# Quantitative Tightening: the story so far – speech by Dave Ramsden

Given at the Bank of England, organised by the Money Macro and Finance Society

19 July 2023

# Speech

## Quantitative Tightening: the story so far

Thank you very much to the Money Macro and Finance Society for co-hosting this event here at the Bank of England.

My remarks today are going to focus on the Bank of England's experience of quantitative tightening (QT). The Monetary Policy Committee (MPC) set out its strategy for the mix of monetary policy instruments to deliver tighter policy in the August 2021 Monetary Policy Report (MPR), including the key principles that would underpin its approach to QT.[1] Since then, those principles have been put into practice with QT commencing in February 2022, initially through maturities and augmented last autumn with a programme of gilt sales.

In September 2022, the MPC voted to reduce the stock of gilts held in the Asset Purchase Facility (APF) by £80 billion. By the end of September 2023, this will have reduced the size of the total APF by 11.6% when including corporate bond sales. Alongside their decision, the MPC committed to an annual review of the parameters of the QT programme, as part of which it would set the pace for the reduction in the stock of gilts held in the APF for the following twelve months.[2]

The review will inform the MPC's decision on the pace of QT. That decision will be framed by the MPC's key principles; in particular, that QT is not the active tool for monetary policy. The Committee has a preference to use Bank Rate as its active policy tool when adjusting the stance of monetary policy. For me this means that QT should be thought of as operating in the background.

As we near the first such decision point, now is an appropriate time to reiterate the principles underlying our approach to QT, to reflect on what we have learnt so far about the impact of QT on the economy and financial markets and to consider any lessons. Drawing on the work of Bank staff which is feeding into the review, I will offer my perspectives on the future of the programme, including the pace of stock reduction next year. To give my conclusion up front, I see potential to increase slightly the pace of gilt stock reduction.

CPI Inflation at 7.9% in June remains much too high. Since December 2021, the Committee have increased Bank Rate from 0.1% to 5% in order to ensure that inflation returns to the 2% target sustainably in the medium term. I will conclude my remarks with

[1] See **Bank of England Monetary Policy Report August 2021** p12-13
[2] See **Monetary Policy Summary and Minutes of the MPC meeting- August 2022**

some brief thoughts on the outlook for inflation and the potential implications for monetary policy.

QT may be operating in the background in comparison to Bank Rate but it raises important issues and is rightly subject to considerable interest and scrutiny. In telling the story on QT so far, I hope to contribute to the understanding of QT.

## QT in context – the growth of central bank balance sheets globally

To put that QT story in context, it is useful to reflect briefly on the quantitative easing (QE) that preceded it and the resulting scale of central bank balance sheets globally.

Over the course of the past two decades, and especially since the onset of the global financial crisis, QE was an important instrument of monetary policy for central banks, including the Bank of England.[3][4] QE was first launched in the UK in March 2009. With Bank Rate having been cut to its then effective lower bound, the aim of QE was to lower long-term interest rates, in order to boost economic activity and meet the inflation target in the medium term. Over the decade that followed central banks in the UK and other developed markets saw their balance sheets increase significantly in size.

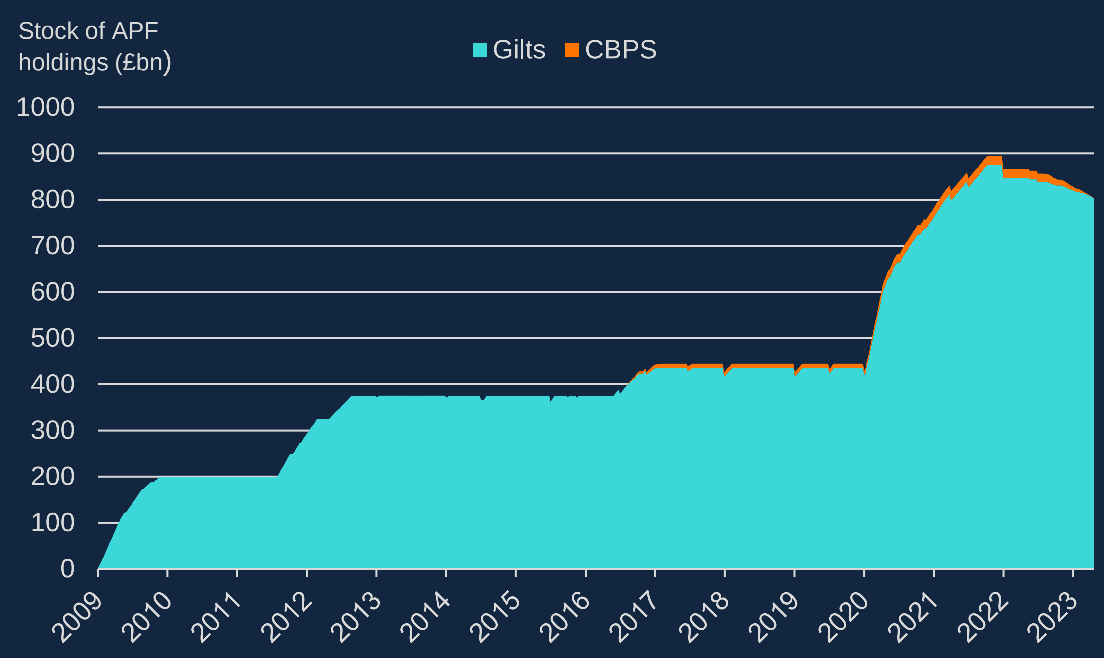
In the UK, the stock of assets held for monetary policy purposes in the Bank's APF peaked at £895 billion towards the end of 2021 (**Chart 1**), following the implementation of further QE in response to the Covid-19 crisis and its aftermath. The vast majority – £875 billion – of these purchases were of UK government debt, amounting to around a third of the total gilts in issue, and of annual UK GDP.  The remainder of the MPC's QE portfolio comprised around £20 billion of UK corporate bonds.[5]

[3] There is a growing body of work assessing the economic impact of QE, to which the Bank has contributed. For a recent summary of QE at the Bank of England, see **QE at the Bank of England: a perspective on its functioning and effectiveness | Bank of England**. The Bank's approach to QE has also be assessed in detail by the Bank's Independent Evaluation Office: **IEO evaluation of the Bank of England's approach to quantitative easing | Bank of England. MPC members have contributed through speeches – Broadbent (2018, 2023), Ramsden (2021), Tenreyro (2023).**

[4] Global central banks also used other tools including the Funding for Lending Scheme and Term Funding Scheme in the UK and the ECB TLTRO.

[5] The Bank's balance sheet is in practice even larger because of the size of drawings under the TFSME, which peaked at £193bn in December 2021.

