HSBC Global Research

7 April 2021

How to build back better

Why inflation could be a problem and productivity is the solution

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Economics - Global

- Some think we can spend our way out of the mess we're in…
- …while others think a dose of inflation might work…
- …but ultimately the only solution is higher productivity

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The underlying problems

As lockdowns end and stimulus kicks in, countries may experience huge economic rebounds. Yet rebounds alone won't solve our underlying economic problems. The developed world has suffered for too long from anaemic economic growth, too little inflation, absurdly low productivity gains and rising inequality.

Low interest rates a symptom, not a cure

Central banks may have slashed interest rates in recent years but they have been mere accomplices in what has been a powerful structural story. Declining policy rates have simply followed the so-called "natural" rate of interest downwards. The natural rate's fall, in turn, has been primarily driven by three forces: population ageing, dreadful productivity performance and the "global savings glut".

The central banker's conundrum

A very low natural rate alongside low inflation creates enormous problems for central banks. In the event of an economic downswing, they lack the wriggle room forcibly to cut interest rates far enough to support recovery. One way around this is to commit to a high enough inflation rate to allow "real" rates to turn increasingly negative, one reason why the Federal Reserve now talks about average inflation targeting and why the US Treasury – led by a former Fed Chair – is content to offer huge fiscal stimulus.

Limits of persuasion

There is no guarantee, however, that markets will go along with the policymakers' "irresponsible" promises. If investors demand higher interest rates than central bankers are willing to offer, the risk of financial upheaval – bond market sell-offs, stock market corrections, currency volatility – rises. At the limit, major asset price declines could undo much of the "stimulus" now being delivered.

Worse, it's possible that unconventional monetary policies are contributing to poorer productivity performance through their impact on asset prices and, hence, the [mis]allocation of capital. Central banks mostly focus on demand but, alongside other policymakers, they might need to spend more time looking at supply. If, ultimately, central bankers and other policymakers crave structurally-higher interest rates, they need to focus much more on finding ways to raise productivity growth. A failure to do so will condemn the West to yet more "lost decades".

This is an abridged version of a report by the same title published on 7-Apr-21. Please contact your HSBC representative or email AskResearch@hsbc.com for more information.

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How to build back better

- Long before COVID-19, the world economy was in trouble…
- …with interest rates at rock bottom and productivity missing in action
- If COVID-19 is now being tamed, we have a chance of an economic reboot – but only if we choose wisely

Before and after COVID-19

If you were to sketch out the current state of the global economy on the back of an envelope, you might be tempted to use up the available space with a description of the economic impact of COVID-19 related lockdowns and the scope for a rebound once those lockdowns begin to ease. That temptation should be resisted. The truth is that COVID-19 has masked a range of deep-rooted challenges that have been brewing for years and, in some cases, decades. We might emerge from the pandemic later in 2021 with the power of a coiled spring – as Andy Haldane, the Bank of England's Chief Economist, memorably described his own view of the near-term UK economic outlook – but that says little about our long-term prospects. A coiled spring may "power" the vast majority of pogo sticks but most of us, when given the chance, eventually fall off.[1]

The western world's economic development in recent decades can easily be characterised in a concise number of words and phrases: weak growth, low wages, underwhelming productivity gains, inflationary undershoots, surging asset prices, rock bottom interest rates, booming profits and rising income inequality. It's no surprise that this uneven economic climate has been associated with protectionism and populism. It is, after all, a far cry from the second half of the twentieth century, an extended period during which the economic cake rapidly expanded, enabling the vast majority of people to experience rising living standards whether or not their individual slice was, relatively speaking, increasing or shrinking.

Monetary stimulus not doing the trick

Initially, the solution to this collection of 21st century problems relied on a combination of ever-declining interest rates, quantitative easing and, post the Global Financial Crisis (GFC), fiscal rectitude. Even before the GFC, interest rate cuts were regarded as the weapon of choice, an observation that some described as the "Greenspan put". Emerging from the GFC – by which time short-term interest rates were fast heading towards the so-called "zero rate bound" – the aim was to bypass a broken banking system and encourage companies to raise funds via the capital markets. To do so, quantitative easing forced longer-term government bond yields lower, encouraging investors to shift into higher yielding corporate bonds and equities. In time, capital spending was supposed to recover, triggering an economic renaissance. Quantitative easing would then be brought to an end and interest rates would return to more normal levels.

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1 Jack Sexty holds the current world record for consecutive jumps on a pogo stick. He managed 88,047 at Paine's Park, Philadelphia, on 2 July 2015. He still fell off – eventually. In response to Sexty's remarkable achievement, another pogo enthusiast wrote on the Guinness World Records website – in a message that will resonate with many pogo "pretenders" – that "I can do up to 600 until I get tired."

Little of this has happened. True, the counterfactual (what would have occurred in the absence of quantitative easing) might have been even worse economically but, judged against the growth forecasts made at the time, subsequent experience can only be regarded as disappointing: outcomes have been persistently worse than initially projected.

There has been little in the way of a healthy economic recovery. Inflation has mostly remained below target. Interest rates are at rock bottom. And some central banks have adopted "*Through the Looking Glass*" tactics, imposing negative interest rates in a bid to rewrite standard economic textbooks.[2] The one piece of good news – at least until COVID-19 struck – had been lower than expected levels of unemployment[3]. Given the slow pace of recovery, however, this only serves to emphasise another peculiarity: productivity gains have been woefully lacking.

