

# What to Expect When You're Expecting to Normalize Monetary Policy

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Global Interdependence Center's Central Banking Series  
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The views expressed today are my own and not necessarily those of the Federal Reserve System  
or the Federal Open Market Committee (FOMC).

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Good morning. It truly is a pleasure to be here, and I'd like to thank our hosts for their exceptional hospitality and such exquisite surroundings. In cases like this, you feel compelled to reciprocate, by way of cultural exchange, with some emblem of your country. But I realize that some of what we hold to be quintessentially American — from blue jeans to baseball — have been so embraced, and dare I say even so *improved* in some cases, that they're also quintessentially Japanese. I find, therefore, that the remaining, unique tradition I can share is this: the standard Fed disclaimer that the views I express today are mine alone and do not necessarily reflect those of anyone else in the Federal Reserve System.

With that out of the way, I'll begin by noting the subject of today's panel: How to cope with unconventional policy. I suppose this stands out to me because, while unconventional policy certainly needs to be managed and requires an adjustment by both policymakers and markets, it is, overall, a coping mechanism in and of itself. Each of us turned to these tools to address our own situations during and after the financial crisis. Unconventional policy was the salve to the crisis's wounds.

### **The Road to Normal**

Each of us on this panel, and indeed in this room, brings a different perspective on how those policies played out. But we're all more or less on the same path; we're just at different points on a journey that ultimately leads to normalization. In the U.S., we're a bit farther along than our counterparts and, as such, can be looked at as something of a test case, though the cynic might

compare us instead to the canary in the proverbial coal mine. In either case, our steps so far can prove illuminating, and some of our research and discoveries may prove informative as well.

The caveat, of course, is that there are a few differences in the case of the U.S. Unlike many in this room, the U.S. did not enter into a regime of negative rates. Instead, we lowered the fed funds rate to essentially zero, then engaged in three rounds of quantitative easing when rates failed to adequately spur recovery. We aren't alone in that experience, although we are farther ahead in terms of normalization. And the last qualification: In the grand tradition of Americans retaining the imperial measurement and Fahrenheit systems, monetary policy implementation in the U.S. is just different enough than others' to make exact translation difficult.

That said, I believe our experience can still be informative.

### **Unconventional Policy and the Fed's Balance Sheet**

As a quick reminder, I'll offer a brief history of U.S. monetary policy during and after the crash. When lowering rates to near-zero failed to jump-start the economy, we turned, as most of us here did, to unconventional policies, which were primarily driven by large-scale asset purchases, or LSAPs — a phrase policy wonks concede we have lost the battle on, so I'll simply refer to the program by its better known moniker of quantitative easing, or QE.

QE involved buying more and different assets than our usual practice of holding mostly short-term Treasuries. We purchased longer-term Treasuries and bought mortgage-backed securities. The balance sheet swelled to approximately \$4.5 trillion, a significant increase from the roughly \$900 billion balance before the onset of the crisis.

Since late 2014, when we ended the purchases, we've been reinvesting the proceedings as they've reached maturity, keeping the balance sheet constant, until last month.

A modest rate hike in December of 2015 signaled the first baby steps toward normalization. We've since raised them three more times, by 25 basis points each time, and I still have another 25 basis point rate increase penciled in for this year, although perhaps I should say, "lightly penciled in."

## Unwinding

That, of course, is not the only mechanism by which normalization must occur. In our September FOMC meeting, we voted to start the process of unwinding the balance sheet, commencing last month. The size of the balance sheet is larger than we've ever seen, and the MBS in particular renders its makeup different than before the crisis. Current assets are made up primarily of those Treasuries and MBS, while the liability side overwhelmingly consists of paper currency and bank reserves and balances and, to a much lesser extent, the overnight reverse repurchase — or reverse repo — facility.

It's true that we haven't faced exactly this type of normalization before — no one has — but it's also true that it's unlikely to be remotely interesting as a policy event, except as a chapter in some future generation's economics textbook. It will be slow, deliberate, boring, and essentially on autopilot.

To look at what we've done — and are planning to do — and to consider what lessons that could hold for other central banks, we should go back to first principles.

“Why,” for instance, is a legitimate question. It is possible to maintain an exorbitantly large balance sheet and let the growth of the economy eventually render it proportional.

From my perspective, removing accommodation is the right next step for a few reasons. Monetary policy in the United States has been very accommodative for close to a decade. The economy now is more or less at full strength: There's very little slack left in the labor market and growth has kept pace with our projections. Inflation is still below the Fed's target rate and is the one area that not only continues to elicit caution, it even constitutes a conundrum ... I won't get into too much detail, but some work by my staff suggests that the Phillips curve has not been a good predictor of inflation over the past several decades.<sup>1</sup> I do think we have to be cautious, therefore, about how we're measuring inflation. At the same time, I don't advocate throwing out all conventional economic positions with the bathwater. With a labor market this tight, inflation

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<sup>1</sup> Michael Dotsey, Shigeru Fujita, and Tom Stark, [“Do Phillips Curves Conditionally Help to Forecast Inflation?”](#) [Federal Reserve Bank of Philadelphia](#) Working Paper 17-26, August 2017.

is likely to reassert itself at some point. All of which is to say that as we near the point of full health, it makes sense to return policy to a more normal stance.

