## APPENDIX B: Economic background and interest rate risks

### Economic background

1 **UK.** The Bank of England's Monetary Policy Committee (MPC) kept Bank Rate unchanged on 5 November 2020. However, it revised its economic forecasts to take account of a second national lockdown from 5 November 2020 to 2 December 2020 which is obviously going to put back economic recovery and do further damage to the economy. It therefore decided to do a further tranche of quantitative easing (QE) of £150bn, to start in January when the current programme of £300bn of QE announced in March to June, runs out. It did this so that "announcing further asset purchases now should support the economy and help to ensure the unavoidable near-term slowdown in activity was not amplified by a tightening in monetary conditions that could slow the return of inflation to the target".

2 Its forecasts appeared, at the time, to be rather optimistic in terms of three areas:

- The economy would recover to reach its pre-pandemic level in Q1 2022
- The Bank also expects there to be excess demand in the economy by Q4 2022.
- CPI inflation is therefore projected to be a bit above its 2% target by the start of 2023 and the "inflation risks were judged to be balanced".

3 Significantly, there was no mention of negative interest rates in the minutes or Monetary Policy Report, suggesting that the MPC remains some way from being persuaded of the case for such a policy, at least for the next 6 -12 months. However, rather than saying that it "stands ready to adjust monetary policy", the MPC this time said that it will take "whatever additional action was necessary to achieve its remit". The latter seems stronger and wider and may indicate the Bank's willingness to embrace new tools.

4 One key addition to the Bank's forward guidance in August was a new phrase in the policy statement, namely that "it does not intend to tighten monetary policy until there is clear evidence that significant progress is being made in eliminating spare capacity and achieving the 2% target sustainably". That seems designed to say, in effect, that even if inflation rises to 2% in a couple of years' time, do not expect any action from the MPC to raise Bank Rate – until they can clearly see that level of inflation is going to be persistently above target if it takes no action to raise Bank Rate. Our Bank Rate forecast currently shows no increase through to quarter 1 2024 but there could well be no increase during the next five years due to the slow rate of recovery of the economy and the need for the Government to see the burden of the elevated debt to GDP ratio falling significantly.

Inflation is unlikely to pose a threat requiring increases in Bank Rate during this period as there is likely to be spare capacity in the economy for a considerable time. It is expected to briefly peak at around 2% towards the end of 2021, but this is a temporary short lived factor and so not a concern.

5 However, the minutes did contain several references to downside risks. The MPC reiterated that the "recovery would take time, and the risks around the GDP projection were judged to be skewed to the downside". It also said "the risk of a more persistent period of elevated unemployment remained material". Downside risks could well include severe restrictions remaining in place in some form during the rest of December and most of January too. That could involve some or all of the lockdown being extended beyond 2nd December 2020, a temporary relaxation of restrictions over Christmas, a resumption of the lockdown in January and lots of regions being subject to Tier 3 restrictions when the lockdown ends. Hopefully, restrictions should progressively ease during the spring. It is only to be expected that some businesses that have barely survived the first lockdown, will fail to survive the second lockdown, especially those businesses that depend on a surge of business in the run up to Christmas each year. This will mean that there will be some level of further permanent loss of economic activity, although the extension of the furlough scheme to the end of 31st March 2021 will limit the degree of damage done.

6 As for upside risks, we have been waiting expectantly for news that various COVID-19 vaccines would be cleared as being safe and effective for administering to the general public. The Pfizer announcement on 9 November 2020 was very encouraging as its 90% effectiveness was much higher than the 50-60% rate of effectiveness of flu vaccines which might otherwise have been expected. However, their phase three trials are still only two-thirds complete. More data needs to be collected to make sure there are no serious side effects. We don't know exactly how long immunity will last or whether it is effective across all age groups. The Pfizer vaccine specifically also has demanding cold storage requirements of minus 70C that might make it more difficult to roll out. However, the logistics of production and deployment can surely be worked out over the next few months.

