BANK OF ENGLAND

Speech

Inflation: A Tiger by the Tail?

Speech given by

Andy Haldane

Chief Economist and Member of the Monetary Policy Committee

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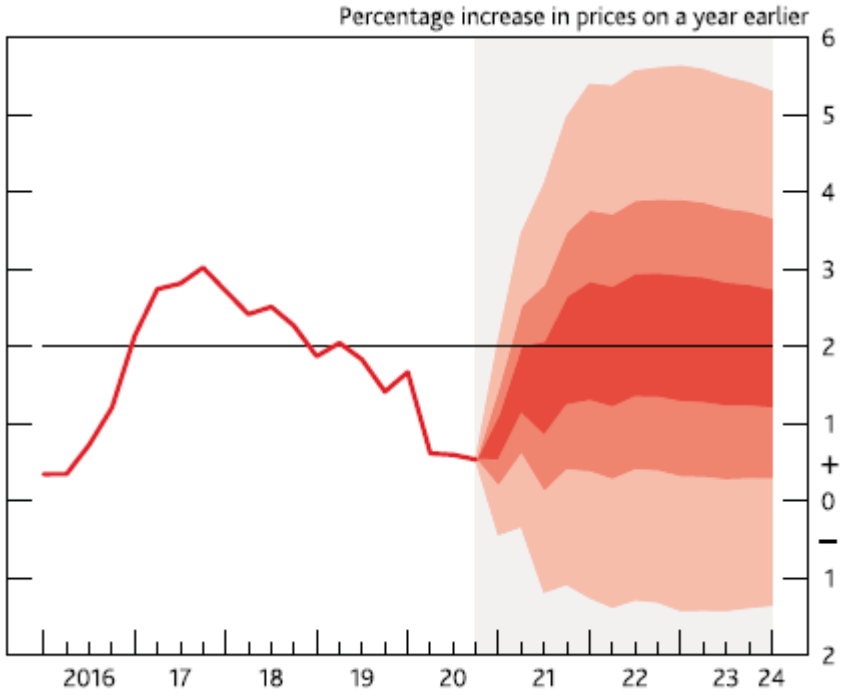
Most countries around the world now have targets for inflation, often pursued by operationally-independent central banks. Inflation-targeting requires central banks to assess the future path of inflation, and the risks around it, often through published inflation forecasts. Monetary policy is then set to meet the inflation target in expectation, subject to these risks. This is the operational essence of flexible inflation-targeting.[1]

The Covid crisis has resulted in an unusually high degree of uncertainty about the future path of inflation. This is clear from the confidence intervals around the MPC's two-year-ahead inflation projections, which are currently twice as large as normal. In its latest forecasts in February, the MPC judged there to be a one-in-three chance of inflation lying below zero, or above 4%, at the two-year policy horizon (Chart 1).

This high degree of two-sided uncertainty is understandable. Economies have taken a huge hit as a result of the Covid crisis, contracting by almost 8% in the UK and 4% globally during 2020. This has widened output gaps and depressed inflation. In response, policymakers have provided unprecedented degrees of policy support – in a number of advanced economies, double-digit percentages of GDP in both Quantitative Easing (QE) and fiscal stimulus. These actions should stimulate activity, shrink output gaps and boost inflation.

Chart 1: CPI inflation projection



Source: Bank of England.

Notes: Projection from February 2021 Monetary Policy Report, based on market interest rate expectations, other policies as announced.

[1] For example, Batini and Haldane (1999).

It is these heavy weights on either end of the inflationary see-saw which give rise to unusually large uncertainties around future inflation. If the hit to activity were to prove larger or longer, even this degree of policy stimulus may prove insufficient to return inflation to target. But if economies bounce-back as the vaccination programme is rolled-out, policy stimulus could over-stimulate the economy and, with it, inflation.

There are few, if any, historical precedents to help judge the response of the economy to this scale of shock and degree of policy stimulus. And the costs of getting these judgements wrong could be significant. Costs for the economy, if policy is set either too tight (resulting in lost jobs and income) or too loose (resulting in policy needing to be tightened more than expected, causing future losses of jobs and incomes). And costs for central banks in damaged credibility, if inflation targets were to be missed persistently.

In that light, it is worth assessing the likely forces acting on inflation in the period ahead and possible alternative inflation scenarios, both to the upside and downside, around the central path. In a highly-uncertain environment, where robust policy may call for avoiding tail outcomes rather than optimising around a central path, this scenario-based or risk-management approach seems particularly valuable.[2]

I begin by discussing the powerful disinflationary forces at work over the past several decades at the global level. There is a reasonable chance these trends could persist, and indeed be amplified by the Covid crisis, posing downside inflation risks. In the following section, I then consider whether those disinflationary forces could abate, or even reverse, in the period ahead. If so, this would generate an upside inflationary scenario.

Given high degrees of uncertainty, it would be spuriously precise to assign probabilities to either scenario. But given the width of the MPC's fan charts both are clearly plausible paths, sufficiently so to weigh in monetary policymakers' risk-management considerations when setting policy, now and looking forward.

Friedrich von Hayek once referred to inflation control as akin to trying to catch a tiger by its tail.[3] That metaphor seems apt today. For many years, the inflationary tiger slept. The combined effects of unprecedentedly large shocks, and unprecedentedly high degrees of policy support, have stirred it from its slumber. In this environment, the tiger-taming act facing central banks is a difficult and dangerous one.

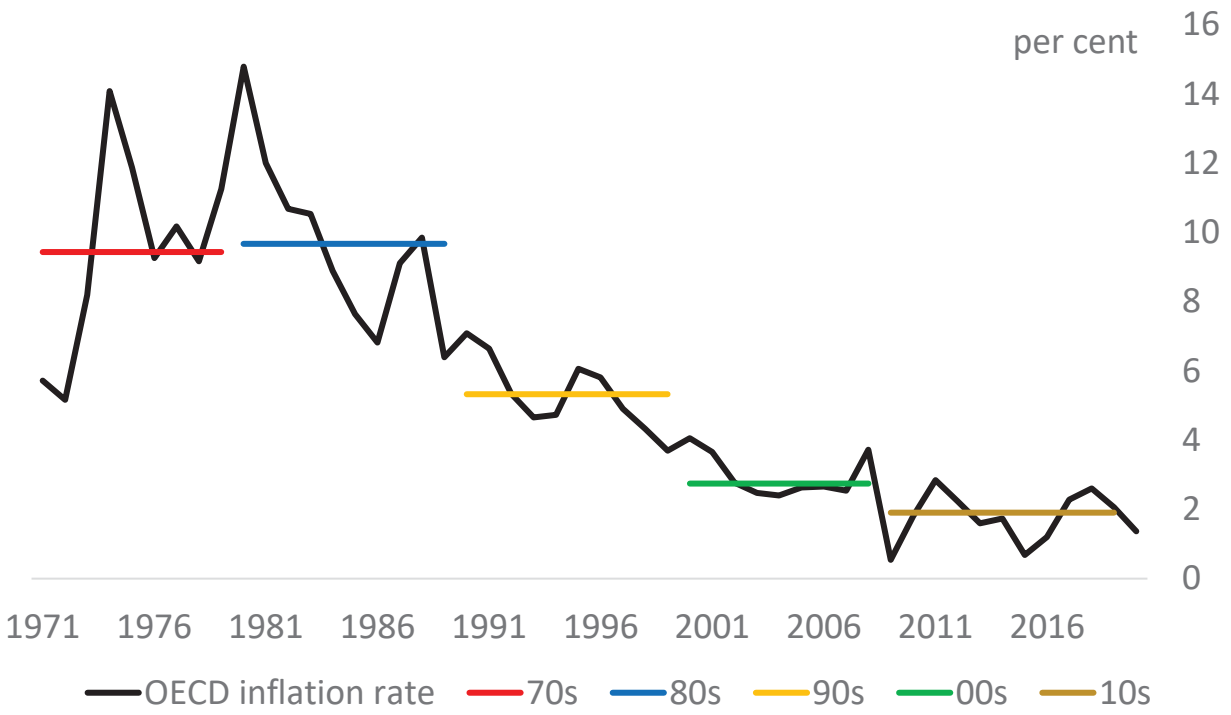
A Low Inflation Equilibrium

The inflationary backdrop in the recent and distant past has been a benign one, in the UK and globally. Since the 1970s, global inflation has fallen steadily. Having averaged around 10% in the 1970s and 1980s, it fell to around 5% in the 1990s, just below 3% in the 2000s and around 2% in the 2010s (Chart 2)). After the Great Inflation of the 1970s, low inflation has, within a generation, become an entrenched norm among

[2] For example, Orphanides and Williams (2007).
[3] Von Hayek (1972).

developed and emerging market economies alike. And despite large shocks – the global financial crisis, Brexit, Covid - inflation has remained stable at levels considered to be around optimal

