Bank of England

Financial Stability and Monetary Policy: Lessons from the U.K.'s LDI crisis*

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* These remarks reflect my own views and not necessarily those of my Financial Policy Committee colleagues or Monetary Policy Committee Members.

Link between interest rates and financial stability known territory

Worries have covered a lot of ground:

- *Risk-taking fuelled by low interest rates*, and merits of using monetary policy to "lean against" asset price booms (e.g., Bordo and Wheelok 2003, Bean 2003, Gruen et al. 2005)
- *"Snap-back" risk*, where rapid and sizeable increases in term and risk premia generate financial stress (e.g., BIS 2017, IMF 2018, BoE 2018)

Actual out turn:

- Sharp and rapid rise in policy rates among many CBs to quell inflation
  - Stable inflation supports financial stability, but the adjustment to higher rates increases financial vulnerabilities
- Unique to U.K., additional yield spike and gilt market disfunction in September 2022

Outline of Presentation

1. **Dog that did not bark: SVB-like bank failure**

2. **Dog that did: LDI crisis**
   - How did LDI create systemic risk?
   - Lessons
   - Ongoing work

Dog that did not bark in the U.K.: SVB-like bank failure

Main factors for positive outcome relative to SVB:*

i. *Capital adequacy* – all UK banks must hold capital against interest rate risk they have on the banking book, under Pillar 2A

ii. *Liquidity management* - all UK banks are subject to liquidity requirements under Basel III (i.e., LCR and NSFR)

iii. *UK bank balance sheets* - less vulnerable than SVB's in that UK banks typically have much smaller "hold to maturity" portfolios, and do not have the extremely high reliance on uninsured deposits (94% for SVB) from a concentrated depositor base (BIS 2023, Federal Reserve 2023)

* See Woods 2023, BIS 2023

Dog that did bark in the U.K.: LDI fund crisis

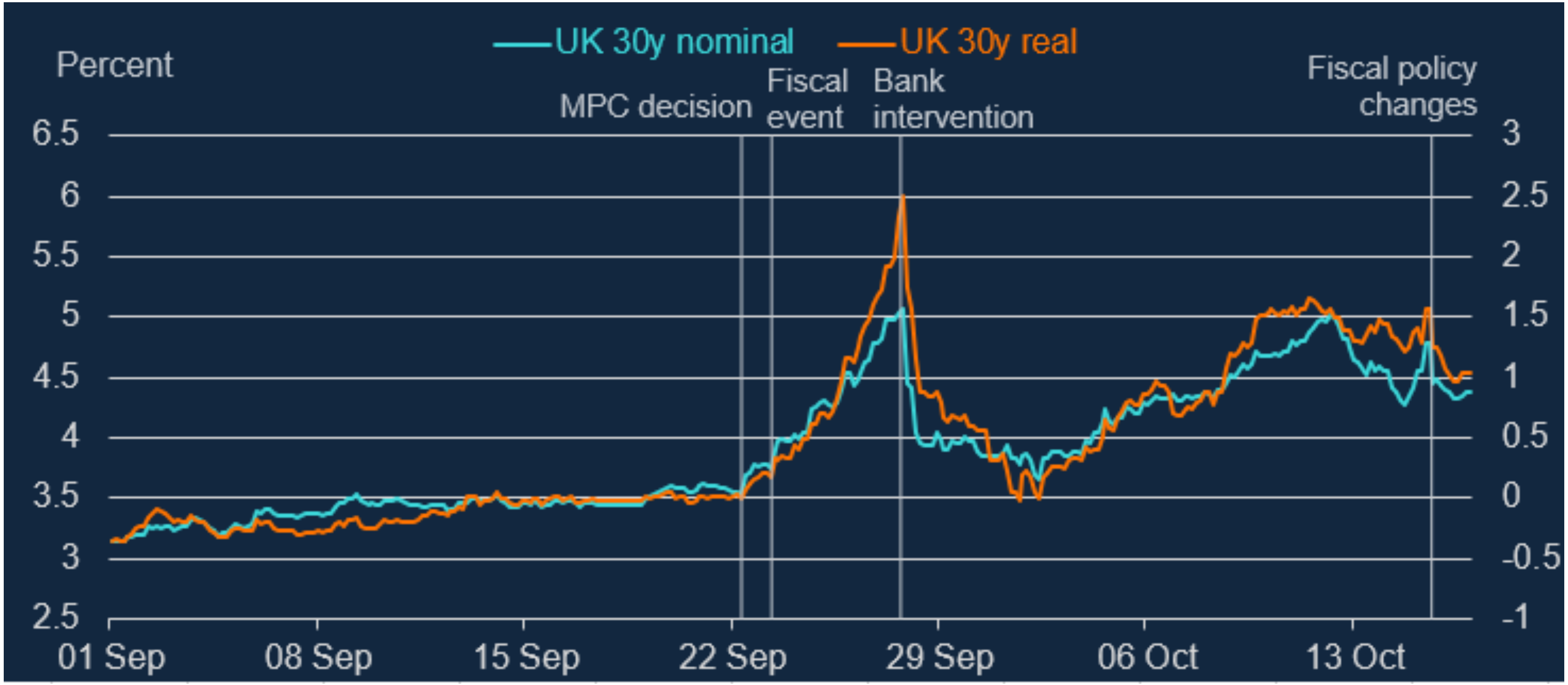
What happened?

