



INTERNATIONAL FINANCE

QE, tapering and QT

How a central bank's bond buying works, how it is wound down, and how it reaches India

US Federal Reserve balance sheet as on 7 October 2026; other figures as dated on each slide

For training and education only. Not investment advice.

Quantitative easing is a central bank buying bonds with money it creates for that purpose.

The usual aim is to pull down longer-term interest rates. Tapering slows the buying. Quantitative tightening lets the stock of bonds shrink again.

Three terms, one balance sheet

QE



Quantitative easing

The central bank buys bonds in the market. It pays by crediting the seller's bank with reserves, which are deposits banks hold at the central bank. Its balance sheet grows.



Tapering

The central bank still buys bonds, but a smaller amount each month. Its balance sheet keeps growing, only more slowly. Tapering is not selling.



QT

Quantitative tightening

The central bank lets bonds mature without replacing them, or sells them. Reserves are extinguished and its balance sheet shrinks.

Sources: Federal Reserve Board, 'Open Market Operations' (policy tools page); Federal Reserve Bank of New York, 'How the Fed Changes the Size of Its Balance Sheet', 10 Jul 2017.

Growing, slowing, shrinking

INVENTED CENTRAL BANK

A central bank holds bonds worth 1,000 (in billions of its own currency).

It runs QE, then tapers, then runs QT. All figures are assumed.

- 1 QE: it buys 50 a month for 12 months. $50 \times 12 = 600$. Holdings rise from 1,000 to 1,600.
- 2 Tapering: it buys 40, then 30, then 20, then 10, then stops. $40 + 30 + 20 + 10 = 100$. Holdings rise to 1,700.
- 3 QT: it lets 20 a month mature without replacement for 10 months. $20 \times 10 = 200$. Holdings fall to 1,500.
- 4 After all three, holdings are 1,500. That is 500 above the start, even after ten months of QT.

During tapering the balance sheet still grew by 100. Only QT made it smaller.

Illustration with an invented central bank and assumed figures. Not a description of any actual programme.

