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Monetary Policy Strategies and Tools When Inflation and Interest Rates Are Low

Comments on *Monetary Policy in the Next Recession?,* a report by
Stephen Cecchetti, Michael Feroli, Anil Kashyap, Catherine Mann,
and Kim Schoenholtz

Remarks by

Lael Brainard

Member

Board of Governors of the Federal Reserve System

at the

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I want to thank Anil Kashyap and the Initiative on Global Markets for inviting me, along with my colleague Raphael Bostic, to comment on this year's U.S. Monetary Policy Forum report by a distinguished set of authors.[1] This year's report addresses the challenges that monetary policy is likely to encounter in the next downturn. This topic is under active review by the Federal Reserve and our peers in many other economies.[2]

Looking Back

The report explores the important question of whether the new monetary policy tools are likely to be sufficiently powerful in the next downturn. The report assesses how unconventional tools—including forward guidance, balance sheet policies, negative nominal interest rates, yield curve control, and exchange rate policies—have performed over the past few decades. It employs a novel approach by examining the effect on an

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[1] I am grateful to Ivan Vidangos of the Federal Reserve Board for assistance in preparing this text. These remarks represent my own views, which do not necessarily represent those of the Federal Reserve Board or the Federal Open Market Committee.

See Stephen G. Cecchetti, Michael Feroli, Anil K. Kashyap, Catherine L. Mann, and Kim Schoenholtz (2020), *Monetary Policy in the Next Recession?,* report presented at the 2020 U.S. Monetary Policy Forum, sponsored by the Initiative on Global Markets at the University of Chicago Booth School of Business, held in New York, February 21, https://www.chicagobooth.edu/research/igm/events-forums/2020-us-monetary-policy-forum/paper.

[2] See European Central Bank (2020), "ECB Launches Review of Its Monetary Policy Strategy," press release, January 23, https://www.ecb.europa.eu/press/pr/date/2020/html/ecb.pr200123~3b8d9fc08d.en.html; Bank of Canada (2017), "Monetary Policy Framework Issues: Toward the 2021 Inflation-Target Renewal," workshop held at the Bank of Canada, Quebec, September 14, https://www.bankofcanada.ca/2017/09/monetary-policy-framework-issues-toward-2021-inflation-target-renewal; and Mark Carney (2020), "A Framework for All Seasons?" speech delivered at "The Future of Inflation Targeting," a research workshop held at the Bank of England, London, January 9, https://www.bankofengland.co.uk/events/2020/january/the-future-of-inflation-targeting.

The Federal Reserve's review of its monetary policy strategies, tools, and communications is ongoing. See the Board's website at https://www.federalreserve.gov/monetarypolicy/review-of-monetary-policy-strategy-tools-and-communications.htm; Richard H. Clarida (2019), "The Federal Reserve's Review of Its Monetary Policy Strategy, Tools, and Communication Practices," speech delivered at the 2019 U.S. Monetary Policy Forum, sponsored by the Initiative on Global Markets at the University of Chicago Booth School of Business, New York, February 22, https://www.federalreserve.gov/newsevents/speech/clarida20190222a.htm; and Jerome H. Powell (2019), "Monetary Policy: Normalization and the Road Ahead," speech delivered at the 2019 SIEPR Economic Summit, Stanford Institute of Economic Policy Research, Stanford, Calif., March 8, https://www.federalreserve.gov/newsevents/speech/powell20190308a.htm.

index of financial conditions the authors construct. This approach adds to what we have learned from earlier papers that have examined the performance of unconventional policy tools with respect to individual components of financial conditions—most notably, long-term sovereign yields, but also mortgage rates, equities, exchange rates, and corporate debt spreads.[3]

Empirically assessing the question in the report is not only important, but also challenging, as the report readily acknowledges. There are a host of difficult endogeneity and omitted-variable issues, which the authors endeavor to address. The authors conclude that unconventional monetary policies worked during the crisis but did not fully offset a significant tightening in financial conditions. This finding leads the authors to conclude that these policies should be deployed quickly and aggressively in the future