- **Stress in LDI funds used by pension schemes was triggered** late September 2022 when long-dated gilt yields spiked in response to the announcement of the growth plan/mini budget from the government.

- ***BoE intervened with temporary and targeted gilt purchases*** to avoid unwarranted tightening of financing conditions associated with reduction in the flow of credit to households and businesses.

UK Gilt market saw severe repricing in late September 2022

Evolution of yields on 30-year real (RHS) and nominal (LHS) UK Gilts



What happened to LDI when yields spiked?

Without leverage, a rise in yields is generally positive for pension schemes (i.e., reduces the present value of their liabilities).

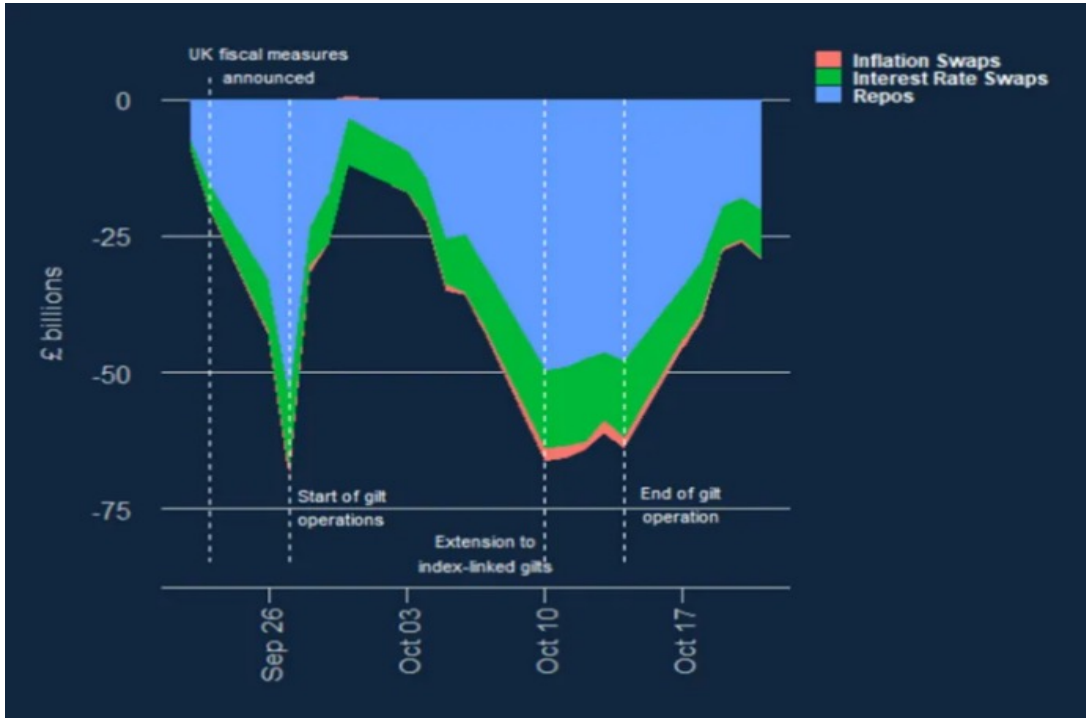
Given leverage, the sharp rise in yields was problematic

- margin calls on repo and derivative positions
- resulting changes to the portfolio's risk profile (i.e., unwanted increase in leverage and sensitivity to interest rates).