7 However, there has been even further encouraging news since then with another two vaccines announcing high success rates. Together, these three announcements have enormously boosted confidence that life could largely return to normal during the second half of 2021, with activity in the still-depressed sectors like restaurants, travel and hotels returning to their pre-pandemic levels, which would help to bring the unemployment rate down. With the household saving rate currently being exceptionally high, there is plenty of pent-up demand and purchasing power stored up for these services. A comprehensive roll-out of vaccines might take into late 2021 to fully complete; but if these vaccines prove to be highly effective, then there is a possibility that restrictions could begin to be eased, possibly in Q2 2021,

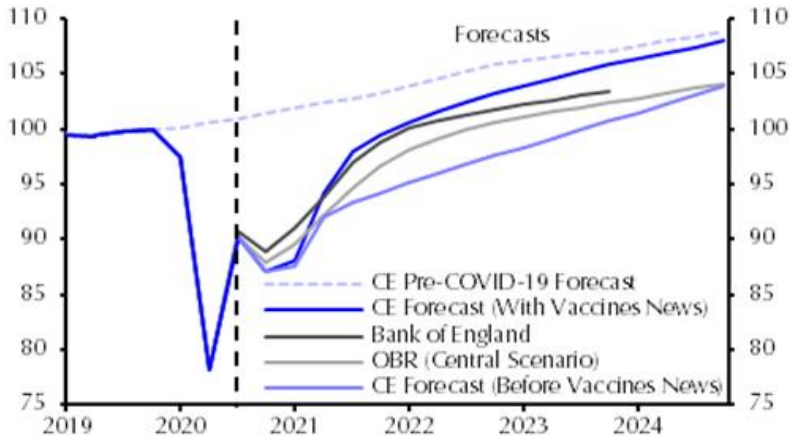
once vulnerable people and front-line workers had been vaccinated. At that point, there would be less reason to fear that hospitals could become overwhelmed any more. Effective vaccines would radically improve the economic outlook once they have been widely administered; it may allow GDP to rise to its pre-virus level a year earlier than otherwise and mean that the unemployment rate peaks at 7% next year instead of 9%. But while this would reduce the need for more QE and/or negative interest rates, increases in Bank Rate would still remain some years away. There is also a potential question as to whether the relatively optimistic outlook of the Monetary Policy Report was swayed by making positive assumptions around effective vaccines being available soon. It should also be borne in mind that as effective vaccines will take time to administer, economic news could well get worse before it starts getting better.

8 Public borrowing is now forecast by the Office for Budget Responsibility (OBR) to reach £394bn in the current financial year, the highest ever peace time deficit and equivalent to 19% of GDP. In normal times, such an increase in total gilt issuance would lead to a rise in gilt yields, and so PWLB rates. However, the QE done by the Bank of England has depressed gilt yields to historic low levels, (as has similarly occurred with QE and debt issued in the US, the EU and Japan). This means that new UK debt being issued, and this is being done across the whole yield curve in all maturities, is locking in those historic low levels through until maturity. In addition, the UK has one of the longest average maturities for its entire debt portfolio, of any country in the world. Overall, this means that the total interest bill paid by the Government is manageable despite the huge increase in the total amount of debt. The OBR was also forecasting that the government will still be running a budget deficit of £102bn (3.9% of GDP) by 2025/26. However, initial impressions are that they have taken a pessimistic view of the impact that vaccines could make in the speed of economic recovery.

9 Overall, the pace of recovery was not expected to be in the form of a rapid V shape, but a more elongated and prolonged one. The initial recovery was sharp but after a disappointing increase in GDP of only 2.1% in August, this left the economy still 9.2% smaller than in February; this suggested that the economic recovery was running out of steam after recovering 64% of its total fall during the crisis. The last three months of 2020 were originally expected to show zero growth due to the impact of widespread local lockdowns, consumers probably remaining cautious in spending, and uncertainty over the outcome of the UK/EU trade negotiations concluding at the end of the year also being a headwind. However, the second national lockdown starting on 5 November 2020 for one month is expected to depress GDP by 8% in November while the rebound in December is likely to be muted and vulnerable to the previously mentioned downside risks. It was expected that the second national lockdown would push back recovery of GDP to pre pandemic levels by six months and into sometime during 2023. However, the graph below shows what Capital Economics forecast will happen now that there is high confidence that successful vaccines will be widely

