



Deutsche Bank
Research

Monthly charts: New year brings some resolutions but also more uncertainties

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IMPORTANT RESEARCH DISCLOSURES AND ANALYST CERTIFICATIONS LOCATED IN APPENDIX 1. UNTIL 19th MARCH 2021 INCOMPLETE DISCLOSURE INFORMATION MAY HAVE BEEN DISPLAYED, PLEASE SEE APPENDIX 1 FOR FURTHER DETAILS.

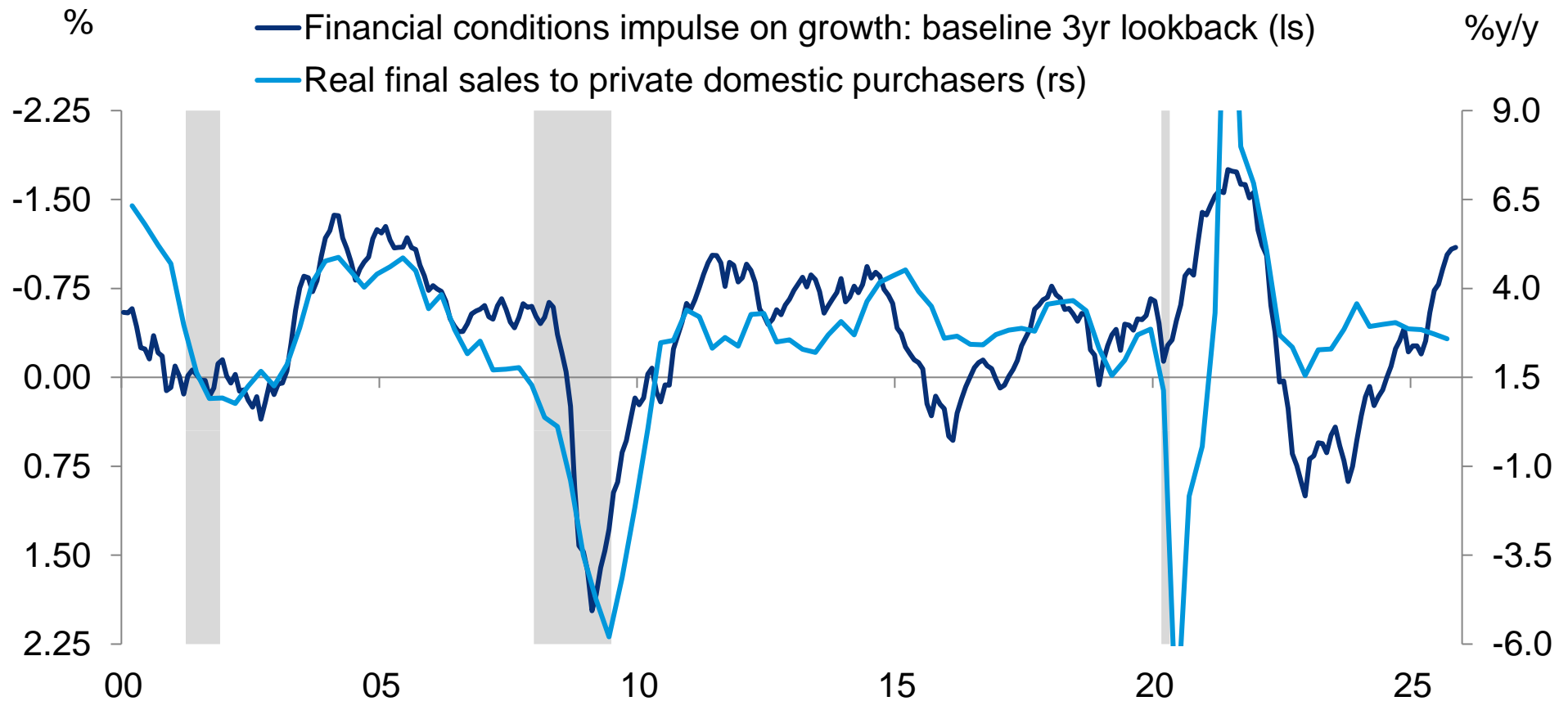


1. US growth likely to remain solid



US growth is receiving a substantial tailwind from accommodative financial conditions

FCI versus PDFP



Source: FRB, BEA, Haver Analytics, Deutsche Bank

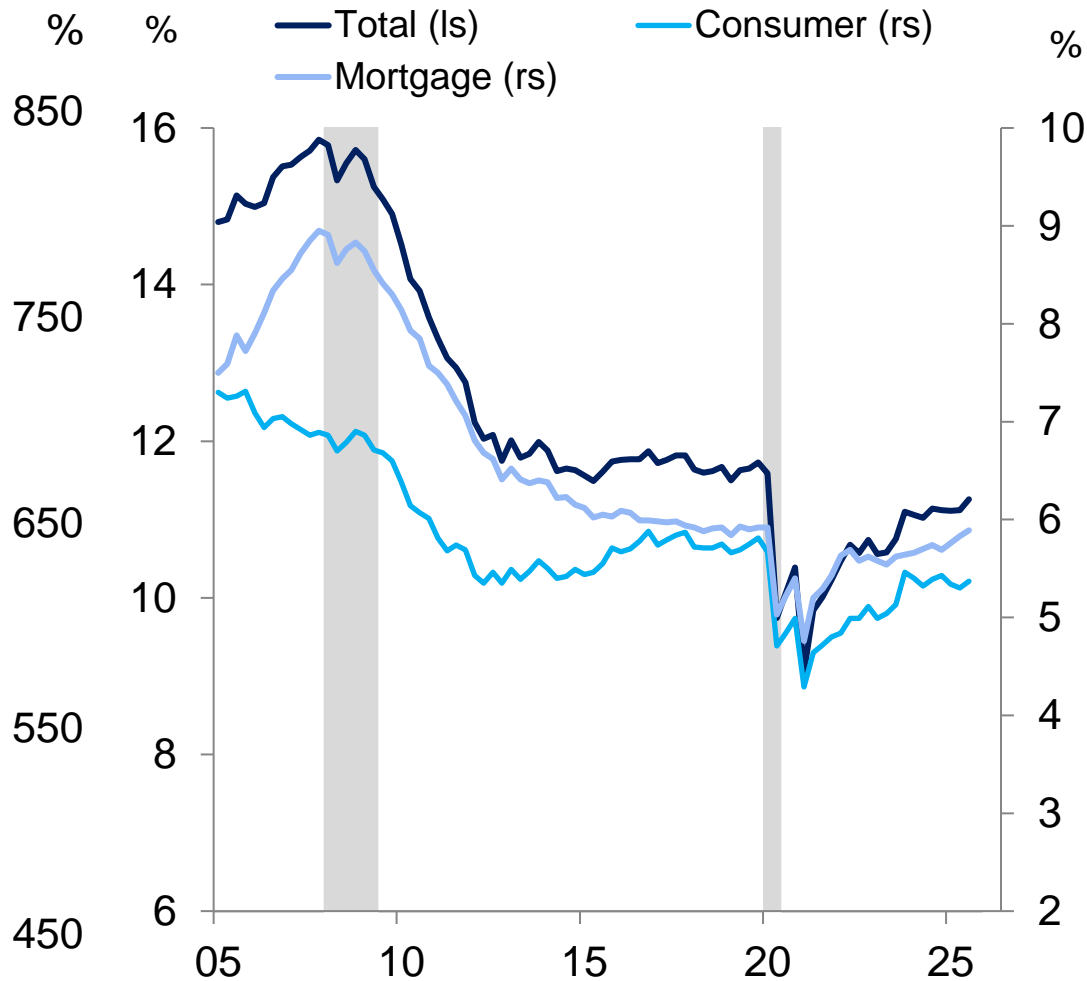
Aggregate household balance sheet is solid: Household net worth-to-income ratio near record highs and debt service low



Household net worth-to-income



Household debt service ratios

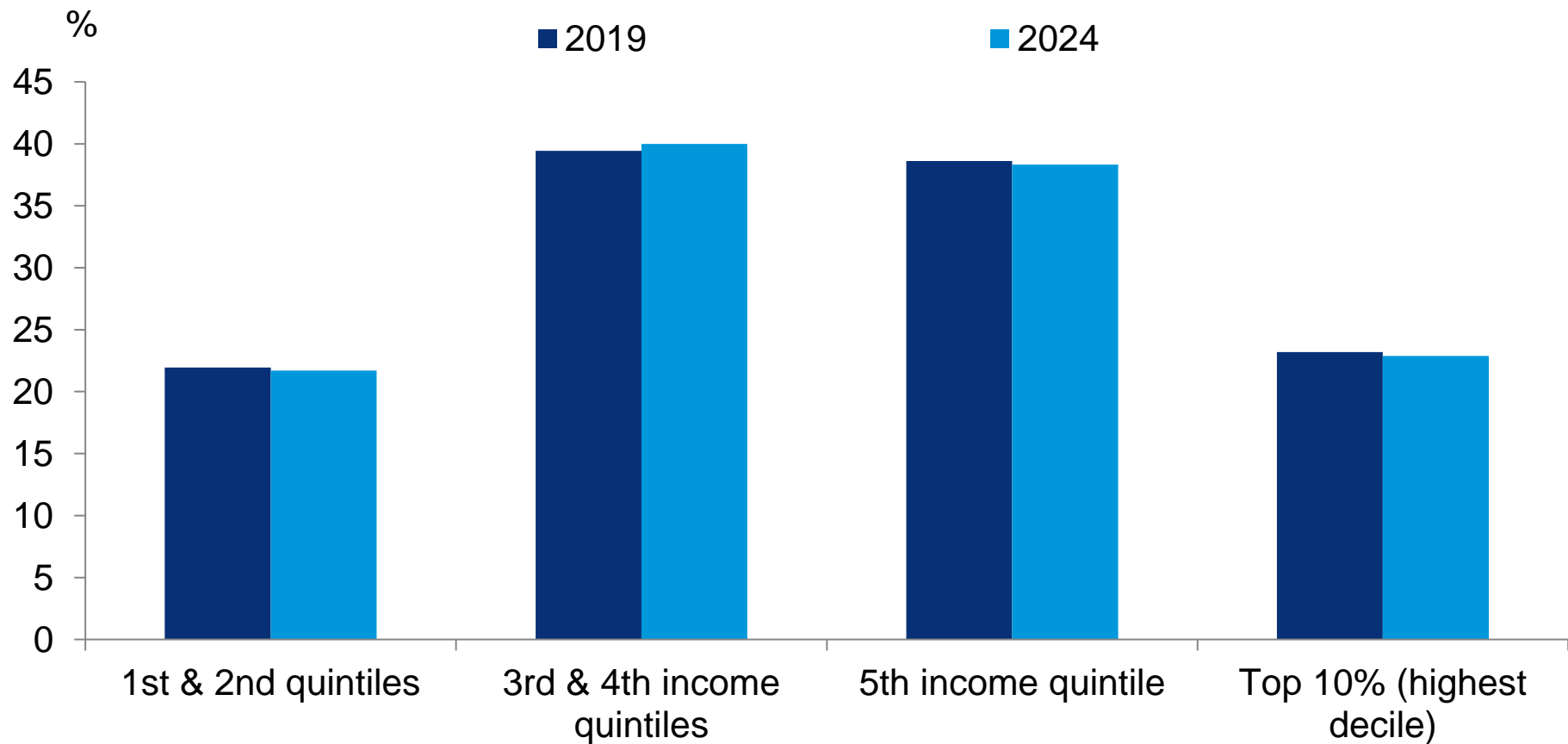


Source: FRB, Haver Analytics, Deutsche Bank

Consumer spending disproportionately driven by higher income households, but no more so than usual through '24



