## Megan Greene- Leeds University Business School Q&A moderated by Eric Lonergan

## Thursday 30 November 2023

**Moderator:** You highlighted this risk of inflation persistence versus weaker economic growth. How do you weigh those two concerns up against each other?

**Megan Greene:** So, one way to weigh them is to consider what happens if we don't thread the needle perfectly. Would I rather that we'd done too much, or would I rather that we'd done too little? If I consider those two options, I think doing too little might be a greater risk, only in that it suggests that inflation might be persistent for longer and, we could end up having to do even more then to lean against that inflation in the end, which could push the economy into greater slowness. I think that's the worst option here. That's one way to consider it. The other way to consider it is upside and downside risks. In each of those, I talked about the downside risk to activity, in that we might have weaker activity than we expect. But I don't think that's the only risk. I think actually, there is quite a risk that we'll have stronger economic activity than we expected. This has been the case in the past, in the UK and elsewhere actually, economies have been holding up much better in the face of interest rate hikes than many economists expected. We've had some recent data - I highlighted that the data has been a bit mixed - We got PMI data that was surprisingly strong earlier this week, also, consumer confidence data has held up pretty well. So I think that there is not only a risk of weaker activity than expected, there's also a risk of stronger activity than expected. That's why I continued to put my focus on inflation persistence.

**Moderator**: Also, as an inflation targeting central bank, inflation has now come down quite a lot, it seems reasonable to ask then, why aren't interest rates coming down? Maybe you could explain that to us.

**Megan Greene**: Yes, it's a fair question. I would say not all inflation in created equal. Headline inflation has come down significantly from a peak of around 11% to 4.6% in October. Quite a lot of that was driven - both on the upside and the downside - by energy and food costs. Now, energy in particular is imported for the most part, so that's an external shock. That's dropped out of the year-on-year comparison. That's come down in part just because of statistical quirks, but also there's government policy at play there too. The energy price cap has caused energy to be a drag on inflation now. If you're looking at purely external sources of inflation that are transitory, then in theory the central banks should just sit by and watch, and shouldn't act in the face of that. The problem is that you end up getting underlying inflation coming in, and we've seen that in the UK, I think that's why I'm worried about inflation persistence. If you look at some of these indicators of underlying inflation, which include services inflation, also non energy intensive services inflation, or if you look at wage growth. They're still higher that would be consistent with our inflation target. So, headline inflation has come down quite a lot, but some of the signs of underlying inflation remain pretty strong, and that's why we haven't come down.

**Moderator**: Now, one of the things you spoke about a lot in your presentation were these two concepts of U\*, the level of unemployment consistent with stable inflation and R\*, the level of real interest rates consistent with stable inflation. Why is it that those two factors are so difficult to measure?

**Megan Greene:** They're difficult to measure, they're also difficult to talk about. They're unobservable in real time, so no one can tell you for sure where U\* or R\* is right now, and as a result they're model based concepts. But if you and I are using different models, we probably have a different concept for what we mean by U\* and R\*. There are short term versions of U\* and R\*, there are medium term versions which is what I've been focused on in these comments. There are also longer-term versions of U\* and R\*. So, if

we're using different models, we're talking about different things altogether. That's means you have to clarify all of this before you even start to get into how difficult they are to estimate. So, often economists will talk about U\* and R\* and they have totally different concepts in their mind, it results in a lot of confusion. Also, when you estimate U\* and R\*, it tends to be all together, so you can't take U\* from one model and plop it down into another model for looking at R\*. That makes it difficult to estimate as well. You make a number of assumptions in all of these estimates too, which is why we used a couple of different methodologies to try to get a sense of what's happening to U\* in R\*. They all tell a fairly consistent story that the medium-term U\* and R\* seem to have risen over the past year.

**Moderator:** Given that R\*, this level of interest rates that's consistent with stable inflation is so difficult to measure, how do you actually know that the policy now is restricted?