[3] See Joseph Gagnon, Matthew Raskin, Julie Remache, and Brian Sack (2011), "The Financial Market Effects of the Federal Reserve's Large-Scale Asset Purchases," *International Journal of Central Banking,* vol. 7 (March), pp. 3–43; Michael E. Cahill, Stefania D'Amico, Canlin Li, and John S. Sears (2013), "Duration Risk versus Local Supply Channel in Treasury Yields: Evidence from the Federal Reserve's Asset Purchase Announcements," Finance and Economics Discussion Series 2013-35 (Washington: Board of Governors of the Federal Reserve System, April), https://www.federalreserve.gov/pubs/feds/2013/201335/201335pap.pdf; Michael A.S. Joyce, Ana Lasaosa, Ibrahim Stevens, and Matthew Tong (2011), "The Financial Market Impact of Quantitative Easing in the United Kingdom," *International Journal of Central Banking,* vol. 7 (September), pp. 113–61; Simon Gilchrist, David López-Salido, and Egon Zakrajšek (2015), "Monetary Policy and Real Borrowing Costs at the Zero Lower Bound," *American Economic Journal: Macroeconomics,* vol. 7 (January), pp. 77–109; Marcel Fratzscher, Marco Lo Duca, and Roland Straub (2016), "ECB Unconventional Monetary Policy: Market Impact and International Spillovers," *IMF Economic Review,* vol. 64 (April), pp. 36–74; Michael T. Kiley (2013), "Exchange Rates, Monetary Policy Statements, and Uncovered Interest Parity: Before and after the Zero Lower Bound," Finance and Economics Discussion Series 2013-17 (Washington: Board of Governors of the Federal Reserve System, January), https://www.federalreserve.gov/pubs/feds/2013/201317/201317pap.pdf; Michael T. Kiley (2014), "The Response of Equity Prices to Movements in Long-Term Interest Rates Associated with Monetary Policy Statements: Before and after the Zero Lower Bound," *Journal of Money, Credit and Banking,* vol. 46 (August), pp. 1057–71; Michael T. Kiley (2016), "Monetary Policy Statements, Treasury Yields, and Private Yields: Before and after the Zero Lower Bound," *Finance Research Letters,* vol. 18 (August), pp. 285–90; and John H. Rogers, Chiara Scotti, and Jonathan H. Wright (2014), "Evaluating Asset-Market Effects of Unconventional Monetary Policy: A Multi-Country Review," *Economic Policy,* vol. 29 (October), pp. 749–99.

through a plan that is communicated in advance. This point is very important, so it will be the focus of my discussion.

Looking back at the international experience, the evidence suggests that forward guidance and balance sheet policies were broadly effective in providing accommodation following the financial crisis. But they were less effective when there were long delays in implementation or apparent inconsistencies among policy tools. It is important to distill key lessons from the past use of these tools in order to make them more effective in the future.[4]

First, in some cases around the world, unconventional tools were implemented only after long delays and debate, which sapped confidence, tightened financial conditions, and weakened recovery. The delays often reflected concerns about the putative costs and risks of these policies, such as stoking high inflation and impairing market functioning. These costs and risks did not materialize or proved manageable, and I expect these tools to be deployed more forcefully and readily in the future.[5]

Second, forward guidance proved to be vital during the crisis, but it took some time to recognize the importance of conditioning forward guidance on specific outcomes or dates and to align the full set of policy tools. In several cases, the targeted outcomes

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[4] For instance, analysis by Ben Bernanke suggests "that a combination of asset purchases and forward guidance can add roughly 3 percentage points of policy space." See Ben S. Bernanke (2020), "The New Tools of Monetary Policy," presidential address to the American Economic Association, San Diego, Calif., January 4, p.3, https://www.brookings.edu/wp-content/uploads/2019/12/Bernanke_ASSA_lecture.pdf.

[5] This issue was discussed in the July 2019 Federal Open Market Committee meeting in the context of the framework review. As noted in the minutes of the meeting (p. 3), "Participants further observed that such inflation risks—along with several of the other perceived risks of providing substantial accommodation through nontraditional policy tools, including possible adverse implications for financial stability—had not been realized. In particular, a number of participants commented that, as many of the potential costs of the Committee's asset purchases had failed to materialize, the Federal Reserve might have been able to make use of balance sheet tools even more aggressively over the past decade in providing appropriate levels of accommodation." (Available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20190731.pdf).

set too low a bar, which in turn diminished market expectations regarding monetary accommodation. In some cases, expectations regarding the timing of liftoff and asset purchase tapering worked at cross-purposes.

