungin	+44 20 3207 7867
Adrian Yanoshik	+44 20 3753 3073

CONSUMER

BEVERAGES

Name	Phone
Javier Gonzalez Lastra	+44 20 3465 2719

FOOD MANUFACTURING AND HPC

Name	Phone
Ebba Bjorklid	+44 20 3753 3247
Fulvio Cazzol	+44 20 3207 7840
James Targett	+44 20 3207 7873

FOOD RETAIL

Name	Phone
Thomas Davies	+44 20 3753 3104

GENERAL RETAIL

Name	Phone
Michael Benedict	+44 20 3753 3175
Oliver Anderson	+44 20 3753 3173
Graham Renwick	+44 20 3207 7851
Michelle Wilson	+44 20 3465 2663

LUXURY GOODS

Name	Phone
Lauren Molyneux	+44 20 3207 7892

ENERGY

OIL & GAS

Name	Phone
Baha Bassatne	+44 20 3753 3158
John Gleeson	+44 20 3465 2716
Ilkin Karimli	+44 20 3465 2684
Edward Pizzey	+44 20 3753 3185
Henry Tarr	+44 20 3207 7827

ENERGY (cont'd)

UTILITIES

Name	Phone
Andrew Fisher	+44 20 3207 7937
Lawson Steele	+44 20 3207 7887

FINANCIALS

BANKS

Name	Phone
Adam Barrass	+44 20 3207 7923
Frederick Brennan	+44 20 3753 3171
Michael Christodoulou	+44 20 3207 7920
Andrew Lowe	+44 20 3465 2743
Eoin Mullany	+44 20 3207 7854
Peter Richardson	+44 20 3465 2681

DIVERSIFIED FINANCIALS

Name	Phone
Panos Ellinas	+44 20 3753 3149
Chris Turner	+44 20 3753 3019

REAL ESTATE

Name	Phone
Kai Klose	+44 20 3207 7888

HEALTHCARE

Name	Phone
Scott Bardo	+44 20 3207 7869
Michael Healy	+44 20 3753 3201
Tom Jones	+44 20 3207 7877
Odysseas Manesiotis	+44 20 375 3200

INDUSTRIALS

AEROSPACE & DEFENCE

Name	Phone
Andrew Gollan	+44 20 3207 7891
Ross Law	+44 20 3465 2692
George McWhirter	+44 20 3753 3163

AUTOMOTIVES

Name	Phone
Cristian Dirpes	+44 20 3465 2721
Asad Farid	+44 20 3207 7932

CAPITAL GOODS

Name	Phone
Philippe Lorrain	+44 20 3207 7823
Joel Spungin	+44 20 3207 7867

MATERIALS

CHEMICALS

Name	Phone
Sebastian Bray	+44 20 3753 3011
Xian Deng	+44 20 3753 3014
Kai Lux	+44 20 3753 3202
Anthony Manning	+44 20 3753 3092
Rikin Patel	+44 20 3753 3080

METALS & MINING

Name	Phone
Richard Hatch	+44 20 3753 3070
Laurent Kimman	+44 20 3465 2675
Michael Stoner	+44 20 3465 2643

TMT

TECHNOLOGY

Name	Phone
Tammy Qiu	+44 20 3465 2673
Tej Sthankiya	+44 20 3753 3099
Lou Ann Yong	+44 20 3753 3159

MEDIA

Name	Phone
Jamie Bass	+44 20 3753 3217
Robert Berg	+44 20 3465 2680
Keisi Hysa	+44 20 3207 7817
Laura Janssens	+44 20 3465 2639
Sarah Simon	+44 20 3207 7830

TELECOMMUNICATIONS

Name	Phone
David Burns	+44 20 3753 3059
Usman Ghazi	+44 20 3207 7824
Laura Janssens	+44 20 3465 2639
Abhilash Mohapatra	+44 20 3465 2644
Carl Murdock-Smith	+44 20 3207 7918

THEMATIC RESEARCH

Name	Phone
Steven Bowen	+44 20 3753 3057
Julia Schrameier	+44 20 3753 3172

ECONOMICS

Name	Phone
Florian Hense	+44 20 3207 7859
Kallum Pickering	+44 20 3465 2672
Holger Schmieding	+44 20 3207 7889

