# A bumpy pandexit

## Introduction

It is now over a year since the Covid-19 pandemic struck out of the blue, plunging the global economy into a historically deep recession. An acute health crisis turned into an overwhelming economic crisis, as policymakers adopted stringent containment measures to save lives. This was a recession in response to an insidious invisible enemy.

A timely, forceful and concerted policy drive prevented the worst. Working together, monetary, fiscal and prudential authorities managed to stabilise the financial system and cushion the blow. They put the patient in a state of suspended animation.

But as last year's Annual Economic Report (AER) went to press, uncertainty still reigned: what would happen next? There was hardly any precedent to serve as a benchmark. No recent pandemic was remotely as damaging as the current one. And the Spanish flu outbreak was too distant and too different. Many central banks suspended publishing forecasts, turning to tentative scenarios instead.

Where do we stand today? We know much more about the enemy and we are better equipped to fight it. We know much more about how the economy responds and how far it can adjust. The patient is in much better health but has not yet fully recovered. Some parts of the body are in better shape than others. What is clear is that the recovery will be uneven and the long-term consequences material. "Pandexit" will be bumpy and leave a costly and long-lasting legacy.

How has the global economy fared during the past year? What are the prospects and risks? What are the policy challenges?

While central banks were tackling the consequences of the pandemic, other important issues continued to draw attention. Questions pertaining to the relationship between monetary policy and inequality moved to the centre of public discourse. In addition, discussion and analysis of central bank digital currencies (CBDCs) became livelier than ever.

What follows elaborates on these issues.

## A surprisingly strong but very uneven recovery

Starting in the second half of 2020, the global economy rebounded more strongly than anticipated. Private consumption was the main engine of growth. As Covid-19 broke out, there had been widespread concerns about "scarring effects" on consumers' spending. It had been feared that lingering risk aversion and contagion worries would hold it back. In the event, these fears proved unfounded. The craving for normality prevailed. Whenever containment measures were relaxed in contact-intensive services, demand returned swiftly. In addition, as consumers adapted, a further shift to e-commerce limited the restrictions' fallout.

At the same time, rates of change should not be confused with levels. For the year as a whole, GDP still declined by some 3.4%. To be sure, at the time of writing world GDP has more or less returned to its pre-crisis level. But this masks a clear divide between China, where GDP is now well above its pre-crisis level, and the rest of the world, where it is still generally some way below. This is even true for the

United States, which has experienced some of the strongest growth rates. If anything, the overall picture for the labour market is somewhat weaker.

Moreover, the recovery has been very uneven across countries and sectors, mainly reflecting the evolution of the pandemic and hence the stringency of containment measures. The euro area has lagged behind the other large jurisdictions. And, as a group, emerging market economies (EMEs) – China aside – have fared worst. In particular, EMEs relying heavily on international tourism were badly hit. Manufacturing has rebounded strongly; and so has trade in goods, confounding previous expectations. Residential construction has followed suit, in part on the back of solid housing demand. By contrast, services have done considerably worse, given lingering mobility restrictions.

In no small measure, the recovery owes its strength to policy.

Fiscal support has been critical. Transfers, loans and guarantees have shielded firms and households, giving them precious oxygen to recover. Indeed, in many countries, personal disposable income actually rose – in some countries, such as the United States, at the strongest pace in decades. Saving rates increased substantially – the "excess savings" phenomenon. Widespread furlough schemes bolstered firms' bottom lines and shored up employment. Government loans and guarantees kept funding flowing.

Monetary policy has also played an important part. An extraordinarily accommodative stance underpinned exceptionally easy financial conditions. These were supported later in the period by positive news about vaccines and, initially at least, anticipations of the boost to the economy from fiscal stimulus in the United States.

Indeed, the period saw further signs of frothiness and aggressive risk-taking. Credit spreads narrowed to the lower part of historical ranges. Equity valuations reached new heights. Activity in corporate funding markets was frenetic. Various forms of equity financing surged, and the credit spigots remained wide open for low credit-quality firms. A strong appetite for risk underpinned buoyancy across all asset classes, including real estate, commodities and cryptocurrencies. Retail investors played a disproportionate role – a typical sign of overstretched valuations.