Charting the end of lockdown

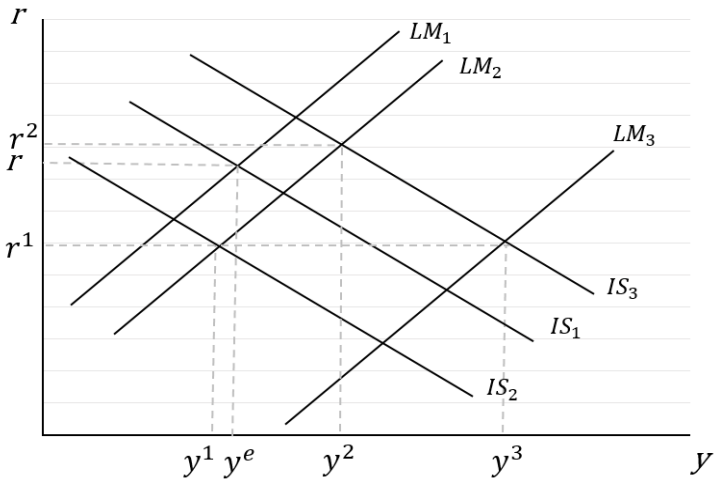
There may be some temporary post-COVID-19 respite to all of this. Consider what's happened over the last twelve months. There has simultaneously been a surge in private savings – induced by a combination of COVID-19 lockdowns and broader economic uncertainty – alongside a partially-offsetting rise in public borrowing. On balance, these two effects have left GDP significantly lower than it might otherwise have been. Together with added monetary stimulus, they have also pushed interest rates down towards zero or, in some cases, kept rates below zero.

How all this will unwind in the coming year remains a great "unknown". With vaccines both effective and increasingly available, we may be on the verge of a "great unlocking", if not in all parts of the world. In theory, any sudden fall in private savings could turbocharge an economic recovery. Other things equal, a sizeable recovery in private demand would need to be matched by a reduction in public borrowing in order to maintain interest rates at low levels and keep a lid on inflation. That, however, seems unlikely. The IMF and OECD are both warning against premature fiscal retrenchment while one of Joe Biden's first policy initiatives is a USD1.9trn (9% of GDP) fiscal stimulus, of which more than half is likely to be felt this year.

To illustrate the near-term pressures stemming from these changes, consider chart 1, a simple IS/LM diagram. The initial pre-COVID-19 equilibrium is shown at point $y^e r$ where both (i) savings and investment and (ii) the demand for and supply of money are in equilibrium. The impact of COVID-19 is to shift the IS curve inwards from IS^1 to IS^2, leaving GDP and interest rates lower than they were before. Even with some loosening of monetary policy, signalled through an outward shift in the LM curve from LM^1 to LM^2, GDP is still lower than it otherwise would be. Lockdown, after all, leads to forced savings and, hence, lower demand. Table 2 supports this claim. It shows changes in the US sectoral balances – in effect, the degree to which each sector is lending to, or borrowing from, the other sectors – since the onset of the pandemic. The narrative is consistent with the theory: a huge increase in household savings (or net lending) in the spring of 2020 offset by a huge increase in government dissaving (or net borrowing), all of which was consistent with a huge drop in GDP.

2 Negative interest rates are theoretically problematic given the existence of cash which, by definition, offers a zero nominal interest rate.
3 It's plausible to argue that technologies have led to a major shift in labour market behaviour, with low-paid workers more easily able to find employment and companies more willing to employ low-productivity workers on flexible hours.

1. Back to the textbooks: the impact of COVID-19 seen through IS/LM



Source: HSBC

2. The battle of the COVID-19 bulge: US households saved hugely, the US government borrowed hugely (sectoral balances as a percentage of GDP)

	Households	Non-financial corporates	General government	Rest of World	Residual
2018	5.2	-1.0	-5.5	1.5	0.2
2019	7.9	-2.8	-6.5	1.0	-0.4
Q1	11.5	-7.4	-9.6	1.4	-4.1
Q2	6.3	-2.1	-6.2	2.9	0.9
Q3	6.0	1.4	-5.0	0.1	2.5
Q4	7.6	-3.2	-5.2	-0.4	-1.1
2020					
Q1	10.4	2.6	-7.4	-0.9	4.7
Q2	28.3	-1.3	-28.7	4.4	2.6
Q3	6.8	1.3	-15.1	3.4	-3.7

Source: Federal Reserve, HSBC calculations

Now think about the process operating in reverse. We cannot know with certainty what households will do when lockdown comes to an end, but the chances are that the IS curve will move back out again, partly because, in aggregate, households are much wealthier than they once were (a result of both delayed gratification and significant stock market-related gains in financial wealth[4]). This is doubly the case if any recovery in private demand is matched by further fiscal stimulus. Under these circumstances, the IS curve could move out beyond y^e (signalling full employment) to, say, IS^3, leaving income at y^2. Other things equal, this might trigger higher interest rates, a stronger dollar and, thus, a broad tightening of financial conditions. If, however, the Federal Reserve is committed to "lower for longer", the LM curve may also have to shift outwards from LM^2 to LM^3. The net result threatens to be a radical increase in demand relative to supply, leaving income at, say, y^3: enough, perhaps, to spook bond markets, threaten higher future inflation and, for the earliest "unlockers", deliver a worsening balance of payments[5].

4 Relative to GDP, net assets of US households stood at roughly 390% in the third quarter of 2020, up from around 350% a year earlier, an increase in nominal terms of around USD6trn.
5 Indeed, a rapid widening of the UK current account deficit is precisely what the UK's Office for Budget Responsibility projected in its March 2021 forecasts

There are, admittedly, many uncertainties. We don't know at this stage how flexible post-COVID-19 supply might prove to be, nor do we know how much "scarring" has occurred because of COVID-19. Unemployment may be higher than it was but, if some jobs have gone forever, the increase is more likely to represent a rise in the so-called "natural" rate of unemployment (signalled by a move back to the origin from y^e). As such there are many possible outcomes.

