Working with multiple instrument – reflections from the Covid crisis

As societies shut down in 2020, central banks re-deployed unconventional policy tools from the great financial crisis but also added new and even less conventional ones. The steps they took followed a textbook description of a risk management approach to monetary policy when operating close to the lower bound on interest rates.[1] This involved loosening policy aggressively and working with many different instruments simultaneously to maximise policy impact. Judging from the aftermath, they were successful. They steered the economy through a crisis and avoided a depression. One could argue that the episode has shown that monetary policy can be effective also in a low interest rate environment if central banks are willing and able to deploy multiple measures with scale and speed. This suggests that central banks are well equipped for the future, irrespective of the path of interest rates.

This note discusses some caveats to this conclusion, including the complementary of fiscal measures, the effectiveness of forward guidance, and shifting incentives during the exit process. There are also risks associated with the aggressive policy approach. Since the root cause of the lower bound on interest rate is the issuance of paper currency, the development of Central Bank Digital Currency (CBDC) offers a potential solution to the problem and could allow for a return to more conventional monetary policy.

This time is different - Central banks did not act alone

While monetary support measures were powerful during the pandemic, central banks did not act alone. Governments mobilised massive amounts of public funds to manage the health and economic crises. During the pandemic's first year, discretionary measures to households and businesses reached 16% of GDP for the OECD countries.[2] Fiscal measures were directly targeted to households and businesses and involved a transfer from the government to the private sector. Central banks supported the fiscal expansion by holding down government borrowing costs through asset purchases, absorbing a large part of new debt issuance. Fiscal injections meant that resources quickly reached the real economy and led to a surge in broad money. The money multiplier did not collapse,

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[1] For an overview, see Evans et al, 2015. The risk management approach implies that central banks that operate in a low interest rate environment should respond more aggressively to economic conditions in order to reduce the risk associated with the lower bound on interest rates. This result relies on unconventional balance sheet tools being imperfect substitutes for the traditional policy rate.

[2] OECD, 2021.

in contrast to the last crisis. Without complementary fiscal support, monetary policy actions would have been less potent.[3] In future crisis, the fiscal complementarity may not be as forthcoming.

The power of forward guidance can be eroded

Forward guidance was another component of policy that was relied on. Central banks made bold projections about how long they planned to keep support measures in place. In September 2020, the Federal Reserve provided unprecedented outcome-based forward guidance indicating that an accommodative stance would be maintained until inflation had risen to 2% and was on track to moderately exceed 2% for some time. At that time, the median projection in Fed's dot plot implied that rates would be kept unchanged until after 2023. The BoE and the ECB made similar commitments, promising that policy would not be tightened until inflation had sustainably reached the 2% target. In August 2020, the BoE's MPC projection, which was conditioned on a policy rate that remained below 0% until the end of 2023, showed inflation only gradually approaching the 2% target over the same time horizon.

With the benefit of hindsight, forward guidance was too ambitious. But ex ante it was effective, as it helped to reduce policy uncertainty and strengthen the impact on long term interest rates and broader financial conditions.[4]

This illustrates one of the problems with forward guidance. In the depth of a crisis, it is easy for policy makers to signal that support will remain in place for an extended period (cheap talk). But if measures are successful and the economy recovers, they will eventually have an incentive to scale back stimulus irrespectively of past guidance. This is an example of the well-known time inconsistency problem.

Forward guidance exposes central banks to different forms of reputation risk. If the public fails to understand the conditionality of guidance, central bank credibility and their ability to influence expectations may over time become eroded, particularly if guidance is frequently and substantially revised. In the next crisis, forward guidance may not be as impactful and more exotic guidance may be required to influence expectations. The offset is that central banks may need to do even more in future, if promises and guidance become less ineffective.

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[3] See Chadha et al, 2021 on the Covid crisis, Bartsch et al, 2020 for a general discussion.

[4] Garcia and Doehr, 2022 and Bernanke, 2020 provide empirical assessments of forward guidance.

