

APOLLO

# Why is the yield curve steepening? Because of coming Fed cuts and fiscal challenges

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**Apollo Global Management**

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Unless otherwise noted, information as of August 2025.

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# Why is the yield curve steepening?

1. The Fed is cutting rates
2. If the market thinks the Fed is cutting for political reasons, it puts upward pressure on inflation expectations and ultimately long rates, which also steepens the curve.
3. Growing Treasury issuance is putting upward pressure on long rates.

# Fed expectations and inflation expectations

The market is pricing that inflation in one year will be 3.3%, significantly above the Fed's 2% target



Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Ticker used USSWIT1 Curncy

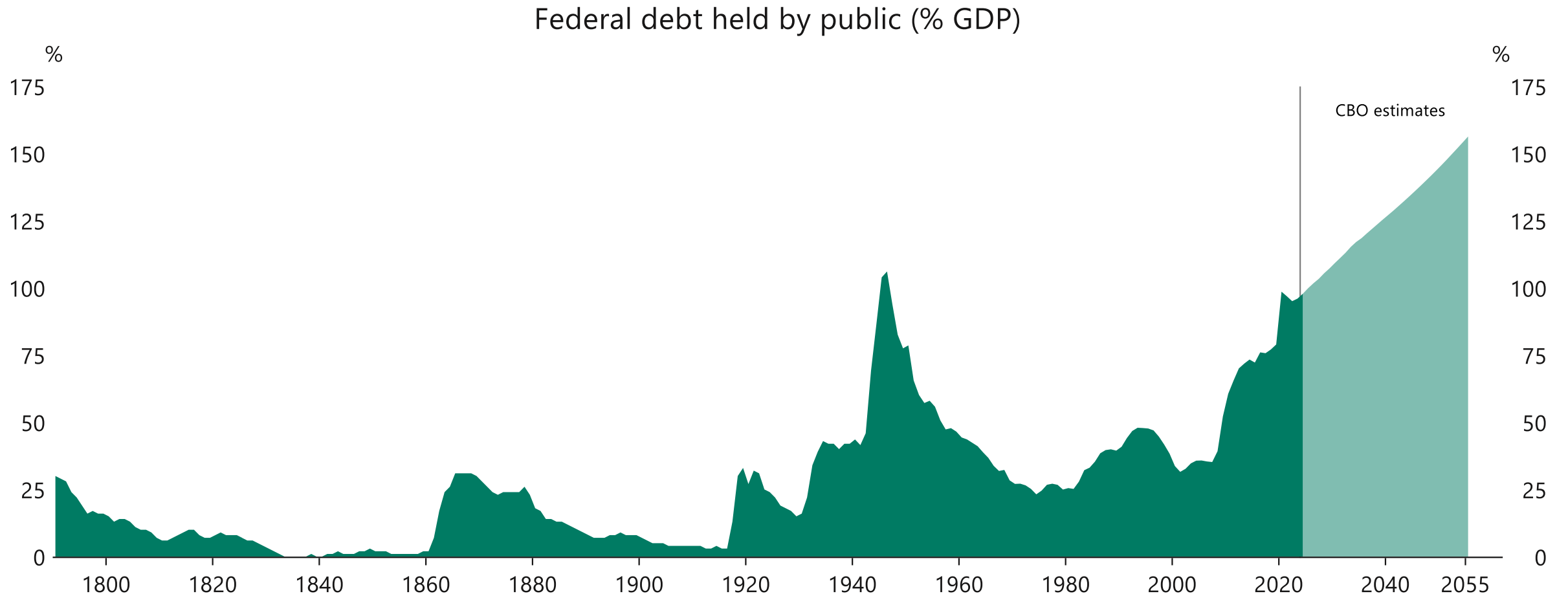
# Spread between 30s and 10s continues to widen



Source: Bloomberg, Macrobond, Apollo Chief Economist

# The US fiscal outlook

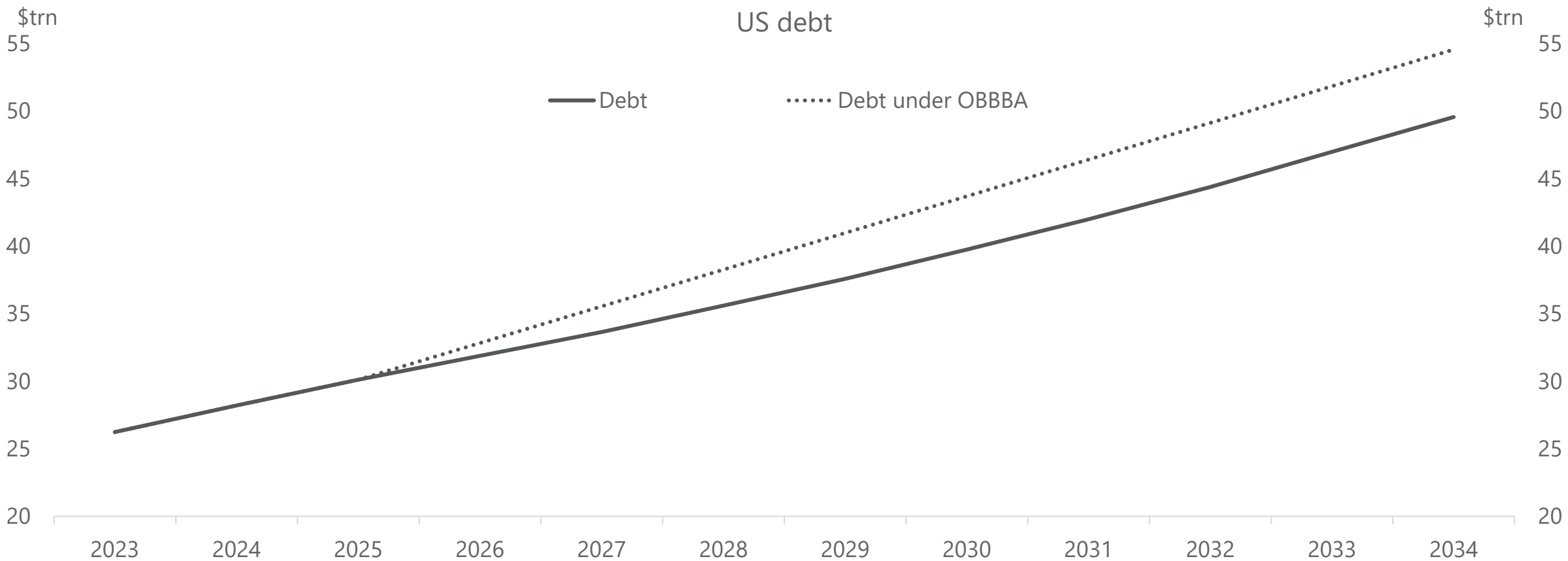
CBO: Under current policies, government debt outstanding will grow from 100% to 150% of GDP



Source: U.S. Congressional Budget Office (CBO), Macrobond, Apollo Chief Economist



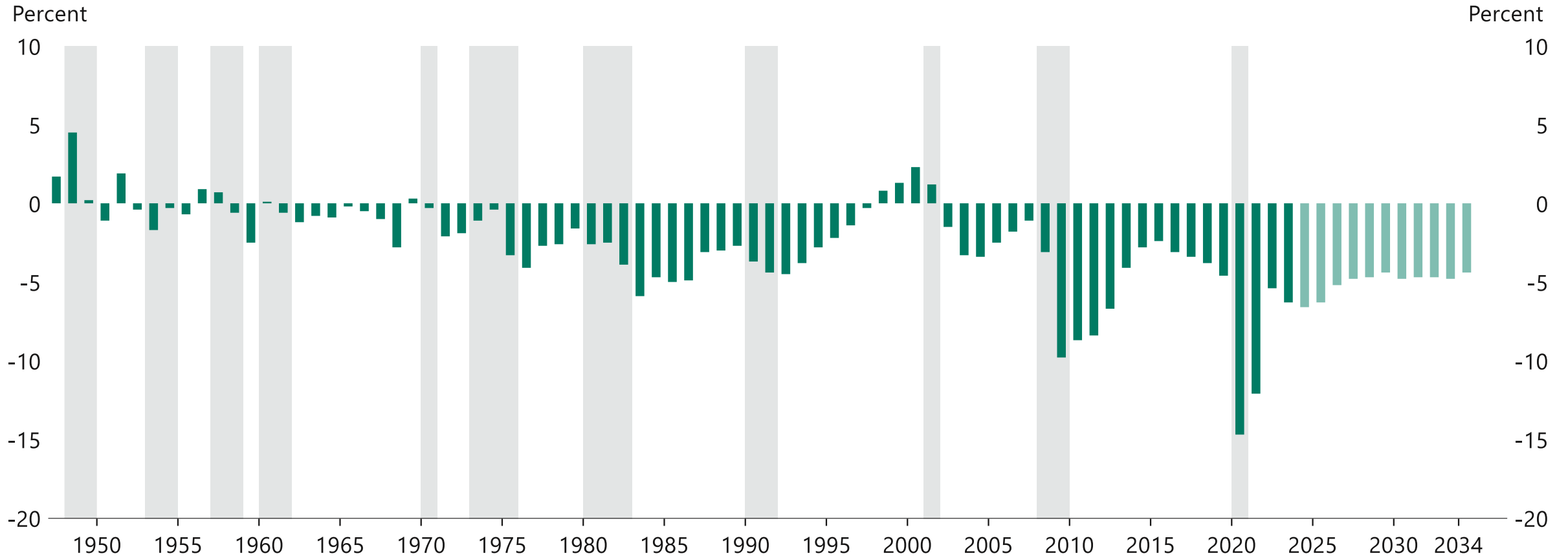
# Debt levels expected to rise further under the One Big Beautiful Bill Act



Source: CBO, Committee for responsible budget, Macrobond, Apollo Chief Economist. Note: CfrB estimates a rise in debt by \$5trn under One Big Beautiful Bill Act of 2025 (OBBBA) if its temporary provisions are extended without offsets.

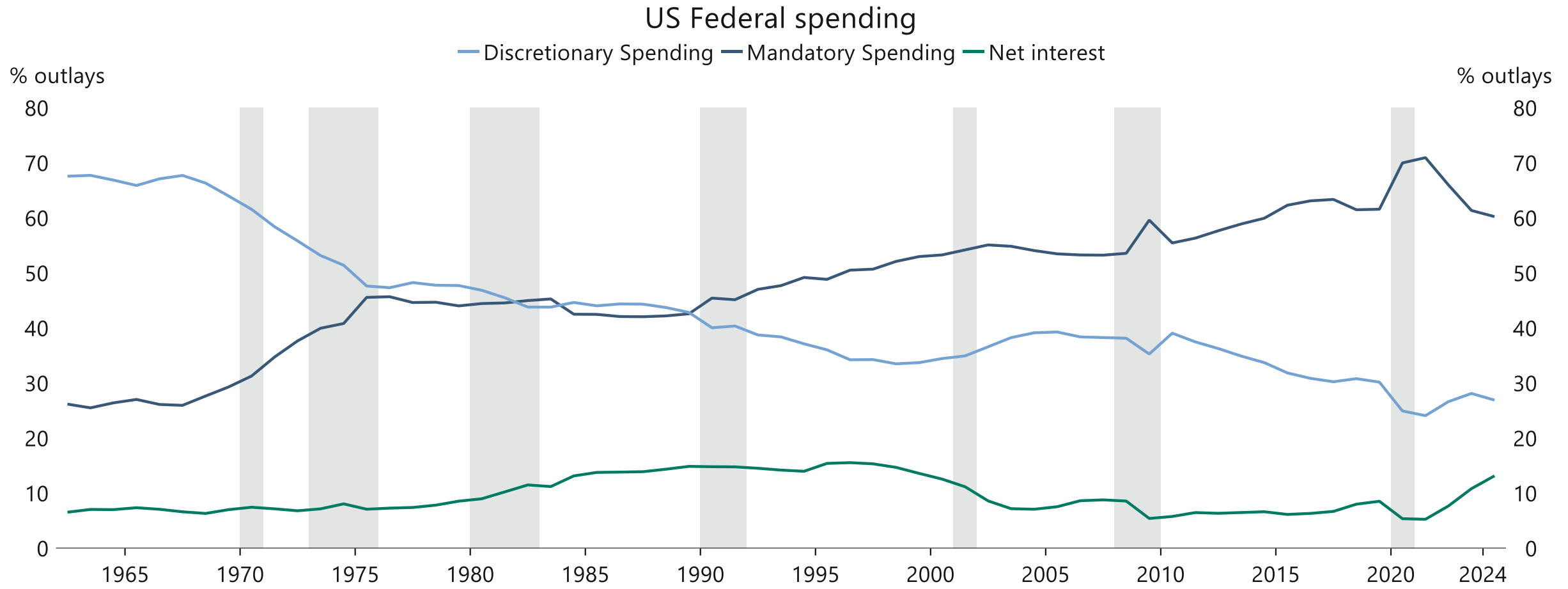
# OMB forecasts 5% budget deficit every year for the next 10 years

US: Budget surplus/deficit as a % of GDP



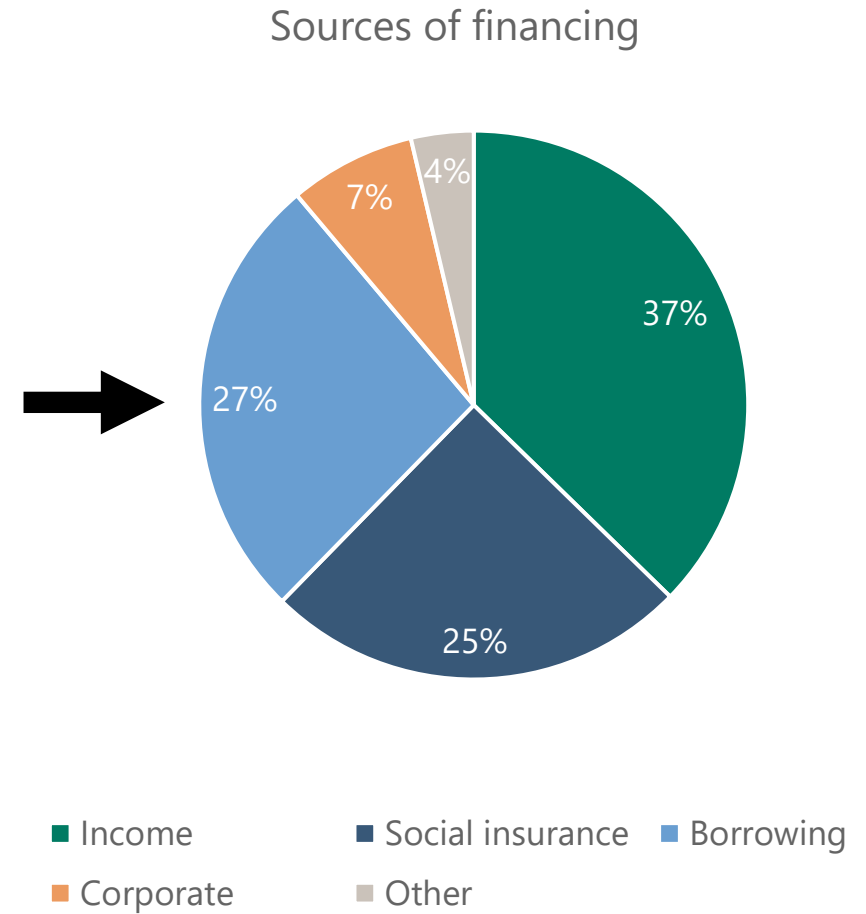
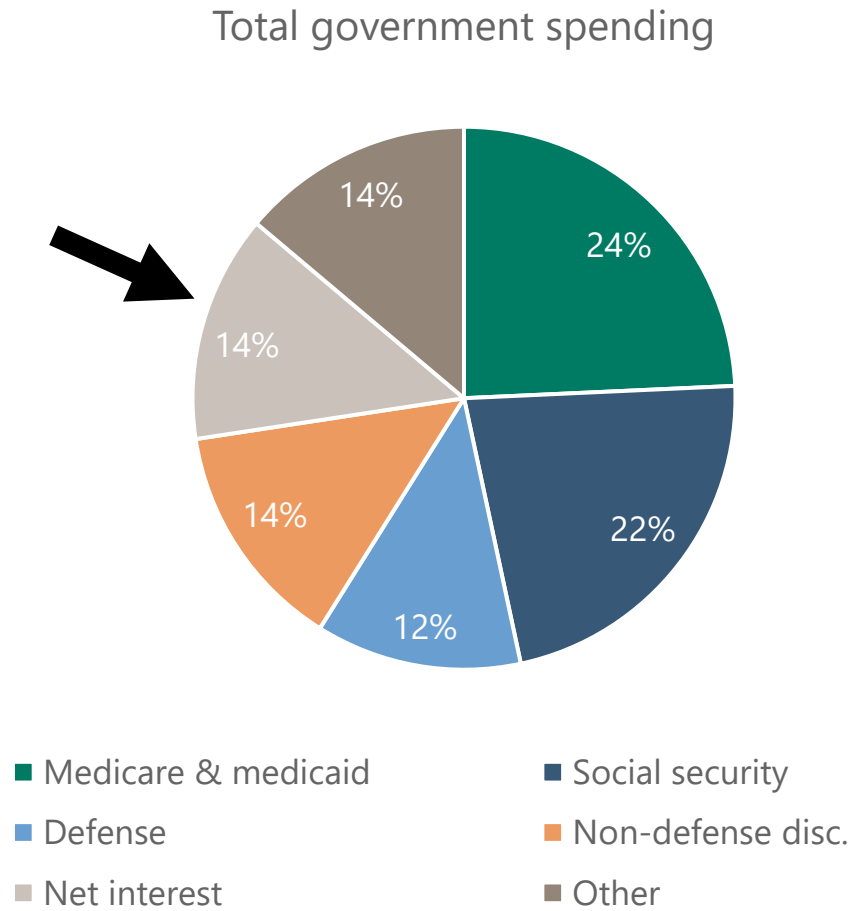
Source: U.S. Office of Management & Budget, Macrobond, Apollo Chief Economist

# Discretionary government spending has declined from 70% of total outlays to 30%



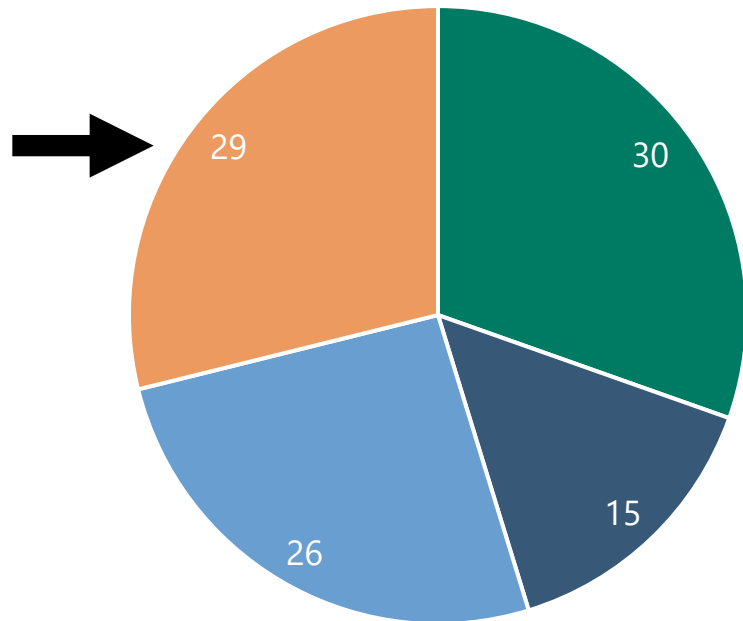
Source: U.S. Congressional Budget Office (CBO), Macrobond, Apollo Chief Economist

# The 2025 federal budget: Net interest payments make up 14% of total government spending



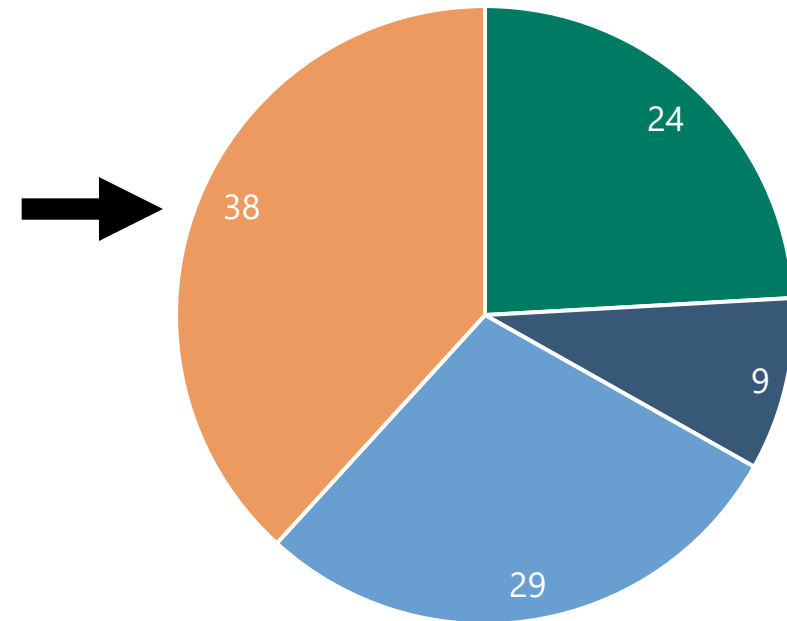
# CBO: Non-interest outlays distribution: Healthcare is more and more important

Total non-interest outlays, 2025



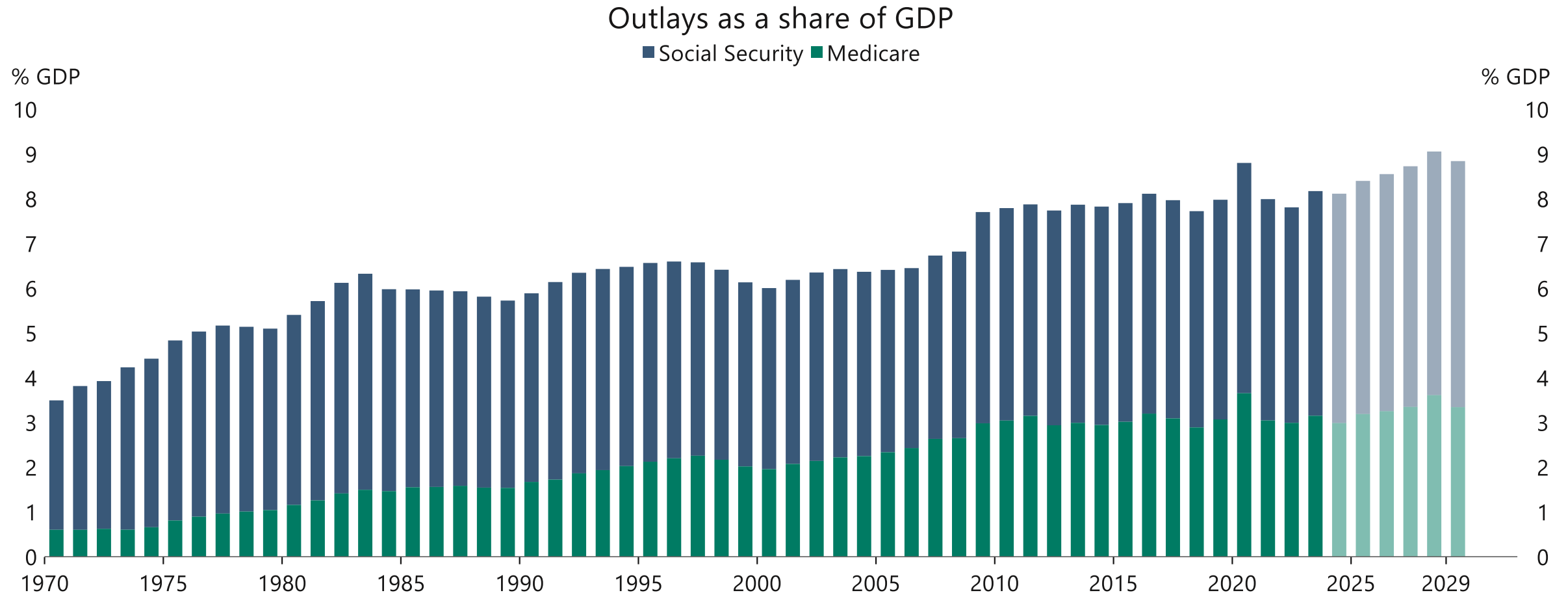
- Discretionary
- Social Security
- Other mandatory
- Major health care programs