What's behind the structural decline in real rates?

There is also, however, the possibility that policymakers regard COVID-19 as an opportunity to rethink fundamentally their approach to macroeconomic policy or, put another way, to take macroeconomic risks that would have been politically unacceptable ahead of the pandemic. To understand why, it's worth considering the results contained in *A Model of Secular Stagnation: Theory and Quantitative Evaluation* by Eggertsson et al[6]. The authors attempt to quantify the reasons behind the secular decline in the so-called "natural" real rate of interest witnessed since 1970. Their results are displayed in table 3.

3. Decomposition of the decline in the US natural rate of interest: 1970-2015

Driver	Change in natural rate (% points)	% of total change in natural rate
Total change	-4.02	100%
Mortality rate	-1.82	43%
Total fertility rate	-1.84	43%
Productivity growth	-1.90	44%
Government debt (% GDP)	+2.11	-49%
Labour share	-0.52	12%
Relative price of investment goods	-0.44	10%
Change in debt limit	+0.13	-3%

Source: Eggertsson *et al*

The natural interest rate is, like the natural rate of unemployment or the output gap, an economic concept that's fine in theory but unobservable in practice. For starters, it's a real, not a nominal, rate so inflationary expectations have to be extracted from actual interest rates (easier to do during periods in which index-linked bonds freely trade). Second, actual interest rates – at least those controlled by the central bank – are set either lower or higher than the assumed "natural rate" dependent on the apparent cyclical state of the economy. That, in turn, depends on an estimate of the size of the output gap, another "unobservable" variable which, in hindsight, is often revised to a huge degree. Third, because it is ultimately a price, the interest rate is co-determined by both demand and supply factors which, in practice, are very tricky to identify independently.

Still, the estimates in table 3 are important. They help account for one of the main economic and financial developments in recent decades, namely the persistent structural decline in the natural rate of interest. Since 1970, the rate in the US has dropped by over 4 percentage points in real terms. Other countries in the developed world – with Japan at the forefront – have had similar experiences. Two of the biggest drivers are associated with demographics, namely rising life expectancy and lower fertility rates. As they age, populations tend to favour safer, liquid assets with a steady income stream – most obviously, to pay for unforeseen medical bills – over risky, illiquid assets even if those assets might offer more in the way of capital gain over the very long run. A third driver is productivity growth which, in simple terms, is an economy's "rate of return". Other things equal, the lower is the growth rate of productivity, the lower

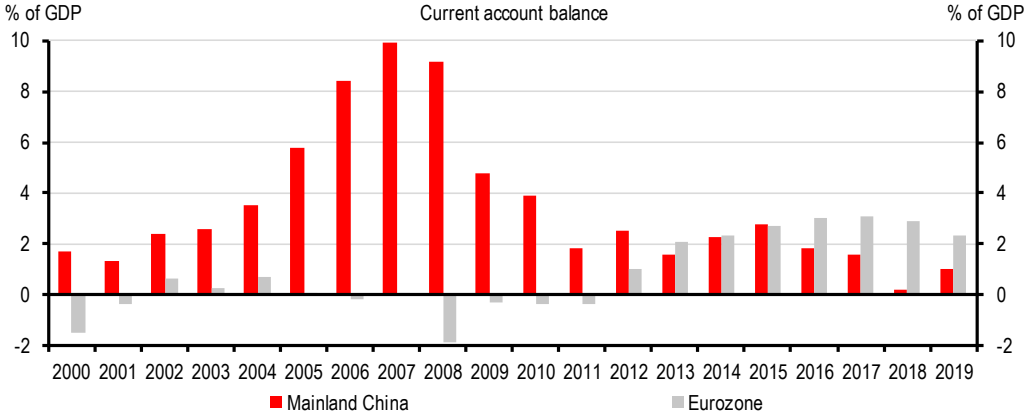
6 Eggertsson, G.B., Mehrotra, N.R. and Robbins, J.A., A Model of Secular Stagnation: Theory and Quantitative Evidence, Working Paper 742, Research Division, Federal Reserve Bank of Minneapolis, September 2017

interest rates are likely to be[7]. In truth, these first three factors are all linked: an ageing population will demand higher dividends and more share buybacks, encouraging companies to distribute profits to their shareholders to fuel current consumption rather than retaining profits to deliver a higher volume of investment and, with it, bigger productivity gains.

The fourth big driver is increases in government debt. Larger increases in the debt stock impose greater demands on available savings. As such, the cost of borrowing is likely to rise. In the 1970s and 1980s, economists worried about so-called "crowding out", the idea that increased government borrowing would raise interest rates, thereby restricting the volume of private sector investment. In recent years, however, higher levels of government debt have been synonymous with lower, not higher, interest rates. This does not mean, however, that standard economic relationships have been turned upside down. In effect, government borrowing has been "crowded in" by an ageing population that has become increasingly risk averse and, thus, happier to hold its savings in the form of liquid but low-yielding government debt.

While the Eggertsson estimates are helpful, they are very much determined by domestic factors. In truth, interest rates the world over are also influenced by cross-border flows of savings and investment. In international finance, no country is an island. Prior to the Global Financial Crisis, China's rapid export-led economic growth, alongside suppressed domestic consumer spending (partly a reflection of only limited availability of consumer credit), led to a series of huge current account surpluses that were recycled into substantial increases in US Treasury holdings thanks to hefty increases in China's foreign exchange reserves. Inevitably, Treasury yields fell further.

