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# Rising US government debt: What to watch? Treasury auctions, rating agencies, and the term premium

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**Apollo Global Management**

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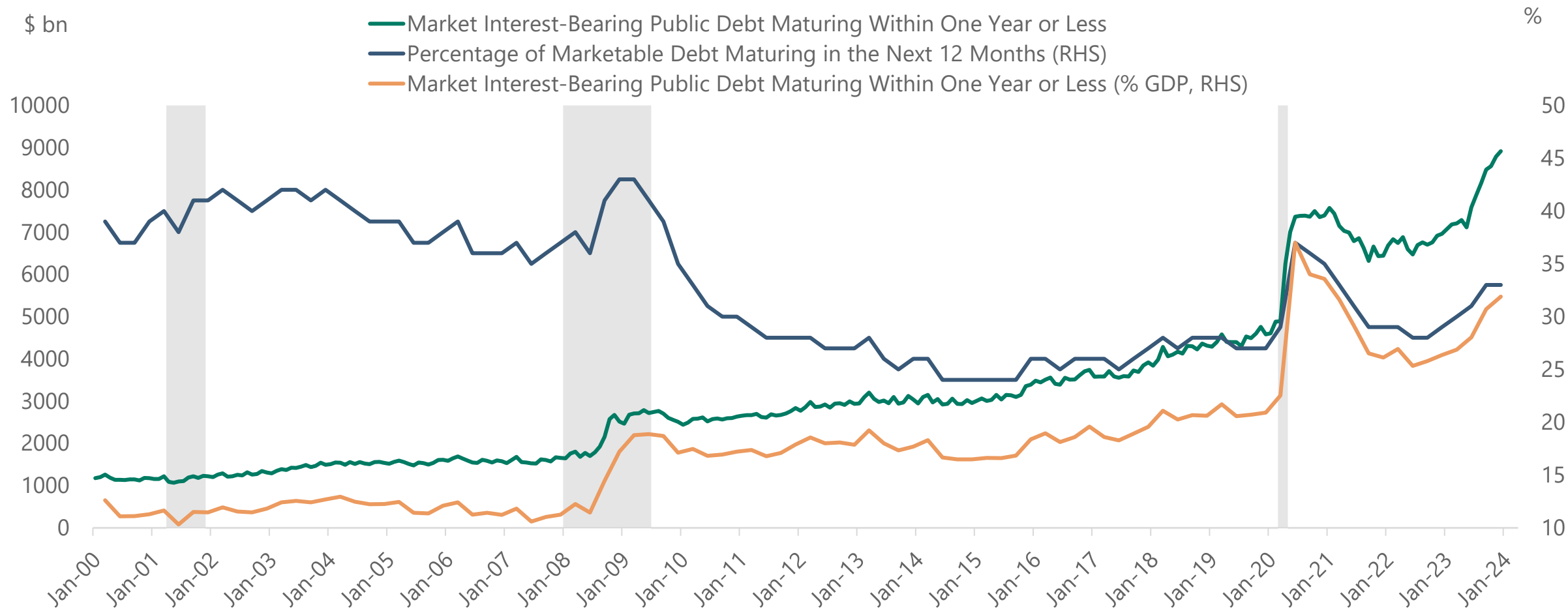
1. Deficit and debt
2. Who owns US government debt?
3. The maturity structure of US government debt outstanding
4. Debt servicing costs
5. Treasury auction metrics
6. What is the transmission channel to financial markets?

# Government budget deficits and debt levels

Under current policies, government debt outstanding will grow from 100% to 200% of GDP

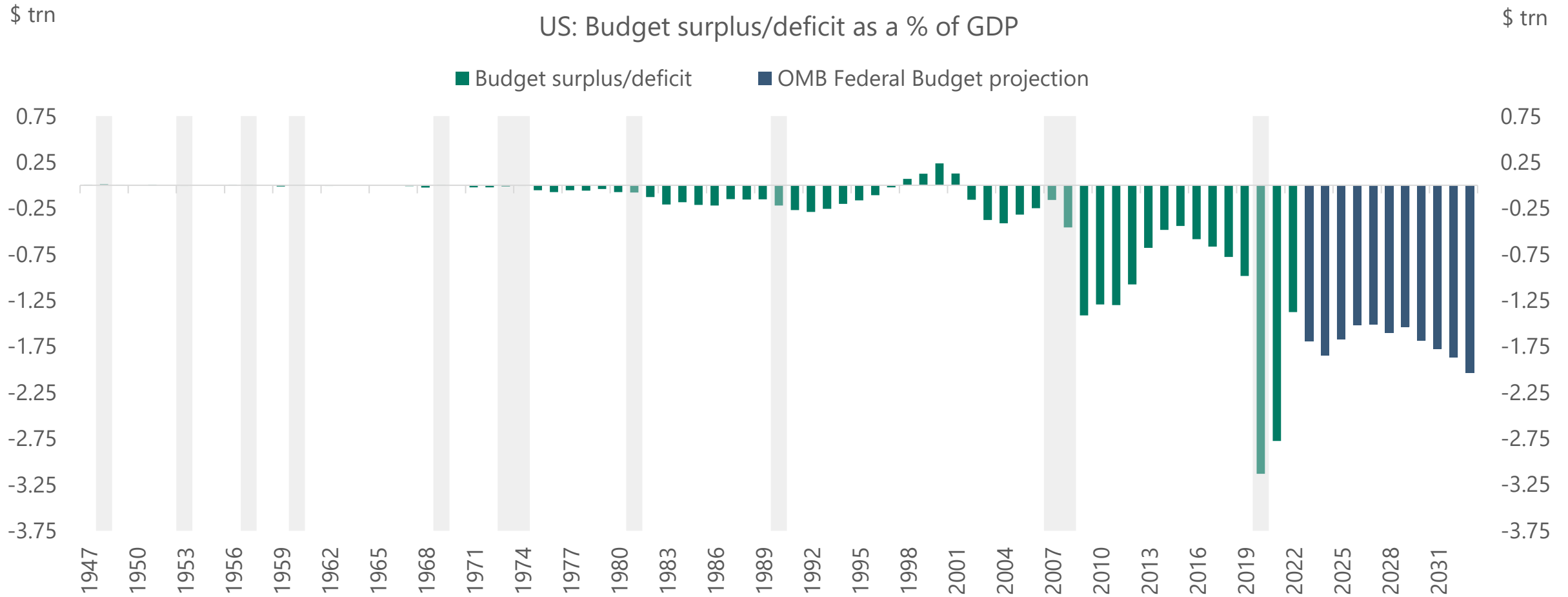


# A record-high \$8.9 trillion of government debt will mature over the next year

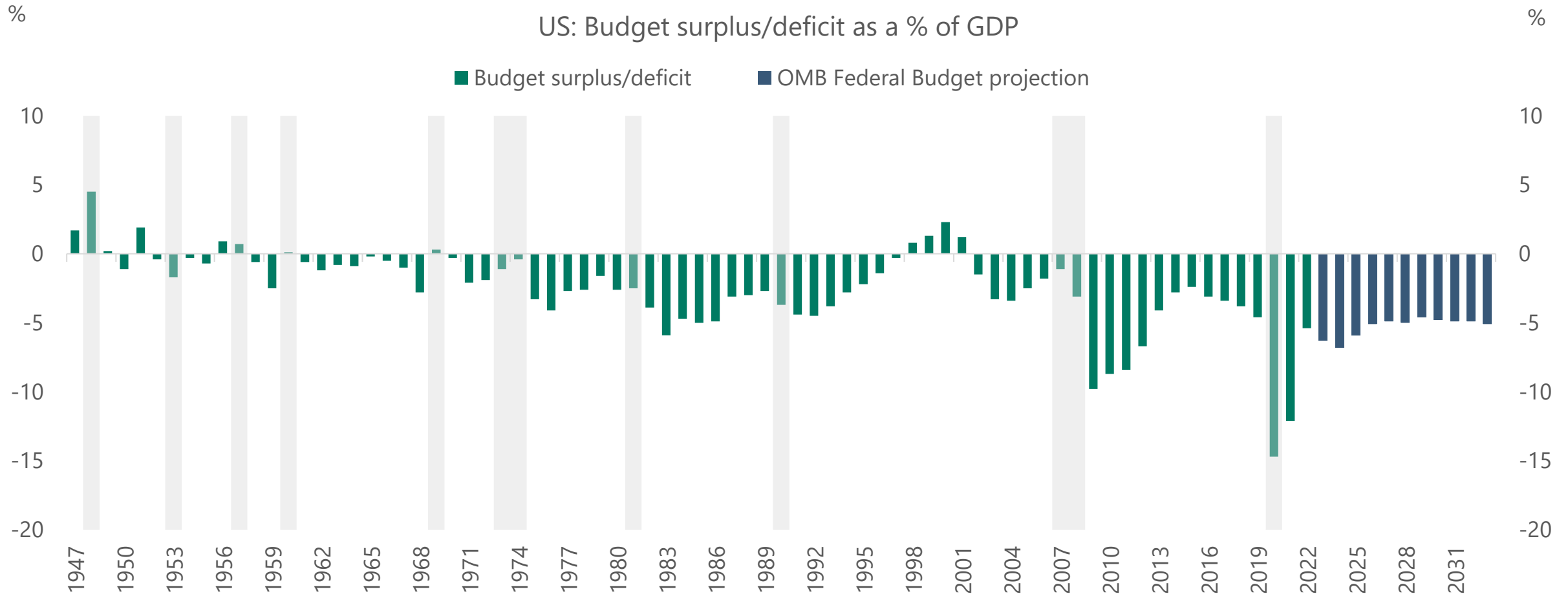


Source: Treasury, BEA, Haver Analytics, Apollo Chief Economist

# Trillion-dollar deficits as far as the eye can see: OMB projections



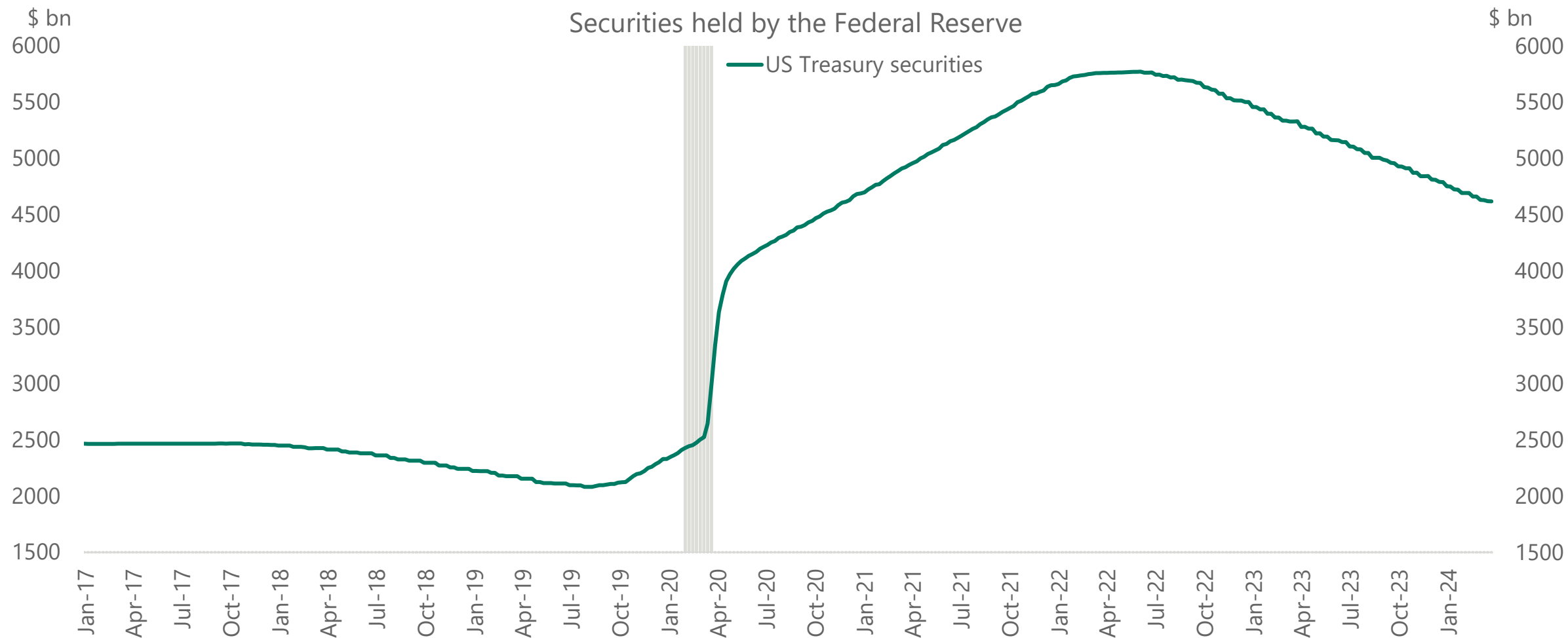
# OMB forecasts 5% budget deficit every year for the next 10 years