In addition, in some cases, it proved difficult to calibrate asset purchase programs smoothly over the course of the recovery. To the extent that the public is uncertain about the conditions that might trigger asset purchases, the scale of purchases, and how long the purchases might be sustained, it could undercut the efficacy of the policy. Furthermore, the cessation of asset purchases and subsequent balance sheet normalization can present challenges in communications and implementation.

Finally, in the fog of war, it was difficult for policymakers to distinguish clearly between temporary headwinds associated with the crisis and emerging structural features of the new normal. In part as a result, it took some time to integrate forward guidance and other unconventional policies seamlessly, and it took even longer to recognize that policy settings were unlikely to return to pre-crisis norms.

Looking Ahead

The current generation of central bankers faces a different core challenge than the last generation, with substantially smaller scope for cutting interest rates to buffer the economy and inflation that is low and relatively unresponsive to resource utilization. With trend inflation running below the symmetric 2 percent objective, there is a risk that inflation expectations have slipped. With price inflation showing little sensitivity to resource utilization, policy may have to remain accommodative for a long time to achieve 2 percent inflation following a period of undershooting. With the equilibrium interest rate very low, the Federal Open Market Committee can cut the federal funds rate by only

about half as much as it has done historically to buffer the economy from recession. Consequently, the policy rate is likely to be constrained by the lower bound more frequently, likely at times when inflation is below target and unemployment is elevated. The likelihood that the policy rate will be stuck at the lower bound more frequently risks eroding expected inflation and actual inflation, which could further compress the room to cut nominal interest rates in a downward spiral. Japan's experience illustrates the challenges associated with such a downward spiral.

Today's new normal calls not only for a broader set of tools, but also a different strategy.[6] We should clarify in advance that we will deploy a broader set of tools proactively to provide accommodation when shocks are likely to push the policy rate to its lower bound. Equally important, we should adopt a strategy that successfully achieves maximum employment and average inflation outcomes of 2 percent over time.

The lessons from the crisis would argue for an approach that commits to maintain policy at the lower bound until full employment and target inflation are achieved. This forward guidance could be reinforced by interest rate caps on short-term Treasury securities over the same horizon. To have the greatest effect, it will be important to communicate and explain the framework in advance so that the public anticipates the approach and takes it into account in their spending and investment decisions.

Forward guidance that commits to refrain from lifting the policy rate from its lower bound until full employment and 2 percent inflation are achieved is vital to ensure

[6] See Lael Brainard (2019), "Federal Reserve Review of Monetary Policy Strategy, Tools, and Communications: Some Preliminary Views," speech delivered at the presentation of the 2019 William F. Butler Award, New York Association for Business Economics, New York, November 26, https://www.federalreserve.gov/newsevents/speech/brainard20191126a.htm.

achievement of our dual-mandate goals with compressed conventional policy space.[7] To strengthen the credibility of the forward guidance, interest rate caps could be implemented in tandem as a commitment mechanism. Based on its assessment of how long it is likely to take to achieve full employment and target inflation, the Committee would commit to capping rates out the yield curve for a period consistent with its expectation for the duration of the outcome-based forward guidance. Of course, if the outlook shifted materially, the Committee could reassess how long it will take to reach its goals and adjust policy accordingly.

One important benefit is that this approach would smoothly move to capping interest rates on the short-to-medium segment of the yield curve once the policy rate moves to the lower bound and avoid the risk of delays or uncertainty that could be associated with asset purchases regarding the scale and timeframe. The interest rate caps would transmit additional accommodation through the longer rates that are relevant for households and businesses in a manner that is more akin to conventional policy and more continuous than quantitative asset purchases.

