

# All the Credit® Episode 41

## Transcript

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**Female Voice:** You're listening to *All the Credit*, a monthly podcast series brought to you by PGIM Fixed Income, an active global fixed income investment manager. And now your hosts, Senior Portfolio Manager, Mike Collins, and Portfolio Manager, Michael Roper.

**Michael Roper, CFA, Co-host and European Investment Grade Corporate Bond Portfolio Manager:** Hello, and welcome to *All the Credit*. I'm Michael Roper.

**Mike Collins, CFA, Host and Senior Portfolio Manager, Multi-sector Strategies:** And I'm Mike Collins.

**Michael:** And we're just two of the many investment professionals at PGIM Fixed Income and your hosts of *All the Credit*. So, in today's episode, we plan to discuss quantitative tightening (QT), the unwinding of the large scale purchases of a broad range of assets by central banks that has become a feature of monetary policy since the great financial crisis. It might seem odd as to why we'd want to discuss this now. And in truth, we had planned to do an episode on this a while back. After all, central banks have already begun conducting quantitative tightening, but it had to sit on the sideline as events such as the U.S. regional and global banking crisis, as well as the recent debt ceiling brinkmanship, became the focus of the market. That said, despite those seismic market events, quantitative tightening has been gradually taking place almost unnoticed in the background, in many respects exactly how central banks intend the unwind of their bloated balance sheets to work. However, as we approach the end of rate hiking cycles and the path of short-term interest rates becomes a little more certain, we expect the market to focus increasingly on this topic. After all, Jamie Dimon, the CEO of JPMorgan, was out warning about the potential and market preparedness for volatility that might stem from the process.

**Mike:** That's right, Michael. It does feel really timely to have this discussion. As you mentioned, we have the worst of the debt ceiling debate behind us. It seems the worst of the banking crises are behind us for now. Banks are getting really close to the end, if not at the end of their hiking process. So now we do have this balance sheet reduction happening all around the world kind of in slow motion in the background. So, to best understand what quantitative tightening really is and explore the potential economic and market impacts, it makes sense to go back and rewind and revisit why central banks do quantitative easing or expand their balance sheet in the first place, where they buy up a lot of financial assets on a massive scale. And how does this tool fit within the bank's policy options to help them achieve their price stability mandates? And then does it follow that the impact of quantitative tightening should be just a mirror image or a symmetrical response to QE, or quantitative easing, and how that works out? And indeed, why central banks are so motivated to unwind their balance sheets and reverse the quantitative easing? We'll also attempt to touch on some of the constraints that central banks face, as well as the potential risks to the financial markets as the process is ongoing before we consider whether or not QE and QT can be deemed as a success. And whether

central banks in the future will actually be able to turn to these relatively new policy tools as readily as they have in these last two cycles.

**Michael:** Yeah. So, another packed agenda. And we have two great guests to help us delve into this challenging topic today. First up is PGIM Fixed Income's Deputy Head of Global Economics and Chief European Economist, Katharine Neiss.

**Katharine Neiss, PhD, Deputy Head of Global Economics and Chief European Economist:** Hi, great to be here. Thank you.

**Mike:** Katharine, you don't need any introduction. This is your record fifth appearance on *All the Credit*. And of, course, Katharine, you're uniquely positioned to comment on this topic having served in your prior role as the head of the International Surveillance Division at the Bank of England, where you are responsible, among other things, for advising committee members on the global macroeconomic and financial stability outlook. So, thanks again for joining us, Katharine.

**Michael:** And also joining us today is Bethany Payne. So, Bethany is one of the latest talents we welcome to PGIM Fixed Income and is a Portfolio Manager on PGIM Fixed Income's Developed Market Rates team based here in London. Her focus is relative value trading and government securities, futures and interest rate swaps. She has 16 years of investment experience, is a CFA charter holder and received a degree in economics. So welcome to the podcast, Bethany.

**Bethany Payne, CFA, Developed Market Rates Portfolio Manager:** Thank you very much for having me on the show. It's my pleasure to be here.

**Mike:** Yeah. Katharine, Bethany, Michael and I are here to give you all the credit.

**Michael:** So, let's get started. Let's quickly rewind then to the time when central banks first embarked on these programs of large-scale asset purchases, what became known as quantitative easing in the UK and U.S. in the aftermath of the global financial crisis and a little later in Europe. So, Katharine, maybe you can start and just explain how does quantitative easing help central banks achieve price stability? And was it effective in that regard?

