The Central Bank Balance Sheet as a Policy Tool: Past, Present and Future

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Introduction

It's a great pleasure to be participating in the virtual Jackson Hole conference. Well done to the Kansas City Fed for keeping up the tradition–albeit we have to imagine the beauty of Jackson Hole is around us.

A tradition of the Jackson Hole conference is to encourage us to look forward. This time is not only an opportunity to do just that, but in doing so to apply the lessons of the last few months, as well as the last decade or so since the financial crisis of 2007-09. I am going to do that through the lens mainly of monetary policy, but bringing in financial stability where relevant, with a particular focus on central bank balance sheets. My remarks are a summary of a paper being released today.[1] It isn't a review of the record of monetary policy or the framework of policy, but it does cover a good deal of recent evidence and experience. The paper, and my remarks today, focus on the U.K. case, drawing on lessons from international experience.

Drivers of Central Bank Balance Sheets Since the Global Financial Crisis

I will start with some brief scene setting points–apologies that they are pretty obvious ones, but they are important. There has been a large and sustained expansion of most central bank balance sheets in the past decade. This has come about in support of both monetary policy and financial stability objectives. These respective drivers of balance sheet growth are closely intertwined–never more so than in the response to the COVID crisis–but distinguishing the causes and consequences is important nonetheless.

Starting with financial stability, the Global Financial Crisis revealed banks had previously held insufficient high quality liquid assets, in part due to the inadequacy of the prudential regulation regime at the time. The changes since then, in regulation and in banks' approach to managing risk, have resulted in a significant increase in the demand for central bank reserves, a large part of banks' stock of high quality liquid assets. Thus, the level of reserves required by the banking systems in the major economies is persistently higher, though it is not straightforward to determine exactly how much higher. That depends on a number of factors that can change over time.

Second, monetary policy has also undergone a major shift over the past decade, toward using central bank balance sheets as a tool to provide monetary stimulus, through the purchase of assets, usually government debt.

These two reasons for increasing the size of central bank balance sheets coincided in time–i.e., the post-crisis response of regulation coincided with the greater use of quantitative easing. But it is nonetheless helpful to separate them analytically. A decade ago there would have been reason to think that the monetary policy need for increased central bank balance sheets would be shorter term, while the financial stability demand would be permanent. That distinction still stands, but the structural drivers of low equilibrium interest rates suggest the use of central bank balance sheets for monetary policy will be more long-lived than had been anticipated.

Expansion of Central Bank Balance Sheets in Response to COVID

Turning to the more recent period, the financial stability and monetary policy drivers of central bank balance sheet expansion were again deeply intertwined. Central banks faced an incipient financial stability shock together with a need for monetary policy to respond to an unprecedented–in scale and speed–economic downturn.

But the financial stability emergency differed from previous such events. The problem originated not primarily in the banking system, but in the nonbank sector–among funds, traders and corporates themselves. Central banks activated their traditional tools to inject liquidity into the banks via repo operations, and these played an important part in stabilizing conditions. But they were not sufficient to get liquidity to nonbanks quickly enough, or in sufficient scale. That also required large and aggressive asset purchase operations, what we call in the paper "go Big" and "go Fast." I am not going to say more on this, save that it raises very important points about market structures, the extent of self-insurance against liquidity shocks by nonbanks, and the nature of central bank interventions. This is the subject of a review currently being undertaken by the Financial Stability Board.

The COVID crisis called on central banks to act in what has been the first big test of the post financial crisis world. Monetary policy has had to respond to an unprecedented shock. For many central banks, the main tool to date has been further Quantitative Easing (QE), in unprecedented scale and pace of purchases. This has inevitably rekindled questions about exactly how QE works and whether its effectiveness is conditional on the state of the economy and the financial system–to what extent is its effectiveness state contingent? Moreover, looking across monetary policy and financial stability, it has re-emphasized the importance of central bank balance sheets as a <u>direct</u> tool of policy intervention, rather than primarily a passive byproduct of the activity of setting the price of money and meeting the demand for reserves to satisfy the liquidity needs of the banking system.

So what is our latest thinking on the effects of QE and how it works? Viewed from the depth of the COVID crisis, QE worked effectively. Measuring this effect precisely is of course hard, since we cannot easily identify what the counterfactual would have been in the absence of QE. But QE clearly acted to break a dangerous risk of transmission from severe market stress to the macroeconomy, by avoiding a sharp tightening in financial conditions and thus an increase in effective interest rates.

QE is normally thought to work through a number of channels: including signaling of future central bank intentions and thus interest rates; so-called "portfolio balance" effects (i.e., by changing the composition of assets held by the private sector); and improving impaired market liquidity.

The Monetary Policy Committee's (MPC) decision on QE in March differed somewhat from previous rounds of purchases. A larger amount of purchases, £200bn, was announced as this was judged as necessary to support economic activity and ensure a sustainable return of inflation to target. And the purchases were to "be completed as soon as is operationally possible" to address the emerging financial market dysfunction.

In the paper we draw two lessons from the experience. First, it reminds us that the effect of QE can be state contingent. Consistent with that, second, the pace of QE purchases may be more important during a period of market dysfunction associated with a widespread shock to liquidity demand. Indeed, when the MPC voted to expand QE further in June, in more normal market conditions, the pace of purchases was reduced.

Standing back from the COVID crisis, and looking at the U.K. case, there indeed is some evidence that the impact of QE over the past decade has been largest at times of market dysfunction and illiquidity. Of course the available event studies are very few in number. But, if this result proves robust, it suggests that "going big and fast" with QE is particularly effective in these conditions.