Income share of expenditures

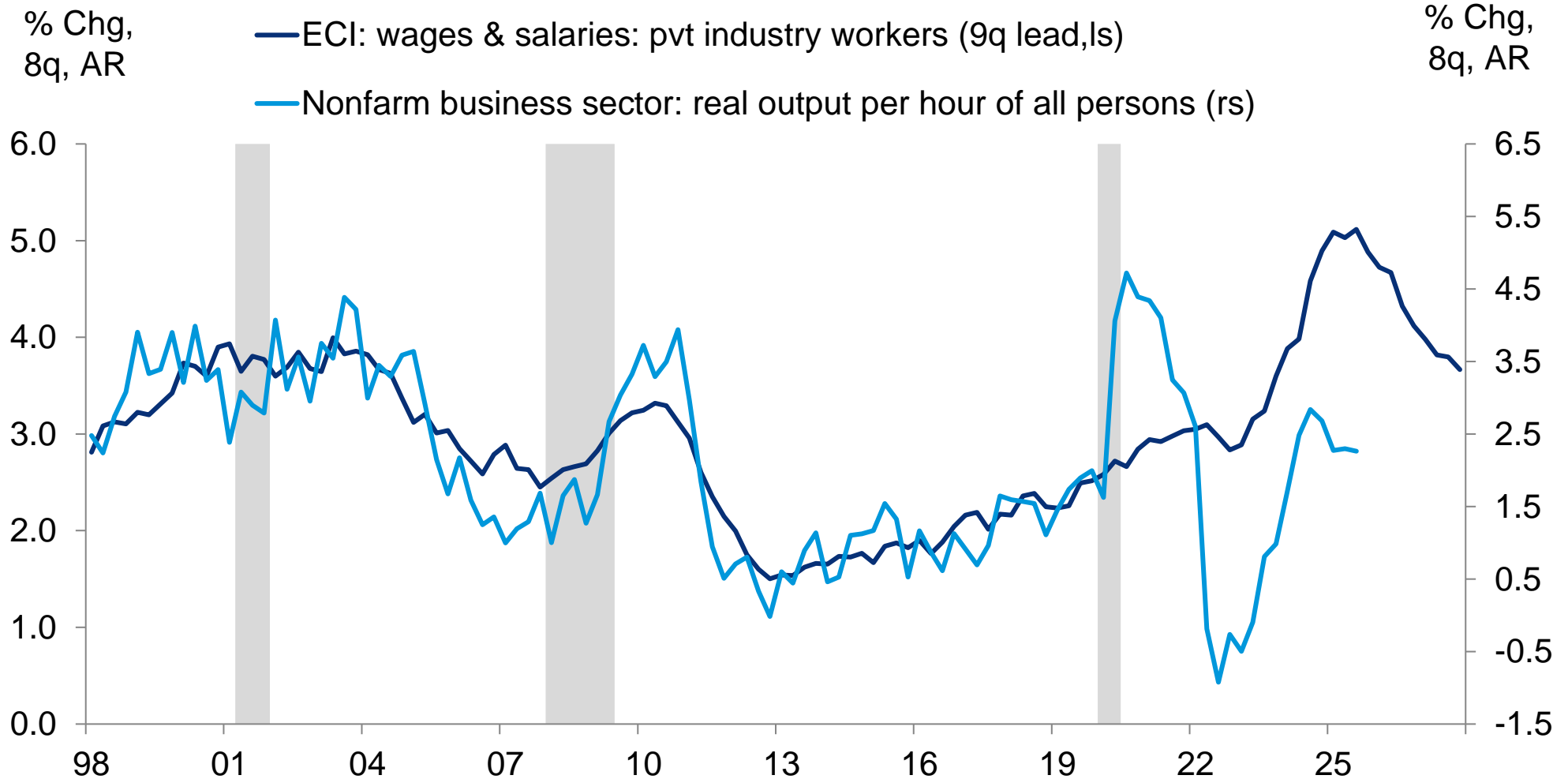


Source: Consumer Expenditure Survey, Haver Analytics, Deutsche Bank

Strong wage growth signals sustained productivity boom



Wage growth

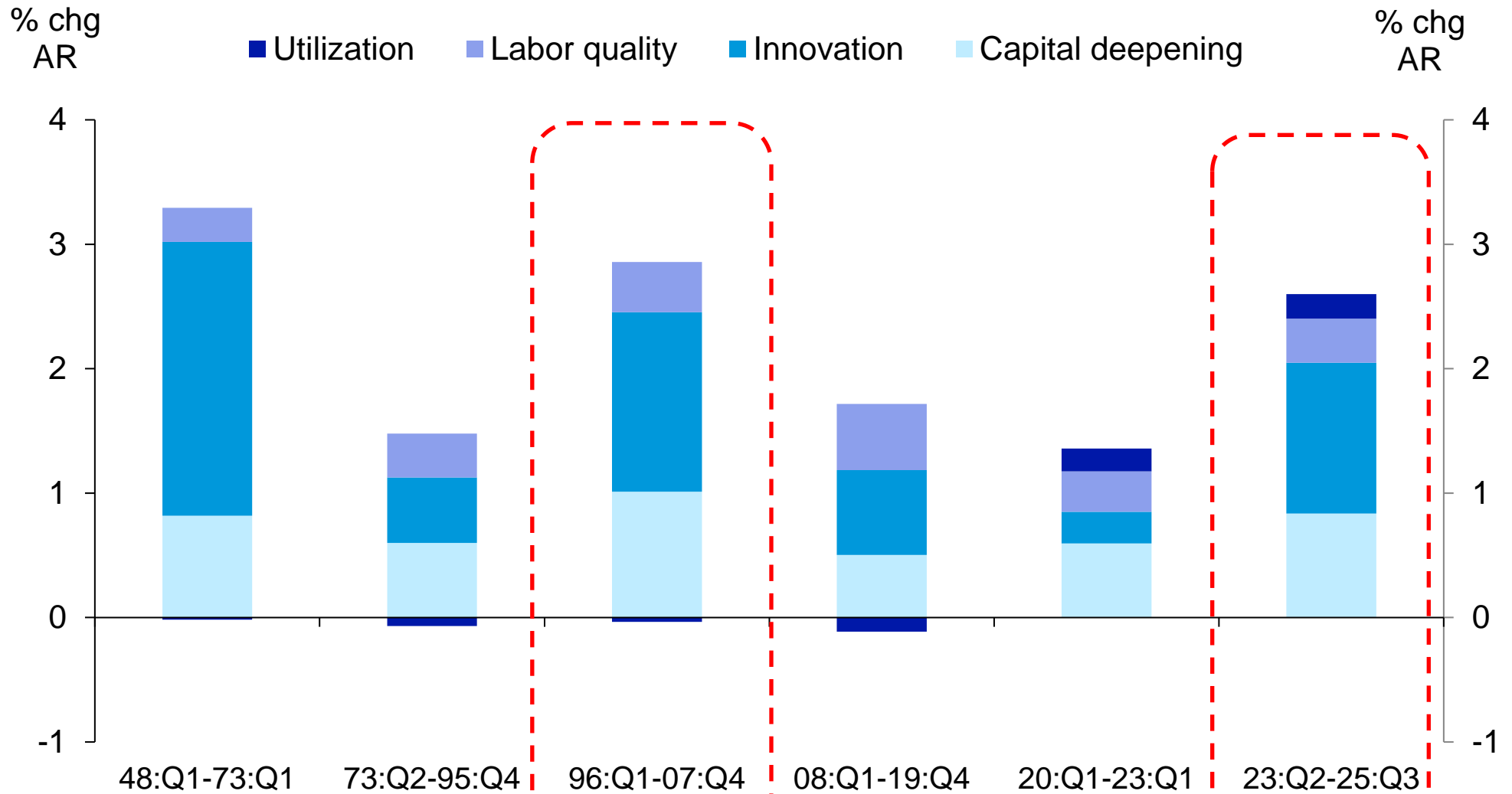


Source: BLS, Haver Analytics, Deutsche Bank

Productivity strength driven by capex and innovation, like previous boom periods



Productivity growth decomposition



Source: FRB San Francisco, Haver Analytics, Deutsche Bank

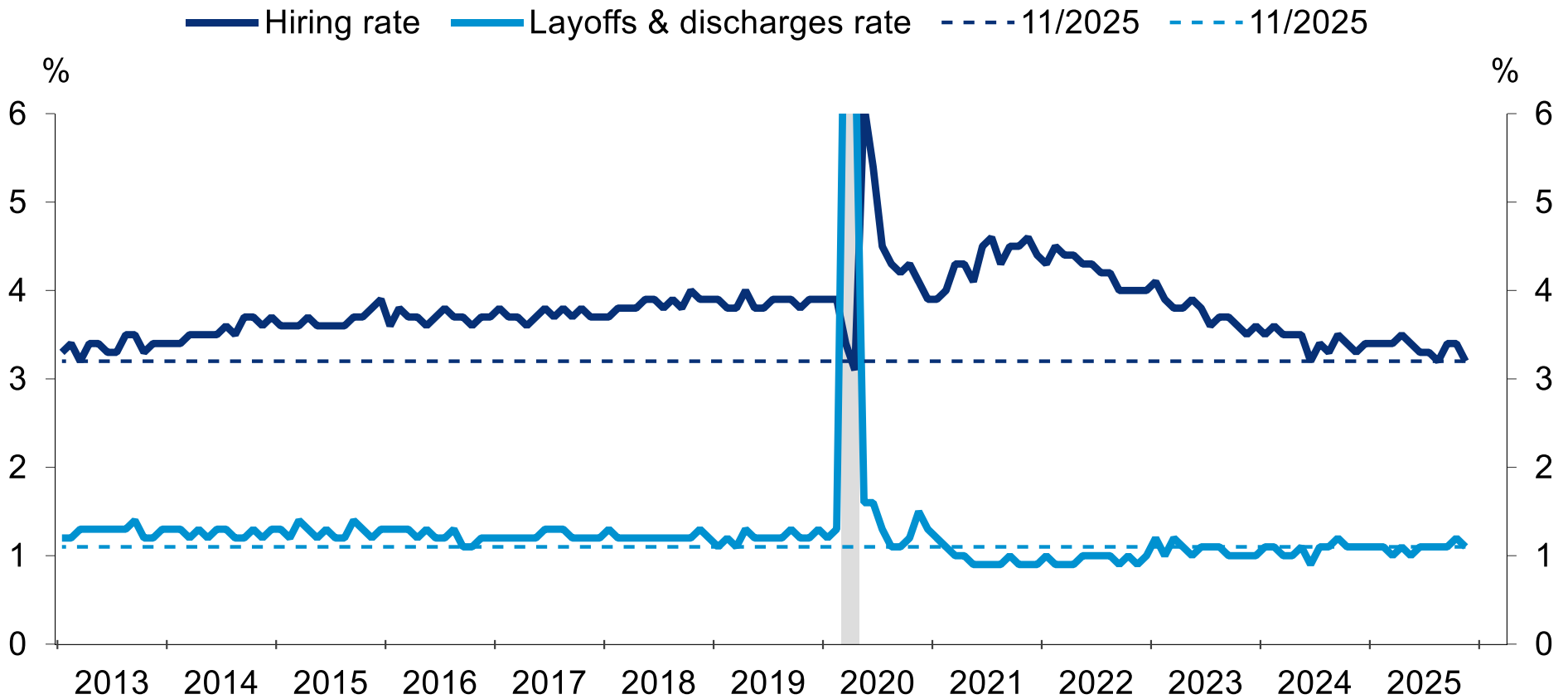


2. Labor market to stabilize but risks remain

The labor market continues a fragile equilibrium with low hiring and firing



Hires, discharge and layoff rates

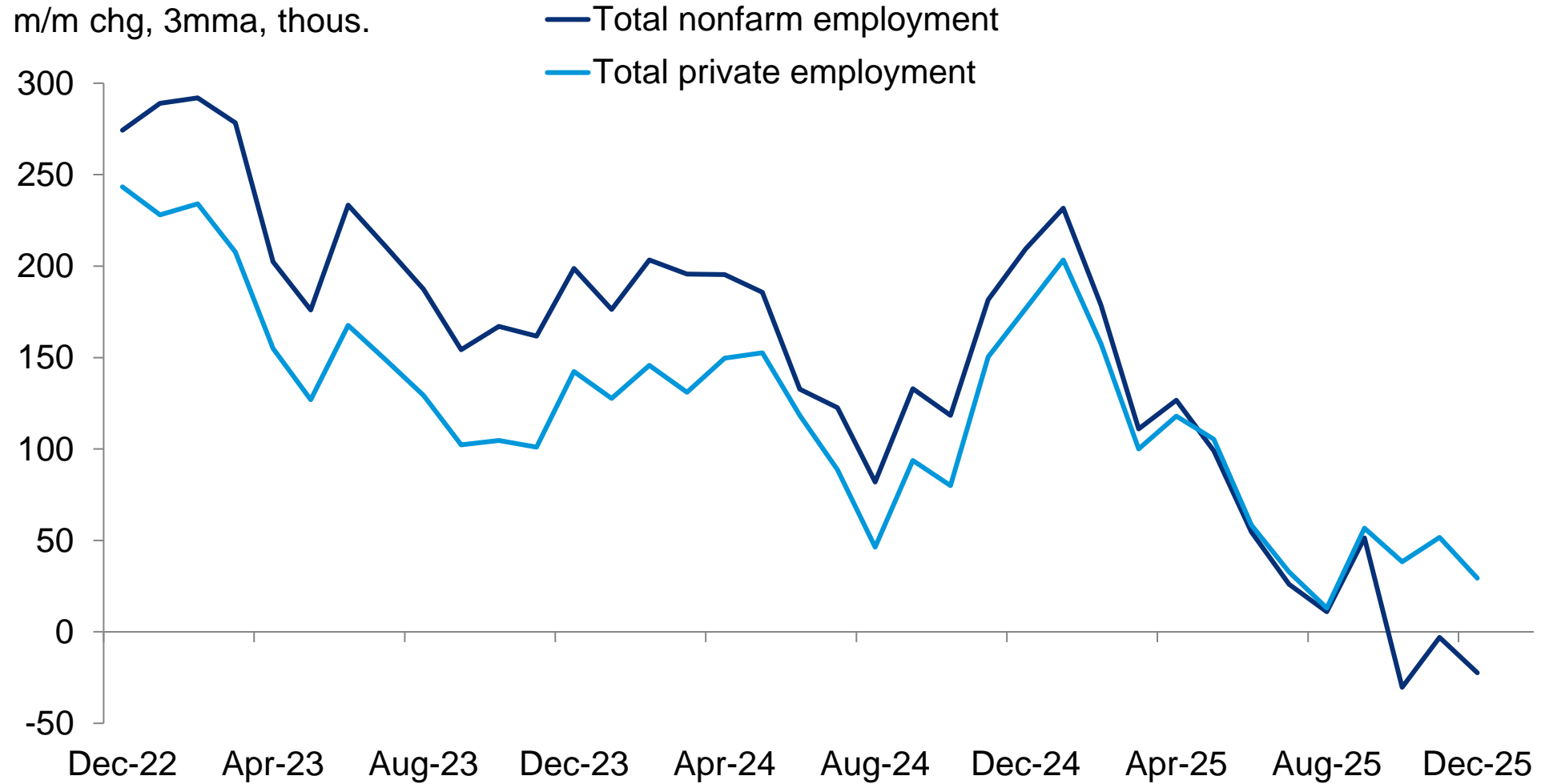


