HOUSE OF COMMONS

Treasury Committee

Oral evidence: Quantitative tightening, HC 1116

Tuesday 18 April 2023

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Watch the meeting

Members present: Harriett Baldwin (Chair); Rushanara Ali; Dame Angela Eagle, Andrea Leadsom; Siobhain McDonagh; Anne Marie Morris.

Questions 1 to 55

Witnesses

I: Professor Jagjit S. Chadha, Director, National Institute of Economic and Social Research (NIESR); Dr Gerard Lyons, Chief Economic Strategist, Netwealth; Dr Katharine Neiss, Chief European Economist, PGIM Fixed Income; Dr Andrew Sentance, Senior Adviser, Cambridge Econometrics, Former External Member, Monetary Policy Committee.

Examination of witnesses

Witnesses: Professor Jagjit S. Chadha, Dr Gerard Lyons, Dr Katharine Neiss, and Andrew Sentance.

Q1 **Chair:** Good morning, everybody. Welcome to the Treasury Committee evidence session on quantitative tightening. This is our first session of this new inquiry so I am very grateful to you all for coming into speak to us. Can I start by asking each of our witnesses to introduce themselves?

Dr Sentance: My name is Andrew Sentance. I am a former member of the Bank of England's Monetary Policy Committee, which I served on at a rather interesting time—from 2006 to 2011. I now do a number of part-time things, including being a senior adviser to Cambridge Econometrics.

Dr Neiss: My name is Katharine Neiss, and I am chief European economist at PGIM Fixed Income. I formerly worked at the Bank of England for over 20 years.

Professor Chadha: Good morning; thank you for inviting me along this morning. I am delighted to participate in this very important inquiry. I am Jagjit Chadha, director of the National Institute of Economic and Social Research.

Dr Lyons: Good morning, and thank you for the invitation. I am an economist. I am chief economic strategist at the discretionary wealth manager Netwealth. Given the Committee, I should mention that I am on the board of two firms in the City. One is Bank of China (UK) and the other is BGC Partners, the largest inter-dealer broker.

Q2 **Chair:** For many years since the financial crisis in 2008-09, the Bank of England was effectively one of the biggest buyers, if not the biggest buyer, of Government debt. It accumulated nearly £900 billion of Government debt, and over the last couple of years it has been pivoting to selling that debt. In fact, last year, on 22 September, the Bank announced it would start the process of selling Government bonds on 27 September, and then on 26 September it was forced to abandon its plans and postpone them, though they did eventually resume in November.

I just wondered whether each of our witnesses could start by saying whether the Bank of England has got the strategy right in terms of its approach to quantitative tightening or selling these Government bonds? I will start with you, Dr Sentance.

Dr Sentance: It is difficult to say. If you look at the minutes of the Monetary Policy Committee, it does not seem to be reviewing what it is doing on quantitative tightening or reversing quantitative easing on a meeting-by-meeting basis. They seem to have set a course, which I believe is around £80 billion of Government bond sales over the course of a year, and they are just following through on that.

My reaction is that this is quite a modest level of bond sales, equivalent to just over £6.5 billion a month. When we started quantitative easing, when I was on the Bank of England's Monetary Policy Committee, we were buying bonds at a rate of £25 billion a month. There is a degree of asymmetry between the pace at which the Bank is unwinding its bond portfolio and the pace at which it was built up at various points between 2009 and last year.

Q3 **Chair:** You agree with the strategy to switch to selling bonds, but £80 billion is too small an amount for year one.

Dr Sentance: Given what is going on in the economy with inflation and the fact we have had very big rises in interest rates, even though they are coming from a low level, there is a case now for saying we should go a bit faster than we would in a steady state in order to reinforce the impact of interest rates on inflation and the economy. That does not seem to have been fed into the strategy, as far as I can see.

Q4 **Chair:** Dr Neiss, on the strategy itself, is this the right strategy? Do you agree with Dr Sentance that it should be done faster? Is there not enough information out there about what impact selling gilts has in terms of tightening monetary conditions and potentially feeding through into reduced inflation?

Dr Neiss: Starting with the question about the overall strategy, the way I thought about this question was to ask myself, "What elements does a good strategy have?" To my mind, a strategy should be proactive and forward-looking, it should evolve with our learning and our understanding and it should be fit for purpose through various states of the world. It does not do us much good if it is only useful in a very narrow set of circumstances.

If I think about what the Bank of England has done, the broad contours of which are quite similar to strategies seen at other major central banks, first, on the question of proactivity, the Bank of England was really quite early in talking about managing its balance sheet countercyclically, i.e. reducing the balance sheet once the need for extraordinary easing—

Q5 **Chair:** They were the first, were they not?

Dr Neiss: They were earlier than the Fed and the ECB, certainly, in doing quantitative tightening, but they were also very early in just talking about it. Governor Bailey gave a speech in the summer of 2020; he talked about the need to manage down the central bank's balance sheet at some point in the future, the reason being that essentially QE worked.

We ended up needing to do QE quite a number of times here in the UK, and it was sensible to plan for the possibility that in future it might need to be used again. It was important to replenish the toolkit and, once the economy was past the acute phase, to rebuild those buffers. He talked about this at a time when most central banks were out there buying large amounts of assets. It was very forward-looking in that regard.

In terms of evolving with learning, the Bank has really adjusted, for example, the level of interest at which it has said it would start to think about carrying out quantitative tightening. That number went from 2% to 1.5% and was reduced yet again based on research done at the Bank of England around what the effective lower bound for the policy rate was. Their thinking has evolved over time.

Finally, it is very early days. As you mentioned, we are really in the early months of quantitative tightening, but it strikes me that it has already been tested in terms of unanticipated events. The Bank of England made an announcement that it would turn to active sales, and then in very short order it had to delay those plans. If we look back, we can say that, although those plans were delayed, they were not derailed. In fact, QT has pretty much picked up in early November as planned. As far as the market is concerned, it has thus far been a bit of a non-event.

Q6 **Chair:** Can I just interrupt you there to bring in Professor Chadha? In terms of setting this strategy, as we were hearing, it has been outlined for a long period of time. Finally, on 22 September, the decision was taken to start. It was not even more than a week before it had to be paused. How can a strategy be correct if you immediately have to press the pause button?

Professor Chadha: Sometimes plans do not survive first contact with the enemy. That was the case here. We had some extraordinary events.

Q7 **Chair:** You think it was a good strategy.

Professor Chadha: I will come on to the strategy. There were some extraordinary events last September, which we have discussed at this Committee in the past. I do not want to turn this into a discussion about the mini-Budget in September and the issues that caused in the pensions and bond markets in the time.

I will go back to the strategy, if I may. There is a very interesting debate to my left between Andrew and Katharine about quantitative tightening. The narrative we have in mind is that the very word "tightening" is rather misleading. This is really quantitative normalisation. We had this extended period of bond purchases that raised the extent to which the Bank of England was holding Government bonds. The size of its holdings was approaching 40% of GDP. Those are incredibly large holdings. They did that to stabilise the economy in light of a series of shocks, which we have discussed at this Committee before.

It is certainly the case that in normal times that quantity of holding was too large. It was also incredibly unbalanced, in the sense that we have gone from a debt maturity structure that was on average around 15 years to something that has been shortened because 40% of debt was overnight securities only. That completely distorted the maturity of debt held by the private sector.

Once we start to think about quantitative tightening or quantitative normalisation as simply the decommissioning of quantitative easing, a different narrative presents itself.

Q8 **Chair:** You think it was the right strategy to make that pivot to normalise things.

Professor Chadha: Yes, absolutely. It was very clear that quantitative easing was large. We might come on a little later to whether it went on too long and whether it should have been reversed even earlier. The Bank was reasonably clear in its communications that it would try to implement quantitative tightening at a time when it was possible to offset any market turbulence that might occur from it. That is why it required the bank rate to have risen to a certain level, which is what we saw happen in September.

The issue is that, because the actual balance of debt held is so unbalanced with the huge amount of overnight reserves as a counterpart to the quantity of debt that is held on a long-term basis, there is a tension around trying to reduce that quickly. That could lead to problems in bond markets, which are absorbing large amounts of debt anyway, because we are still running a deficit, and we are also dealing with the costs incurred by the reduction in bond prices because interest rates themselves are being more normalised.

We are in a world where the bond markets themselves are dealing with what is essentially a new regime. By moving too quickly, you might be asking bond markets to do something that would lead to further problems and disruptions in bond markets and tighter monetary and financial conditions than you might want. On the other hand, if you go too slowly, which was Andrew's point a moment ago, you might find yourself with too large a debt stock being held by the Bank of England and too large a balance sheet some years down the line. The half-life of the APF is around eight years.

Q9 **Chair:** You think they got the balance right.