Chart 2: Global Inflation



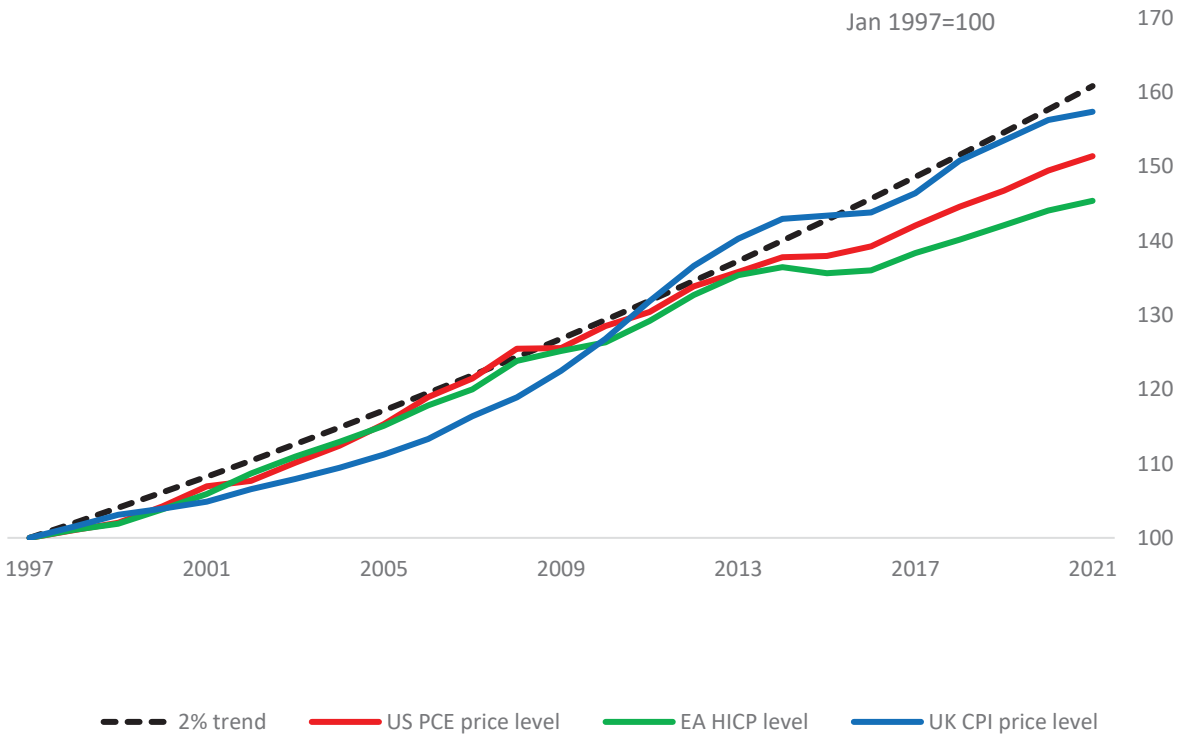
Source: OECD and Bank calculations.

While success has many fathers, a significant contributor to this fall in global inflation has been the widespread adoption of inflation targets by central banks. Around three-quarters of countries globally have now adopted them.[4] In the main, and contrary to the expectations of many at the time they were introduced, these inflation targets have been hit. Indeed, in some advanced economies, central banks have "over-achieved", with inflation consistently undershooting their targets over the past decade.

Chart 3 plots the price level in the US, euro-area and the UK over the period since 1997, when the UK commenced inflation-targeting. It also shows the price level path implied by meeting a 2% inflation target. In the US and euro-area, the price level has drifted below this path over the past decade, as inflation has undershot a 2% target. Cumulatively, these deviations have been significant, with the level of prices in the US and euro-area 6% and 10% below their 2%-consistent paths respectively.

[4] See BIS Annual Economic Report 2019.

Chart 3: Price level in US, EA and UK[5]



Sources: ONS, FRED, ECB Statistical Data Warehouse and Bank calculations.

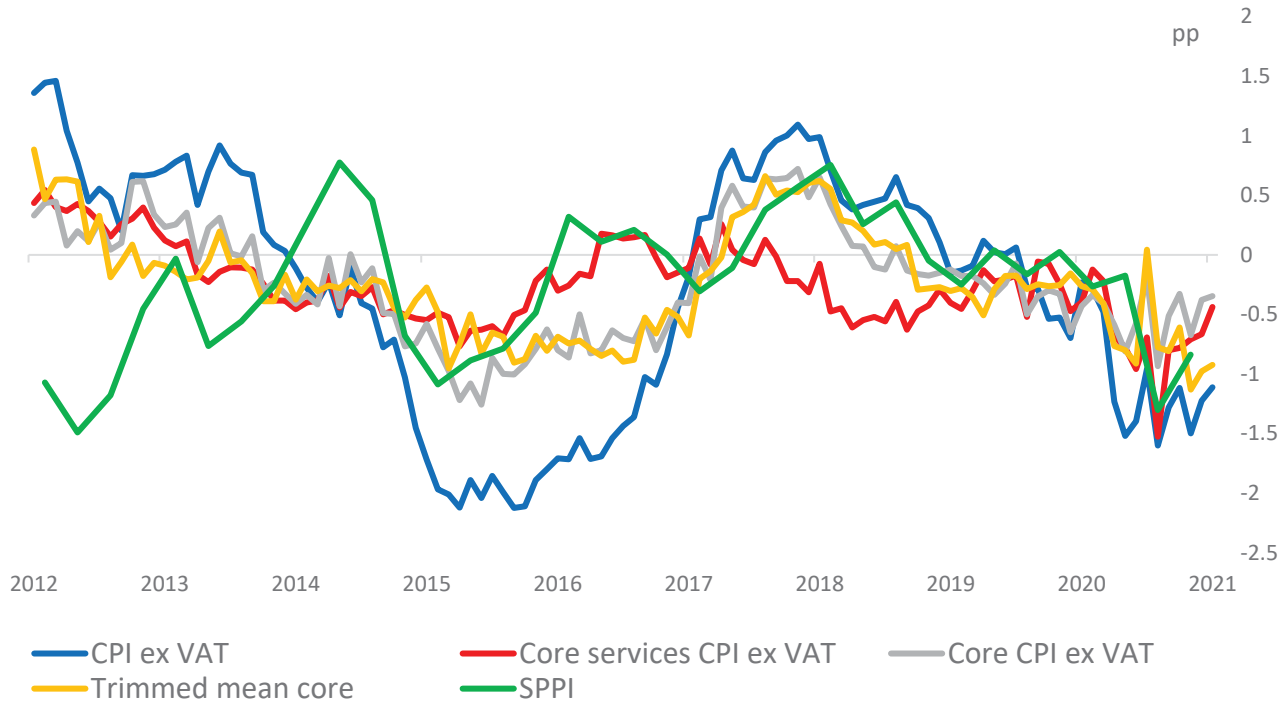
Interestingly, the UK experience has been rather different. Over the period since inflation-targeting was introduced, the UK price level has not deviated significantly or persistently from its 2% trajectory. Unlike in the US and euro-area, the MPC has neither consistently over-achieved nor under-achieved on its inflation objective. That is consistent with the UK's inflation target being a symmetric one.

There is some evidence of *underlying* measures of UK inflation having been subdued, both absolutely and relative to target.[6] Chart 4 shows some measures of underlying UK inflation over the past decade. While they have fluctuated cyclically, these have more often undershot than overshot target-consistent levels over the past decade. UK inflation expectations have, nonetheless, remained stable at low levels (Chart 5).

A number of reasons have been given for subdued levels of inflation, in the UK and globally, over the past decade in particular. Some of these factors are cyclical, demand-side factors, while others are structural, supply-side factors. Let me discuss each in turn.

[5] 26/02/21: These series have been corrected for a basing error in the original version.
[6] Tenreyro (2020).