Total non-interest outlays, 2055



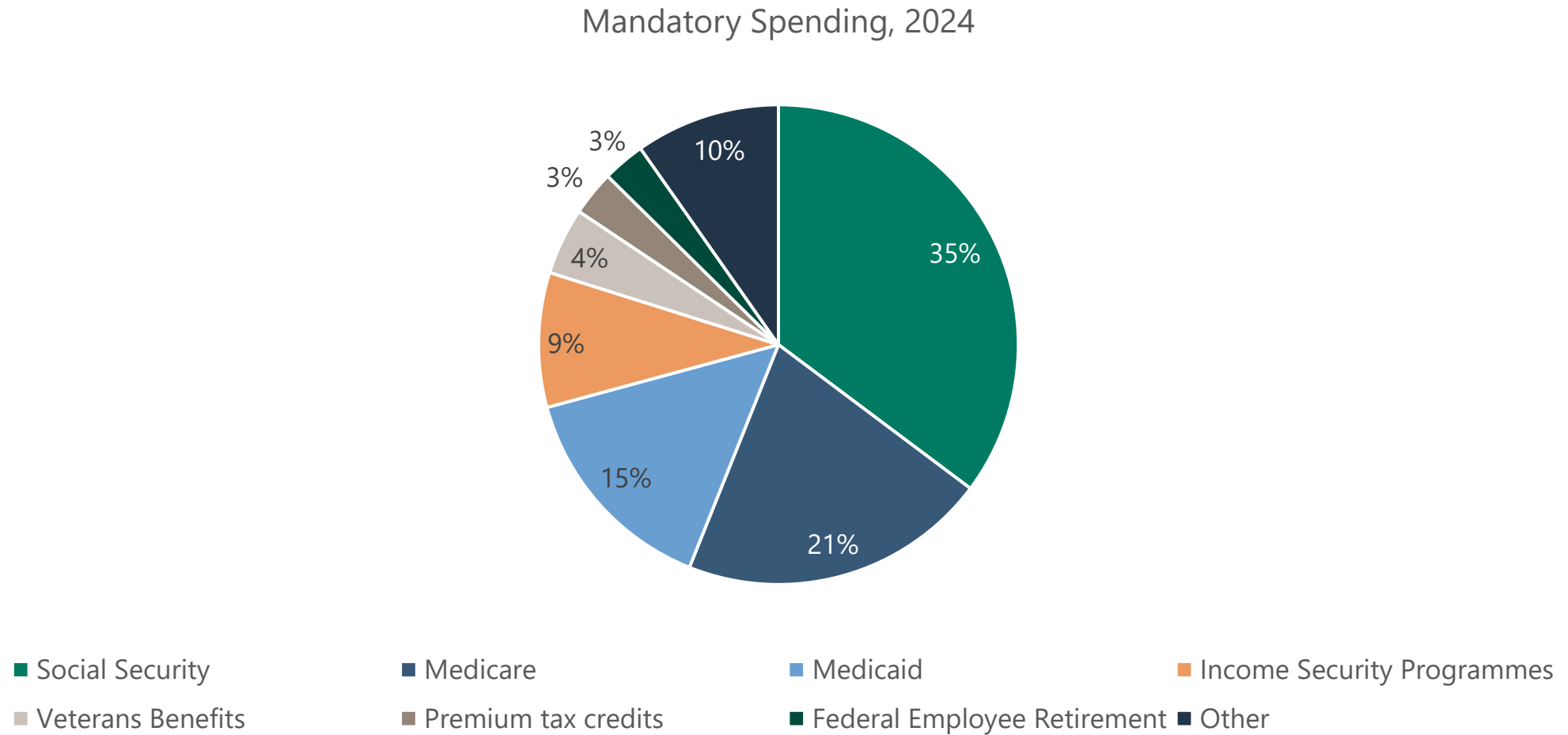
- Discretionary
- Social Security
- Other mandatory
- Major health care programs

# Budget pressures from an ageing population: Spending on Social Security and Medicare rising to 9% of GDP

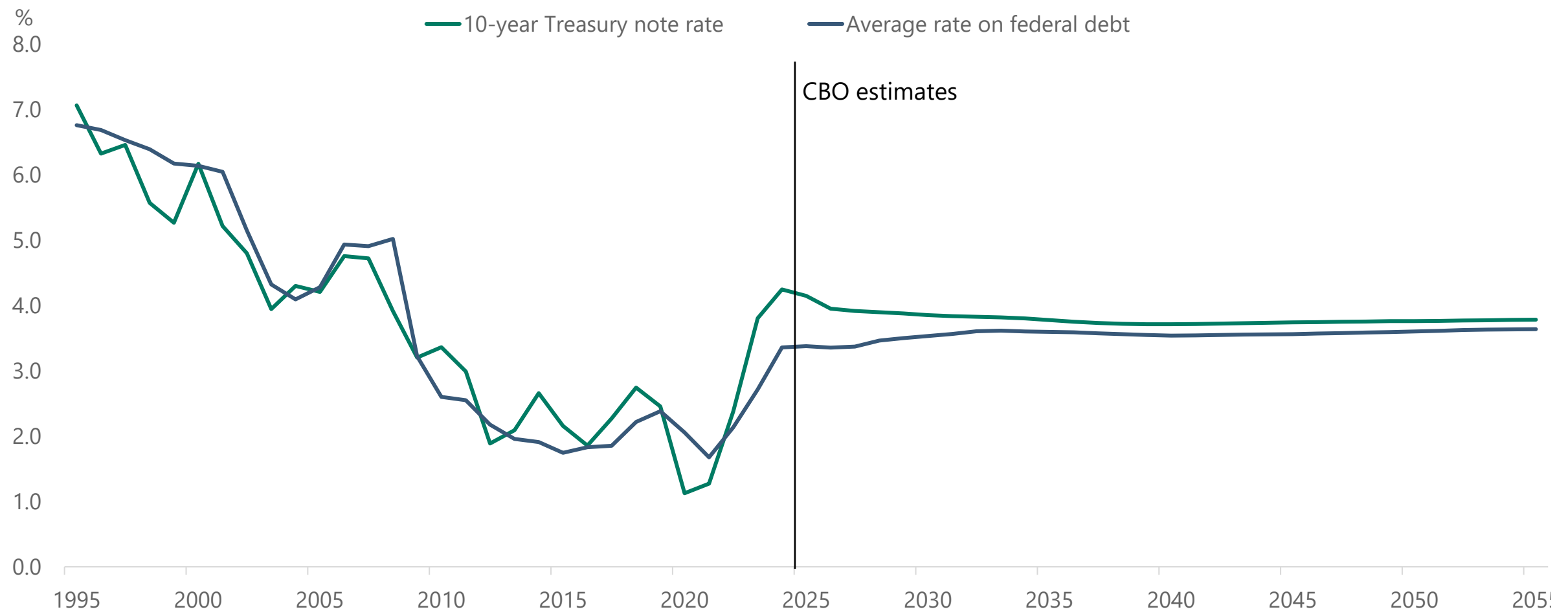


Source: U.S. Office of Management & Budget, Macrobond, Apollo Chief Economist

# Social security, Medicare and Medicaid make up 70% of mandatory spending



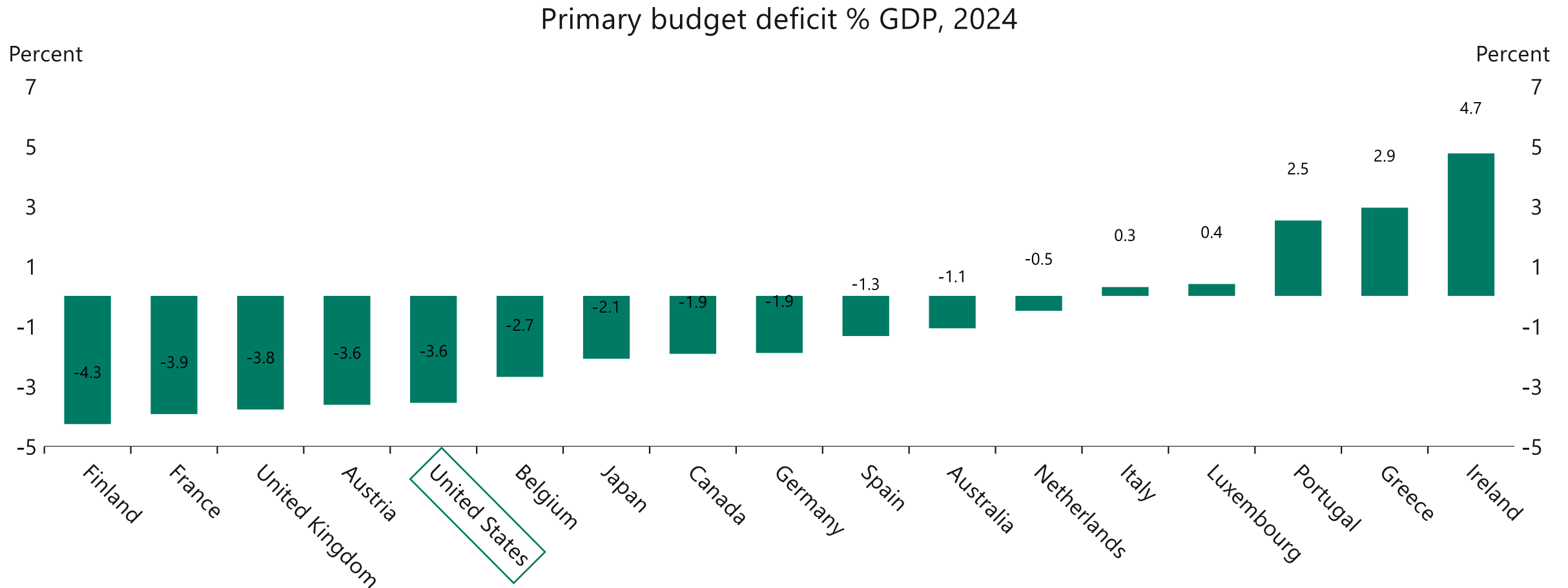
# CBO interest rate assumptions



Source: The Long-Term Budget Outlook: 2025 to 2055, CBO, Apollo Chief Economist



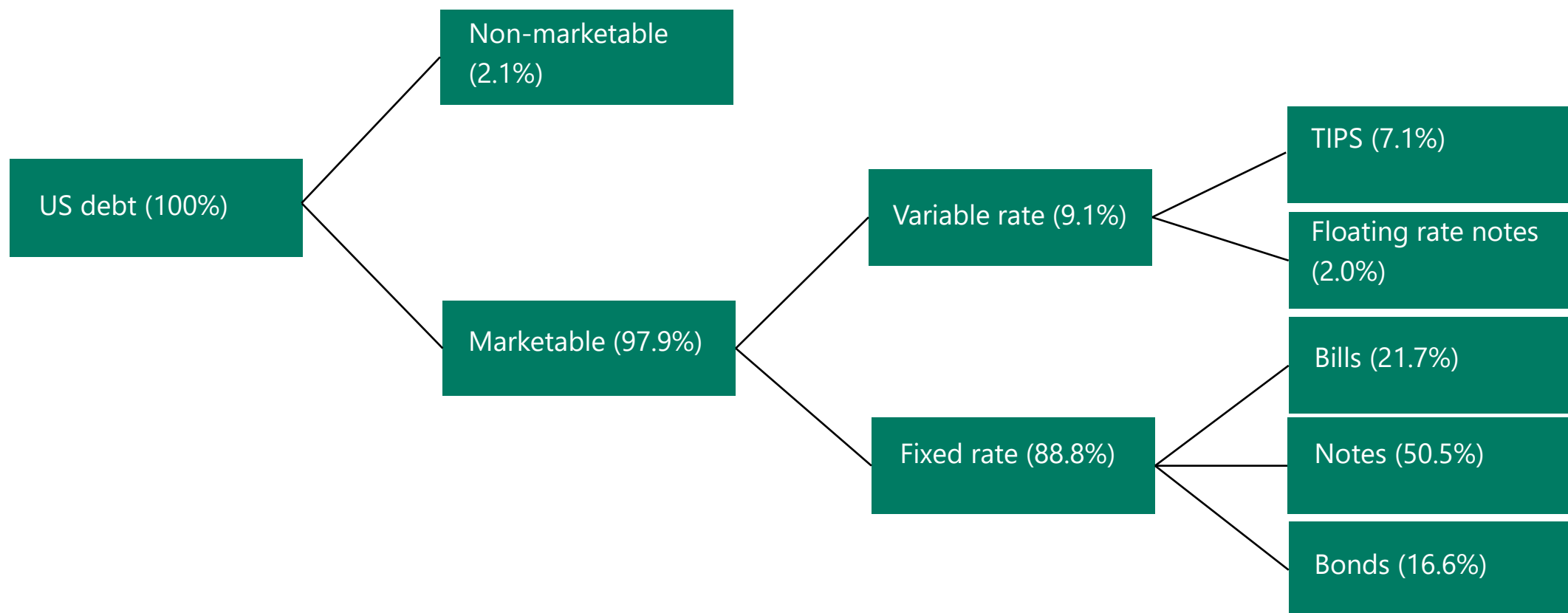
# The US has a bigger primary budget deficit than many other countries



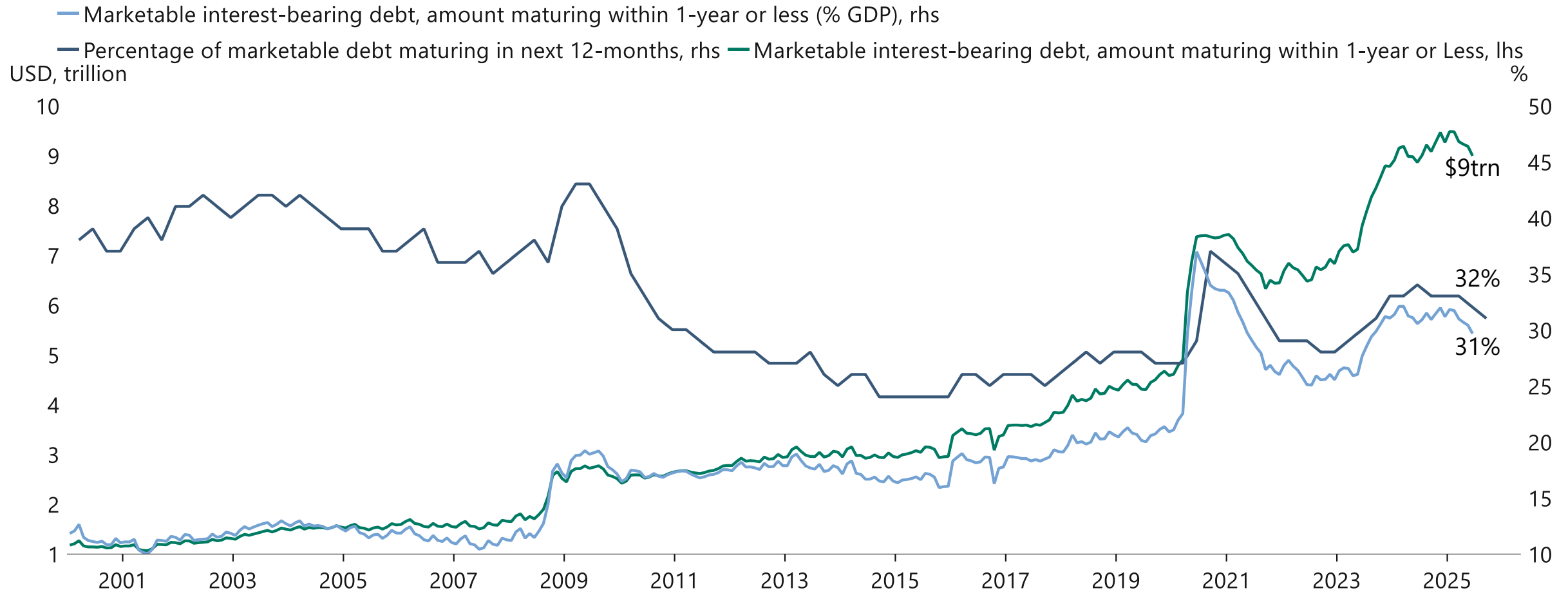
Source: International Monetary Fund (IMF), Macrobond, Apollo Chief Economist. Note: Primary budget deficit = budget deficit excluding interest payments.

# The maturity structure of US government debt

89% of US government debt is fixed rate. And 22% is in bills.

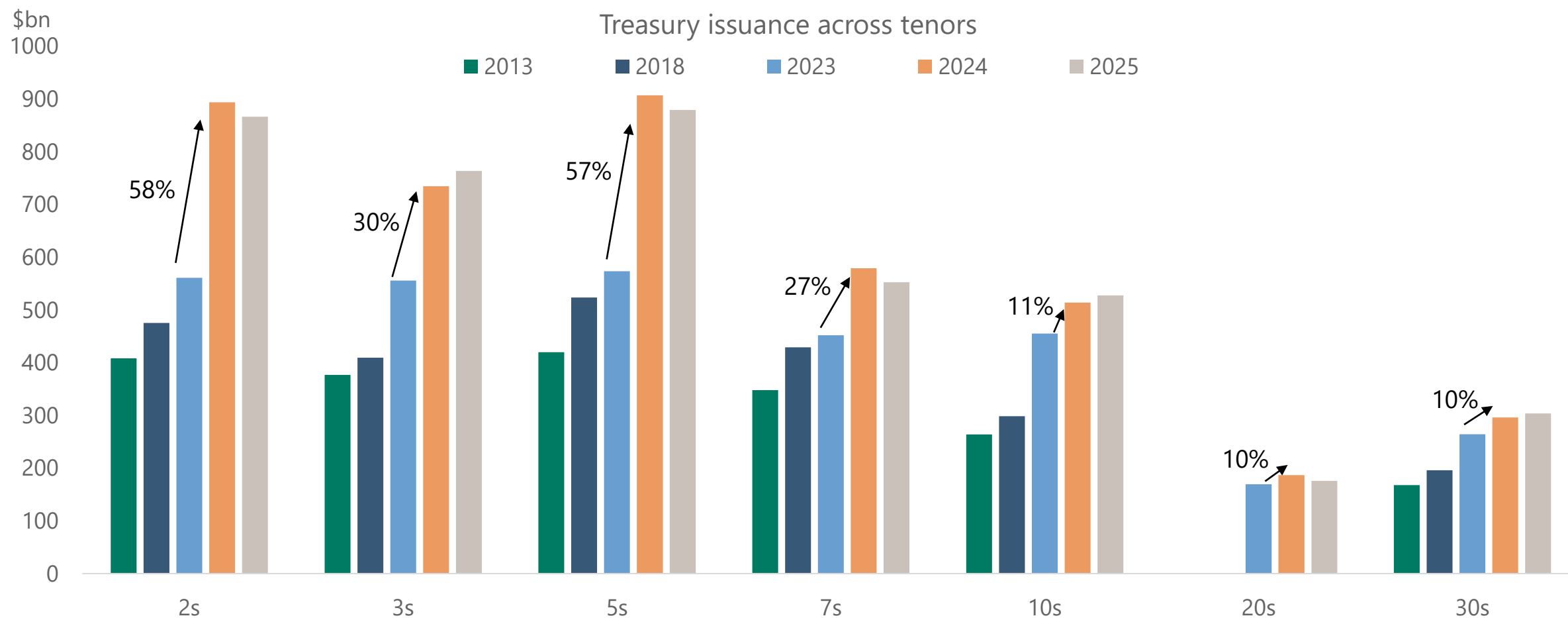


# \$9trn of government debt will mature over the next year

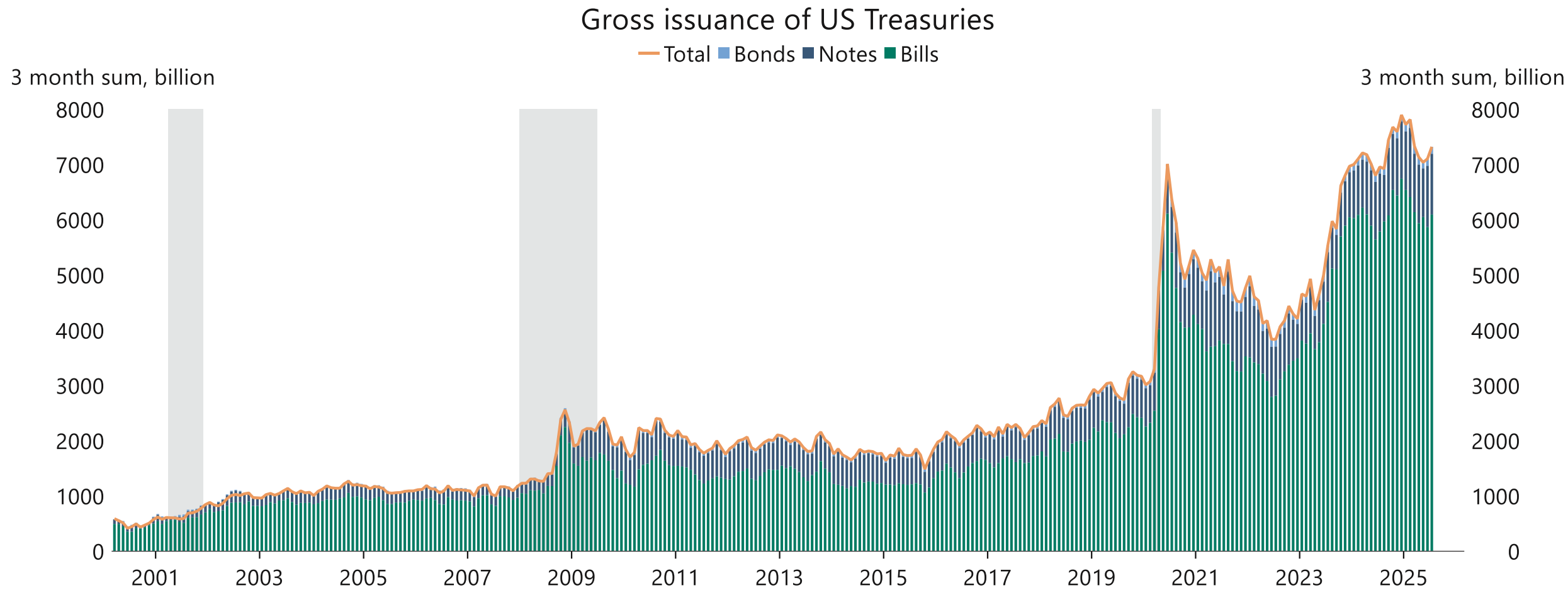


Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

# Treasury auction sizes have increased on across the yield curve

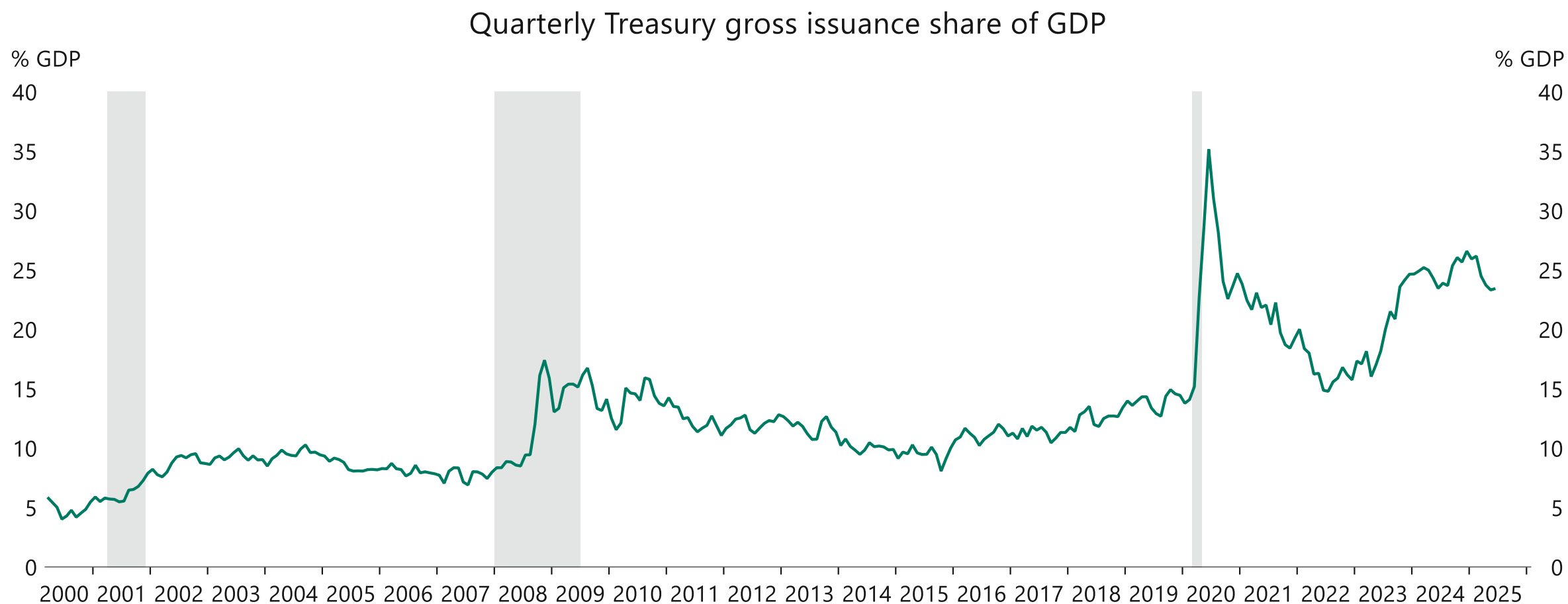


# Gross issuance of Treasuries: \$7trn



Source: SIFMA (Securities Industry & Financial Markets Association), Macrobond, Apollo Chief Economist