4. Global "lenders of first resort": first, the Chinese, next, the Europeans



Source: World Bank, Refinitiv Datastream

Since the Global Financial Crisis, the eurozone has effectively usurped China's role as "global saver-in-chief". Europe's savings are, however, less a sign of export success and more a reflection of a "Germanic" approach to financial security[8]. Put simply, depressed domestic expenditures and high levels of saving have muted import demand, leading to a huge balance of payments current account surplus. High domestic savings, in turn, have contributed to remarkably low domestic interest rates, dragging down the cost of capital elsewhere in the process.

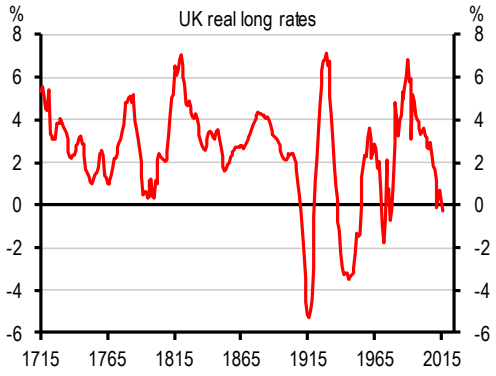
Putting all of these factors together, it's possible to provide a rather different perspective on low interest rates. Rather than being a cause of faster future growth, they are, instead, a consequence of serious structural deficiencies. They are a symptom of deep-rooted problems,

7 "Other things equal" is doing a lot of work here: over long periods of time, it is difficult to observe any kind of direct close relationship between nominal GDP growth and the level of interest rates.
8 Some countries adopted the Germanic approach on an entirely involuntary basis.

not a determinant of future recovery. Seen this way, central banks are merely accomplices in a world seemingly condemned to zero rates for years to come.

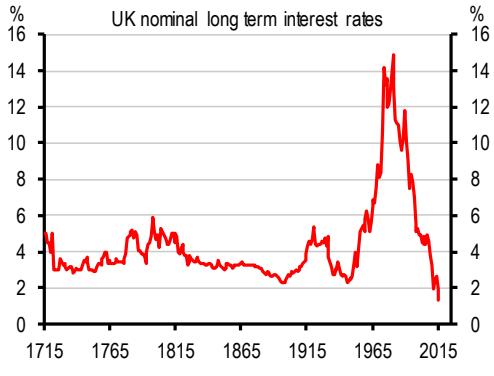
To place this observation in perspective, consider charts 5 and 6. They provide a history of UK interest rates in both nominal and real terms over a 300-year time horizon. They emphasise how unusual current circumstances are. Never before have nominal interest rates been so low. Never before have real interest rates been so low without the excuse of exceptionally high inflation. They are a consequence of the peculiarities that have developed in the global economy over the last two decades: the slow growth, the low inflation, the limited productivity gains and the demographic challenges. Put another way, interest rates will only be able to rise sustainably when at least some of these longer-term structural trends go into reverse.

5. For a low inflation period, real rates are remarkably low…



Source: Bank of England. Note: The real long rates are based on annuities and consols prior to 1929

6. ...while nominal rates are the lowest since at least the early 1700s



Source: Bank of England. Note: The nominal long rates are based on annuities and consols prior to 1929

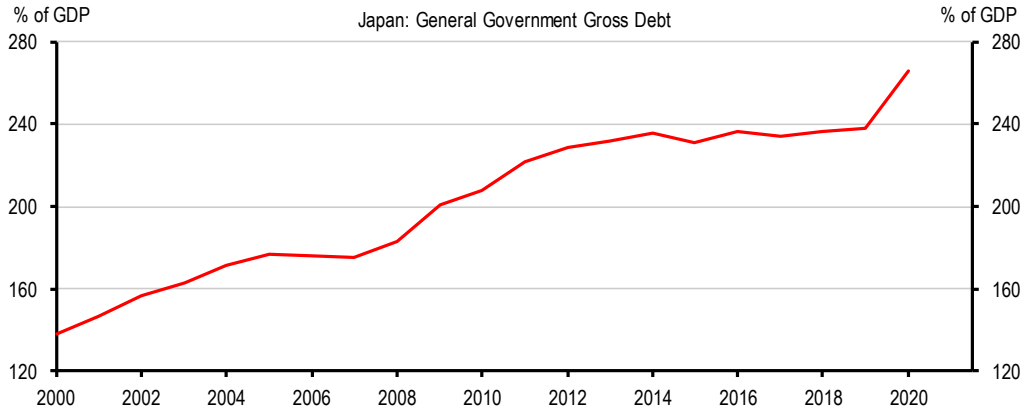
To what extent, however, do policymakers have any influence over these structural trends? Immigration policies and changes in retirement age may have some effect on a nation's saving behaviour – through, for example, boosting the numbers of working young or increasing the length of people's working lives – which, in turn, might encourage greater risk taking and reduced enthusiasm for "safe" assets. To date, however, such reforms have proved to be politically contentious and there has been no meaningful impact.

Table 3 does, however, suggest two other areas which, in theory, might pay dividends, namely productivity and government debt. Both areas have had a huge impact in changing the level of the "natural" rate of interest yet both, in theory, can be influenced more easily and more quickly by policymakers than, say, long-term demographic trends. Yet, in exploiting these two areas, enormous care is needed.

Raising real rates via government debt

It is not difficult to raise government debt. Nor is it difficult to fund it, particularly if there's access to a printing press and there's a level of indifference about either inflation or the exchange rate. It is, however, difficult to raise government debt in a way that ensures a return to economic normality, including a return of the natural rate of interest to historic norms. Think of Japan, where government debt has risen by leaps and bounds over the last three decades but growth remains weak, deflation rather than inflation has been the predominant macroeconomic challenge and interest rates remain at rock bottom.