Professor Chadha: The way I am judging it is they are starting relatively small. In a world of uncertainty, in which you are not quite sure what the impact is going to be, it is entirely sensible to start with a relatively small amount. If it works and if normal times start to return, maybe that can be accelerated and the Bank can bring down its holdings of Government debt more quickly at some point in the future. I would not have started quickly because the decommissioning of QE is not a policy tool in its own right. It is the withdrawal of something that was engineered on an extraordinary basis because of the impact of the global financial crisis and the shocks we subsequently faced.

Q10 **Chair:** Dr Lyons, have we ever had any examples of this kind of reversal? We were the biggest buyer over the long term, and now we are a big seller. Are there any examples of this having been done successfully internationally? Has the Bank of England got its strategy right?

Dr Lyons: In terms of the strategy, I would differentiate between the technical operational aspects and the policy itself. In terms of the technical operational aspects, it has been clear, open and predictable. The Bank has communicated largely through market notices, which are easy to understand. They have also executed it in liaison with the Debt Management Office. That seems to have proceeded well. There is a quarterly update on the APF itself.

In terms of how the auctions have proceeded, they are multi-stock auctions. They are across the maturity of debt. The Bank also seems to have tried to anticipate problems because they have introduced a short-term repo facility. In terms of the operational side, I would give a tick.

Q11 **Chair:** Even though they had to abandon it before it had even happened.

Dr Lyons: Yes, the markets last autumn called it a quantitative confusion because it was unclear at the time, but, to respond to what has been said, you have to change policy in response to the financial environment as well as the economic environment.

My concern would be about the wider policy itself and where we are going with it. It is untried and untested, and as yet I am unconvinced that it will work out smoothly. First, in terms of the timing of the exit, policy normalisation is, as Jagjit mentioned, the main mantra we are seeing at the moment.

It becomes very difficult with quantitative tightening because the Bank itself is such a big player, and it is a non-commercial player. When it comes to the stock of gilts it owns—it also went into corporate bonds, which I thought was a strange thing to do—the exit strategy is a difficult one.

In relation to the timing, it is important to bear in mind that two wrongs do not make a right. The Bank of England was wrong to have eased a couple of years ago. The other wrong would be to try to overcompensate now by tightening too much at a time when previous monetary policy tightening, not just the QT that has already happened but the rates increases themselves, are still feeding through, the economy is flat and inflation has peaked. Therefore, the speed and scale of the exit from QE and the rate hikes needs to be very sensitive to moves in the economy.

In terms of the policy itself, the Bank argues that there will be an asymmetric relationship between QE and QT. QT is not simply reversing QE. That remains to be seen, and therefore how it impacts the markets and the economy we will debate further.

To conclude, I am not convinced that the Bank's assessment process for how QT will be impacting the economy is clear to everyone. That is why, coming back to your question, it is seen as start-stop, to coin your words.

Chair: We have had very interesting opening statements from all of you. Implicit in everyone's comments was a sense that, by reducing the amount of bonds it holds on its balance sheet, the Bank is effectively tightening monetary policy in some way, even though they have made it very explicit that this is not a monetary policy tool, that they do not want it to be a monetary policy tool and that they are taking steps to ensure that is not the case. I am sure we will come back to questions on that subject as we go through the session. I now want to bring in Andrea.

Q12 **Andrea Leadsom:** I would like to cover the issue of QE, particularly in the latter period. Dr Lyons, you asserted that there was too much QE later on. It is extraordinary to me that we had £425 billion of QE pre-pandemic and then £450 billion of QE during the pandemic. Was that too much? In particular, at what point should the Bank have ceased doing QE? Has it contributed to the double-digit inflation? Does it mean that inflation will be stickier as a result of central bank policy than it would otherwise have been?

Dr Lyons: Yes. We have had three rounds of QE. I would call them the good, the unnecessary and the bad. The first round of QE immediately after the global financial crisis was necessary and it was good, but it should be stressed that it was not just QE. Policy rates fell, and it is important to stress that fiscal policy played a very important role. Gordon Brown, with his London summit in 2009, re-established the importance of fiscal policy. It was the whole policy response in the first round in which QE took place that was good.

The unnecessary was the second long stretch. I would say it was unnecessary not just in terms of the QE that took place but also the low policy rates. We embedded cheap money, and cheap money has had a major distorting impact on the UK economy. It has led to asset price inflation, and some people would argue that has led to inequality. It led to markets not pricing for risk. It led to a misallocation of capital. Zombie companies remained. Small and growing companies may not have been able to access capital. It created the environment in which inflation took hold in recent years.

That leads on to the third phase of QE, the bad. I am all for giving slack to policymakers when they are hit by a shock because shocks happen; there is often a need to respond immediately. It was very evident soon after the latest shock took hold that it was very different from the shock that had taken hold after the global financial crisis. The global financial crisis shock was a demand shock. The shock we saw in recent years was a supply shock, and the bottlenecks were exacerbated over the last year by the war in Ukraine.

Inflation then took hold both because of supply shocks and inappropriate monetary policy. The Chair said in previous comments that QE is not a monetary policy tool. In my view it quite clearly is, but we can come back to that.

Not only did the Bank go down the path of QE, but, in sharp contrast to last autumn, when the Bank was sensitive to market conditions—maybe largely because of the Debt Management Office—when the Bank took part in this third phase of QE, it stuck with it even though it was quite clear that it was not only not working but exacerbating the situation.

Take February of 2021. Inflation was 0.4%. I do not know anyone who thought it was going to go lower. It was expected to go higher. The economy looked like it was about to rebound as unlocking took place. The Bank persisted with policy rates of 0.1%. They told firms across the City to prepare for possible negative interest rates—that fed expectations—and they continued to do QE. That lack of responsiveness to the economic environment was in stark contrast to the response to market conditions last autumn. It embedded inflationary pressures. I thought it was the wrong approach to take.

There is also another issue that we might come to later. The scale of the QE, quite remarkably, was identical to the Government's funding, which could have been a coincidence. As Paul Tucker made clear when he testified to Lord Forsyth's Committee in the House of Lords on this, one would have hoped that the Bank or the Monetary Policy Committee would have been sensitive to those market comments and gone out of their way to make clear they were not just ensuring that it was easier to fund the Government's deficit.

Naturally, QE made it easier for the Government to fund their deficit. The Bank became the biggest buyer of debt. Interest rates and yields were low. The term premium on gilt yields fell. Of course, that was at the expense of shortening the maturity of our debt, making the exit strategy, if there was an exit strategy, all the more difficult and making our debt very sensitive to higher rates, which we are now seeing.

Q13 **Andrea Leadsom:** Dr Sentance, you have said that QE later on was a mistake. Would you expand on that? Particularly later on, once it was known that the vaccines were likely to be a success, was the QE too much and too late? Did it specifically contribute to the double-digit inflation we have seen?

Dr Sentance: I very much agree with Gerard's comments. It did seem that QE went on for too long and there was too much of it in the pandemic period. As you commented yourself, we had a more than doubling of the amount of QE during the pandemic. It was not clear that was the appropriate policy at all. A lot of fiscal support was being provided and, as interest rates were already very low, you could argue that monetary policy was supported through low interest rates.

Q14 **Andrea Leadsom:** Why did they do it?

Dr Sentance: There has been a tendency over the last period since the financial crisis for monetary policy to be a go-to lever when any shock hits the economy, but it is not always the right thing to do. It was, "We have had this big shock. We have to do something about it. We will cut interest rates to 0.1%"—even though that was not very much of a cut from 0.75%, —"and we will do a lot more QE".

They did that perhaps without thinking through the nature of the shock, which was unlike previous shocks we have had that have contributed to recessions, including the global financial crisis, which were mainly private sector-driven. This was one that was driven by Government regulation of the economy. Arguably, if it is being driven by Government regulation of the economy, maybe the normal response, which is to relax monetary policy in response to a shock, is not going to be the right one.

I would like to make a couple of more general points. First, QE is a supporting or supplementary aspect of monetary policy. It is part of monetary policy, and that was certainly the way it was viewed when I was on the Bank of England's Monetary Policy Committee. The main monetary policy lever we have is the interest rate.

Secondly, we must not look at what happened in the pandemic in isolation. As Gerard pointed out, we had this long period of extremely low interest rates and further injections of QE after the immediate problems of the financial crisis had passed. That has contributed, over a period of time, to the inflationary pressures we are now seeing.

One thing people have often said about monetary policy is that it has very long and uncertain lags in terms of the way it impacts the economy. That long period of very loose monetary policy plus what was done in the pandemic has, in my view, quite significantly contributed to the inflation we are now experiencing.

Q15 **Andrea Leadsom:** That is interesting. Thank you. Dr Neiss and Professor Chadha, could you give your thoughts specifically on the issue of whether QE in the latter period has contributed to double-digit inflation? Does it make inflation stickier? Quite clearly, Dr Lyons and Dr Sentance think it has been a very effective tool of monetary policy. Is the consequence that it has made inflation worse now than it would have otherwise been?