This is also about keeping our powder dry. In the event of another shock to the system, I want our tools to be at their most effective and, in my view, that means reducing our balance sheet. Additionally, as productivity has dropped, it's taken the neutral funds rate with it, making the zero lower bound closer and resulting in less room for maneuver with the funds rate, which will continue to be our primary monetary policy tool.

In the case of rates returning to zero, then, if something were to happen — if another crisis were to occur — further asset purchases may prove less effective, or perhaps simply more difficult and costly to execute, with a large balance sheet still in place.

The famous line is that the Fed takes away the punch bowl just as the party is getting good. I don't think we're taking away the bowl; I think we're making sure there's enough punch for the future.

### **Slow, Predictable, and Utterly Unexciting**

In making the decision to start bringing the balance sheet back into alignment, three aspects were crucial. How to do it was obviously top of mind but also how to ensure a slow, steady pace that could essentially be left to churn on its own. We also knew, from past experience, that communicating our intentions was going to be a key factor in the efforts.

The means of unwinding the balance sheet were straightforward: We could either stop reinvesting the securities as they come to maturity or sell them on the open market. We opted for the former, with gradually increasing caps on the amounts that are not reinvested. This ensures the crucial aspects of gradual, predictable, and boring that we're aiming for.

This is not to say that we will ignore the process as it unfolds. We'll keep a watchful eye and revisit it in meetings. If economic or other events necessitate intervention, we'll make that call. But we fundamentally want this to slowly and mechanically happen in the background.

I've said before that this will be the policy equivalent of watching paint dry. But I should specify that the paint is oil based; the process is going to take some time. We have not yet established what the new normal will look like.

The balance sheet will definitely be bigger than it was before the crisis because the economy is bigger. But its eventual size will depend on how overnight and other short-term rates behave as the unwinding progresses.

Also vital to our plans is the sense of predictability. I'm not sure there's a single Fed employee, from president to examiner, who didn't take the lessons of the 2013 taper tantrum to heart. Regarding unwinding then, we made every effort to communicate early and often, and as clearly as possible — a feat for an organization renowned for its policy speak — to ensure the message was clear. The market response to the announcement was somewhere between a yawn and a shrug, so I really do have to commend the entire Fed System for the clarity and consistency of the message. It's one of the key successes I'd point to in managing normalization after such an extraordinary time.

### **Key Lessons**

There are other lessons to be gleaned, not just from the progress on the balance sheet, but from the moment of liftoff.

One of the most important is that, in the normalization process, it's possible to manage the balance sheet and rates separately, albeit with limits.

When we ended QE in late 2014, serious questions were posed about the feasibility of raising rates, given the size of the balance sheet. Traditionally, the New York Fed's markets units that implement the policy — which we refer to simply as “the Desk” — implemented rate increases by making reserves scarce in the fed funds market. But more than \$2 trillion of reserves rendered them anything but scarce. The only way the Desk could remove \$2 trillion of reserves overnight would be by effectively holding the largest fire sale in economic history.

The current situation necessitated a great deal of effort to gain a deep understanding of uncharted waters. Ultimately, a combination of expertise and analysis engineered a successful liftoff in December 2015. Rates have been under control since and remain well connected to other money

markets. As the FOMC decides to increase the target range for the federal funds rate, it increases both the interest banks earn on reserves and the rate an extended list of counterparties can earn via the reverse repo facility.

Here I'll return to the note I made earlier that the United States differs in a few areas. In the classic model of a corridor system, the interest on reserves provides a floor, for the obvious reason that no bank wants to lend at a lower rate than it would earn by simply keeping its balances. In the U.S., however, not all institutions qualify to earn interest on reserves. With reserve markets satiated, it is therefore the reverse repos — available to a wider range of additional institutions — that provide a firm floor on market rates and the interest on reserves provides a cap.

These two rates — interest on reserves and reverse repos — currently form the boundaries of the fed funds target. Research by my staff correctly predicted that most fed funds trades would occur at rates safely in the middle of the target range, even if actual use of reverse repos is quite low. By offering an alternative to trades in the market, the reverse repo facility improves the bargaining position of lenders and drives rates, even if lenders rarely have to resort to the facility — a “spooky action at a distance” that also helps to keep the fed funds rate connected to other money market rates.<sup>2</sup>

As our balance sheet declines, so does the supply of reserves. Eventually, reserves could become scarce again, which would, theoretically, make it possible to return to a classic corridor system in which interest on reserves operates as a firm floor on market rates. Exactly what level of reserves would enable that is a topic of ongoing research. That level could be substantially larger than the last time we conducted policy in a reserves-scarce environment, owing to how much has changed since 2008. I will therefore continue to monitor this issue as the balance sheet shrinks.

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<sup>2</sup> Roc Armenter and Ben Lester, “Excess Reserves and Monetary Policy Implementation,” *Review of Economic Dynamics*, 23, (2017), pp. 212–235.

## **Conclusion**

The United States is, by and large, farther down the road to normal than other countries that turned to unconventional policies and, as such, we can pass along the lessons of our experiences thus far. These are clearly not direct correlations, but there are echoes, and we all operate on the fundamental monetary policy oath of “first do no harm.”

The knowledge that rates and the balance sheet can be decoupled has been invaluable, as has the work to prepare the markets for what’s to come.

This is a new path for all of us. What we’re trying has never been done before, at least not on this scale, and while it might be, to borrow a phrase, the “final frontier” of monetary policy, I do believe we’ll pull off the ultimate feat and make a couple trillion dollars utterly uninteresting.