Another important benefit is that the forward guidance and the yield curve caps would reinforce each other. Setting the horizon on the interest rate caps to reinforce forward guidance on the policy rate would augment the credibility of the yield curve caps and thereby diminish concerns about an open-ended balance sheet commitment. Once

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[7] See Ben S. Bernanke, Michael T. Kiley, and John M. Roberts (2019), "Monetary Policy Strategies for a Low-Rate Environment," Finance and Economics Discussion Series 2019-009 (Washington: Board of Governors of the Federal Reserve System, February), https://doi.org/10.17016/FEDS.2019.009; and Hess Chung, Etienne Gagnon, Taisuke Nakata, Matthias Paustian, Bernd Schlusche, James Trevino, Diego Vilán, and Wei Zheng (2019), "Monetary Policy Options at the Effective Lower Bound: Assessing the Federal Reserve's Current Policy Toolkit," Finance and Economics Discussion Series 2019-003 (Washington: Board of Governors of the Federal Reserve System, January), https://doi.org/10.17016/FEDS.2019.003.

target inflation and full employment are achieved, and the caps expire, any short-to-medium-term Treasury securities that were acquired under the program would roll off organically, unwinding the policy smoothly and predictably. This approach should avoid some of the tantrum dynamics that have led to premature steepening of the yield curve in several jurisdictions.[8]

Today's low-inflation, low interest rate environment requires not only new recession-fighting tools but also a new strategy to address the persistent undershooting of the inflation target—and the risk to inflation expectations—well before a downturn. Various strategies have been proposed that seek to make up for past inflation deviations from target.[9] To be successful, formal makeup strategies, such as an average-inflation-targeting rule, require that market participants, households, and businesses understand the policy in advance and find it credible. While formal average-inflation-targeting rules have some attractive properties in theory, they could be difficult to communicate and implement in practice due to time-inconsistency problems as well as uncertainty about underlying economic parameters.[10]

I prefer flexible inflation averaging that would aim to achieve inflation outcomes that average 2 percent over time. Flexible inflation averaging would imply supporting

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[8] For unusually severe recessions, such as the financial crisis, such an approach could be augmented with purchases of 10-year Treasury securities to provide further accommodation at the long end of the yield curve. The requisite scale of such purchases—when combined with medium-term yield curve ceilings and forward guidance on the policy rate—should be relatively smaller than if the longer-term asset purchases were used alone.

[9] See, for example, Lars E.O. Svensson (2020), "Monetary Policy Strategies for the Federal Reserve," NBER Working Paper Series 26657 (Cambridge, Mass.: National Bureau of Economic Research, January).

[10] See the discussion of formal makeup strategies in the minutes of the September 2019 Federal Open Market Committee meeting (pp. 2–3), available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20190918.pdf. See also David Reifschneider and David Wilcox (2019), "Average Inflation Targeting Would Be a Weak Tool for the Fed to Deal with Recession and Chronic Low Inflation," Policy Brief PB19-16 (Washington: Peterson Institute for International Economics, November), https://www.piie.com/sites/default/files/documents/pb19-16.pdf.

inflation a bit above 2 percent for some time to compensate for the inflation shortfall over previous years and anchor inflation expectations at 2 percent. Flexible inflation averaging would bring some of the benefits of a formal average-inflation-targeting rule, but it could be more robust and simpler to communicate and implement. Following several years when inflation has remained in the range of 1-1/2 to 2 percent, the Committee could target inflation outcomes in a range of 2 to 2-1/2 percent for a period to achieve inflation outcomes of 2 percent, on average, overall.

By committing to achieve inflation outcomes that average 2 percent over time, the Committee would make clear in advance that it would accommodate rather than offset modest upward pressures to inflation in what could be described as a process of opportunistic reflation.[11] This approach will help move inflation expectations back to our 2 percent objective, which is critical to preserve conventional policy space.

It is important to emphasize that for monetary policy to be effective, it will be key for policymakers to communicate their strategy clearly in advance to the public, to act early and decisively, and to commit to providing the requisite accommodation until full employment and target inflation are sustainably achieved. This was one of the important conclusions of this year's U.S. Monetary Policy Forum report.