EQUITY SALES

SPECIALIST SALES

AEROSPACE & DEFENCE & CAPITAL GOODS

Name	Phone
Cara Luciano	+44 20 3753 3146

AUTOS, CHEMICALS & TECHNOLOGY

Name	Phone
Edward Wales	+44 20 3207 7815

BANKS & DIVERSIFIED FINANCIALS

Name	Phone
Eleni Papoula	+44 20 3465 2741

BUSINESS SERVICES, LEISURE & TRANSPORT

Name	Phone
Rebecca Langley	+44 20 3207 7930

CONSUMER DISCRETIONARY

Name	Phone
Pauline Chevalier	+44 20 3753 3209

CONSUMER STAPLES

Name	Phone
Ramnique Sroa	+44 20 3753 3064

HEALTHCARE

Name	Phone
David Hogg	+44 20 3465 2628

MEDIA & TELECOMS

Name	Phone
Jonathan Smith	+44 20 3207 7842

METALS & MINING, OIL & GAS AND UTILITIES

Name	Phone
Jason Turner	+44 20 3753 3063

THEMATICS

Name	Phone
Chris Armstrong	+44 20 3207 7809

SALES

BENELUX

Name	Phone
Miel Bakker	+44 20 3207 7808
Bram van Hijfte	+44 20 3753 3000

SALES (cont'd)

FRANCE

Name	Phone
Alexandre Chevassus	+33 1 5844 9512
Dalila Farigoule	+33 1 5844 9510
Kevin Nor	+33 1 5844 9505
Guillaume Viret	+331 5844 9507

SCANDINAVIA

Name	Phone
Marco Weiss	+49 40 3506 0719

UK

Name	Phone
Thomas Baker	+44 20 3753 3062
James Burt	+44 20 3207 7807
Marta De-Sousa Fialho	+44 20 3753 3098
Katie Jackson	+44 20 3753 3041
Robert Floyd	+44 20 3753 3018
David Franklin	+44 20 3465 2747
Sean Heath	+44 20 3465 2742
Stuart Holt	+44 20 3465 2646
James Hunt	+44 20 3753 3007
James McRae	+44 20 3753 3036
David Mortlock	+44 20 3207 7850
Bhavin Patel	+44 20 3207 7926
Kushal Patel	+44 20 3753 3038
Richard Payman	+44 20 3207 7825
Christopher Pyle	+44 20 3753 3076
Adam Robertson	+44 20 3753 3095

SALES (cont'd)

UK (cont'd)

Name	Phone
Mark Sheridan	+44 20 3207 7802
George Smibert	+44 20 3207 7911
Paul Walker	+44 20 3465 2632

GERMANY

Name	Phone
Simone Arnheiter	+49 69 91 30 90 740
Nina Buechs	+49 69 91 30 90 735
André Grosskurth	+49 69 91 30 90 734

SWITZERLAND, AUSTRIA & ITALY

Name	Phone
Duncan Downes	+41 22 317 1062
Andrea Ferrari	+41 44 283 2020
Gianni Lavigna	+41 44 283 2038
Jamie Nettleton	+41 44 283 2026
Yeannie Rath	+41 44 283 2029

CRM

Name	Phone
Megan Connelly	+44 20 3753 3244
Laura Cooper	+44 20 3753 3065
Beau Dibbs	+44 20 3753 3048
Jessica Jarmyn	+44 20 3465 2696
Madeleine Lockwood	+44 20 3753 3110
Vikram Nayar	+44 20 3465 2737
Fenella Neill	+44 20 3207 7868

CORPORATE ACCESS

Name	Phone
Lindsay Arnold	+44 20 3207 7821
Sally Fitzpatrick	+44 20 3207 7826
Maz Gentile	+44 20 3465 2668
Robyn Gowers	+44 20 3753 3109
Dipti Jethwani	+44 20 3207 7936
Phoebe Lindsay	+44 20 3753 3246
Ross Mackay	+44 20 3207 7866
Stella Siggins	+44 20 3465 2630
Lucy Stevens	+44 20 3753 3068
Abbie Stewart	+44 20 3753 3054

EVENTS

Name	Phone
Miranda Bridges	+44 20 3753 3008
Charlotte David	+44 20 3207 7832
Suzy Khan	+44 20 3207 7915
Natalie Meech	+44 20 3207 7831
Eleanor Metcalfe	+44 20 3207 7834
Sarah Weyman	+44 20 3207 7801