**Katharine:** Yeah. Let's backtrack and just kind of remind ourselves of how we ended up where we are. After the global financial crisis, central banks very quickly found themselves at what is called the effective lower bound. That is, they had reduced interest rates so low in the case of the Fed, it was between zero and a quarter percent that they couldn't really reduce those interest rates any further. And yet there was an assessment by the central banks that the economy still needed more stimulating in order to raise GDP growth and get inflation back to target where the fear was that inflation was going to come in way below the Fed's 2% inflation target and sort of fall and get de-anchored well below 2%. So that's why central banks stepped in having hit this effective lower bound in interest rates and started to buy in very large quantities government assets. Now, central banks buy assets all the time. They've been doing this really since the beginning of central banking. But typically, they do it as a lender of last resort. So, it means that their balance sheets are not really increasing for prolonged periods of time. But this buying of central bank balance sheets after the global financial crisis (GFC), what we call QE, quantitative easing, it was different because, A, they were doing it in order to provide extra stimulus having hit the effective zero lower bound. And secondly, this expansion in their balance sheet was long-lasting. We still see the effects of that in the Fed's balance sheet today. I think the punch line in terms of whether or not it was effective after the global financial crisis is that it was, I think that was central bank's assessment, it was effective at raising GDP and helping to get inflation back to the

target. And it's for that reason that we saw central banks really go all in on QE when we were hit with this pandemic shock.

**Mike:** Yeah. So, let's fast forward to today, we basically had a couple of rounds of quantitative easing, as you mentioned, Katharine, after the great financial crisis and then more recently after the big COVID recession, and other central banks around the world have jumped in as well. And it's happening everywhere in slightly different forms. So, as they start unwinding these balance sheets, what really is the end goal? Do they want to get back to where they started? It seems like every round of QE, you end up with a balance sheet that's larger than the prior round. Clearly, there's the goal of trying to reduce the size of the balance sheet. But for what means and what is really the end game here?

**Katharine:** I think we need to start off by recognizing that the consensus view is that shrinking the balance sheet that is quantitative tightening, or QT for short, is seen to be much less impactful than expanding the balance sheet QE, quantitative easing. And so, this asymmetry is a key driver of why central banks are doing this. We can come on and talk a little bit more later about why the impact is asymmetric. But for now, just take it as given. Now, after the experience of the Fed shrinking its balance sheet in the run up to the pandemic, I think most central bankers took the view, maybe it's not actually completely neutral, maybe it is having an impact on tightening credit conditions. And so that recognition now is baked into a lot of central bank strategies. So, yes, QT is going to be less impactful than QE, but perhaps we shouldn't assume it's completely neutral. We'll be contributing to some tightening and credit conditions. But that's not a bad thing, right? Because inflation is uncomfortably high. And so as central banks are raising interest rates, if they're doing QT, and that's contributing to tighter financial conditions, that's probably at the margin quite helpful. So that's one reason. But I think the second reason, and this, to me, is the more important reason, I think central banks are quite keen to embark on this QT, this shrinking of their balance sheet, precisely because the view is that QE was extraordinarily effective in a crisis. It was effective in the global financial crisis and it was effective in the pandemic, and therefore, we want to have this toolkit at our disposal should it happen in future that we get hit with another crisis. And so, you need to replenish that toolkit once the acute phase of the crisis is behind you.

**Michael:** So, from that conversation, it would sound like one of the reasons why QE was so successful was because it happened at times of huge market stress weather, as Mike mentioned, it being in the aftermath of COVID. And from what it sounds like, the banks want the reverse of that process to almost be conducted in the background and hopefully against functioning markets. So, if that is the case, do you think we will even notice its effect?