I should stress that while the liquidity channel of QE appears to have been particularly relevant in terms of impact at a time of market dysfunction, such as that observed in March, the different channels of QE impact are by no means mutually exclusive. It seems likely that each channel operates to at least some extent most of the time, with all of them affecting long-term interest rates and thus economic activity and inflation. But this need not suggest that all the channels are equally powerful and persistent in all states of the world.

Implications for the Future

What does this mean for central bank balance sheets looking forward? Again, two points stand out, though I should emphasize their tentative nature. First, a balance sheet intervention aimed solely at market functioning is likely to be more temporary, in terms of the duration of its need to be in place. To be clear, the asset purchases announced by the MPC in March were a response to much more than just market functioning, in terms of the effects of COVID on the outlook for the economy and inflation. Second, if the effects of QE are more powerful in crisis states of the world, we may need to ensure that we have enough headroom in the future to repeat it. The determinants of QE unwind may therefore be more subtle than previously thought, and the COVID crisis offers a new lens through which to assess its role.

This leads to what may be regarded as the most speculative of the conclusions, but it strikes me as important as we look to the decade ahead. It follows from the state contingent nature of the effects of QE, and the argument for going "big and fast" in such situations, that the central bank balance sheet may have more of a countercyclical role and function than the evidence of the last decade alone would suggest, at least in certain circumstances. We need to work through what lessons this may have for the appropriate future path of central bank balance sheets, including the pace and timing of any future unwind of asset purchases. But one conclusion is that it could be preferable, and consistent with setting monetary conditions consistent with the inflation target, to seek to ensure there is sufficient headroom for more potent expansion in central bank balance sheets when needed in the future–to "go big" and "go fast" decisively.

That begs questions about when does the need for headroom become an issue? What are the limits? One way of looking at these questions is in terms of the stock of assets available for purchase. There is currently a large outstanding stock of government bonds which could be purchased. And if the state contingent effects of QE are driven by the need for holders of safe assets to exchange them for deposits, then it must always be possible for the central bank to purchase more assets. In other words, the central bank would need to own a high proportion of safe assets for that to become a constraint. But if negative shocks continue to arrive from time to time before any reversal of the stock of asset purchases takes place, and hence the stock owned by the central bank continues to rise, the odds of this situation arising go up. This effect may become more likely if the equilibrium real interest rate remains low for a prolonged period.

Expanding the range of assets purchased is another way for central banks to create more headroom. The COVID crisis has seen a further broadening of the range of assets that central banks stand ready to purchase. In part, this has reflected another objective of central banks and governments, given the scale of the crisis and its economic effects, namely to direct and target funds to the corporate sector, and thus supplement the more normal role of banks and financial markets. But it also reflected a need to act on a broad front in terms of ensuring liquidity gets to the places where it is needed. Where that requires larger purchases of a broader array of assets, it inevitably raises risk management questions for central banks.

So, I think the COVID crisis has demonstrated the need to ensure central banks have as many tools as possible in their box, of which expanded purchases of private sector assets is one, but given the issues it raises I would emphasize state contingency here in terms of when some tools may be more appropriate or necessary, given the severity or particular nature of the circumstances at the time.

The MPC has considered its prospective approach to QE unwind in recent years, and in June 2018 set out that the balance sheet would be unwound at a gradual and predictable pace, allowing reserves to fall back to a level demanded by banks through their participation in regular repo operations, and once the Bank Rate had risen to around 1.5%, thus creating more headroom for the future use of Bank Rate both up and down. The MPC keeps this approach under review, though I should make clear that it does not seem like an imminent issue in current conditions. But we are looking at the next decade at this conference, so who knows what will happen. We should keep the options to use all our tools as open as possible, so I would conclude that the appropriate policy mix going forward over a decade may be more nuanced than previously thought. Either way, our actions will be guided by our remit of achieving low inflation with financial stability.

Conclusion

The COVID crisis to date has demonstrated that QE and forward guidance around it have been effective in a particular situation. It emphasizes that we remain in a world where the choice of tool to use is more important than it has been at times in the past. And there is more nuance and flexibility within tools–thus, while QE relies more on stock effects when used in normal times, in a case of extreme market dysfunction the flow effect of the liquidity channel may come to prominence.

The MPC has moved on from that approach as market conditions have eased. In June we increased the stock of QE purchases, but at a slower pace. And in August we introduced forward guidance, stating that the Committee does not intend to tighten monetary policy until there is clear evidence that significant progress is being made in eliminating spare capacity and achieving the 2% inflation target sustainably. This important step is intended to ensure monetary conditions do not tighten prematurely when there are some initial signs of an economic recovery.

We also made clear that our box does include other tools, including the possibility of negative rates. We have used private sector asset purchases through the corporate bond program, longer-term liquidity provision to banks with targeted lending incentives, and direct purchasing of newly issued commercial paper to supplement market-based lending channels. We are not out of firepower by any means, and to be honest it looks from today's vantage point that we were too cautious about our remaining firepower pre-COVID. But, hindsight is a wonderful thing when you have it.

In the decade ahead, I think we need to take on board the message the COVID crisis has reiterated, namely that our tools may be state contingent in their effects. And with that in mind, let's not ignore the need to manage central bank balance sheets to enable such state contingency to take effect. There are times when we need to go big and go fast. Thank you.

Author's note: I am grateful to Jonathan Bridges, Richard Harrison, Josh Jones, Aakash Mankodi and Nick McLaren for their assistance in helping me prepare these remarks.

Endnote

[1]See "The Central Bank Balance Sheet as a Policy Tool: Past, Present and Future," by Andrew Bailey, Jonathan Bridges, Richard Harrison, Josh Jones and Aakash Mankodi. https://www.bankofengland.co.uk/-/media/boe/files/paper/2020/the-central-bank-balance-sheet-as-a-policy-tool-past-present-and-future.pdf?la=en&hash=E396409BAD141A555A1DB449E4DE22FAD75F8B4F