Chart 4: Underlying UK inflation relative to target-consistent levels



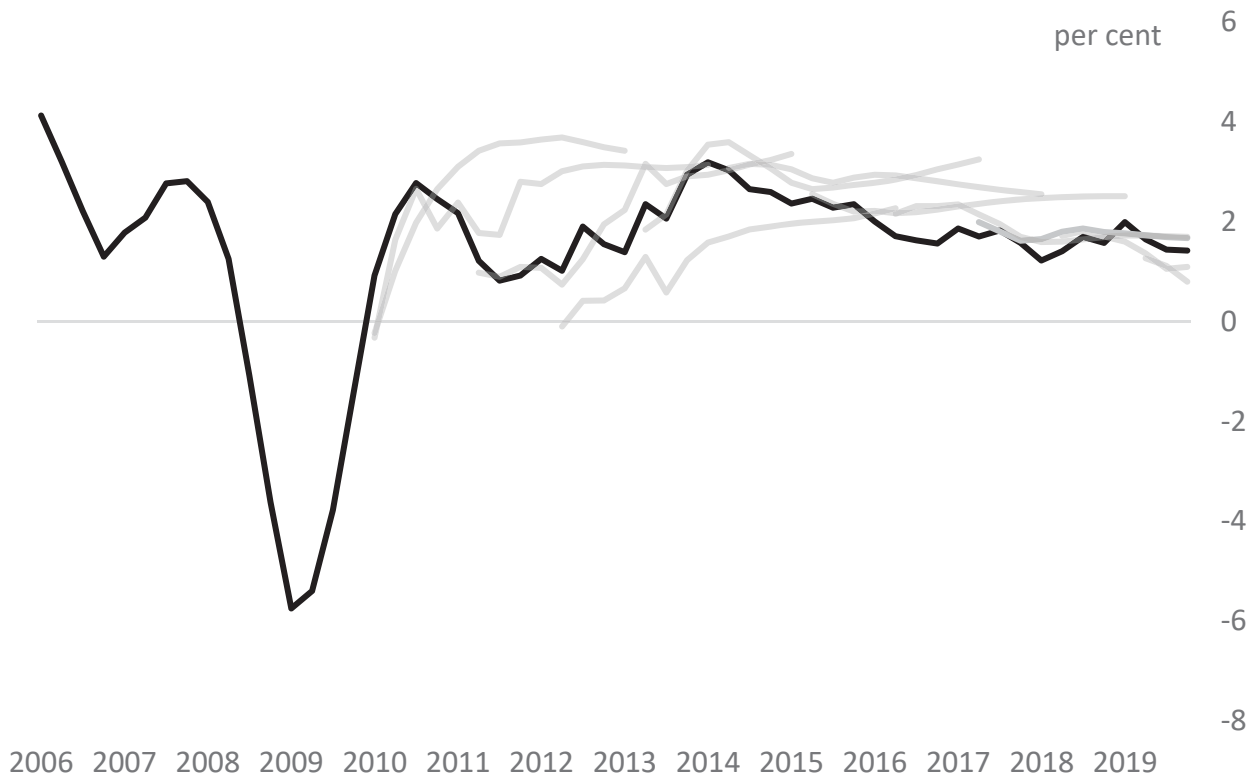
Source: ONS and Bank calculations

Chart 5: UK inflation expectations

Source: Bank of England, HMT Survey of Professional Forecasters and Citi/YouGov Household Expectations Survey

On the demand side, a disinflationary drag factor over the past decade has been the persisting effects of the global financial crisis. The recovery from this crisis was significantly slower than expected, with the level of activity in the UK consistently undershooting expectations (Chart 6). This resulted in a larger and more persistent output gap, and hence a larger and longer downdraught on inflation, from the demand side of the economy than was anticipated. The same was true internationally.

Chart 6: UK GDP growth and historic forecasts



Source: ONS and Bank of England.

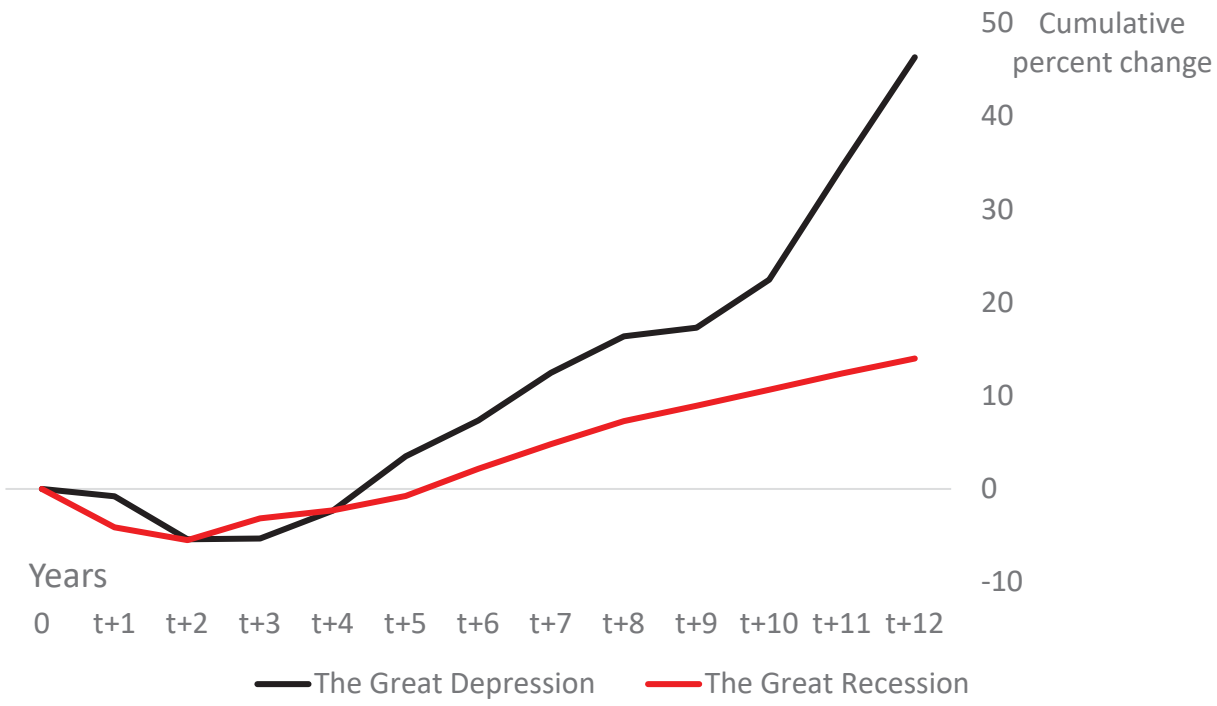
The sluggishness of the recovery in many advanced economies from the global financial crisis – the so-called Great Recession - was striking even by historical standards. For example, the level of activity in the UK lies very significantly below its level at the equivalent stage following the 1930s depression (Chart 7). The UK's Great Recession was far-worse than the Great Depression.

A number of factors are believed responsible for the persistence of weak global demand. One often given prominence was heightened risk-aversion among lenders, consumers and businesses, which in turn constrained credit and spending growth in the economy. This so-called "psychological scarring" of risk appetite was also a dampener of credit and aggregate demand following the Great Depression.[7]

[7] Malmendier and Nagel (2011).

On the supply-side of the economy, several factors have contributed to subdued global inflation over recent decades. These include the rise of global trade and value chains which offer access to lower-cost inputs, lowering the price of final imported goods and services[8]; demographic trends which have added to the economy's labour supply, lowering wage costs[9]; and increased automation and flexibility in the jobs market holding down wage growth and potentially flattening Phillips curves.[10]

Chart 7: UK GDP after the Great Depression and Great Recession



Source: ONS and Bank calculations.

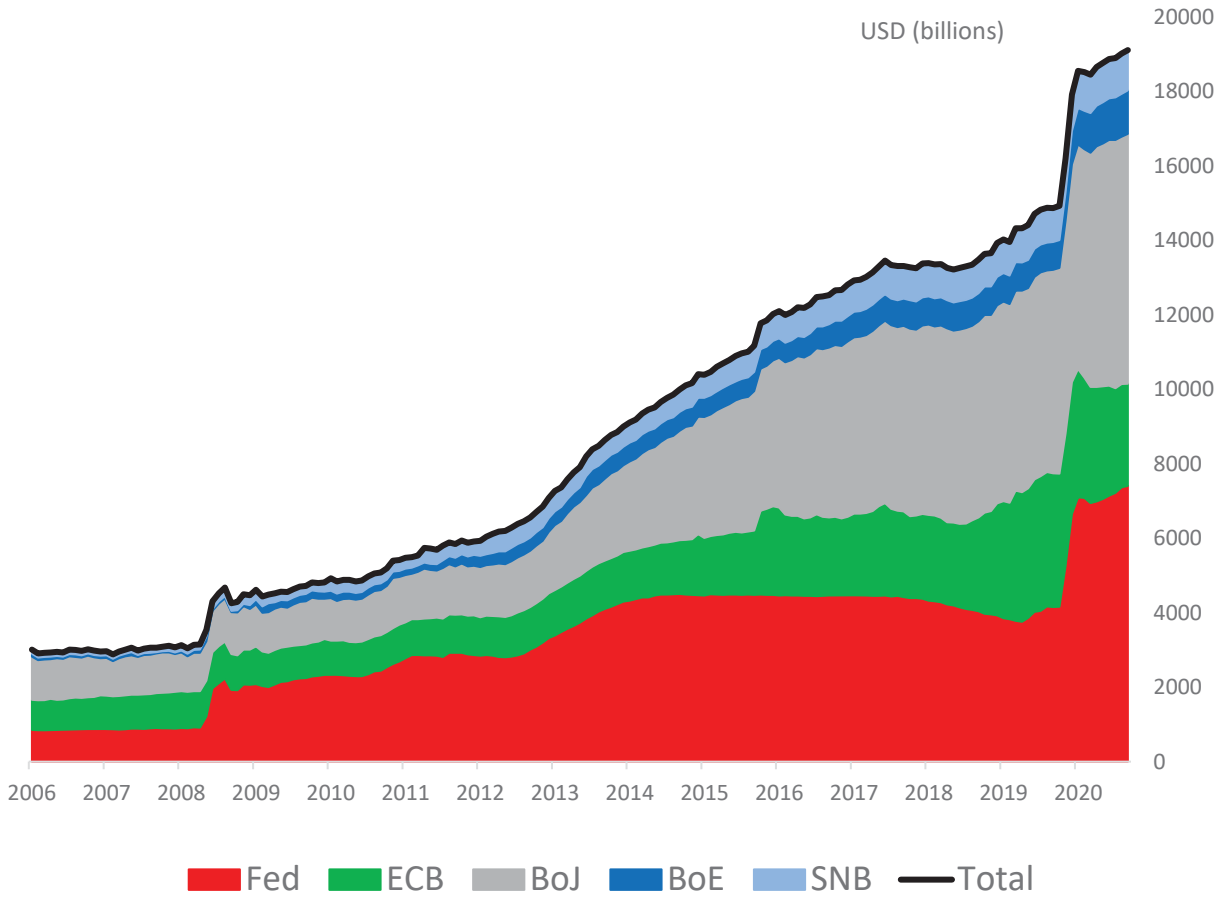
These structural factors would, in theory, be expected to cause a downward shift in the price level rather than in the rate of inflation. But because these factors have played out over a lengthy period, they may have shown up in a persistent drag on measured inflation rates. For example, Faijgelbaum and Khandelwal (2016) estimate that global trade integration has lowered the price of the typical household consumption basket by between a quarter and two-thirds – a huge effect.