At the same time, as the year wore on bond yields started to creep up and then rose more strongly in early 2021, afterwards pulling back only slightly. This reflected a combination of strong US fiscal expansion and accommodative monetary policy, which boosted term premia in anticipation of a flood of government paper and raised expectations that inflation would return.

At the time of writing, the outlook for inflation is one of the big questions keeping financial markets on tenterhooks. Inflation has already increased in a number of EMEs: higher commodity and food prices alongside currency depreciations have given it a push. Moreover, the supply of many intermediate goods is failing to keep up with demand, generating bottlenecks. But the real question is whether the significant rise in inflation already seen in the United States – where it has recently substantially exceeded the target – will be temporary or longer-lasting. This could have major implications not just for financial markets, but for the global economy more broadly.

## Near-term prospects

How could the global economy evolve from here? What could "pandexit" look like?

The degree of uncertainty about the future may not be as high as a year ago, but the fog has not fully lifted. The pandemic is not yet over, the global vaccination campaign is uneven and new contagion waves may still come. Nor has the pandemic's economic legacy fully come to light.

In addition, three other factors hold the key to the future: the path and impact of fiscal policy, notably that of the huge US stimulus; the path of consumption, which has rebounded surprisingly strongly so far; and the size of firms' potential credit losses, as the much feared wave of insolvencies has not yet materialised.

Given the uncertainties involved, and before turning to policy, it is worth considering three plausible scenarios: the central one embodied in current consensus forecasts, one in which inflation proves stronger than expected and financial market conditions tighten, and one in which the global recovery falters and the economy fails to recover. Of course, various combinations are also possible. The future will not be so tidy, and individual countries will experience different permutations. Even so, together the scenarios provide a useful range of plausible outcomes that helps clarify the challenges policymakers face.

The ***central scenario*** sees a comparatively smooth recovery. The pandemic is steadily brought under control. Consumption sustains the expansion. Corporate sector losses remain limited, and sectoral reallocation proceeds smoothly. In the main jurisdictions, inflation rises towards targets and any increase beyond them is temporary. Financial conditions do not tighten significantly. Even in this scenario, however, significant cross-country differences remain. The world entered the crisis suddenly and as one; countries will "pandexit" at their own speed and in their own way. In particular, growth in many EMEs lags behind, even as some see more persistent inflation.

The ***second scenario*** is one where, on the back of stronger growth, inflation exceeds expectations and financial conditions tighten. Markets anticipate a quicker and possibly more intense monetary policy tightening. This is consistent with a larger impact of fiscal policy on demand and a bigger reversal in saving rates than assumed in the central scenario, possibly supported by better news on the pandemic front.

How plausible is this scenario? To be sure, the longer-term forces holding inflation down are still with us, notably globalisation and technological advances: these have weakened the pricing power of both labour and firms. Moreover, the responsiveness of inflation to pressures on productive capacity has been extremely low for well over a decade now. That said, non-linearities cannot be ruled out. And even if any increase in inflation ultimately proves temporary, financial market participants could overreact, anticipating more sustained inflation. Either way, the tightening could be substantial, as participants could be caught wrong-footed and be forced to unwind their positions. The prolonged aggressive risk-taking that has prevailed in markets for so long increases the probability of such an outcome. Recent localised stress, such as the Archegos failure and the losses it has inflicted on banks, could turn out to be the proverbial canary in the coalmine. A key question concerns the resilience of non-bank financial intermediation, especially in the context of hidden leverage and liquidity mismatches.

The ***third scenario***, in which the recovery stalls, is more plausible if the pandemic proves harder to control. Successive waves of more virulent Covid strains could be impervious to vaccines, leading to tighter containment measures. Fiscal multipliers and the deployment of excess savings could fall short of expectations.