Source: BLS, Macrobond, Deutsche Bank

Payroll gains have slowed dramatically



Payroll gains

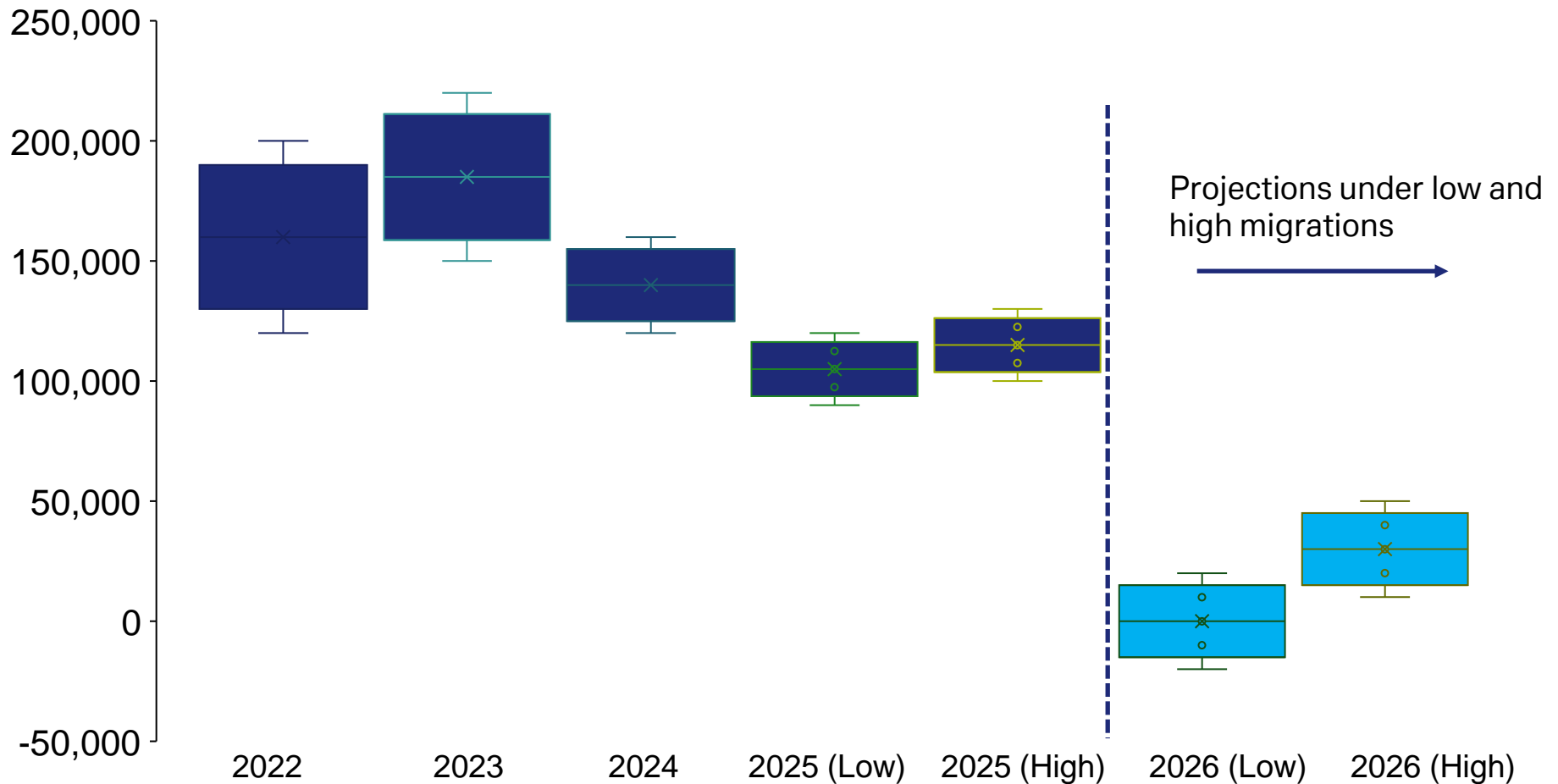


Source: BLS, Haver Analytics, Deutsche Bank

But breakeven payroll numbers have collapsed as immigration has constrained labor supply



Estimates of breakeven monthly payrolls



Source: [Brookings](#), Authors' calculations, Deutsche Bank

Labor market sentiment is materially worse than data on the unemployment rate reflecting weak hiring trends



Unemployment rate and FRB NY labor market sentiment

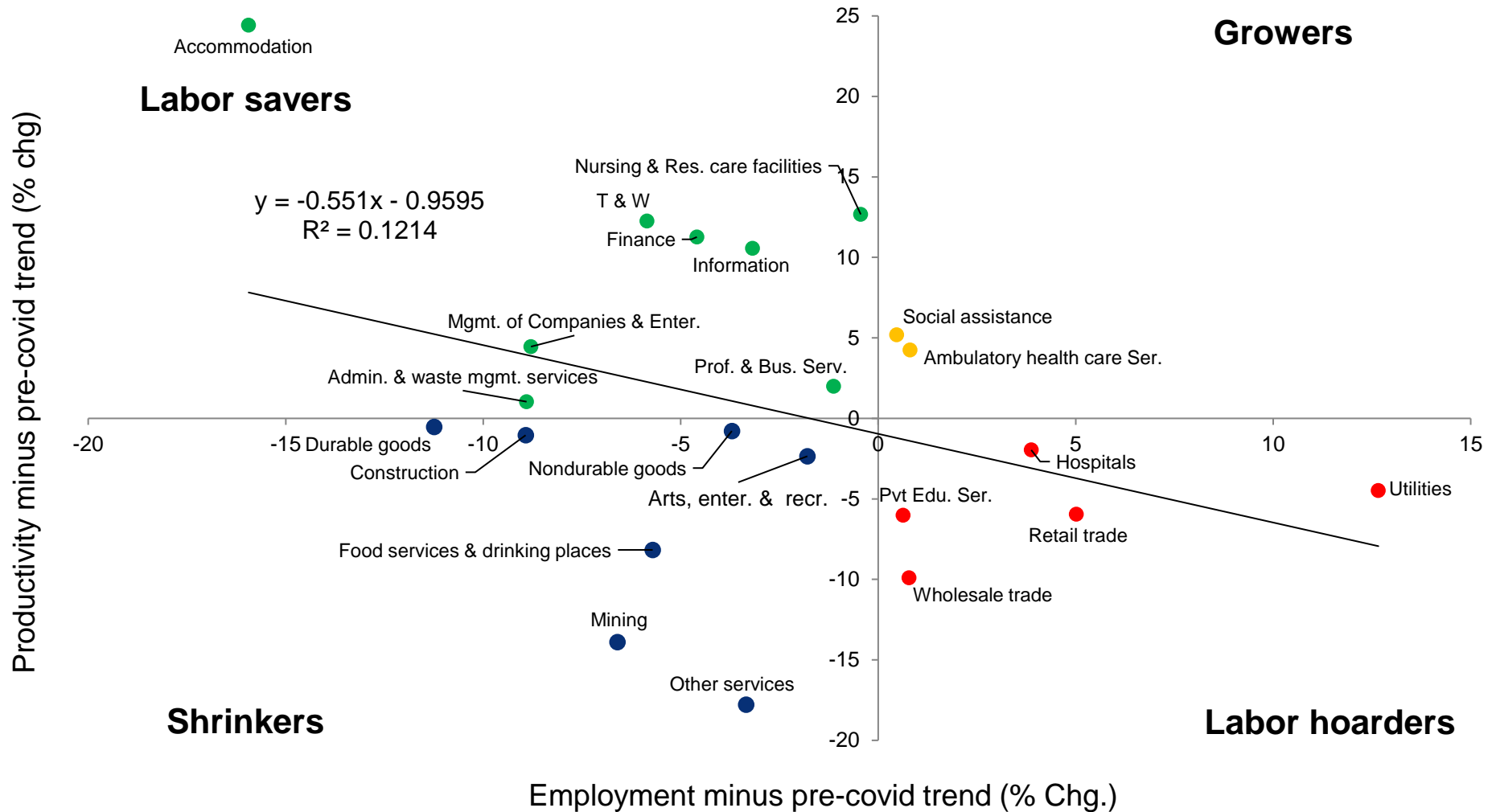


Source: BLS, New York Fed, Macrobond, Deutsche Bank

How are sectors using productivity gains and labor?