Dr Neiss: I would highlight a couple of points. First of all, hindsight is a wonderful thing. We should not discount the fact that these were really huge and unprecedented shocks. Policymakers had to respond very quickly in real time.

To the question around size, initially when we were hit with this health crisis, the real risk was that it was individually rational for people to stay home, to stay safe, to have concerns about your future income stream, to retrench and to save your money. That is an individually rational thing, but to do this collectively across society is the death knell of an economy and is a sure-fire way of allowing weak demand to end up spilling over into a permanent reduction in the supply capacity of the economy.

There was a real need to act very robustly at that time. The Bank of England followed a playbook that was very similar to what we saw at the Fed and the ECB. It is interesting to note that in Europe, where there was much more resistance, shall we say, to QE in the pre-pandemic period, the Bundesbank, for example, was much more in favour of doing QE in the pandemic.

On the second issue around the timing and whether it went on for too long, again, we need to remind ourselves what it felt like in December 2020. It was our first winter going through a pandemic. We had the hope of vaccines, but we did not know how effective they were going to be. Would they still be effective by the time we got to the following winter? Would we have a supply? Nobody anticipated that we would have a war in Europe. There were hints of that showing up in wholesale energy prices in Europe towards the end of 2021.

In hindsight we can have a debate about the particular size or length of time, but it is important to make the point that the pandemic and the war in Europe are huge negative supply shocks to the UK. They are going to reduce the standard of living of the people of the UK. There is no setting, looking back, that the Bank of England could have followed in terms of the bank rate or the pace of what it was doing on its balance sheet that could somehow have neutralised the impact of that on the British people.

Turning to its role in inflation, QE is designed—I am persuaded by the evidence—to ease financial conditions and support the real economy and therefore to push up on inflation. It has undoubtedly contributed to the inflation we have seen over the last several years, but there are a lot of other things going on, not least higher energy prices. It is very difficult to unpick the impact of those.

One thing that makes the impact on energy prices a little bit more straightforward to measure is the fact the increase was so large and so compressed. It really was an unanticipated shock. Even energy markets were not anticipating that energy prices were going to go up like that.

Q16 **Andrea Leadsom:** I am very sorry to cut you off, but we have a limited amount of time. I just wanted to get Professor Chadha's comments on this, and then I know the Chair wants to move on.

Professor Chadha: I will try to be as brief as I can. We have to bear in mind the desperate times of March 2020. These were existential. Nobody really knew what was going to happen at that time. While we are right to say that the withdrawal of labour under lockdowns was a supply shock, we were also concerned about the extent to which, as Katharine just said, that would lead to scarring in the economy.

By having a monetary policy response at the time, by reducing interest rates and re-engaging with QE, you were potentially minimising the overall scarring in the economy by allowing people to continue to pay their debts and stimulate some demand in some areas, reducing the amount of savings that might otherwise have been built up. We know that a huge war chest of savings was built up.

The responses we saw at that time in terms of loosening monetary policy were broadly correct. There are some questions as to whether we were too quick to turn to QE both after the result of the Brexit referendum and in the middle of Covid. It has become clear that we do not have to buy bonds and hold them forever. We can have short-term liquidity operations. The Bank can act as a market-maker of last resort. The advantage of doing that when there are liquidity problems is you are not left with a debt stock that is hard to decommission at some point in the future. Officials at the Bank would recognise that as an alternative strategy at the moment.

There are a couple of other things to mention. One is that the Bank's remit—Katharine touched upon this—seems to have broadened, in the sense that it has to support growth and employment. At some points, there is a concern about whether that was something that was at the forefront instead of necessarily thinking about price stability.

That comes in particularly as we start to move away from the Covid cloud in 2021. At that point, supply chains were disrupted and our trade intensity had fallen relative to our trading partners because of Brexit. We can come on to that, if we need to, a little later on. Into that as well we had, by the time we get into the last quarter of last year, this huge increase in energy and food costs.

All those supply effects are happening at a time when monetary policy was looser than might have been ideal at the time. What we see is that, yes, the impact on supply and energy costs is driving the inflation, but the point increase in inflation was probably higher than it would otherwise have been, had monetary policy not had a relatively loose stance.

I am not saying that was absolutely wrong, given the problems we were facing. In fact, I did argue for a reversal of the emergency cut to 0.1% to go back up to 0.5% and for the last tranche of QE not to occur. I want to say that it is not primarily responsible for the inflation shock we are seeing. The primary cause is the supply shocks we have had. They will mostly work their way out of the system over the next 12 months or so, mechanically, because we are comparing with an increase in prices.

Chair: That has been a very helpful review of the period of quantitative easing. Everyone agrees that was a tool of monetary policy. To clarify, as we move on to quantitative tightening and the forward look, we have been told repeatedly by the Bank that quantitative tightening is not an active tool of monetary policy at present. They have made that very clear.

Q17 **Anne Marie Morris:** Following on from the Chair's and your comments, Dr Lyons, I would like to drill down and better understand what quantitative tightening really is. You have made it clear you do not think that it is simply the mirror image of quantitative easing; it is a different beast. You have also said that it is a monetary policy tool.

I would like to drill down and really understand what you think quantitative tightening is, why you think it is a tool for monetary policy and why, as I understand it, you do not see it as the flipside of quantitative easing and therefore you cannot put in place tightening to undo directly the easing you have done.

Dr Lyons: The way I would answer it is, first, we have to establish whether quantitative easing was a monetary policy tool. I would say clearly it was. It has been in place since 2009. The Bank buys financial assets, mainly gilts, and it does so by creating money in the forward bank reserves. If we look back to 2009, we were told it was unconventional; now it is mainstream. In 2009 we were told it was a temporary response to a specific situation; now it seems to be the normal response to every situation. We were told then that it was going to be small-scale; now it is sizable. Even after the so-called strategy that has been unveiled, the Bank of England itself acknowledges that the size of the balance sheet will still be very sizable in future years, so the exit strategy is very opaque.

In terms of how QE worked, QE had maybe three to five channels. Three are agreed upon, and people debate the fourth and the fifth. There was a signalling effect; a portfolio balance effect, because, as you buy assets, that forces a reaction and people buy riskier assets; and a liquidity premium effect because longer-term yields are a combination of expectations of short-term rates and the term premium. You are basically rewarded for holding longer-term debt. QE naturally, both here and overseas, reduced the term premium significantly and reduced yield.

Those three aspects of QE are agreed upon. The fourth and the fifth people debate. It improves market functioning because the Bank is such a non-commercial player. People question that. The fifth channel is whether it reduced uncertainty.

The Bank assumes that QT would naturally be completely symmetric, and it is by no means clear cut that that is the case. QT will impact the markets at a time when globally one has to remember that debt levels are very high, not just here in the UK. It is worth mentioning these figures. Globally, apart from the Bank of England, the other four major central banks—the Fed, the Bank of Japan, the ECB and the PBOC, the People's Bank of China—increased their balance sheets from $5 trillion back in 2007-08, before the global financial crisis, to $28.4 trillion this February.

Two weeks ago, the IMF, in its *Fiscal Monitor*, pointed out that gross debt globally had reduced in the last two years to 92.1% of global GDP but was likely to pick up to 99.6% of global GDP in 2028. The UK and other major economies face this problem of avoiding a debt trap, where your debt is above 100% of GDP and your rate of growth is not matching the interest rate you are paying on your debt. The global context, as well as the domestic context, in terms of absorbing the exit from QE via QT is difficult in terms of market management.

The impact on the economy is the interesting one. It seems that the Bank does not really have a clear view in terms of how QT will impact the economy. I do not call myself a monetarist, but I am aware of the fact that you need to have monetary growth on your dashboard. The Bank does not have a clear strategy for how its exit strategy is going to be seen in terms of impacting the economy because it does not have a clear view about bank lending or indeed wider monetary growth. That is why monetarists here in the UK tend to regard QT as the Bank flying blind.

I would say the scale of the balance sheet now, the fragile state of the economy and the huge amount of debt evident both here in the UK and globally mean we clearly need to exit in a gradual and predictable way. It is untried and untested. Therefore, one cannot be convinced that it will just be the mirror image of the QE process itself.

Q18 **Anne Marie Morris:** Interestingly, the Fed has estimated the effect of tightening on growth and inflation. How have they been able to do that? Given everything you have said, that is an almost impossible thing to do.

Dr Lyons: Yes. There is a lot of academic work around that at the moment, particularly focused on the States. In the States, it is very much focused on the impact of QE itself, or asset purchases, as the Americans call it, in terms of reducing the term premia, whether it is by 100 basis points or up to 150 basis points, depending on the view you take. QT is seen as reversing those premia, which would allow bond yields to rise.

