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Rethinking Monetary Policy in a New Normal

Remarks by

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I enjoyed Ben Bernanke's paper titled "Monetary Policy in a New Era."¹ He presents a compelling diagnosis of the issues facing policymakers and discusses a variety of policy options. Bernanke proposes an approach to policy that is elegant and straightforward to communicate. I will focus on those elements that I find particularly relevant for the challenges faced by policymakers and suggest some implications and complications. My comments are not intended to address current policy.²

The New Normal

Policymakers in advanced economies are confronting a different constellation of challenges today than those that dominated the canon of U.S. monetary policymaking over the previous half-century, which I refer to as the "new normal."³ A key feature of the new normal is that the neutral interest rate--the level of the federal funds rate that is consistent with the economy growing close to its potential rate, full employment, and stable inflation--appears to be much lower than it was in the decades prior to the crisis. In the Federal Open Market Committee's (FOMC) most recent Summary of Economic Projections (SEP), the median FOMC participant expected a longer-run real federal funds rate, after subtracting inflation, of 3/4 percent, down sharply from the value the first time the policy projection was published in the January 2012 SEP of 2-1/4 percent--and the average value in the decades prior to the financial crisis of 2-1/2 percent.⁴

¹ Bernanke (2017).

² I am grateful to John Roberts for his assistance in preparing this text. The remarks represent my own views, which do not necessarily represent those of the Federal Reserve Board or the Federal Open Market Committee.

³ See Brainard (2015, 2016b).

⁴ The well-known Laubach-Williams model currently suggests an estimate of the longer-run neutral federal funds rate that is close to zero. The latest estimates are available on the Federal Reserve Bank of San Francisco's website at http://www.frbsf.org/economic-research/files/Laubach_Williams_updated_estimates.xlsx. Over the 1960-2007 period, the real federal funds rate--measured as the nominal federal funds rate less trailing four-quarter core PCE (personal consumption expenditures) inflation--averaged 2-1/2 percent.

The low level of the neutral rate limits the amount of space available for cutting the federal funds rate to offset adverse developments and thereby can be expected to increase the frequency and duration of periods when the policy rate is constrained by the effective lower bound, unemployment is elevated, and inflation is below target. In this environment, frequent or extended periods of low inflation run the risk of pulling down private-sector inflation expectations, which could amplify the degree and persistence of shortfalls of inflation, thereby making future lower bound episodes even more challenging in terms of output and employment losses. To the extent it is weighing on longer-run inflation expectations, the persistently low level of the neutral federal funds rate may be a factor contributing to the persistent shortfall of U.S. inflation from the FOMC's target.⁵

Further complicating the ability of central banks to achieve their inflation objectives in today's new normal is the very flat Phillips curve observed in the United States and many other advanced economies, which makes the relationship between labor market conditions and price inflation more tenuous. For instance, inflation has remained stubbornly below the FOMC's 2 percent target for the past five years even as unemployment has fallen from 8.2 percent to 4.2 percent, a level that most experts believe is in the vicinity of full employment.⁶

Bernanke's paper provides an excellent review of the Federal Reserve's efforts to operate in this new environment and makes some interesting new proposals. Reflecting on the Fed's available "policy toolbox," Bernanke concludes that the available tools are

⁵ See, for example, Brainard (2017b), Kiley and Roberts (2017), and Nakata and Schmidt (2016).

⁶ The inflation information refers to core PCE inflation measured on a 12-month average basis.

not likely to be sufficient and proposes a framework that relies on forward guidance with commitment to help central banks achieve their inflation and employment objectives.

The Makeup Principle

The academic literature on monetary policy suggests a variety of prescriptions for preventing a lower neutral rate of interest from eroding longer-run inflation expectations. The paper argues convincingly that many of these proposals present practical difficulties that would create a very high bar for their adoption. For instance, raising the inflation target sufficiently to provide meaningfully greater policy space could engender public discomfort or, at the other extreme, risk unmooring inflation expectations. The transition to a notably higher target is likely to be challenging and could heighten uncertainty.