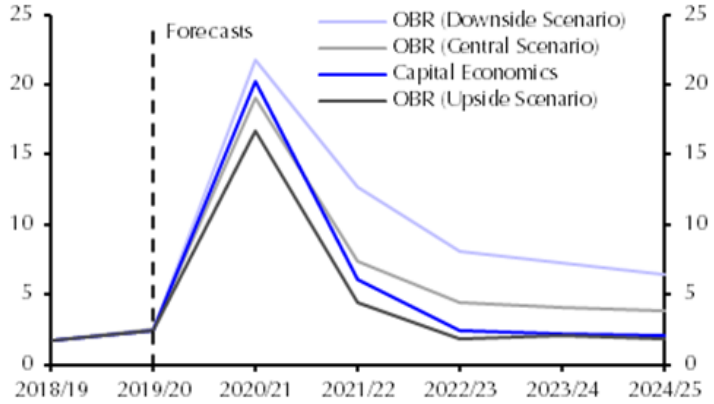
administered in the UK in the first half of 2021; this would cause a much quicker recovery than in their previous forecasts.

Chart: Level of real GDP (Q4 2019 = 100)




10 This recovery of growth which eliminates the effects of the pandemic by about the middle of the decade would have major repercussions for public finances as it would be consistent with the government deficit falling to 2% of GDP without any tax increases. This would be in line with the OBR's most optimistic forecast in the graph below, rather than their current central scenario which predicts a 4% deficit due to assuming much slower growth. However, Capital Economics forecasts assume that there is a reasonable Brexit deal and also that politicians do not raise taxes or embark on major austerity measures and so, (perversely!), depress economic growth and recovery.

Chart: Public Sector Net Borrowing (As a % of GDP)




11 Capital Economics have not revised their forecasts for Bank Rate or gilt yields after this major revision of their forecasts for the speed of recovery of economic growth, as they are also forecasting that inflation is unlikely to be a significant threat and so gilt yields are unlikely to rise significantly from current levels.

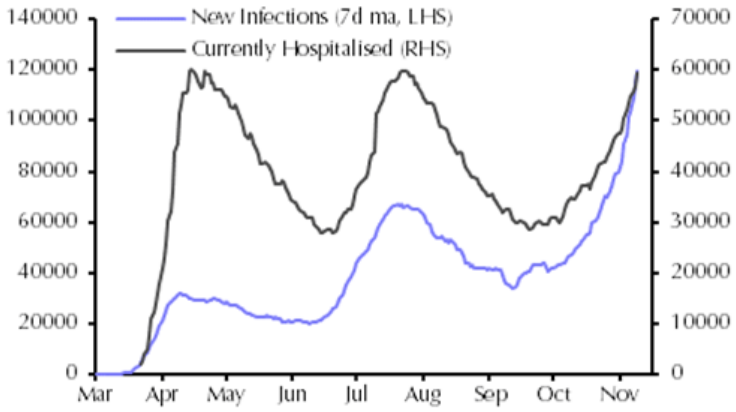
12 There will still be some painful longer term adjustments as e.g. office space and travel by planes, trains and buses may not recover to their previous level of use for several years, or possibly ever, even if vaccines are fully successful in overcoming the current virus. There is also likely to be a reversal of globalisation as this crisis has exposed how vulnerable long-distance supply chains are. On the other hand, digital services are one area that has already seen huge growth.

13 The Financial Policy Committee (FPC) report on 6 August 2020 revised down their expected credit losses for the banking sector to "somewhat less than £80bn". It stated that in its assessment "banks have buffers of capital more than sufficient to absorb the losses that are likely to arise under the MPC's central projection". The FPC stated that for real stress in the sector, the economic output would need to be twice as bad as the MPC's projection, with unemployment rising to above 15%.