Employment versus productivity (relative to trend)



Source: BEA, BLS, Haver Analytics, Deutsche Bank

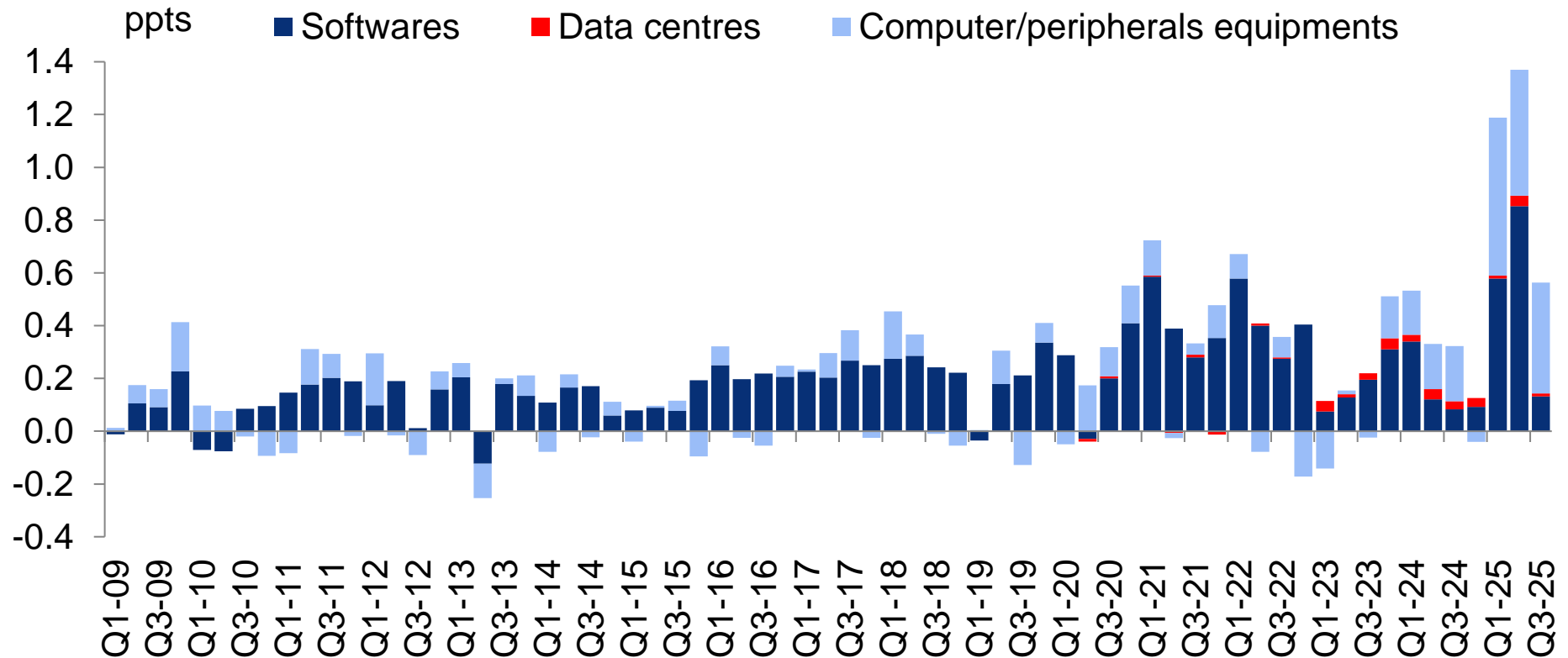


3. AI's impact on the economy



AI has been an important driver of capex in recent quarters

GDP contribution from software, data center, computer/peripheral equipment



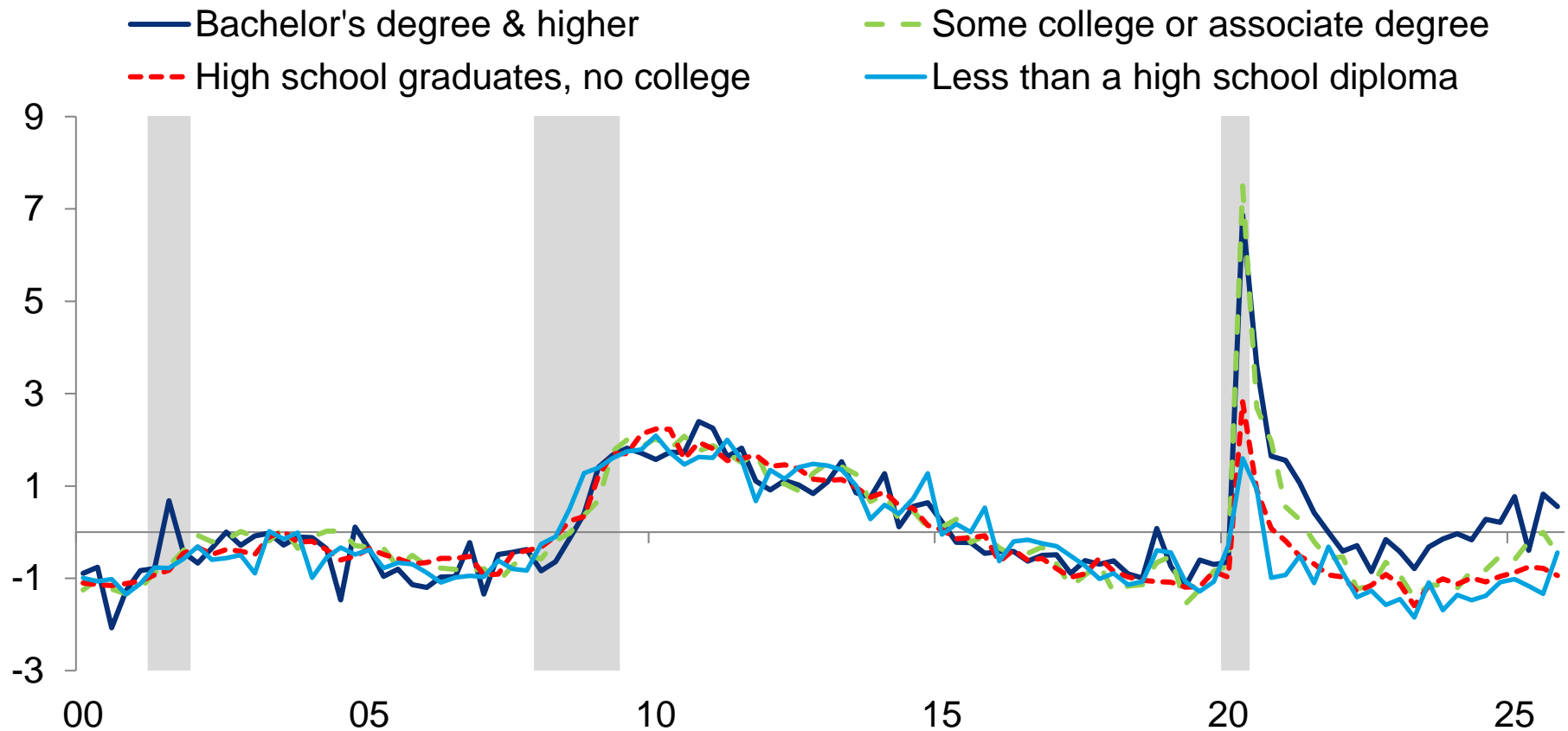
Note: Please note that prior to 2020, data reflects Software and Computers/peripherals equipment' contributions. Data for 'Data centers' is available from Q1 2020 onwards.

Source: BEA, Haver Analytics, Deutsche Bank



Unemployment has risen noticeably for young college educated workers

Z scores (2000- 2019 Q4): unemployment rate: 20 -24 years

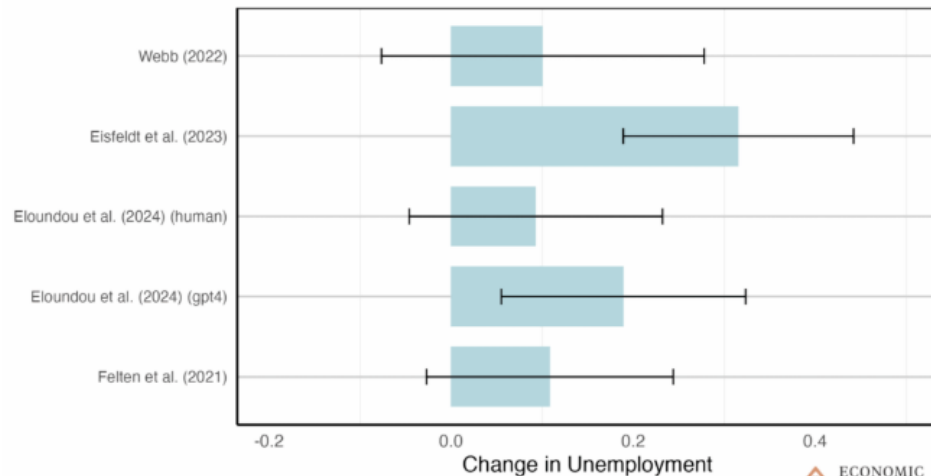


Source: BEA, Haver Analytics, Deutsche Bank

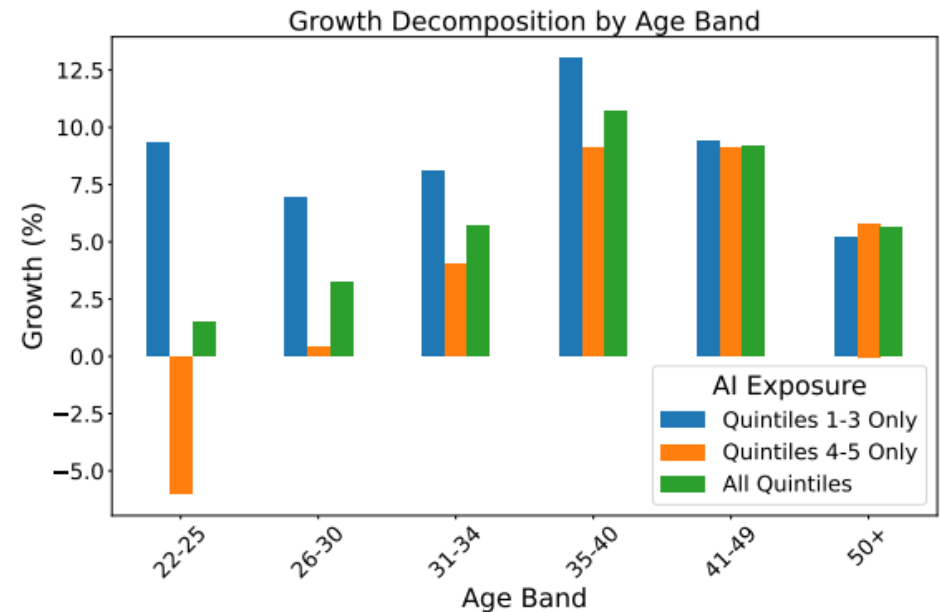
Mixed evidence from academic research about whether AI is driving job losses



Figure 8: Change in unemployment, most AI exposed workers relative to all other workers



Note: Change in unemployment for periods 2024/2025 relative to 2022/2023.
Source: CPS, exposure from Felten et al. (2021), Eloundou et al. (2024), Eisefeldt et al. (2024), Webb (2022).