Exiting will always be disruptive

This leads on and is closely linked to the removal of accommodation. The risk management approach to exiting from unconventional policies implies that accommodation should only be cautiously removed as risk remains asymmetric and to the downside. More uncertain policy instruments (asset purchases) should be removed first and the policy rate should be left in place for longer.[5] To anchor expectations, central banks could condition one policy instrument (policy rate) on another (asset purchases), emphasising the sequencing of the two with a time lag built into the process. The purpose of this complicated approach is to build inertia into the process and avoid sharp and disruptive adjustments to interest rates and asset prices.

The approach has been adopted by central banks. The BoE communicated that it would keep the stock of asset purchases unchanged until the Bank rate had reached 0.5%. The stock would initially be reduced by ceasing reinvestments but, once the policy rate had reached 1%, the Bank could consider actively selling assets. Any unwinding of the stock of asset was intended to move along 'a gradual and entirely predictable path'.[6] The Fed and the ECB adopted similar approaches.

Since these plans were initially published, the process of removing stimulus has been compressed as inflation has resurfaced. The BoE is furthest ahead and reached the 0.5% threshold already in February 2022, much earlier than expected when the QE withdrawal plan was first announced in August 2021.

It is too early to tell whether accommodation is removed too rapidly. Maybe this time is different. One observation though is that the risk management approach provides more consistent policy guidance when the economy is *entering* a recession compared to when it is *exiting*. At that point in time, a cautious approach to exiting (motivated by the asymmetry around the lower bound) is unlikely to be aligned with the incentives of policy makers who rightly focus on the risk of inflation. An average inflation targeting (AIT) approach could help in this respect, as it tilts the incentives of policymakers in the direction of keeping stimulus in place for longer.[7] While an AIT approach has been adopted by the Fed, there appears to be limited appetite for this elsewhere,

[5] Evans, 2015.
[6] For guidance and discussion, BoE, 2021, Financial Times, 2021.
[7] Eg Curdia, 2022.

particularly against the backdrop of current elevated inflation.

A moderate and considerate approach is no longer optimal

When operating close to the ELB, a moderate and considerate approach to monetary policy is not optimal. Instead, policy makers should aim at responding aggressively to events as inflation is preferred to deflation and policy space is restricted. But by reducing the risk of running out of policy space, this approach *raises the risk of over-stimulating the economy* if underlying economic conditions turn out to be less dire.

One potential side-effect of a risk management approach to monetary policy is therefore a more volatile business cycle, where recessions are followed by sharp recoveries, and where expectations of similar large-scale policy support in future crises encourage excessive risk taking in the real economy and financial markets.[8] As a result, this could amplify volatility in financial markets and the real economy, potentially limiting the ability of central banks to deliver on their broader mandate to provide economic and financial stability. The approach additionally assumes that there is no cost to raising rates quickly if needed. There are arguments for smoothing and gradualism that could delay the response to a potential overshoot, and further amplify business cycle volatility.[9]

The use of multiple instruments challenges central bank independence

Some argue that central banks have overstepped their mandate given the scope and the focus of unconventional monetary policy. Institutional arrangements are often in place for the government to recapitalise central banks should losses on their balance sheet operations materialise, which implies that monetary policy has direct fiscal implications. Asset purchases have additionally been shown to have important distributional consequences and may involve decisions around the allocation of credit. Should low interest rates persist and central banks continue to work with multiple instruments, their independence may over time become challenged, particularly if losses arise or if balance sheet operations involve risk assets.[10] Central bank independence should not be taken as given and will only last as long as the public

[8] For a recent discussion, see English et al, 2021.

[9] Saunders, 2018, discusses this in the context of BoE policy.

[10] The BoJ, for example, is one of the largest investor in the Japanese exchange traded funds (ETF) market while the Swiss National Bank has 20 percent of its foreign currency reserves invested in global equity markets.

believe that the benefits outweigh costs. To ensure appropriate accountability, a focus on measures that bring advantages for all and clear communication around the costs and benefits seem important.[11]

The problem with the lower bound on interest rates

To sum up, while the current policy approach was successful in stabilising the global economy during the Covid crisis, it has drawbacks. They primarily stem from the existence of the lower bound on interest rates which forces central banks to work with multiple instruments and deploy an aggressive approach to policy. Large-scale usage of the balance sheet also poses difficult questions around the legitimacy and fairness of monetary policy.

