ANNEX 3

ECONOMIC BACKGROUND

GLOBAL OUTLOOK. World growth has been doing reasonably well, aided by strong growth in the US. However, US growth is likely to fall back in 2019 and, together with weakening economic activity in China and the Eurozone, overall world growth is likely to weaken.

Inflation has been weak during 2018 but, at long last, unemployment falling to remarkably low levels in the US and UK has led to a marked acceleration of wage inflation. The US Fed has therefore increased rates nine times and the Bank of England twice. However, the ECB is unlikely to start raising rates until late in 2019 at the earliest.

KEY RISKS - central bank monetary policy measures
Looking back on nearly ten years since the financial crash of 2008 when liquidity suddenly dried up in financial markets, it can be assessed that central banks' monetary policy measures to counter the sharp world recession were successful. The key monetary policy measures they used were a combination of lowering central interest rates and flooding financial markets with liquidity, particularly through unconventional means such as quantitative easing (QE), where central banks bought large amounts of central government debt and smaller sums of other debt.

The key issue now is that that period of stimulating economic recovery and warding off the threat of deflation, is coming towards its close. A new period is well advanced in the US, and started more recently in the UK, of reversing those measures i.e. by raising central rates and, (for the US), reducing central banks' holdings of government and other debt. These measures are now required in order to stop the trend of a reduction in spare capacity in the economy and of unemployment falling to such low levels, that the re-emergence of inflation is viewed as a major risk. It is, therefore, crucial that central banks get their timing right and do not cause shocks to market expectations that could destabilise financial markets. In particular, a key risk is that because QE-driven purchases of bonds drove up the price of government debt, and therefore caused a sharp drop in income yields, this also encouraged investors into a search for yield and into investing in riskier assets such as equities. Consequently, prices in both bond and equity markets rose to historically high valuation levels simultaneously. This meant that both asset categories were exposed to the risk of a sharp downward correction and we have indeed, seen a sharp fall in equity values in the last quarter of 2018. It is important, therefore, that central banks only gradually unwind their holdings of bonds in order to prevent destabilising the financial markets. It is also likely that the timeframe for central banks unwinding their holdings of QE debt purchases will be over several years. They need to balance their timing to neither squash economic recovery, by taking too rapid and too strong action, or, conversely, let inflation run away by taking action that was too slow and/or too weak. **The potential for central banks to get this timing and strength of action wrong are now key risks.** At the time of writing, (early January 2019), financial markets are very concerned that the Fed is being too aggressive with its policy for raising interest rates and was likely to cause a recession in the US economy.

The world economy also needs to adjust to a sharp change in **liquidity creation** over the last five years where the US has moved from boosting liquidity by QE purchases, to reducing its holdings of debt, (currently about $50bn per month). In addition, the European Central Bank ended its QE purchases in December 2018.

UK. The flow of positive economic statistics since the end of the first quarter of 2018 has shown that pessimism was overdone about the poor growth in quarter 1 when adverse weather caused a temporary downward blip. Quarter 1 at 0.1% growth in GDP was followed by a return to 0.4% in quarter 2 and by a strong performance in quarter 3 of +0.6%. However, growth in quarter 4 is expected to weaken significantly.

At their November quarterly Inflation Report meeting, the MPC repeated their well-worn phrase that future Bank Rate increases would be gradual and would rise to a much lower equilibrium rate, (where monetary policy is neither expansionary or contractionary), than before the crash; indeed they gave a figure for this of around 2.5% in ten years time, but declined to give a medium term forecast. However, with so much uncertainty around Brexit, they warned that the next move could be up or down, even if there was a disorderly Brexit. While it would be expected that Bank Rate could be cut if there was a significant fall in GDP growth as a result of a disorderly Brexit, so as to provide a stimulus to growth, they warned they could also *raise* Bank Rate in the same scenario if there was a boost to inflation from a devaluation of sterling, increases in import prices and more expensive goods produced in the UK replacing cheaper goods previously imported, and so on. In addition, the Chancellor could potentially provide fiscal stimulus to support economic growth, though at the cost of increasing the budget deficit above currently projected levels.

It is unlikely that the MPC would increase Bank Rate in February 2019, ahead of the deadline in March for Brexit. Getting parliamentary approval for a Brexit agreement on both sides of the Channel will take well into spring 2019. However, in view of the hawkish stance of the MPC at their November meeting, the next increase in Bank Rate is now forecast to be in May 2019, (on the assumption that a Brexit deal is agreed by both the UK and the EU). The following increases are then forecast to be in February and November 2020 before ending up at 2.0% in February 2022.