Source: OMB, Haver Analytics, Apollo Chief Economist

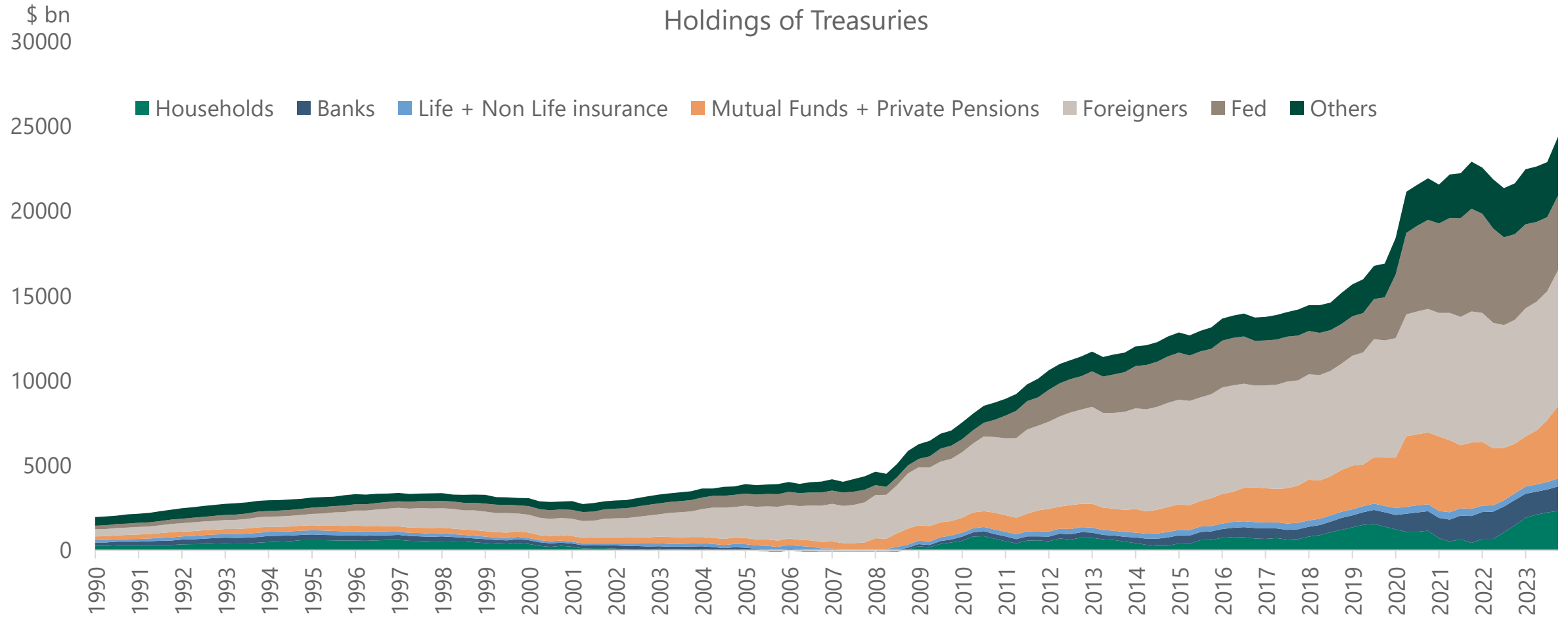


# More Treasury supply from QT: Fed is selling \$60bn every month

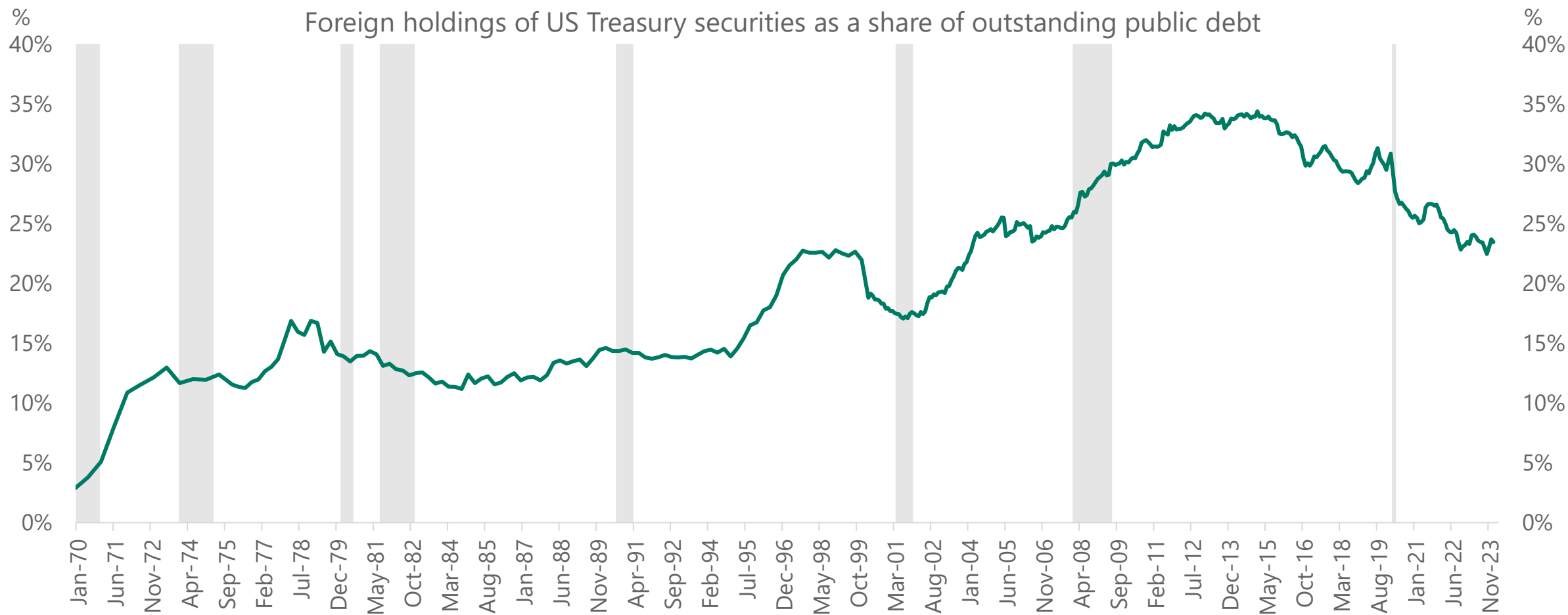


Who owns US government debt?

# Who owns the \$25 trillion in Treasuries outstanding? Foreigners, mutual funds, and the Fed

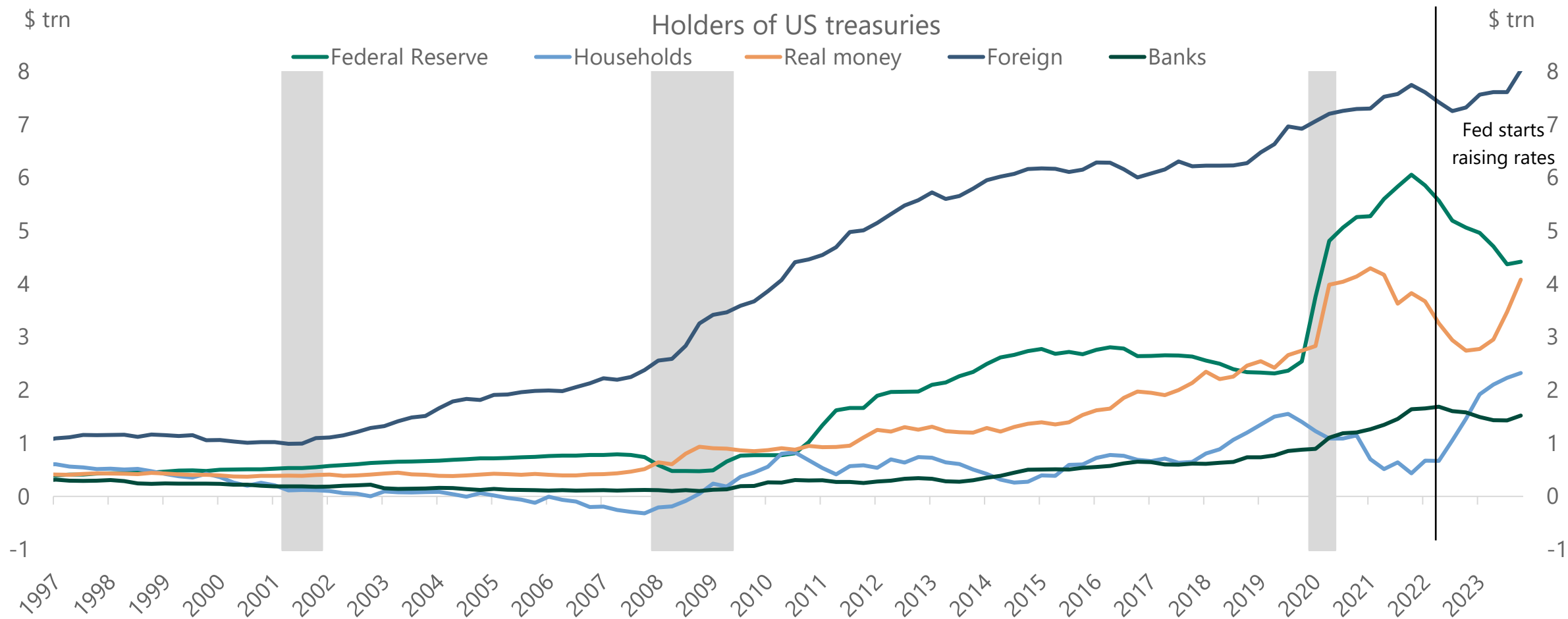


# Trend decline in foreign ownership of US government bonds since 2015



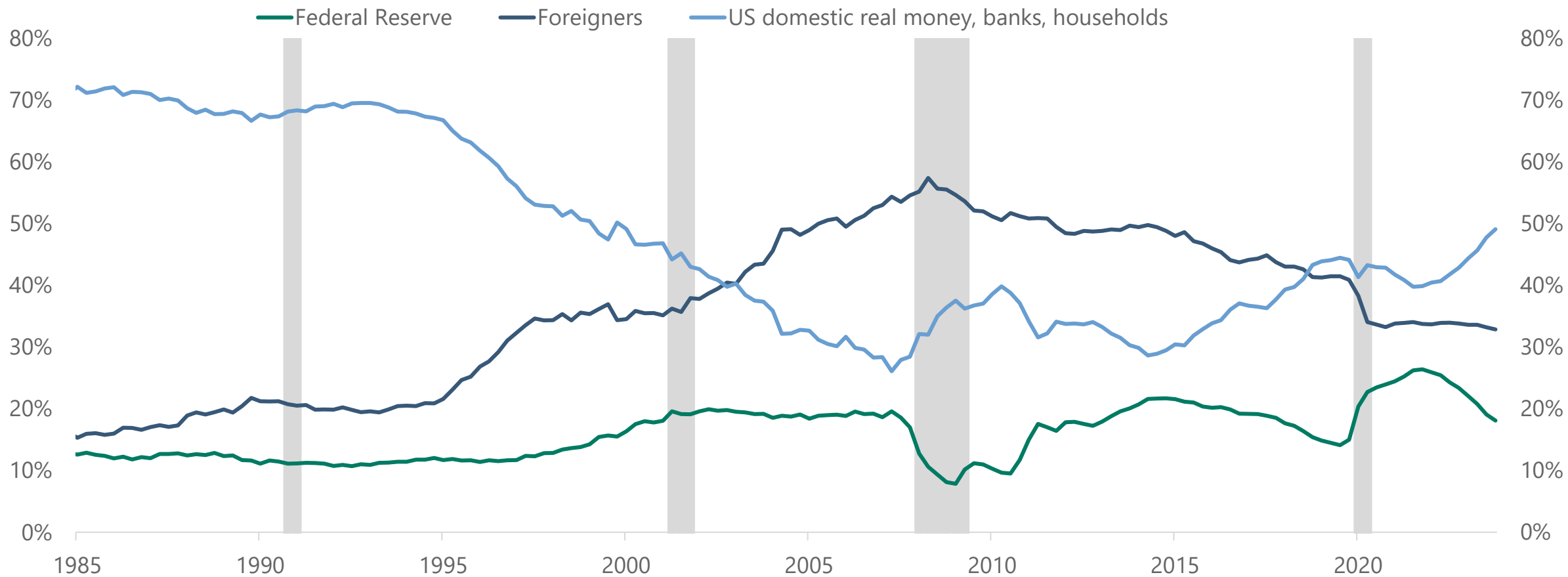
Source: Treasury, Haver Analytics, Apollo Chief Economist

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

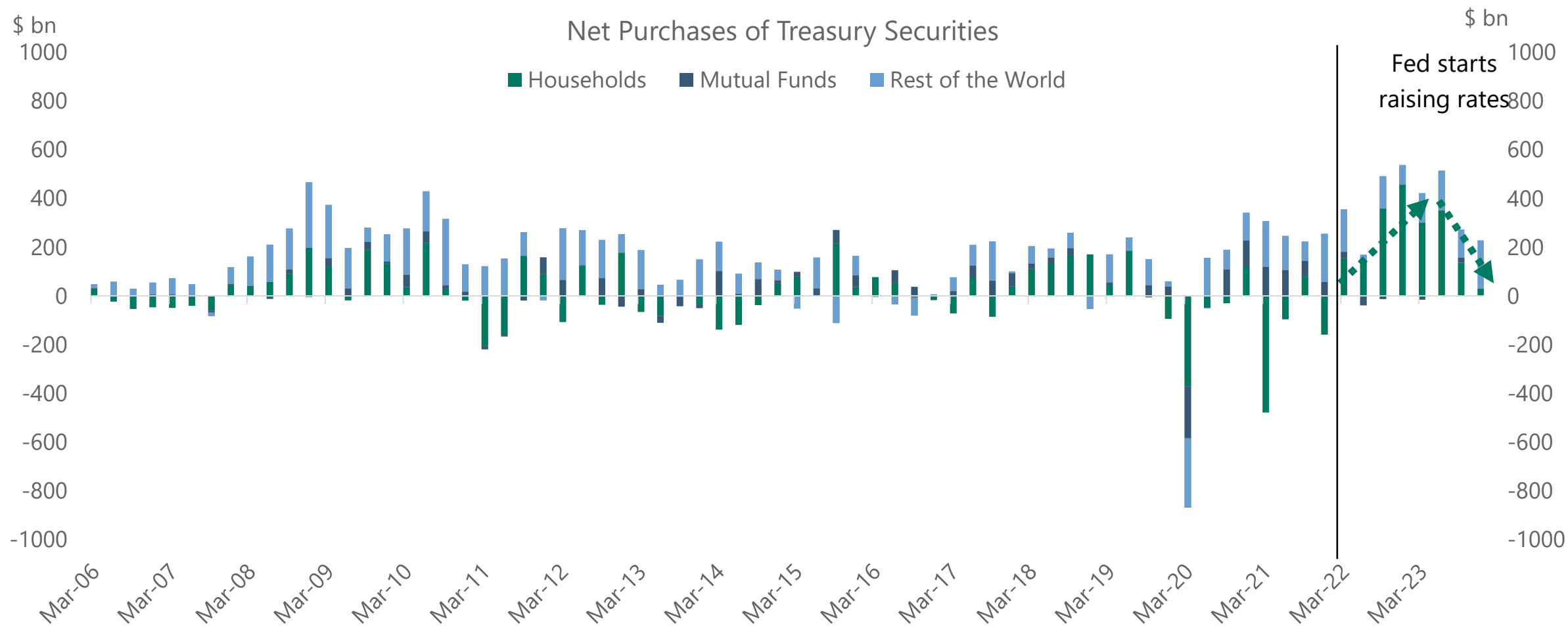


# Fed selling Treasuries (doing QT). Domestic investors buying Treasuries

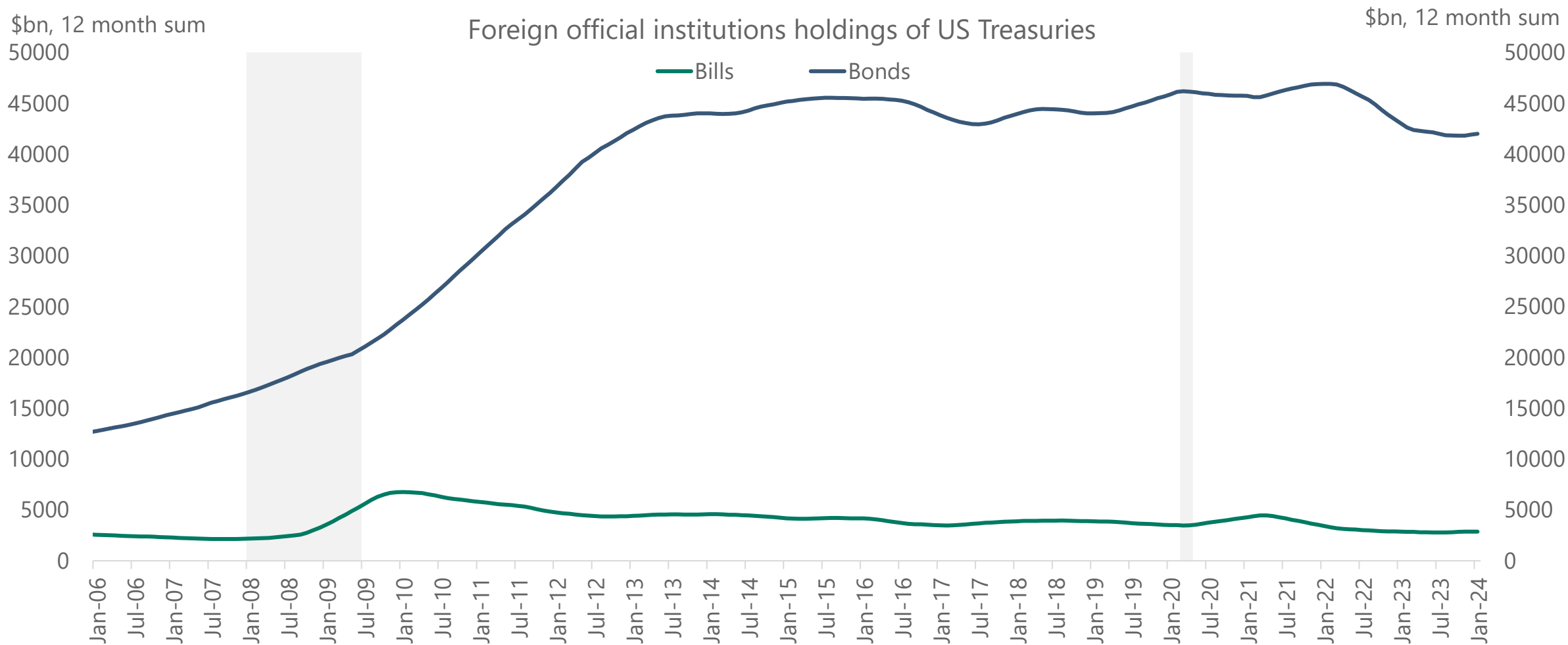
Holdings of Treasuries (% Treasury Debt Outstanding)