Of course, inflation expectations come in here because slightly tangential to this is the issue of groupthink, one might call it more colloquially. At the annual gathering of central bankers at Jackson Hole in Wyoming just before the pandemic, the focus among central bankers was that R-star, where policy rates should settle after allowing for inflation, was close to 0% or 0.5% in the major western economies, including the UK. If inflation settles at 2%, R-star would suggest policy rates set at 2.5%. If inflation settles at 3%, R-star would imply policy rates set at 3.5%.

Coming back to your question, how would you make your assessment? You have your view about the economy; you have your view about inflation and where policy rates will be; and you have a view about your QT process itself. As I touched on in my opening comment, the operational aspect of it can be handled well. You need to have that view as to how that impacts inflation and growth, and then you can make your assessment about longer-term yields. Hopefully that helps.

We can all make projections, and indeed my colleagues here will be doing likewise, but, to echo the point I have said twice, it is untried and untested. Understandably, that means you move in a gradual and predictable way to keep the markets and stakeholders with you. Even that process still leads the Bank with a very big balance sheet even in a number of years' time.

QE has proved to be far from temporary. Who is to say we will not be hit with another shock in two, three or four years' time? As Andrew touched on, monetary policy has been shown to be the shock absorber in the last 15 years. Inevitably, it will probably be the shock absorber again.

Q19 **Anne Marie Morris:** Dr Sentance, let me then ask you a question. Dr Lyons has effectively painted a very interesting and useful explanation. He has broken down the different pieces of how tightening works, but he has also made some comments about groupthink and about how the Bank has looked at developing its strategy.

Given his comments and given your experience in the Bank, what does the Bank now need to do for quantitative tightening to work properly? What are the issues it needs to think through and address? I am afraid I find Dr Lyon's argument that it is monetary policy very compelling. If it is a monetary policy tool, how does that fit with using interest rates as a tool?

Dr Sentance: Quantitative easing is a monetary policy tool, and therefore the reversal of it is also part of monetary policy. It is not the main instrument of monetary policy. As I said earlier, it is like a supplementary or supporting aspect of monetary policy, but it would be a bit bizarre if, as we are, we were in the position of raising interest rates—

they may even need to go higher in order to get on top of inflation—and we did absolutely nothing on the quantitative easing front.

We should think about this more in terms of a normalisation or the start of a normalisation. It is obviously a normalisation that is going to take many years. If we continue to go at the pace the Bank has set, it is going to take around about 10 years to unwind all the QE. A lot of bumps on the road will take place in that period, which means that process will be disrupted.

When I was on the Bank of England's Monetary Policy Committee, and since then, I came to the conclusion that the use of QE policies and their impact is very contextual: it depends on what else is happening in the economy at the time. In 2009, what Gerard Lyons described as the good QE episode, the launch of QE helped financial market confidence and helped to stabilise the economy because it was a dramatic move. It was something the Bank of England had not done before. As time went by, we had subsequent rounds of QE in the euro crisis, with Brexit and with the pandemic. That potency has been lost.

Q20 **Anne Marie Morris:** That is very helpful, Dr Sentance. I am very conscious that the Chair is going to want me to wind up shortly. I just have one question. I am afraid this is back to you, Dr Lyons. You talked about quantitative easing having three distinct phases. We had the good, the okay and then the bad. Do we risk doing the same thing in terms of tightening? From what you have seen in terms of what we have done and indeed what has happened overseas, is there a risk that the same comment could be made if more work is not done on looking at exactly why we are doing this and measuring the impacts on the different macroeconomic drivers?

Dr Lyons: In terms of the immediate situation now, Dr Sentance touched on the very important point earlier about the lag involved in monetary policy. If we were to have sat here 10 or 20 years ago, we would have taken it as a given that monetary policy works with what was called a long and variable lag. It was usually seen to be 18 to 24 months, so you need to be looking ahead.

We now have a situation where central banks often seem to react to coincident indicators. The latest economic figure almost forces them to act and to tighten. That is a danger because we have had a considerable degree of monetary policy tightening in the last year and a half. To reinforce the point I made around two wrongs not making a right, in my view it was clear that the Bank of England was wrong.

That is not just hindsight. As I said, one should give them some slack when the pandemic hit, but it became very clear that it was a supply-side shock of a completely different nature to the demand shock we saw in 2008, and therefore the policy response in 2008 was not appropriate for now. They should have responded. There is nothing wrong with changing your behaviour if conditions suggest it. They should have learned on the job, so to speak, that this was what they were supposed to do, but they did not.

The danger is that we now have the lagged impact of that policy timing. Inflation has peaked. We do not know yet where inflation will settle so we cannot assume it will naturally return to the target. As Mervyn King, the former Governor, used to say, the assumption was we would return to the target. In the early 1990s, I was amongst a small group of economists who thought we were moving from medium-to-high inflation to low inflation. What was noticeable then was that the market always kept thinking we were going to go back to where we had been before. Likewise, the same situation happened in the 1970s when we went from low to high inflation. The expectation probably was that we would go back to where we were before.

The expectation at the moment is probably that we would go back to 2%, but that is by no means clear-cut. That being said, inflation, on any projection, if one looks at the Bank's projection and others, will undershoot its target in the next year or two years. That does not justify excessive tightening now.

The danger, of course, is that, because central banks have proved they were too lax two years ago, they may err on the side of too much caution now and therefore overshoot with policy tightening. I would not have hiked rates recently, and I certainly would be thinking twice about the QT process, given the scale of bond issuance already hitting the market.

Q21 **Dame Angela Eagle:** Maturities have shortened because of the way all of this has been handled. Professor Chadha, what implications are there for the very consequential changes to the maturity of the debt that the UK now has, especially in the context of us being out of the EU and in a very different context to the one that we had when the financial crisis struck?

Professor Chadha: Simply speaking, the direct consequence is that, as policy rates are being normalised and the costs of Government funding are rising, that is increasing much more quickly the cost of debt service. The good news is that, compared to the historical norm, debt service costs are anticipated to be in the region of 3% of GDP even at the elevated debt levels that we have heard about.

Q22 **Dame Angela Eagle:** Is that because you expect interest rates to be always lower than they were before the financial crisis?

Professor Chadha: There is a view, as we have heard already, that, if we look at where real interest rates will clear the market for savings and we add in the inflation target, we are going to end up at something like 2% to 3% in the norm. Providing there is a fiscal consolidation in place, the normal process of the increase in nominal GDP will itself bring down the debt-to-GDP ratio, which over time will reduce the level of debt service. That is why most of us would argue for some process by which debt to GDP is brought down slowly over time, enabling us therefore to deal with future shocks.

Q23 **Dame Angela Eagle:** Dr Sentance, do you have largely that analysis of it? Do you think that, because things have changed structurally, we might actually be in a better position in real terms than perhaps we were with the longer-maturity debt?

Dr Sentance: I would take issue with the view that came out of Jackson Hole that somehow we knew that the R-star, the real interest rate, was 0% to 0.5%. You have to remember that central banks did not anticipate the big reduction in the interest rate that happened after the global financial crisis. For them to prophesise and predict that that is somehow going to be the case is a very brave call and not necessarily the right one.

We have moved into a range of interest rates that is now 4% to 5%, 4.25% precisely. That is the range that interest rates were in for a lot of the period before the global financial crisis. My expectation would be that we stick around that level, even when inflation comes down, because the process of inflation coming down is going to still be quite prolonged, in my opinion. Some of the forecasts around at the moment are a little too optimistic.

Q24 **Dame Angela Eagle:** When it started, QE was quite a novel thing to do and it has then been persistently used. There are varying thoughts among all of you on the panel today about whether that was used well all the way through. Do you think that central bankers across the world got rather used to using it because it was another lever that they had not really understood was there, because of interest rates being so low, and they got a bit too interested in using it? What do you think that the implications of that have been for the financial system, particularly how banks react and the kinds of portfolios that they hold?

Dr Neiss: My sense is very much that, when central banks first started using QE after the global financial crisis, the consensus view at the time was that this was an extraordinary event. It was a one-off event.

Dame Angela Eagle: Of course it was not.

Dr Neiss: It was not likely to be repeated. Then we found that the Bank of England carried out QE during the European sovereign debt crisis a few years later, then again during Brexit and then of course in the pandemic, so it was four times in a 10-year period. The reason for that, as we have discussed, the nub of the issue, is that the view is that the long-term real interest rate has fallen. Therefore, bank rate cannot be lowered substantially further. It has hit its effective lower bound in order to support the economy and to get inflation back to target.

There is a huge uncertainty around this measure. It seems sensible, given the experience of the last decade or so, to plan for the eventuality that we might need to use QE again. It was very effective in supporting the UK economy and supporting inflation. That is the key motivation and rationale for doing QT, but that too, as we have discussed, is hugely uncertain. Central bankers, including the Bank of England, have been very upfront that we have limited lived experience doing QT. The bottom line is that we really do not know what the impact is going to be.