Inflation. The Consumer Price Index (CPI) measure of inflation has been falling from a peak of 3.1% in November 2017 to 2.3% in November. In the November Bank of England quarterly Inflation Report, inflation was forecast to still be marginally above its 2% inflation target two years ahead, (at about 2.1%), given a scenario of minimal increases in Bank Rate. This inflation forecast is likely to be amended upwards due to the Bank's report being produced prior to the Chancellor's announcement of a significant fiscal stimulus in the Budget; this is likely to add 0.3% to GDP growth at a time when there is little spare capacity left in the economy, particularly of labour.

As for the **labour market** figures in October**,** unemployment at 4.1% was marginally above a 43 year low of 4% on the Independent Labour Organisation measure. A combination of job vacancies hitting an all-time high, together with negligible growth in total employment numbers, indicates that employers are now having major difficulties filling job vacancies with suitable staff. It was therefore unsurprising that wage inflation picked up to 3.3%, (3 month average regular pay, excluding bonuses). This meant that in real terms, (i.e. wage rates less CPI inflation), earnings are currently growing by about 1.0%, the highest level since 2009. This increase in household spending power is likely to feed through into providing some support to the overall rate of economic growth in the coming months. This tends to confirm that the MPC was right to start on a cautious increase in Bank Rate in August as it views wage inflation in excess of 3% as increasing inflationary pressures within the UK economy.

In the **political arena**, there is a risk that the current Conservative minority government may be unable to muster a majority in the Commons over Brexit. However, our central position is that Prime Minister May's government will endure, despite various setbacks, along the route to reaching an orderly Brexit in March 2019. If, however, the UK faces a general election in the next 12 months, this could result in a potential loosening of monetary and fiscal policy and therefore medium to longer dated gilt yields could rise on the expectation of a weak pound and concerns around inflation picking up.

USA. President Trump's massive easing of fiscal policy is fuelling a, (temporary), boost in consumption which has generated an upturn in the rate of strong growth which rose from 2.2%, (annualised rate), in quarter 1 to 4.2% in quarter 2 and 3.5%, (3.0% y/y), in quarter 3, but also an upturn in inflationary pressures. The strong growth in employment numbers and the reduction in the unemployment rate to 3.9%, near to a recent 49 year low, has fed through to an upturn in wage inflation which hit 3.2 % in November, However, CPI inflation overall fell to 2.2% in November and looks to be on a falling trend to drop below the Fed's target of 2% during 2019. The Fed has continued on its series of increases in interest rates with another 0.25% increase in December to between 2.25% and 2.50%, this being the fifth increase in 2018 and the ninth in this cycle. However, they did also reduce their forecast for further increases from three to two. This latest increase compounded investor fears that the Fed is over doing the rate and level of increases in rates and that it is going to cause a US recession as a result. There is also much evidence in previous monetary policy cycles, of the Fed's series of increases doing exactly that. Consequently, we have seen stock markets around the world plunging under the weight of fears around the Fed's actions, the trade war between the US and China, an expectation that world growth will slow, Brexit etc.

The tariff war between the US and China has been generating a lot of heat during 2018, but it is not expected that the current level of actual action would have much in the way of a significant effect on US or world growth. However, there is a risk of escalation if an agreement is not reached soon between the US and China.

Eurozone. Growth was 0.4% in quarters 1 and 2 but fell back to 0.2% in quarter 3, though this was probably just a temporary dip. In particular, data from Germany has been mixed and it could be negatively impacted by US tariffs on a significant part of manufacturing exports e.g. cars. For that reason, although growth is still expected to be in the region of nearly 2% for 2018, the horizon is less clear than it seemed just a short while ago. Having halved its quantitative easing purchases of debt in October 2018 to €15bn per month, the European Central Bank ended all further purchases in December 2018. The ECB is forecasting inflation to be a little below its 2% top limit through the next three years so it may find it difficult to warrant a start on raising rates by the end of 2019 if the growth rate of the EU economy is on a weakening trend.

China. Economic growth has been weakening over successive years, despite repeated rounds of central bank stimulus; medium term risks are increasing. Major progress still needs to be made to eliminate excess industrial capacity and the stock of unsold property, and to address the level of non-performing loans in the banking and credit systems. Progress has been made in reducing the rate of credit creation, particularly from the shadow banking sector, which is feeding through into lower economic growth. There are concerns that official economic statistics are inflating the published rate of growth.