**Megan Greene:** That's a difficult question. There are a couple ways you can approach this. One is that you can look at the difference between R\*, where we estimate it to be in real rates. If you're in positive territory, then you know that policy is restrictive. This one's tricky because not only is R\* really hard to estimate, but so is R as it turns out, you need to figure out the real rate at all different point in the yield curves, that involves a lot of assumptions. But for what it's worth, based on our estimates we've been in restrictive territory since Q3 of 2023. So we've been in restrictive territory for a little while now based on those estimates. You can also look at what we're experiencing in the real economy. So if we're in restrictive territory, then the economy should be slowing down, and we are seeing signs of that. As I said monetary policy is working as expected, we've seen vacancies drop for example, unemployment ticked up, some of the other indicators for growth are weaker now. So, that suggests we're in weaker territory. Then finally, you can talk to businesses and people. We have 12 Agencies across the UK. Agents in each of those agencies have spent a lot of time talking to firms, businesses, community members, and their feedback to us in real time is consistent with us being in restrictive territory. They're hearing from companies and people that there are signs that demand is weakening. So that's also consistent with us being in restrictive territory.

**Moderator:** Now you spoke about some of the determinants of R\*, maybe could you explain a little bit about how you think levels of borrowing or levels of investment spending affect our estimates of r\*?

**Megan Greene:** I've mentioned that government debt could push R\* up, and also that if you have an increase in investment that could push R\* up. I think generally we look at R\* relative to savings and investment in an economy. Over the past 15 years, we've had a glut of savings globally, that's also the case for the UK, but not just for the UK. That seems to be unwinding a little bit. If you think about household savings, they're a supply for capital, so if the government wants to issue bonds, then it's people who are buying those bonds. So then you've got a supply curve, that's household savings, you've also got a demand curve that's companies that are also wanting to borrow. If you have the government issuing debts, household savings are reduced because they're buying those bonds, that money is not available to lend to firms. That reduces the supply of capital, and that pushes the price of capital up, the price of that capital is R\*. If you reduce savings, then it tends to push R\* up. If you increase investment, that can result in greater productivity growth and that can also push R\* up. That's how these relationships work for the medium term, and also if you extrapolate for longer term versions of U\* and R\*as well.

**Moderator:** When you're thinking about U\* and R\*, how do you know what the right time horizon is, why is it appropriate to think of the medium term as opposed to a longer term? Or how do you think about that?

**Megan Greene:** So, for me as a policy maker it makes sense to look at medium term R\* and U\* because that's the period over which I'm trying to make my monetary policy decisions. Our outlook goes out three years, so that's the medium term. But of course, the medium-term star variables are related to the long-term star variables. I said that U\* and R\* in the medium term fluctuate in business cycles, they fluctuate

around the longer-term estimates for U\* and R\*, so they're related, inherent in my views on medium term U\* and R\* are my views on longer term U\* and R\*. Here I think the longer R\* is important to consider. I talked about the relationship between savings and R\*, that goes for medium term and long-term R\*, also the relationship between investment. But there are other factors such as demographics that for a long time have been pushing R\* down. If you consider that we've had an aging population, but at some point, we won't have an aging population, we're just going to have an old population. That changes the balance of savings. If you're aging, you're planning for retirement, you're saving a lot to live off of when you're in retirement. If you're already in retirement, then actually you're spending all of those savings, so that should whittle sown the glut of savings that we have that could push R\* up as well. We've had a ton of investment in the green transition but also in AI, machine learning. None of that has fed through into the productivity data, and it might take a while. But over the very long term, that should push up the long-term estimate for R\* as well. Of course, as a long-term estimate for R\* goes up, the medium term one oscillates around that with the business cycle, so it should go up as well.

**Moderator:** And if we think back to the world pre-pandemic, we had extremely low levels of interest rates, close to zero, even in some parts of the developed world, negative interest rates. Do you think we'll never see that again? Or is there any possibility for those hopeful borrowers out there that maybe those days could return at some point in the future?

**Megan Greene:** Look, never say never. I guess if I'm arguing that U\* and R\* have gone up, the chances of us getting back to zero interest rates forever are lower I think, that doesn't mean that we won't have zero interest rates. You could have a shock, for example, it's not my base case scenario, but last March, we were all worried about a banking crisis. If we had some kind of financial crisis, you could see rates being cut all the way back down to zero, that's one example of a shock, there are many. It's not impossible that we could have zero interest rates again. But absent a shock like that, I think we're probably looking at higher rates than what we became accustomed to after the global financial crisis.

**Moderator:** But maybe on that note, as a final question from me, what is it that keeps you up at night in terms of what could be described as a black swan or one of these extreme events which have come around more frequently than they're supposed to over the last ten years or so. Are there things out there that maybe we should be worrying about or thinking about that could derail what we're trying to achieve?