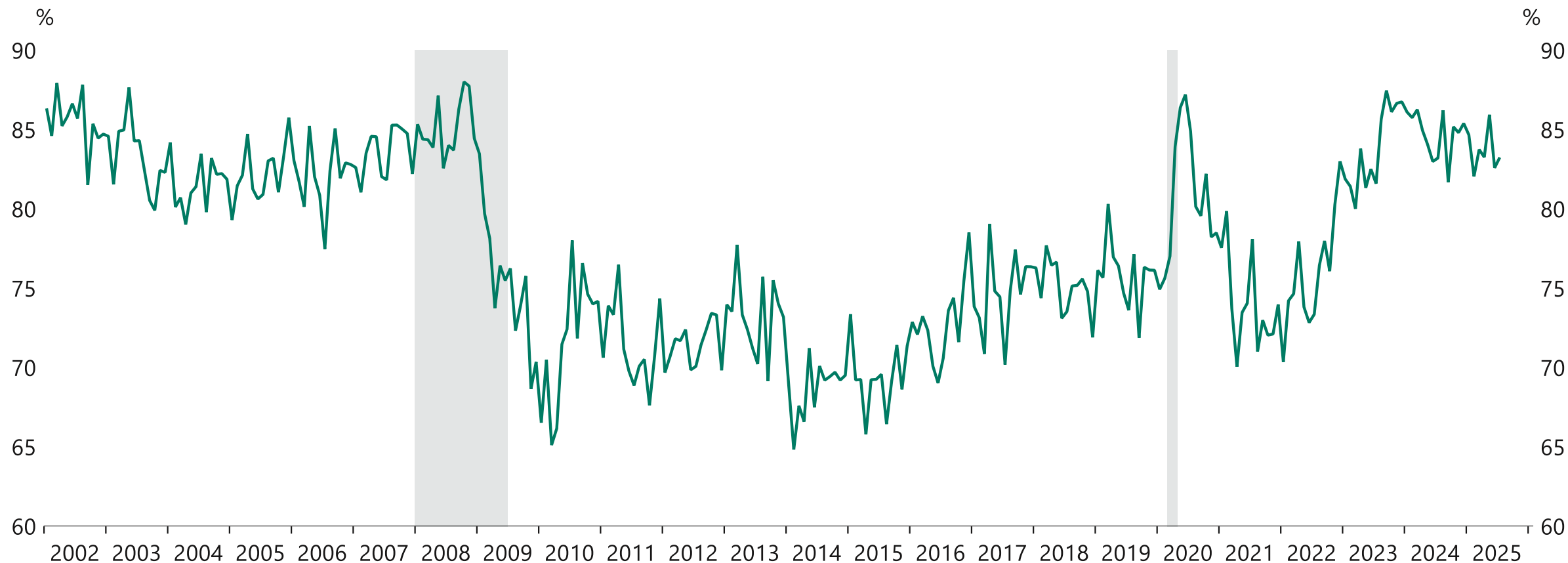
# Quarterly gross Treasury issuance as a share of nominal GDP



Source: SIFMA, BEA, Macrobond, Apollo Chief Economist

# High share of Treasury gross issuance is T-bills

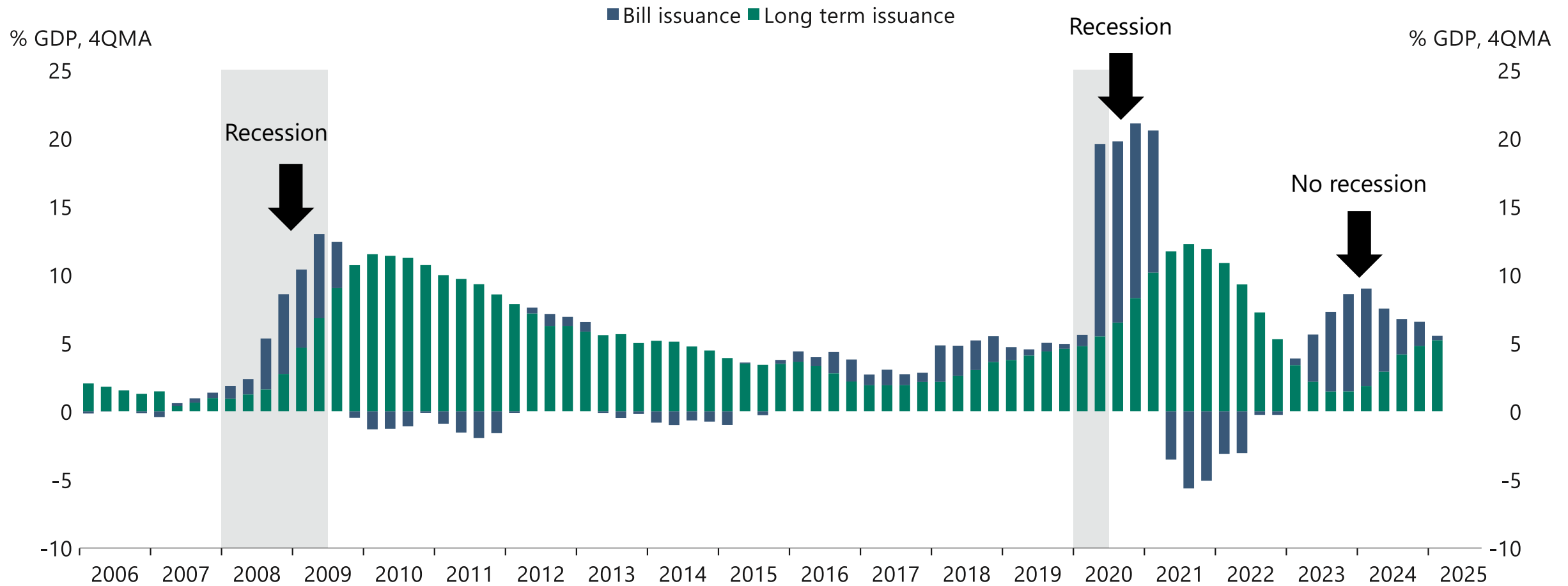
T-Bills share of gross Treasury issuance



Source: SIFMA (Securities Industry & Financial Markets Association), Macrobond, Apollo Chief Economist

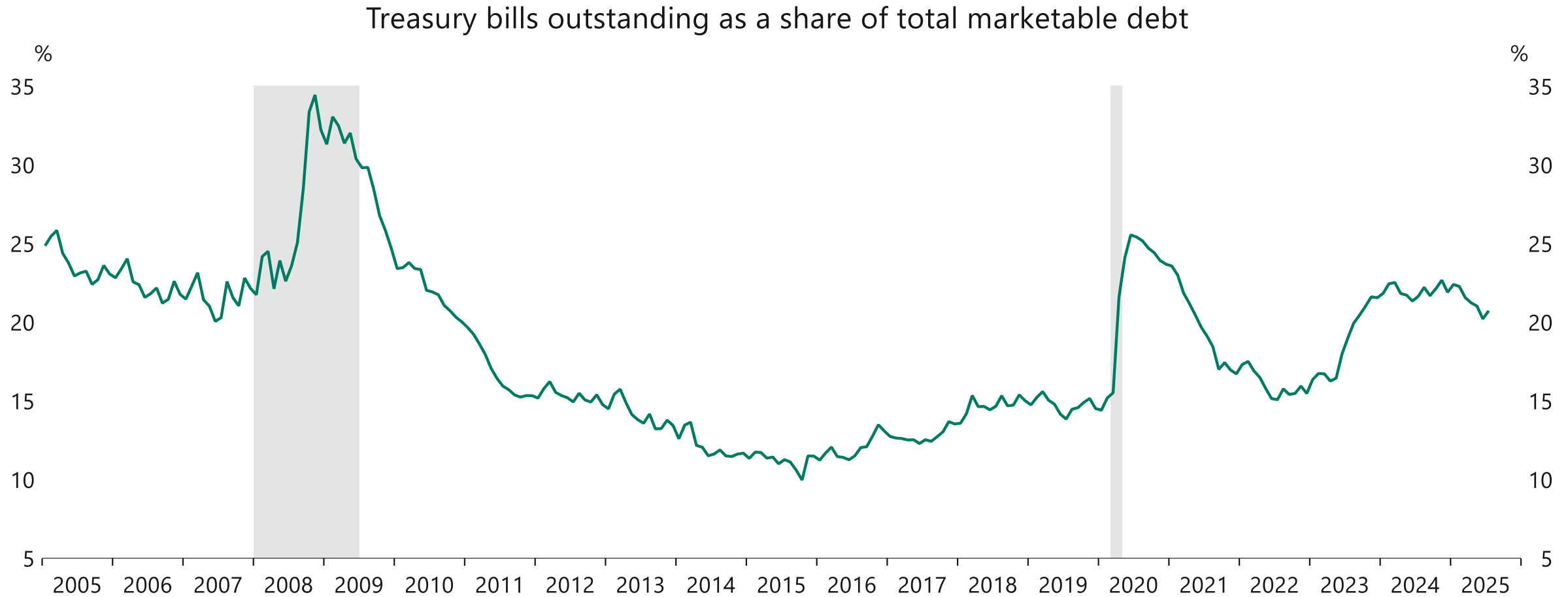


# Normally, the Treasury only issues a lot of T-bills during recessions



Source: Federal Reserve, U.S. Bureau of Economic Analysis (BEA), Macrobond, Apollo Chief Economist

# Share of T-bills outstanding has increased



Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

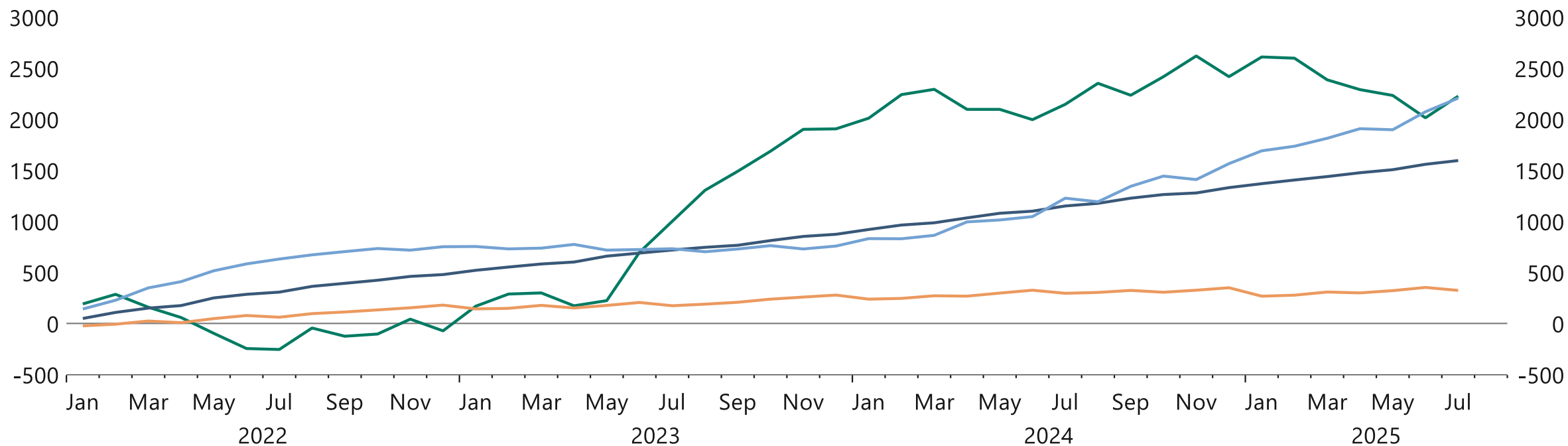
# Significant increase in the supply of T-bills

## Marketable Treasury securities outstanding

— Treasury Inflation-Protected Securities — Notes — Bonds — Bills

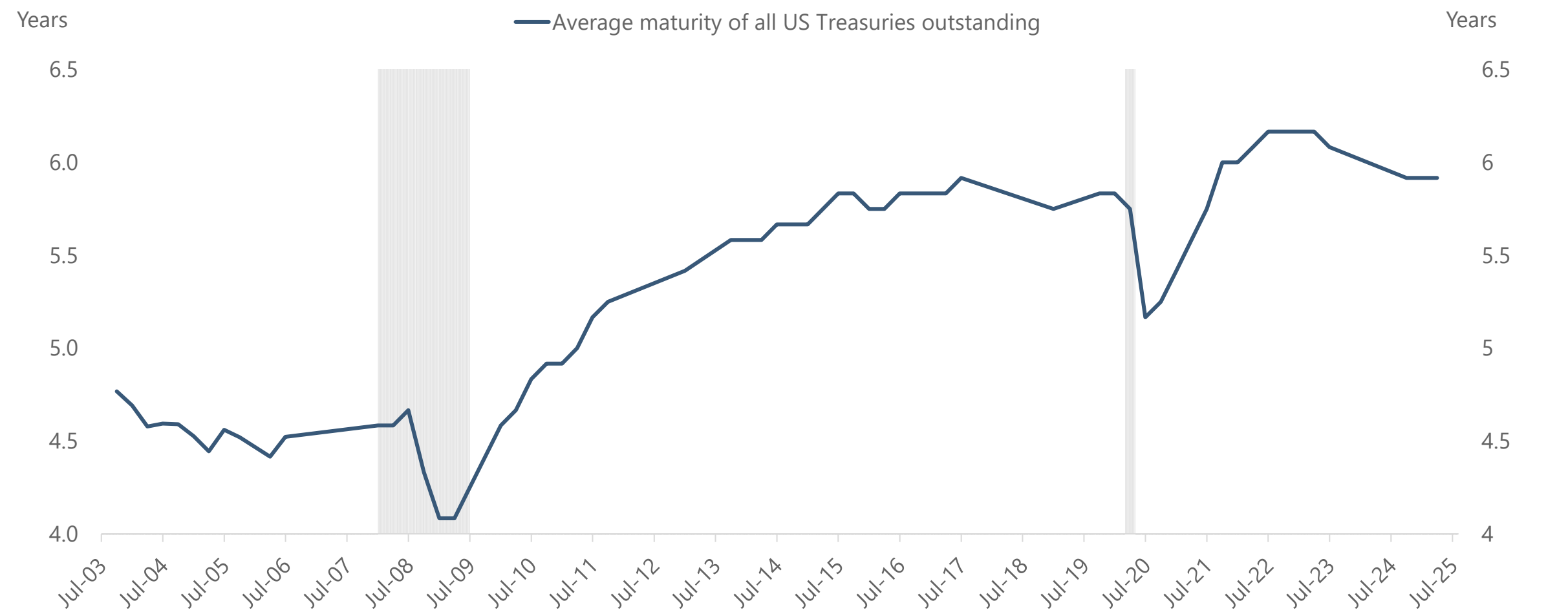
USD,  
change since  
Jan 22, billion

USD,  
change since  
Jan 22, billion



Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

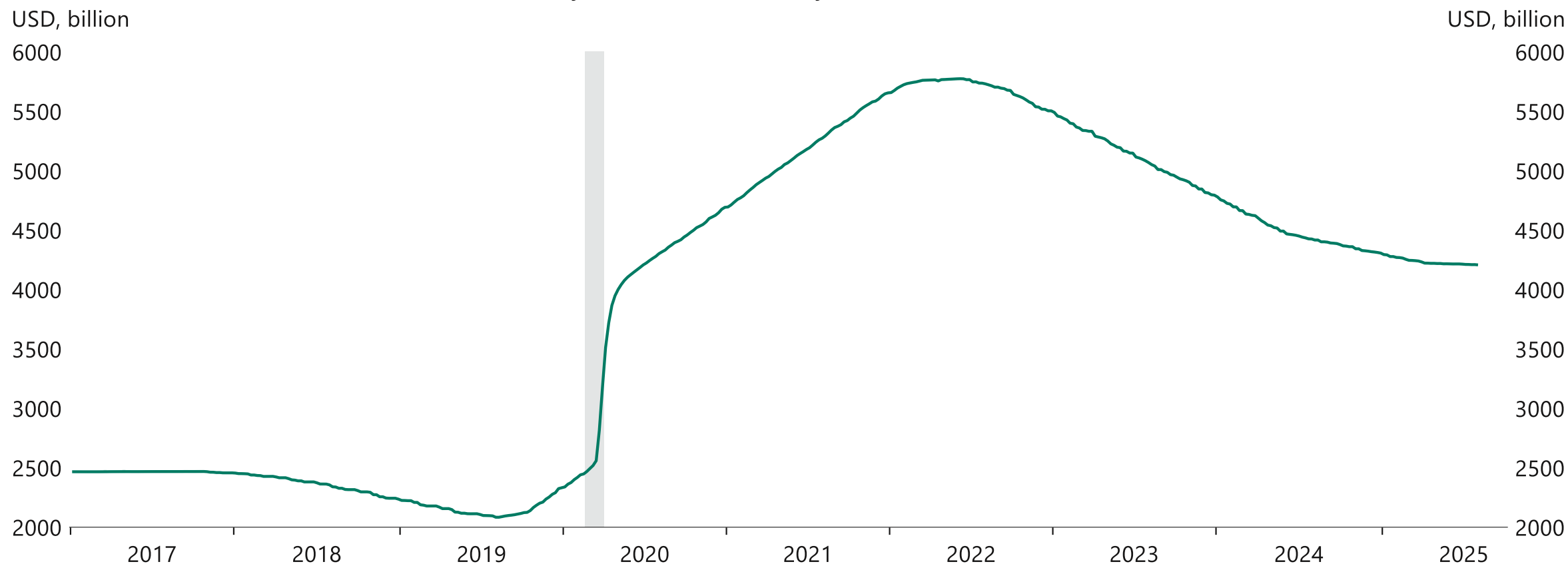
# Weighted average maturity of debt outstanding declining



Source: Treasury, Haver Analytics, Apollo Chief Economist

# More Treasury supply coming from QT

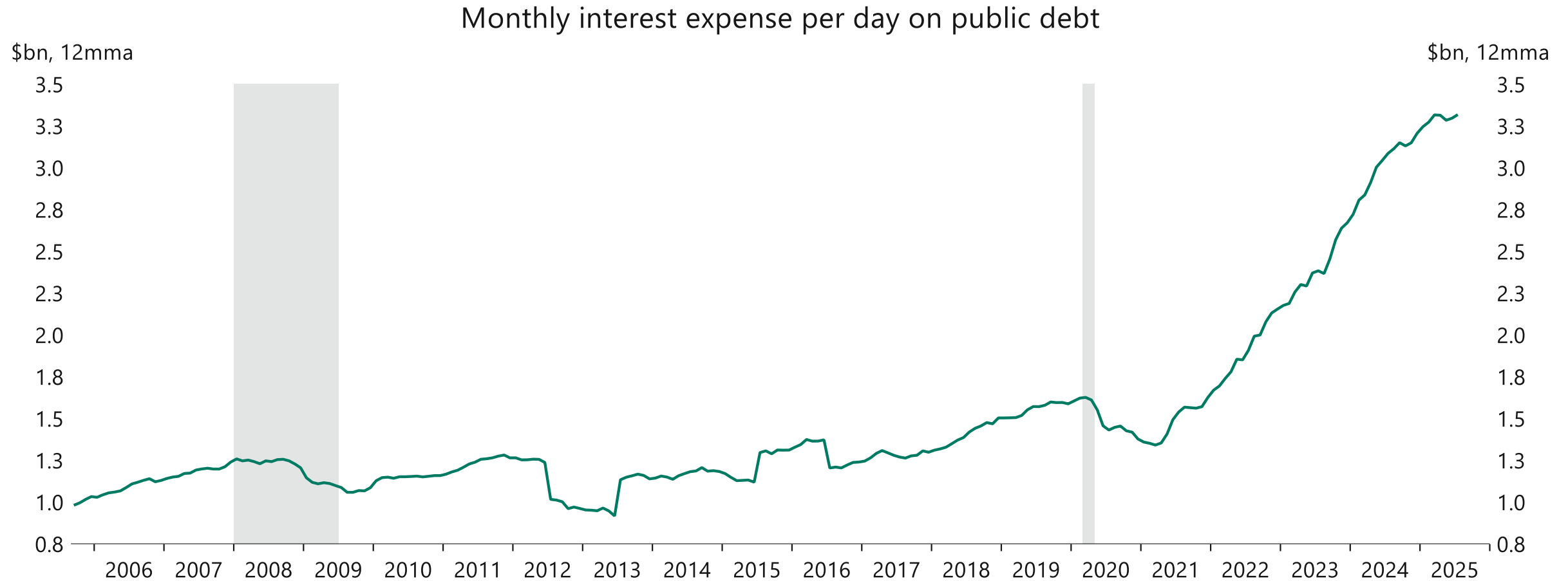
Treasury securities held by the Federal Reserve