As the Fed was raising rates, US households were big buyers of US Treasuries.  
But this trend is now reversing

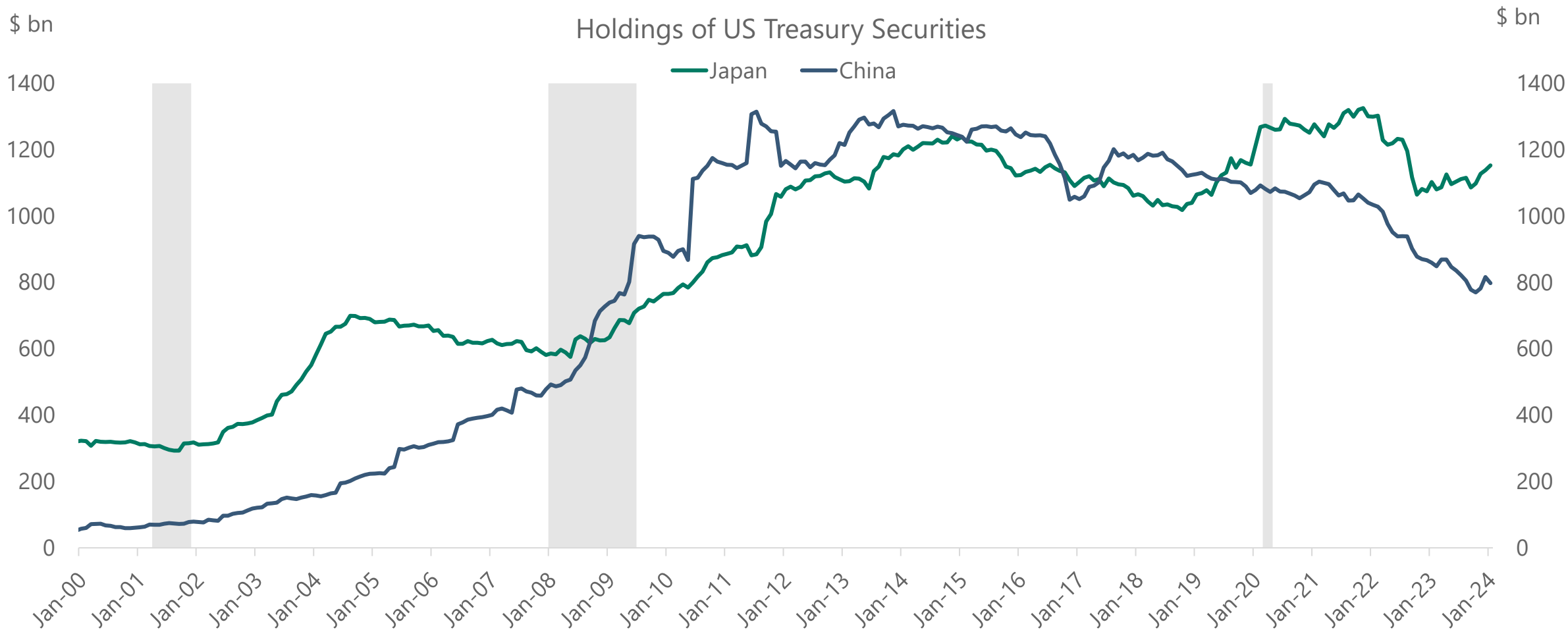


# Foreign official holdings of US bonds down from peak

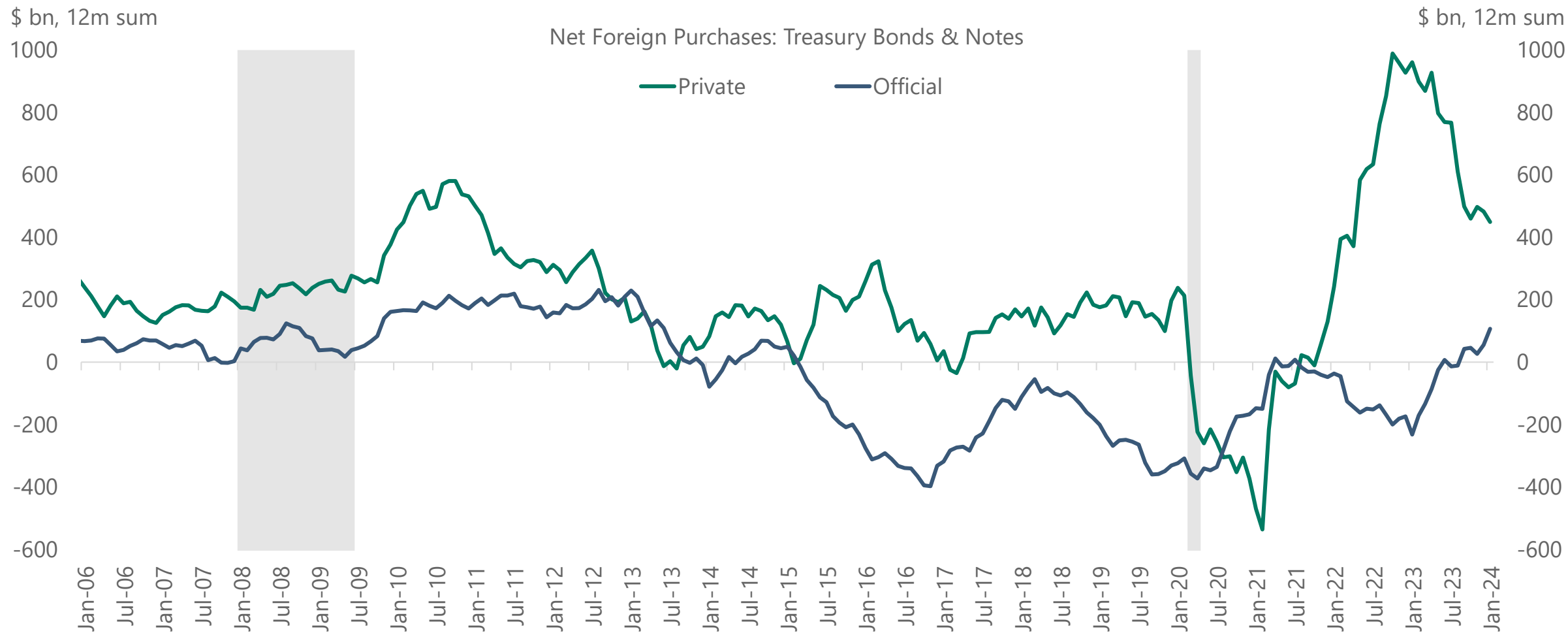




# Japanese and Chinese holdings of Treasury securities



# Foreign purchases of Treasuries come mainly from the private sector



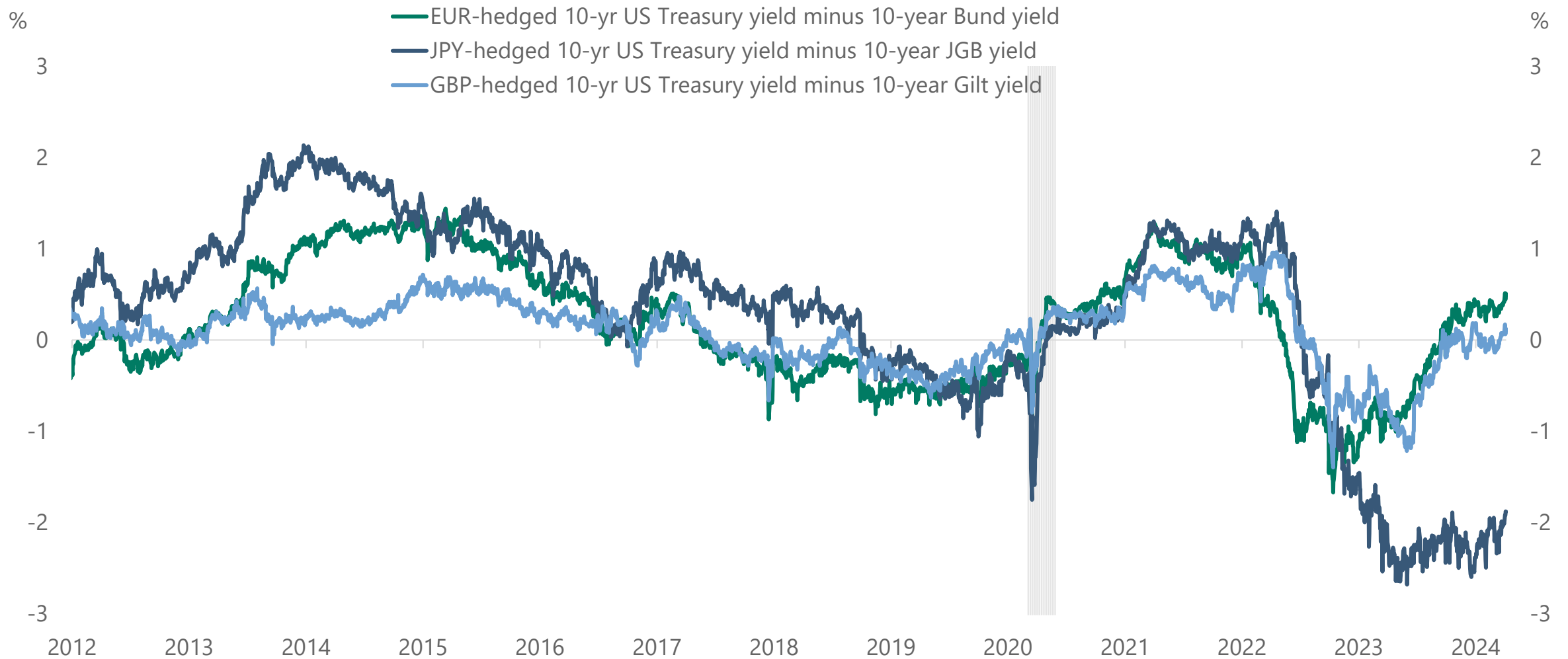
Source: Treasury, Haver Analytics, Apollo Chief Economist

# Japan: Insurance and pension own most of the foreign debt securities



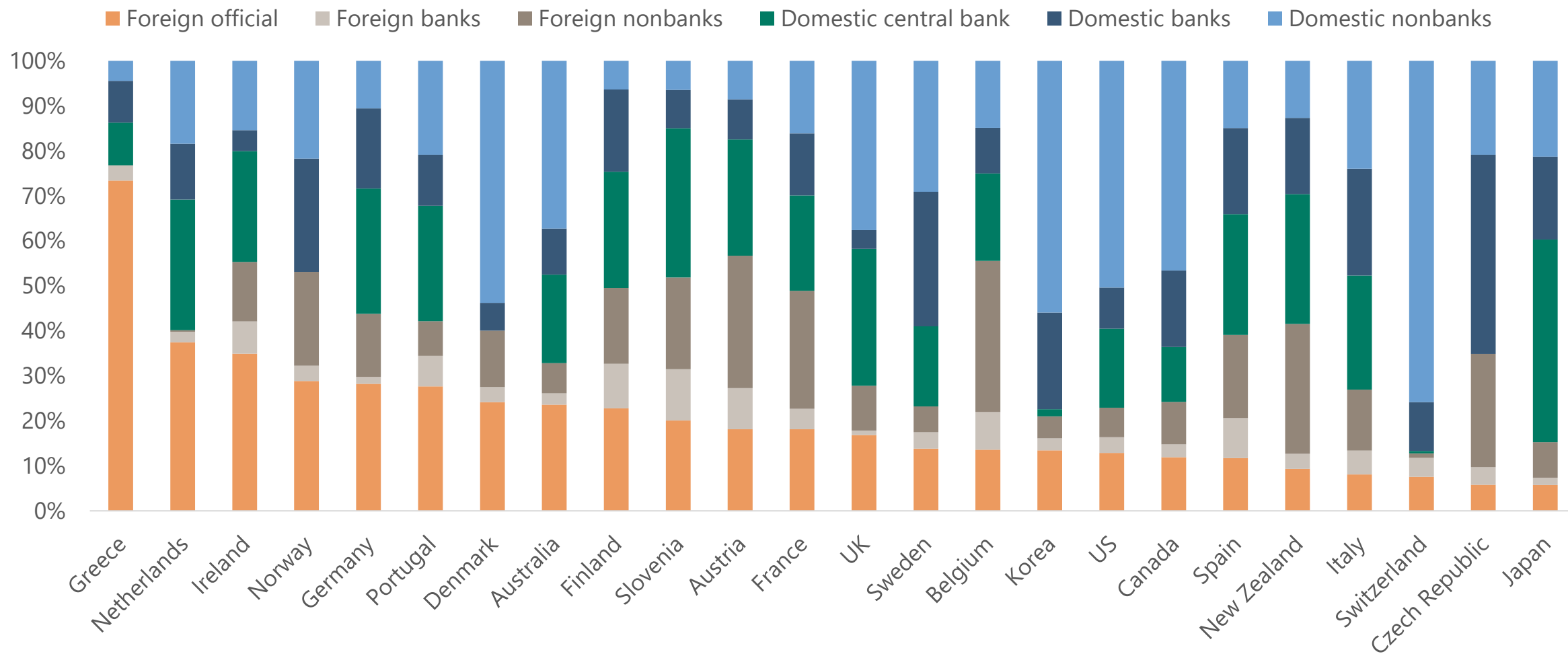
Source: Ministry of Finance Japan, Bloomberg, Apollo Chief Economist

# Hedging costs are high for Japanese investors buying US Treasuries



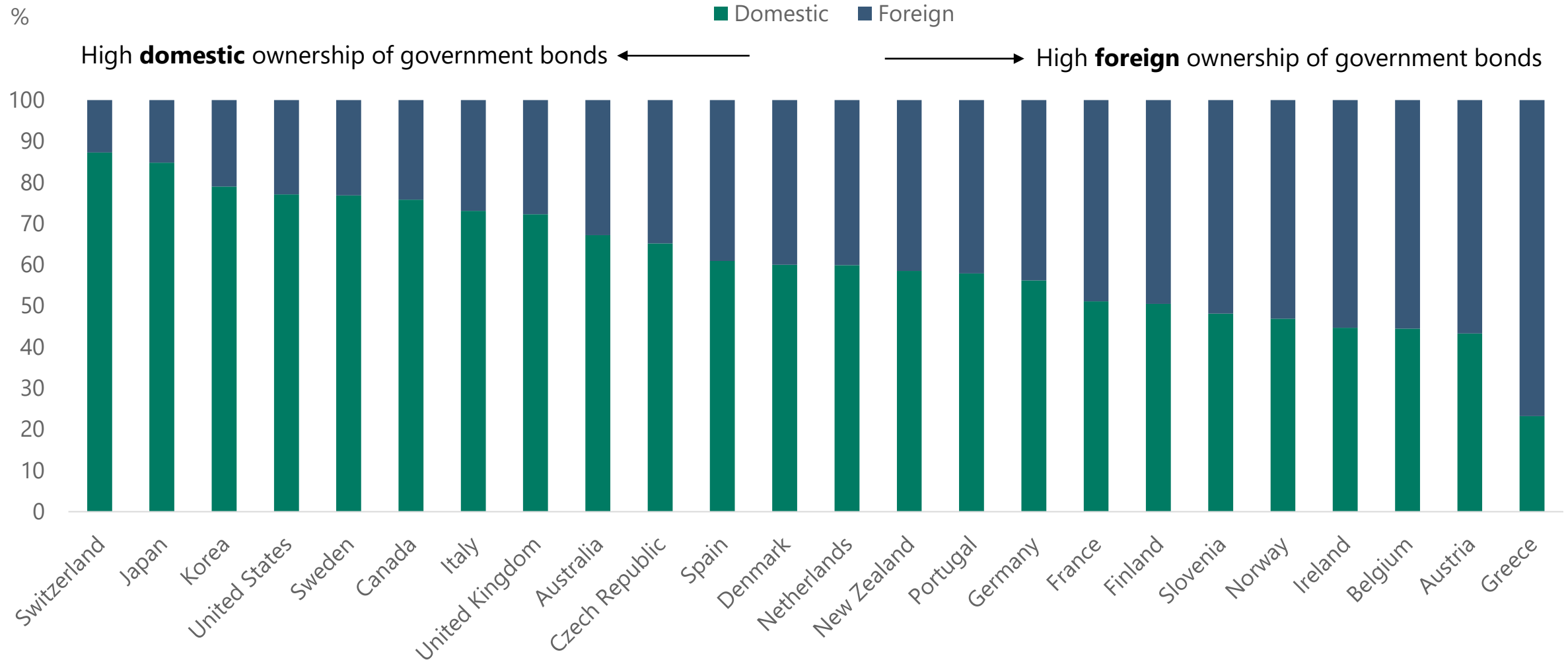
Source: Bloomberg, Apollo Chief Economist. Note: Hedged Treasury yield is calculated as  $\left(\frac{((-3 \text{ month forward}/10000)/\text{exchange rate})+1\right)^{4-1} \times 100 + 10 \text{ year US Treasury yield}$ .