14 **US.** The result of the November elections means that while the Democrats have gained the presidency and a majority in the House of Representatives, it looks as if the Republicans will retain their slim majority in the Senate. This means that the Democrats will not be able to do a massive fiscal stimulus, as they had been hoping to do after the elections, as they will have to get agreement from the Republicans. That would have resulted in another surge of debt issuance and could have put particular upward pressure on debt yields – which could then have also put upward pressure on gilt yields. On the other hand, equity prices leapt up on 9 November 2020 on the first news of a successful vaccine and have risen further during November as more vaccines announced successful results. This could cause a big shift in investor sentiment i.e. a swing to sell out of government debt to buy into equities which would normally be expected to cause debt prices to fall and yields to rise. However, the rise in yields has been quite muted so far and it is too early to say whether the Federal Reserve (Fed) would feel it necessary to take action to suppress any further rise in debt yields. It is likely that the next two years, and possibly four years in the US, could be a political stalemate where neither party can do anything radical.

15 The economy had been recovering quite strongly from its contraction in 2020 of 10.2% due to the pandemic with GDP only 3.5% below its pre-pandemic level and the unemployment rate dropping below 7%. However, the rise in new cases during quarter 4, to the highest level since mid-August, suggests that the US could be in the early stages of a third wave. While the first wave in March and April was concentrated in the Northeast, and the second wave in the South and West, the latest wave has been driven by a growing outbreak in the Midwest. The latest upturn poses a threat that the recovery in the economy could stall. This is the single biggest downside risk to the shorter term outlook – a more widespread and severe wave of infections over the winter months, which is compounded by the impact of the regular flu season and, as a consequence, threatens to overwhelm health care facilities. Under those circumstances, states might feel it necessary to return to more draconian lockdowns.

COVID-19 New infections & hospitalisations




16 However, with the likelihood that highly effective vaccines are going to become progressively widely administered during 2021, this should mean that life will start to return to normal during quarter 2 of 2021. Consequently, there should be a sharp pick-up in growth during that quarter and a rapid return to the pre-pandemic level of growth by the end of the year.

17 After Chair Jerome Powell unveiled the Fed's adoption of a flexible average inflation target in his Jackson Hole speech in late August, the mid-September meeting of the Fed agreed by a majority to a toned down version of the new inflation target in his speech - that *"it would likely be appropriate to maintain the current target range until labour market conditions were judged to be consistent with the Committee's assessments of maximum employment and inflation had risen to 2% and was on track to moderately exceed 2% for some time."* This change was aimed to provide more stimulus for economic growth and higher levels of employment and to avoid the danger of getting caught in a deflationary "trap" like Japan. It is to be noted that inflation has actually been under-shooting the 2% target significantly for most of the last decade, (and this year), so financial markets took note that higher levels of inflation are likely to be in the pipeline; long-term bond yields duly rose after the meeting. The Fed also called on Congress to end its political disagreement over providing more support for the unemployed as there is a limit to what monetary policy can do compared to more directed central government fiscal policy. The FOMC's updated economic and rate projections in mid-September showed that officials expect to leave the fed funds rate at near-zero until at least end-2023 and probably for another year or two beyond that. There is now some expectation that where the Fed has led in changing its inflation target, other major central banks will follow. The increase in tension over the last year between the US and China is likely to lead to a lack of momentum in progressing the initial positive moves to agree a phase one trade deal. The Fed's meeting on 5 November 2020 was unremarkable - but at a politically sensitive time around the elections.

18 **EU.** The economy was recovering well towards the end of Q2 and into Q3 after a sharp drop in GDP caused by the virus, (e.g. France 18.9%, Italy 17.6%). However, growth is likely to stagnate during Q4, and Q1 of 2021, as a second wave of the virus has affected many countries, and is likely to hit hardest those countries more dependent on tourism. The €750bn fiscal support package eventually agreed by the EU after prolonged disagreement between various countries, is unlikely to provide significant support, and quickly enough, to make an appreciable difference in the worst affected countries. With inflation expected to be unlikely to get much above 1% over the next two years, the European Central bank (ECB) has been struggling to get inflation up to its 2% target. It is currently unlikely that it will cut its central rate even further into negative territory from -0.5%, although the ECB has stated that it retains this as a possible tool to use. It is therefore expected that it will have to provide more monetary policy support through more quantitative easing purchases of bonds in the absence of sufficient fiscal support from governments. The current Pandemic Emergency Purchase Programme (PEPP) scheme of €1,350bn of QE which started in March 2020 is providing protection to the sovereign bond yields of weaker countries like Italy. There is therefore unlikely to be a euro crisis while the ECB is able to maintain this level of support. However, the PEPP scheme is regarded as being a temporary measure during this crisis so it may need to be increased once the first PEPP runs out during early 2021. It could also decide to focus on using the Asset Purchase Programme to make more monthly purchases, rather than the PEPP scheme, and it does have other monetary policy options.