Source: Federal Reserve, Macrobond, Apollo Chief Economist

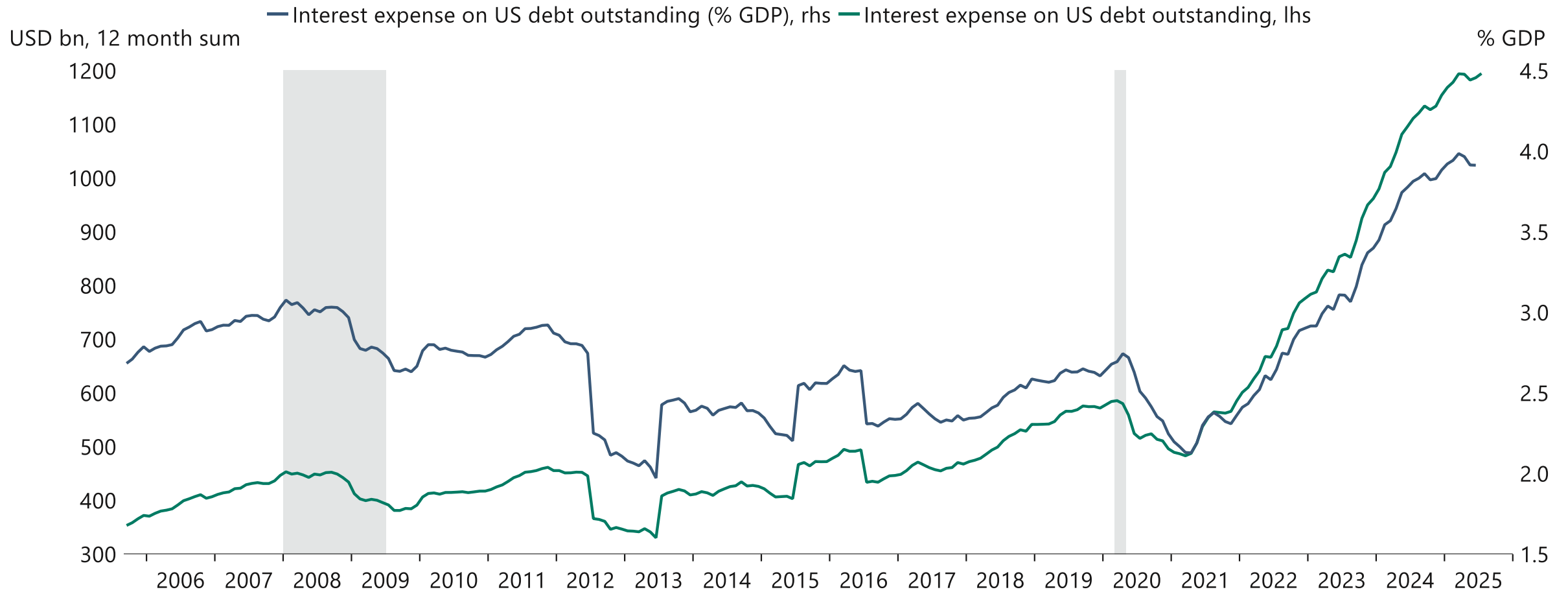
Debt servicing costs rising

# Average federal net interest expense per day: \$3.3bn



Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

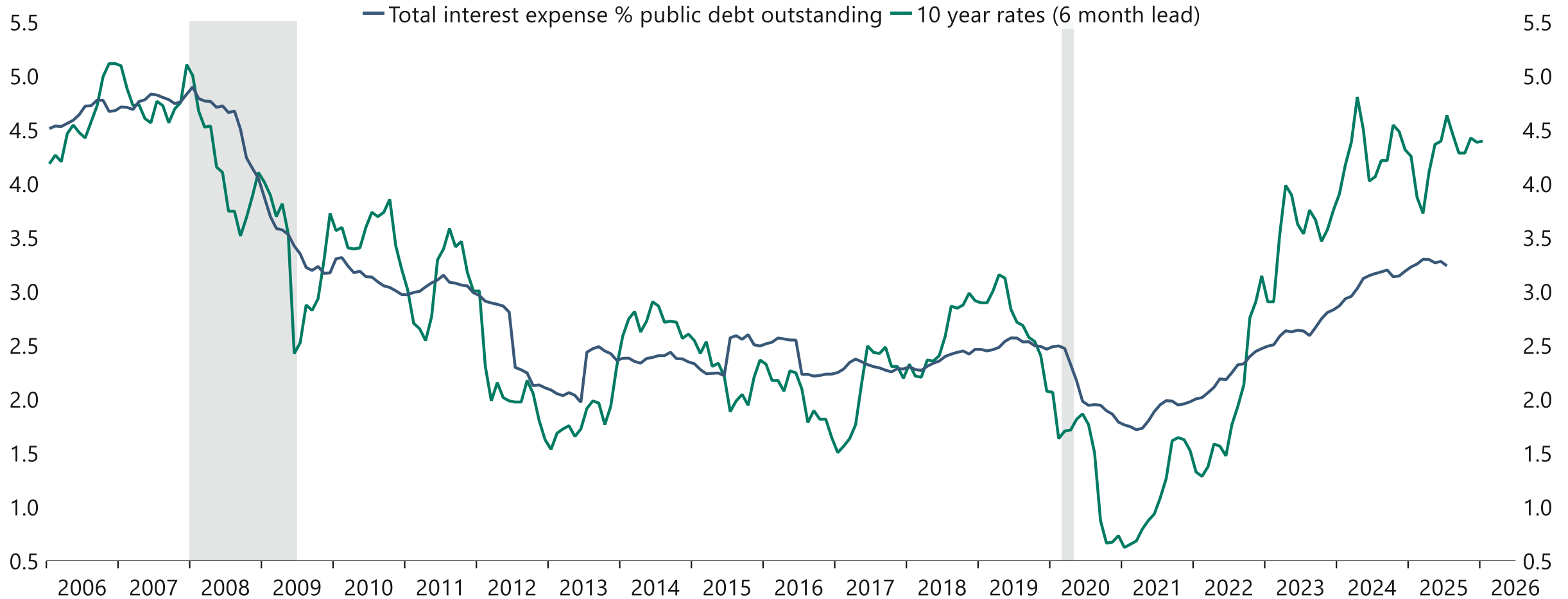
# US government paying \$1trn annually in debt servicing costs



Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

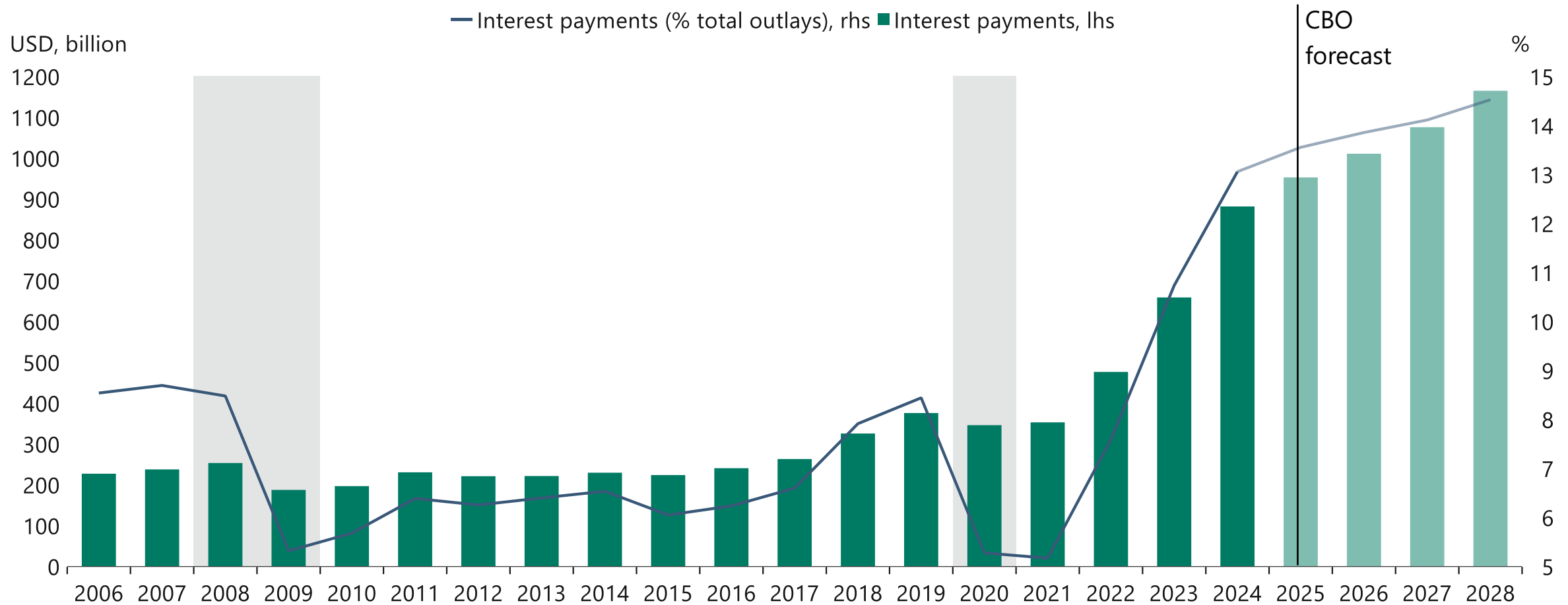


# Higher interest rates and higher debt levels putting upward pressure on interest payments



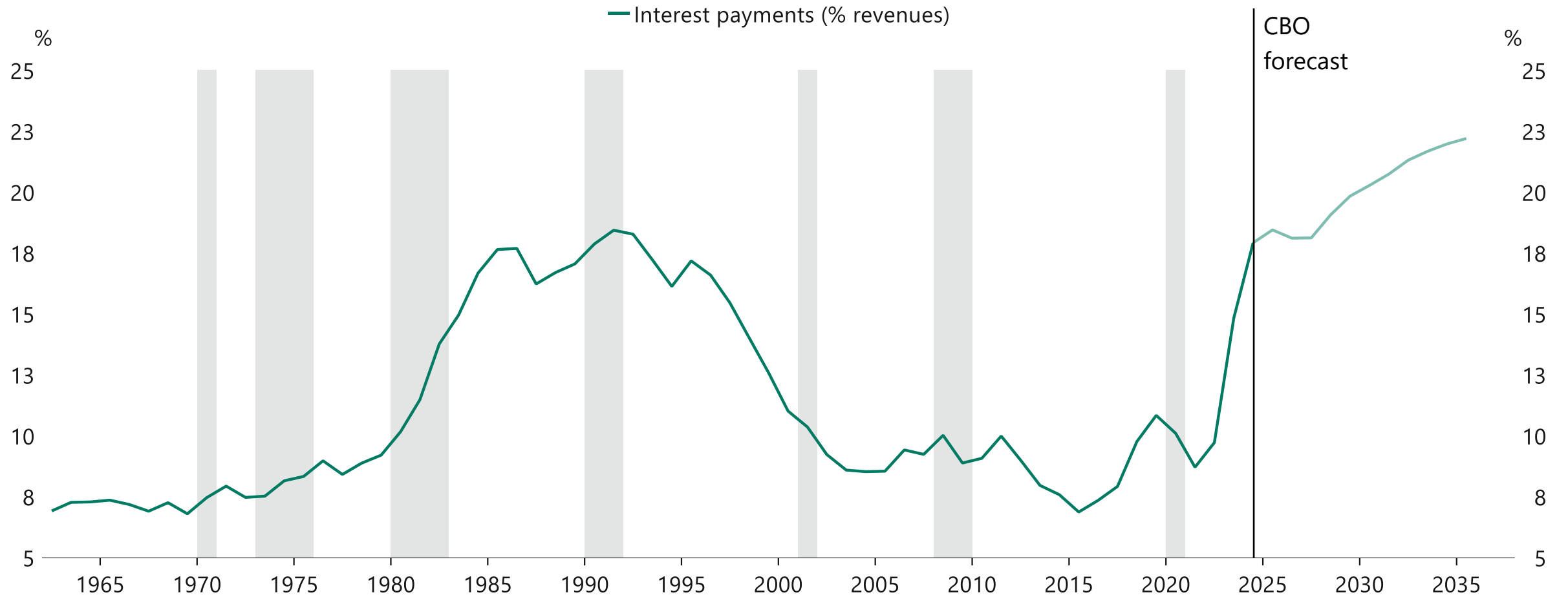
Source: Federal Reserve, Macrobond, Apollo Chief Economist

# Net interest payments make up 13% of government spending



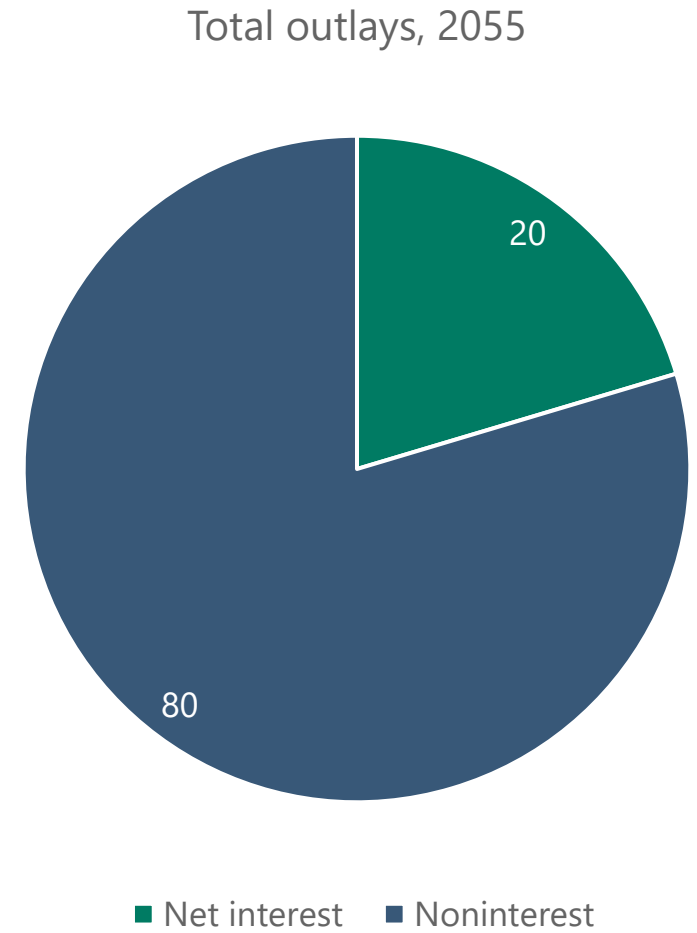
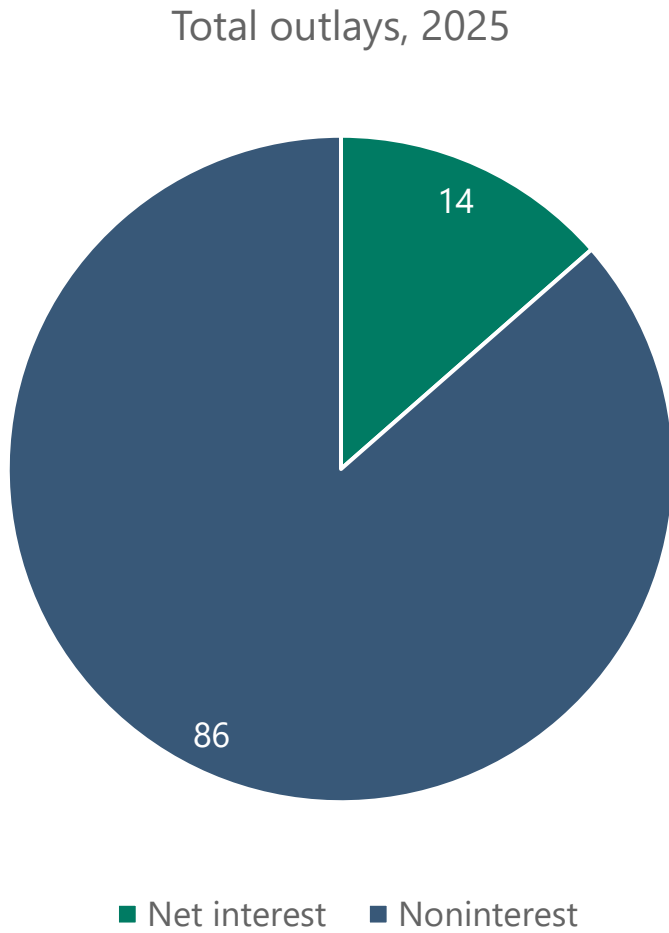
Source: U.S. Congressional Budget Office (CBO), Macrobond, Apollo Chief Economist

# Net interest payments make up 18% of government revenues

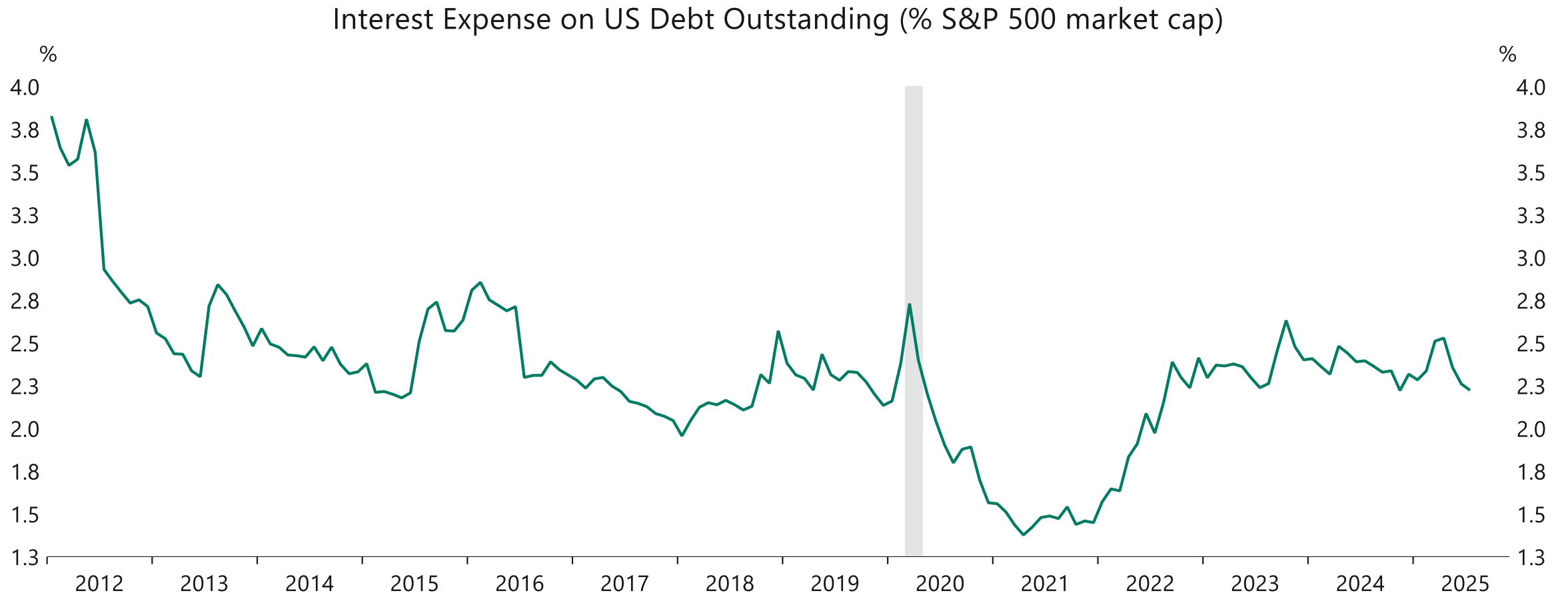


Source: U.S. Congressional Budget Office (CBO), Macrobond, Apollo Chief Economist

# CBO: Debt servicing costs will grow as a share of total outlays

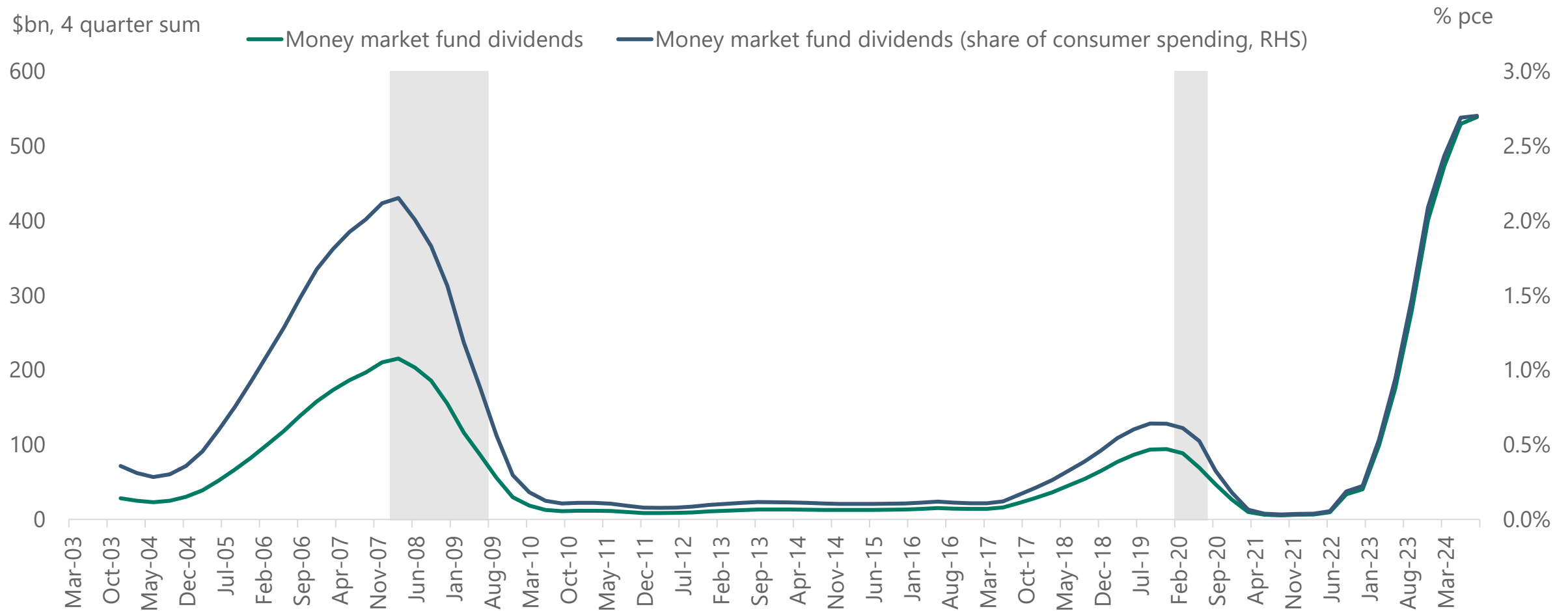


# Interest expense on US government debt as a % of S&P 500 market cap



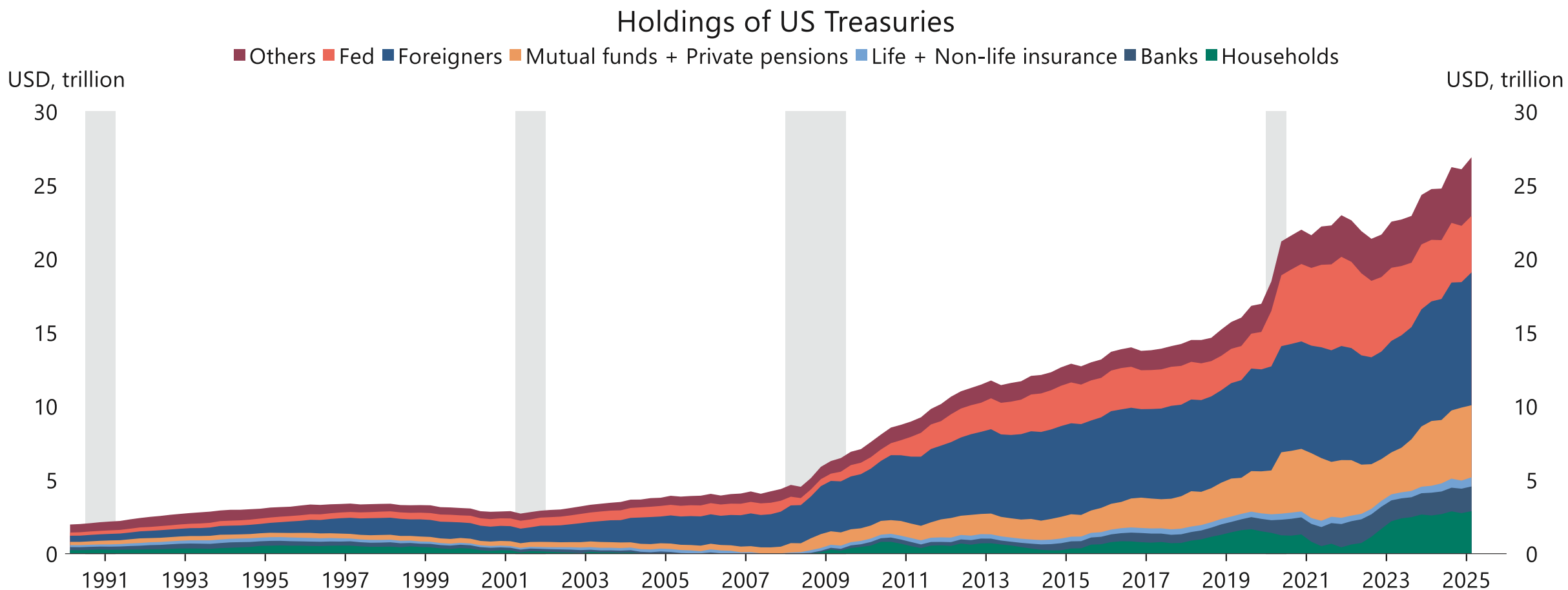
Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

Money market funds currently pay around \$500bn in dividends.  
That's 2.5% of annual consumer spending.