**Megan Greene:** Yeah, I can't come up with a black swan event because if I could it wouldn't be a black swan event, and I can't say that no one's thinking about this, but something I worry about is another exogenous shock, like an oil price spike. Which isn't impossible, in particular, given the tensions that we see in the Middle East. I've been a bit surprised by pricing in energy markets, that none of that has really been priced in yet. But I do think that it's a risk. I think it's a risk, in part because of what I said about real wage rigidities, so people are demanding higher wages to mitigate a drop in their standard of living. That might actually pare back as the cost-of-living crisis abates and as inflation expectations come back down. But if we did have an oil price shock, that could reinforce real wage resistance and that could put upward pressure on inflation. As central bankers, we worry about inflation expectations becoming de-anchored. I don't think they have been, but if we had another energy shock, then we would have inflation higher than target for even longer. And there is a worry about inflation expectations becoming more de-anchored the longer that we're above target. That's something that I definitely worry about.

**Student:** I just want to ask about the U\*. can these changes be related to companies bringing factories closer to consumers and changing their global operations closer to their consumers? Changing, for example, the labour market demand for low skill jobs instead of high skilled jobs.

**Megan Greene:** To my mind, that probably feeds through more into R\* than it does U\*. What we've seen is that with greater geographical fragmentation or geopolitical fragmentation, that tends to push up on the interest rate that neither constricts nor stimulates the economy, generally just because it's less efficient, it's slightly more expensive. That tends to push through into higher costs, higher inflation, and higher interest rates. To my mind, that's more of an R\* question, but I do think it is a factor. The IMF has produced some research showing that this may be a factor pushing up on R\* as well, more so than U\*.

**Student:** You mentioned that the Monetary Policy Committee is expecting inflation to come back down to the 2% level in 2025 but given all the inflation measures that we are seeing especially that they are more persistent than we expected. Do you think the inflation level will ever actually come back down to the 2% target level?

**Megan Greene:** I highlighted that services inflation has been more persistent, but that actually isn't the case across the board. First, yes, I do think inflation will come back down to 2% within the medium term. But I thinks that's partly driven by other factors, other than non-energy intensive services inflation, which I do think will be sticky. So core goods inflation is coming down, it's been coming down actually a little bit more strongly than we have previously expected. Energy costs of course are coming down, food prices are coming down as well, it's really services inflation that are the most sticky piece of inflation. They're partly sticky because they're driven by wages, which tend to also be sticky. I think that the non-energy intensive services will buoy inflation, but I do think that we'll get to 2% inflation by the end of our forecast period.

**Student:** I'd like to hear your view on the leverage that countries have as a whole, and whether you think that higher rates are actually sustainable long term, or whether we will have to cut because otherwise the interest payments that maybe the US and the UK have to make get too big a part of the budget.

**Megan Greene:** Just to clarify, you want to know about leverage in financial services in particular? We have seen interest rates rise significantly, in the past when we've thought about higher interest rates we've worried about sustainability in the financial services industry. So far actually, we haven't really seen any particular wobbles in financial services, if you look at the cost of capital, it's increasing. But you're not seeing spreads blow out in the UK or in any other developed country actually, I think that's partly because during the pandemic there was quite a lot of deleveraging. That goes for the US, maybe more, a bit, than the UK, but there was still deleveraging in the UK as well. Also, I think we learned something from the global financial crisis. So, capital ratios are a lot healthier now than they were beforehand as well, so I think that financial services companies have a better cushion to weather higher interest rates.

To my mind, the concern is really in shadow banking, in the part of financial services that the central bank doesn't regulate. In a way it was a bit ironic and a surprise that last March we had an old school banking crisis in the US, because no one was actually looking for a banking crisis, most of us were worried about a shadow banking crisis. It's just hard to know exactly where the leverage is and where the exposure is and what the knock-on effects might be for financial services. But banks are much healthier now than they were before the financial crisis, we have thankfully learnt that lesson. Even though interest rates have risen pretty significantly, we haven't really seen much instability in financial services, and I think that we can take that as a good sign.

**Student:** I wanted to ask you, obviously you probably know this but next year is going to be the highest increase in the national living wage. I wanted to ask you to what extent is this significant to the model you use in predicting unemployment and inflation?

**Megan Greene:** it's certainly an input into what we're looking at to forecast the labour market, wage growth and inflation. Therefore, the national living wage is relevant for a subset of the UK population directly but indirectly it's relevant for many more. Often there's an increase in wages for many others off the back of an

increase in the national living wage and so that should put - on balance all else equal - that should put some upward pressure on wages, and that's certainly something that we've baked into our models.	