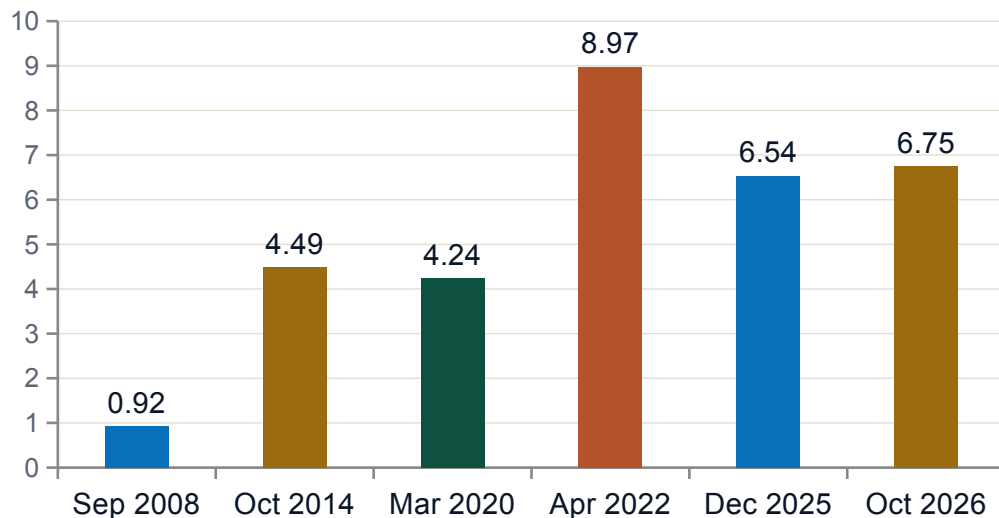
The Fed's rounds, 2008 to 2025

Period	What the Federal Reserve did	How it ended
Nov 2008 to 2010	First announced 25 Nov 2008. Bought \$1.25 trillion of mortgage-backed securities, \$175 billion of agency debt, \$300 billion of Treasury bonds.	Purchases completed by August 2010.
Nov 2010 to Jun 2011	Bought a further \$600 billion of longer-term Treasury bonds, at about \$75 billion a month.	Completed in June 2011.
Sep 2012 to Oct 2014	\$40 billion of mortgage-backed securities a month, plus \$45 billion of Treasury bonds a month from January 2013. No end date was set.	Tapered from January 2014. Ended October 2014.
Mar 2020 to Mar 2022	At least \$700 billion announced on 15 Mar 2020, then 'in the amounts needed' from 23 Mar 2020. Later, at least \$120 billion a month.	Tapered from November 2021. Ended early March 2022.
Jun 2022 to Dec 2025 (QT)	Maturing securities were not replaced, up to a monthly cap: \$47.5 billion at first, \$95 billion from September 2022.	Ended 1 Dec 2025. Holdings had fallen \$2.2 trillion.

Sources: Federal Reserve press releases of 25 Nov 2008, 3 Nov 2010, 13 Sep and 12 Dec 2012, 18 Dec 2013, 29 Oct 2014, 15 and 23 Mar and 16 Dec 2020, 3 Nov 2021, 26 Jan and 4 May 2022, 29 Oct 2025.

The Fed's balance sheet at six points

Federal Reserve total assets, \$ trillion



Read the chart

- \$0.92 trillion on 10 Sep 2008, before the first round. \$4.49 trillion on 29 Oct 2014.
- \$4.24 trillion on 4 Mar 2020. \$8.97 trillion on 13 Apr 2022, after the pandemic purchases.
- \$6.54 trillion on 3 Dec 2025, just after QT ended.
- \$6.75 trillion on 7 Oct 2026, after nearly ten months of Treasury bill purchases.

Source: Federal Reserve statistical release H.4.1, total assets of all Federal Reserve Banks, for the Wednesdays named. Rounded to two decimals.

Case: the 2013 taper tantrum in India

1

May 2013: the signal

On 22 May 2013 the Fed Chair told the US Congress the Fed could 'increase or reduce the pace' of its purchases. Markets expected a reduction.

2

Foreign money left

Foreign institutional investors took about US\$ 13 billion out of Indian equity and debt markets by August 2013, RBI reported.

3

The rupee fell

The RBI reference rate reached ₹68.36 to the US dollar on 28 August 2013. That was an all-time low at that point.

4

Bond yields rose

The 10-year government bond yield went from 7.12% on 24 May 2013 to a peak of 9.27% on 19 August 2013.

5

RBI responded

RBI raised the MSF rate by 2 percentage points in July 2013. The Fed's actual reduction began only in January 2014.

Sources: RBI Annual Report 2013-14, Chapter II (Economic Review); Fed Chair's testimony to the Joint Economic Committee, 22 May 2013; Federal Reserve press release, 18 Dec 2013.

Where things stand

As on the dates shown. QT has ended; the Fed is not running QE. Check the dates before you quote these.

FED TOTAL ASSETS

\$6.75 tn

On 7 Oct 2026. It was \$8.97 trillion on 13 Apr 2022.

FED POLICY RATE

3.75-4%

Target range 3.75% to 4.00%. Raised 0.25 point on 16 Sep 2026.

FED QT

Ended

Run-off stopped on 1 Dec 2025. Treasury bill purchases began 12 Dec 2025.

INDIA 10-YEAR YIELD

6.95%

6.94% GS 2036 at 6.9497% on 31 Aug 2026. RBI repo rate then 5.25%.

Sources: Federal Reserve H.4.1, 8 Oct 2026; FOMC statements of 29 Oct 2025, 10 Dec 2025 and 16 Sep 2026; New York Fed, 10 Dec 2025; FBIL G-Sec yields, 31 Aug; RBI MPC minutes, 19 Aug 2026.

How this reaches India

This describes the channels. It is not a forecast of what any future Fed decision will do.