Who owns US government debt?

Foreigners own about \$9trn in Treasuries, about 25% of the total



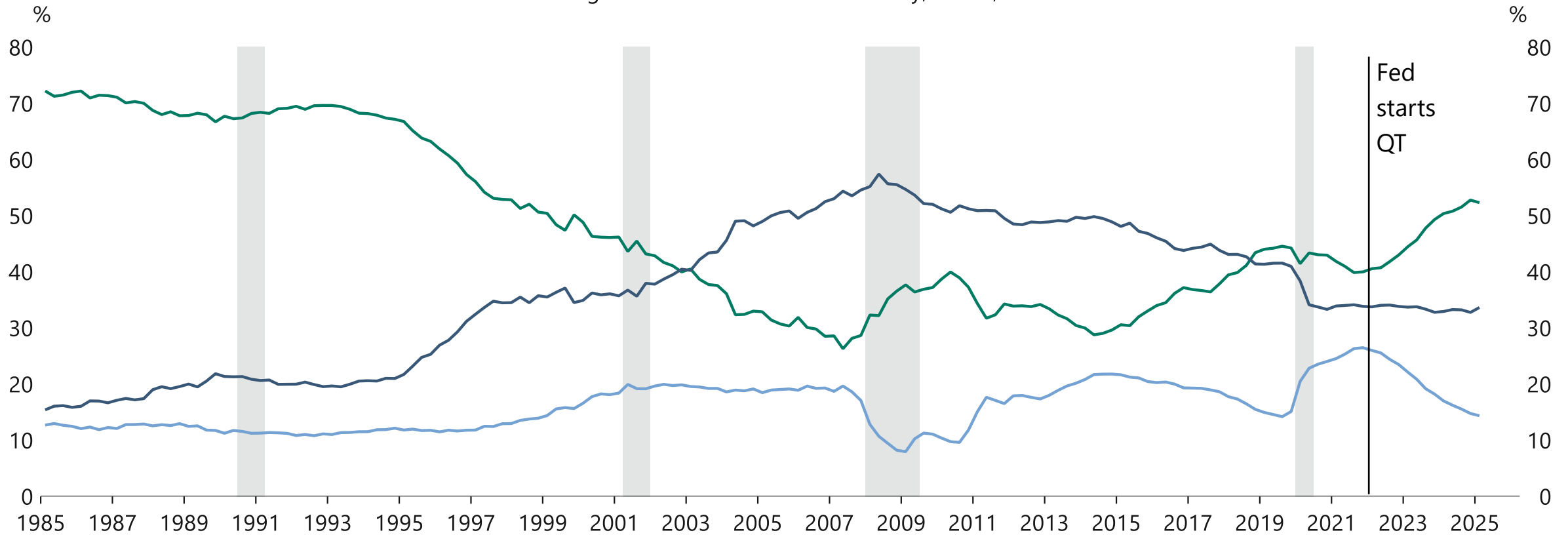
Source: Federal Reserve, Macrobond, Apollo Chief Economist



# Fed selling Treasuries (doing QT). Domestic investors buying Treasuries

Holdings of US Treasuries ( % Treasury debt outstanding)

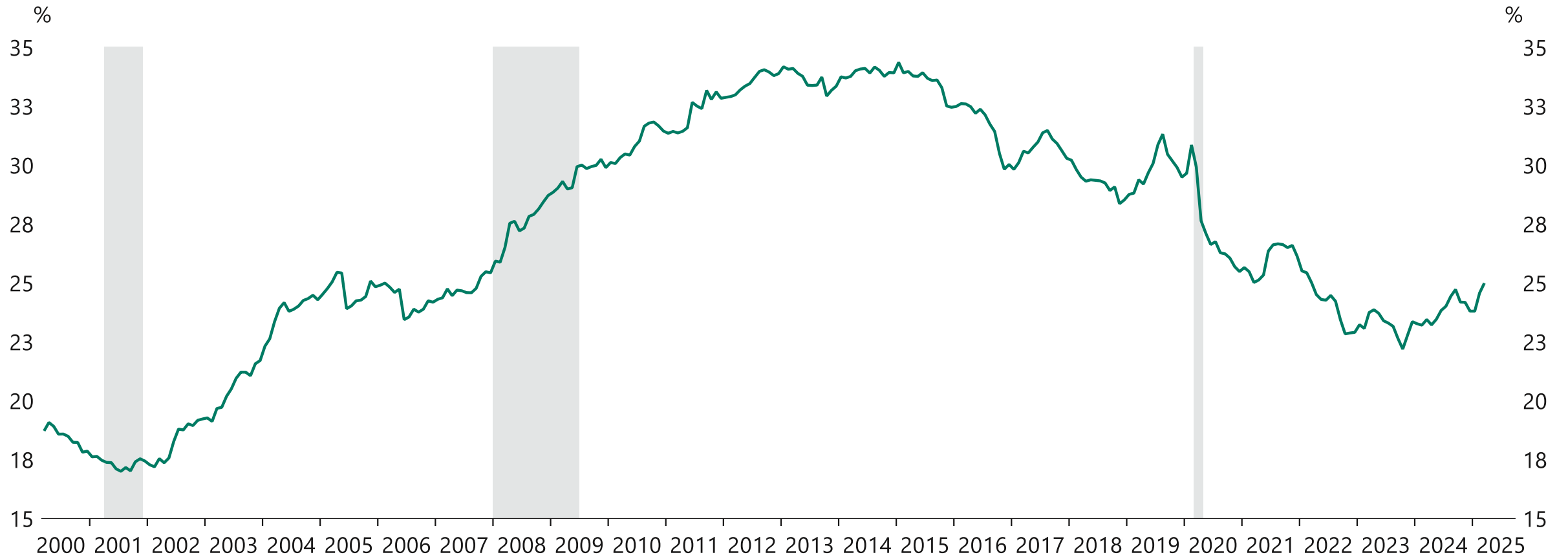
— Fed — Foreigners — US domestic real money, banks, households



Source: Federal Reserve, Macrobond, Apollo Chief Economist

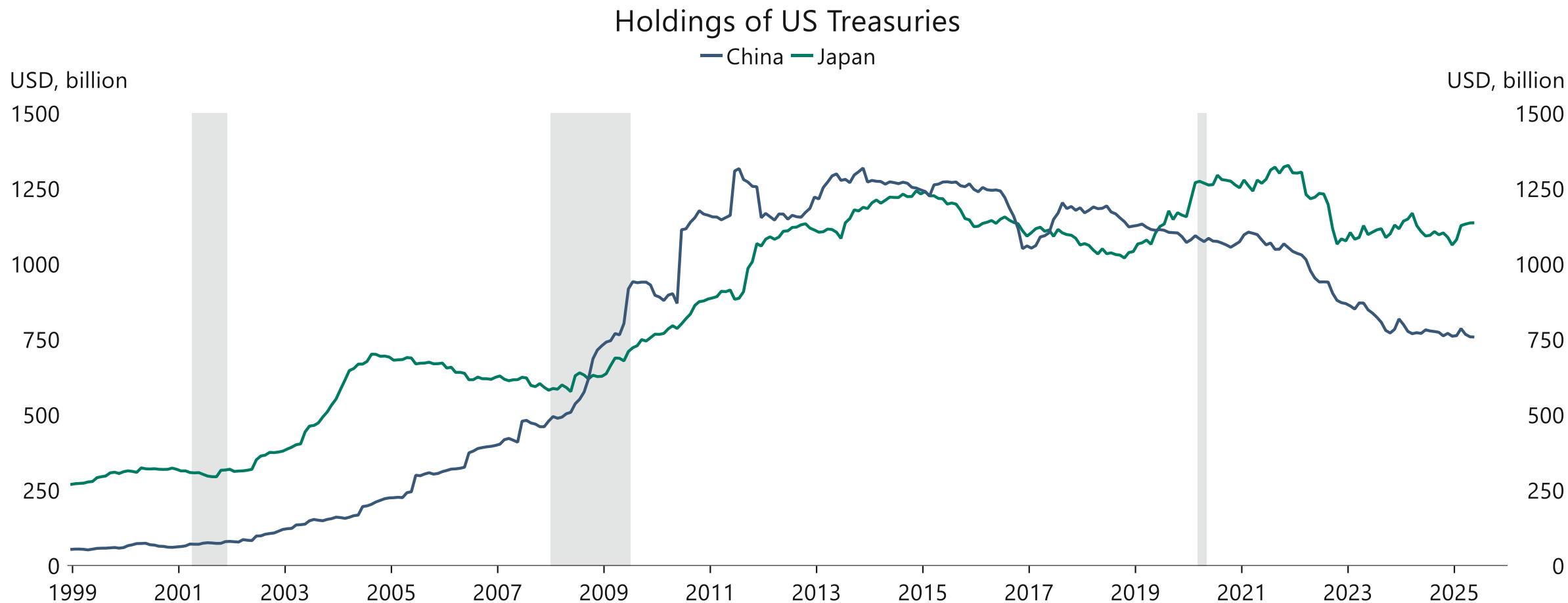
# Rise in foreign ownership of US government bonds since 2023

Foreign ownership of total US Treasuries outstanding



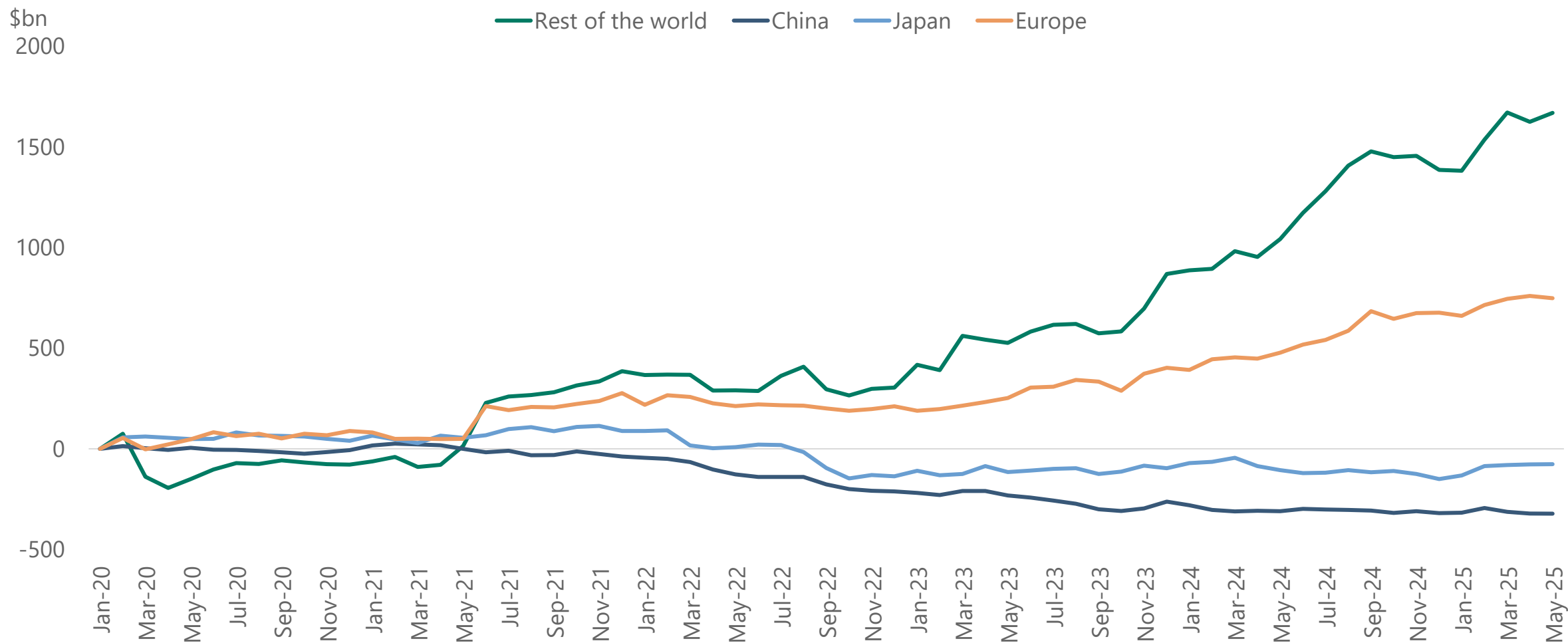
Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

# Japanese and Chinese holdings of Treasury securities

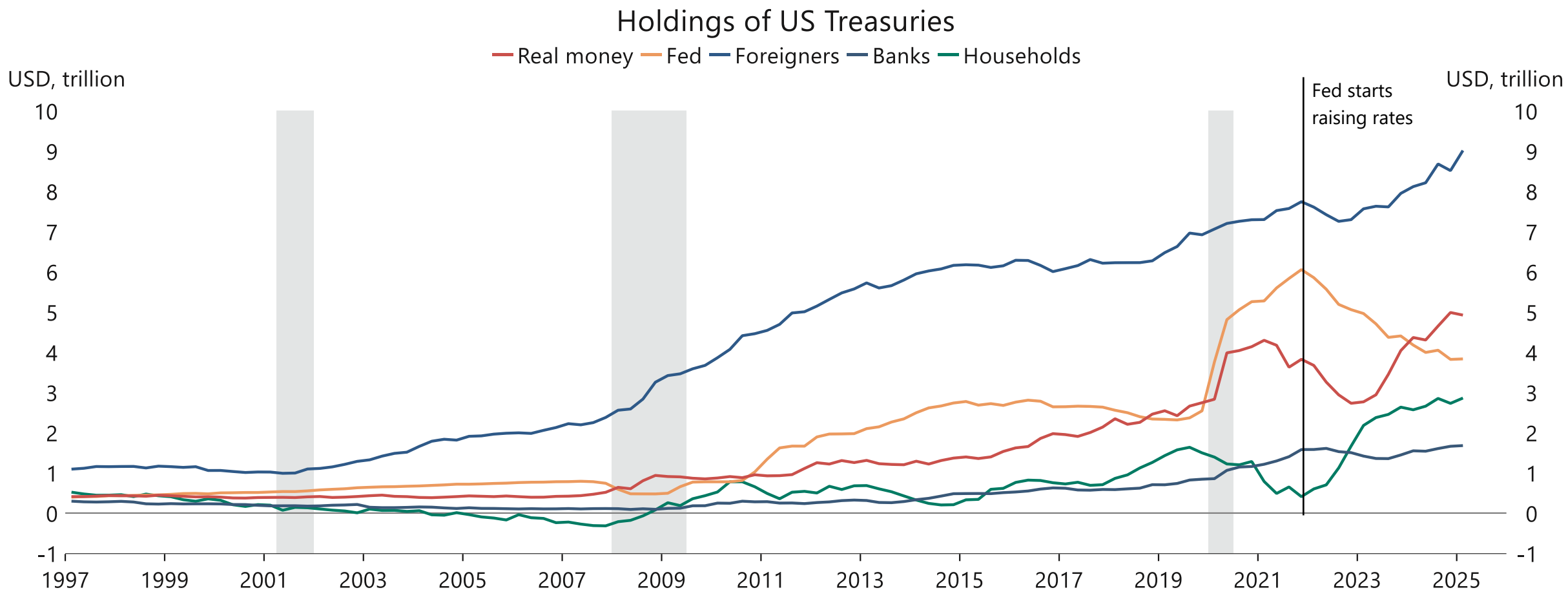


Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

# Change in foreign holdings of Treasuries in USD since January 2020



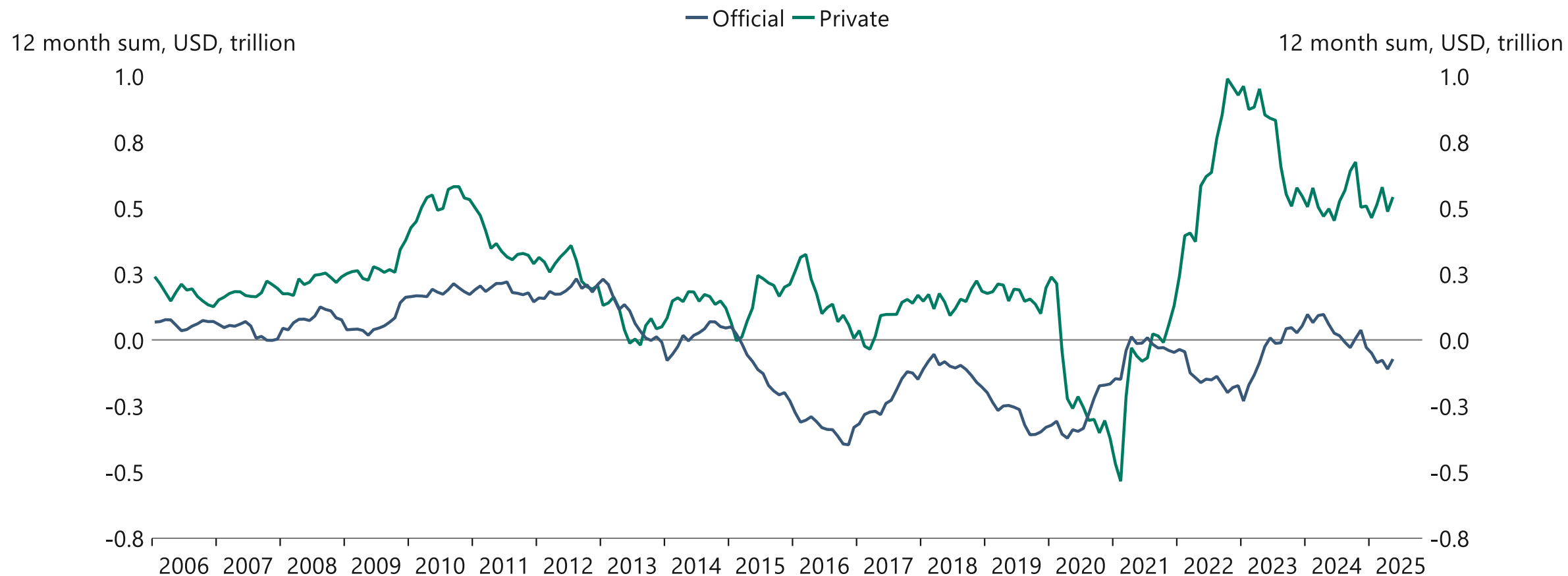
# US households, foreigners, and real money buying Treasuries. Fed selling Treasuries



Source: Federal Reserve, Macrobond, Apollo Chief Economist

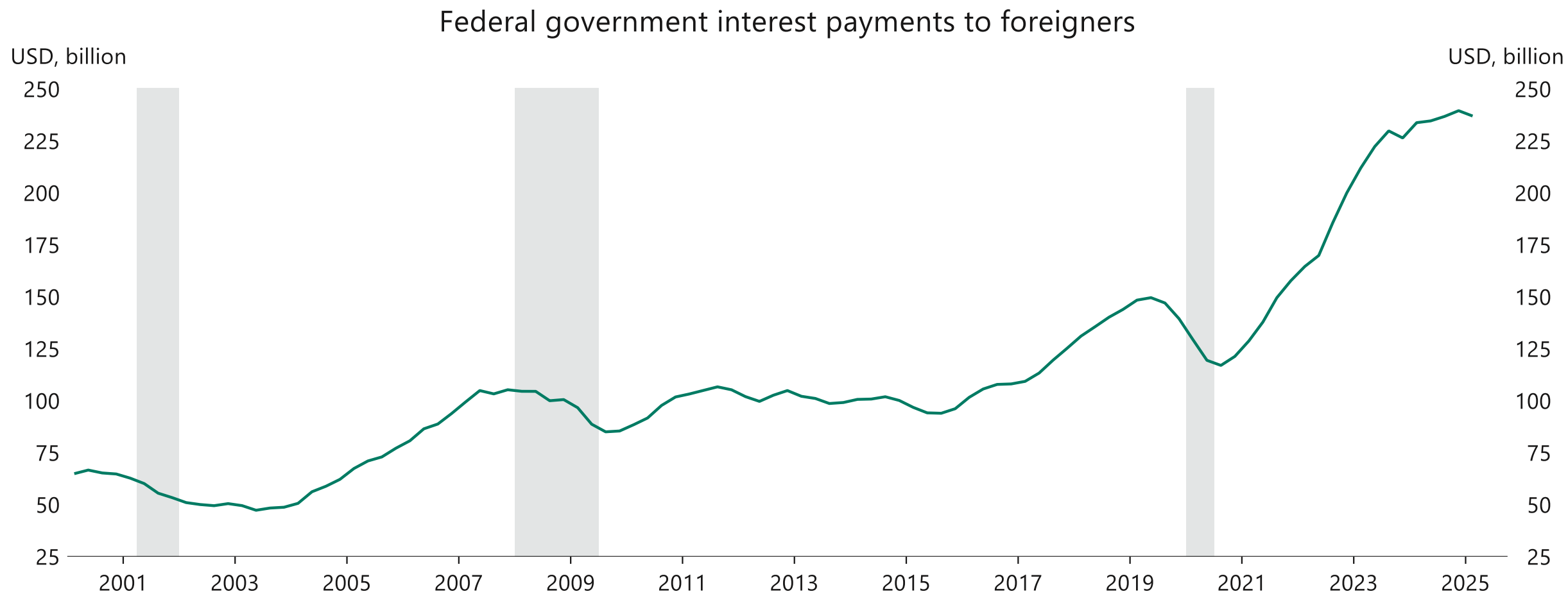
# Foreign purchases of Treasuries come mainly from the private sector