7. Rising government debt has not allowed Japan to escape its lost decades

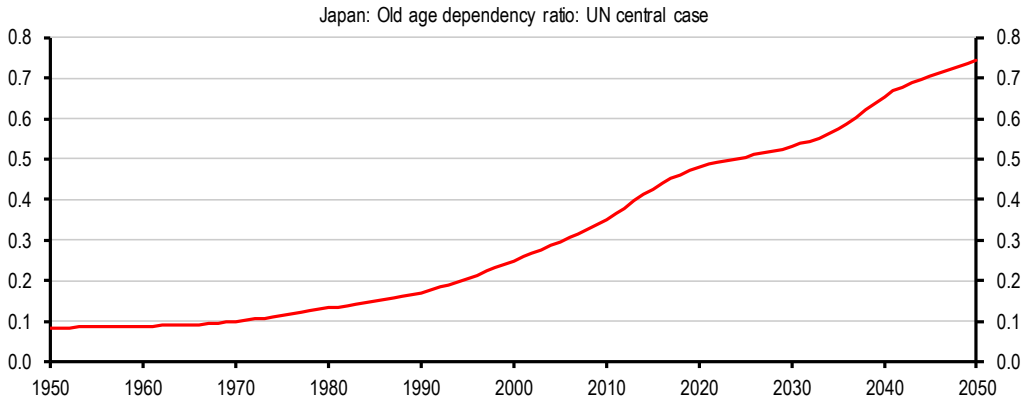


Source: IMF, Refinitiv Datastream

This was not supposed to happen. Standard textbook analysis suggests that, other things equal, increases in government borrowing should both push interest rates higher and raise the level of GDP, sufficiently so to remove deflationary risks. In Japan's case, however, both interest rates and GDP have come in persistently lower than expected. One explanation is simply to say that the Ministry of Finance was persistently guilty of "too little, too late". In other words, had there been a lot more by way of fiscal stimulus, the economy might have been shifted to a new higher trajectory which, over time, might have lowered the ratio of government debt to (now higher) GDP.

An alternative explanation is that the fiscal authorities were rowing against an incredibly powerful tide and, as such, unable to make any serious headway. Seen in these terms, any fiscal stimulus was, in real time, overwhelmed by forces operating in the opposite direction, consistent with the US results shown in table 3. Put another way, Japan's "lost decades" were an inevitable consequence of changes in demographic trends. Japan's old-age dependency ratio began to rise rapidly at the beginning of the 1990s, just as Japan's long-term growth rate stalled.

8. Population ageing is consistent with falling interest rates and low growth



Source: United Nations

A third explanation relates to the increasingly international nature of savings and investment decisions. Investment demand had collapsed in Japan because there were better investment opportunities elsewhere in the world, most obviously in low-cost Asian neighbours such as China. In and of itself, such outsourcing would not give rise to lower domestic interest rates. If, however, there was any degree of "home bias" with regard to savings, it would. Too many savings would now be chasing too few domestic investment opportunities.

A fourth possibility is Ricardian equivalence. For every increase in government borrowing, there is an offsetting increase in private saving (or an offsetting reduction in private borrowing). It's a simple idea, namely that fiscal policy can make no lasting difference to economic outcomes because those in other parts of the economy will recognise that any increase in government borrowing today will merely add to tomorrow's tax burden: with perfect foresight, private savings will increase to match the increase in government borrowing and there will be no impact on demand.

The implicit assumption is that all sectors of the economy have equal access to capital markets. In truth, however, the government enjoys cheaper and more liquid financing than most other would-be borrowers: as such, increases in government borrowing should not be fully "offset" by changes in savings behaviour elsewhere. Still, some countries appear to be more prone to such behaviour than others: German households, notably, have a habit of saving more and consuming less when either the German government loosens the fiscal reins or German inflation heads higher, in the process eroding the stock of existing German savings. There is no "one size fits all" answer.[9]

Table 3 does, however, suggest that a suitably aggressive fiscal expansion might increase the natural rate of interest, an important conclusion for both fiscal and monetary policy when an economy is close to the zero-rate bound. Put simply, the higher the natural rate of interest, the lower the chance of central banks bumping into the zero rate bound.

The same is true, however, in the event that inflation is significantly raised, a process that should lead to higher nominal, if not higher real, rates. There is an obvious irony here. Central banks are generally supposed to aim for low and stable inflation but, at current very depressed interest rate levels, their firepower is hugely limited. To regain firepower, they need to commit to

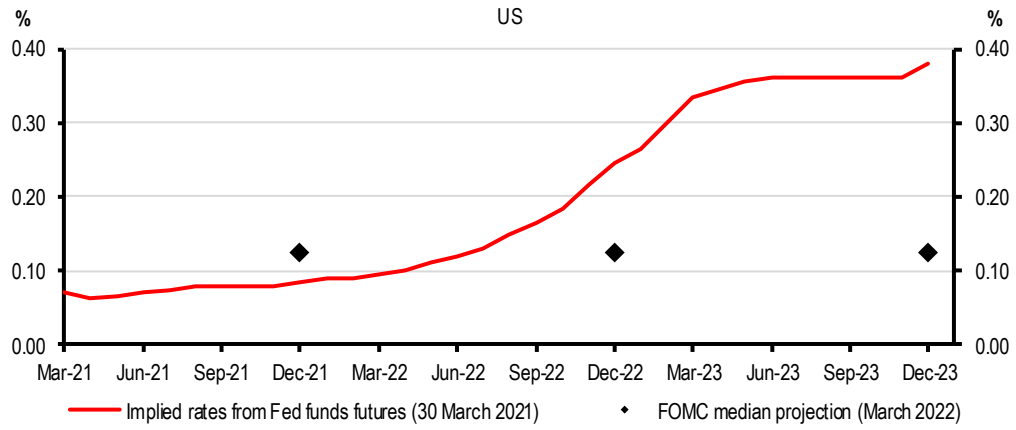
9 Other explanations include, for example, Indebted Demand (see NBER Working Paper 26940 by Mian, Sufi and Straub, April 2020) in which higher debt burdens ultimately lower aggregate demand with the implication that attempts to boost demand through monetary or fiscal stimulus will ultimately be self-defeating. The answer, in this case, is to redistribute income to those with higher marginal propensities to consume in the hope that this will generate economic "escape velocity". The real world evidence, however, is mixed: the so-called Mitterrand "growth experiment" in the early-1980s was partly driven by similar ideas but ended in inflationary tears and regular currency crises.