In particular, the feared wave of firms' insolvencies could materialise – another big question mark clouding the outlook. Estimates of likely credit losses embodied in the central scenario suggest that they would be manageable. Importantly, the debt in the most affected sectors accounts for a relatively small fraction of the total. But this conclusion hinges on policy support being there for as long as necessary. In this alternative scenario, firms' losses could be larger, possibly on a par with those during the Great Financial Crisis (GFC). In turn, banks could feel the strain. In fact, some of them have taken back part of the provisions made earlier in 2020, indicating that they could be caught by surprise.

## Policy challenges

This range of possible outcomes raises near-term challenges for the calibration of policy. But sooner or later the pandemic will end, leaving in its wake issues that may well be more daunting and enduring. Consider each set of challenges in turn.

### Near-term challenges

The near-term scenarios and corresponding uncertainty call for policy adjustments.

If inflation surprised on the upside and financial conditions tightened, central banks would be severely tested. Especially in the United States, which would be critical in this scenario, a tug of war between financial markets and the central bank would probably ensue. Depending on views concerning the path of inflation and inflation expectations, the central bank would have to choose between being extremely patient, on the one hand, and adjusting the stance sooner than anticipated, on the other. It would be difficult to avoid bouts of high volatility and tension in markets.

In this case, the tightening of financial conditions would have broader repercussions. Here, EMEs would be most vulnerable. While benefiting from stronger economic growth and hence buoyant trade, they would face tighter global financial conditions. Depending on economic and financial structures, the weaker among them could run out of room for policy manoeuvre: financial markets could force an abrupt policy tightening. Should the US dollar also appreciate, the pressure would mount further. Other advanced economies in which inflation has been hovering persistently below target could actually welcome higher inflation. This would be so unless financial conditions tightened in an unwarranted fashion or inflation rose excessively, in part responding also to domestic demand pressures.

Should the recovery stall, the policy challenge would be similar to the one faced so far. Countries' room for policy manoeuvre would be tested further. Those where monetary policy and, in particular, fiscal policy have been stretched most would face the more serious difficulties. A number of EMEs would be on the front line. Granted, global financial conditions would probably remain supportive since monetary policy in AEs would remain accommodative. Even so, some economies might still exhaust policy headroom. Again, financial markets could force a premature tightening, in some cases possibly requiring external assistance.

This range of outcomes suggests that policy needs to be calibrated in a sufficiently flexible and prudent way in order to accommodate the resulting uncertainty. Caution is especially important where the policy room for manoeuvre is more limited.

Fiscal policymakers will continue to face the question of when and how far to withdraw stimulus. That said, it is critical that their measures become more targeted. This would help retain precious policy space. It would also facilitate the required reallocation of resources to address the pandemic-induced changes in demand patterns, with some sectors or delivery channels (e-commerce) gaining at the expense of others.

Flexibility will also be at a premium for monetary policy. As inflation concerns persist, communication will be tested to the fullest. Central banks face a delicate balancing act. On the one hand, they need to reassure markets of their continued willingness to support the economy as necessary. On the other, they also need to reassure them of their anti-inflation credentials and prepare the ground for normalisation. Given the uncertainties involved, it would be important to make sure that financial markets focus on the conditional elements of forward guidance rather than giving weight to the calendar signals that reflect central bank expectations.

This is not straightforward: by their very nature, financial market participants' attention gravitates towards the less ambiguous fixed points in time.

Prudential policy will face a twofold task. Supervisors will need to encourage banks to support the economy, but not at the expense of weakening their resilience. Accurate pricing of credit risks is essential, without taking public support of firms for granted. At the same time, absent adjustments in monetary policy, the deployment of macroprudential tools could help address the build-up of vulnerabilities, which are in part linked to the persistence of exceptionally easy monetary conditions. Such tools could be especially useful when aimed at the housing market – a market that has been unusually buoyant for recessionary conditions and whose downturns have been a catalyst for major economic weakness on many occasions in the past.