Q25 **Dame Angela Eagle:** Given that we are embarking on QT and we now have experience of QE, what do you think that the central banks should be looking for when they are trying to assess how safely you can do QT?

Dr Neiss: My view is that it is important not to let that uncertainty paralyse one from acting but to build it into the framework. Central banks have done this by signalling well in advance their plans about what they want to do with regards to managing their balance sheet, to do that very gradually, predictably, but also to build in a degree of flexibility for unforeseen events.

It is early days, but so far the market has absorbed these changes in central bank balance sheet management. There is a marginal buyer for these bonds. Central banks carry out market intelligence. The Bank of England, the Fed and the ECB carry out surveys of market participants, asking them around their expectations for the pace of shrinking the balance sheet—that is broadly in line with the central banks' plans—and around the overall pace.

All three of the central banks are roughly shrinking their balance sheet at a similar pace. The Fed is doing it a little bit faster, at a rate of 4% of GDP over 12 months. The ECB is doing it a little bit slower at 2% and the Bank of England is around 3%. The key thing for the Bank is to continue to monitor and assess in real time that, while QT is probably not neutral and so is pushing in the same direction as higher bank rate—that is not a bad thing; it is supporting the tightening process—it is not the marginal tool. It is contributing probably 10 or 20 basis points set against an over 400-basis-point rise in bank rate.

Professor Chadha: I very much agree with Katharine's points there. The first thing you have to do is to try to understand where and when QE had an impact. When did it matter that we moved bonds from the non-bank private sector? As Andrew hinted, it was at times of great stress. The technical language is that it was state-contingent. There are times when it matters, when markets are under stress, when we are issuing a lot of debt. Markets cannot absorb that debt and prices would fall more than otherwise were there not a QE injection.

If the point is that it is state-contingent, the reverse of that policy, quantitative tightening or quantitative normalisation, would be more likely to have an impact on markets when they are themselves at points of stress. There are points when there is ample liquidity. As Katharine says, markets understand the conditions under which bank rate will be changed. There is a good understanding of the path, or the likely path. It is unlikely to have a large impact on bond prices because it is done at a time where there is no stress.

If there is stress, there are two tools at the Bank of England's disposal. Marginal demand in the economy, now interest rates are where they are, is set by bank rate. Were something to happen to market and financial conditions, through either some shock to the bond markets or something else, that could be responded to with bank rate.

Q26 **Dame Angela Eagle:** Of course, there is more leeway now since interest rates are higher.

Professor Chadha: Exactly, yes. Secondly, if there is a liquidity problem, that can also be solved with injections of liquidity. We have seen that happen very recently, as I have already mentioned, with the episode of making the Bank the market-maker of last resort, but also by providing extensive central Bank swap lines for liquidity as well. The point is that it does not have to have anything like the impact that we think QE had.

Q27 **Dame Angela Eagle:** As the interest rates are not at the lower bound, you have a more traditional tool as a central banker to use from that point of view. Do you think that QE or QT played any role in the outbreak of the LDI crisis? I am trying to get a handle on what institutions have been doing and what assumptions they have been making about the presence of QE, because the rates were so low there was a search for yield.

Professor Chadha: Clearly certain institutions whose liabilities were inflated by low levels of interest rates were thinking of mechanisms by which they could deal with their higher level of liabilities. It is also clear that some institutions did not position themselves for a normalisation of interest rates.

Some of the stress tests that were implemented were suggestive of changes in interest rates that were very small compared to the extent of the interest rate changes that we have seen. I was surprised to see how small some of those stress tests were, in terms of the basis point change in interest rates. As a structural point, that is in place. What was also clear is that the proximate cause of the LDI crisis was this incredibly rapid revision of bank rate following an announcement of policy that would inject a huge amount of demand into an already inflationary economy.

Q28 **Dame Angela Eagle:** Essentially, it was also an incompetent mini-Budget.

Professor Chadha: I did not want to use that language. I was just saying the announcement of a policy—

Q29 **Dame Angela Eagle:** I will call it what it was. To that extent, so long as the Government do not blunder like that again, we can do QT.

Professor Chadha: There are lessons to be learned, which we have hinted at here. If we are going to start new types of policy, it is incredibly important to discuss it with the monetary authorities, the Treasury, the Bank of England and the OBR, and get an idea of what is feasible and what the market is going to accept. That is also important in the QT process that we have not talked about. That might be more market notices from the DMO, explaining the market conditions at the moment and what is feasible. That might be an interesting avenue for more public dialogue on these issues than we have had in the recent past. That is the lesson there.

Q30 **Siobhain McDonagh:** I want to look at the issues of inequalities driven by quantitative easing. There is a view that it increased property prices for those who have their forever home or buy-to-let landlords at the expense of first-time buyers and people who currently privately rent. Is that a fair assessment?

Professor Chadha: Following the financial crisis, we had an extended period of very low interest rates. Normally, monetary policy operates with high frequency movements around some long-term average rate we understand, so interest rates go up a bit and down a bit, but we kind of know that they are going to be at some level. This secular decline over a generation was entirely new.

It is reasonably clear to take the view that that had a role in inflating asset prices, equity prices and house prices around the world and in the UK, for example. It is difficult to know what it means, but the average house price practically doubled over the period up to 2020 from 2008 onwards, very broadly speaking.

Monetary policymakers would argue that we had to do whatever we could to support the level of nominal demand in the economy, so that inflation hit its inflation target. Let us not forget, prior to the current inflation shock we are suffering, the MPC of the Bank of England exactly hit its inflation target over the 25 years from the inception of the Monetary Policy Committee all the way through to May 2022.

The interest rates managed to achieve an appropriate level of nominal demand to hit its inflation target. We avoided a much deeper recession than we otherwise would have had. We maintained full employment as well at that time, but that level of nominal demand was achieved by this increase, a worrying increase, in wealth inequality.

The best way to deal with increases in income inequality is going to be the creation of, as we have talked about at this Committee before, higher-value jobs around the country and internationally competitive firms, with agglomeration effects that will lead to working people with the kinds of jobs that give them the level of income that will allow them to build up savings and assets.

One problem that we have, as a result of the low incomes that we have seen in the bottom half of the distribution, is that many households are finding themselves without any savings now, with an inability to build up assets that will mean that wealth inequality is reduced in the future. We are living in a very odd world at the moment. Ultimately, that is an issue for other parts of economic policy than monetary policy.

Q31 **Siobhain McDonagh:** One statistic that I have read suggests that the richest 10% of households benefited by £350,000 during the first round of QE after the financial crash, which is 100 times more than it benefited those at the poorest end.

Dr Lyons: I have not seen that research. In qualitative terms, that is right. There is no doubt that QE itself added to asset price inflation. You mentioned property prices. There are lots of other factors there. The interesting aspect about your question is that often, when we have a debate about property, it is about demand and supply. Naturally, that is very important.

What is important about this question is that it highlights the important role of finance in terms of the property sector and access to finance. One can see it in a different respect in terms of loan-to-value ratios, often put in terms of what people can borrow, and other aspects about that. We do not talk, in my mind, enough about the financial aspects that impact the property market. In the property sector itself, I have done some work for Policy Exchange on this about the need for blended mortgages to allow people to have access in an uncomplex way to be able to buy property.

In terms of your direct question, in qualitative terms it will add to inequality, because those who hold assets will benefit the most. The pushback immediately is that, naturally, those people are, through their pension funds, invested in the market, but you tend to only see that in a very passive way later on. Quantitatively, it is difficult to say. I agree with Dr Chadha's point about the need to generate jobs across the country.

On a slight tangent as well, in the past there often used to be the debate about monetary policy's role in the wider economy in the regional aspect. I do not think that we have that debate enough at the moment actually, on how it plays out across the country.

Dr Neiss: Building on those two comments, it is important to step back and remind ourselves that monetary policy always has distributional impacts. When we adjust bank rate, that benefits savers, but it makes it more costly for borrowers. Monetary policy is a very blunt instrument whose objective is to support or pull the economy in order to achieve price stability. Any distributional consequences end up being a by-product. They are not the aim of the policy itself.

In this case, if society agrees that this by-product is unacceptable, it is really the fiscal authority than can run a complementary policy. It is the fiscal authority that is mandated to actively shift resources from one set of people to another.

On QE specifically, like traditional monetary policy, it too will have distributional consequences. We have talked about the impact on house prices. Here, my view is that it is important, when thinking about the impact of QE on inequality, to think about it in the round. In particular, it is important to ask, "What would have been the counterfactual if QE had not been carried out?" on the view that QE was effective, it supported the economy and therefore, as Professor Chadha has said, supported the UK labour market.

All economies, including the UK, had a very challenging period in the decade after the GFC. One real bright spot for the UK that outshone other economies is that unemployment was trend declining and participation was going up. That means that more people were entering the labour market and more people were getting employment.