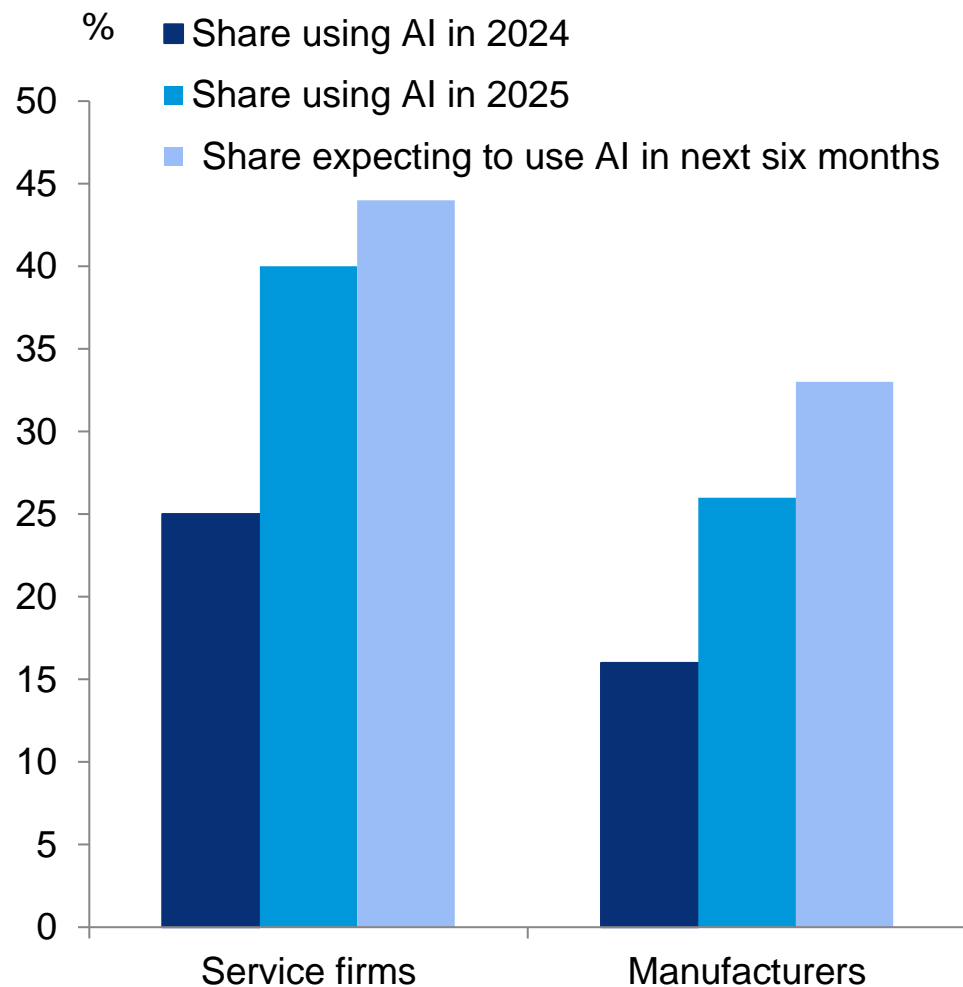


Source: [Economic Innovation Group](#), [Canaries in the Coal Mine? Six Facts about the Recent Employment Effects of Artificial Intelligence](#), Deutsche Bank

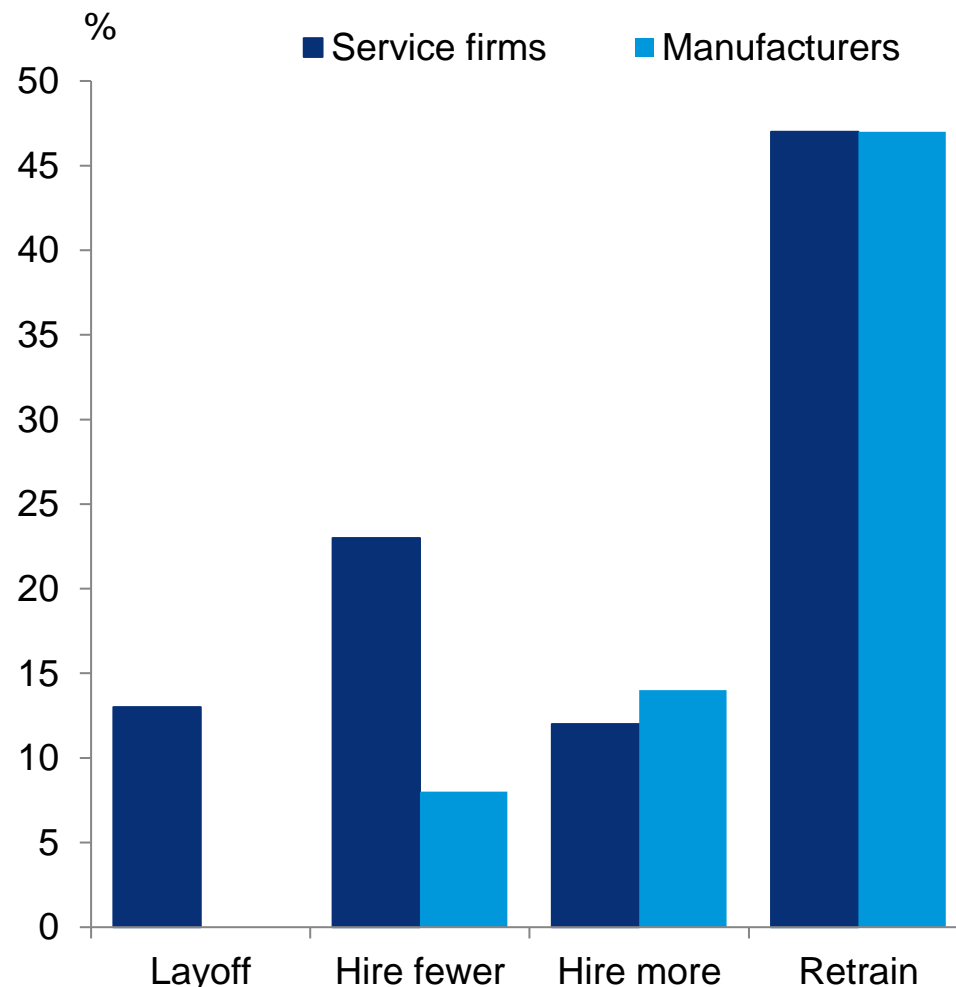
Firms' usage of AI is rising but so far limited plans for layoffs



AI usage by firms



Expectations over next six months



Source: [Are Businesses Scaling Back Hiring Due to AI?](#), Liberty Street Economics, Deutsche Bank



Academic research on AI impact on productivity finds divergent results centered around 0.5-0.75pp per year

AI impact on annual productivity growth:

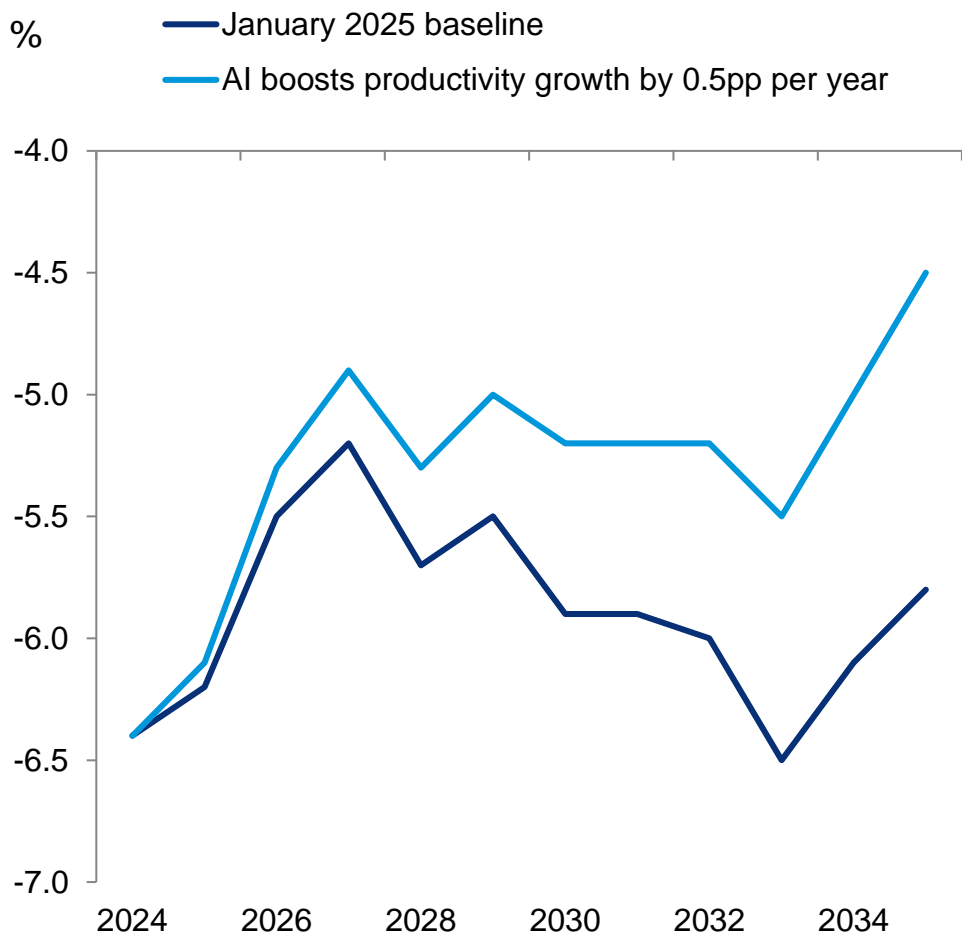
Publications	Findings
Baily et al. (2023)	1.7%
Acemoglu (2024)	0-0.1%
Filippucci et al. (2024)	0.25-0.60pp
Aghion and Bunel (2024)	
-Historical comparison	0.8-1.3pp
-Task-based framework	0.68pp