## Net Foreign Purchases: Treasury bonds and notes



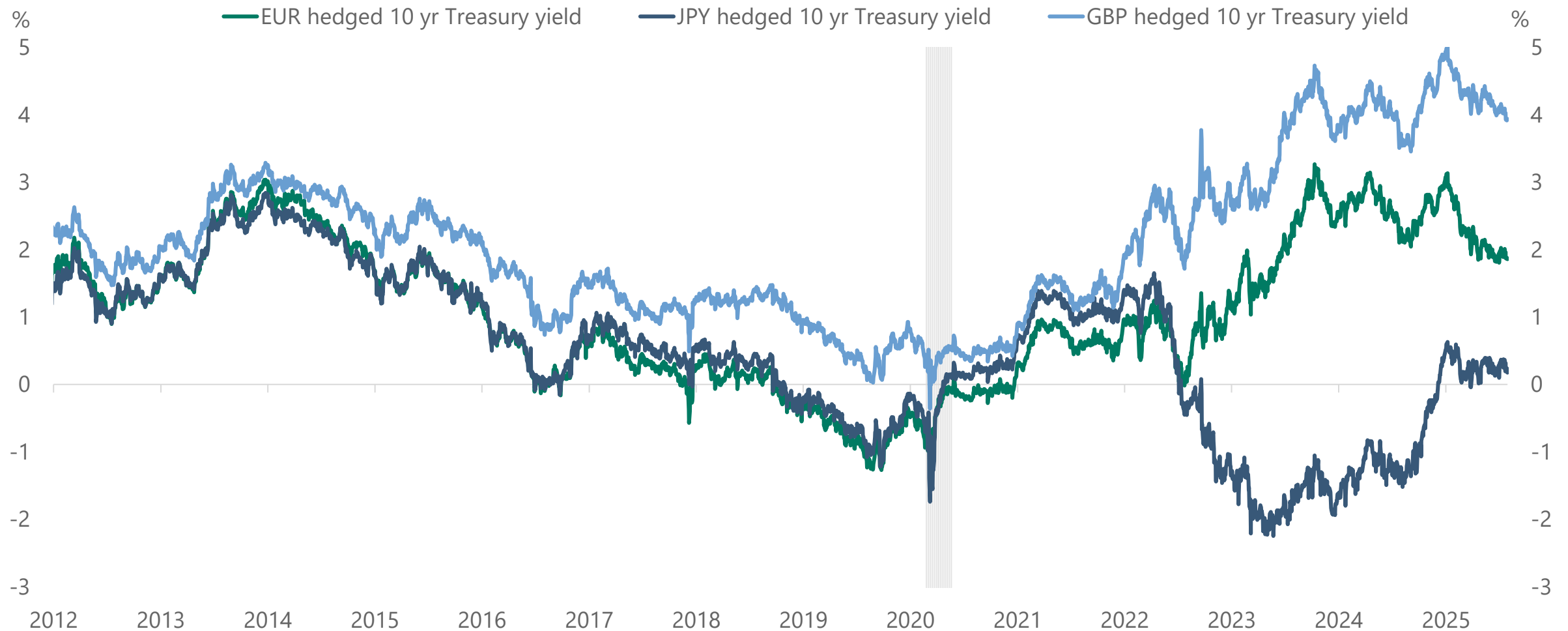
Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

# Interest payments to foreigners rising



Source: U.S. Bureau of Economic Analysis (BEA), Macrobond, Apollo Chief Economist

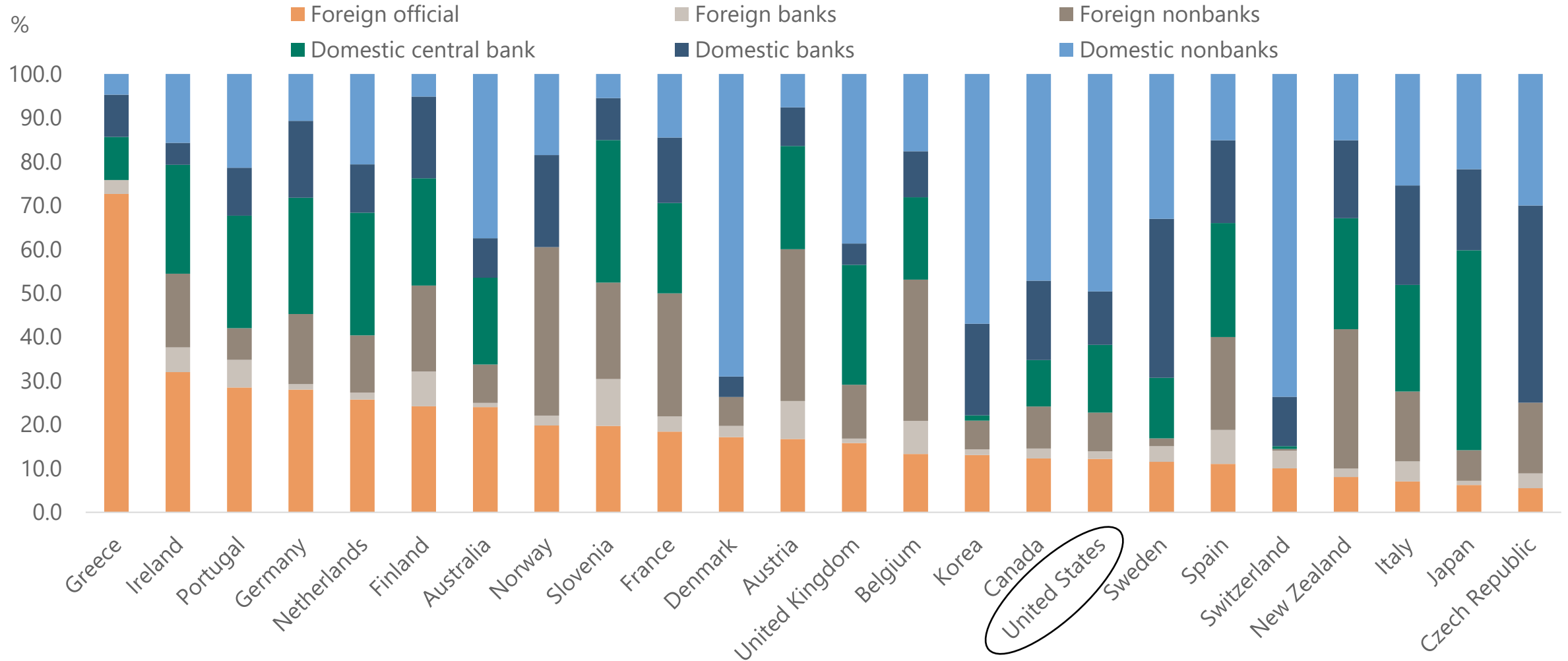
# Hedging costs are high for Japanese investors buying US Treasuries



Source: Bloomberg, Apollo Chief Economist. Note: Hedged Treasury yield is calculated as  $\left(\frac{((-3 \text{ month forward}/10000)/\text{exchange rate})+1\right)^{4-1} \times 100 + 10 \text{ year US Treasury yield}$ .

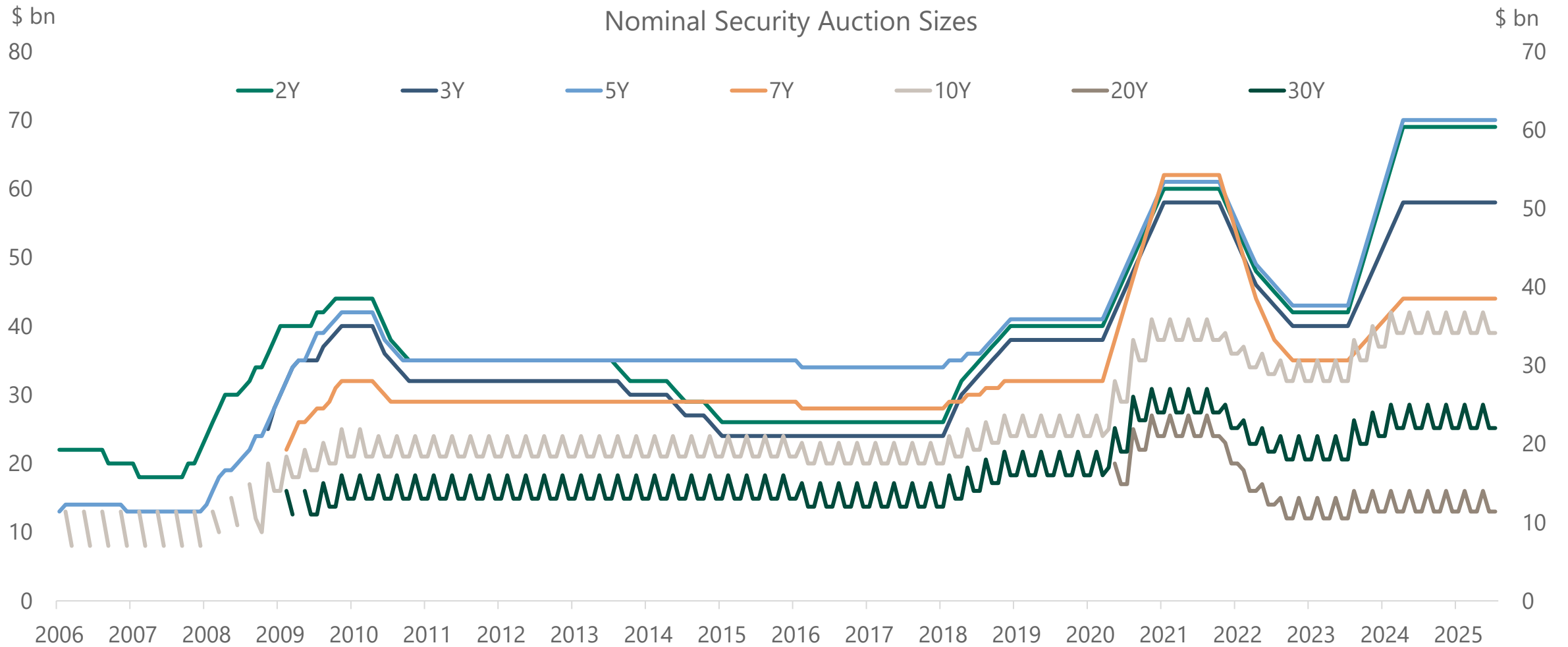


# Who owns different countries' government debt?



# Treasury auction metrics

# Auction sizes growing in 2025



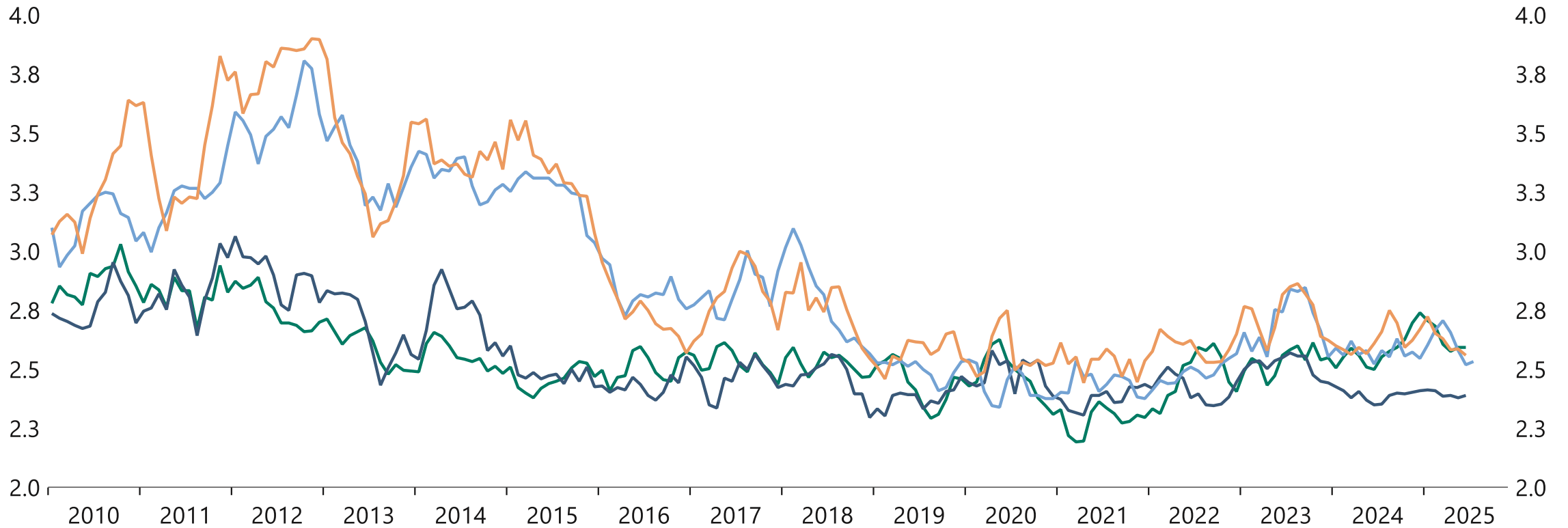
# Rising Treasury supply increases downside risks to bid-to-cover ratios

Government securities auctions, bid to cover ratio

— 2 year — 3 year — 5 year — 7 year

Ratio, 3mma

Ratio, 3mma



Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

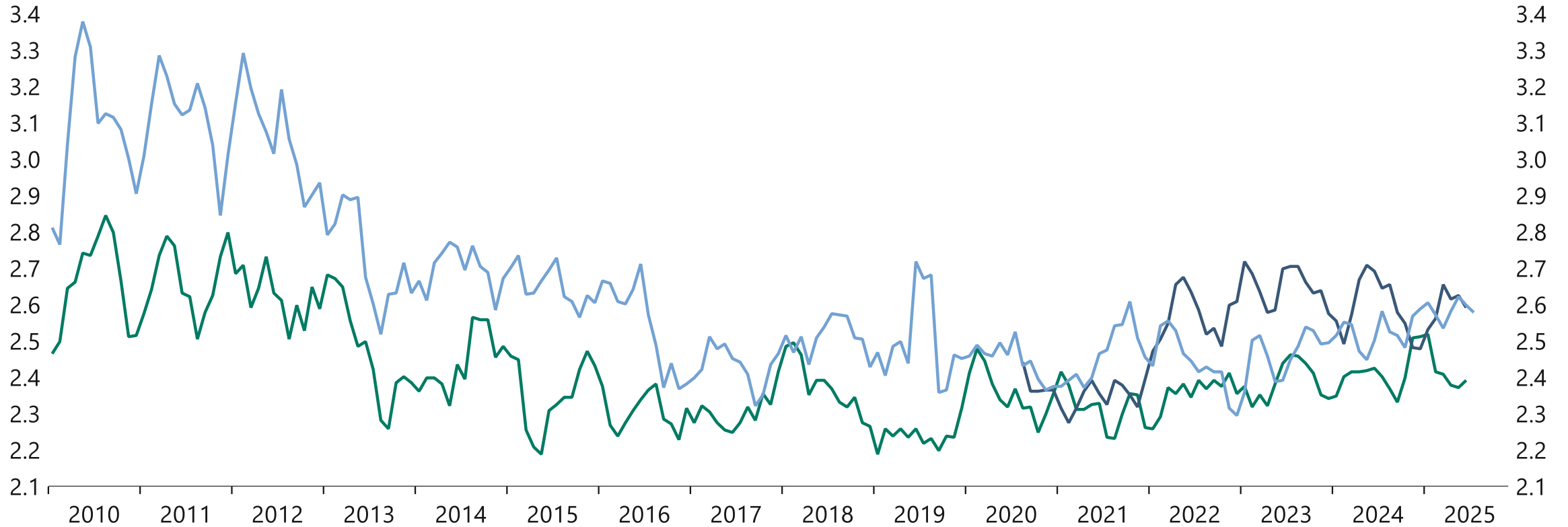
# Rising Treasury supply increases downside risks to bid-to-cover ratios

Government securities auctions, bid to cover ratio

— 10 year — 20 year — 30 year

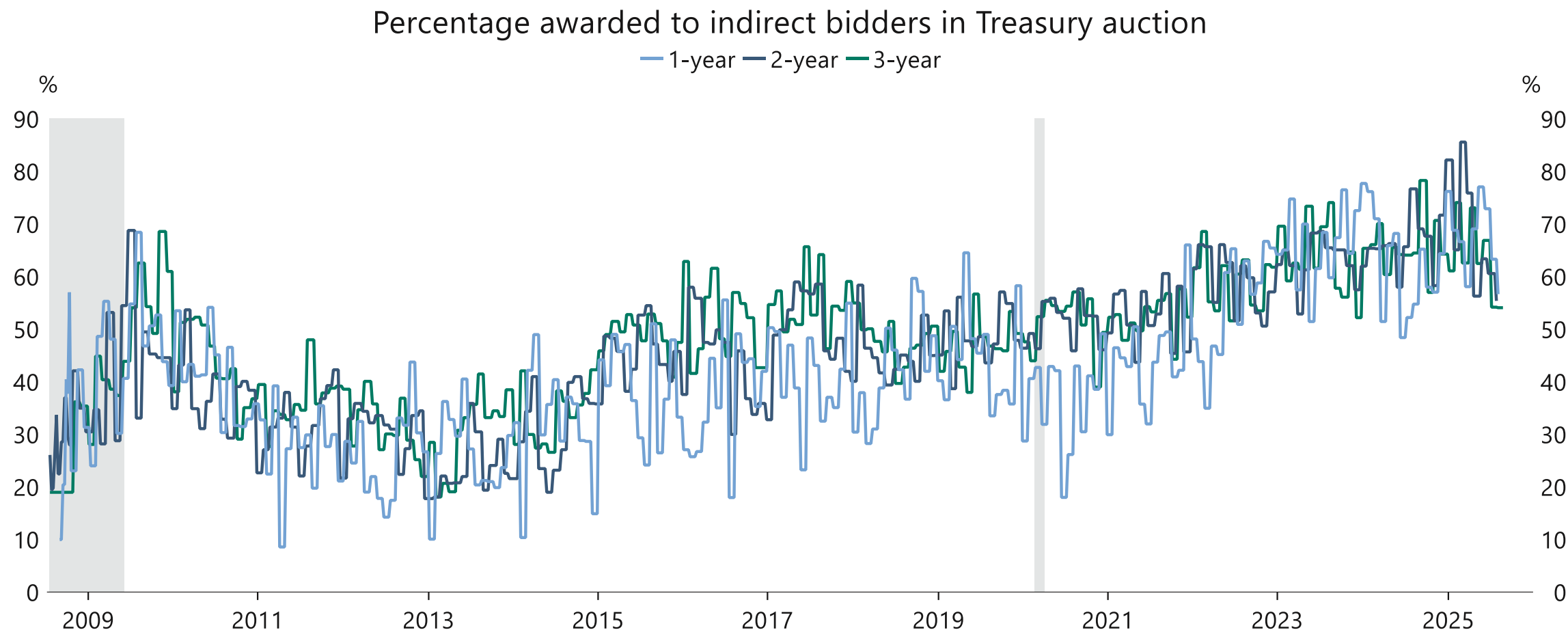
Ratio, 3mma

Ratio, 3mma



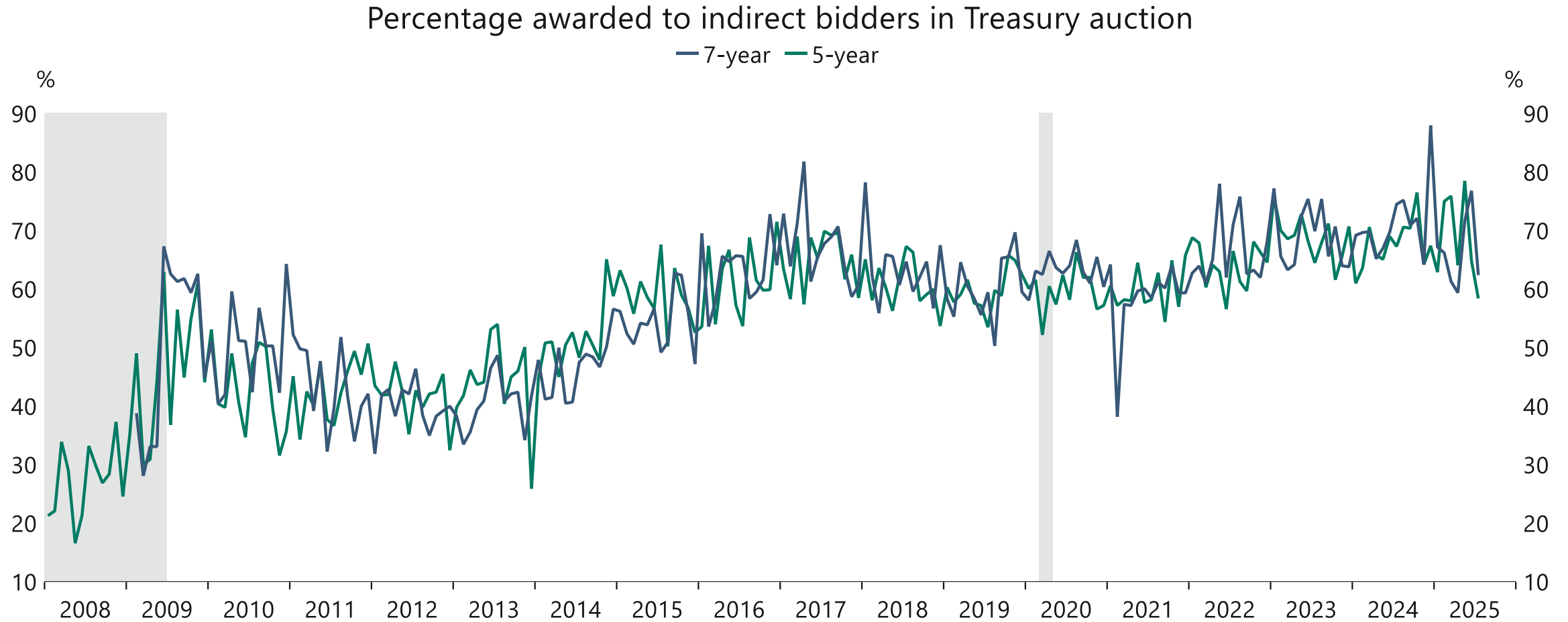
Source: U.S. Department of Treasury, Macrobond, Apollo Chief Economist

# Indirect bidder share for 1, 2, and 3-year notes



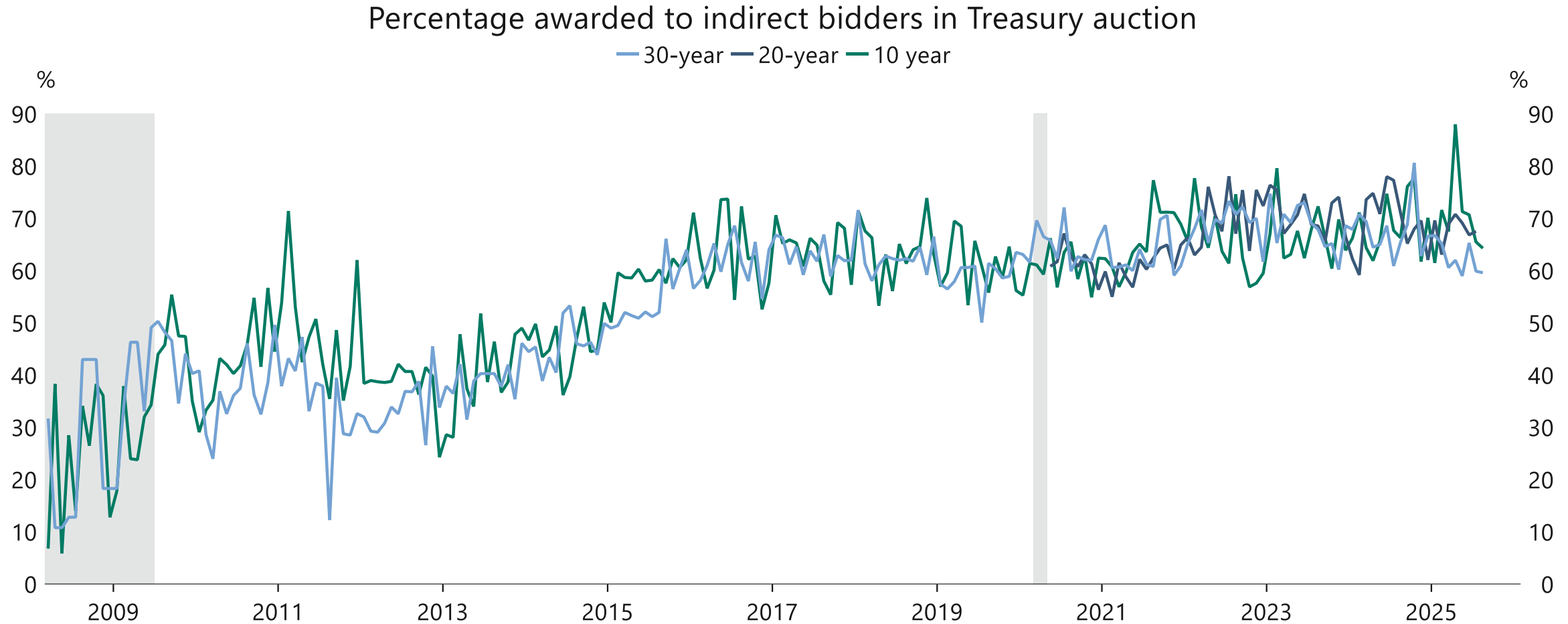
Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