# Who owns different countries' government debt?



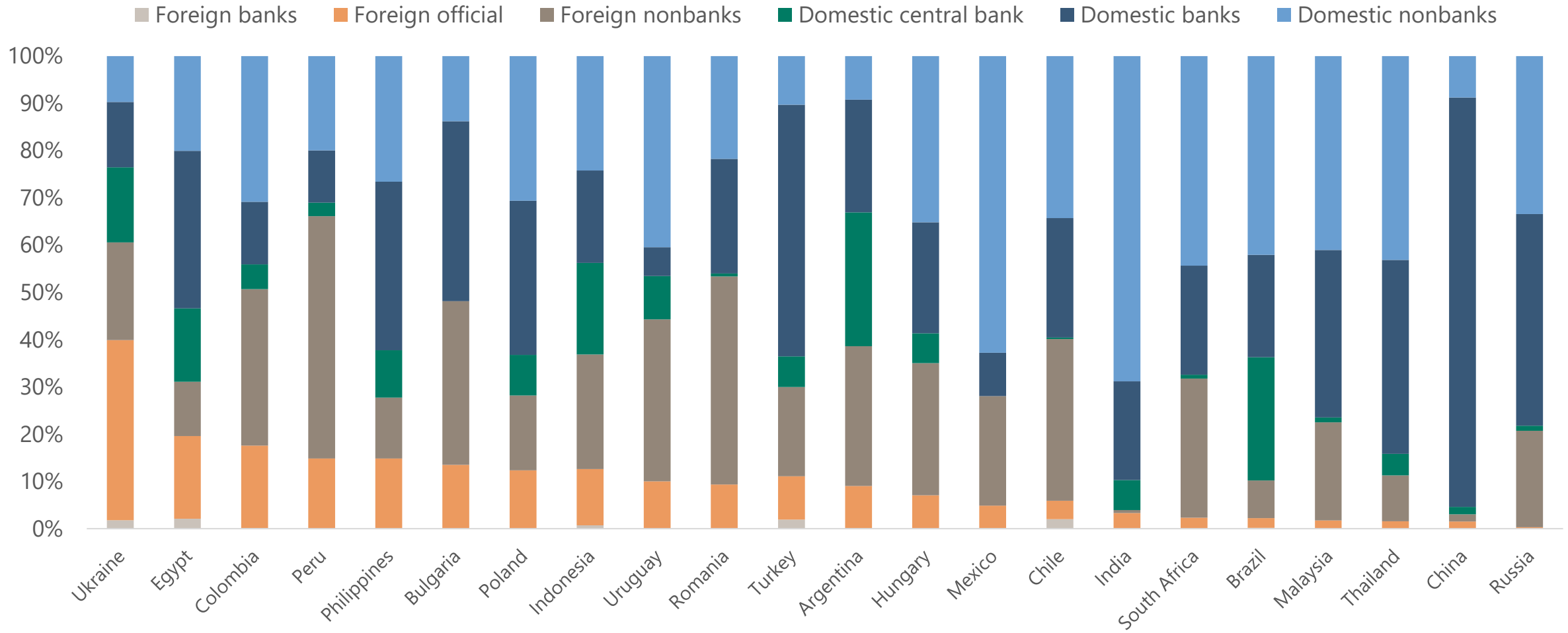
Source: The IMF, Apollo Chief Economist. Note: Data as of Q2 2023

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



Source: The IMF, Apollo Chief Economist. Note: Data as of Q2 2023.

# EM: Who owns different countries' government debt?

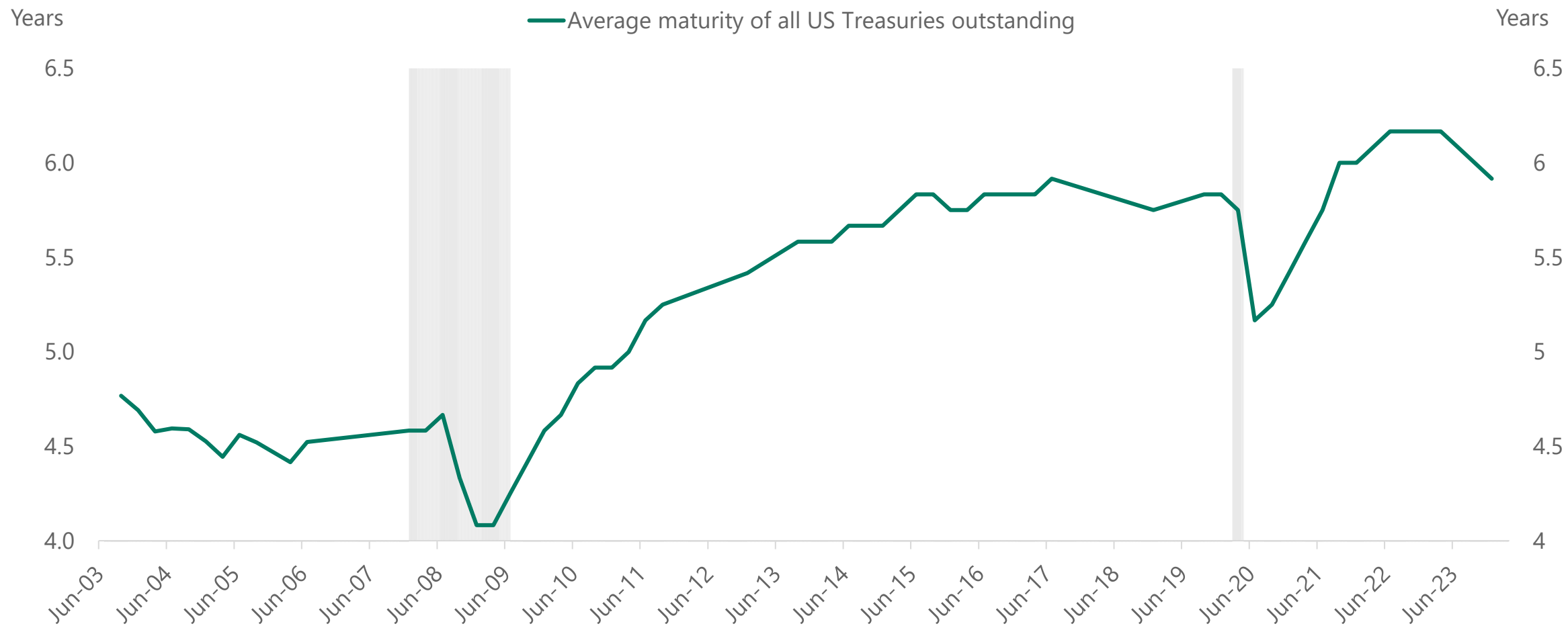


Source: The IMF, Apollo Chief Economist. Note: Data as of Q2 2023

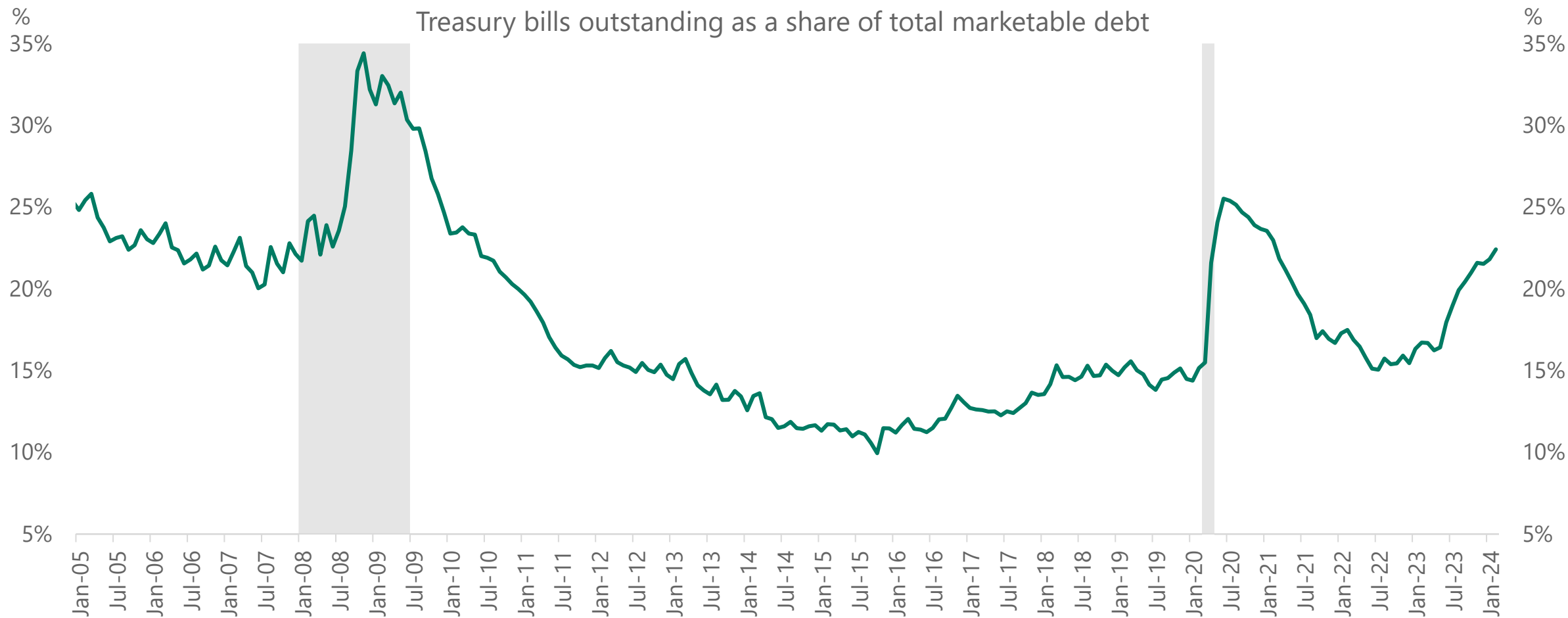
# The maturity structure of US government debt



# Weighted average maturity of debt outstanding declining

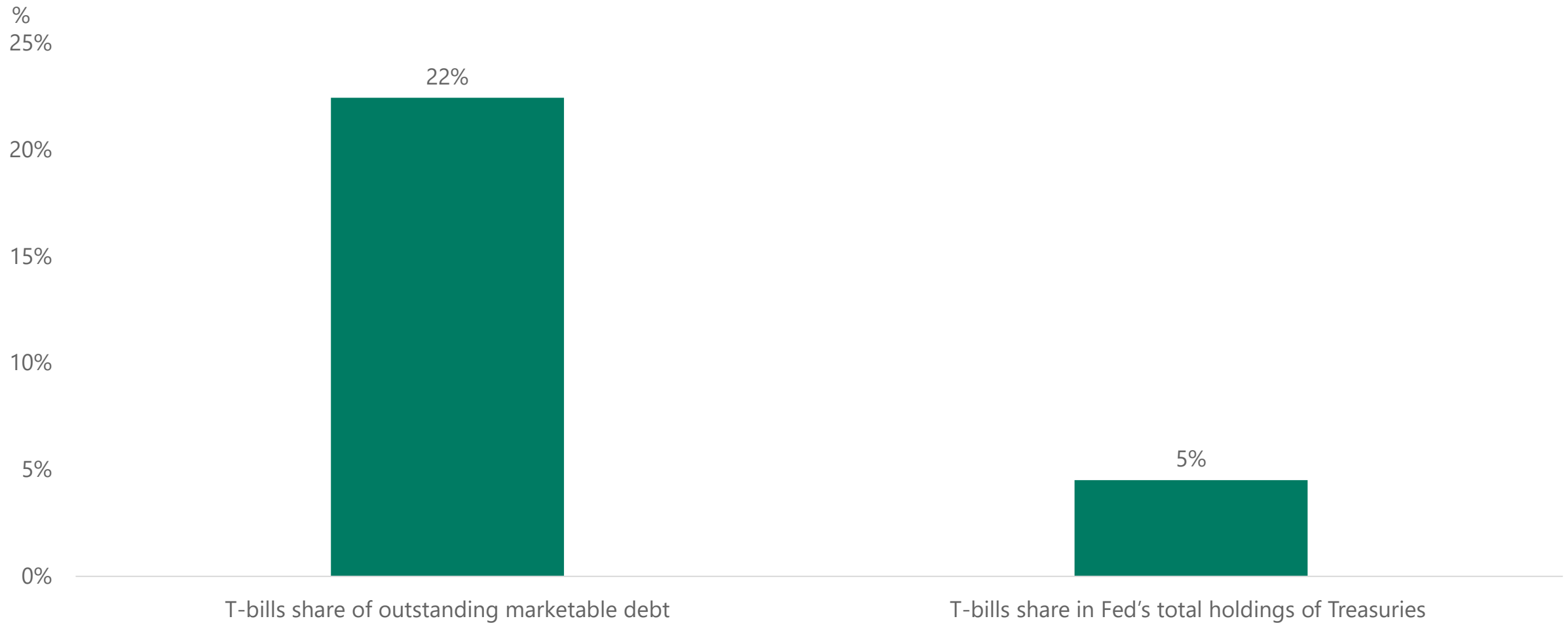


# Share of T-bills has increased significantly in 2023



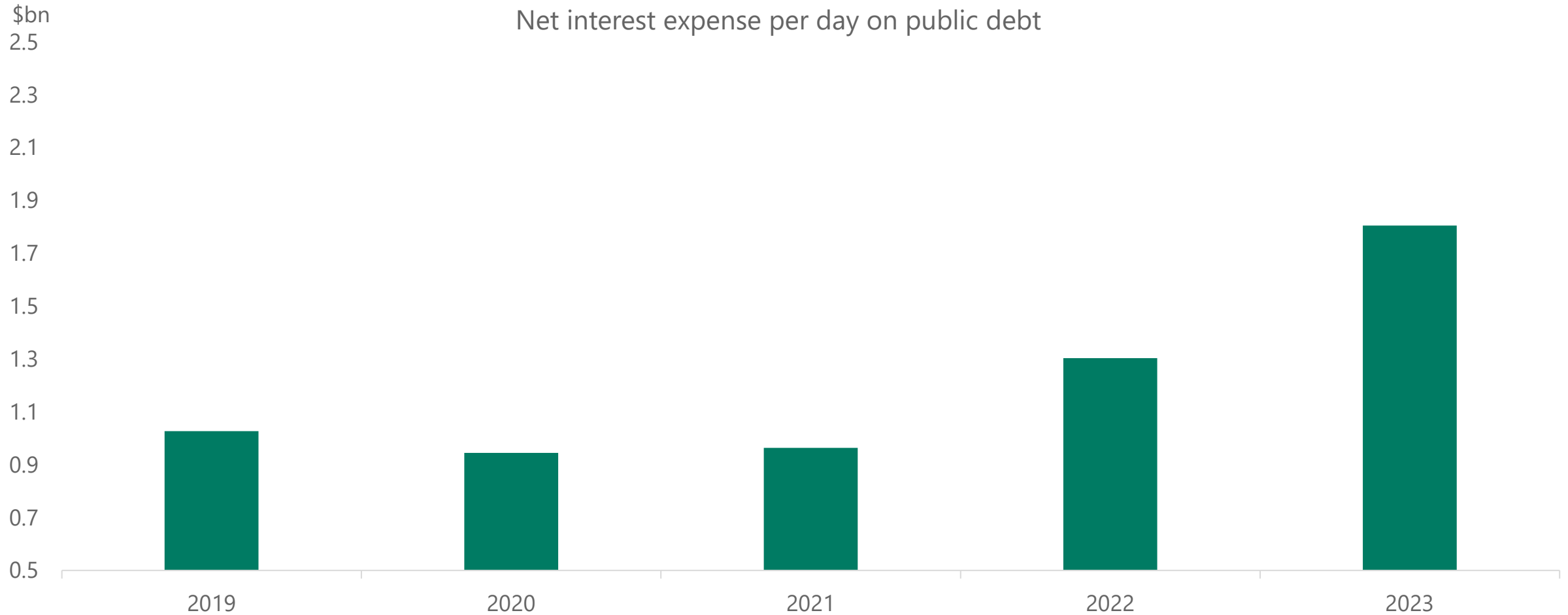
Source: Treasury, Haver Analytics, Apollo Chief Economist