doing precisely what investors think they will never do, in effect to act "irresponsibly"[10]. To behave in this way, they may need to enlist the support of their fiscal cousins: it is, after all, far easier to generate both higher inflation and an upward shift in the natural rate of interest if both monetary and fiscal policy are firing on all cylinders simultaneously, particularly if there's a hint that money printing is being used to finance a rapidly rising budget deficit.

That, arguably, is where the US now finds itself. The Federal Reserve's commitment to an average inflation target – in which bygones can no longer be bygones – implies that, after years of below-target inflation, the Fed is, in theory, content for inflation in the years ahead to be persistently above 2%. And it is easier to achieve such a target if the fiscal authority is happy to back up the monetary commitment with its own massive stimulus, precisely what the Biden Administration intends to deliver this year. It also helps if the person at the helm of the Treasury was previously running the Federal Reserve: there is now an umbilical cord connecting US monetary policy – headed up by Jay Powell – and fiscal policy – presided over by Janet Yellen.

This, however, creates its own problems. What happens if, for example, the markets simply don't believe the "irresponsible" commitment: in other words, if investors reflect on how central banks typically behave and begin to price in earlier increases in interest rates than the central banks themselves are indicating? In the first three months of 2021 as optimism rose regarding a post-pandemic, post-lockdown future secured through effective vaccination programmes, this is precisely what happened. The Fed's own interest rate projections – the so-called "dots" – indicated (just) no increase in interest rates over the next couple of years. The market, in contrast, was betting on rates rising (chart 9), a shift in expectations which, in turn, led to a sustained increase in 10-year Treasury yields.

9. The markets don't believe the Fed



Source: Bloomberg, Federal Reserve

Such shifts in interest rate expectations are awkward for monetary and fiscal authorities because they can, in turn, have an impact on a broader range of asset prices. A large increase in the discount rate will reduce the net present value of future earnings and, by dampening the broader economy, the expected *level* of future earnings. Combining these effects threatens major downward adjustments in asset values which, in turn, might trigger an even bigger economic slowdown and, potentially, a recession, thereby limiting the room for both inflation and interest rates to rise. It's a familiar story, typically described "after the event" as the consequence of a bursting bubble (both the late-1990s tech bubble and the early-2000s housing bubble fit into this category),

10 See, for example, Eggertsson, G, How to Fight Deflation in a Liquidity Trap: Committing to Being Irresponsible, IMF Working Paper WP/03/64, March 2003

The immediate solution to this challenge is for central banks to use a combination of language and monetary actions to persuade markets that interest rates will remain lower for longer. Combined with aggressive fiscal stimulus, a point will come when investors finally recognise that policymakers are genuinely committed to acting "irresponsibly", that inflation is more likely to rise than fall, and that there will be no immediate interest rate response.

Average inflation targeting encapsulates the approach: historic inflationary undershoots near the zero rate bound have to be offset by future inflationary overshoots to ensure that there is no unintended or undesirable increase in an economy's real debt burden. Yet the approach is not without risk. At the macroeconomic level, the assumption that monetary support will be in place indefinitely may lead to persistent gains in asset prices without any lasting impact on economic activity, precisely the conditions witnessed in recent years. It's potentially an unhelpful outcome, raising the value of claims by the asset-rich on fundamentally limited resources at the expense of everybody else, and one reason – of many – that regional economic disparities have widened so much in many developed nations in recent years. Theory and practice don't always chime.

Raising real rates via productivity

Productivity is the Holy Grail of economics. We are much richer than our forebears for one simple reason: we have become much better at producing higher levels of output from a given set of inputs. Admittedly, this increase in economic bounty is not without its costs: without the industrial revolution and the expanded use of fossil fuels, we wouldn't be suffering from such rapid climate change. Still, without the advances seen across two centuries, most of us would still be doing backbreaking work, would be mostly undernourished, would too often succumb to disease and, as a result, die before our time.[11]

Table 10 shows productivity performance in an assortment of developed nations in recent decades. The narrative is roughly the same in each case: rapid transformations in living standards in the late 20th century have been followed by much more disappointing outcomes, particularly during the decade preceding the pandemic[12].