19 However, as in the UK and the US, the advent of highly effective vaccines will be a game changer, although growth will struggle during the closing and opening quarters of this year and next year respectively before it finally breaks through into strong growth in quarters 2 and 3. The ECB will now have to review whether more monetary support will be required to help recovery in the shorter term or to help individual countries more badly impacted by the pandemic.

20 **China.** After a concerted effort to get on top of the virus outbreak in Q1, economic recovery was strong in Q2 and then into Q3 and Q4; this has enabled China to recover all of the contraction in Q1. Policy makers have both quashed the virus and implemented a programme of monetary and fiscal support that has been particularly effective at stimulating short-term growth. At the same time, China's economy has benefited from the shift towards online spending by consumers in developed markets. These factors help to explain its comparative outperformance compared to western economies.

21 However, this was achieved by major central government funding of yet more infrastructure spending. After years of growth having been focused on this same area, any further spending in this area is likely to lead to increasingly weaker economic returns in the longer term. This could, therefore, lead to a further misallocation of resources which will weigh on growth in future years.

22 **Japan.** Japan's success in containing the virus without imposing draconian restrictions on activity should enable a faster return to pre-virus levels of output than in many major economies. While the second wave of the virus has been abating, the economy has been continuing to recover at a reasonable pace from its earlier total contraction of 8.5% in GDP. However, there now appears to be the early stages of the start of a third wave. It has also been struggling to get out of a deflation trap for many years and to stimulate consistent significant GDP growth and to get inflation up to its target of 2%, despite huge monetary and fiscal stimulus. There has also been little progress on fundamental reform of the economy. The change of Prime Minister is not expected to result in any significant change in economic policy.

23 **World growth.** While Latin America and India have, until recently, been hotspots for virus infections, infection rates have begun to stabilise. World growth will be in recession this year. Inflation is unlikely to be a problem for some years due to the creation of excess production capacity and depressed demand caused by the coronavirus crisis.

24 Until recent years, world growth has been boosted by increasing globalisation i.e. countries specialising in producing goods and commodities in which they have an economic advantage and which they then trade with the rest of the world. This has boosted worldwide productivity and growth, and, by lowering costs, has also depressed inflation. However, the rise of China as an economic superpower over the last thirty years, which now accounts for nearly 20% of total world GDP, has unbalanced the world economy. The Chinese government has targeted achieving major world positions in specific key sectors and products, especially high tech areas and production of rare earth minerals used in high tech products. It is achieving this by massive financial support, (i.e. subsidies), to state owned firms, government directions to other firms, technology theft, restrictions on market access by foreign firms and informal targets for the domestic market share of Chinese producers in the selected sectors. This is regarded as being unfair competition that is putting western firms at an unfair disadvantage or even putting some out of business. It is also regarded with suspicion on the political front as China is an authoritarian country that is not averse to using economic and military power for political advantage. The current trade war between the US and China therefore needs to be seen against that backdrop. It is, therefore, likely that we are heading into a period where there will be a reversal of world globalisation and a decoupling of western countries from dependence on China to supply products. This is likely to produce a backdrop in the coming years of weak global growth and so weak inflation.