As I have noted previously, the persistence of the shortfall in inflation from our objective is an important consideration for monetary policy.⁷ The makeup principle, in which policy would make up for past misses of the inflation target, is not reflected in most standard monetary policy frameworks, although it is an important precept in theory.⁸ Some of the proposals that have been advanced to implement this principle present some difficulties. For example, while price-level targeting would be helpful in the aftermath of a recession that puts the economy at the effective lower bound, it could require tightening into a negative supply shock, which is a very unattractive feature, as Bernanke points out.⁹

⁷ See Brainard (2017b).

⁸ See, for example, Eggertsson and Woodford (2003) or Reifschneider and Williams (2000).

⁹ As Bernanke notes, one way to avoid this feature is to adopt “flexible price-level targeting,” in which policy takes into account resource utilization as well as the deviation of the price level from its target. Kiley and Roberts (2017) examine a form of flexible price-level targeting—which they refer to as a “shadow rate rule”—and find that it performs well.

Bernanke proposes a framework that avoids this undesirable possibility by implementing a temporary price-level targeting framework only in periods where conventional policy is constrained by the lower bound. Bernanke's proposal thus has the advantage of maintaining standard practice in normal times while proposing a makeup policy in periods when the policy rate is limited by the lower bound and inflation is below target. His proposed temporary price-level target would delay the liftoff of the policy rate from the lower bound until the average inflation over the entire lower bound episode has reached 2 percent and full employment is achieved. This type of policy, which would result in temporary overshooting of the inflation target in order to make up for the previous period of undershooting, is designed to, in Bernanke's words, "calibrate the vigor of the policy response . . . to the severity of the episode."

The Normalization Bias

The proposed temporary price-level targeting policy is designed to address what I see as one of the key challenges facing policymakers. Following deep recessions of the type we experienced in 2008-09, there appears to be an important premium on "normalization." This was apparent in 2010, for instance, when there was substantial pressure among Group of Twenty officials to commit to timelines and targets for reducing fiscal support and to articulate exit principles for monetary policy.¹⁰ This inclination proved premature, as was evident from the subsequent intensification of the euro-area crisis.

¹⁰ The 2010 G-20 Toronto communiqué indicated that advanced economies "committed to fiscal plans that will at least halve deficits by 2013 and stabilize or reduce government debt-to-GDP ratios by 2016." The document is available on the U.S. Department of the Treasury's website at <https://www.treasury.gov/resource-center/international/Documents/The%20G-20%20Toronto%20Summit%20Declaration.pdf>.

Moreover, the benchmark for “normal” tends to be defined in terms of pre-crisis standards that involved policy settings well away from the lower bound, at least initially, because it may take some time to learn about important changes in underlying financial and economic relationships. For example, the factors underlying what we now understand to be the new normal of persistently low interest rates were in many cases initially viewed as temporary headwinds. In these circumstances, a standard policy framework calibrated around the pre-crisis or “old” normal may be biased to underachieving the inflation target in a low neutral rate environment. The kind of policy framework that Bernanke proposes, which pre-commits to implementing the makeup principle based on the actual observed performance of inflation during a lower bound episode, could guard against premature liftoff and help prevent the erosion of longer-term inflation expectations.

Monetary policymakers operate in an environment of considerable uncertainty and therefore have to weigh the risks of tightening too little or too late against those of tightening too much or too soon. While past experience has conditioned U.S. policymakers to be highly attentive to the risks associated with a breakout of inflation to the upside, as in the 1970s, they balance these risks against those associated with undershooting the inflation target persistently, as in Japan in the late 1990s and the 2000s.

In weighing these risks, the standard approach is typically designed to achieve “convergence from below,” in which inflation gradually rises to its target. Given the lags in the effects of monetary policy, convergence from below would necessitate raising interest rates preemptively, well in advance of inflation reaching its target. Moreover, particularly in the early stage of a recovery, this kind of preemptive approach tends of

necessity to rely on economic relationships derived from pre-crisis observations, when policy rates were comfortably above the lower bound.

During a period when the policy rate is limited by the lower bound, Bernanke's proposal would represent a substantial departure from the standard approach. While a standard policy framework would tend to prescribe that tightening should start preemptively, well before inflation reaches target, Bernanke's temporary price-level target proposal would imply maintaining the policy rate at the lower bound well past the point at which inflation has risen above target. In principle, policymakers would have to be willing to accept elevated rates of above-target inflation for a period following a lengthy period of undershooting.