To return to the target level of leverage and sensitivity to rates, LDI managers had to:

- raise cash to re-collateralise and/or
- reduce positions (i.e. sell gilts)

Cumulative variation margin on net repo borrowing and derivatives positions held by liability-driven investors



Source: Lifting the lid on a liquidity crisis, Bank of England.

Shortcomings in LDI funds exposed by shock led to financial stability risk

- Many LDI funds and pension schemes **lacked resilience to shocks**, having not adjusted resilience levels in response to changes in gilt yields, and having not anticipated the extent of the potential shock.

- Limitations around operational resilience meant that **schemes with cumbersome governance processes took longer to raise additional capital**, exacerbating their liquidity issues in stress.

Financial stress transmitted through:

- Liquidity channel, which propagated shock
- Concentration channel, which amplified shock
- Interconnectedness channel through which shock spread to other markets

Financial and monetary stability purchases differ along several dimensions

	Financial stability purchases (Oct 22 – Jan 23)	Monetary stability purchases (QE)
Purpose and governance	**Aimed at reducing the risk of a self-reinforcing price spiral** triggered by LDI vulnerabilities. **FPC recommended action** to tackle financial stability risk; MPC informed, in line with the Concordat regarding balance sheet operations; Bank executive implemented.	QE **aimed at easing monetary conditions** in pursuit of the inflation target. **MPC voted on quantity targets**; Bank executive implemented.
Duration of purchases and exit plan	**Temporary**: purchases undertaken for only as long as required by financial stability issue; **Unwind timely -** and unwound through sales back to market in timely and orderly way once dysfunction resolved.	**High level targets for purchase**, unwind and sales programmes voted on by MPC as part of its monetary policy process.
Asset selection	**Targeted**: at assets most affected by financial stability issue (long-term nominal and inflation-indexed gilts.	**Appropriately broad** based to achieve monetary policy goals.
Pricing	**Backstop pricing**: to ensure the facility did not unduly interfere with price discovery or substitute for the need for market participants to manage their own risks over the medium term.	Priced to deliver MPC-determined quantity targets.

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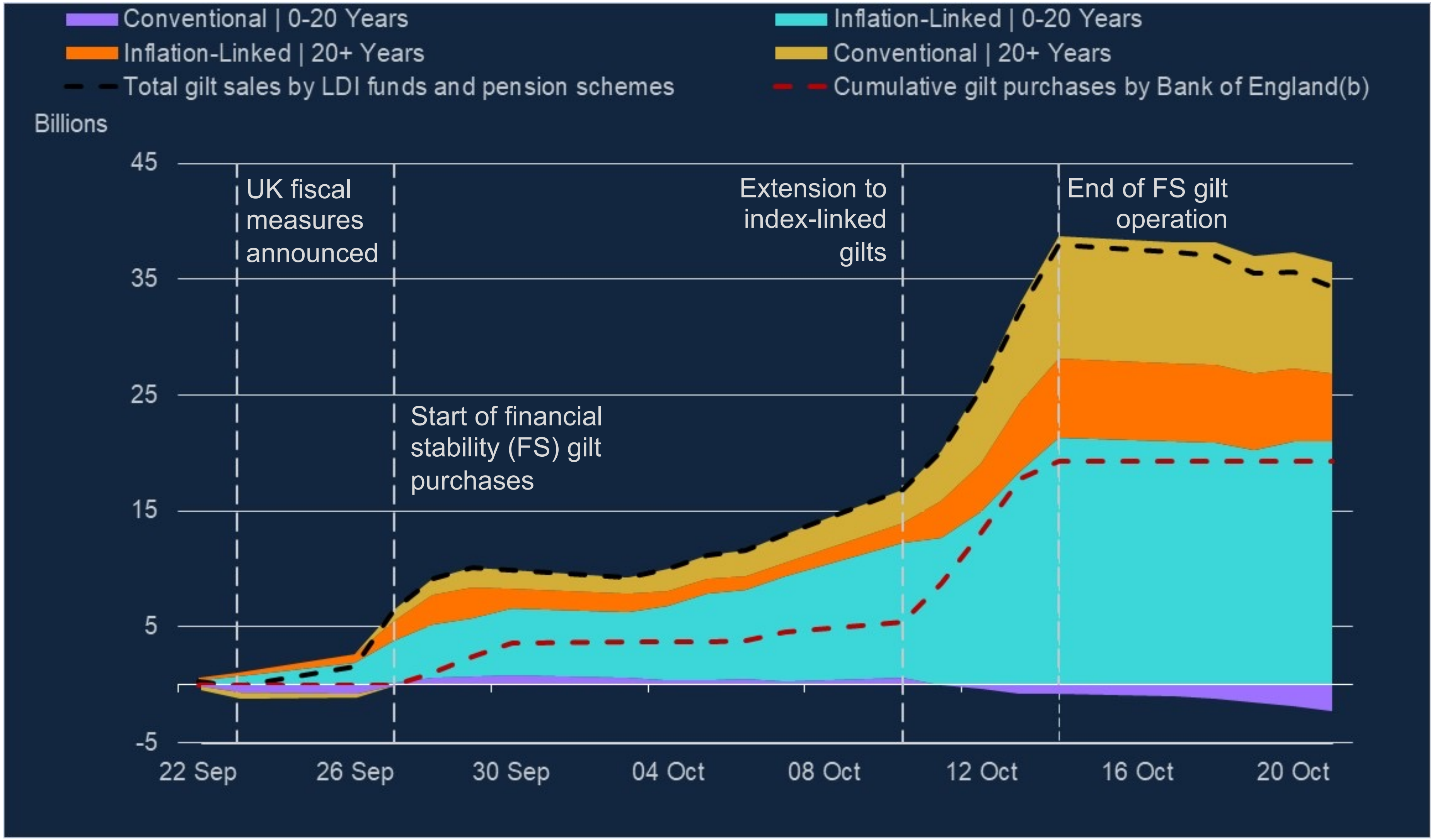
FPC recommended regulatory response to reduce underlying vulnerability:

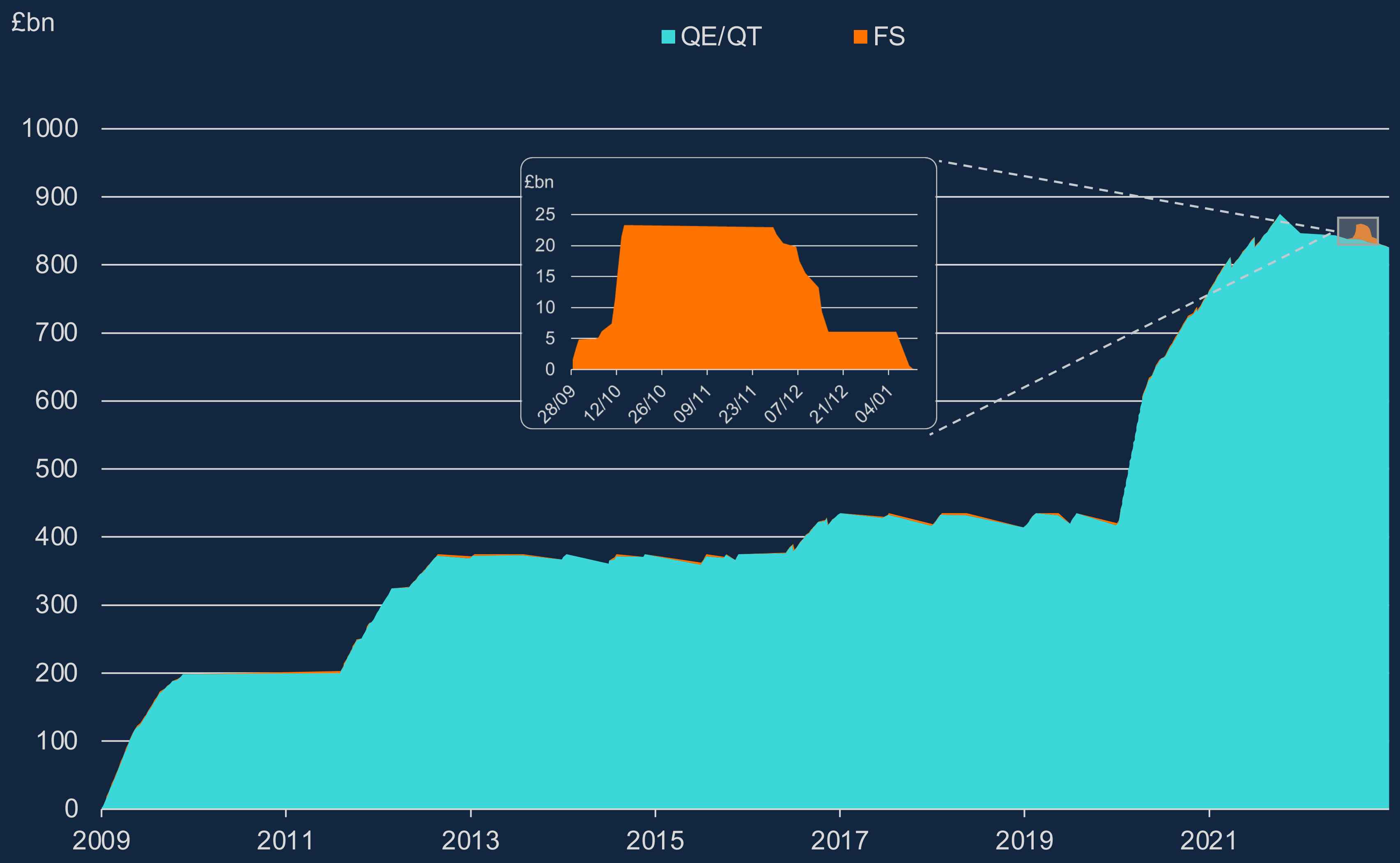
- The Pensions Regulator (TPR) act to specify minimum levels of resilience for LDI funds, and
- TPR should have a remit to consider financial stability issues.