**Bethany:** So, the rational expectations approach would argue that markets price in all this information, so any effective quantitative tightening, QT, should already be in the price. There's only really an announcement effect on the markets, but saying that, we have seen several episodes of market turbulence during times of QT, which could potentially have been calmed or addressed if we were still doing QE. In fact, the central bank responses to turbulence haven't been to cut rates. There'll be instead to shore up and inject liquidity via forcing QT or injecting liquidity directly into the market before QT may not have as much of an impact on central banks. If central banks retain flexibility and show pragmatism towards their implementation, and the aim of doing no harm and maintaining the smooth, effective, efficient functioning of financial markets, the impact of QT really is very state dependent in that way. And despite their ambition to set and forget the level of QT, market conditions can change very, very quickly. And they can go from what we say it's a feast to a famine, and central banks will likely want to press ahead doing QT during fees for bonds. But obviously, this can change very quickly. And, obviously, in conjunction this time around, the tightening is very synchronized,

unlike the last hiking cycle, where central banks are removing liquidity against a pervasive inflation system. And we don't really know what that coordination, the faction, will -- impacts on that scale. So QT paths may be well mapped out, but their durability is really unknown. After all, no country has really managed to unwind their QE programs over the long term.

**Katharine:** Maybe I can respond to some of the points that Beth made because I think she raised some really interesting things. There's a famous quote by Bernanke that QE is not supposed to work in theory, but it does in practice. And there is a huge amount of uncertainty for exactly the reason that Beth said, we just have very little lived experience of having done QT. And so, we are sort of moving into the unknown. But I think that uncertainty is being baked into central bank strategies around QT and it explains why they have telegraphed well in advance their plans to do QT, why the pace at which they're shrinking their balance sheet is really quite gradual compared to the pace with which they expanded them. And importantly, it is going to have a big impact on liquidity out there in the market. And so this is happening alongside complementary tools that central banks have announced to try to ease some of the liquidity issues that will inevitably come alongside doing QT. But as Beth says, it's kind of not going to matter until it really matters. And at that point, it will be interesting to see how central banks respond. We had a bit of a hint of that here in the UK last fall, where the central bank had plans to accelerate its pace of balance sheet runoff and then, very quickly, markets deteriorated and they have to step back from those plans. So that could offer us a bit of a hint, a bit of a playbook, that we might see other central banks follow in the months and years to come as in when things happen that are unanticipated.

**Bethany:** Exactly. The problem with QT, in that way, is one of time inconsistency. Sort of in principle, central banks want QT to work in the background and not be part of active monetary policy. That said, another way, QT will happen regardless of whether interest rates go up or down. But the central bank would have every incentive to renege on its commitments in the heat of the moment.

**Michael:** Yeah, I just love to explore that one a little bit further. When central banks undertook QE, we were in really easy monetary policy stances, right? Rates have been cut to the lower bound and you had QE. Now, if you believe the markets, we could be going through a period of rate cuts, but at the same time, the quantitative tightening continues. And it feels like those two tools might be operating against each other. If you do have any financial asset blowups or volatility, what do you think the central bank's appetite is to continue to press ahead with QT?

**Katharine:** Well, this is a great question because central banks told us quite a lot about their sequencing between interest rates and the balance sheet on the way up. So all the central banks, be it the Fed, the Bank of England, the ECB, and others essentially made the case that, yes, balance sheet action is very impactful for GDP for inflation, but it's second best to adjusting the interest rate. We understand the impact of adjusting interest rates better, they're more easily reversible, it's easier for us to communicate. And so, the interest rate - when the time comes the interest rates need to go higher, they're going to be the marginal tool, they're going to be what we do first. And we saw that. We saw them raise rates very aggressively in 2022. And only once interest rates had hit a certain threshold, in fact, that was well calibrated by central banks, it's a very mindful threshold, it was only at that point that they started to announce their plans to shrink their balance sheet. And so all of that, I think, has not been a surprise and was very well communicated and well telegraphed. What central banks have not told us is what is the sequencing on the other way? What exactly—and in particular, around this turning point, Michael, that you just mentioned. And I think that is a bit of a lockbox for people, it is for me. But since central banks are saying things like we plan to shrink the balance sheet by X percent over the next 12 months, if early into that 12-month period, they hold rates or indeed choose to cut them, I

can well imagine that as long as they deem what is happening on the balance sheet side to be broadly neutral and not cut against what they're trying to do, that they will continue with those plans. And that will create a huge communications challenge, I think, for central banks because it will look a little odd to be cutting rates and shrinking your balance sheet at the same time.

**Mike:** Yeah. One thing we always debate internally is what is a trillion dollars' worth of balance sheet reduction equivalent to in terms of policy rate hikes, right? Some market participants like that and others will look at that and say, "Well, heck, if the Fed has raised rates 500 basis points and they're reducing the balance sheet a trillion a year for two to three years, does each of that trillion equal another 50 or 100 basis points of Fed rate hikes?" And I know you've done a lot of work on that and it's probably not a straightforward answer.