In the decade after the great financial crisis, there was hope that the economic cycle would be sufficiently elongated to allow central banks to raise policy rates back to pre-crisis levels. There is now hope that a more favourable mix between monetary and fiscal measures, efforts to reposition economies for a net zero future, and a stronger inflationary backdrop will help to drive equilibrium real and nominal interest rates higher.

Despite this, monetary policy is likely to remain constrained by the ELB for the foreseeable future. In the 7 rate cutting cycles prior to the Covid crisis, the BoE lowered the Bank rate with over 400bps on average. Even if measures to raise interest rates are successfully deployed, rebuilding this policy rate margin appears unlikely.

The future of paper currency

The root cause of the lower bound on interest rate is the issuance of paper currency (cash) by the government, which effectively offers a zero nominal interest rate and therefore acts as an interest rate floor. It is well known that one way of getting rid of getting rid of the ELB would be to move towards a system where money is registered, for example in the form of being electronically issued.[12] Negative interest rates on deposits and bank balances could then be as easily implemented as positive interest rates.

While abandoning paper cash was unthinkable only a few years ago, most major central banks are now developing their own Central Bank Digital Currency. Looking forward to the next 25 years, trends around CBDCs will likely be critical to whether central banks will continue to work with multiple instruments.

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[11] For recent publications, see Dietch, 2020, Tucker, 2021.

[12] See Buiter, 2009, for a recent discussion, Vlieghe, 2021.

If CBDCs become more widely adopted, it could allow for a return to conventional monetary policy with a focus on the short-term interest rate as the primary instrument.

This would be a positive development, given the advantages of the bank rate relative to less conventional balance sheet policies.[13] Should this development occur, a notable asymmetry in the design and implementation of monetary policy could be reduced. It would also have large-scale implications for interest rates, the savings industry, and the financial sector more broadly.

References:

Bartsch, E., Benassy-Quere, A., Coresetti, G. and Debrun, X., (2020), 'It's all in the Mix, How Monetary and Fiscal Policies can Work Together or Fail Together', CEPR Press, no 23.

Bank of England (2021), Inflation Report, August 2021.

Buiter, W. (2009), 'Negative Nominal Interest Rates: Three Ways to Overcome the Zero Lower Bound', NBER Working Paper no 15118.

Bernanke, B. (2020), 'The New Tools of Monetary Policy', American Economic Association Presidential Address, January 2020.

Chadha, J., Corrado, L., Meaning, J. and Schuler, T. (2021), 'Monetary and Fiscal Complementarity in the Covid-19 Pandemic', ECB Working Paper Series, no 2588.

Curdia, V. (2022), 'Average Inflation Targeting in the Financial Crisis Recovery', FRBSF Economic Letter, January.

Dietch, P. (2020), 'Legitimacy Challenges to Central Banks: Sketching a Way Forward', CEP Council of Economic Policies.

ECB (2021), Monetary Policy Decision Minute, December.

English, B., Forbes, K. and Ubide, A. (eds) (2021), 'Monetary Policy and Central Banking in the Covid Era: Key Insights and Challenges for the Future', CEPR Press.

[13] The policy rate is under the sole control of the central bank, it does not impact on the government's consolidated balance sheet and its effects on the economy are broad based and relatively well understood, with less distributional consequences than most unconventional balance sheet tools.

Evans, C., Fisher, J., Gourio, F. and Krane, S. (2015), 'Risk Management for Monetary Policy Near the Zero Lower Bound', Brookings Papers on Economic Activity, Spring.

Financial Times (2021), 'Quitting QE may be Harder than the Bank of England Believes', August.

Garcia, E.M. and Doehr, G., (2022), 'Interest Rate Expectations Shape the Federal Reserve's path of lift-off', Vox, March.

OECD (2021), Government at a Glance, OECD Publishing, Paris, https://doi.org/10.1787/1c258f55-en.

Saunders, M. (2018), 'Why raise rates? Why limited and gradual?', Bank of England Speech, April.

Tucker, P. (2018), 'Unelected Power: The Quest for Legitimacy in Central Banking and the Regulatory State', Princeton University Press.

Vlieghe, G. (2021), 'Running out of Room: Revisiting the 3D Perspective on Low Interest Rates', Bank of England, Speech.