This subdued pattern for global inflation, driven by demand and supply-side factors, has occurred against a backdrop of global monetary policies remaining highly accommodative, itself in part a response to these disinflationary forces. For example, in the aftermath of the global financial crisis, central banks lowered

[8] Johnson (2018).
[9] Goodhart and Pradhan (2020).
[10] Haldane (2018).

official interest rates to close to zero and expanded their balances sheets progressively by around $10 trillion or 13% of global GDP (Chart 8).

Chart 8: Central Bank Balance Sheets



Source: Respective central banks and Bank calculations.

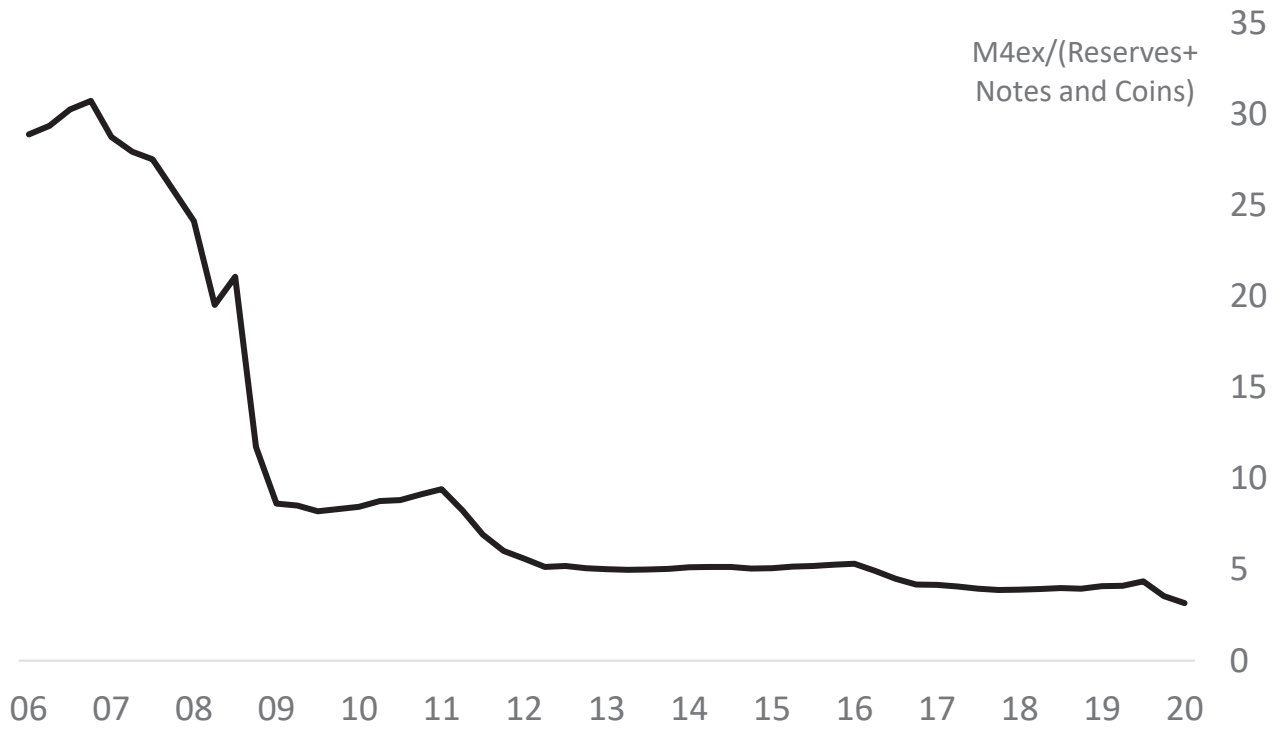
Interestingly, this rapid growth in central bank money creation was not mirrored in money spending growth in the economy. In the ten years prior to the Covid crisis, narrow money globally rose by over 150%, while money spending globally rose by less than 50%. In the UK this contrast was starker still, with central bank money rising by around 200%, while money spending rose by less than 50%.[11]

One way of reconciling these diffuse trends in the monetary and real sides of the economy comes from looking at a different measure of money - commercial bank money. Measures of broad (commercial bank) money globally rose by only around 85% in the decade following the global financial crisis and by even less

[11] Global figures are based on data on OECD M1, while UK figures based on central bank reserves plus notes and coins in circulation.

in the UK. Put differently, the money multiplier in the UK – the ratio of broad money to central bank money – fell by around two-thirds following the global financial crisis (Chart 9).

Chart 9: Ratio of Broad Money to Narrow

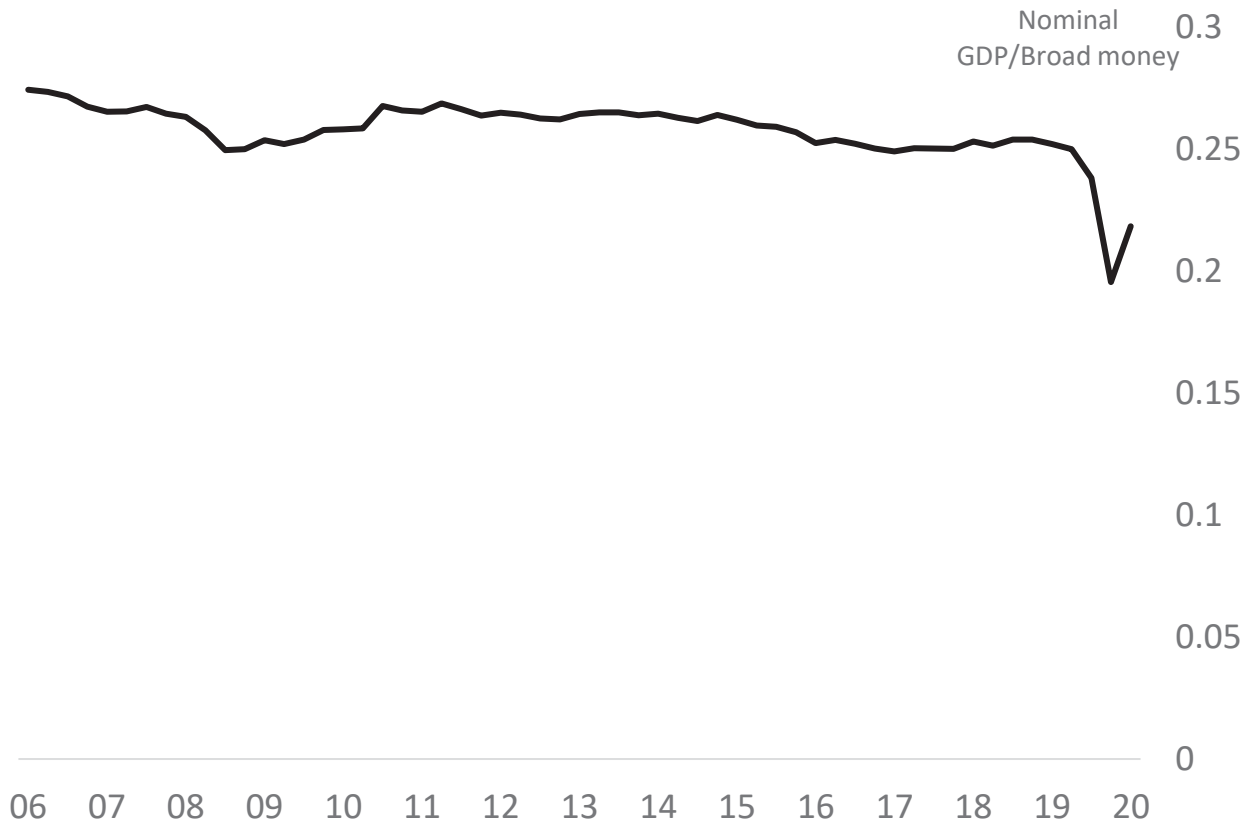


Source: Bank of England and Bank calculations.