Just as policymakers could run a risk of low inflation becoming entrenched in the standard preemptive framework, so, too, there are risks in the temporary price-level target framework. One risk is that the public, seeing elevated rates of inflation, may start to doubt that the central bank is still serious about its inflation target. It is worth noting that the policy is motivated by the opposite concern--that convergence from below, following an extended lower bound episode, may lead to an unanchoring of inflation expectations to the downside. Still, a conscious policy of overshooting may be difficult to calibrate, especially since the large confidence intervals around inflation forecasts suggest that the risks of an undesired overshooting are nontrivial. A related risk is that the central bank would lose its nerve: Maintaining the interest rate at zero in the face of a strong economy and inflation notably above its target would place a central bank in uncomfortable territory.

One additional challenge of the proposed framework is specifying a path for the policy rate immediately following liftoff that smoothly and gradually eases inflation back down to target and facilitates a gradual adjustment of the labor market. In the proposed framework, once the cumulative average rate of inflation during the lower-bound period has reached the target of 2 percent, policy would revert to a standard policy rule.¹¹ This implies that a standard policy rule would kick in at a point when inflation is above target and the economy is at or beyond full employment. Even with a smoothing (inertial) property, a standard policy rule could result in a relatively sharp path of tightening, and the anticipation of the steep post-liftoff rate path itself could undo some of the benefits associated with the framework. Thus, there would likely need to be a transitional framework to guide policy initially post-liftoff that might make both communications and policy somewhat more complicated.

Integrating the Policy Rate and the Balance Sheet

The temporary price-level targeting framework proposed by Bernanke is appealing on a conceptual level because it proposes a simple and clear mechanism to help policymakers deal with the challenges posed by the lower bound on the policy rate in an environment of uncertainty. The reality is more complicated, however, especially if, as the paper suggests, many central banks in advanced economies are likely to operate with an additional tool when the policy rate is constrained. In the paper, Bernanke cites Chair Yellen's 2016 Jackson Hole speech, which suggests that in a recession, the FOMC could be expected to turn to large-scale asset purchases as well as forward guidance after the federal funds rate is lowered to zero.¹²

¹¹ In the paper, this rule is specified as an inertial Taylor rule.

¹² See Yellen (2016).

Today, when many central banks in advanced economies are operating with two distinct tools, policymakers consider the effects of the balance sheet as well as the policy rate in their assessment of the extent of accommodation provided by monetary policy. In the United States, from the time tapering was first discussed to the September 2017 meeting, when the path for balance sheet runoff was adopted, FOMC minutes and statements suggest that participants considered the degree of accommodation provided by both policy tools in their discussions of the sequencing and timing of changes to policy settings. Discussions about the sequencing of “normalization” and the delay of balance sheet runoff “until normalization of the level of the federal funds rate is well under way” effectively consider the extent to which maintaining the balance sheet may continue to provide makeup support for the economy while enabling the policy rate to escape the lower bound earlier than otherwise in a low neutral rate environment.

As Bernanke acknowledges, now that many central banks have developed playbooks specifying the operational modalities associated with asset purchases, and there is some familiarity with their effects on asset prices and financial conditions, there is a greater likelihood that asset purchases would become a part of the policy reaction function, along with forward guidance, during lower-bound episodes. Yet, as I have noted previously in the international context, asset purchases can complicate policy frameworks and communications, because their deployment and withdrawal has tended to be discontinuous and discrete and thus may be associated with greater uncertainty about the policy reaction function.¹³ It appears the public closely follows statements about both the policy rate and asset purchases to glean possible information about the

¹³ See Brainard (2015).

future overall stance of monetary policy. This suggests there may be benefits in communications and predictability of a unified policy framework across the tools that is more predictable and continuous. Relatedly, one helpful elaboration of the framework Bernanke proposes might be to incorporate a unified measure, or shadow rate, that would capture the degree of policy accommodation provided through the combined settings of both asset purchases and the policy rate.¹⁴

Greater Cross-Border Spillovers

Moving away from the policy proposal in the paper, there are two other aspects of a low neutral rate world that I want to touch on briefly: cross-border spillovers and financial imbalances. The new normal appears to be characterized by low neutral rates and a weak relationship between overall inflation and unemployment not only in the United States, but also in many other advanced economies with lower-bound episodes likely to be more prevalent. The current environment appears also to evidence intensified cross-border feedback into financial conditions.¹⁵ In this kind of environment, it is conceivable the kind of committed forward guidance associated with the temporary price-level targeting framework proposed by Bernanke, by helping rule out anticipation of a standard preemptive tightening, could help avoid unwarranted premature tightening through the exchange rate.