Chart 1: APF holdings over time




Source: Bank of England

The APF is fully indemnified by HM Treasury, which ensures that monetary policy decisions are not constrained by the potential implications for the Bank's balance sheet. The assets held in the APF generate a range of cash flows, which- alongside interest costs and the gains or losses made at maturity or sale- have driven consequent cash transfers between HMT and the APF.[6]

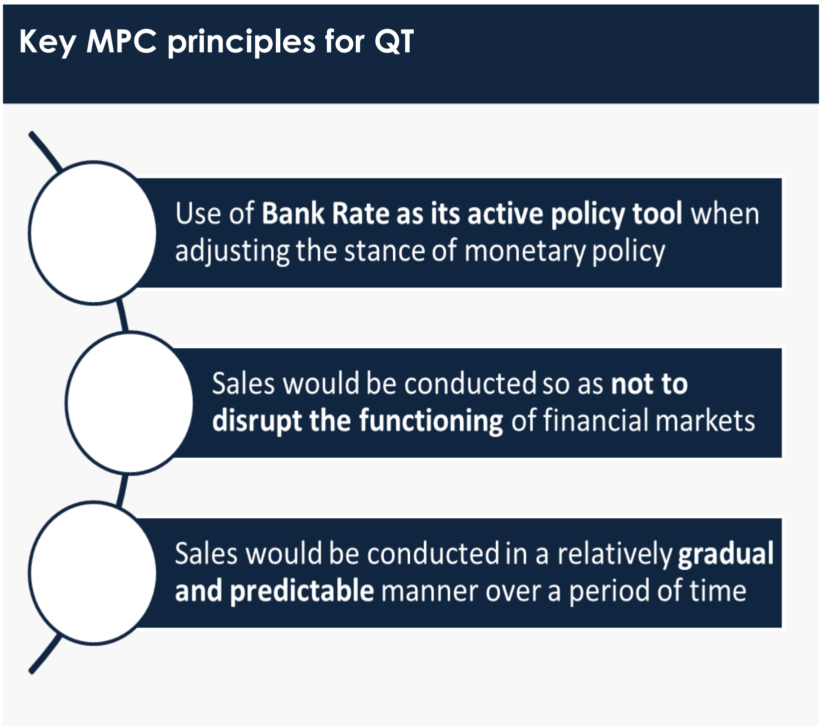
Between 2013 and end-September 2022, the APF transferred £124 billion to HMT under this arrangement, but it was always recognised that reverse payments from HMT to the APF were likely to be needed in the future as Bank Rate increased and the APF's gilt holdings were eventually unwound. Quarterly transfers from HMT to the APF have since taken place in the last three quarters.

[6] Asset purchases involve large flows of cash during the lifetime of the portfolio because of factors such as income from coupon payments on the bonds held and interest paid on the loan used to fund them.

Where the cash position ends up is uncertain and dependent on a whole range of factors including Bank Rate.[7] But importantly, the MPC does not take into account financial risk or profit when taking monetary policy decisions, including about the APF gilt portfolio.

## QT in principle – the MPC's key QT principles are designed to keep it in the background

To ensure a smooth unwind of the APF gilt portfolio, the MPC set out its approach to QT in the August 2021 MPR,[8] which was based on three key principles designed to reduce its impact and thus keep QT in the background; first the committee had a preference to use Bank Rate as its active policy tool when adjusting the stance of monetary policy; second sales would be conducted so as not to disrupt the functioning of financial markets; and third to help achieve that, sales would be conducted in a relatively gradual and predictable manner over a period of time.




In line with the MPC's first principle, the Committee's preference is to use Bank Rate as its active instrument in most circumstances primarily because there is greater certainty, built up over long experience, around how changes in Bank Rate affect the economy compared with its other policy tools. Changes in Bank Rate can also be operationally easier and quicker to implement.

---

[7] See Chart 3 in **Asset Purchase Facility Quarterly Report - 2023 Q1** and **Box 4.1 in OBR report on Fiscal Risks and Sustainability- July 2023**
[8] See **Bank of England Monetary Policy Report August 2021** p12-13

Although QT is designed to operate in the background, it has the important benefit of reducing the risk of a ratchet upwards in the size of the central bank balance sheet over time, if successive policy cycles meet the effective lower bound on interest rates.[9] That in turn should increase the headroom and flexibility for the central bank to be able to use its balance sheet in the future in pursuit of its monetary and financial stability remit, should that be needed.

## QT in practice – a clearly telegraphed, gradual and predictable approach

The process of reducing the stock of assets held in the APF began following the February 2022 MPC meeting when Bank Rate reached 0.5%. The MPC began QT before either the Federal Reserve or the European Central Bank.

Consistent with the principle that APF unwind is gradual and predictable, the MPC began by ceasing reinvestment of maturities from its stock of both government and investment-grade corporate bonds.

At the February 2022 meeting, the Committee asked the Bank to design a programme for the sale of the £20 billion corporate bond portfolio held in the APF. The subsequent Market Notice announcing the sales programme was published in May.[10] These sales were completed within a year, earlier than anticipated, and with little impact on market functioning. I will return to this later in my speech.

The MPC set out our approach to gilt sales alongside the August 2022 monetary policy decision. This restated our three key principles and set an indicative £80 billion stock reduction target, which included both maturities and sales, for the 12 months from October 2022. This was in order to allow the market sufficient time to prepare for participation in the Bank's operations.

We have designed our approach to QT carefully in the context of the MPC's three key principles. As my colleague Andrew Hauser set out in a speech in November,[11] we have achieved that in four ways.

First, as discussed above, the MPC adopted a progressive and clearly telegraphed approach to developing and communicating its unwind programme, which seeks to leave Bank Rate as the active instrument for policy.

---

[9] For further discussion, see Bailey et al (2020): **The central bank balance sheet as a policy tool: past, present and future**.

[10] See **Asset Purchase Facility: Corporate Bond Purchase Scheme sales programme – Market Notice 5 May 2022 | Bank of England**

[11] See **Thirteen days in October: how central bank balance sheets can support monetary and financial stability − speech by Andrew Hauser (bankofengland.co.uk)**

Second, the operational delivery of sales can be adjusted in light of market conditions. The MPC set a high bar for amending its annual target for the reduction in the stock of purchased gilts outside of the schedule annual review. But the MPC did grant discretion to Bank Executive to adjust the operational delivery of QT if market conditions warranted it.[12] In light of a significant repricing of UK and global financial assets in late September 2022, Bank staff postponed the beginning of gilt sale operations until 1 November. When those sales began, we also varied the gilts made available for sale, by temporarily delaying the sale of the longer tenor gilts that were at the centre of the crisis until Q1 2023. This was positively received by market participants at the time.