Japan - has been struggling to stimulate consistent significant GDP growth and to get inflation up to its target of 2%, despite huge monetary and fiscal stimulus. It is also making little progress on fundamental reform of the economy. It is likely that loose monetary policy will endure for some years yet to try to stimulate growth and modest inflation.

Emerging countries. Argentina and Turkey are currently experiencing major headwinds and are facing challenges in external financing requirements well in excess of their reserves of foreign exchange. However, these countries are small in terms of the overall world economy, (around 1% each), so the fallout from the expected recessions in these countries will be minimal.

INTEREST RATE FORECASTS

The interest rate forecasts provided by Link Asset Services in paragraph 3.2 are predicated on an assumption of an agreement being reached on Brexit between the UK and the EU. In the event of an orderly non-agreement exit, it is likely that the Bank of England would take action to cut Bank Rate from 0.75% in order to help economic growth deal with the adverse effects of this situation. This is also likely to cause short to medium term gilt yields to fall. If there was a disorderly Brexit, then any cut in Bank Rate would be likely to last for a longer period and also depress short and medium gilt yields correspondingly. It is also possible that the government could act to protect economic growth by implementing fiscal stimulus.

The balance of risks to the UK

- The overall balance of risks to economic growth in the UK is probably neutral.
- The balance of risks to increases in Bank Rate and shorter term PWLB rates, are probably also even and are broadly dependent on how strong GDP growth turns out, how slowly inflation pressures subside, and how quickly the Brexit negotiations move forward positively.

One risk that is both an upside and downside risk, is that all central banks are now working in very different economic conditions than before the 2008 financial crash as there has been a major increase in consumer and other debt due to the exceptionally low levels of borrowing rates that have prevailed for ten years since 2008. This means that the neutral rate of interest in an economy, (i.e. the rate that is neither expansionary nor deflationary), is difficult to determine definitively in this new environment, although central banks have made statements that they expect it to be much lower than before 2008. Central banks could therefore either over or under do increases in central interest rates.

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

- **Brexit** – if it were to cause significant economic disruption and a major downturn in the rate of growth.
- **Bank of England monetary policy** 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**, possibly in **Italy**, due to its high level of government debt, low rate of economic growth and vulnerable banking system, and due to the election in March of a government which has made a lot of anti-austerity noise. The EU rejected the initial proposed Italian budget and demanded cuts in government spending which the Italian government initially refused. However, a fudge was subsequently agreed, but only by *delaying* the planned increases in expenditure to a later year. This can has therefore only been kicked down the road to a later time. The rating agencies have started on downgrading Italian debt to one notch above junk level. If Italian debt were to fall below investment grade, many investors would be unable to hold it. Unsurprisingly, investors are becoming increasingly concerned by the words and actions of the Italian government and consequently, Italian bond yields have risen – at a time when the

government faces having to refinance large amounts of debt maturing in 2019.

- Weak capitalisation of some **European banks**. Italian banks are particularly vulnerable; one factor is that they hold a high level of Italian government debt - debt which is falling in value. This is therefore undermining their capital ratios and raises the question of whether they will need to raise fresh capital to plug the gap.
- **German minority government.** 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. Then in October 2018, the results of the Bavarian and Hesse state elections radically undermined the SPD party and showed a sharp fall in support for the CDU. As a result, the SPD is reviewing whether it can continue to support a coalition that is so damaging to its electoral popularity. After the result of the Hesse state election, Angela Merkel announced that she would not stand for re-election as CDU party leader at her party's convention in December 2018, (a new party leader has now been elected). However, this makes little practical difference as she is still expected to aim to continue for now as the Chancellor. However, there are five more state elections coming up in 2019 and EU parliamentary elections in May/June; these could result in a further loss of electoral support for both the CDU and SPD which could also undermine her leadership.
- **Other minority eurozone governments.** Spain, Portugal, Ireland, the Netherlands and Belgium all have vulnerable minority governments dependent on coalitions which could prove fragile. Sweden is also struggling to form a government due to the anti-immigration party holding the balance of power, and which no other party is willing to form a coalition with. The Belgian coalition collapsed in December 2018 but a minority caretaker government has been appointed until the May EU wide general elections.
- **Austria, the Czech Republic and Hungary** now form a strongly anti-immigration bloc within the EU while **Italy,** in 2018, also elected a strongly anti-immigration government. Elections to the EU parliament are due in May/June 2019.
- Further increases in interest rates in the US could spark a **sudden flight of investment funds** from more risky assets e.g. shares, into bonds yielding a much improved yield. Throughout the last quarter of 2018, we saw sharp falls in equity markets interspersed with occasional partial rallies. Emerging countries which have borrowed heavily in dollar denominated debt, could be particularly exposed to this risk of an investor flight to safe havens e.g. UK gilts.
- There are concerns around the level of **US corporate debt** which has swollen massively during the period of low borrowing rates in order to finance mergers and acquisitions. This has resulted in the debt of many large corporations being downgraded to a BBB credit rating, close to junk status. Indeed, 48% of total investment grade corporate debt is now rated at BBB. If such corporations fail to generate profits and cash flow to reduce their debt levels as expected, this could tip their debt into junk ratings which will increase their cost of financing and further negatively impact profits and cash flow.
- **Geopolitical risks,** especially North Korea, but also in Europe and the Middle East, which could lead to increasing safe haven flows.