# Indirect bidder share for 5- and 7-year notes



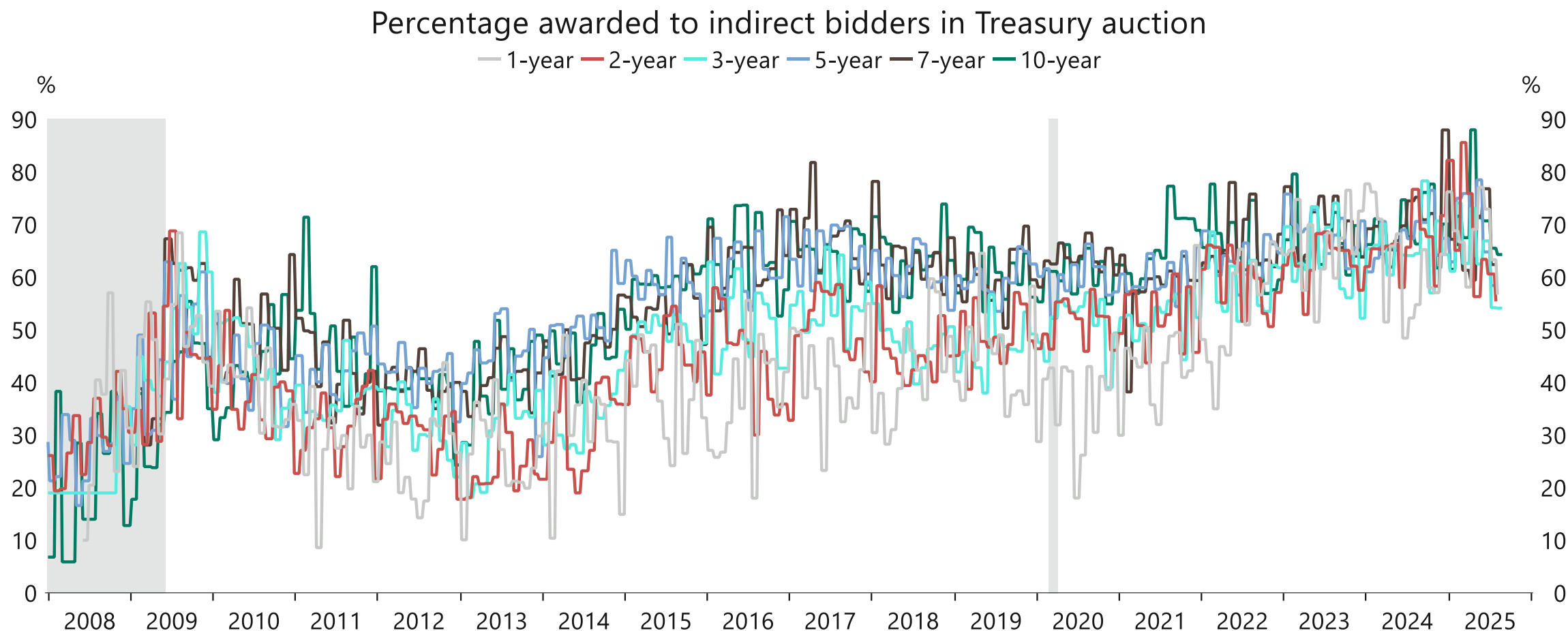
Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

# Indirect bidder share for 10, 20, and 30-year Treasuries



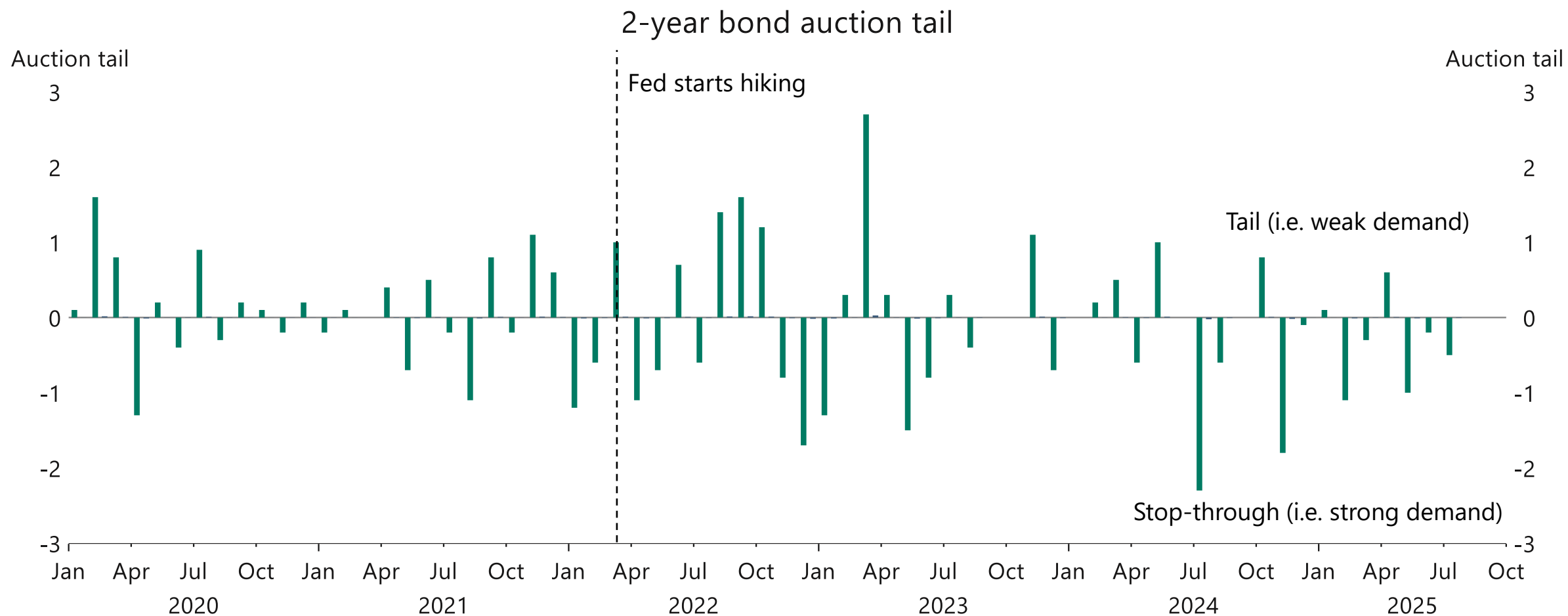


# Indirect bidder share for Treasury notes



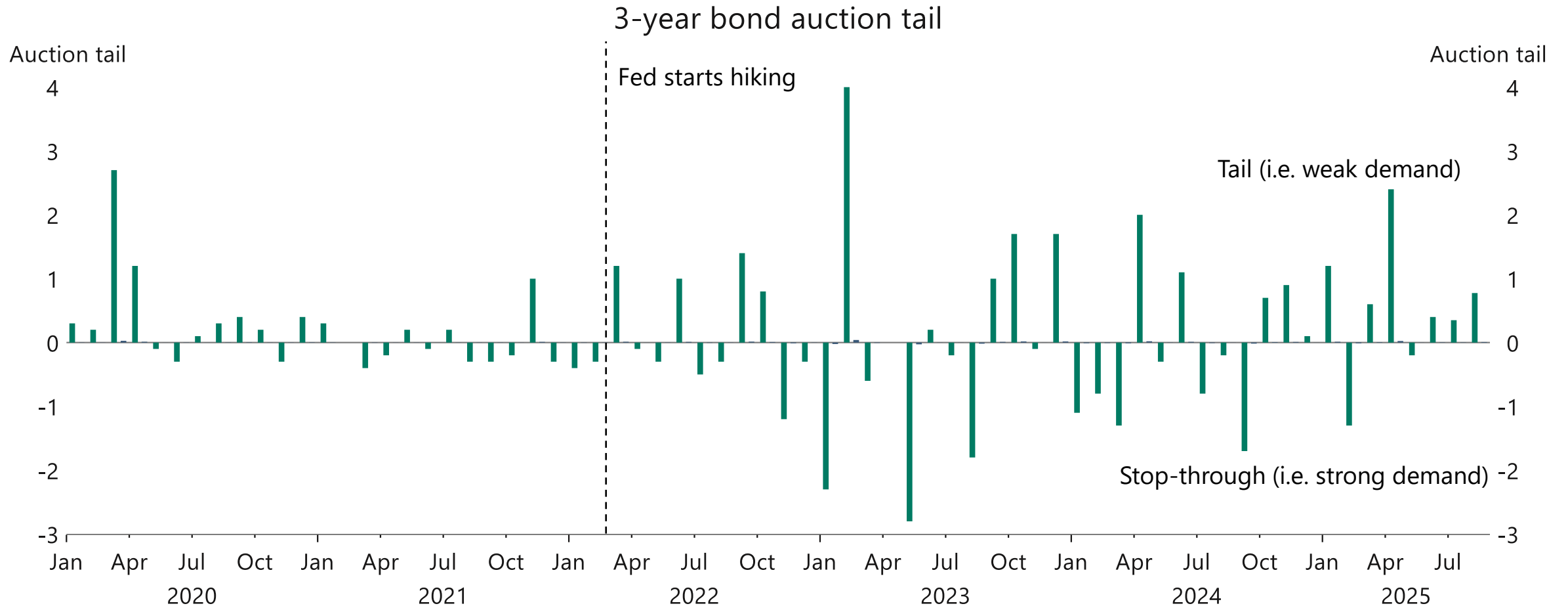
Source: US Treasury, Bloomberg, Macrobond, Apollo Chief Economist

# 2-year bond auction tails



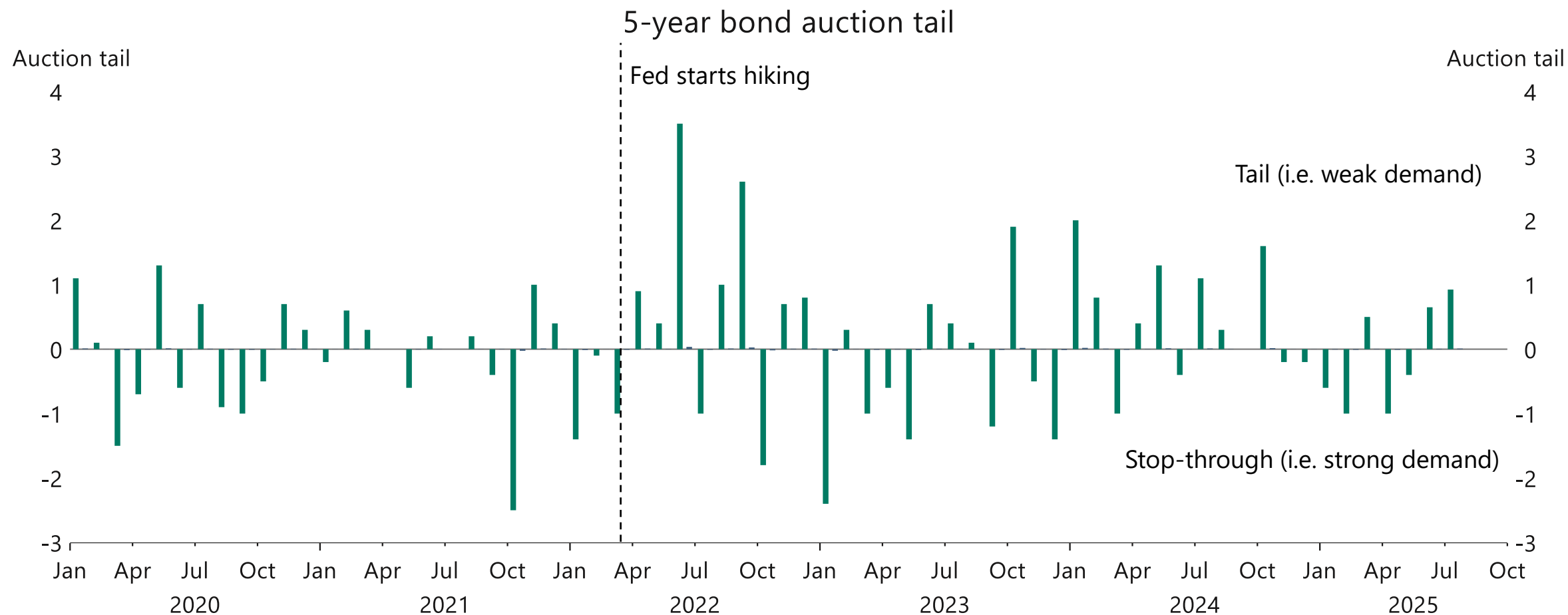
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USB2YTL Index.

# 3-year bond auction tails



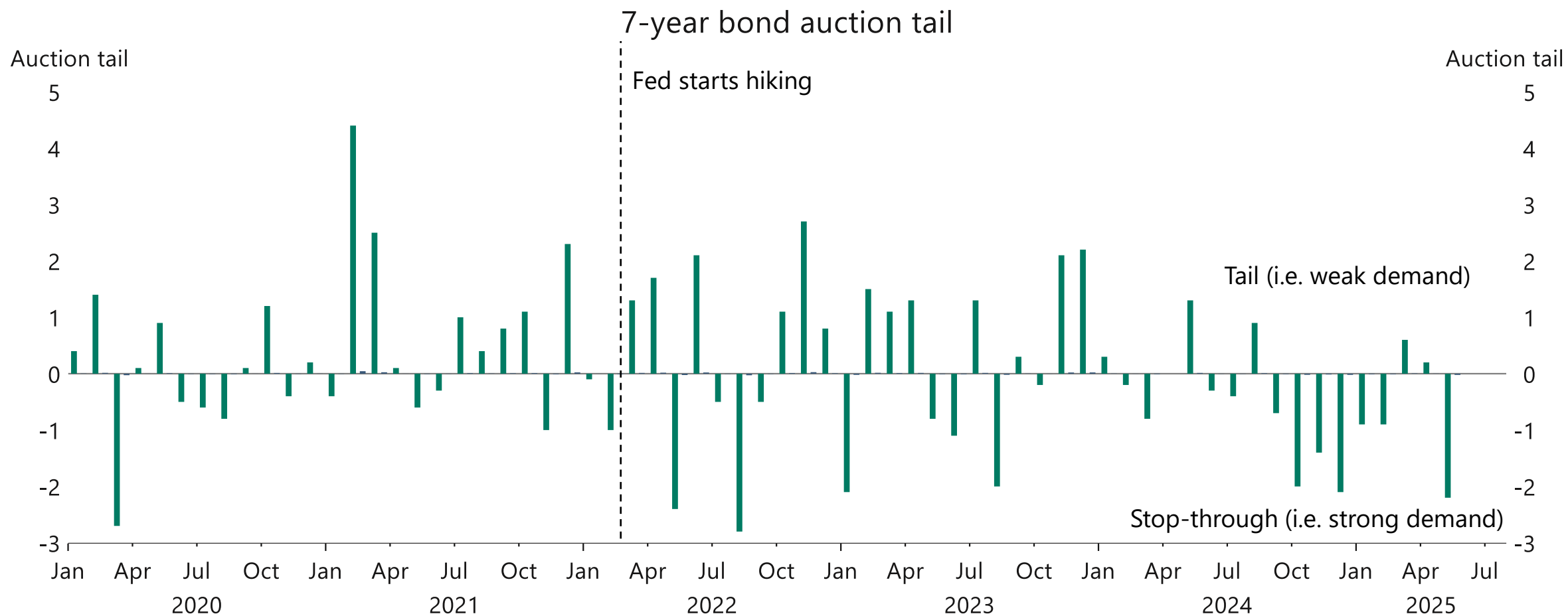
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USN3YTL Index.

# 5-year bond auction tails



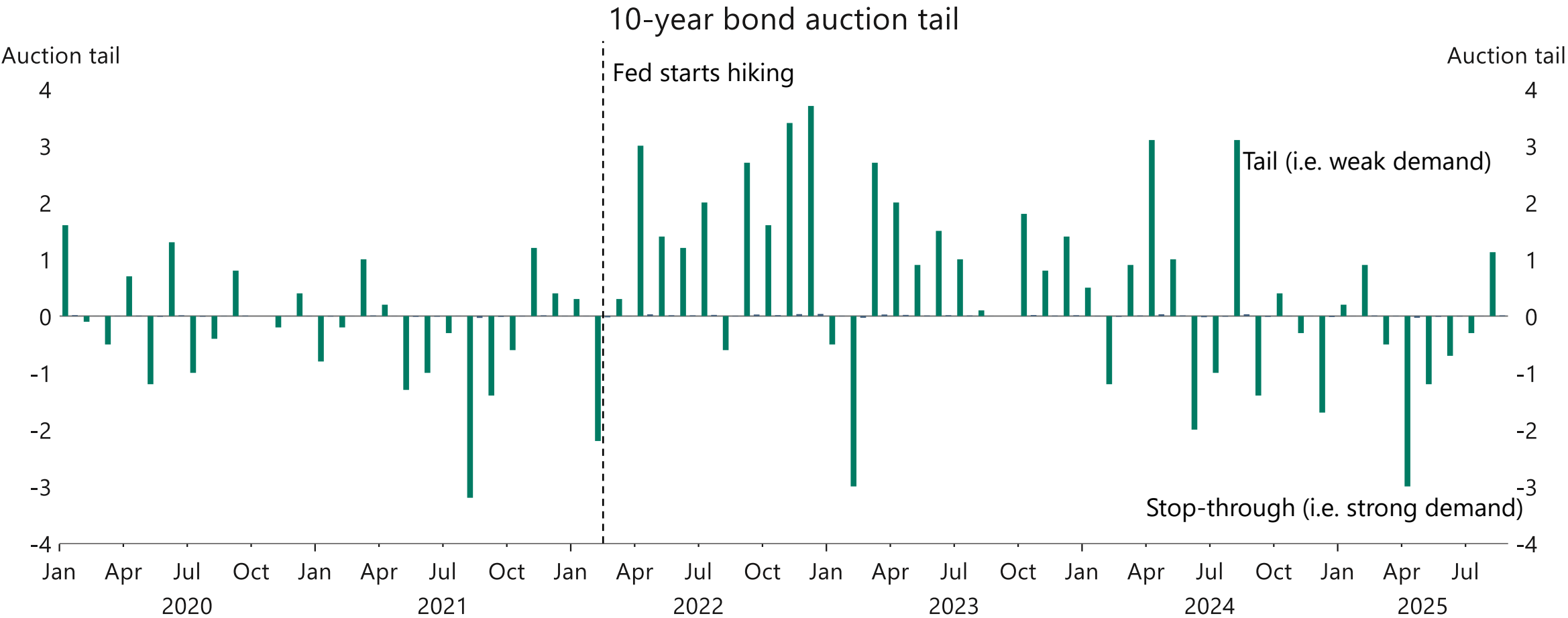
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USB5YTL Index.

# 7-year bond auction tails



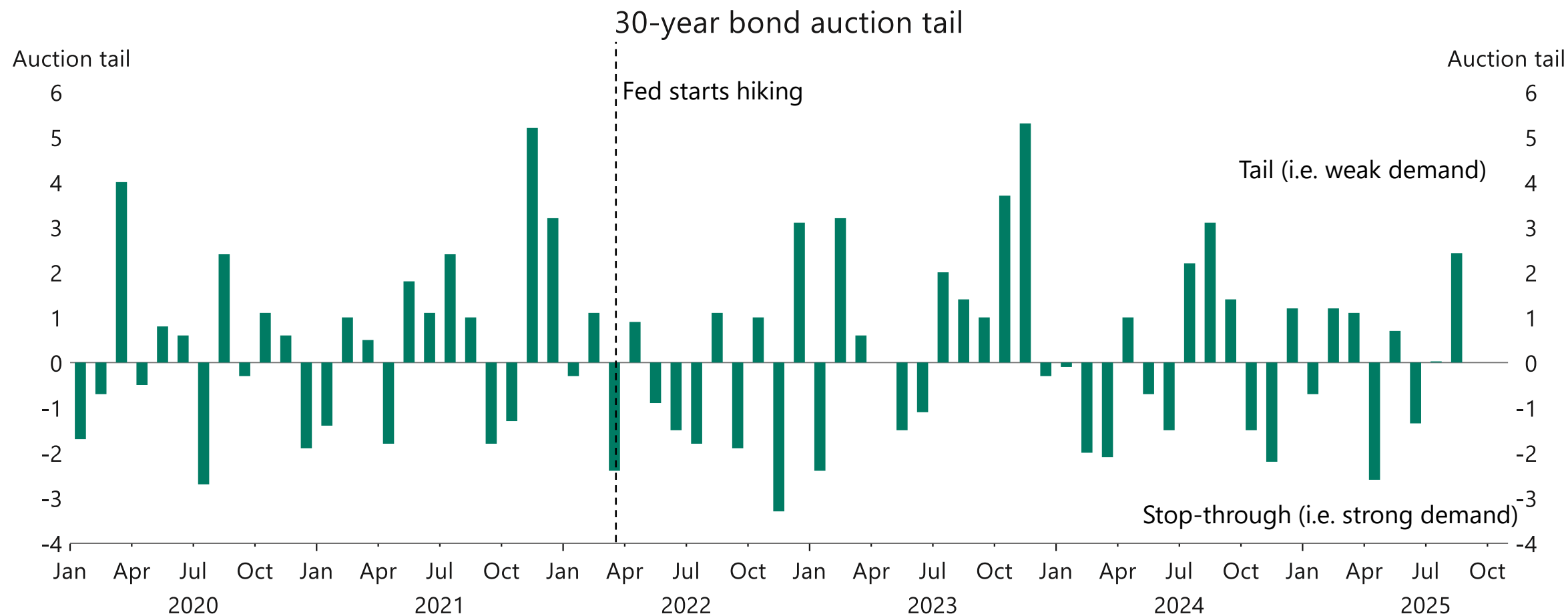
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USB7YTL Index.