The share of T-bills on the Fed balance sheet is much smaller than T-bills as a share of outstanding marketable debt



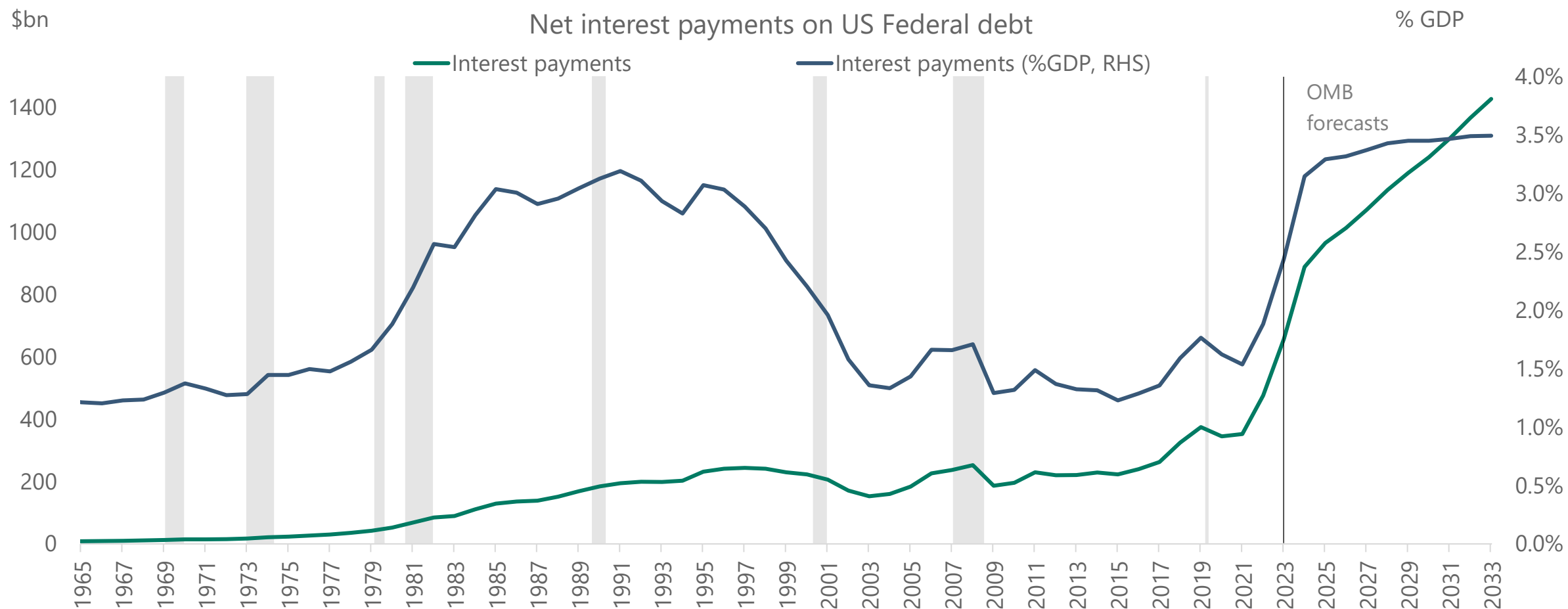
Debt servicing costs rising

# US government interest payments per day have doubled from \$1bn per day before the pandemic to almost \$2bn per day in 2023



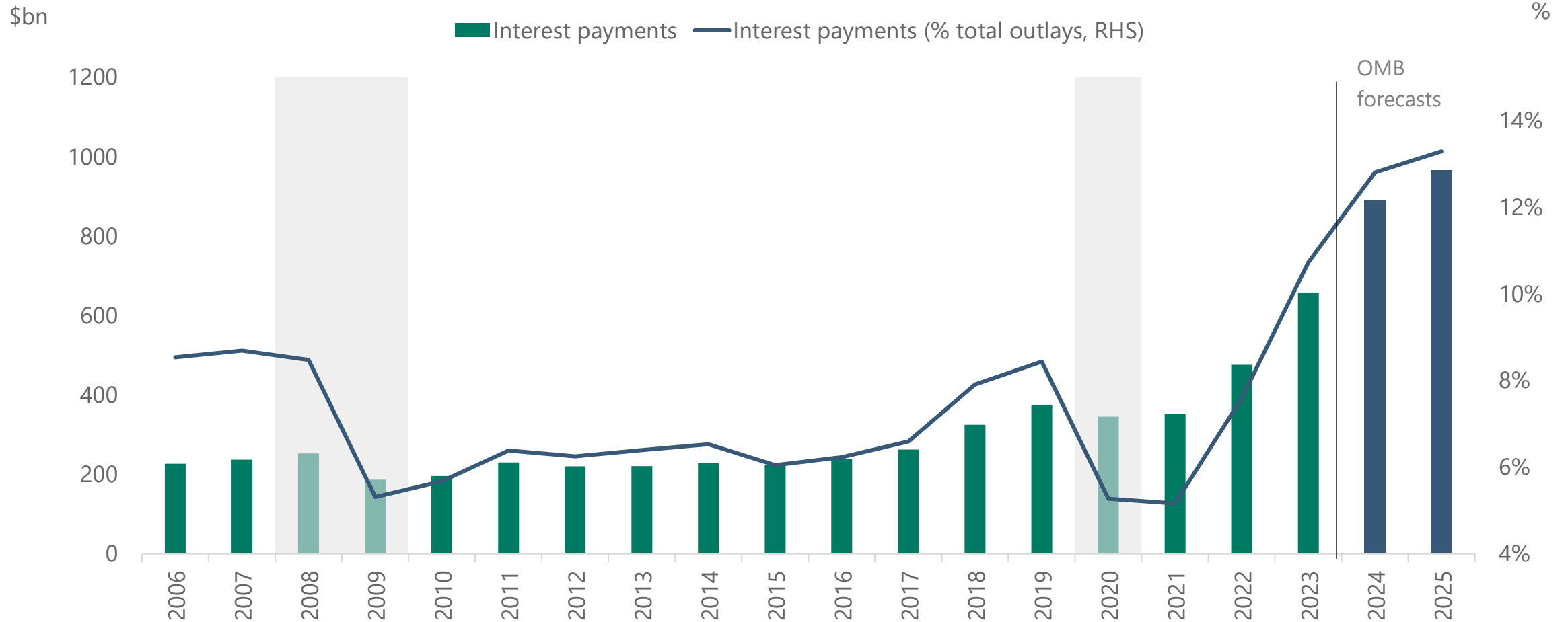
Source: CBO, Haver Analytics, Apollo Chief Economist. Note: Interest rate assumption by CBO: 2.1% in 2022 and 2.7% in 2023. Annual CBO data divided by 365.

# Debt servicing costs rising rapidly



Source: Treasury, OMB, Haver Analytics, Apollo Chief Economist. Note: OMB estimates 10-year yield at around 3.5% in the next 10 years

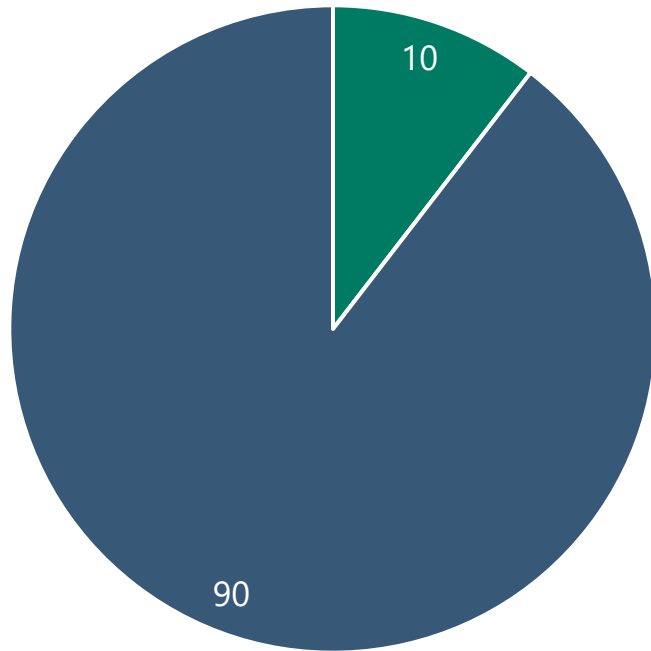
# Government debt servicing costs currently make up 12% of government spending



Source: Treasury, OMB, Haver Analytics, Apollo Chief Economist. Note: OMB estimates 10-year yield at around 3.5% in the next 10 years.

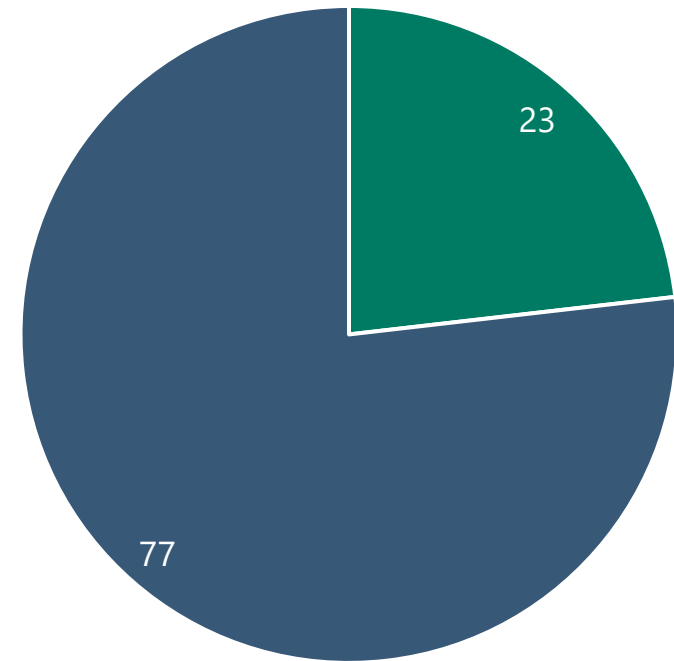
# CBO: Debt servicing costs will grow as a share of total outlays over the next 30 years

Total outlays, 2023



■ Net Interest ■ Noninterest

Total outlays, 2053

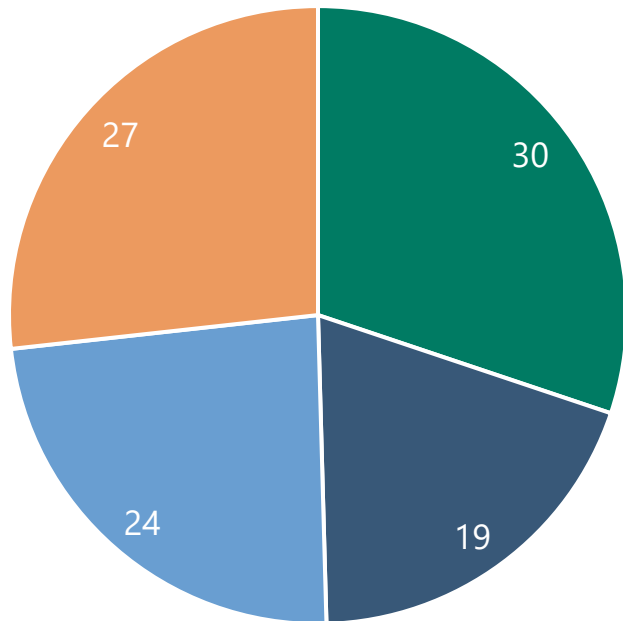


■ Net Interest ■ Noninterest



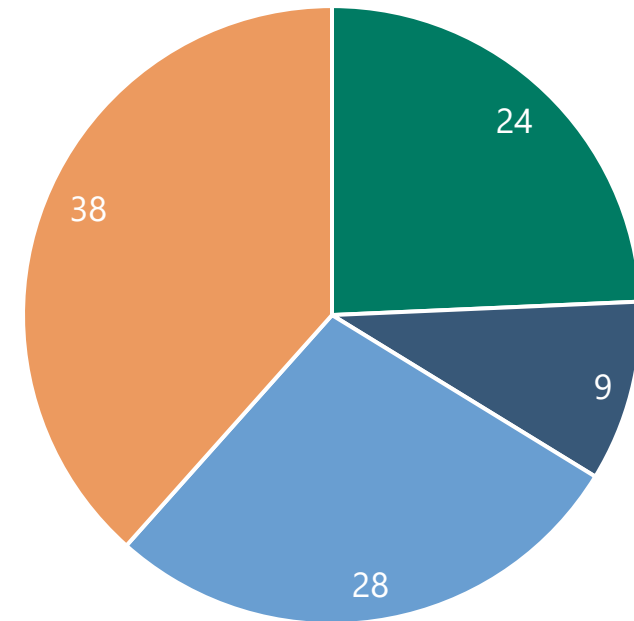
# CBO: Non-interest outlays distribution, 2023 vs 2053