Third, Bank staff have designed sales to work with the grain of the market, wherever possible. We are selling bonds through a set of frequent, modestly sized auctions set out in advance through a quarterly calendar of operations. As the Governor set out in an exchange of letters with the Chancellor in February 2022,[13] the Bank has been liaising with the UK Debt Management Office (DMO) in order to minimise interference with the DMO's own issuance programme and to try to ensure sufficient gaps between supply events of the same maturity.[14] This coordination has worked effectively and has been a key element in ensuring the QT programme is consistent with the MPC's principles

And fourth, the Bank has introduced a new Short Term Repo (STR) facility to ensure that QT does not put undue upwards pressure on short-term money market rates.[15] As assets held in the APF mature, or are sold back to the market, the reserves used to fund those purchases will be extinguished. Once the level of reserves falls below that required by commercial banks to meet their payments obligations and broader liquidity needs, absent any action from us, banks would start trying to borrow reserves in money markets, causing short-term interest rates to rise significantly. Our current thinking is that this point of reserves scarcity still lies some years away, but that is highly uncertain. We have therefore introduced the STR as an alternative source of reserves for commercial banks, should it be needed. That has been operating since October 2022 and is designed to be freely used from the start.[16]

[12] **Thirteen days in October: how central bank balance sheets can support monetary and financial stability − speech by Andrew Hauser (bankofengland.co.uk)** pp13-14

[13] See **Exchange of letters between the Governor and the Chancellor on the Asset Purchase Facility - February 2022 | Bank of England**

[14] See **Asset Purchase Facility: Gilt Sales – Provisional Market Notice 4 August 2022 | Bank of England**

[15] **https://www.bankofengland.co.uk/markets/market-notices/2022/august/explanatory-note-on-operational-implications-of-apf-unwind**

[16] Indeed, the PRA has confirmed it judges use of the STR to be routine participation in sterling money markets, and intends that is should be seen as such by bank boards and overseas regulators. See **PRA statement on Short Term Repo (STR) facility | Bank of England**

Taken together, these four elements have helped the Bank conduct the MPC's QT programme in a way which should minimise the potential for its impact on gilt yields and on financial markets.

## Gilt quantitative tightening – limited impact on gilt yields

Precisely because of the way QT is designed to work in the background, it is difficult to measure its impact with any certainty. It also remains early days. Nevertheless, we are continually assessing the emerging evidence.

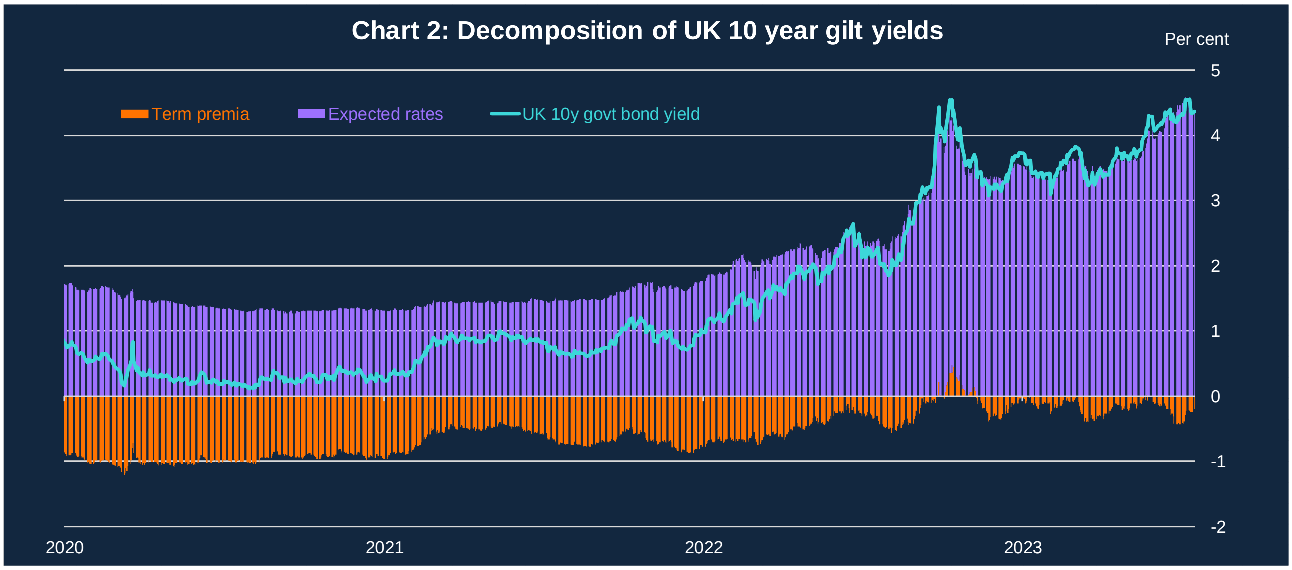
While QT is, in theory, the opposite of QE, we have always stressed the state contingency of the associated transmission channels. Moreover, the MPC's approach to QT effectively turns off some of the channels that were important during QE, exploiting this state contingency.[17] First, in line with our key principle that Bank Rate is the active tool, the MPC is not using QT to signal the future path of Bank Rate and so materially change expectations of policy rates, so there is no so-called 'signalling channel'. Second, by conducting QT carefully when market conditions are not stressed, the liquidity and market function channels of QE are likely to be minimised during QT.

The empirical evidence we have so far supports the theory: the overall impact of QT on gilt yields appears to have been small.

That is particularly the case in the context of the very much larger developments in the outlook for our active policy tool, Bank Rate. To illustrate that, **Chart 2** shows that the vast majority of the ~300bps increase in UK 10-year gilt yields since February 2022 (when maturing gilts stopped being reinvested) has been driven by increases in expected policy rates. As discussed above, our QT strategy contains no upward signal on the path of rates. Instead, the key driver of yields over this period has been the evolving outlook for inflation and hence the expected path for Bank Rate.

---

[17] For a discussion of the channels of QE transmission, see **QE at the Bank of England: a perspective on its functioning and effectiveness | Bank of England**



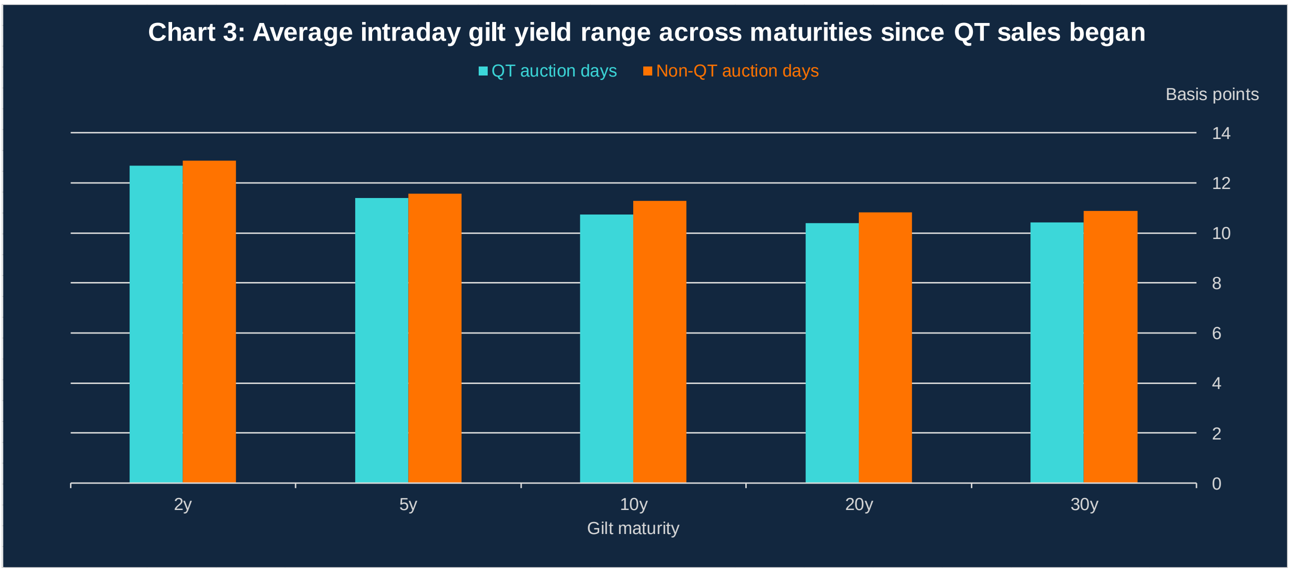

(a) The chart uses estimates from a range of internal models of UK term premia to split the 10y gilt yield into expected rates and term premia contributions. Expected rates reflect investors' expectations of the average short-term monetary policy rate over the next 10 years, and term premium is defined as the additional compensation investors demand to hold a longer-term bond relative to a series of shorter-term bonds.