Source: Deutsche Bank

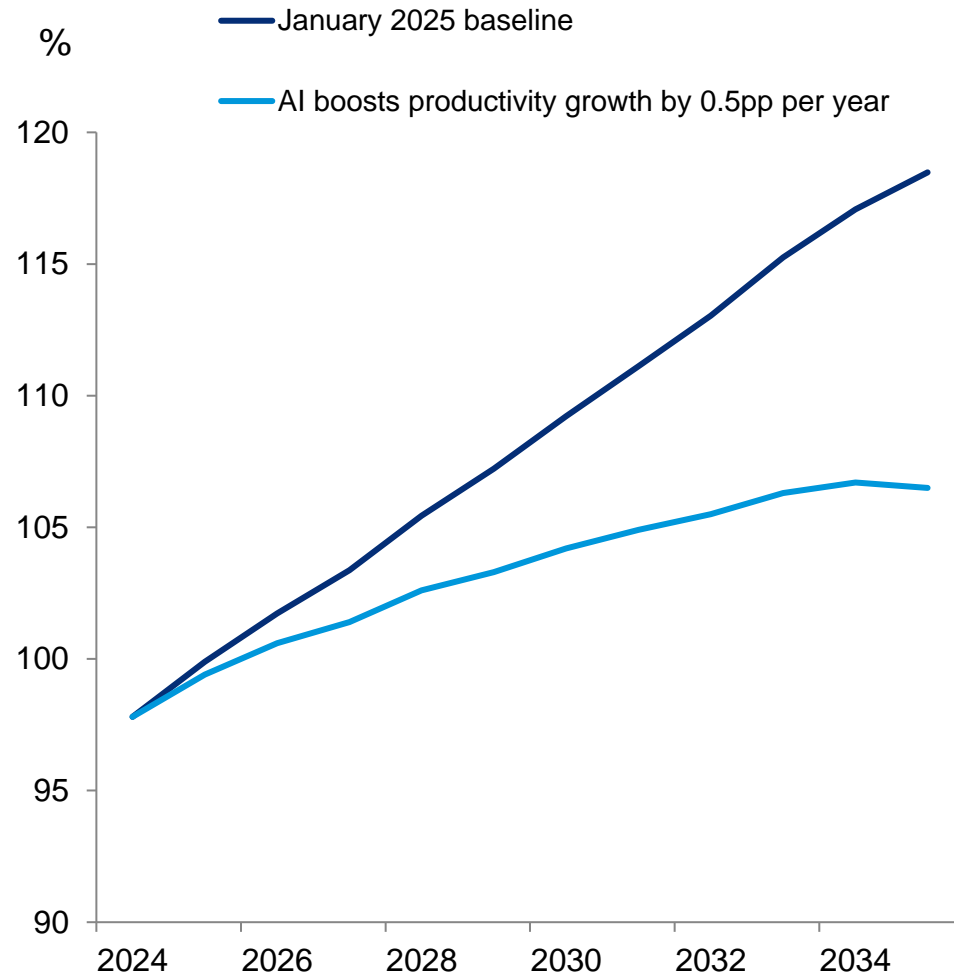
AI-driven productivity gains will improve the fiscal picture somewhat but debt/GDP still likely to march higher



Deficit (-) / surplus (+) (% of GDP)



Debt held by public (% of GDP)



Note: Baseline is CBO's projections from January 2025. Source: CBO, Deutsche Bank

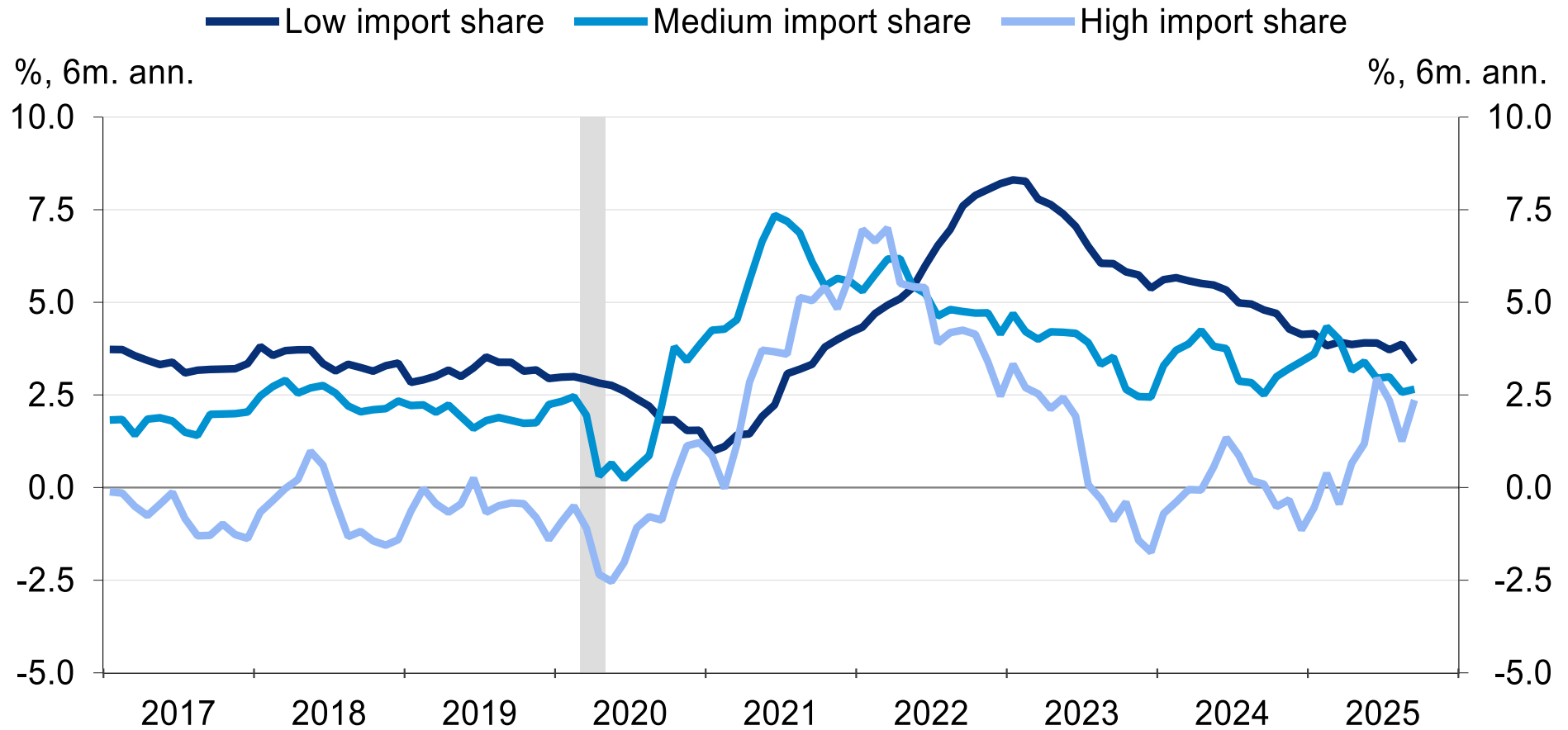


4. Inflation: Uneven and uncertain progress

Much of the uplift in inflation in 2025 from high import share items



Core PCE inflation by tariff exposure

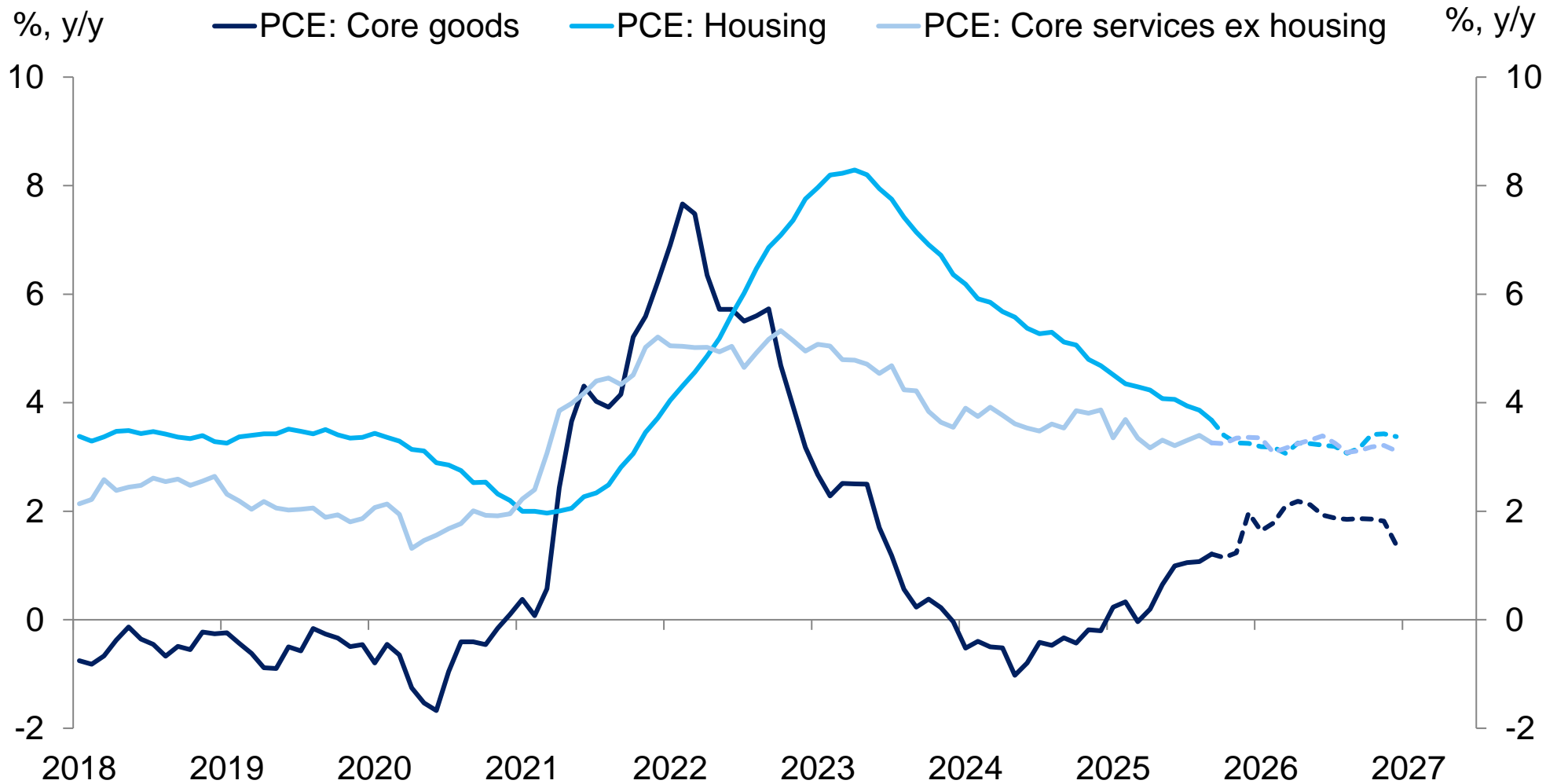


Source: FRBSF, Macrobond, Deutsche Bank

Inflation outlook: Shelter to slow, goods to retrace, but core services ex housing to stay sticky