What if that had not been the case? There are two things that we know from the labour market academic literature. First, in economic downturns, it is lower-skilled people at lower ends of the income distribution who are far more likely to lose their jobs. The distributional impact of downturns is very much skewed towards the lower-skilled and lower-income.

The second thing is that, although we did not know it back in 2008 and 2009, we ended up in a very long period where so much extraordinary support was required. That would suggest that, had that support not been there, those individuals who had lost their job would have been out of work for an extended period of time. Again, there is ample evidence to show that there is real scarring for individuals if they are out of the labour market for an extended period of time. It becomes very difficult for them to find a job, even once the economy begins to recover. When we are thinking about QE and inequality, we need to be mindful that, in its absence, it would have likely had a very significant distributional impact that would have been very much skewed towards lower-income, lower-skilled individuals.

Q32 **Siobhain McDonagh:** Maybe what you are saying is that whatever policy you have always benefits those who have.

Dr Neiss: Fiscal needs to be a complementary policy.

Professor Chadha: It is fiscal policy that needs to decide level of tax and redistribution and the extent to which public investment can promote good jobs around the country, as Gerard was saying. That has been a problem, but we have discussed this at this Committee before.

Dr Sentance: I agree with the view that it is very difficult for monetary policy to address the inequality issue on its own. Therefore, we need fiscal policies that might correct for some of the things we are talking about.

It is worth noting, in the context of the UK, that these big swings have happened in terms of wealth and asset values. We have not had a thoroughgoing look at the way in which we tax wealth and assets for a long time in this country. In fact, we have not had any serious tax reform for a long time in this country. That is the area that we should be looking at. The other point is that, while we can see that some inequalities might have built up due to the combination of QE and very low interest rates, I am not sure that QT is going to unwind that.

Siobhain McDonagh: That is my next question.

Dr Sentance: That is mainly because I do not think that it is being done on a sufficient scale to really have an impact. I contrasted at the beginning of this session the rate at which we launched QE and expanded the Bank's balance sheet. We are not contracting it at anything like that rate and therefore we should not expect to see dramatic changes in asset values. That is possibly an argument for going cautiously, but that argument needs to be tested against what we can see happening to inflation at the moment.

Dr Lyons: I agree with what has been said. An important point is, given the context in which we are talking about QE and QT today, the time periods are very interesting. Prior to the 2008 global financial crisis, the trend rate of growth in the UK was probably around 2.4%. There is a difference of opinion about it among economists at the moment, but most people would say that it is probably 1.4% or so. The economy before 2008 probably doubled in size every 32 years. Now it doubles in size every 64 to 70 years.

A pro-growth agenda has been talked about, but monetary policy cannot do it all by itself. Indeed, if it gets it wrong, it exacerbates the inflation picture, which is the biggest problem in terms of the distributional aspect and hitting those on low incomes.

Q33 **Siobhain McDonagh:** Anne Marie made the point that quantitative tightening is not necessarily the opposite of quantitative easing. We cannot anticipate that people who benefited in terms of their homes and their assets will see a consequent reduction in their value. Is that the case?

Dr Lyons: Yes. It is untried and untested, so we do not know, but it is a good assumption to make.

Professor Chadha: I will pick up one point that I think Gerard talked about earlier on. There is the zombie firm problem, and that of course is the world in which firms that otherwise ought to have exited are still in place because they are able to service their debts at low interest rates, so the capital and labour that they have is contained within firms that have low levels of productivity and investment. If the higher interest rates help that churn of those firms to more productive sectors and people with better ideas who are able to service those high levels of debt, that itself might help regenerate growth in the economy to some extent.

Dr Lyons: I completely agree with Professor Chadha. There is one point on top of that. We often do not spend enough time looking at the regulatory environment. Banks are effectively incentivised to do two things because of the Basel requirements: to buy Government debt and to lend to the property sector. That reinforces the point made. We need not only proper price signals but also the role of the financial sector.

The Financial Stability Board spends a lot of time talking about what used to be called shadowing banking but is now called non-bank financial institutions—so more acceptable, shall we say. They are starting to play a bigger role in terms of lending. In the UK, we have a whole host of issues and funding gaps, not just in terms of the banks but funding gaps for small productive firms or potentially productive firms. This whole area becomes interlinked. When you have low interest rates, you do not have the price signals because it is the price of money.

Q34 **Rushanara Ali:** I have questions about fiscal impact of QE and QT as well as the proposals to reduce fiscal costs. We know that the earlier QE is likely to have been more profitable than the latter rounds, by some estimates of about £120 billion, to the Treasury. The Bank is now making losses on its QE programme, and obviously it is going to have an impact on the Treasury. The latest projections are about £20 billion to £30 billion in the next few years, exceeding those earlier profits.

Has QE proved to be excessively costly relative to the benefits to the economy? It would be helpful to know from each of you whether you think that overall, notwithstanding all the pros and cons that you have spent the last period talking through, it has been beneficial to the economy. I am going to need quickfire answers, I am afraid.

Dr Sentance: We should not be too preoccupied with these fiscal costs. The Bank was explicitly indemnified from the costs of its QE programme by the Treasury. As you have described, it has been a period of swings and roundabouts. More recently, people have been talking about losses, but previously they were talking about profit. I have lost track of exactly where we are over the long period where we have had these QE policies. Probably, it is coming out much more neutral over the longer period.

Q35 **Rushanara Ali:** On balance, you would say that it has been beneficial to the economy. You would say that, yes, the benefits to the economy outweigh the more recent—

Dr Sentance: In terms of the earlier QE, definitely, yes.

Q36 **Rushanara Ali:** We need to take it in the round in terms of costs. If you took it in the round and swings and roundabouts—

Dr Sentance: I was talking about the fiscal cost. Taking it in the round, I have not done a detailed calculation, but I think that the fiscal cost is much more neutral than some of the figures that are being bandied around at the moment.

Dr Neiss: We should judge QE on what it was intended to do, which was to support the economy and keep inflation at target. As Professor Chadha said, inflation has averaged pretty close to 2% since independence. I would agree with Dr Sentance that we cannot focus narrowly on the profit and loss of these flows. We need to think about the impact of the fiscal, again more widely.

If QE supported the real economy, which I think the body of evidence shows, that too would have been beneficial for the Government. It means that people were in work, paying taxes. People feel confident to go out and buy. Companies remain viable. All that is very positive for tax revenues. It also lowered interest rates, which of course lowered the interest on Government debt. If we are thinking about the cost, we cannot focus narrowly on the loss but the wider fiscal impact.

Professor Chadha: In the first stage, the mark-to-market profit for the APF, as of February 2022, was just slightly under £100 billion. By February 2022, when we look at the net worth, it was negative £22 billion to £23 billion. We now know that it has a lifetime loss, as of November 2022, of around £25 billion.

Our own estimate suggests that, over the lifetime of the APF, if we take from when it was started in 2009 up to about 2033, the likely net cashflow deficit will be something in the region of £50 billion to £200 billion. That is a very broad range. Let us say that in terms of 3% to 7% of GDP is the net cost. We weigh that against the advantage in terms of GDP tax revenues and employment. It still sounds like it is in the money. It sounds like it has been a useful exercise to have avoided a much worse recession than otherwise.

Q37 **Rushanara Ali:** Has it been a useful exercise?

Dr Lyons: I would echo what I said at the beginning: good, unnecessary, bad. The first phase of QE was good for the economy.

Q38 **Rushanara Ali:** My question was if you took it in the round.

Dr Lyons: No. The scale of the QE in the last phase was significant. As Professor Chadha touched on, the fiscal cost has also become significant.

Q39 **Rushanara Ali:** Following on from that, was it a mistake to not put any obligation on the Bank to consider value for money in its QE and QT programmes?

Dr Neiss: The aim of QE was to stabilise the economy and bring inflation back to target. That is the Bank of England’s remit.

One other thing I want to say is that there are different cashflow arrangements and there are effectively three different ways you can do it. The central bank can build up a buffer of profits in expectation and, when it gets a period of a loss, use those profits to write it down. It can pass on those profits to the Treasury and then, when it makes a loss, mark it down. That is what the Fed does. The ECB does the first thing I mentioned. You can do the third approach, which is what happens here in the UK, which is that all profits go to the Treasury and when there is a loss you get a reverse flow.

From the Government consolidated budget perspective, they are essentially equivalent. The difference is in the flow of transfer to the fiscal authority. In that case, it is important to ask the question of whether there is a pro or a con to the three different ways of doing it. The benefit, in the case of the UK, is often seen to be one of transparency. It makes very clear that the Bank of England is wholly owned by the Treasury, backstopped by the UK taxpayer. Set against that, the ECB and the Fed approach offers them more financial independence and in that sense can perhaps enhance their credibility around operational independence.