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

- **Brexit** – if both sides were to agree a compromise that removed all threats of economic and political disruption.
- **The Fed causing a sudden shock in financial markets** through misjudging the pace and strength of increases in its Fed Funds Rate and in the pace and strength of reversal of QE, which then leads to a fundamental reassessment by investors of the relative risks of holding bonds, as opposed to equities. This could lead to a major flight from bonds to equities and a sharp increase in bond yields in the US, which could then spill over into impacting bond yields around the world.
- The **Bank of England is too slow** in its pace and strength of increases in Bank Rate and, therefore, allows inflation pressures to build up too strongly within the UK economy, which then necessitates a later rapid series of increases in Bank Rate faster than we currently expect.
- **UK inflation,** whether domestically generated or imported, returning to sustained significantly higher levels causing an increase in the inflation premium inherent to gilt yields.

UK ECONOMICS UPDATE

Our new economic forecasts in various Brexit outcomes

• **Given the huge and growing uncertainty surrounding Brexit, we are now placing much more emphasis on three forecasts for the economy that are based on different Brexit outcomes. The key point, though, is that in each scenario we are a bit more optimistic than the consensus about the outlook for the economy and sterling. That's especially clear in our forecasts for 2020.**

• We've been playing this forecasting game a long time and have not before had a situation where upcoming political events could lead to such a wide range of possible near-term outcomes for the economy and the financial markets. **As such, it's not particularly useful to convey things in a central forecast.**

• **So until the Brexit fog clears, we will present three main forecasts to clients**; one based on something similar to Thersea May's deal being approved by Parliament by 29th March 2019; one based on the UK leaving the EU on 29th March in various forms of no deal; and one based on an extension of the Article 50 negotiating period and a subsequent softer Brexit, which we are calling the "fudge and delay" scenario.

• The key forecasts are in Table 1. If May's deal is agreed, we think GDP growth could rise from about 1.4% last year to 1.8% this year. That's lower than our previous forecast of 2.2% due to revisions released in the Q3 National Accounts subtracting 0.2 percentage points (ppts), a sharper global slowdown than we previously thought knocking off 0.1ppt, and slightly weaker investment and consumption subtracting another 0.1ppt as Brexit uncertainty weighed a bit more on activity in Q4 than we had expected.

• In the scenario that assumes Article 50 is extended for a few months before a (probably softer) Brexit deal is agreed, then a longer period of uncertainty means GDP growth this year only rises to 1.5% before more pent up demand is released and growth climbs to 2.2% in 2020. In the no deal scenario, GDP growth in 2019 could be between -0.2% (disorderly no deal) and +1.0% (orderly no deal) depending on how many side agreements are put in place. In both types of no deal, GDP growth still rebounds in 2020.

• **The probabilities of these three scenarios are subjective and will shift as the politics evolves.** But our sense is that in recent weeks the chances of May's deal being passed have declined (perhaps from 30% to about 25%), the chances of a no deal Brexit have increased again (from around 20% to 25%) and the probability of some form of fudge and delay is about 50%.

• As the fudge and delay scenario has the highest probability, that's the forecast we will provide when we are required to give a single figure. **But even that forecast is really just a guide as there are many flavours of fudge and lengths of delay.** The numbers below are based on Parliament taking more control over Brexit in the coming weeks, Brexit being delayed for at least a few months as Article 50 is extended and Parliament agreeing a softer Norway-style deal with the EU. But there are many other ways in which this scenario could play out, including a general election and/or a second referendum.