**Katharine:** If we go back, the best way that I can think of to come up with an estimate of what is the impact of QT and equivalent basis point space is, again, always to start with QE because we have experience of that and we've done studies on effectiveness, at least we've got some evidence base there to draw from. And, essentially, QE is meant to have an impact through three channels, what's called a portfolio rebalancing channel. If the central bank is buying safe assets, then the impact of that on yields for safe assets just ripples out to other riskier assets and helps to reduce interest rates across the real economy and help stimulate the real economy through that channel. So that's the portfolio rebalancing channel. The second channel is what's called the signaling channel. So that sheer action of central banks going out and buying government bonds is a way for them to signal that not only are monetary conditions easy today, but there is a commitment to keep them easy for really some time into the future. So, it's a signal not just about policy that they're taking now but about where the central bank sees policy in the future, the so-called lower for long. And thirdly, a liquidity channel. Obviously, if central banks have a huge impact on the market and if there's a promise to buy, that's going to have an impact on liquidity in the markets, particularly when it's done at a time where there's a lot of market turbulence like what we saw in the aftermath of the GFC in March 2020. And most of the studies show it's about one third, one third, one third in terms of the total impact. Now, if we think about QT, you would think, "Well, if central banks are telling us that this is not a signal of future policy, they're very data dependent, so let's shut down that channel," markets are reasonably well functioning so it shouldn't be having a big impact through that channel. So that would suggest that whatever impact you think is out there for QE in terms of the basis point effect for QT, it's maybe about one third the size. So, to put it into concrete numbers for what's happening now, if we think that based on the current plans of central banks to shrink the balance sheets of an order of around 3% of GDP every year for the next 12 months, then maybe that's doing something around five to 15 basis points of additional credit tightening. It's not zero, but it's pretty small if we set it against the pace of interest rate rises that we've seen, which has really been in the hundreds of basis points over the last year. So, yes, marginal, not neutral, but pretty small compared to what we've seen on the side of interest rates.

**Michael:** So, Mike uses the 1 trillion in terms of the shrinkage the Fed are looking to do per year, they got to a peak of 9 trillion, the Fed balance sheet. They're aiming to get towards seven but that's still a long, long way above where the Fed's balance sheet was pre-QE. So why seven? Why not go further?

**Bethany:** I think with QT, it's about the journey, not necessarily the destination. Central banks want to start on a path to normalize their balance sheets. QT, the next sort of a signal and a soft landing path to a level of ample reserves. They will most likely know if they've gone too far only in retrospect and the Fed would be very, very conscious, the example in 2019 where they went slightly too far. They will need to navigate their way towards what a level of ample reserves in the system looks like and they will only know in retrospect. So



then central banks are in this experimental phase of QT, sort of reversing that tide of liquidity of QE. But as Katharine said, QT is very, very different. And the impacts, they're only known once they've drained too much liquidity. It's akin almost to a boat. When the tide goes out, at some point, it could bump up against rocks so they don't know they're there until they sort of start sinking. And they're very cognizant of these risks. They endeavor to be flexible and just to move very slowly.

**Katharine:** Yeah, I would completely agree with that. And just to add, I think the honest answer is central banks don't know what is the optimal size of their balance sheet in the new normal that we're trying to get to. It's clearly somewhere lower than where we are now, but it's higher than where it was before the global financial crisis. But that is actually quite a big gap between those two things. And what the Fed found out in 2019 is they got close to this new desired level of liquidity for commercial banks. And it created a really big reaction in market, something that I think central banks would be quite keen to avoid. So just to emphasize the point that Beth made absolutely is, firstly, if we think about what's the impact of shrinking the balance sheet, we've got to separate between the pace of shrinking the balance sheet versus getting too close to this new optimal level of the size of the balance sheet for the central bank. Those are two variables that the central bank is going to have to manage. We've just had a conversation about the pace, what we think broadly, the pace is going to be neutral, maybe adding at the margin to tighter credit conditions. But also we don't want to get anywhere near this optimal size of the central bank balance sheet because we don't want to then get this outsize market reaction like what we saw in September 2019 or thereabouts. And central banks, they -- actively they go out, they survey market participants, they ask them questions around their desired level of liquidity. But sometimes people don't know what they want, including in the market, because the Fed was asking those questions back in 2019. And it turned out actually that demand for liquidity was higher than I think many people had expected or anticipated. So this would very much speak to a gradual approach, a very well-telegraphed approach on the part of the central banks to allow all market participants to adjust in an orderly fashion and have a better assessment of their liquidity needs. And I think that's really on steroids right now, given all the frictions that we're seeing from the very rapid pace of interest rate rises and the impact that that's having on some commercial banks, particularly in the U.S.