One limitation prudential policy will face is that the current toolkit is not well suited to addressing the build-up of vulnerabilities among non-bank financial intermediaries, such as asset managers and leveraged funds. It is these players that were at the epicentre of the tremors in March 2020 and among which the most recent signs of stress have emerged. Work is under way in the international community to tackle some of the structural vulnerabilities in this area, such as hidden leverage and maturity mismatches. In the near term, the challenge will be to monitor developments closely and to make sure that the core of the financial system, notably banks and central counterparties, remains resilient against possible shocks.

## Longer-term challenges

Policy support is still essential to nurse economies back to health. But once the Covid pandemic is left behind and the economy has fully recovered, policymakers will face a key long-term challenge: how to rebuild safety margins for both fiscal and monetary policy. An economy that operates with thin safety margins is vulnerable to both unexpected events and future recessions, which will inevitably come. Those margins have been narrowing over time. Rebuilding them means gradually re-normalising policy.

Unprecedented initial conditions globally set the stage. On the one hand, government debt-to-GDP ratios are already on a par with or even higher than their World War II peaks. On the other hand, nominal interest rates have never been so low since records began. In real terms, they have been negative for even longer than during the exceptional Great Inflation era. Likewise, central bank balance sheets have only rarely reached similar heights relative to GDP, and then only during wars. With interest rates so exceptionally low, debt service costs are at post-war troughs – no doubt historical ones, too. The debt burden has never felt so light.

Thus, normalising policy will not be easy.

This is true if one considers each policy in isolation. The post-GFC experience has highlighted the difficulties in normalising monetary policy when structural factors keep inflation low and act as headwinds. Admittedly, for fiscal policy the task is facilitated by the fact that the growth rate of the economy has exceeded the extraordinarily low interest rates for quite some time now: all else equal, this reduces the debt-to-GDP ratio over time. Even so, it would not be prudent to rely on such a configuration going forward. "All else" is not equal. The reassurance of low rates, given political imperatives, could encourage governments to increase debt further. And in some cases it could raise concerns about sustainability, which would lift risk premia and possibly cause broader stress. Indeed, successful reductions in debt-to-GDP ratios have generally required running fiscal surpluses.

The fact that normalising policy is a joint task complicates matters. It means that at times along this long path, fiscal and monetary policies would be working at cross-purposes. Fiscal policy would act as a drag on the economy, putting pressure on monetary policy to remain easy. Raising interest rates would increase the government's borrowing costs, magnifying the required fiscal consolidation. For instance, should interest rates return to the levels prevailing in the mid-1990s, when inflation had already been conquered, median service costs would exceed the previous wartime peaks.

In fact, large-scale central bank government bond purchases increase the sensitivity of government net servicing costs. From the perspective of the consolidated public sector balance sheet, they amount to a debt management operation. It is as if the government had retired long-term debt and replaced it with overnight debt – banks' excess reserves with the central bank. In the large advanced economy jurisdictions, this means that some 15–45% of all the sovereign debt is de facto overnight.

This suggests that, along the normalisation path, tensions may well arise between the two policies. As a result, the risk of fiscal dominance is material. Hence the importance of institutional arrangements that safeguard the central bank's ability to deliver on its mandate. Preserving central bank independence will be critical, otherwise the central bank's credibility and, with it, the ability to achieve its objectives could be undermined. It was precisely this credibility that allowed central banks to take forceful action during the GFC and the Covid-19 crisis.

Above all, this analysis indicates that raising sustainable long-term growth is essential. It is the only way of improving the trade-offs along the normalisation path, by facilitating fiscal consolidation at positive real interest rates. No well functioning economy should operate with real interest rates that remain negative for too long: capital is misallocated and growth impaired. As described in more detail in previous AERs, raising long-term growth requires structural policies designed to deliver a vibrant, flexible and competitive economy. Growth-friendly fiscal policy could also play a useful role. This calls for a shift in the composition of expenditures towards carefully chosen and well executed investments, ultimately financed through efficient taxation.

## The distributional footprint of monetary policy

The pandemic and the preceding prolonged phase of exceptionally low interest rates and large-scale asset purchases have not only complicated the normalisation task. They have also given rise to the perception that monetary policy has been exacerbating income and wealth inequality.