Total non-interest outlays, 2023



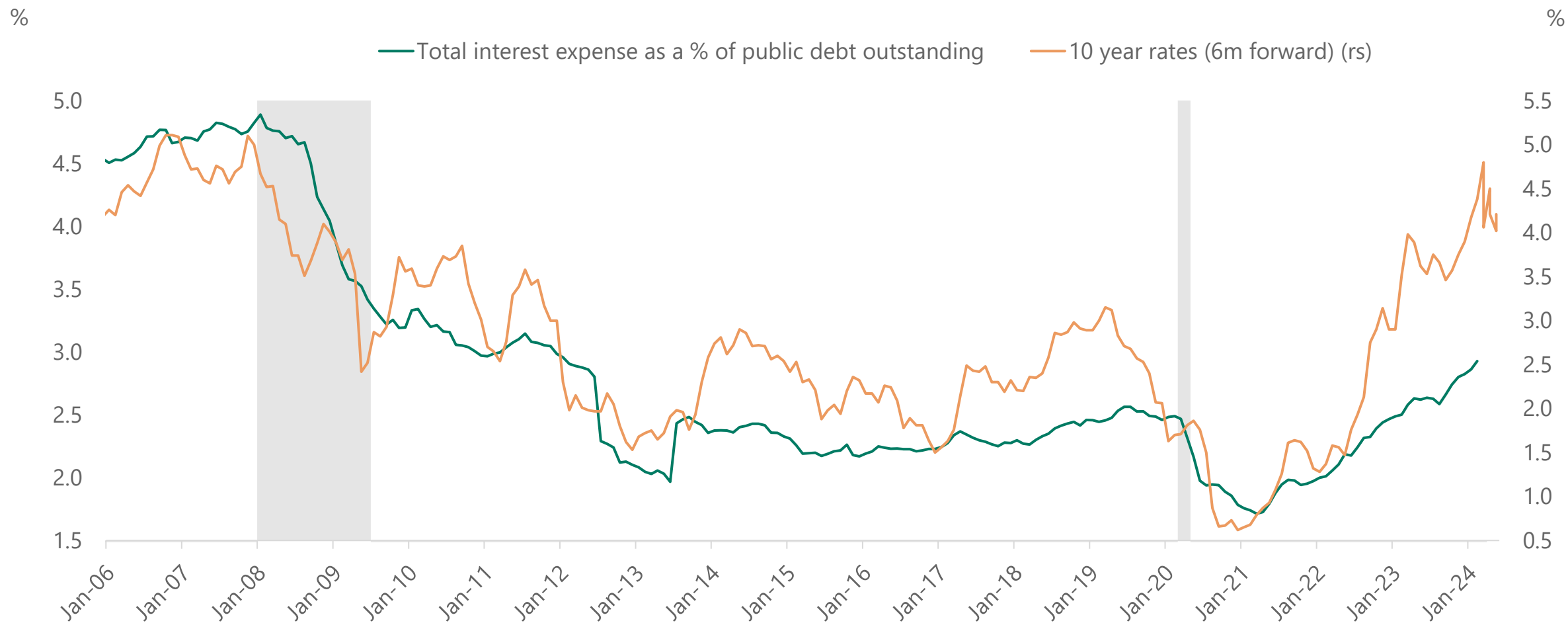
- Discretionary
- Other Mandatory
- Social Security
- Major Health Care Programs

Total non-interest outlays, 2053



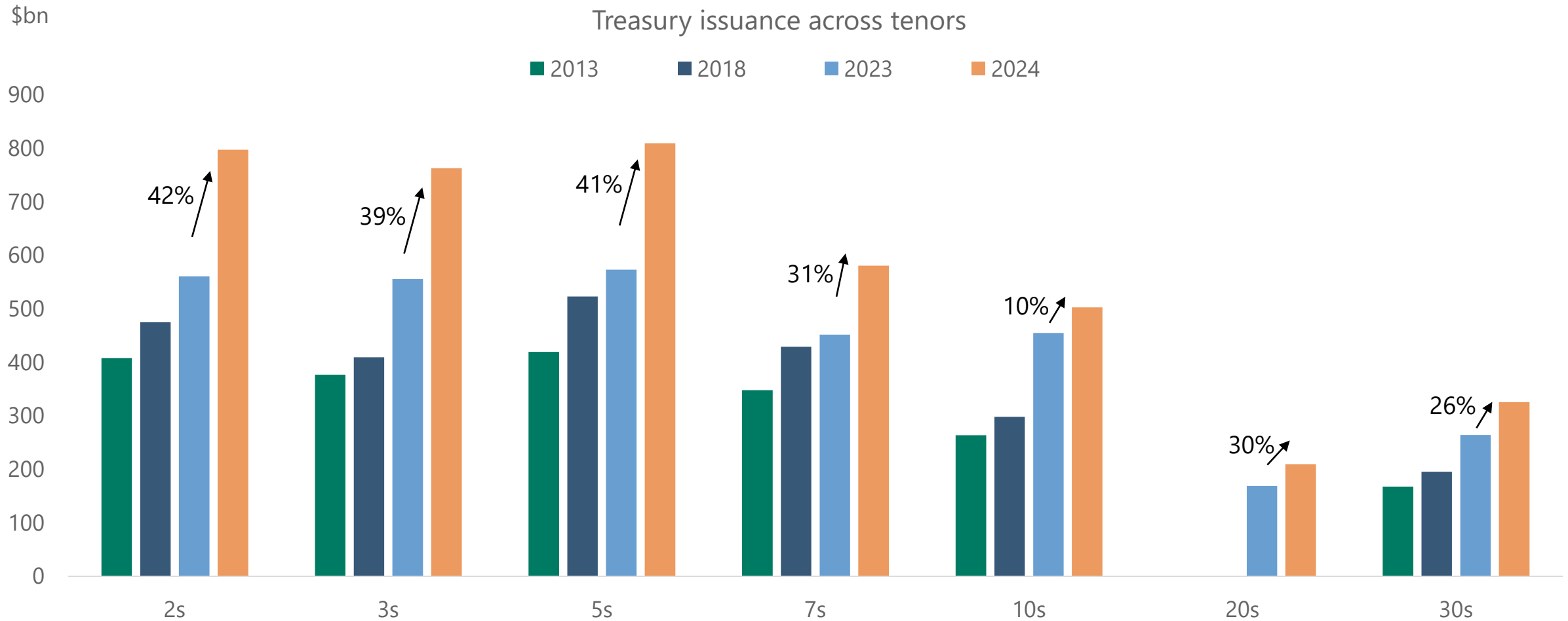
- Discretionary
- Other Mandatory
- Social Security
- Major Health Care Programs

# Interest payments on government debt are rising



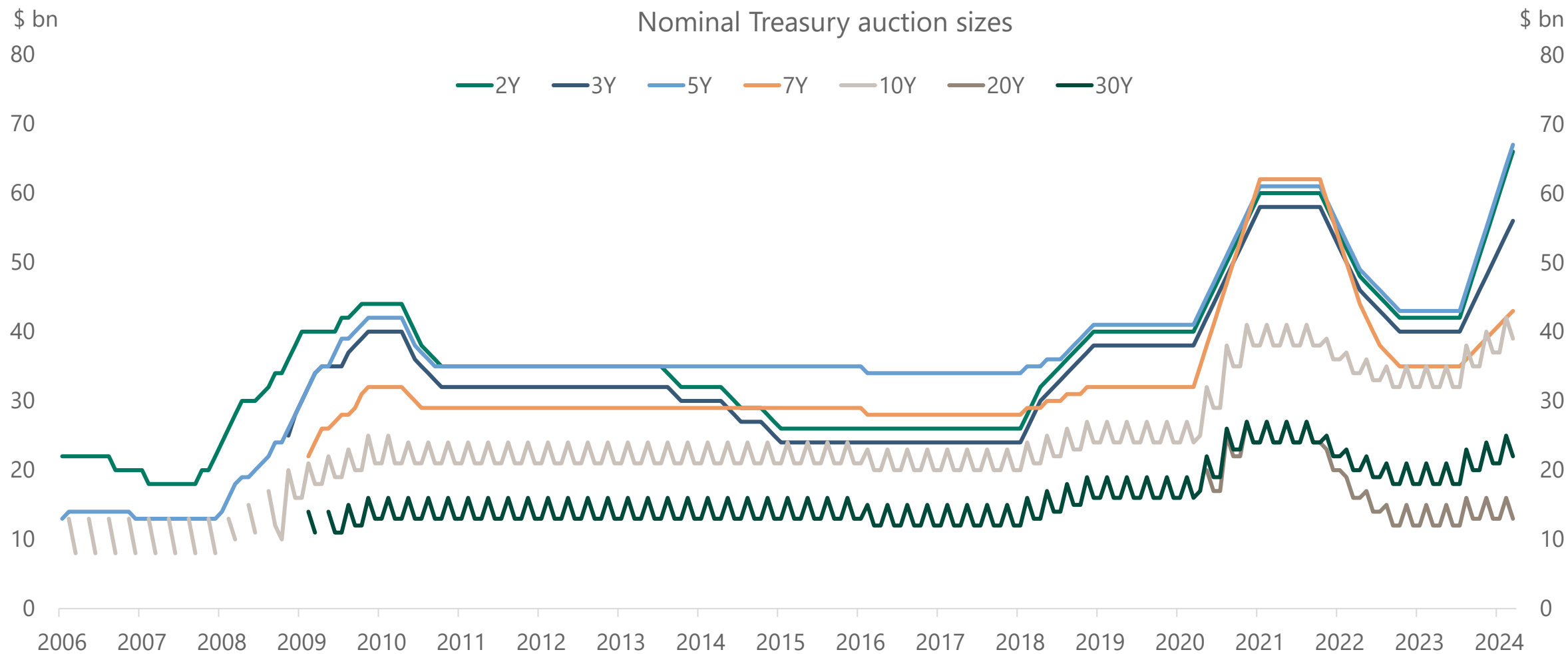
# Treasury auction metrics

# Treasury auction sizes will in 2024 increase on average 35% across the yield curve

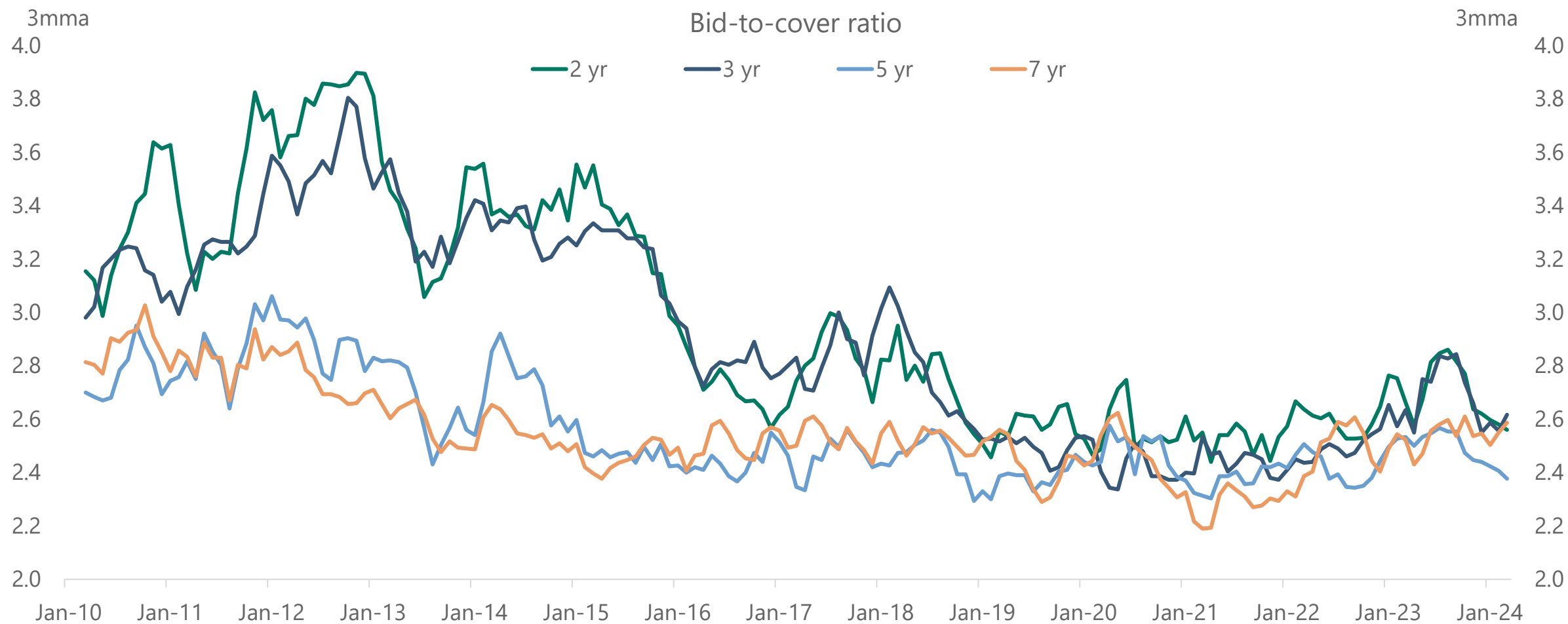


Source: SIFMA, TBAC, Haver Analytics, Apollo Chief Economist. Note: Estimates from April 2024 to Dec 2024 from the TBAC neutral issuance scenario.