**Michael:** Beth, I really like that boat analogy. But let's just say this boat does hit the rocks and quantitative tightening triggers financial stability concerns, what tools do central banks have in that scenario, especially when the market's expecting their balance sheets to continue to shrink?

**Bethany:** So what we've seen is central banks can be very flexible. And they've shown that they're willing to think outside the box and create new tools where tools weren't there before. And you've seen this from all the major central banks. So for the ECB, they have a new transmission protection instrument, that TPI, that aims to counter unwarranted disorderly market dynamics, as well as that they've also got flexibility already within the path purchases to reinvest maturing bonds. The Bank of England, they showed pragmatism and even rekindled QE for short bursts during the LTI crisis. And you see the Fed as well add to their toolkit. They've got their new bank term funding program, the BTFPF, that's an additional source of funding brought about for the recent bank crisis. So I think that they will show some flexibility, some pragmatism, to make sure where they can target liquidity needs that they will, and ideally, that they could do that, but that learning helped in certain circumstances.

**Mike:** It's really interesting how the central banks at least have tried to portray these different tools that have been very independent and separate, right? They're doing quantitative tightening in the background, letting the balance sheet roll off at a very measured consistent pace. But in the meantime, they have these firefighting tools that they can jump in on temporarily to address some of those liquidity needs. And we've seen a handful

of those be employed by different central banks just in the last year. Beth, how do the markets typically respond to that? It seems like they've worked so far, right? A lot of the fires, whether it's the Bank of England with the pension crisis or the U.S. Fed with the recent banking crisis, it seems like the fires have been put out while the balance sheet continues to unwind in slow motion in the background.

**Bethany:** They've just done very, very well. And that might be just because there's been a background demand for the instruments that they hold on their balance sheets, these sort of liquidity injections and sort of in QT. You could argue sort of undermine maybe the credibility and commitment of reducing and declining the balance sheet and shrinking that balance sheet. But what it shows you probably is that the path is not smooth sailing. When the Bank of England purchased gilts, for example, that was a very temporary program, more in line with their financial stability mandate, not a monetary policy objective. The credibility in question in that particular example wasn't QT, but it was the government's fiscal approach. And that's what ultimately unsettled markets. In the U.S. with a bank crisis, probably more impact from the 500 basis points or rate hikes than anything to do with QT. So that injection of liquidity was very targeted towards the sector, again, shoring up the deposit base but also really enabling the smooth functioning is their primary policy tool. And everything that we're looking at is that functioning of policy toward the bank rate that they're really concerned with.

**Michael:** Yeah. I mean, it would sound like we could give the central banks five out of five in terms of how they've managed to process so far. But can you see any clouds on the horizon? It feels like the markets have become accustomed to the central bank being there during market periods of stress. That no longer really seems the case, even if you do see them jump in temporarily in these types of emergency measures that you've described. But are we just in for a period of greater asset price volatility? And perhaps you can just also comment on supply expectations because I know that's been a very big story in the U.S. around not just QT but also the U.S. debt ceiling.

**Bethany:** There are a few events on the horizon that QT is very experimental, so we're only understanding it as it's being implemented. For instance, in the euro area, we also have TLTRO repayments. So TLTRO was their targeted long-term refinancing operations that injected liquidity into the banking system, but half of that has been repaid. But another nearly 500 billion of the less easy sort of repayments of this tool achieves middle of June 2023. This takes the program back to pre-COVID levels and, eventually, 90% will repay 2024. So combined with QT, I mean, looking at that, that's probably about one and a half trillion of excess liquidity that's going to be dried up by the end of 2024. At this stage, alongside QT, and the ECB is also holding APP reinvestments, there's less scope to offset these liquidity training measures. And we really don't know what that will look like. The concern is how banks are going to—can fund using other channels. And there may be more funding pressure and perhaps a little bit more uncertainty. And, yes, I do agree a bit more volatility, too. And the concern then would be investor flight, if you get issues and refunding issues within particular banks, for instance. And we'll be monitoring that particular market impact. We're looking particularly at France, Italy, where the tail true repayments are very large, but also in Greece, where it's not truly outstanding as a proportion of total assets is also very large.