Professor Chadha: I think that there is work showing that the way the Debt Management Office operated the reverse auctions turned out to be more expensive than it might otherwise have been. It is not a question for the Bank. It is a question of how the auctions were actually managed. It seems to me that we paid more than we might have done when we bought the bonds. That might be worthy of examination by this Committee.

Dr Sentance: We have to be very careful about putting too many objectives on the Bank of England. Its general remit is to keep price stability. It obviously needs to look in that context at the general state of the economy. I am not sure that starting to add fiscal objectives of keeping down the cost of some operation is going to help very much. It is going to muddy the waters when it comes to assessing the right monetary policy.

Q40 **Rushanara Ali:** Actually, it was probably the right thing to do. You are saying that, on balance, not having this value-for-money provision was the right thing to do.

Dr Sentance: We launched QE when I was on the committee and it seemed a very sensible thing for the Treasury to indemnify the Bank.

Q41 **Rushanara Ali:** You were proven right in terms of low interest rates. It is the more recent period, is it not? Given the inflationary pressures and the external unforeseen points that you made and others are fully aware of, this has become more of an issue. You mentioned the Fed in holding losses for QE on its balance sheet as a deferred asset. Would any of you consider that to be something that the UK should be doing?

Professor Chadha: Unlike the Fed, we do not retain seigniorage receipts here. We pass them over to the Treasury so the Bank does not have that kind of process in place. I personally would have preferred the APF to be treated as a separate vehicle and not have remitted profits, as it were, in real time, so we could have examined the whole of the process at the end, but we can decouple it.

We can look exactly at the reports from the APF and see what has happened, but it artificially made the fiscal position look better than it was in the period it was remitting surpluses and will now make it look worse than it otherwise might be, because we are in a world of losses. It would have been better kept as a separate vehicle.

Dr Lyons: I agree with the comments that have been made, so I do not want to repeat them. I was indeed going to make Dr Neiss's comment myself. Where we stand at the moment, the interesting issue—it has been the debate since last autumn—is how you now proceed from here. What do you do with the banks? Do you still pay them base rate on the reserves they have at the Bank of England? That is where the debate is. That will heavily dictate or determine the fiscal cost in terms of the numbers in the future.

There are four options. One is that you continue with the status quo, so you pay a base rate to the banks' reserves, and their reserves are going to remain sizeable for some time, so that it a loss to the taxpayer, so to speak.

Q42 **Rushanara Ali:** In the current context, with high interest rates.

Dr Lyons: Yes, in the current context with high interest rates. Interest rates, yes, are likely to be there for some time. Secondly, you pay zero interest to the banks. The banks themselves would argue that that is a tax on the banks. Also, at some stage, bank reserves will need to be kept there to meet their payment obligations and, broadly, their liquidity needs.

That leads on to the third option, which is that you could have a tiered system. You pay them on the base reserves or whatever you want to call those core reserves they have and a tiered system for the excess reserves.

The fourth proposal was put forward by the national institute, Bill Allen, who used to be at the Bank. It was basically compulsory exchange for new issued debt. The time has probably been missed for that in some respects.

Q43 **Rushanara Ali:** You have neatly summarised the different options, which is very helpful, because my questions were about which ones each of you would suggest, if any, the three reforms, or leaving it as it is. What is your view? Do you have a view on which one of these three we should do, or whether we should do nothing?

Dr Lyons: In the past, the Bank of England, with its funding for lending scheme, had a policy where it charged the lower rate to the banks if they lent more to certain sectors of the real economy.

Q44 **Rushanara Ali:** We saw how, during the pandemic, they had to give a complete guarantee before it really happened—especially for SMEs, which this Committee had to push the Government to do more on.

Dr Lyons: In answer to your question, in my view you either stick as you are or you have a tiered system.

Q45 **Rushanara Ali:** You have your proposal. Some have said that that could pose a risk to financial stability.

Professor Chadha: We have not talked about historical examples, and I will do that very briefly. After both World War I and World War II, we had high levels of debt, in fact higher than we have now, but also a preponderance of short-term debt. In a sense, that is what the QE process was. In 1932, we had a large war loan conversion, which was some 50% of GDP. In 1951, in November, there was a conversion of debt for the banks to hold short-term paper instead of short-term debt.

Both of those were very short-run operations that reprofiled the level of debt. That was the nature of the proposal that we put forward a year or so ago. At that time, bank rate was at 0.1% and reprofiling some of the reserves into short-term paper would have saved the Exchequer a huge amount of money. Anyway, as Gerard has said, that moment has gone, so let us just take that as something that we suggested.

Q46 **Rushanara Ali:** Given that has gone, do you have any other preferences out of the other options?

Professor Chadha: I see the QE process as having told the banks that they would be paid bank rate on reserves until QE has been decommissioned. We have to think about what the steady-state level of reserves or size of the Bank of England balance sheet would be. I do not have enough granular evidence to say that it is going to be at 2% or 3%. Let us say it is 5% and take a view that we will continue to pay bank rate on reserves until we get down to that level, then, once we are at that level, reconsider the operating procedures, which might go to a tiered system or some other view that, if banks really value liquidity, they could even be paid less than bank rate on reserves.

Ultimately, that is an operating procedure that the Bank of England has to think through. If it is a change of operating procedure, I would rather do it when we have got to the appropriate level of reserves, once we decommission QE, not in the middle of a decommissioning exercise. I think that would be seen as some form of something approaching a default.

Dr Neiss: I am afraid that I do not know enough of the details to have a view about which approach I would advocate. However, it is through managing its balance sheet that the Bank of England achieves its price stability and financial stability objectives. On the asset side, we talked about buying long-term bonds to reduce financial conditions, support the economy and bring inflation back to target.

Also, on the liability side, having large amounts of cash reserves enables commercial banks to have access to liquidity during periods of stress or unforeseen events, which helps to support financial stability. Any course of action or proposal that is considered would need to think very carefully about how it impacts on the ability of the central bank to meet its objectives.

Q47 **Rushanara Ali:** Dr Sentance, could you answer that question of what your approach would be? Also, given your Bank of England background, are there costs to credibility of the Bank or the Government for changing the rules of the game on the APF now?

Dr Sentance: That is one of the key issues. We have moved into a period where the banks get higher interest rates on their reserves, but they went through a long period when they hardly got anything. I do not think it is very good for credibility if we change the rules halfway through the process. As Professor Chadha says, we need to allow a large part of the QE to unwind before we address this.

I do not have any strong views on the APF specifically. The arrangements that we have had for QE have served us reasonably well in the period when it has been deployed, even though some of us might have taken a different policy judgment and not had so much of the QE. Changing the technicalities and the rules around it is not justified at this stage.

Q48 **Rushanara Ali:** It has been used many times when, at the beginning, during the financial crisis, we might have considered it as an unusual step. It is becoming much more of a norm, four times in a decade with potential future shocks. We have seen how conflict has already had a knock-on effect in energy prices. Climate could pose the next big shock. There are still concerns about future pandemics, and all sorts of potential shocks where we may need to use QE.

Given what has happened with high interest rates and its impacts and costs, do you think that this is the right time to reform? It served us well, particularly in the low-interest era, but is this absolutely the right time to reform and think through, in terms of future proofing how QE is deployed, so that it does not bear such high costs as we are beginning to see now?

Dr Sentance: We have to have a rationale for doing whatever we decide to do. I am struggling to see what the rationale would be at the moment for making changes in this area.

Q49 **Rushanara Ali:** Only insofar as answering these questions about how an alternative approach might be deployed to mitigate against large costs that we are beginning to see. It is not necessarily for here and now but, if it is something that continues to be used, what can we learn from what has been done previously? How do we improve on it? That is all.

Dr Sentance: The figures that Professor Chadha quoted seemed to be quite reasonable to me. They were not outlandish—10%, 20% or 30% of GDP. We have to accept that, if we are going to use QE policies, there may be some cost. That is part and parcel of the policy.

Q50 **Rushanara Ali:** Would others agree with that? There is no need to change anything. There is no need to reform for futureproofing, given how it has been used over the last 10 years. It is roughly okay. It is roughly about right.

Dr Neiss: These losses that have happened in the recent period are not surprising and indeed were very much anticipated by the Bank of England. We are seeing these losses in other central banks. All of them have been quite open and transparent about these losses. I would agree that the optics might not be very good for changing the framework, on the basis of something that was well-anticipated, at this time.

It always struck me that what the Bank of Canada does is very sensible, not looking narrowly at QT but at monetary policy frameworks overall. They regularise these. They are calendar-based, every five or seven years, something like that. That takes a lot of the political heat out of it, but it ensures that the framework is adapted and updated, given the huge shifts and changes that are happening in the economy. It needs to be done in a way that has a wider rationale and does not look like it is responding to something that was probably well anticipated in advance.

Professor Chadha: We have fleshed out the rulebook. If there is a large enough shock, such that we hit the zero lower bound, that is the time we want to reignite QE. At that time, we need to be careful not to overdo it and return to just using it in moments of stress, and look to get out of it more quickly. That would be the other thing we need to think very carefully about.