# Auction sizes growing in 2024

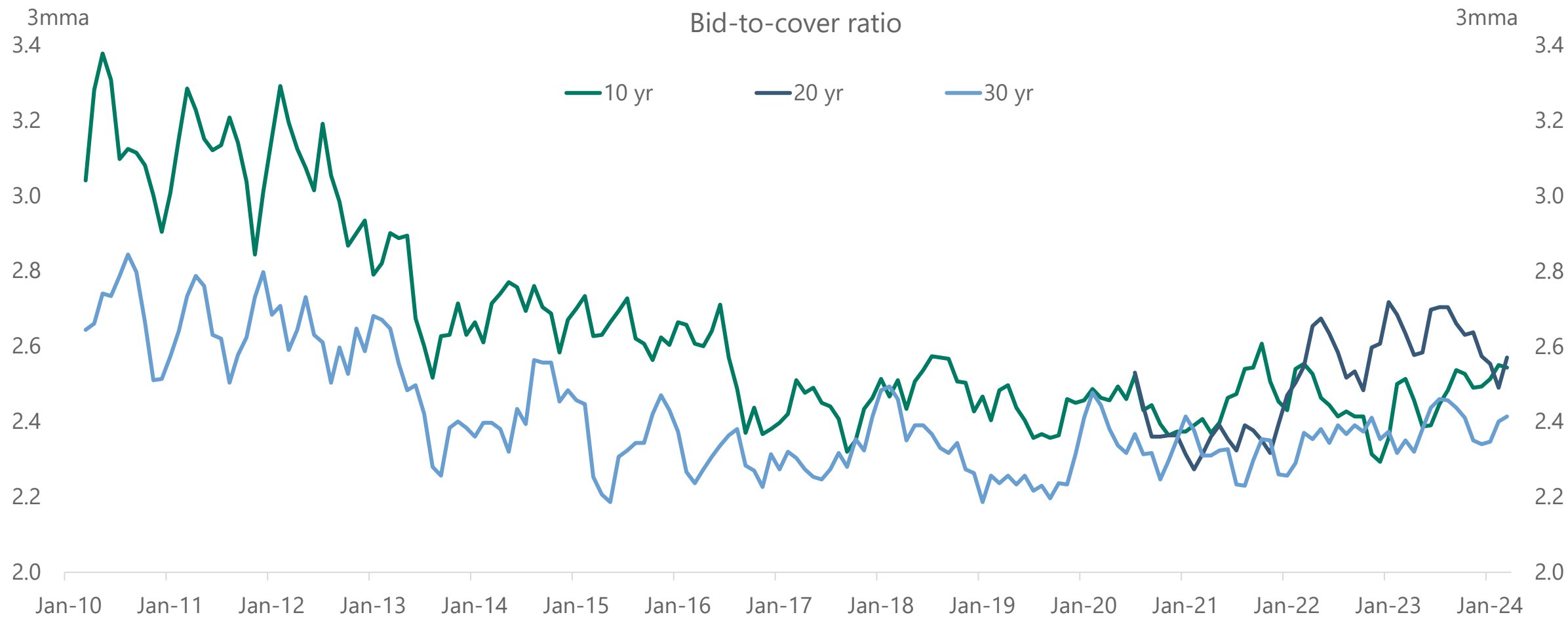


# Downside risks to bid-to-cover ratios in 2024



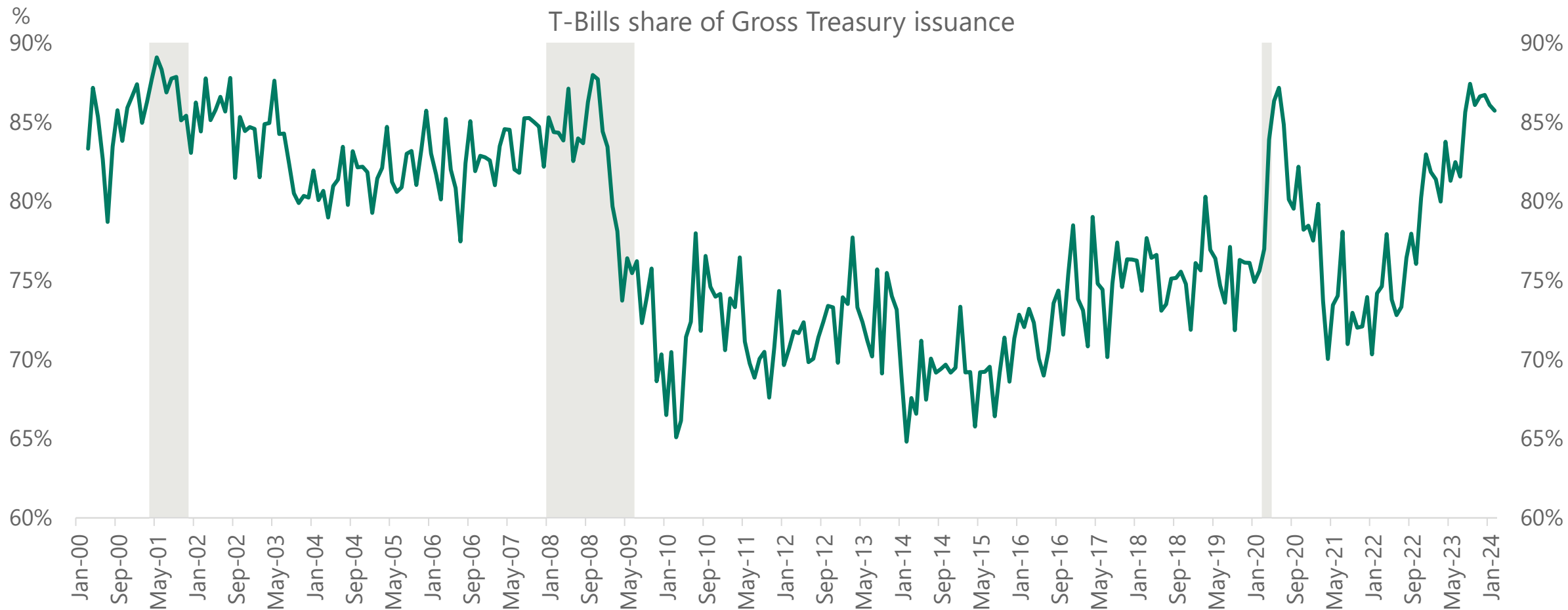
Source: Bureau of Public Debt, Haver Analytics, Apollo Chief Economist

# Downside risks to bid-to-cover ratios in 2024



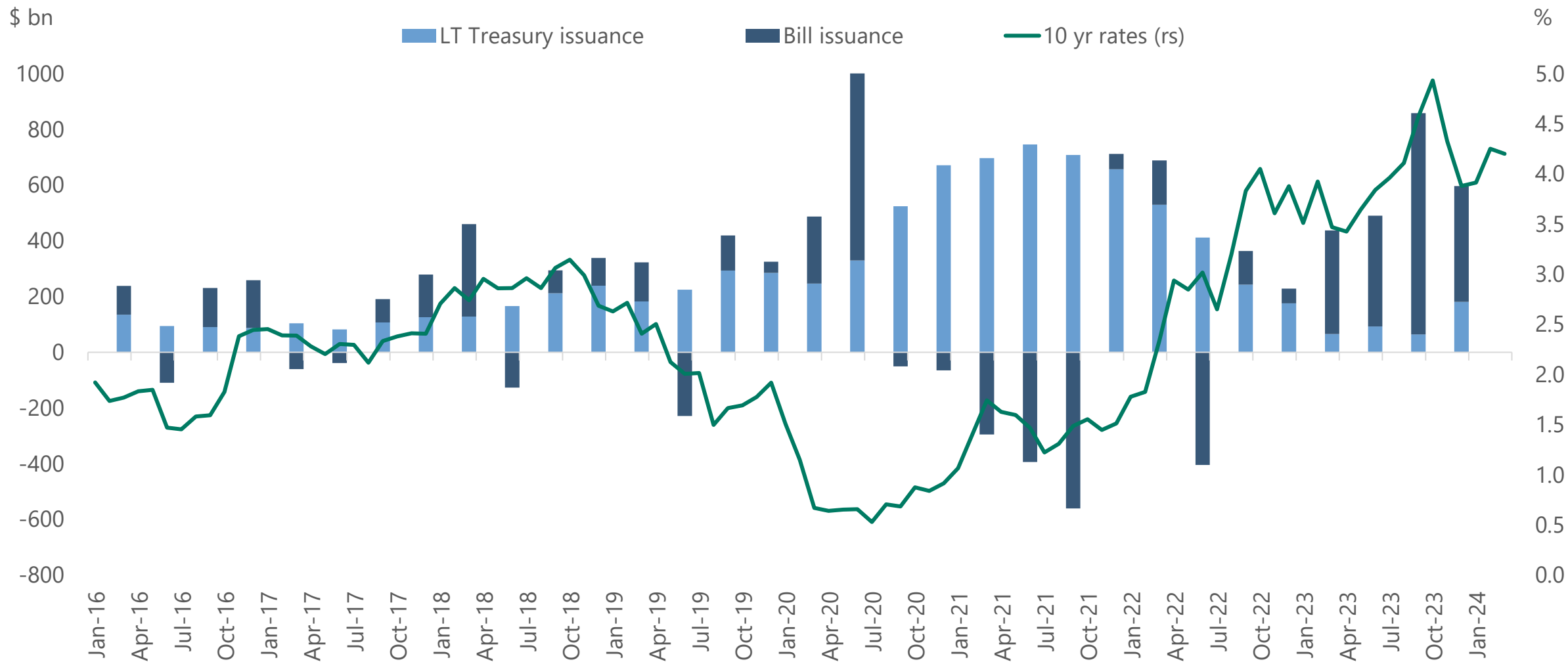
Source: Bureau of Public Debt, Haver Analytics, Apollo Chief Economist