**Mike:** That begs another question, and this is a topic that has been really prevalent in the U.S. mortgage market, is there a difference in the central banks just passively letting their balance sheets unwind versus actively selling bonds in the market, right? One of the perceptions is there aren't any mortgage prepayments in the U.S. The mortgage part of the balance sheet isn't rolling off quickly enough. Will they actually have to go in and sell? And so, policy wise, is there a difference? And then market wise, what do you think the reaction would be?

**Katharine:** Maybe I'll start on the policy side and Beth can add on the market side. So what we've seen is that most central banks, they've started with passive runoff. That is, bonds that are maturing on their balance sheet are just allowed to roll off and they're not reinvesting the same amount. And it's through that mechanism that their balance sheets are shrinking. And that's certainly what we've seen in the U.S. That's what we're seeing in the euro area. But some of the smaller central banks, like the Bank of England, or in New Zealand, and more recently, in Sweden, at the Riggs Bank, they have actually taken a decision to actively sell assets that are on their balance sheet, in addition to the ones that are maturing to effectively shrink their balance sheet more quickly than passive runoff would allow. My understanding is that this decision largely reflects features that are unique to those smaller markets. They are smaller so there is more of an issue around ensuring smoothing and that the market can digest these changes in supply and demand in the smaller markets to avoid excessive volatility where as best as you could see the marginal buyer stepping back and then whole thing sort of seizes up. And so we shouldn't kind of read too much into it in my view as to what this means from a policy side and it's more just practically for the smaller central banks. By actively selling, you can create a smoother, more predictable path for balance sheet runoff than passive would allow. Whereas for a big central bank, like the Fed or the ECB, passive runoff is smooth, is very predictable, and not so lumpy, and all of that, so they don't really need to do the active runoff.

**Bethany:** Exactly that. I'd put that in a different way as in central banks actively selling bonds in competition almost with the debt management offices. It's very different from QE when there was an easy sort of tango partnership between QE and what the DMO had to do. There's now two active sellers in those markets have to actively sell like the UK. And there are some risks that could impact normal running of government debt issuance. We haven't seen that yet. I think QT and active QT has gone relatively well so far. But there is maybe another reason it matters. When you sell a bond, you actively have a sale that triggers a realization of a profit or a loss and the central bank has to be made whole on that. And because rates are significantly higher and prices are lower, these bonds held in QT are being sold at a loss. So once previous games have been easing into, these losses on central bank portfolios must ultimately be filled by the taxpayer. And optically, the treasury sending money back to the central bank at a time of fiscal prudence may incite some sort of public backlash. And it could call into question central bank's reputation and independence. Now -- well, this is only a technicality and it's not an insurmountable problem. Without QE and with higher rates, higher government deficits will be less easy to ignore.

**Michael:** But let's assume for now that the market is correct, a huge amount of rate hikes we've seen trip economies into recession, inflation rolls over and heads back towards target. And then we see the market pricing in rate cuts to re-stimulate demand. In that scenario, with rates well above the lower bound, do you think central banks will turn as readily to quantitative easing as a monetary policy tool as they did in the past? Or do you think all this experience that we've discussed would cause them to pause before ever restarting a quantitative easing program?

**Katharine:** My view is that central bank's experience of QE is that it's been really very, very effective. And a lot of the concerns that were had in those very early days in 2008 did not come to pass. And that is what gave them confidence to step in more quickly, more robustly with QE in subsequent crisis. Now, that said, my sense is that if central banks have a concern that the economy is slowing, that inflation over the medium term is going to go below the target and possibly get stuck there, I think they will be very active in stepping in again with QE. I think that's part of the reason why they're so keen to do QT now is to make sure that they can do that if need be. But that said, that world feels very far away from where we are just now. Yes, economies are easing, but inflation is uncomfortably high. And we expect it to remain uncomfortably high,



really, for quite some time. And my sense is, from central banks, that it will take quite a bit of evidence for them to really feel strongly that inflation is going to get step below target before they step in and use QE.