Bank of England action gave LDI funds time to build resilience

Cumulative net gilt sales by LDI funds and pension schemes with an open gilt repo or interest rate derivative position, between 22 September and 21 October 2022, and cumulative gilt purchases by the Bank of England [(a)] [(b)]



FS purchase portfolio relatively small and short-lived, yet stabilising effect on gilt market and no material effect on monetary policy stance



Five lessons from the LDI crisis

1. ***Market forces*** – stark reminder that they can be unpredictable and merciless, especially in the face of poorly managed risk
   - Government bonds may be "free" from credit risk, but are not free from interest rate risk. Firms should build adequate resilience to self-insure against all but the most severe scenarios
2. ***Stress tests* –** need better data and models to capture interconnections (especially in NBFI) and to test operational resilience and scenarios that have no historical precedent
   - e.g., BoE system-wide exploratory scenario (SWES), reverse stress tests
3. ***Financial stability interventions*** – support monetary policy objectives without necessarily affecting the stance of monetary policy, if temporary and targeted
   - e.g., see Bandera and Stevens 2024
4. ***Central bank liquidity facilities*** - need further development, particularly with regards to NBFI
   - e.g., BoE continues to work on its toolkit (FPC record 2024)
5. ***Bank of England financial stability framework*** – clear financial stability mandate, governance and separation of responsibilities between MPC and FPC showed its worth

- Allowed for pre-planning for this type of intervention, rapid identification of problem and decision to act, clarity of communication to market to distinguish between financial stability and monetary policy operations

Background Information

Background facts: key yields and changes as at 10AM September 28, 2022

Bond	10am 28th Sep	Chg since 23rd Sep	Chg since 1w prior	Chg YTD
30-year nominal	5.05%	+128bps	+160bps	+390bps
30-year real	2.40%	+221bps	+245bps	+468bps
30-year nominal US	3.88%	+24bps	+36bps	+198bps
50-year nominal	4.67%	+122bps	+151bps	+380bps
50-year real	1.84%	+184bps	+204bps	+321bps

Source: Bloomberg

FPC's roles and responsibilities

The Financial Policy Committee was formally established under the Financial Services Act, 2013

Objectives	To contribute to the Bank's financial stability objective (to protect and enhance UK financial stability) primarily by identifying, monitoring and taking action to remove/reduce systemic risk with a view to protecting and enhancing the resilience of the UK financial system. Subject to that, the FPC also has a secondary objective to support the economic policy of the Government.
Main powers	May give directions to PRA & FCA in relation to specified macro-prudential measures. Broad powers to make recommendations to public authorities and others.
Membership	13 members: 6 BoE staff, 5 external, FCA CEO and one HMT member.
Decisions taken by	Consensus wherever possible (otherwise vote of those present)
Meeting frequency	Quarterly cycle of meetings
Treasury Ministry involvement	HMT member (non-voting). HMT specifies what HMG economic policy is taken to be for purposes of secondary objective. HMG may make recommendations about FPC's responsibilities and functions in the annual remit letter.
Key publications	Summary and Record of all decisions published (four times a year). Twice-yearly Financial Stability Report Financial Stability in Focus (FSIF) – for more detail on certain topics.