This should come as no surprise. The global financial crisis impaired financial intermediation, slowed the growth in bank credit and money and thus contributed to the sluggish growth in money spending. Interestingly, the relationship between broad money growth and money spending growth – the velocity of circulation of broad money – remained relatively stable following the global financial crisis (Chart 10). The velocity of circulation of narrow money, by contrast, fell dramatically.

The Covid crisis has added to these long-standing disinflationary pressures. While affecting both demand and supply, most economists believe the hit to demand from Covid has been larger than to supply, opening up output gaps. The IMF estimate the output gap among the G7 countries rose from around -0.4% in 2019 to 3.8% in 2020. In the UK, the MPC judge that the output gap has widened and will continue to widen in the near term, peaking at 3% and lowering inflation by around ½% in 2021.

Chart 10: Velocity of Broad Money



Source: ONS and Bank of England.

There are contrasting views among economists about the pace at which these output gaps will close. The MPC's central view is that the UK's output gap will close this year, although uncertainty around the timing and pace is considerable. A key factor, as after the global financial crisis and the Great Depression, will be the extent and persistence of psychological scarring among lenders, households and companies.

The deeper and longer-lasting these psychological scars, the slower the likely pace of recovery, the more persistent the output gap and the greater the disinflationary drag from the Covid crisis. For example, if the level of output in the UK economy were to return to pre-Covid levels in 2023, rather than 2022 in the MPC's central case, this would lower inflation by around 60 basis points at the two-year horizon, leaving it comfortably below its 2% target.

In summary, then, historically low rates of inflation driven by disinflationary demand and supply-side forces have been given further impetus by the Covid crisis. This provides reasonable grounds for believing inflation, in the UK and globally, could remain low in the period ahead. Indeed, there are reasons to think there are significant downside risks to the inflation outlook, as the MPC's fan charts illustrate clearly.[12]

[12] Evans et al (2015).

A Higher Inflation Equilibrium

Inflation-targeting requires a judgement on future inflation, not an extrapolation of the past. That is pertinent at present because there are several good reasons why future inflation trends may not match the past. The Covid shock is fundamentally different from the global financial crisis. And some of the forces acting on inflation in future, both cyclical and structural, may reverse direction. Let me discuss these factors in turn.

(a) The Covid Crisis and the Output Gap

The restrictions needed to contain the spread of Covid have had a profound impact on both demand and supply in the economy. Given the nature of the shock and the restrictions, it is unclear in principle whether we would expect the hit to demand to be greater than to supply. In other words, the implications of the Covid shock for the output gap, and hence inflation, are unclear as a matter of theory.

It is clear restrictions forced large number of businesses to close and large numbers of workers to be furloughed, constricting supply in the economy. The crisis clearly also had a large adverse impact on the demand for certain goods and services – for example, social spending due to health concerns and travel spending due to working from home. The net effect of these large forces of supply and demand on slack in the economy is an empirical judgement.

Empirically, the unemployment rate typically provides the cleanest guide to slack in the economy. Unfortunately, that is not the case at present. Statistical surveys of employment are less reliable than usual. Official measures of unemployment from the UK Labour Force Survey (LFS) show a fall in employment of around 500,000 over the past year, giving an unemployment rate of around 5.1%. But administrative data from HMRC suggest job losses 1½ times that, implying an unemployment rate of over 6%.

A further complicating factor is the various government support schemes. By design, these have broken the link between the demand for workers by firms and the unemployment rate. At its peak, the UK government was paying the wages of around a quarter of the workforce (9 million people) and is still doing so for around 4 million workers. Judging the true "employment status" of these furloughed workers, in particular whether they are actively seeking work, is difficult to judge. It is also difficult to gauge how many of these furloughed workers will return to their jobs once the furlough scheme ends.

That leaves the *current* unemployment rate, the likely *future* unemployment rate and the *equilibrium* unemployment rate (taking into account the natural frictions associated with people moving job) all highly uncertain at present. This means measures of labour market slack in the economy are also highly uncertain. The same is true, for many of the same reasons, of measures of spare capacity within firms.

With quantities uncertain, one indirect measure of slack comes from looking at the *prices* of labour, goods and services. These, too, have faced measurement problems and have been distorted by sharp shifts in the composition of employment and spending.[13] Nonetheless, most measures of underlying inflation and costs have been surprisingly resilient over the past year, given the scale of the contraction in activity. For example, core CPI inflation rates have fallen by only 0.2 percentage points over the past year, while private sector average weekly earnings growth has been roughly unchanged.

One possible explanation of this resilience in underlying costs and prices is that demand and supply have fallen largely in lockstep, leaving slack in the economy relatively little changed. The design of the furlough scheme, which has supported household incomes and aggregate demand at the same time as labour supply has fallen sharply, would support that interpretation. While output in the UK is likely to have fallen by around 8% during 2020, household incomes are likely to have been broadly flat.

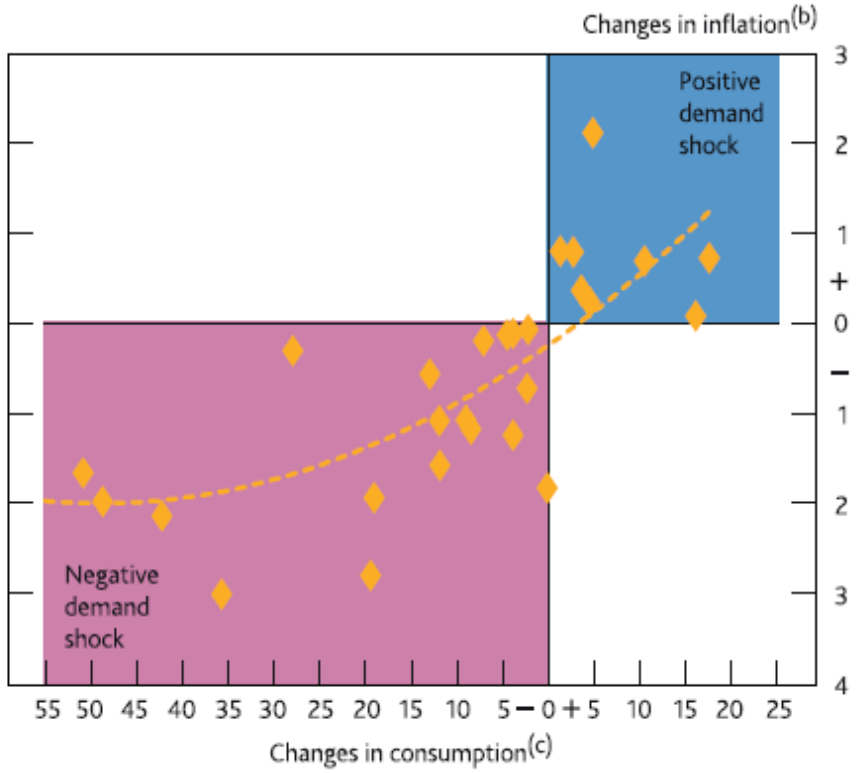
An alternative explanation lies in the heterogeneity of Covid's impact on certain sectors, lowering demand sharply for some, raising it for others. If the price effects of the latter have dominated the former – for example, because of capacity constraints on expanding supply in some sectors – this might explain the relative robustness of aggregate cost and price measures.[14] The sectoral pattern of demand and prices during the Covid crisis is consistent with this explanation (Chart 11).

We have also seen these price dynamics at work in other markets as demand has recovered, notably in commodity markets. The price of oil has risen by around 65%, and of non-oil commodities by more than 20%, in the last four months. This reflation reflects rising (actual and expected) demand for these commodities, alongside short-run constraints on supply.

The MPC's judgements on slack are shown in Chart 12, together with estimates of the output gap following the global financial crisis. Despite the much larger hit to activity, the peak output gap following the Covid crisis, at 3% of GDP, is materially smaller than following the global financial crisis. The output gap is also judged likely to be significantly less persistent, lasting only around 18 months.