Sources: Bloomberg Finance L.P, Tradeweb and Bank calculations

In contrast, we estimate that term premia have increased by only around 40bps in the period since QT began. QT may of course be one contributing factor to this much smaller component – for example, any portfolio balance channel of QT would be expected to show up in the term premia. But QT is unlikely to be the major driver of this component either. Term premia will also reflect the increase in uncertainty around the outlook for the economy and rates and also the material increase in DMO issuance.

Our market intelligence suggests that QT, while likely having some impact on yields, has had a relatively small role to play. For example, in the June 2022 Market Participants Survey, conducted by the Bank, the median respondent reported that QT expectations had pushed up UK gilt yields by 10bps for the UK 10 year gilt and ongoing market intelligence conversations suggests that the impact on yields remains small.

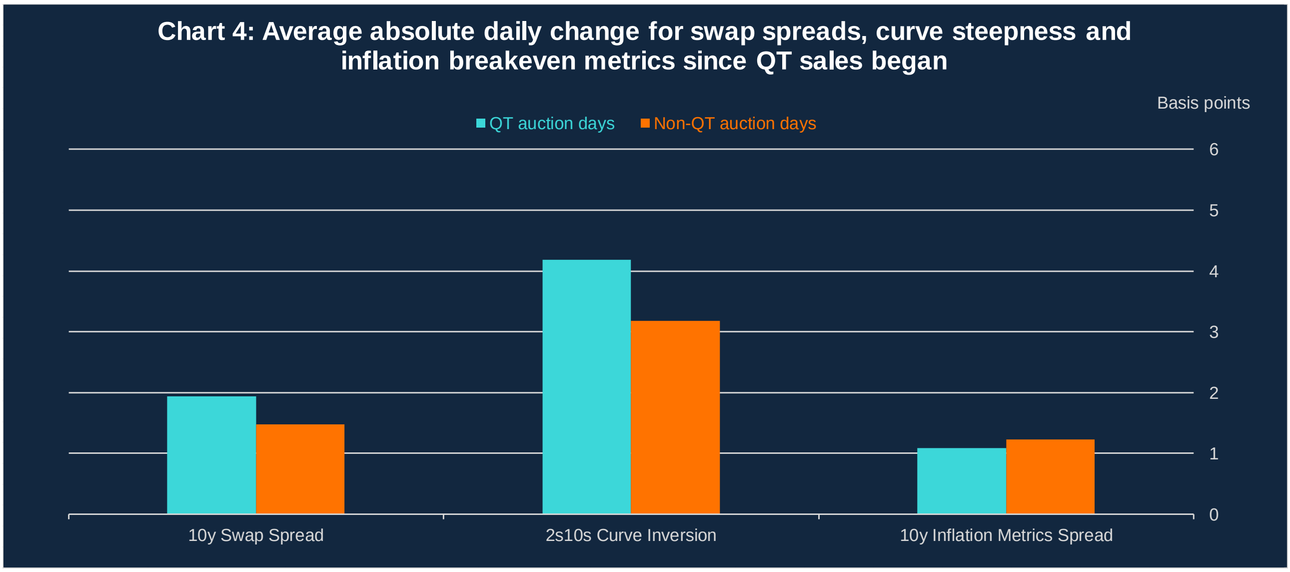
Consistent with the view that QT should not be operating via liquidity and market functioning channels, event study estimates suggest a limited impact around QT auctions. As an illustration, **Chart 3** shows the average absolute intraday range in gilt yields across a range of maturities separated into the 37 QT auction and remaining non-auction days since the sales programme started last November. If the ongoing flow of QT sales was having a significant effect on yields, you might expect to see larger moves on QT auction days, but that is not the case.




(a) The range is defined as the highest intraday yield level less the lowest intraday yield level. The average is over the sample period, which begins on the day of the first QT auction, November 1st 2022.

(b) In both this chart and chart 4 we show the mean. Other measures of central tendency (e.g. the median) also show no material difference between auction and non-auction days.

The same applies for other metrics that we would expect to be affected if there was a material effect of QT transmitting through financial markets. For example, **Chart 4** shows that moves in swap spreads and curve steepness measures have not been unusual on QT auction days relative to other days.




(a) The swap spread is the spread between the 10 year swap rate and the 10 year gilt yield. The curve inversion measure, the 2s10s spread, is the difference between the 10 year gilt yield and the 2-year gilt yield. The inflation measure is the difference between the 10 year breakeven (the difference between the yield on nominal and index-linked gilts) and the 10 year inflation swap.

Source: Bloomberg Finance L.P and Bank calculations.

The limited QT-related flow effects observed around auctions so far would be consistent with markets having largely priced in any QT impacts well ahead of time – or alternatively, that the overall impact is just very small. This is, of course, entirely in line with the MPC's approach given the principle that QT should be gradual and predictable.

Since the sales programme commenced in November 2022, the Bank has sold £26.54 billion of gilts in sales proceeds terms. The Bank has announced £7.11 billion of sales in Q3 to deliver the MPC's £80 billion target, based on the market value of APF gilt holdings.

Overall, the evidence to date supports our expectation that QT effects on gilt yields, while greater than zero, appear to be materially smaller than the effects of QE. Given our experience so far, as a very rough indication of scale, Bank staff estimate that a one-off additional £80 billion of QT relative to expectations is likely to increase 10 year gilt yields by less than 10 bps in prevailing market conditions. Based on our experience of QE, that would map across into an impact on activity and inflation of less than 0.2% and 0.1pp respectively.

These small numbers are welcome. The MPC's key principles have been designed exactly to support a relatively small economic impact from QT, such that it can proceed as a process in the background.

Importantly, to the extent any QT impacts – while relatively small – are coming through, the MPC will have observed the associated effects on asset prices, conditioned its forecasts accordingly and has full flexibility to adjust its active tool – Bank Rate – to the extent that any offsetting action is deemed necessary. Given the limited evidence for QT impact to date, particularly in the context of the other large shocks to the economic outlook, from my perspective QT has not had a bearing in determining my votes on Bank Rate since the QT programme commenced.