It is well known that monetary policy decisions inevitably have some distributional consequences. The reason is that changes in interest rates influence economic activity through changes in incomes, balance sheets and asset prices. For instance, lower interest rates redistribute income and wealth from creditors to debtors, from tenants to homeowners – often from the young to the old – and from depositors to equity investors. But any such effects are short-run and need to be put into perspective.

There is a broad consensus that trends in inequality are fundamentally driven by structural factors. Over the past couple of decades, in particular, the impact of globalisation and technology has been amply documented. Hence the critical role of structural policies, ranging from education, health and competition to, more generally, policies fostering equal opportunities – so that the relatively poor of today can be the well-off of tomorrow. Hence also the role of fiscal policy, notably

through redistribution policies: post-tax measures of inequality are uniformly lower than pre-tax ones. On top of the fact that the shape of the income distribution is not a monetary phenomenon, monetary policy simply does not have adequate tools. Nevertheless, wearing their non-monetary hats, central banks can make a significant contribution. Depending on their statutory responsibilities, they can do so by fostering financial development, broadening financial inclusion, protecting against unfair financial practices and promoting low-cost payment services.

What monetary policy can do to contribute to a more equitable society is seek to deliver macroeconomic stability. The two major macroeconomic forces that generate inequality over business fluctuations are inflation, rightly regarded as an insidious regressive tax, and recessions, which disproportionately hurt the poor through unemployment. Delivering price and macroeconomic stability – which, in turn, also requires financial stability – is precisely what monetary policy mandates are all about.

Fulfilling these mandates may at times require measures that, in the short run, have unwelcome consequences for inequality in order to secure precious long-run gains. Bringing inflation down can cause recessions. Recovering from deep recessions may require interest rates to be kept low for long periods. This is essential to bolster employment and hence avoid a much larger cost in terms of income inequality. But, by the same token, it may also increase wealth inequality by boosting the prices of assets held disproportionately by the better off, notably equities – although this outcome is not a given, as it depends in particular on who owns housing. This short-run cost is highly visible; the larger gains in terms of lower unemployment and lower income inequality are far less so.

At the same time, changes in the nature of the business cycle since the early 1980s have complicated monetary policy's task. Until then, recessions tended to follow a tightening of monetary policy to bring inflation under control. Since then – Covid aside – they have reflected the reversal of a preceding financial boom. Such "financial recessions" tend to be deeper and longer, especially if a financial crisis breaks out, and the recovery is much more drawn out: their costs in terms of inequality are much higher. Key reasons for the change include the smaller responsiveness of inflation to economic slack, better anchored inflation expectations and financial liberalisation.

The change in the nature of the business cycle has given rise to tougher intertemporal trade-offs. On the one hand, central banks have been able to raise employment further during expansions without generating inflation: this reduces inequality during that phase. On the other hand, accommodative policy of this kind can contribute to the build-up of financial imbalances, which can sow the seeds of subsequent costly financial recessions. Not only do these widen income inequality by more than other recessions, they also require lower interest rates for longer to nurse the economy back to health. As a result, the possible short-run negative impact of lower rates on wealth inequality can become more prominent.

This suggests that a more balanced policy mix is necessary to improve the trade-offs. This means macroprudential policies, to strengthen the financial system's resilience and restrain the financial booms; microprudential policies, to strengthen banks so that they can withstand the bust and support credit; and fiscal policies, to act as a backstop in case a financial crisis breaks out and to support the recovery. These are the key ingredients of a holistic macro-financial stability framework, better suited to address the nature of today's business fluctuations and, as a consequence, their impact on inequality.

But the bottom line is clear: if we want a better, longer-lasting income distribution, continued structural reforms are unavoidable.

## Central bank digital currencies

Trust in the currency underpins the monetary system. As the central bank provides the ultimate unit of account, that trust is grounded in confidence in the central bank itself. This principle has been the fixed point of the monetary system even as it has undergone rapid transformation with changes in the digital landscape.