# 10-year bond auction tails



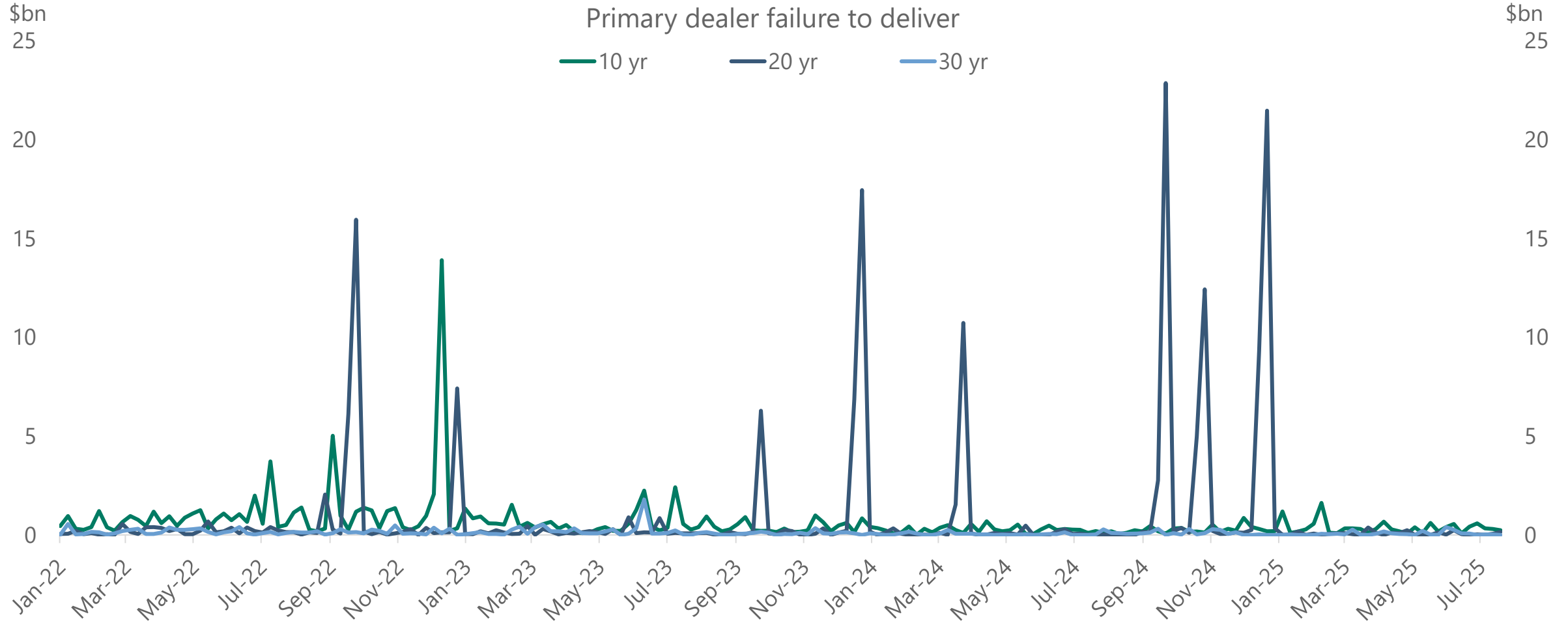
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USN10YTL Index.

# 30-year bond auction tails



Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: Bloomberg ticker USBD30TL Index.

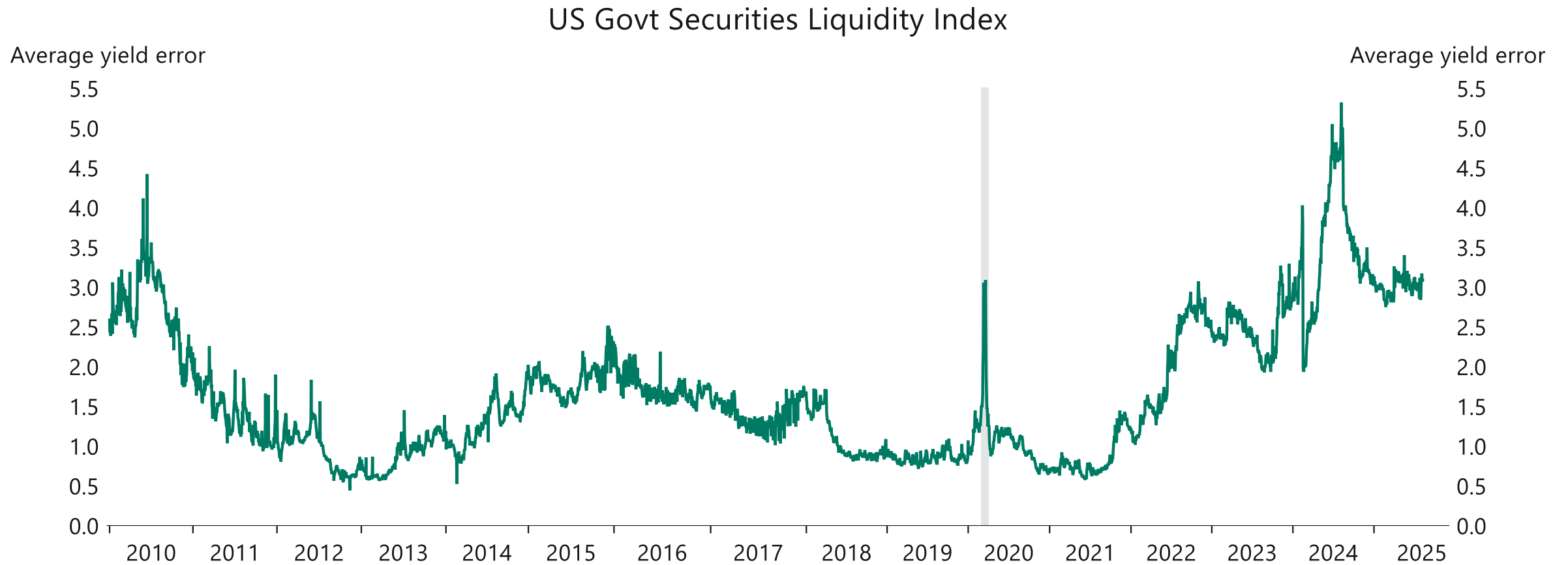
# Primary dealer failure to deliver Treasuries



Note: Primary dealers have a limited time to deliver securities to settle any obligations to securities buyers. For a variety of reasons, dealers may be unable to meet these obligations—for instance, if they sell a security short that they do not own and are then unable to obtain the security for delivery. The unmet obligation to a buyer is recorded as a failure to deliver. Source: OFR, FRBNY, Apollo Chief Economist



# Liquidity in the Treasury market

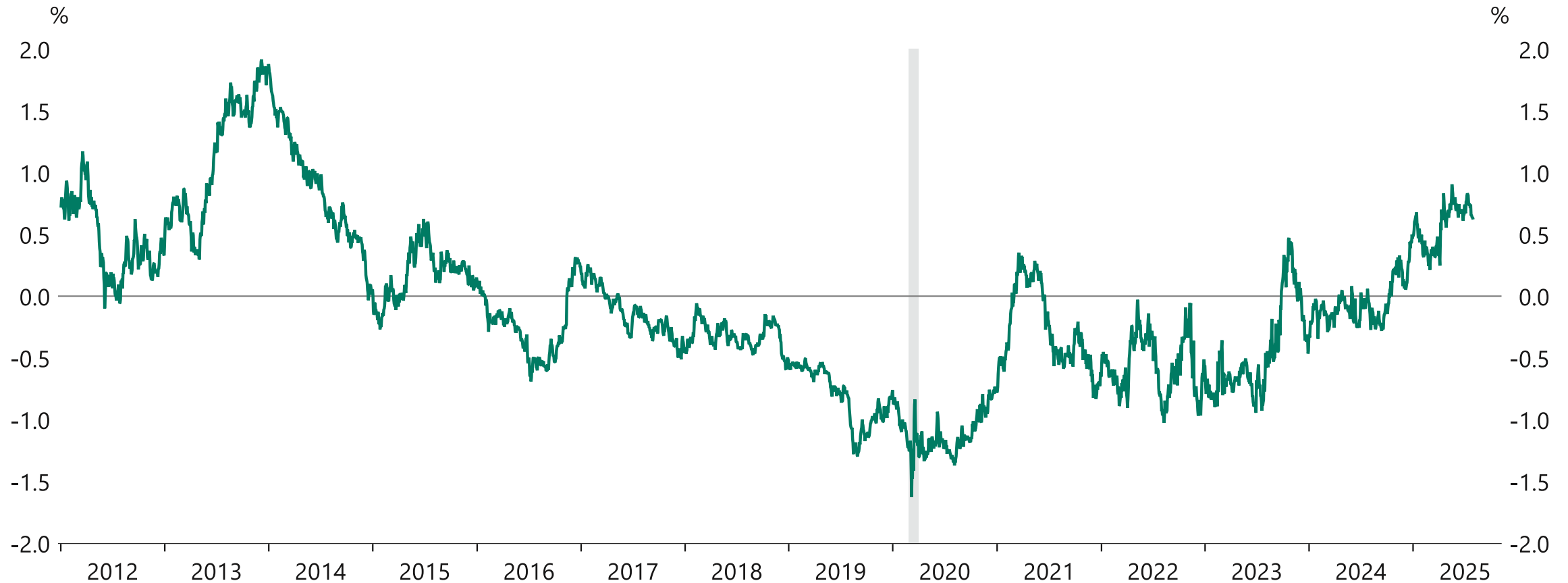


Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: The index displays the average yield error across the universe of government notes and bonds with remaining maturity 1-year or greater, based off the intra-day Bloomberg relative value curve fitter. When liquidity conditions are favorable the average yield errors are small as any dislocations from fair values are normalized within a short time frame. Average yield error is defined as an aggregate measure for dislocations in Treasury securities across the curve.

The term premium

# The term premium is rising likely driven by fiscal worries

10 year Treasury term premium



Source: Federal Reserve Bank of New York, Macrobond, Apollo Chief Economist. Note: Note: The NY Fed measure for the term premium is based on a five-factor, no-arbitrage term structure model.

# 10-year Treasury yield decoupling from oil prices



Source: Bloomberg, Macrobond, Apollo Chief Economist

The dollar

## Characteristics of a reserve currency

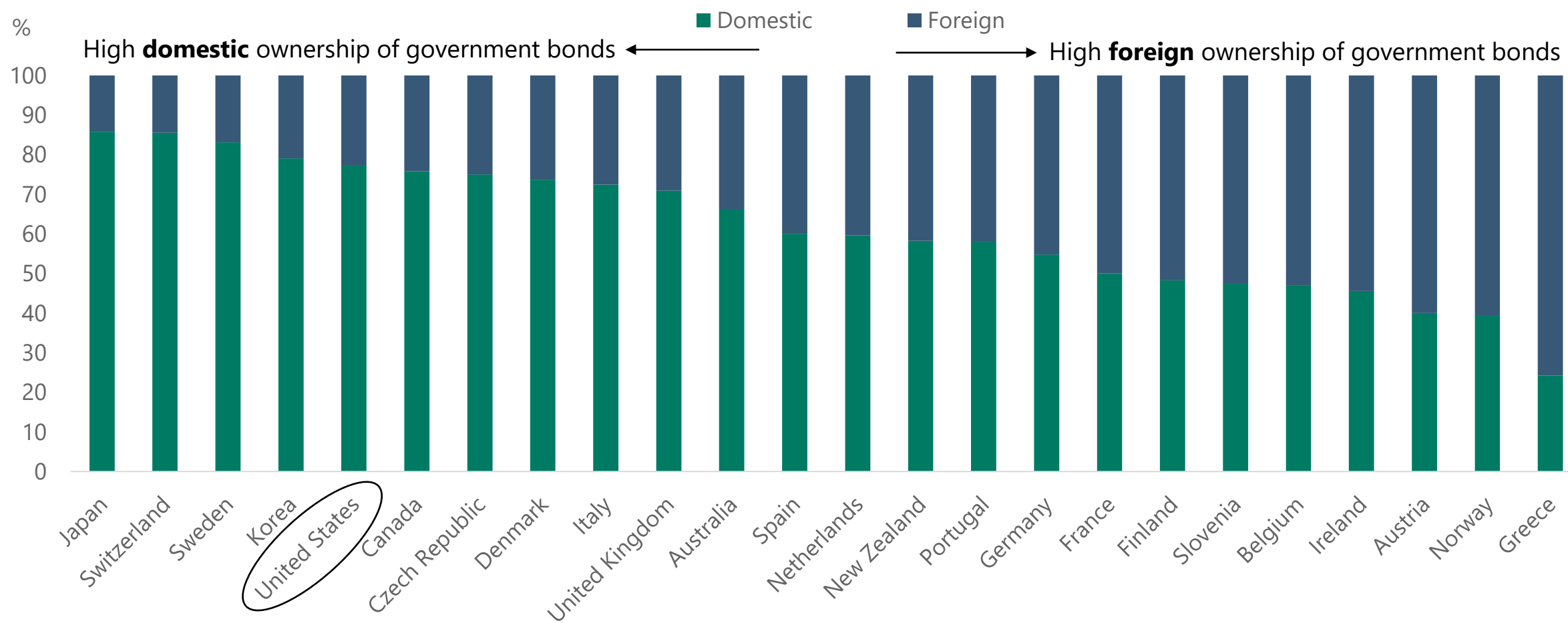
- The size of the domestic economy,
- The importance of the economy in international trade,
- The size, depth, and openness of financial markets,
- The convertibility of the currency,
- The use of the currency as a currency peg, and
- Domestic macroeconomic policies

Since the trade war started, EURUSD has been driven by other factors than interest rate differentials



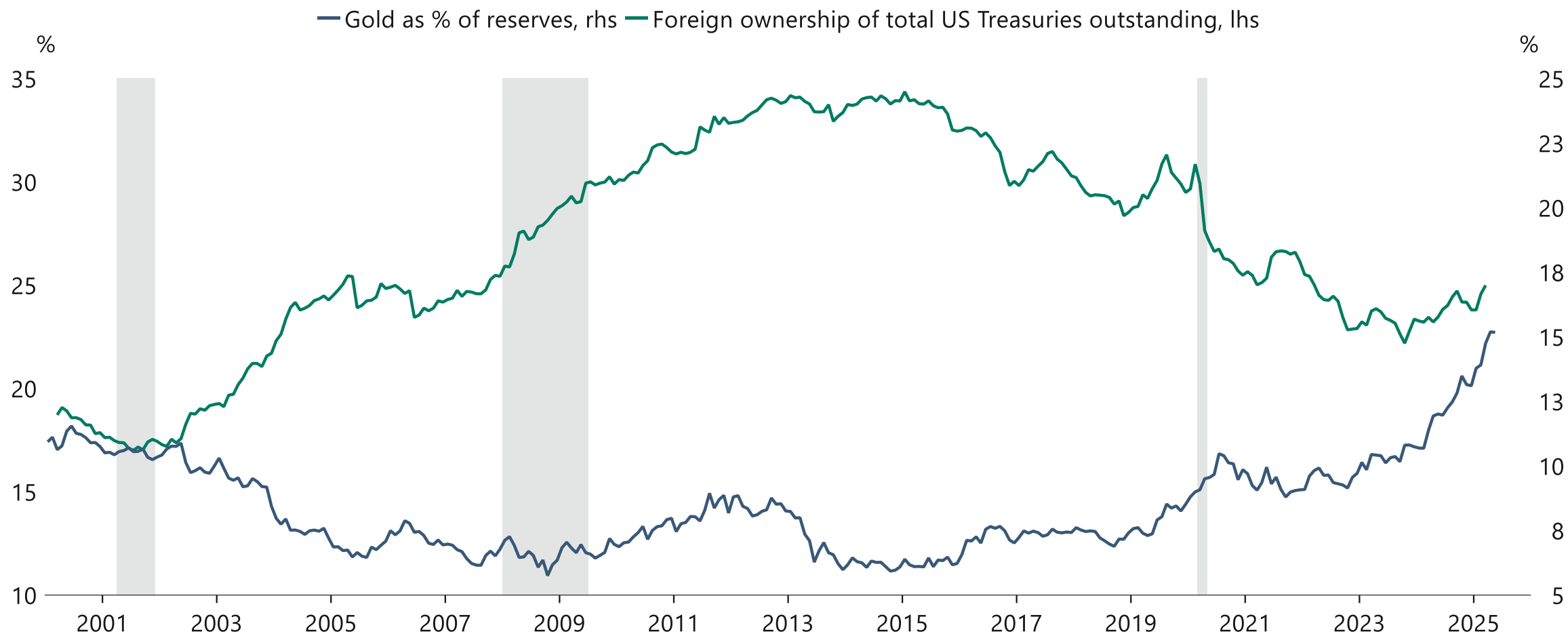
Source: Bloomberg, Macrobond, Apollo Chief Economist. Note: 1-year yield differential = 1-year German government bill minus 1-year US T-bill. pp = percentage points

# Japan, Switzerland, Korea, and US have high **domestic** ownership of government bonds



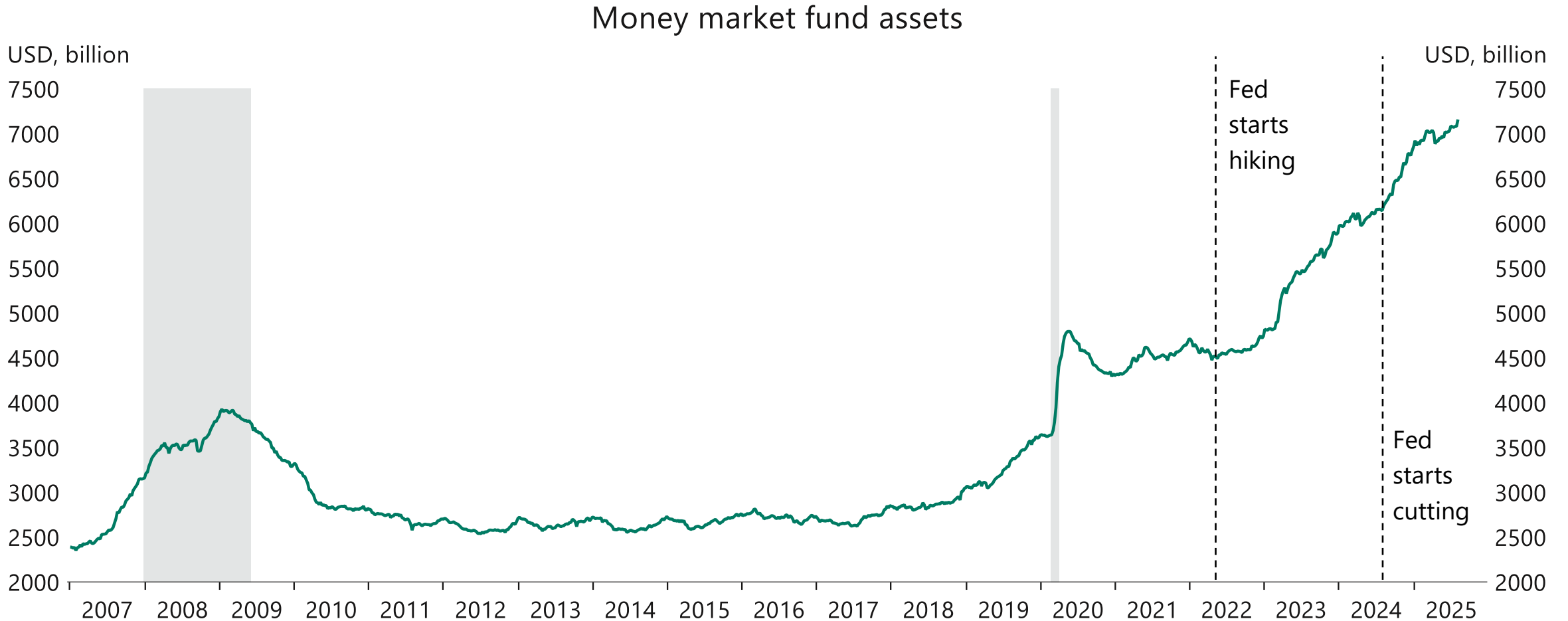


# Gold reserves rising. Sanctions likely playing a role.



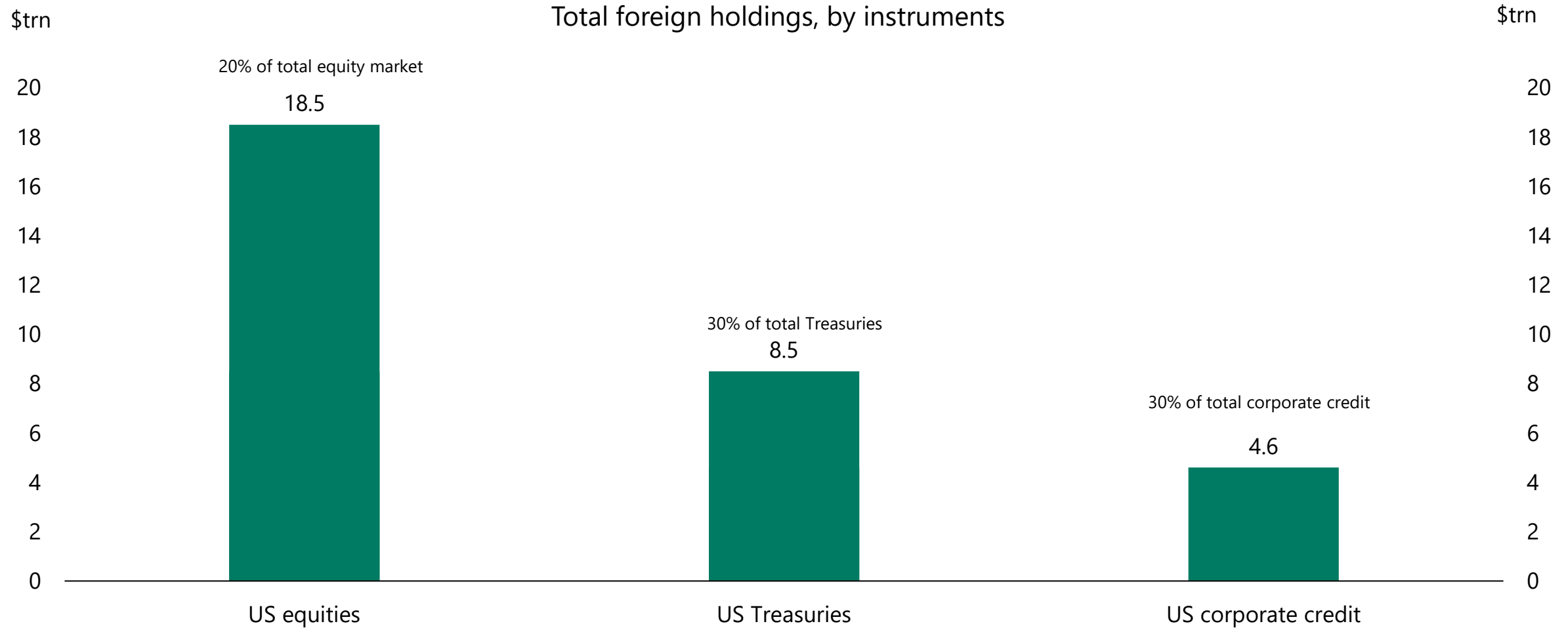
Source: U.S. Department of Treasury, International Monetary Fund (IMF), Macrobond, Apollo Chief Economist

# What will happen to money market fund assets as the Fed cuts interest rates?



Source: Investment Company Institute (ICI), Macrobond, Apollo Chief Economist

# Total foreign holdings of US equities, Treasuries, and US credit





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Torsten Slok joined Apollo in August 2020 as Chief Economist and he leads Apollo's macroeconomic and market analysis across the platform.

Prior to joining, Mr. Slok worked for 15 years as Chief Economist at Deutsche Bank where his team was top ranked in the annual Institutional Investor survey for a decade. Prior to joining Deutsche Bank Mr. Slok worked at the IMF in Washington, DC and at the OECD in Paris.

Mr. Slok has a Ph.D in Economics and has studied at the University of Copenhagen and Princeton University.