COO Office

Name	Phone
Greg Swallow	+44 20 3207 7833

SALES TRADING

LONDON

Name	Phone
Charles Beddow	+44 20 3465 2691
Mike Berry	+44 20 3465 2755
Joseph Chappell	+44 20 3207 7885
Stewart Cook	+44 20 3465 2752
Mark Edwards	+44 20 3753 3004
Tom Floyd	+44 20 3753 3136
Tristan Hedley	+44 20 3753 3006
Peter King	+44 20 3753 3139
AJ Pulleyn	+44 20 3465 2756
Paul Somers	+44 20 3465 2753
Frans Van Wakeren	+44 20 3753 3079

PARIS

Name	Phone
Vincent Klein	+33 1 58 44 95 09

EQUITY TRADING

HAMBURG

Name	Phone
David Hohn	+49 40 350 60 761
Lukas Niehoff	+49 40 350 60 798
Lennart Pleus	+49 40 350 60 596
Marvin Schweden	+49 40 350 60 576
Philipp Wiechmann	+49 40 350 60 346
Christoffer Winter	+49 40 350 60 559

LONDON

Name	Phone
Christopher Brown	+44 20 3753 3085
Edward Burlison-Rush	+44 20 3753 3005
Jack Clayton	+44 20 3753 3166

LONDON (cont'd)

Name	Phone
Will Kain	+44 20 3753 3167
Chris McKeand	+44 20 3207 7938
Ross Tobias	+44 20 3753 3137
Robert Towers	+44 20 3753 3262

ELECTRONIC TRADING

Name	Phone
Frederik Bröker	+49 40 3506 0463
Jonas Doehler	+44 40 3506 0391
Matthias Führer	+49 40 3506 0597
Sven Kramer	+49 40 3506 0347

BERENBERG CAPITAL MARKETS LLC

Member FINRA & SIPC

Internet www.berenberg-us.com

E-mail: firstname.lastname@berenberg-us.com

EQUITY RESEARCH

CONSTRUCTION

Robert Muir +1 646 949 9028
Daniel Wang +1 646 949 9025

GENERAL MID CAP - US

Samuel England +1 646 949 9035
Alex Maroccia +1 646 949 9033
Brett Knoblauch +1 646 949 9032

FOOD MANUFACTURING

Donald McLee +1 646 949 9026

HEALTHCARE

BIOTECH/THERAPEUTICS

Shanshan Xu +1 646 949 9023

MED. TECH/SERVICES

Ravi Misra +1 646 949 9028

SPECIALTY PHARMA/BIOTECH

Iris Long +1 646 949 9029
Patrick R. Trucchio +1 646 949 9027

CAPITAL GOODS

Andrew Buscaglia +1 646 949 9040

INDUSTRIAL MATERIALS

Paretosh Misra +1 646 949 9031

REAL ESTATE

Keegan Carl +1 646 949 9052
Nate Crossett +1 646 949 9030
Connor Siversky +1 646 949 9037

SOFTWARE & IT SERVICES

Joshua Tilton +1 646 949 9036
Francois Yoshida-Are +1 646 949 9152

TECHNOLOGY HARDWARE

Andrew DeGasperi +1 646 949 9044

ECONOMICS

Mickey Levy +1 646 949 9099
Roiana Reid +1 646 949 9098

EQUITY SALES

SALES

David Alonso +1 415 802 2523
Albert Aguiar +1 646 949 9218
Jason Cantrell +1 415 802 2523
Daniel Claeys +1 646 949 3144
Nate Emerton +1 617 292 82 11
Kelleigh Faldi +1 617 292 8288
Ted Franchetti +1 646 949 9231
Rich Harb +1 617 292 8228
Zubin Hubner +1 646 949 9202
Jessica London +1 646 949 9203
Anthony Masucci +1 646 949 9217
Ryan McDonnell +1 646 949 9214
Emily Mouret +1 415 802 2525
Peter Nichols +1 646 949 9201
Kieran O'Sullivan +1 617 292 8292
Rodrigo Ortigao +1 646 949 9205

CRM

Alexandra Angove +1 646 949 9211
Sammy Chea +1 646 949 9241

CORPORATE ACCESS

Michelle Backmann +1 646 949 9215
Adriane Klein +1 617 292 8202
Olivia Lee +1 646 949 9207

EVENTS

Meridian Della Penna +1 646 949 9208
Laura Hawes +1 646 949 9209

SALES TRADING

Marc Castagnera +1 646 949 9107
Ronald Cestra +1 646 949 9104
Mark Corcoran +1 646 949 9105
Chris Davidson +1 617 292 9140
Michael Haughey +1 646 949 9106
Christopher Kanian +1 646 949 9103
Lars Schwartau +1 646 949 9101
Bob Spillane +1 646 949 9102
Donato Tierno +1 646 949 9109