1

Yields abroad change

When US long-term yields are low, some global investors look for higher yields elsewhere. When US yields rise, some of that money goes back.

2

Capital flows turn

Foreign portfolio investors buy or sell Indian shares and bonds. These flows can reverse quickly, as they did in 2013.

3

The rupee moves

Inflows mean dollars are sold for rupees, which supports the rupee. Outflows mean rupees are sold for dollars, which weakens it.

4

Indian yields react

Foreign selling of bonds, and RBI's own response to a falling rupee, can push Indian yields up. Prices of bonds already held then fall.

RBI announced bond purchases too: ₹1 lakh crore under 'G-SAP 1.0' for April to June 2021.

Sources: RBI Annual Report 2013-14, Chapter II; RBI press release of 8 Apr 2021 on G-SAP 1.0 (announced in the Governor's statement of 7 Apr 2021).

If you learnt this from older material

What older decks say

- QE1 and QE2 are the news of the day.
- The Fed is about to taper, or has just begun.
- US interest rates are close to zero.
- QE puts money into people's hands to spend.

What holds now

- Two more rounds: 2012-14 and 2020-22.
- That taper ended in Oct 2014. A second ran from Nov 2021 to Mar 2022.
- Target range 3.75%-4.00% from 17 Sep 2026.
- The Fed pays for bonds with bank reserves.

Since those decks were written the Fed has also run QT twice. The latest ended on 1 December 2025.

Sources: Federal Reserve press releases of 13 Sep 2012, 29 Oct 2014, 15 Mar 2020, 26 Jan 2022, 29 Oct 2025 and 16 Sep 2026.

Four things people get wrong



'QE is printing notes and handing them out.'

No notes are handed out. The central bank buys bonds and credits banks with reserves. Households receive nothing directly.



'Tapering means the Fed is selling bonds.'

During tapering the Fed is still buying, only less each month. Its balance sheet keeps growing until the buying stops.



'QT has ended, so QE has started again.'

The Fed's purchases since December 2025 are mainly of short-term Treasury bills. Its stated purpose is to keep bank reserves ample.



'The Fed decides what Indian markets do.'

It is one influence among several. RBI's account of 2013 names domestic weakness alongside global uncertainty.

Check yourself

Q1

A central bank cuts its monthly bond purchases from 50 to 30. Is its balance sheet growing or shrinking, and what is this step called?

Q2

In the 2013 episode, what happened to the rupee and to the 10-year government bond yield in India? Give the figures and dates.

Q3

When did the Fed's latest QT begin and end, and what were its total assets on 7 October 2026?

Sources and disclaimer

SOURCES FOR THE FIGURES IN THIS DECK

- Fed total assets: Federal Reserve H.4.1 releases for the six dates shown on slide 6.
- Purchase rounds and tapering: Federal Reserve press releases, 25 Nov 2008 to 26 Jan 2022; Federal Reserve Board, 'Open Market Operations' (policy tools page).
- How purchases create reserves: Federal Reserve Bank of New York, Liberty Street Economics, 10 Jul 2017.
- QT and the position now: Fed releases of 4 May 2022, 29 Oct 2025, 10 Dec 2025 and 16 Sep 2026; Balance Sheet Developments, May 2026; Monetary Policy Report, July 2026.
- India in 2013: RBI Annual Report 2013-14, Chapter II. Fed Chair's testimony to the US Congress, 22 May 2013.
- G-SAP 1.0: RBI press release, 8 Apr 2021. India 10-year yield and repo rate: FBIL G-Sec prices/yields, 31 Aug 2026, and RBI MPC minutes, 19 Aug 2026.

This material is for training and investor education only. It is not investment, tax or legal advice and is not a recommendation to buy, sell or hold any security or scheme. Examples use assumed figures unless a source and date are shown. Mutual fund investments are subject to market risks; read all scheme related documents carefully. Trustner Asset Services Pvt. Ltd. is an AMFI-registered Mutual Fund Distributor (ARN-286886).