[13] These compositional effects were discussed in the February 2021 *Monetary Policy Report*.
[14] Broadbent (2021).

Chart 11: Demand and Prices across Sectors *(a)*



Source: ONS and Bank calculations.

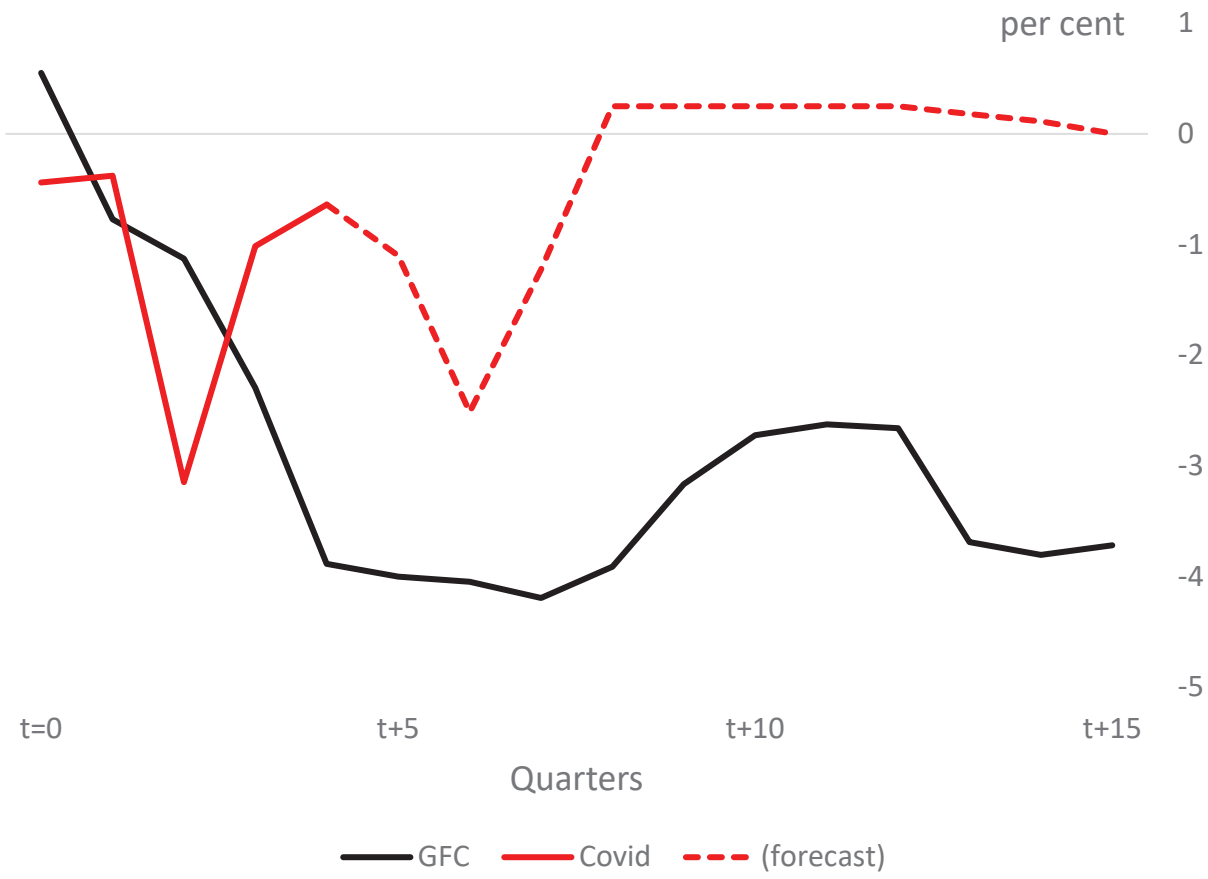
Notes: a) Data points refer to goods and services that have been predominantly affected by a demand shock. These are spending categories where consumption and inflation have both increased, or where they have both decreased. Categories affected by changes in energy prices and those where prices are regulated are excluded. Air travel is also excluded. Dashed line represents the line of best fit.

(b) Changes in inflation rates between the three-month average to February 2020 and October 2020, measured as the number of standard deviations from their 2012–19 average.

c) Consumption growth over the four quarters to 2020 Q3.

These differences in output gap profile seem plausible. The fall in output after the Covid crisis was atypically sharp due to restrictions being imposed. So we might expect an atypically sharp recovery in activity as restrictions are eased. Nonetheless, whether these judgements on the output gap come to pass depends, ultimately, on the pace at which demand in the economy returns and the accompanying response of the economy's supply potential. Let me discuss those two issues in turn.

Chart 12: Output gap – Global Financial and Covid Crises Compared



Source: Bank of England.

(b) Money and Money Spending

I will discuss in some detail the components of private demand, consumption and investment, at a future event. But as after the global financial crisis, some useful insights into possible future paths for aggregate demand and aggregate money spending is provided by looking at developments in the banking system.

Exceptional amounts of central bank money have once again been created during the Covid crisis to maintain borrowing costs at low levels. This additional QE is running at around $5 ½ trillion so far and rising.[15] Globally, the amount of QE undertaken during the crisis is already rapidly catching-up with the amount undertaken during the prior ten-year period. And in the UK, QE so far announced by the MPC, at £450 billion, is already more than was carried out in the 10-year aftermath of the global financial crisis.

[15] Based on Federal Reserve, ECB, Bank of England, Bank of Japan and Swiss National Bank.

One key difference from the global financial crisis is the state of the banking system. A decade ago, its impairment led to slow growth in bank deposits and lending. With the financial system now repaired, bank intermediation has increased sharply during this time's crisis. Supported by exceptional monetary and fiscal support, bank deposits and lending have grown rapidly. Annual growth of global M3 is currently running at almost 20% (Chart 13), its highest level since 1988.

Chart 13: Growth in Global M3 (YoY)

Source: OECD.
Notes: Based on total OECD aggregate.

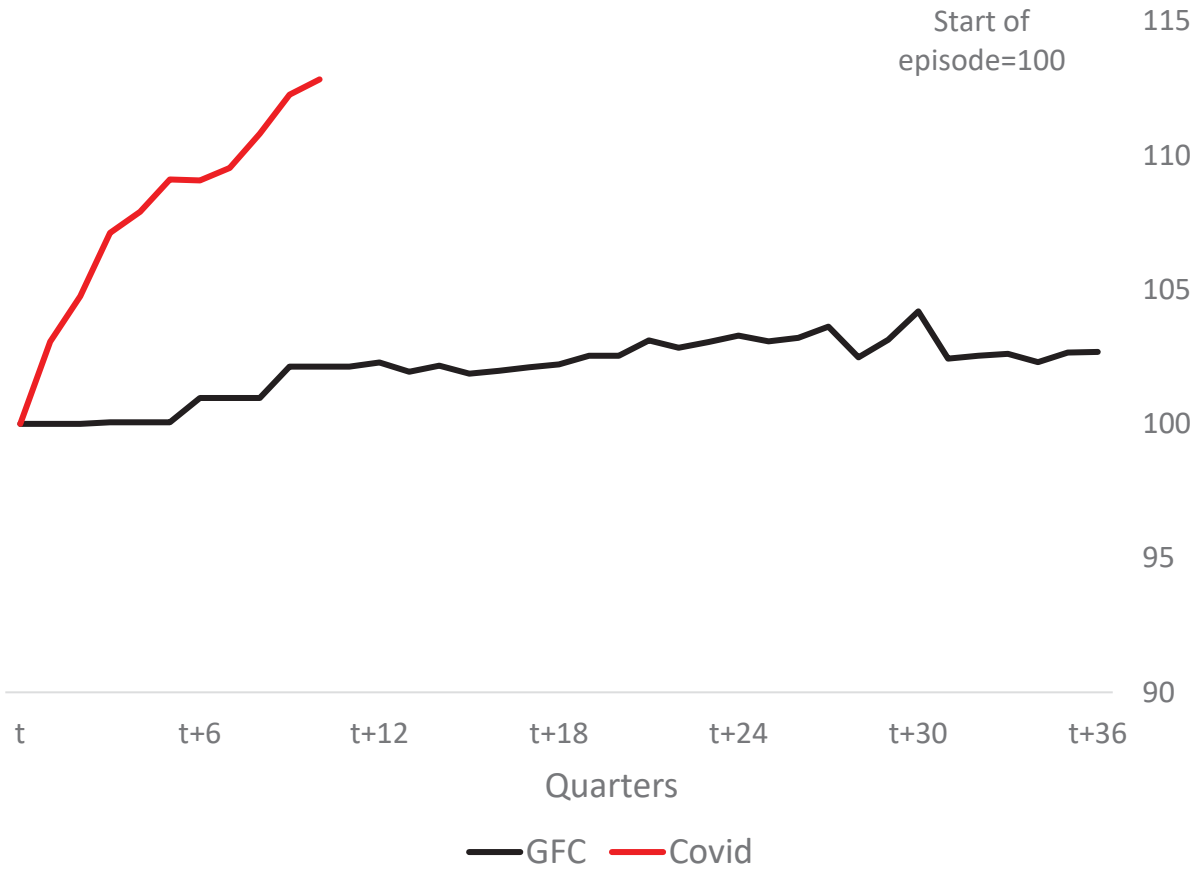
The same is true in the UK, where annual growth of commercial bank money (M4) currently stands at a little over 14%. Annual growth of M4 lending is more modest, at just over 4%, though this is still around 2 percentage points above its average over the past decade. It has been buoyed by the support packages extended to UK companies, with around 1.5 million business loans made totalling around £70 billion.