PCE core

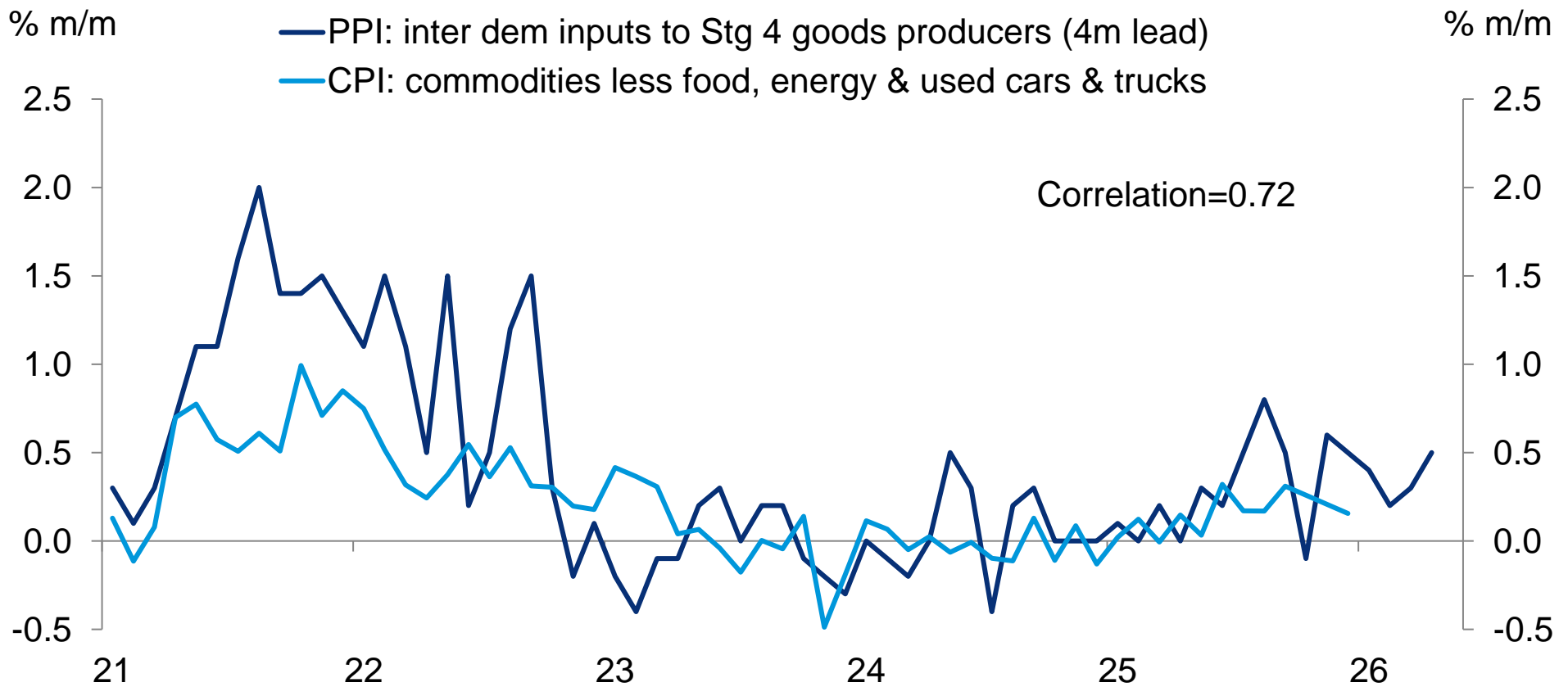


Source: BEA, Haver Analytics, Deutsche Bank

Pipeline inflation (PPI) suggests core goods inflation likely to stay elevated into at least early 2026



PPI versus CPI core goods

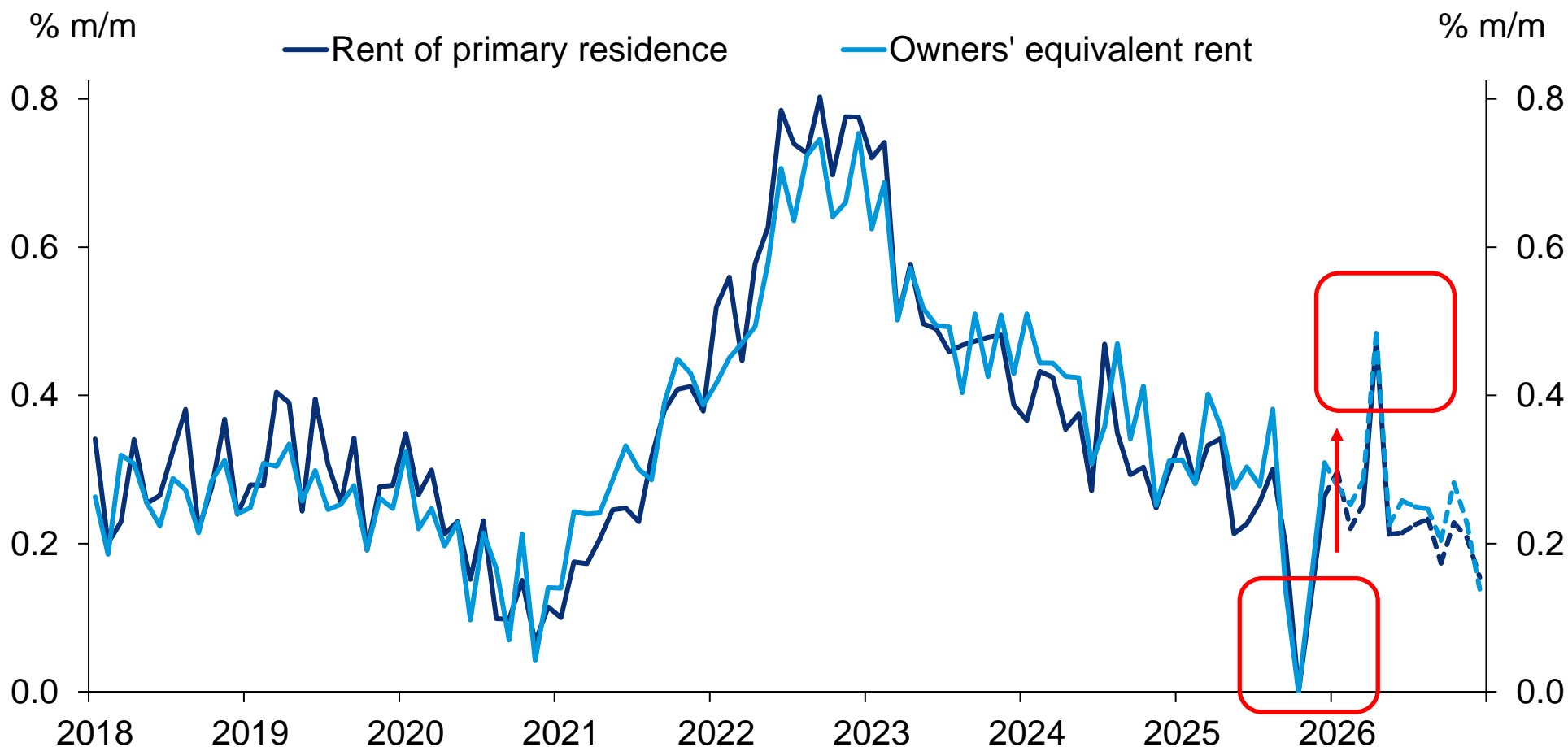


Source: BLS, Haver Analytics, Deutsche Bank

Payback in shelter inflation from the government shutdown is expected in April, complicating rent disinflation story



CPI: shelter inflation

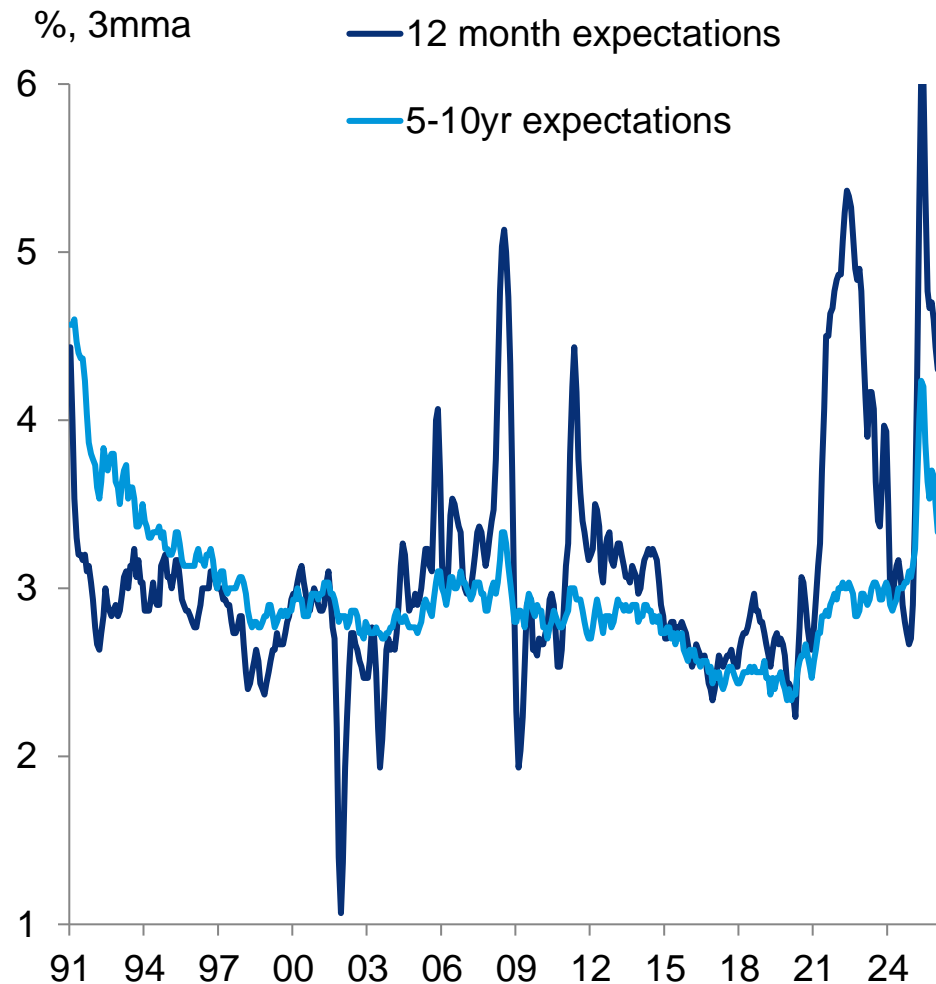


Source: BLS, Haver Analytics, Deutsche Bank

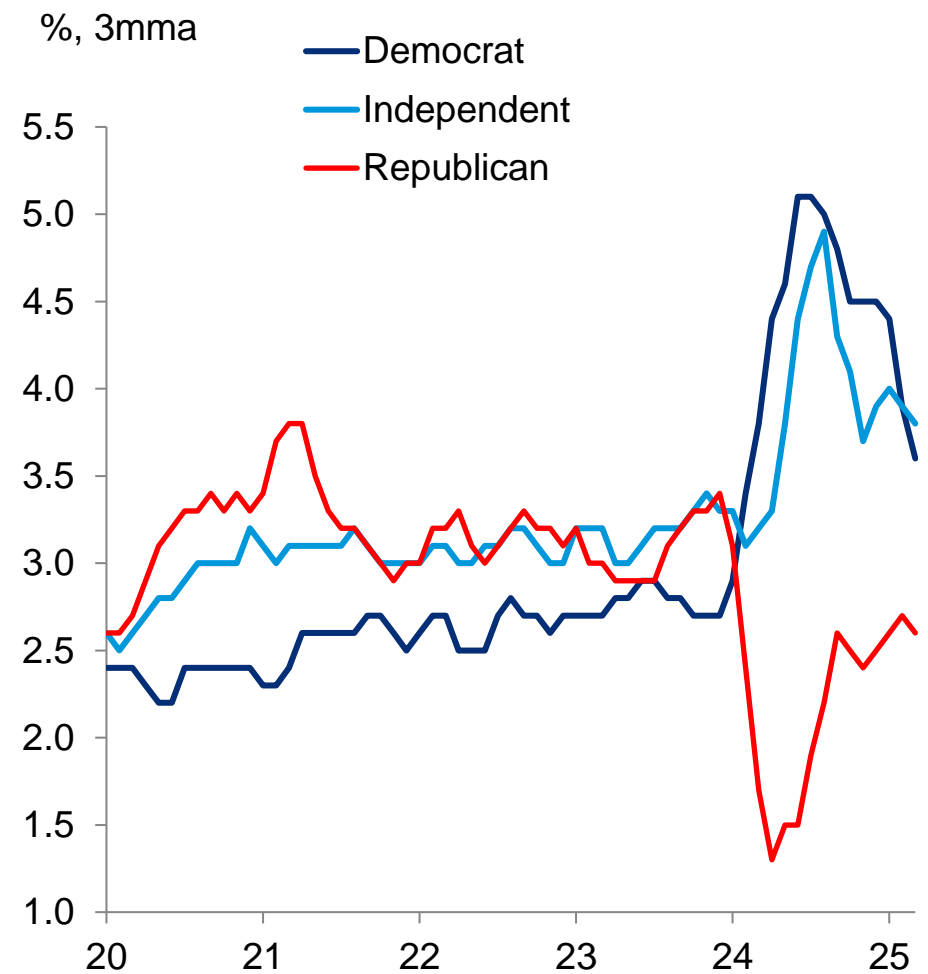


Households remain sensitive to inflation – expectations of inflation remain elevated but are also highly polarized