Fiscal Policy

Even with a revamped monetary policy strategy and expanded tools, there are risks. As the authors note, persistent very low levels of long-run rates could hamper the

[11] See Janice C. Eberly, James H. Stock, and Jonathan H. Wright (2019), "The Federal Reserve's Current Framework for Monetary Policy: A Review and Assessment," paper presented at the Conference on Monetary Policy Strategy, Tools, and Communication Practices, sponsored by the Federal Reserve Bank of Chicago, Chicago, June 4, https://www.chicagofed.org/~/media/others/events/2019/monetary-policy-conference/review-current-framework-eberly-stock-wright-pdf.

ability of monetary policy to support the economy in a downturn through the traditional mechanism of pushing down long-term rates.[12] Moreover, the equilibrium interest rate or, possibly, inflation expectations could be lower than most current estimates, with the implication that unconventional policies would need to compensate for a larger reduction in the conventional policy buffer.[13]

Accordingly, in addition to a forceful response from monetary policy, robust countercyclical fiscal policy is vital. The reduced conventional monetary policy buffer makes the importance of fiscal support during a downturn even greater than it has been in the past, and the case for fiscal support is especially compelling in the context of very low long-term interest rates. Not only is fiscal policy more vital when monetary policy is constrained by the lower bound, but research suggests it is also more powerful.[14]

Whereas monetary policy is powerful but blunt, fiscal policy can be more targeted in its effects. This is especially important today, when a large share of American households have low liquid savings and are particularly vulnerable to periods of unemployment or underemployment.

The appropriate design of a more automatic, faster-acting countercyclical fiscal approach requires study and development. Just as monetary policymakers are actively

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[12] See, for example, the minutes of the October 2019 Federal Open Market Committee meeting (p. 4): "In addition, some participants noted that the effectiveness of these tools might be diminished in the future, as longer-term interest rates have declined to very low levels and would likely be even lower following an adverse shock that could lead to the resumption of large-scale asset purchases; as a result, there might be limited scope for balance sheet tools to provide accommodation." (Available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20191030.pdf).

[13] See, for instance, Michael T. Kiley (2019), "The Global Equilibrium Real Interest Rate: Concepts, Estimates, and Challenges," Finance and Economics Discussion Series 2019-076 (Washington: Board of Governors of the Federal Reserve System, October), https://doi.org/10.17016/FEDS.2019.076.

[14] See Paul R. Krugman (1998), "It's Baaack: Japan's Slump and the Return of the Liquidity Trap," *Brookings Papers on Economic Activity,* no. 2, p. 137–87; and Olivier J. Blanchard and Daniel Leigh (2013), "Growth Forecast Errors and Fiscal Multipliers," *American Economic Review,* vol. 103 (May, Papers and Proceedings), pp. 117–20.

reviewing their tools and strategies, now is the time to undertake a review of fiscal tools and strategies to ensure they are ready and effective.

Financial Stability

Financial stability is central to the achievement of our dual-mandate goals. The new normal of low interest rates and inflation also has implications for the interplay between financial stability and monetary policy. In the decades when the Phillips curve was steeper, inflation tended to rise as the economy heated up, which would prompt the Committee to raise interest rates to restrictive levels. These interest rate increases would have the effect of tightening financial conditions more broadly, thereby naturally damping financial imbalances as the expansion extends.

With trend inflation persistently below target and a flat Phillips curve, not only is the policy rate expected be low for long due to the decline in the neutral rate, but the policy rate may also remain below the neutral rate for longer in order to move inflation back to target sustainably. The expectation of a long period of accommodative monetary policy and low rates, during a period with sustained high rates of resource utilization, is conducive to risk-taking, providing incentives to reach for yield and take on additional debt.

To the extent that the combination of a low neutral rate, a flat Phillips curve, and low underlying inflation may lead financial imbalances to become more tightly linked to the business cycle, it is important to use tools other than monetary policy to temper the financial cycle. In today's new normal, a combination of strengthened structural safeguards along with countercyclical macroprudential tools is important to enable monetary policy to stay focused on achieving maximum employment and target

inflation.[15] The countercyclical capital buffer, which was not available before the crisis, is particularly well designed to address financial imbalances over the cycle.

Conclusion

With the policy rate more likely to be constrained by the lower bound, the core challenge facing the current generation of central bankers is different than the last generation. The authors of the report emphasize the importance of deploying an expanded toolkit proactively, avoiding costly delays, and communicating clearly to the public. To be fully effective, proactive use of an expanded toolkit needs to be coupled with a new strategy that achieves average inflation outcomes of 2 percent along with maximum employment over time.

[15] See, for example, the minutes of the January 2020 Federal Open Market Committee meeting (p. 9), available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/fomcminutes20200129.pdf.