A decade ago, movements in broad money broadly tracked movements in money GDP – the velocity of circulation of broad money was roughly stable. If the same is true now, we would expect the recent rapid rise in broad money growth to translate, in time, into higher money spending growth. In fact, the projections recently published by the MPC for UK nominal GDP growth over the next year are already in double-digits.

Another way of interpreting these rises in the money supply is as the financial counterpart of the excess, or involuntary, savings accumulated by households and companies during the Covid crisis. These reflect the combined effects of restrictions on spending at the same time as relatively stable incomes. In the US, these excess savings total around $1½ trillion and in the euro-area almost $½ trillion, although these savings are unevenly distributed across household types.

In the UK, the picture is much the same. Excess savings currently total around £150 billion for households and over £100 billion for companies, with the lion's share of these savings are in highly liquid bank deposits. This leaves money growth, or accumulated liquid savings, in a very different position than at the time of the global financial crisis (Chart 14).

Chart 14: M4 after the Global Financial and Covid Crises



Source: Bank of England and Bank calculations.

It is unclear what fraction of these savings will be spent. As elsewhere, these savings are highly unevenly distributed across UK households. In its latest projections, the MPC assumed around 5% of savings in aggregate would be spent. This is a conservative estimate. Milton Friedman famously described money as

a temporary abode of purchasing power.[16] If that definition holds true, by the middle of this year as much as £400 billion of savings by households and companies (around a third of annual GDP) will be seeking a new home, whether physical or financial assets or goods and services. This would provide a very significant degree of additional demand stimulus to an already rapidly-recovering economy.

(c) The Shifting Supply-Side

To what extent any rise in demand translates into higher inflation depends, ultimately, on the performance of the supply side of the economy. Over recent decades supply-side improvements, including increased trade, automation and population, have tended to relax supply-side constraints, dampening inflationary pressures. But some of these global forces now seem set to slow, perhaps even to reverse.

In their recent book, Charles Goodhart and Manoj Pradhan discuss how, following a long period when global demographic trends supported growth in the workforce, these trends are likely to reverse.[17] As the population ages and workers retire, labour supply growth will weaken and the bargaining power of workers will strengthen. This would cause both an inward shift, and steepening of, the Phillips curve, raising the price level and increasing its responsiveness to upward demand pressures.

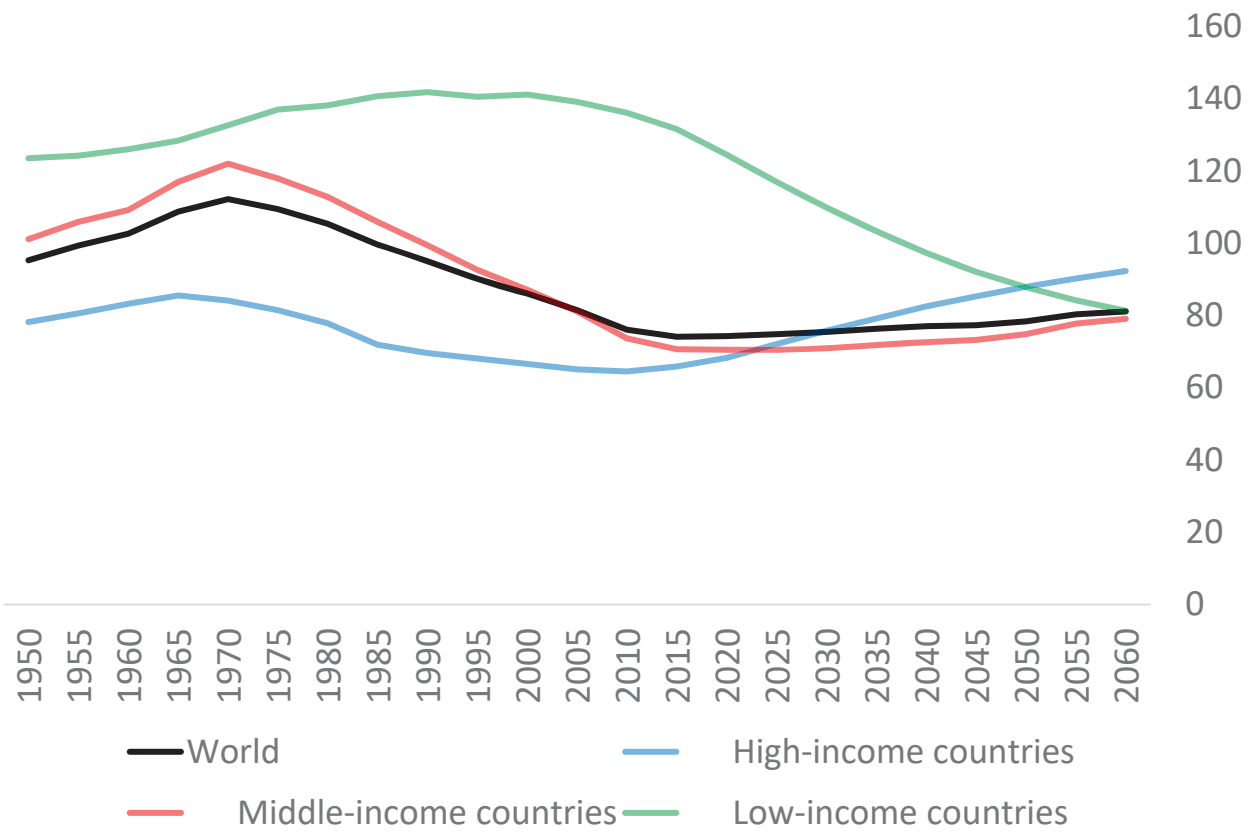
The UK has been a particular beneficiary of demographic trends over recent years. The UK working age population has risen, on average, by over ½% per year over the past two decades. It has also experienced rising rates of labour market participation, in particular among older workers and women.

The first, and possibly both, of those factors are now in reverse gear. The share of the total UK population of working age has been falling since 2008. Globally, dependency ratios – the fraction of the population not in the workforce – is forecast to start rising from around now for the first time since the 1970s (Chart 15). This rise in dependency ratios is fastest in high-income countries, such as the UK.

Until recently, this effect had been more than offset by rises in the UK population. But that, too, is changing. Recent estimates suggest the UK population may have shrunk by as much as 1.3 million people over the past year.[18] If these demographic trends continue – a smaller population fewer of whom are in work – this would turn the demographic tailwinds of the past decade into a headwind looking ahead, constraining supply and potentially amplifying inflationary forces.

[16] Friedman (1961).
[17] Goodhart and Pradhan (2020).
[18] See O'Connor and Portes (2021). The authors themselves describe this estimate as an upper bound.

Chart 15: Global Dependency Ratios



Source: United Nations, Department of Economic and Social Affairs, Population Division
Note: Dependency ratio is population aged 0-19 or 65+ per 100 aged 20-64

A second supply-side effect working in the same direction is globalisation. The world witnessed many decades of under-interrupted growth in world trade and global value chains after the Second World War, much of it associated with the rising role of China in the world economy.[19] On average since 1983, global trade volumes have risen by around 5½ % per year, roughly double the rate of growth of the world economy.