# Very high share of Treasury issuance is T-bills

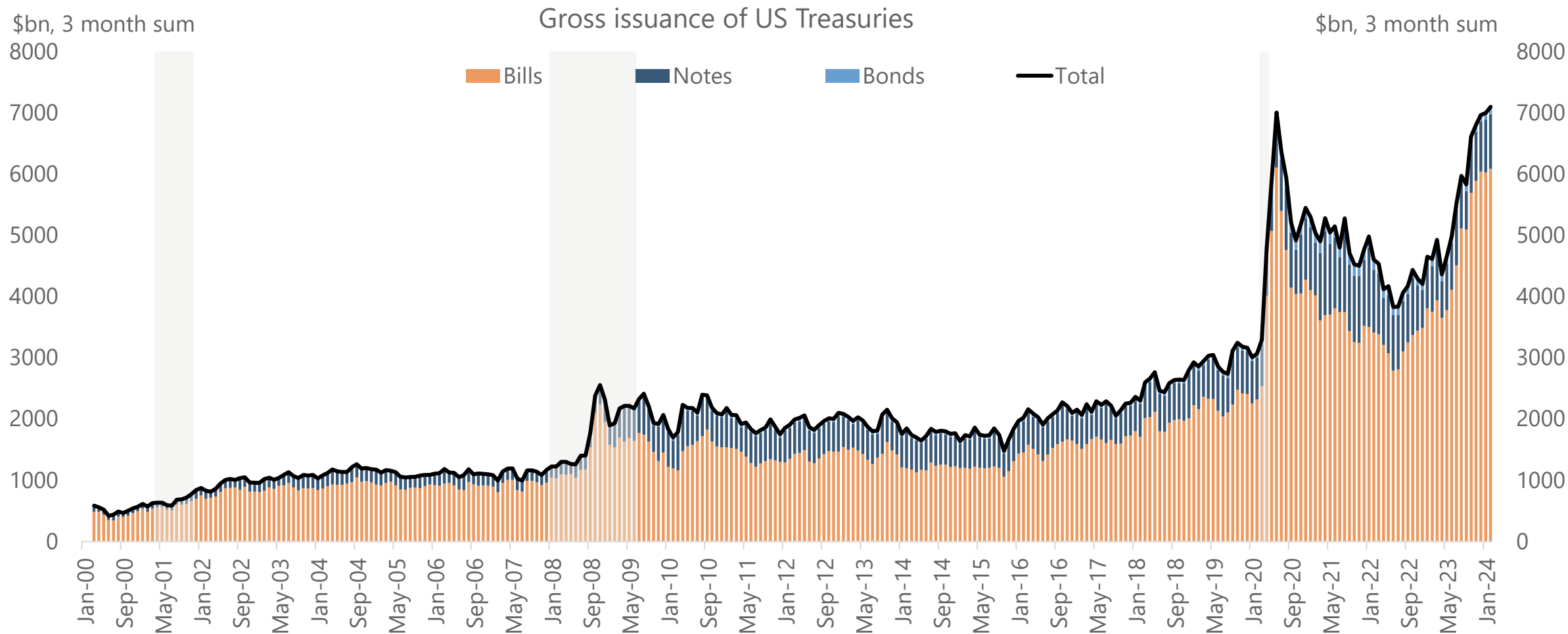




# Bill issuance has been very big in 2023

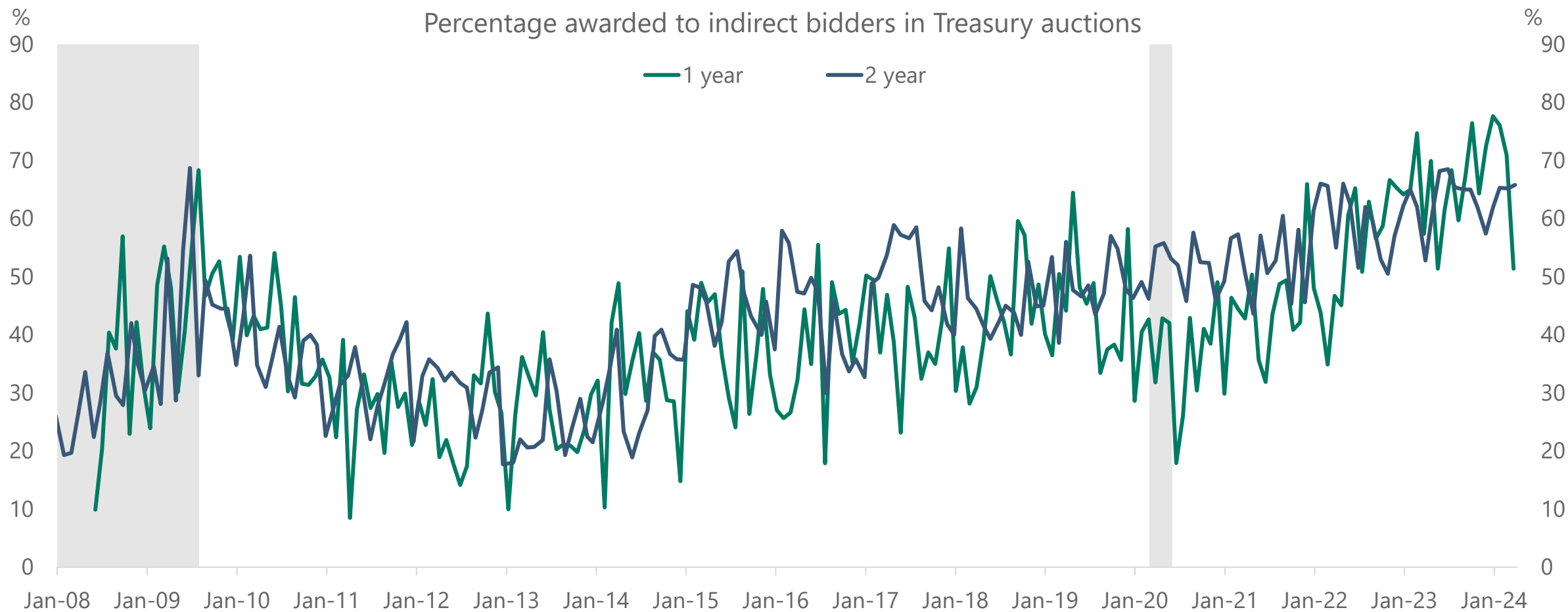


# T-bill issuance dominates

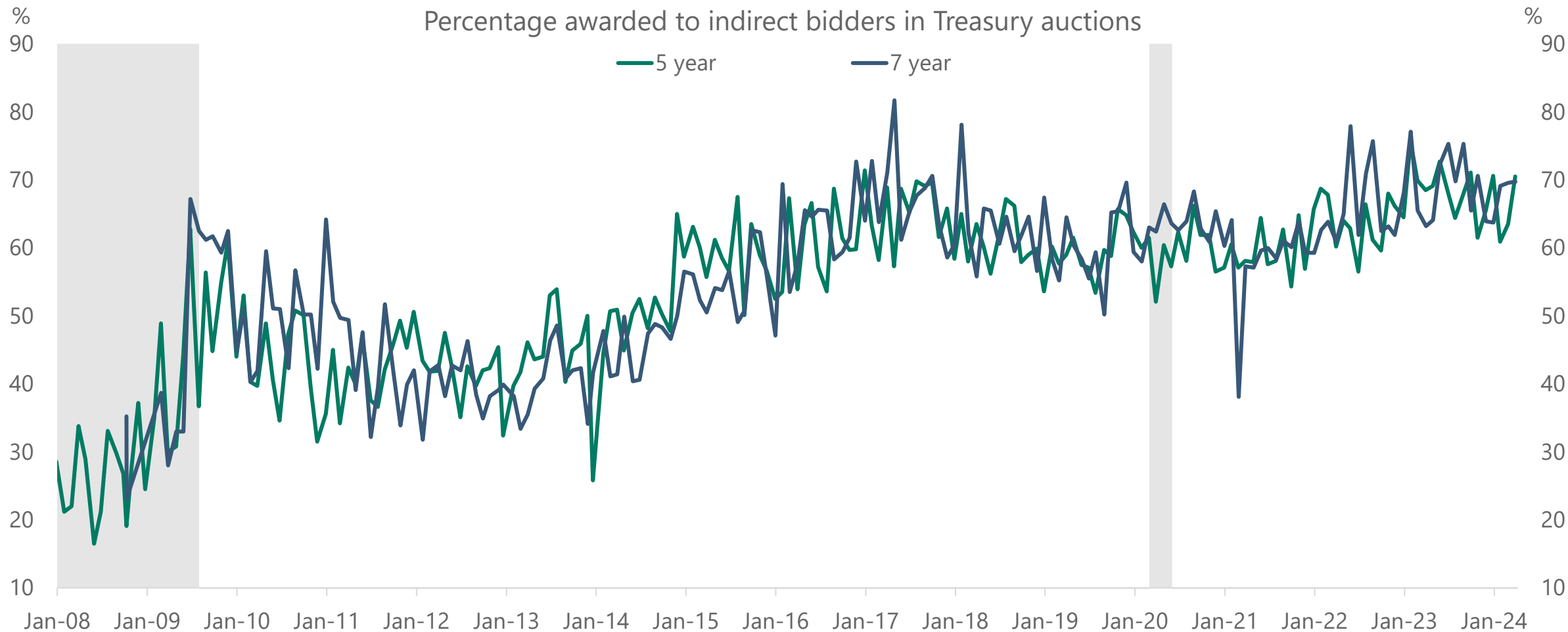


Source: SIFMA, Haver Analytics, Apollo Chief Economist

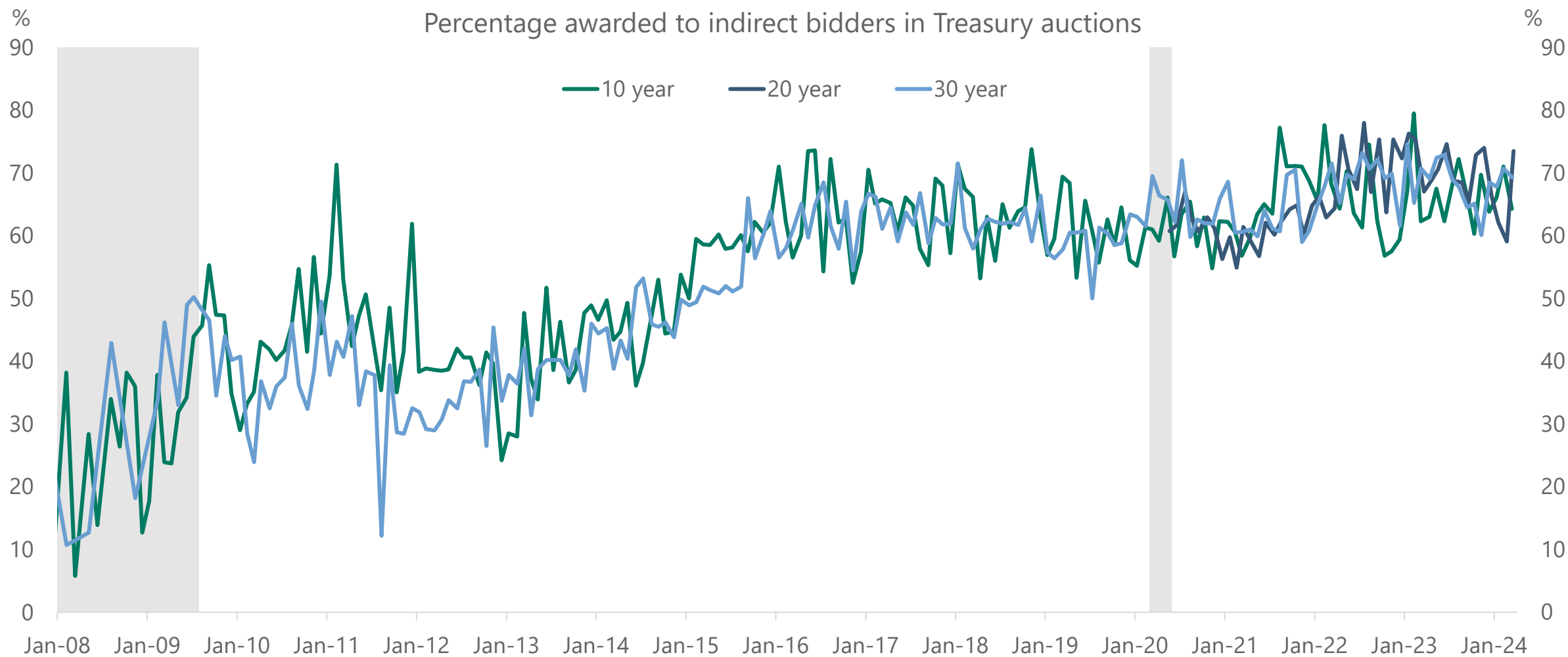
# Indirect bidder share rising for 1- and 2-year notes



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



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



# Conclusion

## Growing debt levels: What to watch?

1. Treasury auctions
2. Ratings agencies
3. The term premium

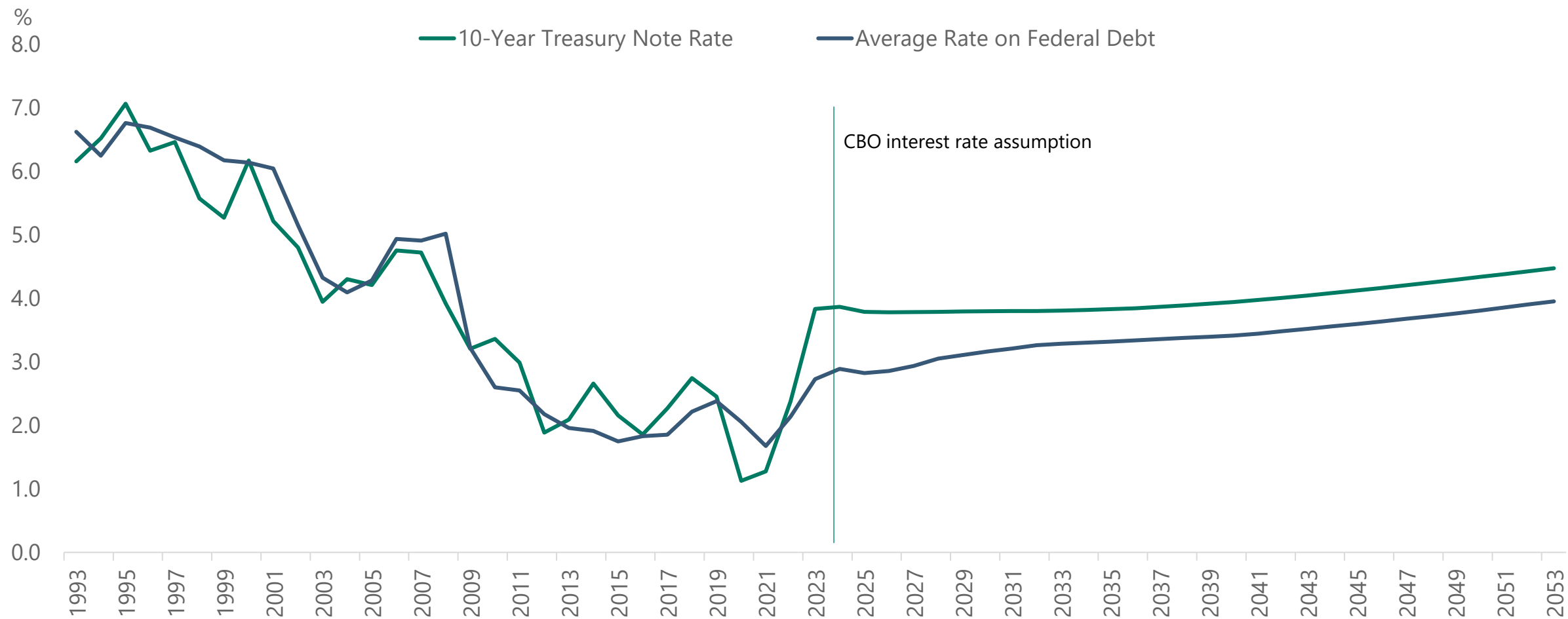
# Term premium is key



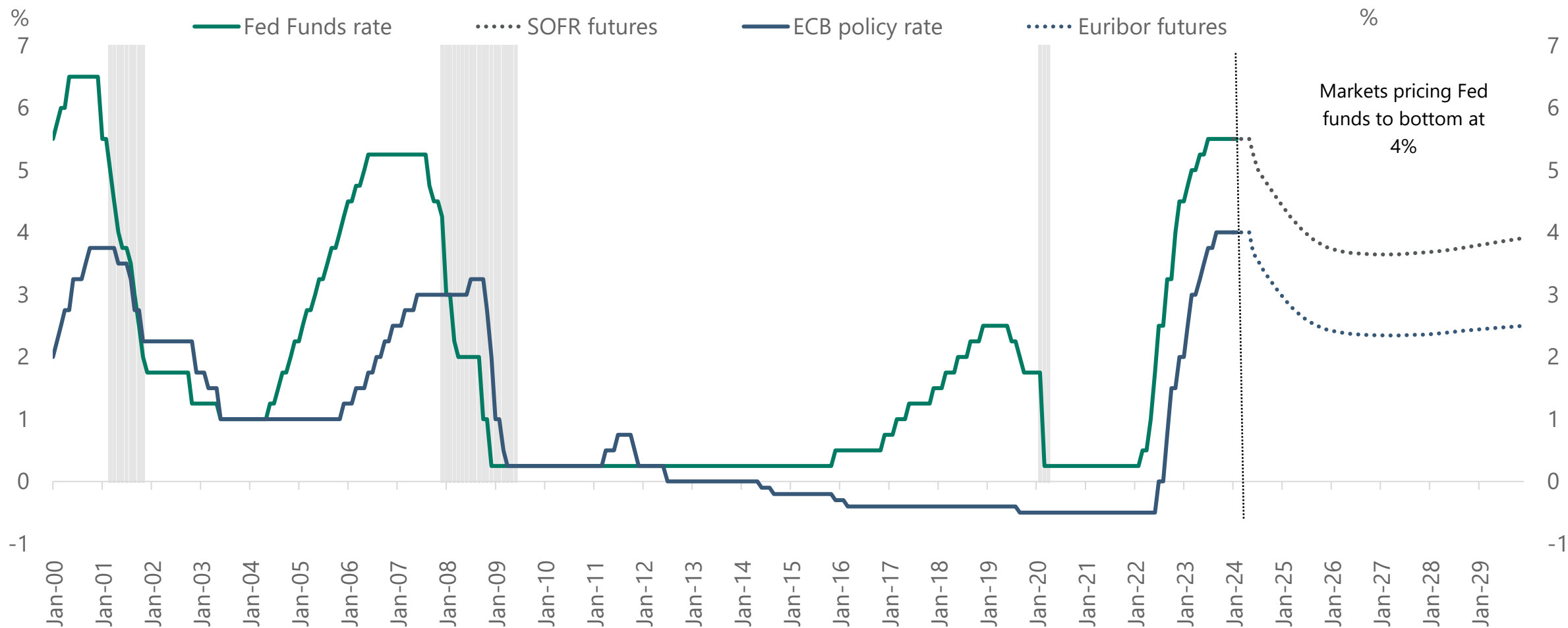


# Appendix

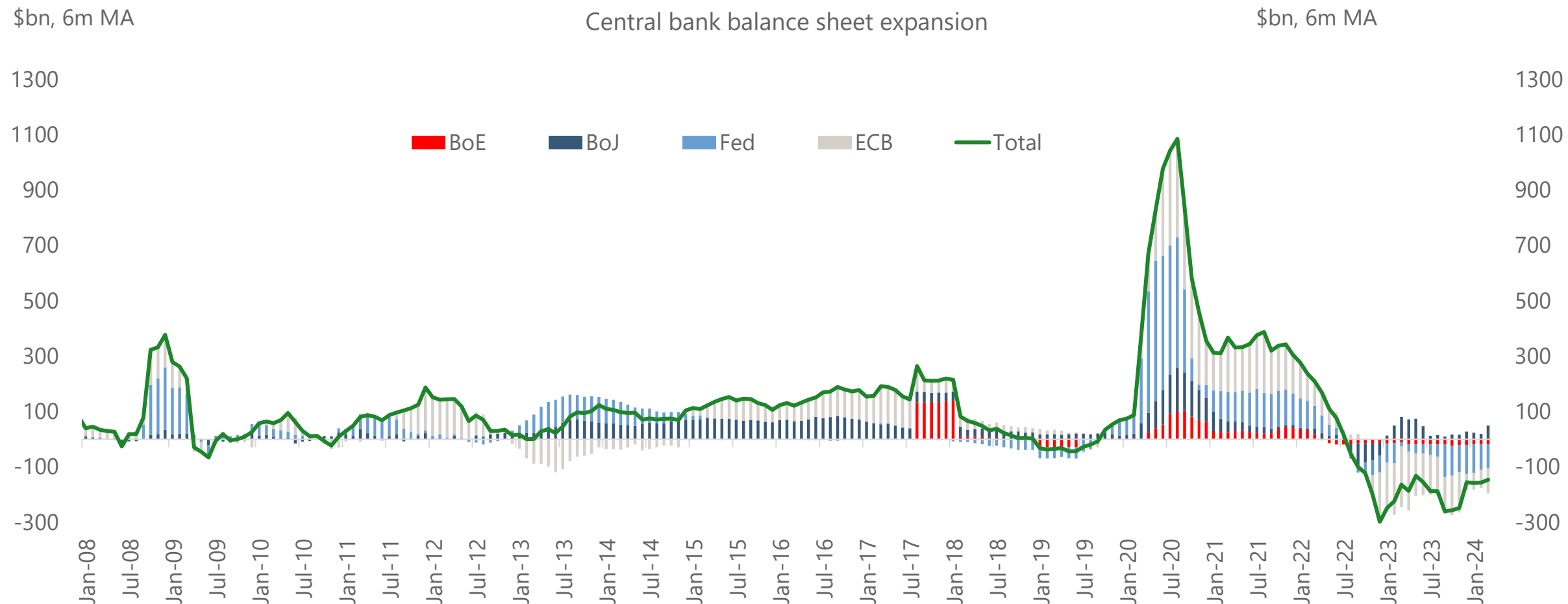
# CBO interest rate assumptions



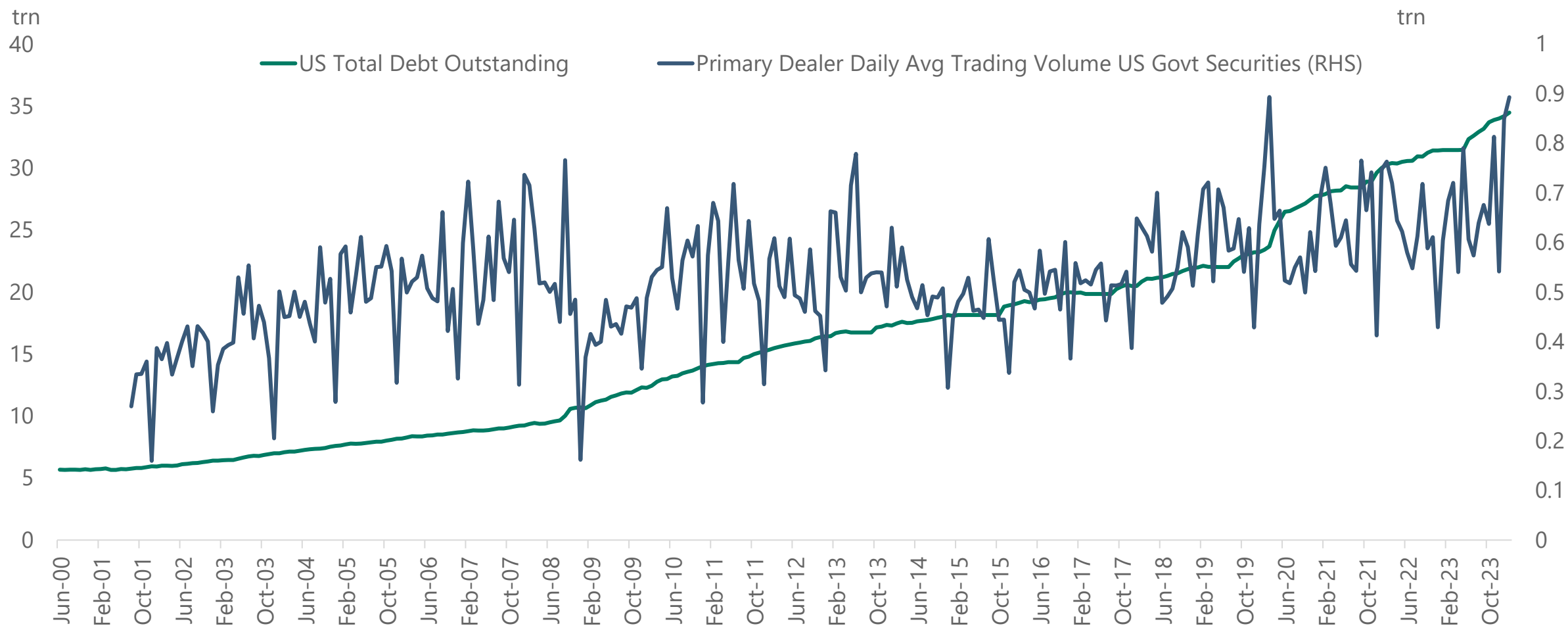
# Interest rates will remain permanently higher



# G4 Central bank balance sheets



# Low liquidity: Public debt outstanding vs primary dealer trading volume



Source: Bloomberg, Treasury, Apollo Chief Economist



# Torsten Slok, Ph.D.

## Chief Economist

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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.