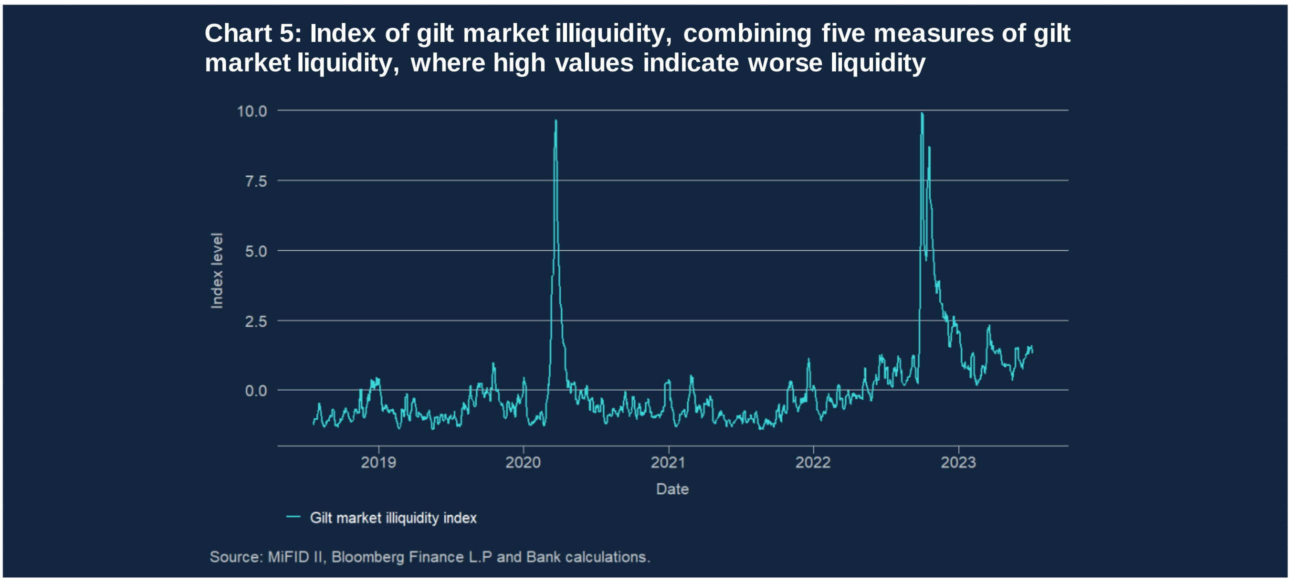
## QT operations – mindful of market function

Bank staff are constantly monitoring market liquidity and functioning, drawing on a combination of market intelligence and data analytics.[18] Dedicated market intelligence teams speak to a broad set of market participants about conditions in the gilt market and broader UK-relevant financial markets. We combine this with a wide range of quantitative indicators on market liquidity, including indicators based on transaction-level data. As already stressed, the Bank's QT operations are designed to operate in the background. Based on our experience to date and in line with the second of the MPC's key principles,

[18] See **Navigating market signals: MaPS for policy makers – remarks by Andrea Rosen | Bank of England**

we have found no evidence that our operations have themselves disrupted market functioning.

First, some context. As already flagged and covered in detail elsewhere, market conditions deteriorated rapidly in late September 2022.[19] Metrics of gilt market illiquidity spiked, reaching similar levels to the 2020 'dash for cash' (**Chart 5**).



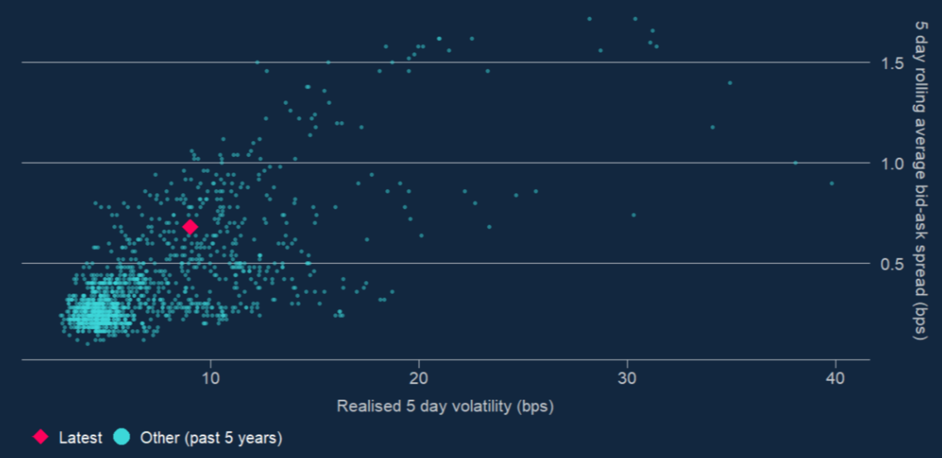

(a) This is a composite measure, calculated by the Bank of England, which combines five distinct measures of gilt market illiquidity. These include measures of transaction costs, the price impact of trades and yield curve noise, which captures how far yields are from a fitted curve. Data is available to 7 July 2023.

Source: MiFID II, Bloomberg Finance L.P and Bank calculations

Conditions did improve in late 2022 and into the New Year, before deteriorating somewhat following the failure of Silicon Valley Bank in March and the associated increase in volatility. Liquidity conditions have since improved overall. Some metrics remain somewhat higher than their average over previous years, but this is broadly as expected in the context of the higher level of volatility (**Chart 6**).

[19] Letter from Jon Cunliffe to the Treasury Committee, 5 October 2022

**Chart 6: Liquidity vs realised volatility for 10-year gilt**



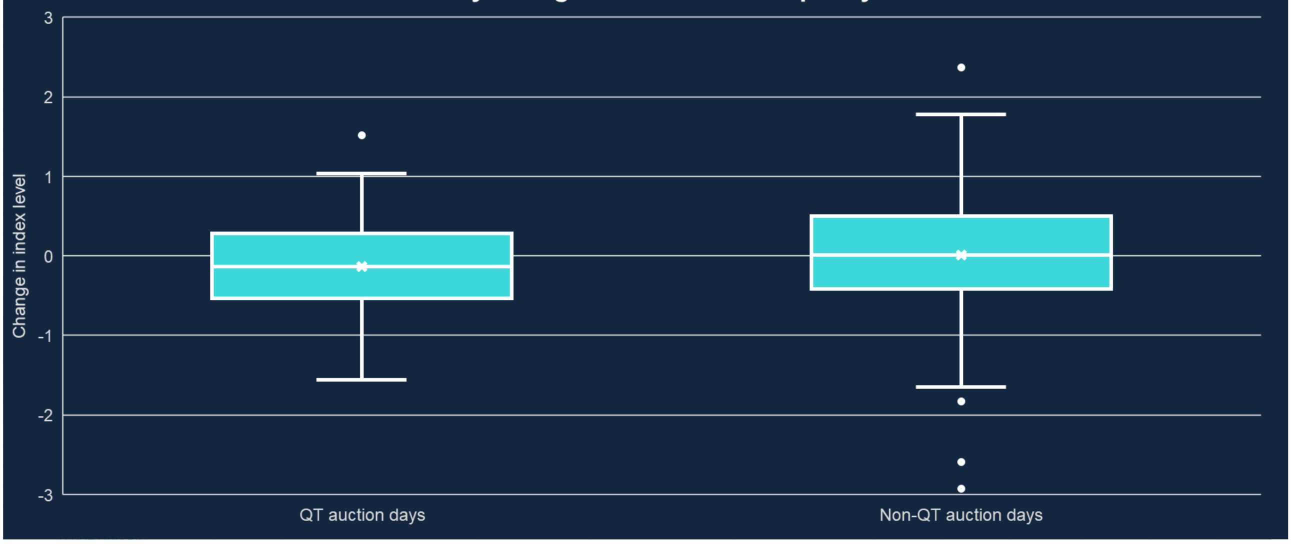

Source: Bloomberg Finance L.P and Bank calculations.