Given available data, it is difficult to disentangle whether the heightened cross-border feedback effects are attributable to the low level of neutral rates, particular features of today's lower-bound episodes, or the interaction of the policies adopted by many central banks. In any case, recent Federal Reserve staff analysis suggests that

¹⁴ See, for instance, Krippner (2016) and Wu and Xia (2016).

¹⁵ See Brainard (2016a, 2016b).

cross-border spillovers have increased notably since the crisis and are quite large. For instance, European Central Bank policy news that leads to a 10 basis point decrease in the German 10-year term premium is associated with a roughly 5 basis point decrease in the U.S. 10-year term premium; by contrast, these spillovers were smaller in the years leading up to the crisis.¹⁶

Moreover, news about policy rates and term premiums appears to have quite different effects on exchange rates, such that the ordering of policy normalization can have important implications for exchange rates and associated financial conditions, as I discussed earlier this year.¹⁷ Recent staff estimates suggest that news about expected changes in the policy rate tends to have a large spillover through the exchange rate, whereas news about changes in term premiums tends to lead to corresponding cross-border changes in term premiums, as discussed previously, with much smaller effects on the exchange rate. Moreover, the exchange rate effect of changes in short-term rates is much greater than it was pre-crisis. For instance, policy news that leads to a 25 basis point increase in the expected interest rate portion of the 10-year Treasury yield is associated with a roughly 3 percentage point appreciation in the dollar, which is three times greater than the response pre-crisis. By contrast, policy news surrounding a change in U.S. term premiums has a muted effect on the exchange rate both now and pre-crisis.

Financial Imbalances

Finally, a low neutral rate environment may also be associated with a heightened risk of asset price bubbles, which could exacerbate the tradeoff for monetary policy between achieving the traditional dual-mandate goals and preventing the kinds of

¹⁶ See Kamin, Li, and Rodriguez (forthcoming).

¹⁷ See Brainard (2017a).

imbalances that could contribute to financial instability. Standard asset-valuation models suggest that a persistently low neutral rate, depending on the factors driving it, could lead to higher ratios of asset prices to underlying income flows--for example, higher ratios of prices to earnings for stocks or higher prices of buildings relative to rents. If asset markets were highly efficient and participants had excellent foresight, this would not necessarily lead to imbalances. However, to the extent that financial markets extrapolate price movements, markets may not transition smoothly to asset valuations that reflect underlying fundamentals but may instead evidence periods of overshooting.¹⁸ Such forces may have played a role in both the stock market boom that ended in the bust of 2001 and the house price bubble that burst in 2007-09.

The risks of such financial imbalances may be greater in the context of the kind of explicit inflation target overshooting policies proposed in the paper. Again, if market participants were perfectly rational, overshooting policies would not likely pose financial stability risks. But the combination of low interest rates and low unemployment that would prevail during the inflation overshooting period could well spark capital markets to overextend, leading to financial imbalances.

Macroprudential tools are the preferred first line of defense to address such financial imbalances, which should in principle enable monetary policy to focus on price stability and macroeconomic stabilization. But the development and deployment of macroprudential tools is still relatively untested in the U.S. context, and the toolkit is limited. Although important research suggests that the situations under which monetary policy should take financial imbalances into account are likely to be very rare, some

¹⁸ See, for example, Case, Shiller, and Thompson (2012) and Greenwood and Schleifer (2014).

recent research has pointed out that the case in favor of taking financial imbalances into account is strengthened when the consequences of financial crises are long lasting.¹⁹ In this case, another complication of a persistently low neutral rate may be a sharper tradeoff between achieving the traditional dual-mandate objectives and avoiding financial stability risks, which may make it even more difficult to achieve our price-stability objective.

¹⁹ See, for example, Svensson (2016). See Gourio, Kashyap, and Sim (2016) and Gerdrup and others (2016).

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