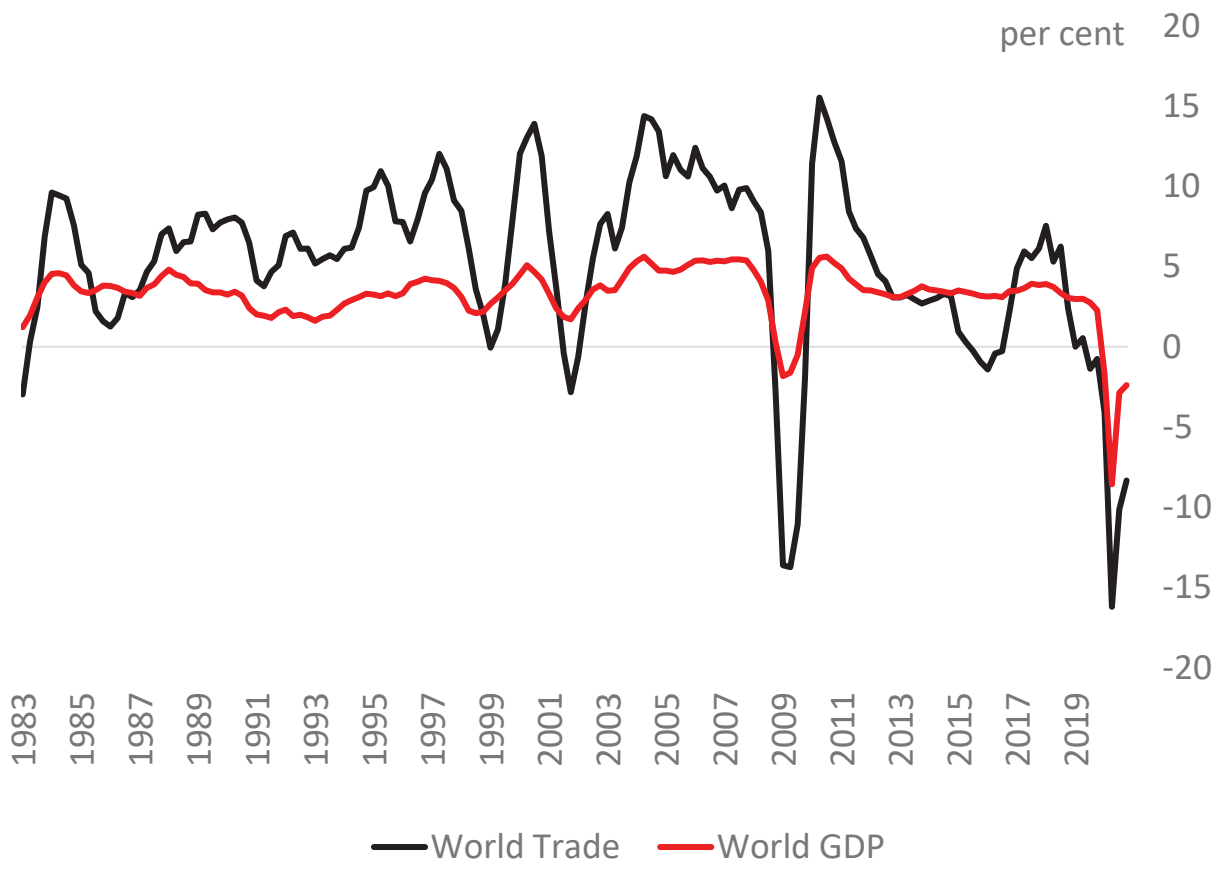
The Covid crisis has decisively broken those trends. Global trade volumes collapsed by around 15% at the peak of the Covid crisis, compared to a fall in global activity of around 9% (Chart 16). The crisis saw the fracturing of some global value chains, in part as a result of countries prioritising domestic over international supply of some goods and services.

With global trade barriers tending to rise over recent years, and with Covid having provided a further impetus towards localisation, it seems unlikely globalisation will remain as powerful a disinflationary force in the future

[19] See, for example, the work of Richard Baldwin here and here.

as it has been in recent decades. And it is certainly possible trends in globalisation could even go into reverse in the period ahead, adding inflationary impetus.[20]

Chart 16: Global Trade and Growth



Source: IMF WEO, World Bank, Bank calculations.

On top of these long-standing supply-side forces came the Covid crisis. One of the casualties of this crisis, from a supply-side perspective, is likely to be capital formation. The MPC's projections assume around a 6½% hit to the capital stock from Covid, and a long-term scar on the UK economy's supply-side of around 1.75%. This will also serve to tighten supply-side constraints as demand increases.

There are very significant uncertainties either side of these scarring estimates. On the one hand, the hit to capital could be larger if firms' risk appetite remains subdued or if the debts accumulated during the crisis act as a drag on investment. For example, in the UK Office for Budget Responsibility's (OBR) downside scenario, scarring reduces output by as much as 6%.

[20] Baldwin and Freeman (2020).

On the other hand, it is possible investment and the capital stock rebounds faster than in a typical recession – for example, if there is catch-up investment or if firms seize the opportunity created by the Covid crisis to improvement their digital estates and digital skills. This would reduce, but not eliminate, any scarring. The balance of these effects on investment is something I will discuss in a future lecture.

(d) Fiscal Policy

After the global financial crisis, the major tool of macro-economic demand management was monetary policy, which was loosened significantly in most countries. By contrast, fiscal policy in most countries was loosened only modestly and in some, including the UK, was tightened. This fiscal response added to the burden placed on monetary policy.

The fiscal policy response to the Covid crisis has been very different. Although monetary policy has once again been loosened, fiscal policy has played the frontline role in stabilising the economy. Both the fiscal/monetary mix, and the scale of the all-in supporting policy response, has as a result far exceeded that following the global financial crisis.

Table 1 shows peak levels of the primary fiscal deficit in the UK during the global financial and Covid crises. The degree of fiscal support has plainly been materially larger – more than twice as large. And relative to the size of the economy's output gap, which is smaller than at the time of the global financial crisis, this degree of fiscal support has been larger still and multiplies of the output gap.

Table 1: Peak Fiscal Deficits in the Global Financial and Covid Crises

	Peak primary balance (a)	**Peak output gap (b)**
Global Financial Crisis	-8.3	-4.2
Covid Pandemic	-18.0	-3.1

Source: OBR and Bank of England

Note: (a) % of GDP. (b) % of potential GDP. Fiscal numbers for pandemic are based on OBR November 2020 forecast for FY 2019-20.

The appropriate degree of fiscal support to close the output gap has recently been a source of debate in the United States.[21] There, the fiscal response is prospectively larger than in the UK, and the output gap smaller, meaning the upside risks to demand and inflationary are likely to be larger.

[21] For example, see Olivier Blanchard here.

(e) Psychological Scarring

A final potential difference from the past concerns the degree of psychological scarring of risk appetite among household and companies as a result of crisis. At the time of the global financial crisis, as after the Great Depression, people's appetite for risk was blunted for a sustained period. This led to long-term scarring of both the demand and the supply sides of the economy, slowing the recovery.

I think the behavioural response to the Covid crisis will be different from those past episodes. Financial crises are costlier and longer-lived because of their balance sheet impact. Holes in balance sheets need to be filled, often through deleveraging, leaving lasting financial and psychological scars. By contrast, the Covid crisis has resulted in stronger, not weaker, balance sheets, at least for the average household and company. This is likely to increase, not reduce, their willingness to take risk.

Low risk appetite after the global financial crisis was a correction of the excessive risk-taking that took place in the run-up – an overshoot followed by an undershoot. The Covid crisis has seen the exact opposite. People's appetite to spend and socialise has been artificially suppressed. This increases the chances of an overshoot as restrictions are removed, as after previous episodes of suppressed animal spirits. Risk-switching is, for me, more likely than risk-scarring.

Conclusion

At present, inflation pressures in the UK and globally are subdued. In the UK, inflation remains well below its 2% target, as it is in the US and the euro-area. In all three countries, inflation expectations among consumers, businesses and financial markets appear to be well-anchored around the inflation target, although they have fluctuated recently.

The next 12 months will see a rapid change in measured inflation. In the UK, it is likely to return to its target by the middle of the year, as the one-off effects of Covid wash out of annual inflation rates. Thereafter, the MPC foresees UK inflation remaining around its target level. The risks around this projection are, in the MPC's judgement, large but balanced.

That these risks are large is fully justified by the high degrees of uncertainty that exist around the forces driving inflation in future, as I have discussed here. But given likely trends in these factors, my judgement is that the risks to inflation in the UK are skewed to the upside, rather than being balanced. Certainly, there are good grounds for believing future inflation may behave very differently than in the past.

My judgement is that we might see a sharper and more sustained rise in UK inflation than expected, potentially overshooting its target for a more sustained period, as resurgent demand bumps up against

constrained supply. Financial markets globally have begun pricing this possibility recently, with measures of inflation expectations rising in the US and, to lesser extent, euro-area (Chart 17).

Chart 17: Tail Risk in US and Euro-area Inflation Expectations.

Source: Bloomberg Finance L.P and Bank calculations.
Note: Tail risk is the option-implied inflation tail risk, 5-years ahead measured at the 95th percentile.

Inflation is the tiger whose tail central banks control. This tiger has been stirred by the extraordinary events and policy actions of the past 12 months. It is possible that, as vaccinations are rolled out and some degree of normality returns, inflation will return to a stable state of rest. Indeed, if risks from the virus or elsewhere prove more persistent than expected, disinflationary forces could return.

But, for me, there is a tangible risk inflation proves more difficult to tame, requiring monetary policymakers to act more assertively than is currently priced into financial markets. People are right to caution about the risks of central banks acting too conservatively by tightening policy prematurely. But, for me, the greater risk at present is of central bank complacency allowing the inflationary (big) cat out of the bag.

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