(a) Realised volatility is calculated as the 5-day average of the high-low intraday range in the 10-year benchmark gilt yield

Source: Bloomberg Finance L.P and Bank calculations

Looking over the first eight months of sales, the impact of our auctions appears to have been small and our operations have not disrupted market functioning. As I noted earlier, yield moves on auction days do not look materially different to non-auction days. And liquidity metrics look no worse on QT auction days (**Chart 7**).

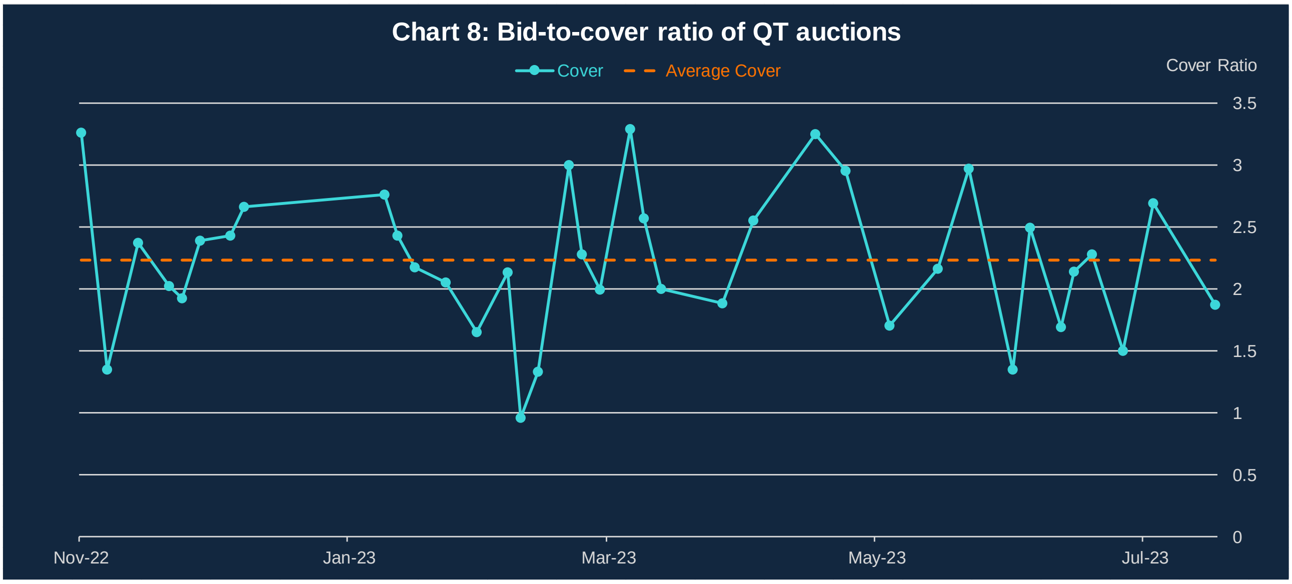
**Chart 7: Daily change in Gilt market illiquidity index**




(a) Note higher values of the index indicate liquidity worsening.

Source: MiDID II, Bloomberg Finance L.P and Bank calculations.

The auctions themselves have been well absorbed by the market so far, with an average bid-to-cover ratio of just over two, that is we generally get twice the value of bids than the size of each operation (**Chart 8)**.

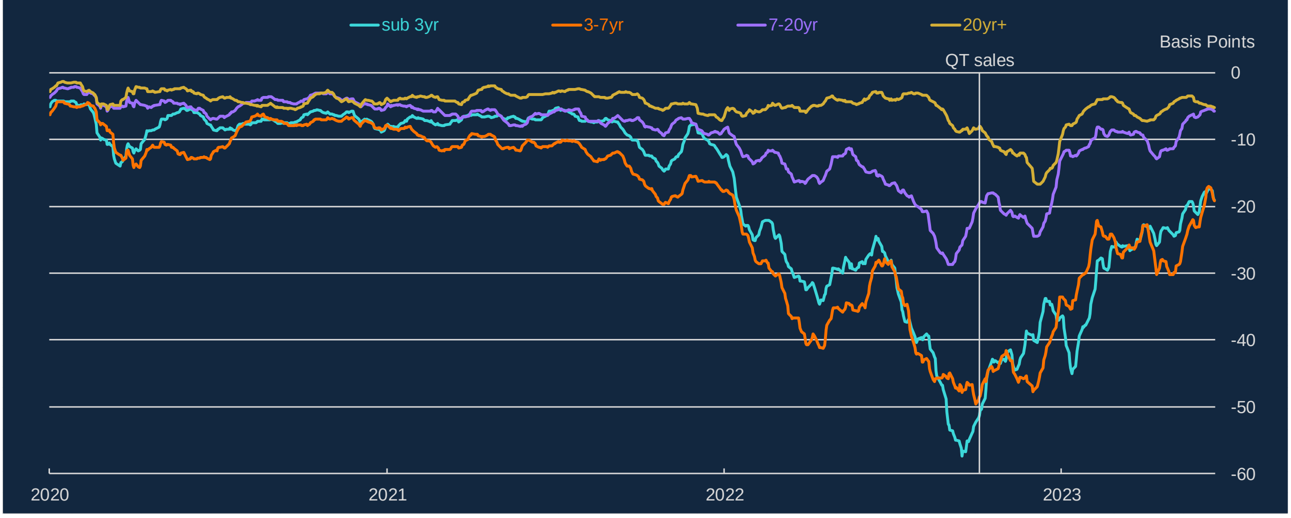



(a) Chart shows bid-to-cover (a measure of auction demand) for individual BoE gilt auctions in the period since sales began. The yellow dotted line is average cover.

Source: Bank of England

As well as avoiding harming market functioning, there is some evidence that our QT sales have had an additional positive effect on the gilt market. Over the first half of 2022, we saw signs of scarcity of short-dated bonds in particular, driven by increased demand for collateral. You can see that by looking at the 'specialness' of these bonds in repo markets – that is, how far away secured borrowing rates on specific bonds are from a general secured borrowing rate. As shown in **Chart 9**, this repo specialness became more acute in early 2022. That was not just a UK story – a similar effect was seen in short-dated German government bonds. This scarcity was also evident in the difference between swap rates and bond yields – the swap spread – and in how dispersed bond yields were from a fitted yield curve (yield curve 'noise').