10. The productivity slowdown: annual average percentage increase in GDP per hour worked per decade

	1980	1990	2000	2010	2019
Canada	1.7	0.9	1.7	0.9	1
France	4	3	1.8	0.9	0.9
Germany	3.8	2.4	2.1	0.9	0.9
Italy	4.1	1.8	1.6	0	0.2
Japan	4.3	4	2.3	1.2	0.9
Spain	4.7	2.8	1	0.8	0.8
UK	2.9	2.2	2.7	1.4	0.2
US	1.5	1.5	1.8	2.2	0.7

Source: OECD

11 Admittedly, it's only a microcosm but many composers succumbed to medical problems that are now dealt with as a matter of routine. Mozart, who died at the age of 35 in 1791, was probably overwhelmed by parasites, a result of eating poorly prepared food during his childhood travels to Europe's palaces and stately homes. In 1828, Schubert died of complications from syphilis at the tender age of 31. A couple of decades later, Chopin succumbed to tuberculosis. He was 39. Jean-Baptiste Lully, a Franco-Italian composer of the 17th Century, accidentally stabbed himself in the foot while leading an orchestra. His leg ripened with gangrene. In the absence of antibiotics, Lully dropped dead at the age of 56. Many composers, meanwhile, made a living through the composition of Requiem Masses: death was all around and, as such, demand for such spiritual works was morbidly high.
12 For a detailed discussion of these issues, see King, S D, When the Money Runs Out: The End of Western Affluence, Yale, 2013, revised 2018.

As we have already seen, this slowdown in productivity coincides with the sustained reduction in the natural rate of interest. If the slowdown was a short-term phenomenon, it would be easy enough to think of the relationship in cyclical terms: an economy slows down, productivity wilts, interest rates fall, monetary stimulus boosts confidence and both the economy and productivity then recover. That, however, is no longer a plausible explanation: the slowdown in productivity goes far beyond one economic cycle. Moreover, weak productivity growth casts doubt on the secular stagnation hypothesis of Alvin Hansen, popularised in recent years by Larry Summers. Their view of economic weakness is associated with persistently high rates of unemployment. For the most part, however, unemployment has been lower than expected: the surprise has not been a lack of demand for productive resources but, instead, the low productivity of those resources once deployed. It's another way of saying that returns on capital have been unusually depressed which, in turn, is fully consistent with a sustained period of remarkably low interest rates.

One reason for low productivity growth is population ageing: assets increasingly have to support current consumption via income generation as opposed to investment in the future via retained profits. Another, arguably, is the impact of austerity: had governments been willing to borrow more in the years following the Global Financial Crisis, perhaps any private sector investment shortfall could have been offset to a greater degree by an expansion in public sector investment. A third reason – more difficult to resolve quickly – is a relative deterioration in educational attainment in parts of the western world. According to internationally-recognised PISA tests, 15-year olds in the US, for example, score very poorly in mathematics relative to their peers in much of Europe and East Asia[13]. A fourth reason is a story associated with leaders and laggards. A gap appears to have emerged between large "best in class" global companies, particularly in the ICT sector, and smaller local producers: the former have seen productivity advancing by leaps and bounds while the latter have merely survived without moving the productivity needle one inch: that, in turn, may reflect weak competition policies and other regulatory failures[14]. Seen this way, the mystery is not so much a lack of productivity advance but, instead, the ability of productivity laggards to survive in a supposedly competitive market place.

Yet there is one area that, while potentially very important, attracts little attention. To what extent is productivity performance affected by macroeconomic policies in general and monetary policies in particular? The standard textbook view is that monetary policy is ultimately neutral with regard to the real economy. Over the long run, monetary policy can only influence nominal variables – most obviously, inflation and the exchange rate – and not "real" outcomes. Admittedly, monetary policy always affects the "hurdle rate" for investment: interest rate cuts are, after all, intended to encourage less productive investments to take place. That doesn't mean to say, however, that those investments are a bad thing, nor that any resulting pick-up in demand is anything other than a good thing economically. Additionally, to the extent that the cost of capital for companies always includes a risk premium, the connection between official interest rates and what companies themselves are charged for borrowing can sometimes be tenuous (for example, credit spreads remained wide for a prolonged period after the Global Financial Crisis, despite a combination of plunging official rates and huge amounts of quantitative easing).

Yet in a world of "too big to fail" – an attitude that appears to have spread far beyond the banking sector in recent years, notably since the onset of the COVID-19 pandemic – there may still be problems, particularly if monetary stimulus leads to unintended consequences for capital markets, most obviously by raising equity prices across the board. Remember that the original intention of quantitative easing was to buy government bonds, depress their yields, force pension funds and insurance companies to buy riskier assets (thereby raising their price) and

13 By implication, poor European productivity must result from factors other than education
14 See, for example, Andrews, D. Criscuolo, C and Gal, P., The Best versus the Rest: Divergence across Firms during the Great Productivity Slowdown, CEP Discussion Paper No.1645, London School of Economics, August 2019

enable companies to raise funds through the capital markets rather than rely on the (at the time) ailing banks. Had this policy worked, there would eventually have been a recovery in investment, a rebound in demand, an increase in inflationary pressures and, as night follows day, an increase in interest rates.

For the most part, however, this predicted chain of events didn't happen. Asset prices did rise, but nothing else really followed. More than a decade after quantitative easing was first tried, it's still with us and interest rates remain at rock bottom. This, in turn, raises an important issue. If asset values are permanently raised yet the economic response is disappointing, what precisely has been achieved[15]? Wealth has been redistributed to those whose financial assets have risen in value: their claims on output have correspondingly risen relative to others. However, those who are financially asset-rich typically have a lower marginal propensity to consume than the population as a whole. As such, their gain may be demand's loss.

Equally, however, companies with access to capital markets will tend to be better supported than those which depend on, for example, access to bank credit, regardless of whether they have good prospects or a history of productive investment. In effect, one group of companies – some of which will be large, bureaucratic and, potentially, sleepy – gain an advantage relative to others. Their risk of bankruptcy is reduced and, as such, they can continue to operate as part of the "living dead". Their continued existence, meanwhile, maintains a level of excess capacity within individual sectors of the economy, potentially lowering the incentive for dynamic new entrants to inject new productive energy.