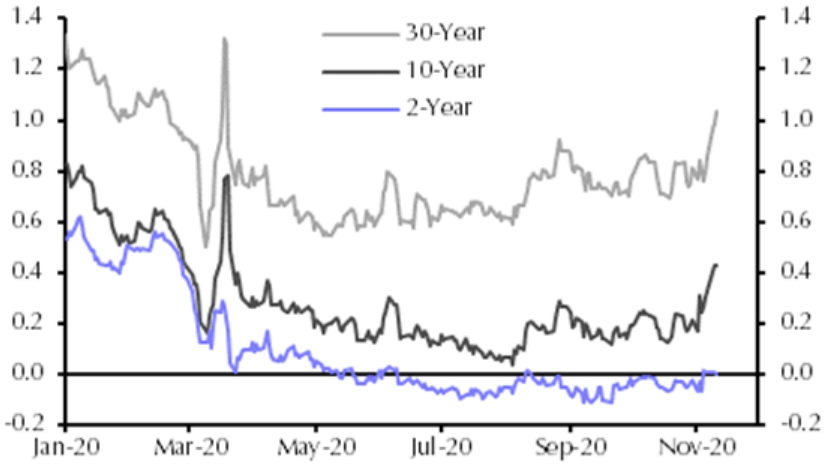
**Summary**

25 Central banks are, therefore, likely to support growth by maintaining loose monetary policy through keeping rates very low for longer. Governments

could also help a quicker recovery by providing more fiscal support for their economies at a time when total debt is affordable due to the very low rates of interest. They will also need to avoid significant increases in taxation or austerity measures that depress demand in their economies.

26 If there is a huge surge in investor confidence as a result of successful vaccines which leads to a major switch out of government bonds into equities, which, in turn, causes government debt yields to rise, then there will be pressure on central banks to actively manage debt yields by further QE purchases of government debt; this would help to suppress the rise in debt yields and so keep the total interest bill on greatly expanded government debt portfolios within manageable parameters. It is also the main alternative to a programme of austerity.

27 The graph below as at 10 November 2020, shows how the 10 and 30 year gilt yields in the UK spiked up after the Pfizer vaccine announcement on the previous day, (though they have levelled off during late November at around the same elevated levels): -




**Interest rate forecasts and risks**

28 Brexit. The interest rate forecasts provided by Link in Appendix A are predicated on an assumption of a reasonable agreement being reached on trade negotiations between the UK and the EU by 31 December 2020. However, as the differences between a Brexit deal and a no deal are not as big as they once were, the economic costs of a no deal have diminished. The bigger risk is that relations between the UK and the EU deteriorate to such an extent that both sides start to unravel the agreements already put in place. So what really matters now is not whether there is a deal or a no deal, but what type of no deal it could be.

29 The differences between a deal and a no deal were much greater immediately after the EU Referendum in June 2016, and also just before the original Brexit deadline of 29 March 2019. That's partly because leaving the EU's Single Market

and Customs Union makes this Brexit a relatively "hard" one. But it's mostly because a lot of arrangements have already been put in place. Indeed, since the Withdrawal Agreement laid down the terms of the break-up, both the UK and the EU have made substantial progress in granting financial services equivalence and the UK has replicated the bulk of the trade deals it had with non-EU countries via the EU. In a no deal in these circumstances (a "cooperative no deal"), GDP in 2021 as a whole may be only 1.0% lower than if there were a deal. In this situation, financial services equivalence would probably be granted during 2021 and, if necessary, the UK and the EU would probably rollover any temporary arrangements in the future.

30 The real risk is if the UK and the EU completely fall out. The UK could override part or all of the Withdrawal Agreement while the EU could respond by starting legal proceedings and few measures could be implemented to mitigate the disruption on 1 January 2021. In such an "uncooperative no deal", GDP could be 2.5% lower in 2021 as a whole than if there was a deal. The acrimony would probably continue beyond 2021 too, which may lead to fewer agreements in the future and the expiry of any temporary measures.

31 Relative to the slump in GDP endured during the COVID-19 crisis, any hit from a no deal would be small. But the pandemic does mean there is less scope for policy to respond. Even so, the Chancellor could loosen fiscal policy by about £10bn (0.5% of GDP) and target it at those sectors hit hardest. The Bank of England could also prop up demand, most likely through more gilt and corporate bond purchases rather than negative interest rates.

32 Brexit may reduce the economy's potential growth rate in the long run. However, much of that drag is now likely to be offset by an acceleration of productivity growth triggered by the digital revolution brought about by the COVID-19 crisis.