**Chart 9: Gilt repo specialness by bucket (Spread to Overnight Cleared DBV)**

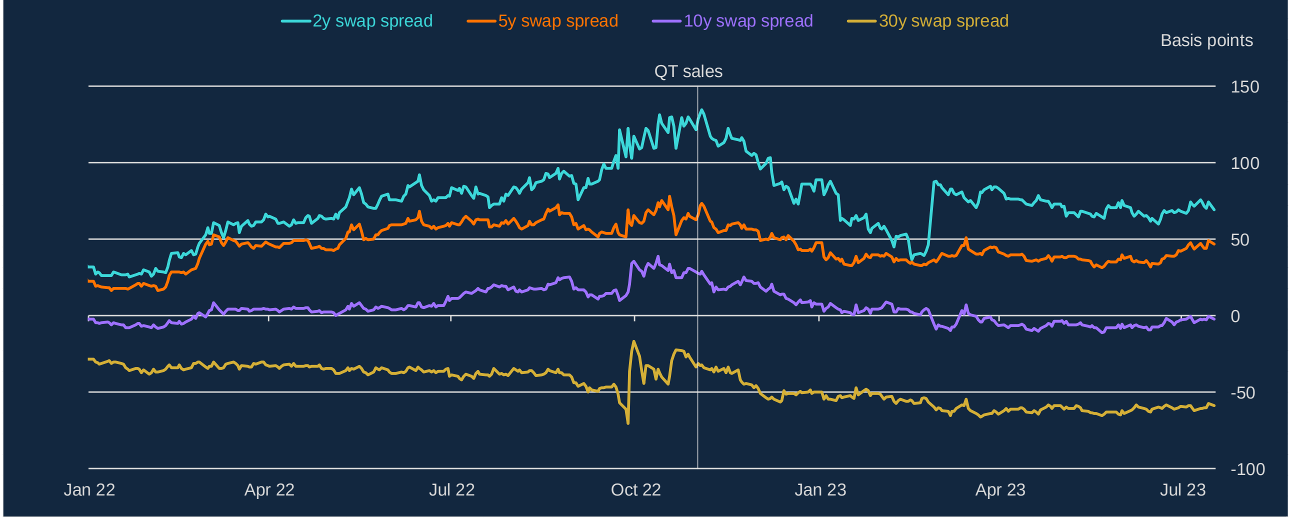



(a) Specialness is defined by the difference between the repo rate on a specific gilt and the general collateral (GC) repo rate. Individual gilt repo rates aggregated in line with the Bank of England APF maturity buckets.

Source: Bank of England Sterling Money Market data collection, Bloomberg Finance L.P.

Since we started selling bonds through QT this scarcity effect has alleviated, especially at short maturities. For these bonds, repo specialness has reduced, swap spreads have fallen (**Chart 10**) and yield curve dispersion has ticked down.

**Chart 10: Gilt swap spreads**




(a) The swap spread is the difference between the swap rate and the yield on the government bond with a similar maturity.
(b) The jump up in the 2 year swap spread in February 2023 is a result of a switch in the underlying generic benchmark bond.

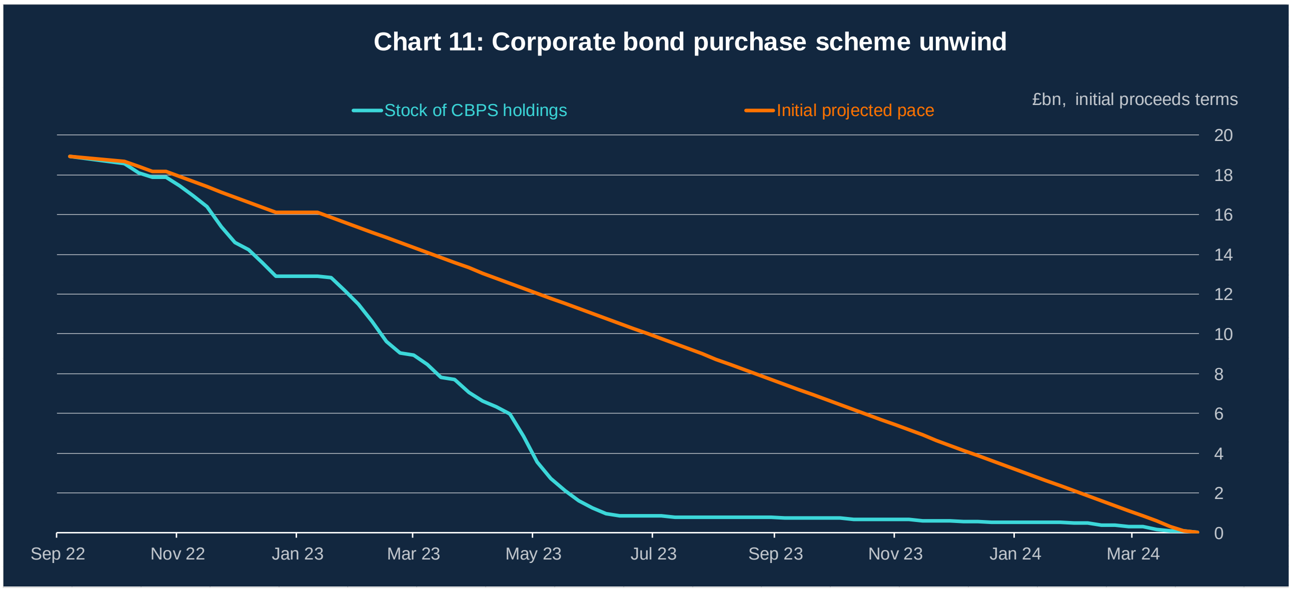
Source: Bloomberg Finance L.P and Bank calculations

Of course, QT is only one factor in driving these developments- the DMO has also been issuing short dated bonds, and demand for collateral has reduced since last year. However, in returning particularly scarce short-dated collateral to the market, QT sales do seem to have played a role, an emerging feature that is supported by our market intelligence.

Taking all market intelligence evidence together so far, QT sales auctions have operated in line with expectations since sales started in November 2022.

## Corporate bond sales - successfully completed ahead of schedule

As a final point on the market's capacity for digesting QT, I will note the successful wind down of the corporate bond portfolio held in the APF. The size of the corporate bond portfolio, which was added to the APF by the MPC from August 2016, peaked at £20 billion. Noting that the impact on monetary conditions at a time when markets were functioning relatively normally was likely to be small, the MPC ceased reinvestment of the CBPS in February 2022, with the Bank commencing sales from the portfolio in September 2022.




Source: Bank of England

This process went well. Our sales operations were designed to be responsive to market demand and we sold the corporate bond portfolio ahead of target. Sales were completed on 6 June 2023, well ahead of the initially expected pace **(Chart 11)**. A small number of very short maturity bonds will continue to be held in the portfolio, maturing fully by 5 April 2024.

## What have we learned so far and what is next?

The framing for the MPC decision on QT for the next 12-month period is to balance the reduced uncertainty from our experience to date alongside the market backdrop. QT sales auctions have operated as intended so far through this period. The MPC will take into account market functioning, our view of which will be updated throughout the summer, when it makes its decision on pace for the twelve months from October 2023 to September 2024.

In advance of that decision, I think the story is “so far, so good”. Our QT programme continues to operate in the background. It is having only a limited impact on gilt yields, all else equal. Market liquidity has declined somewhat over the past 18 months, in line with heightened macro volatility, but it has improved substantially since autumn 2022. There has been no discernible impact from our sales operations on market liquidity, and indeed, there have been some signs that our sales may have helped alleviate collateral scarcity somewhat.

We can of course never be complacent, and will continue to monitor market functioning closely. But so far, this has all been achieved by applying the three key principles for QT that the MPC set out almost two years ago.