Q51 **Rushanara Ali:** Is that even if interest rates are very high and it could be costly?

Professor Chadha: If we are doing it at zero interest rates—

Rushanara Ali: Again, it would depend on cost.

Professor Chadha: I think that there is a side question about whether we should only be buying long-term paper, or whether there is any merit in buying five or shorter-term paper as well. In a sense, it is congruent to short-term interest rate expectations. Should it always be to long-term paper? That is an open question. I do not know what the answer is. We have a rulebook that is, if not completely written, mostly written about what you need to do.

Dr Lyons: There are lots of lessons. You have touched on the fiscal side, but there are other lessons on the non-fiscal side that we need to take on board.

Dr Chadha touched on the buying of corporate bonds. I do not think that that has been examined enough. I did not see the justification for the proactive stance the Bank of England took in the corporate bond markets. The Bank of Japan admittedly buys equities, but it does it through ETFs, so it is very passive and outsourced to a third party. We had the Bank actually intervening in different sectors.

Given that the Bank also now has a subsidiary objective in terms of the green agenda, i.e. the green agenda should be centre stage in everything it is thinking about, that naturally has consequences in terms of the future approach. Maybe, if we are to go down that route, it needs to be passive, not active, in terms of the distorting impact it might have across the economy in terms of what we have had in the past.

We need to think through other lessons. Also, in terms of monetary policy, there is the role of taking a view of monetary growth, bank lending and broader conditions. We have touched on these earlier, so I do not need to repeat them.

When we embark upon a policy, maybe one of the lessons from this is that we need to think about the longer-term consequences if that policy almost goes on autopilot. There is the scale of QE and the balance sheet and how big a holder the Bank now is of UK Government debt. A third of national debt that is held by the Bank of England. Surely no one at the beginning of the process would have thought that that was a sensible approach to be taking.

Q52 **Andrea Leadsom:** I wanted to challenge all of you on your general view, it appears to me, that this is fine because this was all saving the economy. There is not another Whitehall Department in which you could effectively take a monetary or any sort of investment or asset of a third of the UK's economy and be completely unaccountable. Here we have a policy where no one is accountable for any losses, whether they are technical and operational or whether they are because it was a stupid policy to keep doing QE in the latter stages. There is a total lack of accountability and even transparency, because nobody is even deigning to assess what the financial impact actually was.

Are you all seriously saying that this is so exceptional? You might argue that the NHS should have unlimited amounts of money because, "What price human life?" This is effectively what you are saying when monetary policy is concerned. How can you justify that?

Dr Sentance: I am not sure that I was saying that. Other people can speak for themselves. There was too much QE. It went on for too long.

Q53 **Andrea Leadsom:** Yes, I know that you have all said it was too much, it should have been this and it should have been that, but none of you is saying that there should be some sort of financial accountability to the taxpayer. All you have all said is, "Oh well, the Treasury indemnified the Bank so that is fine", but of course the Treasury only has taxpayers' money. Whether there is or is not a loss incurred matters. Professor Chadha pointed out that it should have been kept in escrow so we could at least have seen whether there was a profit or loss overall. You are all saying that it really does not matter: "Feel the quality of this fabric. It does not really matter what it costs".

Professor Chadha: Let me be clear: I have been concerned about the losses on the APF for a number of years, concerned more than anything because I was worried for a long time that it might seem to be undermining central bank independence. There was a concern at the back of my mind that, "If the central bank is seen to be making losses, will that in any way affect its decision-making?" I am not telling you that I have an answer to that today, but it has been a concern of mine for a long time. We also need to remember that the Monetary Policy Committee has a duty, under the Bank of England Act, to pursue interest rate policies in order to hit the inflation target. When we hit the zero lower bound, we have to think of other policies that would help us achieve that. By and large, that was undertaken.

Under the Bank of England Act, it is setting the level of quantitative easing. That is then signed off by the Chancellor and approved before it is carried out. It is not something that the Bank of England does without having that amount signed off.

Q54 **Andrea Leadsom:** Yes, but we all know that this is a nod and a wink. That would be extraordinary for the Chancellor to say no.

Professor Chadha: I am not sure that I would be able to say that particularly. As far as I understand from discussions with all kinds of people involved in these decisions, these decisions are not taken easily. As I said, the Treasury and the Chancellor had to sign off on any amount of quantitative easing that was undertaken, on the understanding that it was necessary in order for the Bank to hit its inflation target.

While it is absolutely right that we need to keep a careful track of the actual fiscal costs of these measures, what must be set aside on the other side of the balance sheet is the extent to which it helped stabilise an economy that I have to tell you, in my view, was teetering on the edge after the collapse of Lehman Brothers in 2008. It avoided what might have been a catastrophic downturn in the economy at the time.

Q55 **Chair:** I am going to add one last theme to the questions. We have talked about the Bank of England's balance sheet losing money as a result of switch to QT and of course the indemnity. We have also been in an environment where we have seen bank failure in the United States. I wondered whether the state that we are currently in—one of tightening quantitatively—can be linked in any way to the bank failure that we have seen and the wobble, particularly in US regional banks. Does anyone want to say that there is a connection?

Dr Lyons: The big issue is what Professor Chadha called quantitative or policy normalisation at the beginning. The end of the cheap money is exposing all sorts of problems across the globe. It is hitting areas where people had not anticipated interest rates going up, hitting areas where there has been a mismatch between assets and liabilities and hitting overleveraged sectors. There was the LDI crisis last autumn here in the UK, the bank problem recently in the States and, if one wanted to, one could even say some developing countries now renegotiating their debts on the belt and road initiative with China. All of this is a reflection that, when you move in cheap money, it has consequences.

Here in the UK, it also highlights that we have a very cosy relationship between the Treasury and the Bank of England. The fact that we are in the Wilson Room is interesting: back in the 1960s, he said that you can be in office but not in power and questioned the authority and power of the Treasury. He argued that it should be split up.

Dame Andrea touched on this is terms of the cosy relationship between the Bank and the Treasury. The Treasury is in charge of every appointment to every committee at the Bank of England. It chairs the meetings. The mandarins recommend who should be Deputy Governors, who should be Governor. All four Deputy Governors now have worked at the Treasury at some time in their career. In terms of accountability, it should be no surprise that the scale of the QE matched the scale of Government borrowing. The markets thought it showed far too cosy a relationship. That accountability should be centre stage.

Chair: They come through here for a pre-appointment hearing quite often.

Dr Lyons: On top of that, QE was wrong in the last phase. A couple of years ago, we did an analysis at Netwealth: which P is it? Is inflation going to pass through, persist or become permanent? It was quite clear in our mind that it was going to persist. Others such as Dr Sentance agreed and were saying likewise at the time. The Bank of England thought that it was going to pass through. It was wrong. It should have corrected its policy mistake. There is nothing wrong with making a mistake, but it is how you respond. The QE therefore exacerbated the problem.

Let us be thankful that hopefully this pick-up in inflation is not going to be permanent because of global factors. Global factors have helped keep inflation around 2% to 2.5% in the last 25 years. They might play a key role in seeing inflation come down. The tightening we have seen over the last year has helped curb inflationary pressures. All these issues come back to the issue about accountability.

On the fiscal one though, even if we had taken a different approach to other countries, at the end of the day the Government—the Treasury—

pick up that fiscal tab from the actions that the central bank takes, however you want to put it in your accounts. It was the QE itself that was the problem.

Dr Sentance: I was going to answer your question, which I think was whether these banking problems are being driven by QE or QT. They seem to be much more isolated than we saw in the global financial crisis. A lot of repair work has been done to make the banking system more robust. What we have seen have been isolated incidents, perhaps aggravated by the move in interest rates, but not necessarily driven by QE or QT.

Dr Neiss: I agree with that assessment. They reflect idiosyncratic risks. One thing that Dr Sentance alluded to is that, post global financial crisis, we saw a huge change in the financial regulatory environment. Across Europe, those regulations are applied broadly consistently across institutions regardless of size. The UK is seen to have gold-plated Basel III. These things are standing Europe in very good stead during this period of stress.

Chair: Thank you very much. You have given us a huge amount of evidence today. Quite a lot of it has been about the period of quantitative easing and looking backwards. The focus of our inquiry is on quantitative tightening and any forward-looking insights on the impacts that quantitative tightening might have on the economy and the institutions we scrutinise on this Committee.

As things evolve, given the wisdom you have shared with us this morning, we would very much welcome your supplementing your oral evidence today with any written points that you want to make about quantitative tightening and those forward-looking impacts on the range of subjects we have raised today. It has been really fascinating. You could clearly all keep us entertained all day with your very excellent evidence, but I am going to draw the oral section of the evidence session to a close and invite you to send in any further points as we go on in writing.