Last year's AER set out the principled case for how CBDCs can be a means towards fulfilling the central bank's core mission in the payment system. This year's report takes a significant step towards putting this big idea into practice by laying out the design choices for CBDCs and assessing their economic implications for users, financial institutions and the central bank itself.

The overriding criterion when evaluating a change to something as central as the monetary system should be whether it serves the public interest. CBDCs enhance the central bank's traditional roles in the payment system: ensuring the finality of payments; providing liquidity and acting as the lender of last resort; and ensuring that central bank money is "neutral", ie provided with a commitment to competitive fairness on an equal basis to all commercial parties.

Several conclusions follow from these considerations.

First, CBDCs are best designed as part of a two-tier system where the central bank and the private sector focus on what they do best: the central bank on operating the core of the system by ensuring sound money, liquidity and overall security; the private sector by innovating and using its creativity and ingenuity to serve customers better. CBDCs should therefore be designed to delegate most operational tasks and consumer-facing activities to commercial banks and non-bank payment service providers. By preserving the two-tier system, the central bank keeps its financial system footprint small, just as cash does today. Central bank money can then retain its core attribute of neutrality.

Second, the most promising design is an account-based CBDC, rooted in an efficient digital identity scheme for users. In this way, CBDCs can meet the challenges raised by the huge volume of personal data collected as an input into business activity. They can be designed to balance the need for data privacy on the one hand and safeguards for the payment system against illicit activities on the other. Secure identification is also required to promote equal access for everybody. Striking the right balance is key to protecting users against data hoarding and abuses of personal data while preserving the system's integrity against money laundering and financial crime.

Third, CBDCs address another imperative arising from the centrality of data in the digital economy – that of preserving an innovation-friendly level playing field. Network effects make the payment system prone to concentration as well as to the emergence of data silos and the accumulation of market power arising from the exclusive use of data. The same technology that encourages a virtuous circle of greater access, lower costs and better services could equally induce a vicious circle of data silos, market power and anti-competitive practices.

For this reason, it is important that CBDCs be part of an open platform. Open platforms build on technical standards such as application programming interfaces (APIs) and on data governance frameworks that grant control of data to users. They are most conducive to a virtuous circle of greater access, lower costs and innovation.

To be sure, these characteristics are not unique to CBDCs. They also feature in the latest generation of retail fast payment systems – systems that provide near real-time settlement for users. But CBDCs have the additional feature of extending the unique attributes of central bank money to the general public. CBDCs allow direct settlement on the central bank's balance sheet, without the need for intermediary credit. And they maintain a tangible link with the central bank in the same way that

cash does – a salient marker of the trust in sound money itself – even as the use of cash dwindles owing to the increasing adoption of digital payment technologies.

Last but not least, the judicious simplification of the monetary architecture afforded by CBDCs holds the promise of improving cross-border payments. While improvements might also be made by adjusting current systems, starting with a clean slate, unburdened by legacy systems, could yield considerable benefits. So-called multi-CBDC (mCBDC) arrangements, which join up CBDCs across borders, are a case in point. The greatest potential for improvement is offered by an mCBDC system that features a jointly operated payment system hosting multiple CBDCs.

A possible concern is that a foreign jurisdiction's CBDC could magnify the risk of currency substitution. This is the threat that a foreign CBDC might make inroads into domestic payments as domestic prices and contracts become increasingly denominated in it. However, an account-based CBDC builds in safeguards against such an encroachment. The comparison between a CBDC and foreign bank notes circulating in the black market is not a good one in that the issuing central bank would need to recognise any non-domestic CBDC user as a member of the user network. Robust legal tender provisions that promote the use of the national currency in domestic payments would also help. Above all, no payment system exists separately from the underlying economic transactions. International currencies have developed as a result of the transactional needs of their users. A currency is unlikely to achieve international status merely because it is in digital form.

CBDCs are an idea whose time has come. They present an opportunity to design a technologically advanced representation of central bank money, one which preserves the core features of finality, liquidity and integrity that only the central bank can provide. If properly designed, CBDCs could form the backbone of a highly efficient new digital payment system by enabling broad access and providing strong data governance and privacy standards.