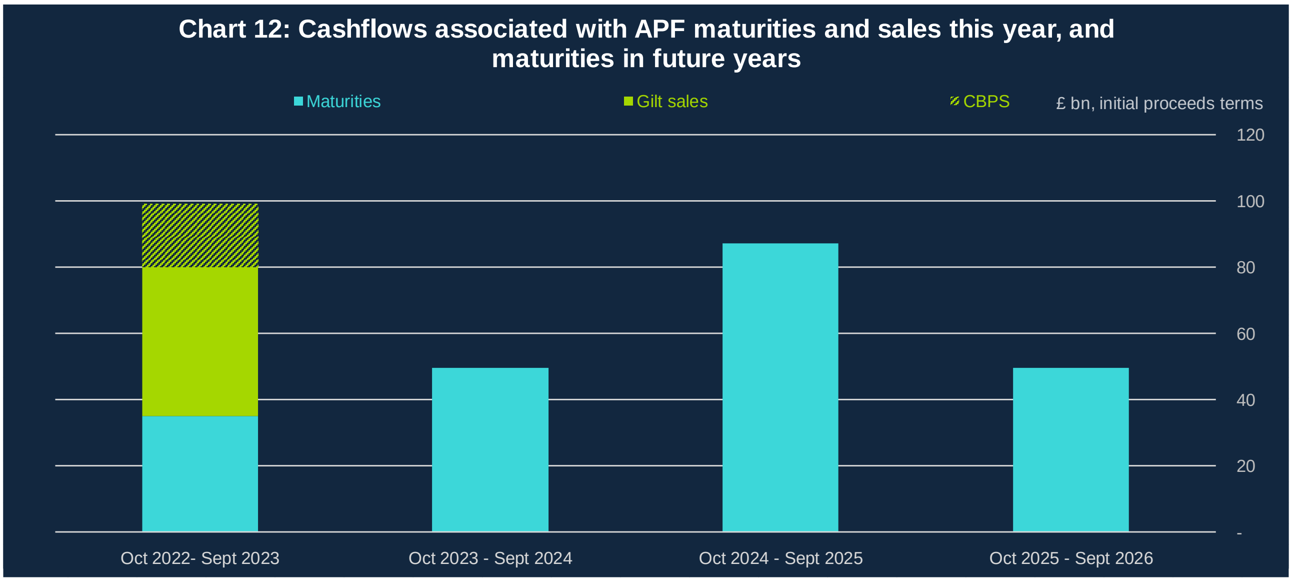
There are three things the MPC could weight as it makes its upcoming decision.

First, when we decided on the initial £80 billion pace of unwind last September; we had no direct evidence on how sales would affect financial markets. The MPC incorporated this uncertainty into its initial decision on pace. From my perspective, I saw this as aiming under somewhat in order to incorporate a degree of ‘learning by doing’. The MPC has learned more about the economic and market impact of QT since then, with reassuring signs so far.

Second, we know more about the intermediation capacity of market participants. The pace of gilt sales from the APF into the market has generally been successfully absorbed by the market to date, including as gilt supply from the DMO has increased materially, and has had the added advantage of returning scarce collateral to the market. Given that, it seems reasonable for sales to continue at this pace for the next twelve-month period.

Third, when making its decision for the next twelve-month period, the MPC will be conscious that as well as the £80 billion reduction in the stock of gilts this year, the reduction in the overall APF over this period included the additional successful sale of the

£20 billion corporate bond portfolio. [20] As **Chart 12** shows, the total decline in the APF in the year from last October will amount to some £100 billion.




(a) Each year shows maturities in the period between October and September the following year (i.e. a yearly QE review cycle).

Source: Bank of England

Taken together, for me personally, these factors support a carefully considered increase in the pace of reduction in the stock of gilts in the twelve months ahead reflecting: the completion of the CBPS unwind; the reduced need for aiming off for learning; and evidence so far on marketing functioning. I emphasise careful –like the MPC I want QT to set a gradual and predictable pace for unwind and to let it operate in the background, after all.

The MPC's focus is on total stock reduction. But the underlying components for QT also matter. The higher maturities from the APF in the twelve months from October 2023 to September 2024 as shown in **Chart 12** mean that it is possible to increase slightly the overall pace of gilt stock reduction to more than the £80 billion achieved over 2022-23, while at the same time keeping the amount of sales that the market must intermediate broadly unchanged.

The MPC will announce its decision on pace ahead of it taking effect at the start of October. Bank staff will continue their regular market monitoring ahead of that point. And the MPC will be drawing on the full range of data and market intelligence available to it when taking its decision.

[20] In addition, the Bank successfully completed its sales of the £19.3bn portfolio of temporary holdings of UK government bonds purchased in Autumn 2022 on financial stability grounds.

Further out, it bears restating that this is an annual process. We continue to learn as we go and will take next year's decision with another full year of data and experience. The size of maturing gilts in the APF will increase again in 2024-25, and the MPC will have to return to the issue of the pace of stock reduction when its next reviews its QT programme.

## Returning to the active tool…

In August, the MPC will decide on the stance of monetary policy, based on its active monetary policy tool- Bank Rate. This decision will be framed by updated economic forecasts in the August MPR.

In the last MPR forecast published in May, the MPC highlighted that it expected headline CPI to fall sharply from April 2023 onwards as energy prices ease. That is what we have seen since, with CPI inflation falling from 10.1% in March to 8.7% in April and to 7.9% in June.

CPI inflation has begun to fall significantly but remains much too high. The MPC has consistently stressed that monetary policy decisions will address the risk of more persistent strength in domestic wage and price settling. This was represented by the upward skew in the projected distribution on CPI inflation in the May forecast.

At the subsequent June meeting, the MPC recognised that the second-round effects in domestic price and wage developments generated by external cost shocks were likely to take longer to unwind than they had done to emerge. There had been significant upside news in data up to the June meeting that suggested more persistence in the inflation process, against the background of a tight labour market and continued resilience in demand. Some indicators of future pay growth and goods inflation had weakened, but their properties as leading indicators had not been tested in a similar period of high inflation. The scale of the upside surprises in official estimates of wage growth and services CPI inflation suggested a 50bps increase in interest rates to 5% was required at that particular meeting in order to return inflation to the 2% percent target sustainably in the medium term.

I am not going to comment on the detail of the data published since the June meeting. The August MPC round starts soon and will be completed with our announcement on 3 August.

What I do want to emphasise as my conclusion is that the MPC will continue to monitor closely indications of persistent inflationary pressures in the economy as a whole, including the tightness of labour market conditions and the behaviour of wage growth and services price inflation. If there is evidence of more persistent pressures, then further tightening in monetary policy would be required.

With thanks to Chris Ford and Rupal Patel in their assistance in preparing these remarks, and to my fellow MPC members and numerous Bank colleagues, including Callum Ashworth, Ben Baker, Lauren Barnes, Jon Bridges, Alan Castle, Andrew Hauser, Lydia Henning, Eleanor Kantor, Rhys Phillips, Arif Merali Kate Reinold, Andrea Rosen, Fergal Shortall, Matt Roberts-Sklar for this helpful contributions.