Arguably, the same problems are created with negative interest rates, particularly in the form adopted by the European Central Bank, where lending rates are below deposit rates and commercial banks can directly raise funds from the ECB to be lent out to the economy, thus severing the link between loans and deposits[16]. Without any kind of deposit "constraint", banks can more easily evergreen loans that might otherwise be non-performing, supporting the continued existence of so-called zombie companies. Equally, by providing a loan "subsidy" to commercial banks, the ECB is in effect providing a tax cut through the back door, prolonging excess capacity within the banking sector and making any eventual escape from monetary dependency that much less likely. In such a stagnant world, it's no surprise that productivity gains are incredibly limited.

Finally, to the extent that government bonds are increasingly underwritten by central bank asset purchase schemes – most obviously within the eurozone following the sovereign debt crisis but, more recently to support massive bond issuance associated with the huge COVID-19 related fiscal support packages – there's a rising risk of financial repression: in effect, governments are able to jump to the front of the "cheap finance" credit queue regardless of what they do with the money. Any notion of capital market discipline is removed at a stroke.

15 This is not a criticism of the initial stages of unconventional monetary stimulus during the Global Financial Crisis: without it, the world might have ended up facing another Great Depression
16 See King, S., False Negatives: Why Cutting Interest Rates Below Zero May Not Be Such A Good Idea, HSBC, November 2020

The nationalisation of capital markets

Macroeconomic policies have understandably been focused in recent years on providing demand stimulus. Faced with a mixture of low growth and low inflation, our policy doctors have determined that the economic patient's sickness is directly associated with a lack of demand. Yet, unlike earlier periods of demand shortage, unemployment has been surprisingly low. In truth, the absence of growth is much more a story about poor productivity gains, a story that – importantly – transcends the economic cycle.

There are plenty of plausible explanations for the limited nature of recent productivity gains. Little attention, however, has been paid to the potentially retarding role of macroeconomic policy. That's hardly surprising. No one can credibly argue, for example, that the solution to our economic problems lies with a sudden increase in interest rates or the abrupt withdrawal of asset purchase policies. Yet the reasonableness of this objection potentially confuses both cause with effect and policy rates with the natural rate of interest. The correct argument runs as follows:

- The reduction in the natural rate of interest is a structural phenomenon that has been in place for at least two decades.
- Central banks have ultimately lowered policy rates in line with the decline in the natural rate of interest.
- Any reversal of policy rate cuts will directly only push policy rates up relative to the natural rate, leading to an unwarranted deflationary bias. It's one reason why those central banks which have attempted to raise interest rates in recent years have been forced into embarrassing reversals.
- Lasting economic success will only be signalled when both policy rates *and* the natural rate can rise sustainably.
- Unconventional monetary policies have been in place for far longer than anyone originally intended or expected. Their persistence has both helped distort asset prices and encouraged investors to purchase assets that they might otherwise have avoided.
- Unconventional policies may, in turn, have distorted the allocation of capital: governments and inefficient companies can more easily access capital than might otherwise have been the case, squeezing out opportunities for potentially more productive ventures.
- This "opportunity squeeze", in turn, lowers productivity growth and, with it, holds the natural rate of interest at a level unprecedented in hundreds of years of economic history.

In other words, it is a trap. Policy rates cannot rise until there is clear evidence that the natural rate of interest has sustainably risen. That cannot happen, however, if central banks are unable or unwilling to bring their asset purchase schemes to an end and governments come to rely increasingly on those asset purchase schemes to fund their own largesse. Capital markets are unable to operate efficiently because prices are intentionally distorted by central bank actions. As such, the invisible hand cannot allocate capital in the most productive fashion. Economic growth remains persistently subpar. In these circumstances, the easy macroeconomic answer is to act "irresponsibly", precisely what US policymakers may have chosen to do in the aftermath of the COVID-19 pandemic. Yet, as we have seen, with irresponsibility comes risk, notably the possibility of a major stock market reversal in the event that the commitment to irresponsibility is not regarded as sufficiently credible. Interest rates would then be forced back down. Escaping from the trap would become even more of a challenge.

All of this suggests that cutting the Gordian Knot of persistent economic underperformance requires a much more intensive investigation into the role of capital markets and how distorted prices may be leading to suboptimal economic outcomes. Put another way, we have become increasingly dependent on macroeconomic answers to what may increasingly be microeconomic problems, yet the macroeconomic answers being provided may only be making those microeconomic problems worse. Moreover, the new macroeconomic frameworks emerging in the post-pandemic era may only serve to change the nature of our economic problems without providing lasting solutions. Swapping deflation for inflation may allow central bankers to escape more easily from the zero rate bound but there is no guarantee that such a development would have any lasting impact on either the natural rate or, indeed, productivity growth.

Policymakers need to focus much more on solving the productivity puzzle itself. Among the obvious topics for investigation are: (i) the impact of technology in hollowing out jobs and forcing workers into lower-paid, lower productivity areas of employment; (ii) understanding why some regions within countries have been starved of investment even as others have flourished; (iii) the role of education in nurturing a productive and flexible labour force, one that is able to cope better in a world of rapid technological change; (iv) the extent to which the rebuilding of economic barriers between countries and, post pandemic, the support for “national champions” may disrupt both trade and capital flows; and (v) the extent to which macroeconomic policies may be distorting the allocation of capital.

Solving the productivity problem would, in time, allow central banks to raise interest rates for the simple reason that faster productivity growth is likely to be associated with a higher natural rate of interest. A failure to solve the productivity problem will only leave macroeconomic policymakers clutching at straws, unwilling to admit that their powers may either be fading or, worse, doing more harm than good.

Disclosure appendix

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