33 So, in summary, there is not likely to be any change in Bank Rate in 2020/21 and 2021/22 due to whatever outcome there is from the trade negotiations and while there will probably be some movement in gilt yields / PWLB rates after the deadline date, there will probably be minimal enduring impact beyond the initial reaction.

<u>The balance of risks to the UK</u>

- The overall balance of risks to economic growth in the UK is probably now skewed to the upside, but is subject to major uncertainty due to the virus and how quickly successful vaccines may become available and widely administered to the population. It may also be affected by what, if any, deal the UK agrees as part of Brexit.
- There is relatively little UK domestic risk of increases or decreases in Bank Rate and significant changes in shorter term PWLB rates. The Bank of England has effectively ruled out the use of negative interest rates in the near term and increases in Bank Rate are likely to be some years away given the underlying economic expectations. However, it is always possible that

safe haven flows, due to unexpected domestic developments and those in other major economies, could impact gilt yields, (and so PWLB rates), in the UK.

Downside risks to current forecasts for UK gilt yields and PWLB rates

- UK - further national lockdowns or severe regional restrictions in major conurbations during 2021.
- UK / EU trade negotiations – if they were to cause significant economic disruption and downturn in the rate of growth.
- UK government takes too much action too quickly to raise taxation or introduce austerity measures that depress demand in the economy.
- UK - Bank of England takes action too quickly, or too far, over the next three years to raise Bank Rate and causes UK economic growth, and increases in inflation, to be weaker than we currently anticipate.
- A resurgence of the Eurozone sovereign debt crisis. The ECB has taken monetary policy action to support the bonds of EU states, with the positive impact most likely for "weaker" countries. In addition, the EU agreed a €750bn fiscal support package. These actions will help shield weaker economic regions for the next year or so. However, in the case of Italy, the cost of the virus crisis has added to its already huge debt mountain and its slow economic growth will leave it vulnerable to markets returning to taking the view that its level of debt is unsupportable. There remains a sharp divide between northern EU countries favouring low debt to GDP and annual balanced budgets and southern countries who want to see jointly issued Eurobonds to finance economic recovery. This divide could undermine the unity of the EU in time to come.
- Weak capitalisation of some European banks, which could be undermined further depending on extent of credit losses resultant of the pandemic.
- German minority government & general election in 2021. In the German general election of September 2017, Angela Merkel's CDU party was left in a vulnerable minority position dependent on the fractious support of the SPD party, as a result of the rise in popularity of the anti-immigration AfD party. The CDU has done badly in subsequent state elections but the SPD has done particularly badly. Angela Merkel has stepped down from being the CDU party leader but she intends to remain as Chancellor until the general election in 2021. This then leaves a major question mark over who will be the major guiding hand and driver of EU unity when she steps down.
- Other minority EU governments. Austria, Sweden, Spain, Portugal, Netherlands, Ireland and Belgium also have vulnerable minority governments dependent on coalitions which could prove fragile.
- Austria, the Czech Republic, Poland and Hungary now form a strongly anti-immigration bloc within the EU. In November, Hungary and Poland threatened to veto the 7 year EU budget due to the inclusion of a rule of law requirement that poses major challenges to both countries. There has also been a rise in anti-immigration sentiment in Germany and France.

- Geopolitical risks, for example in China, Iran or North Korea, but also in Europe and other Middle Eastern countries, which could lead to increasing safe haven flows.

Upside risks to current forecasts for UK gilt yields and PWLB rates

- UK - a significant rise in inflationary pressures. These could be caused by an uncooperative Brexit deal or by a stronger than currently expected recovery in the UK economy after effective vaccines are administered quickly to the UK population which leads to a resumption of normal life and a return to full economic activity across all sectors of the economy.
- The Bank of England is too slow in its pace and strength of increases in Bank Rate and, therefore, allows inflationary pressures to build up too strongly within the UK economy, which then necessitates a rapid series of increases in Bank Rate to stifle inflation.
- Post-Brexit – if a positive agreement was reached that removed the majority of threats of economic disruption between the EU and the UK.