**Mike:** As a follow on, do they have to get to the zero lower bound? Let's say the Fed stops the funds rate at three and the ECB ends their policy rate at two and we find ourselves in recession, don't they just keep cutting the policy rate before they do QE? Or could they do them both before they hit the lower bound?

**Katharine:** My sense is that the sequencing will be as what we've seen in the past, that the interest rate is the marginal tool and that their easing stance will come through that first, and they will only use QE when we get to the end. Ironically, one thing I think we've learned from the pandemic and from the experience after is maybe QE has been even more effective than we thought of after the GFC. When central banks do come to use it again, should we find ourselves there? Perhaps the quantification, the calibration of it, might look a bit different. And, of course, in the case of Europe, when I'm thinking about Bank of England or the ECB, if they step in to buy corporate bonds, something that the Fed never did, but here they did, we will see additional criteria being attached to those purchases, namely criteria that are associated with the green agenda. So it will change slightly at the margin as we've learned in our priorities and policymaking change, that first order, I think. If they think they need it, they will use it again.

**Bethany:** I completely agree. What was once unconventional monetary policy is now very much conventional part of central bank's toolkits. I totally expect it to continue to be used and in a successful QT implementation only enhances this view.

**Michael:** Well, thank you very much, Mike, Katharine, and Beth. My takeaway from this discussion is that quantitative easing has been a success and I think in part because it was conducted at times during heightened market stress. And it feels like so far so good on the quantitative tightening part, but the jury's still out, we're only very early days into what will be a long and gradual process. And whilst this unwinding of these large purchases is going on, I do feel it leaves risk assets vulnerable to bouts of volatility whilst the central bank is maybe temporarily out of the game. And then one thing I suppose we didn't really touch on, but we talk about the Fed, the Bank of England, and the ECB, or starting QT and restrictive policy stances, the elephant in the room for me is what's happening in Japan. Because however you phrase QE or QT, the size of the balance sheet that the Japanese central bank has grown in terms of GDP and broader array of instruments at their board, they're yet to really start on this journey. And maybe that will have some quite large reverberations around global financial markets as more liquidity is pulled out. But hey, that's just my takeaway. I don't know if anybody else wants to leave our listeners with a final thought.

**Bethany:** The new governor of the Bank of Japan has announced this year to a year and a half monetary policy review, which, in conjunction with a slightly less dovish policy statement, may set the scenes for higher rates. But at the moment that metaphorical can is going to be kicked down the road, low Japanese yields do actually create the search for yield environment that we're set in. So high-yielding countries have really benefited from this flow, especially out of Asia. There are risks around this flow going forward. And if they did dry up, for example, it would necessitate much more domestic demand to soak up that supply. So that's definitely one thing to look out for. And on the QT experiment, I think we're going to see how it goes. I think it is time inconsistent. And I do think that at the end of the day, QT and rates will end up working in the same direction, not opposing directions.

**Mike:** Yeah. And to your point, Michael, from a positioning standpoint, we're very sensitive to the notion that mistakes can happen. This is somewhat experimental, there's a lot of policy tightening that has happened globally via rate increases. And now you do have a lot of global synchronized quantitative tightening. And we've already seen bouts and flare up of volatility and some concerns about systematic risk. From a positioning, we are playing it a little more on the defensive side throughout our PGIM Fixed Income portfolios, but also recognizing that central banks have a lot of dry powder to cut rates potentially aggressively in a severe downside risk. It is very different than last year.

**Katharine:** If I could say one final takeaway is that with large economies easing, the U.S., we're certainly seeing signs of easing here in the UK and in the euro area. And given the uncertainties around QT and what I perceive as a desire by central banks to avoid getting anywhere near what they might think is the new steady state size of their balance sheet, QT could be over a lot sooner than we think.

**Michael:** And if we never have to do another podcast on QT, you'll know it's been a success.

**Katherine:** Exactly.

Mike: Well, thank you for listening to this latest episode of All the Credit. And thank you, Katharine Neiss. And thank you, Bethany Payne, and Michael Roper, for hosting with me and for all the listeners. Again, you can see all of our thought leadership on our website at [pgimfixedincome.com](http://pgimfixedincome.com) and our latest hard-hitting research on the bond blog. Thank you for listening.

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