Table 1: Capital Economics Forecasts Based on Various Brexit Outcomes										
Previous Forecast					**Current Forecasts**					
(Probabilities in brackets)			May's Deal F'cast	May's Deal F'cast		Fudge & Delay F'cast		No deal Forecasts **(25%)**		
(25%)		**(50%)**				Orderly **(12.5%)**		Disorderly **(12.5%)**		
	2019	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**
GDP (% y/y)	2.2	2.0	1.8	2.0	**1.5**	**2.2**	1.0	1.8	-0.2	1.3
Bank Rate* (%)	1.50	2.00	1.50	2.00	**1.25**	**1.75**	0.25	0.75	0.25	0.25
$/£*	1.45	1.45	1.40	1.45	**1.35**	**1.40**	1.20	1.25	1.12	1.12
10 Year Yield* (%)	2.25	2.25	2.00	2.25	**1.75**	**2.00**	0.75	1.25	0.75	0.75
*End-period; Source: Capital Economics										

This all may sound similar to the old joke about putting 10 economists in a room and getting 11 opinions! **But one constant is that we still firmly believe the economy and sterling will perform better than widely expected in all three scenarios.**

• There's no denying that Brexit has reduced GDP growth. Initially this was a result of the squeeze in real incomes due to the rise in imported inflation caused by the lower pound. But more recently, the uncertain outlook has forced businesses to postpone investment and households to delay spending. That may have reduced GDP growth over the past two years by a cumulative 0.50-0.75ppts. But at times when there is heightened political uncertainty, there's a tendency for analysts to overestimate the economic implications. That was the case for the UK immediately after the EU referendum and for the US after the election of President Trump. We think this is another one of those occasions.

• **That's why in the two scenarios where there is a deal, we think interest rates and gilt yields will rise by more and the pound will be stronger than the consensus forecasts and the financial markets assume**. If May's deal is agreed, then the Monetary Policy Committee (MPC) may raise interest rates by 0.25% three times this year and twice next year. The first hike could come as soon as May. **By the end of 2020, Bank rate would then have risen from 0.75% to 2.00%, 10-year gilt yields may have risen from 1.25% now to 2.25% and the pound may have appreciated from $1.28/£ to about $1.45/£.**

• In the fudge and delay scenario, the prolonged uncertainty means that rates are likely to be kept at 0.75% for longer, so 10-year yields and the pound don't rise as far. But as long as the extension to Article 50 is relatively short, such as three months, then the MPC may still raise rates twice this year and twice next year. **Rates, 10-year yields and the pound may then end 2020 at 1.75%, 2.00% and $1.40/£ respectively.**

• **Of course, things would be different if Article 50 is extended for more than three months, perhaps to allow for a new government to negotiate a new deal after a general election and/or for a second referendum.** A six-month extension would presumably keep the MPC on hold probably for all of this year. As long as the economy holds up well, however, a 12-month or 24-month extension could mean the MPC can't ignore the recent rise in wage growth and raises rates again in the next few months! And the pound could be much weaker than we've suggested if Labour won a general election and/or a second referendum resulted in a no deal Brexit. **If any of these events become much more likely, we will alter our forecasts.**

• **Even in a no deal scenario, we aren't as downbeat as most.** In an orderly no deal, the economy would probably stagnate or contract for a quarter or two. In a disorderly no deal, a

recession would be likely. **But there are two reasons why we doubt either scenario would be cataclysmic.** First, the economic disruption caused by components or products not being able to get in or out of the country would probably last only a few months as people got used to new systems. Second, despite what the Bank of England has said, we believe Bank rate would be swiftly cut to 0.25% and quantitative easing may be restarted. The Chancellor would probably also loosen fiscal policy, perhaps by something like 1% of GDP.

• So after a painful three to six months, economic activity would probably rebound quicker and by more than most are expecting. Given the extent of the uncertainty in any no deal scenario, there's little point in tweaking the forecasts we published in October to incorporate factors such as a slightly sharper global slowdown. (See our *UK Economics Focus* "How would the economy weather a no deal Brexit?" 8th Oct.)

• **Finally, it's worth reflecting on how all this will affect the UK relative to the rest of the G7.** Brexit has contributed to the UK missing out on the synchronised global upturn in 2016, 2017 and 2018. But the global economy is now *slowing*. So if there is any kind of no deal Brexit, the UK will fall further behind. **But in our May deal and fudge and delay scenarios, the release of some pent up demand means that in 2020 the UK may be the fastest growing G7 economy.**

• **This explains why in those two scenarios our forecasts imply that in the first half of 2020 the Bank of England would be *raising* interest rates when the US Fed is *cutting* them. Although that wouldn't be unprecedented, it doesn't happen often. But neither does Brexit.**