University of Michigan inflation expectations



Inflation expectations by political party



Source: University of Michigan, Bloomberg Finance LP, Haver Analytics, Deutsche Bank

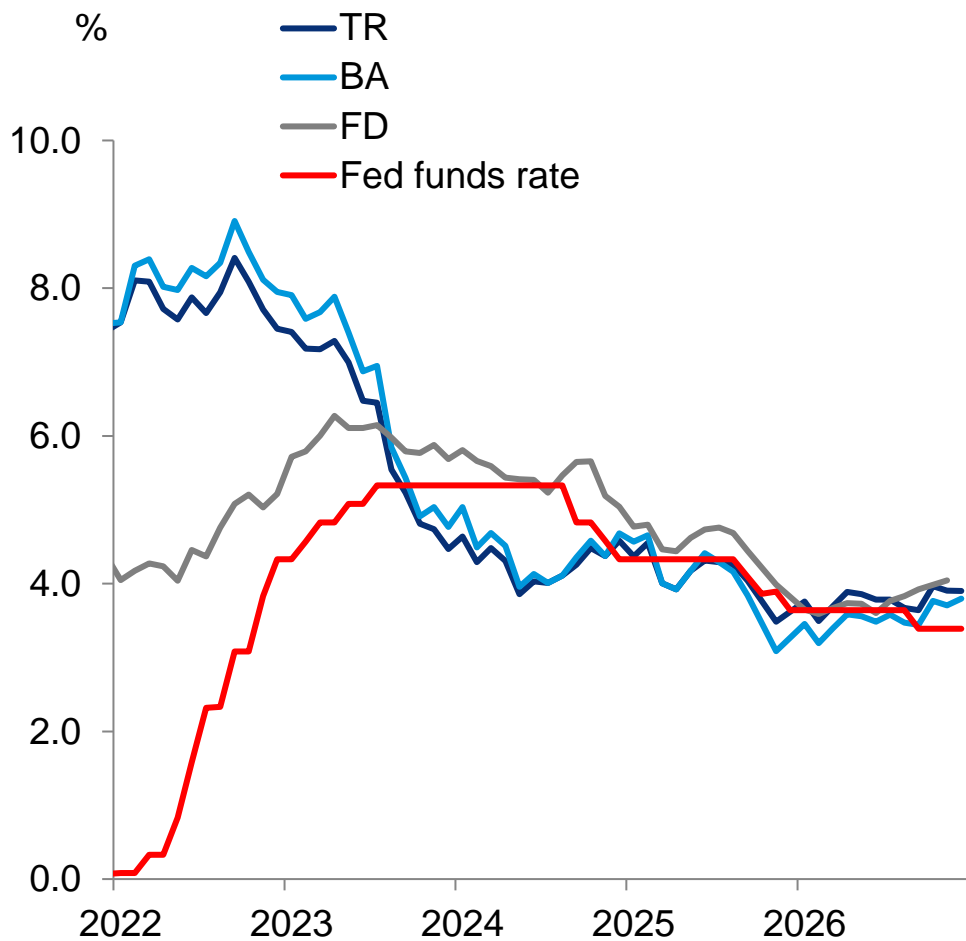


5. Monetary and fiscal policy continue to support the economy

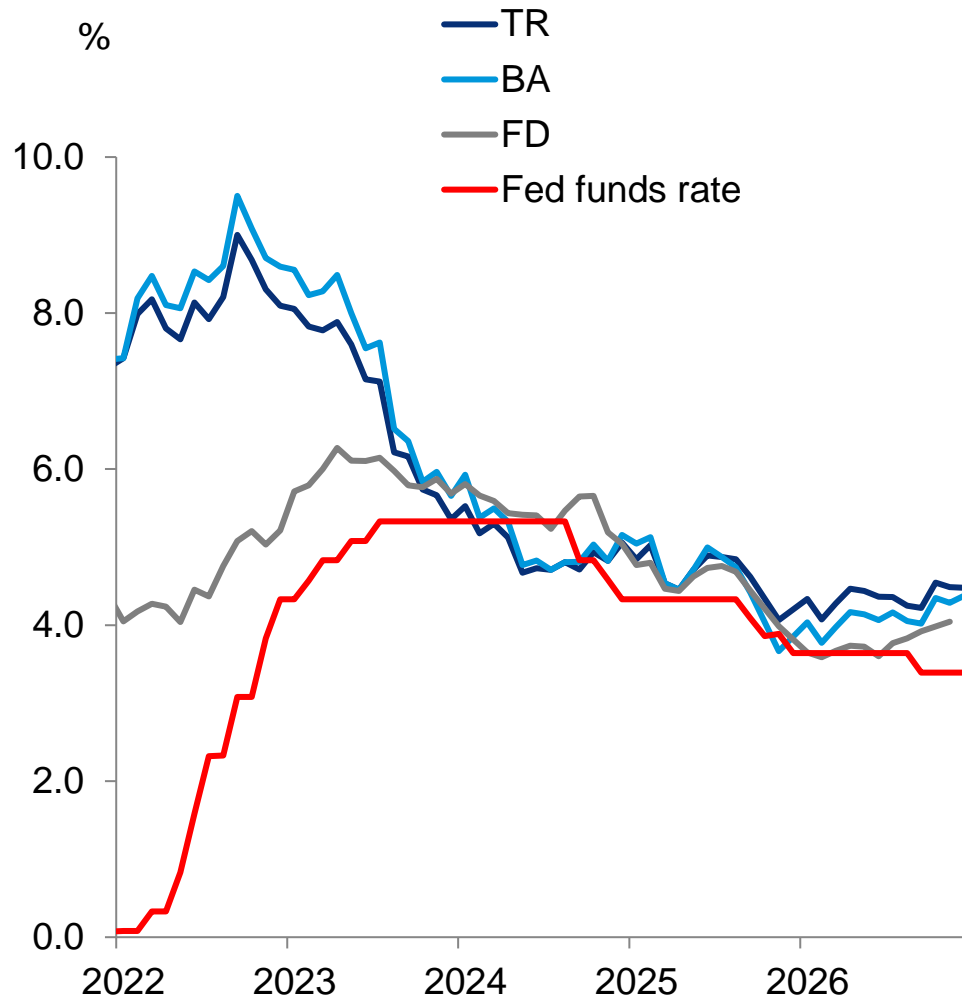
Policy rules generally consistent with little change in the policy rate under DB's econ forecast



Policy rules: Fed SEP r-star



Policy rules: DB r-star

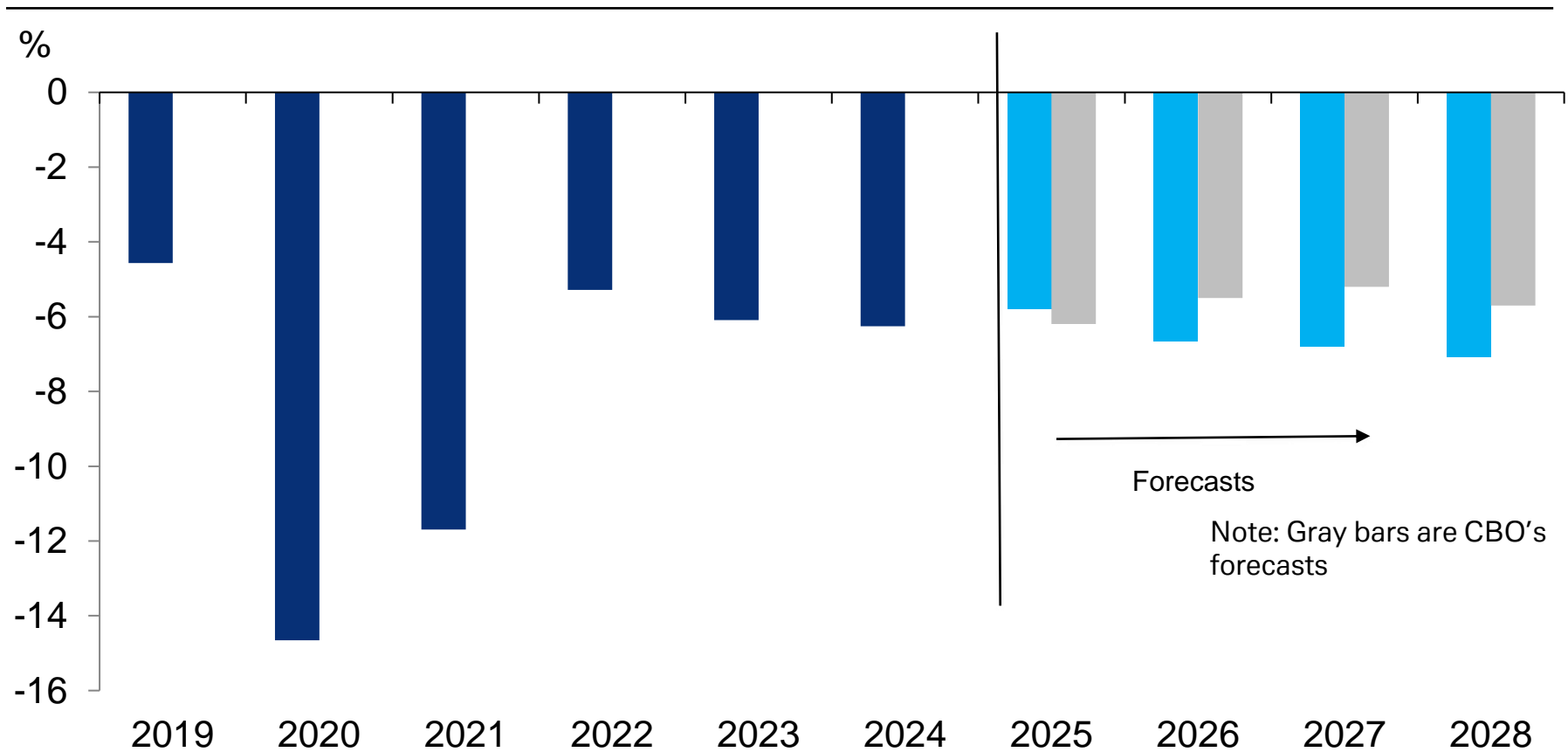


Source: FRB, BEA, Haver Analytics, Deutsche Bank

Budget deficit likely to rise this year, helping to support growth



Federal budget deficit as share of nominal GDP

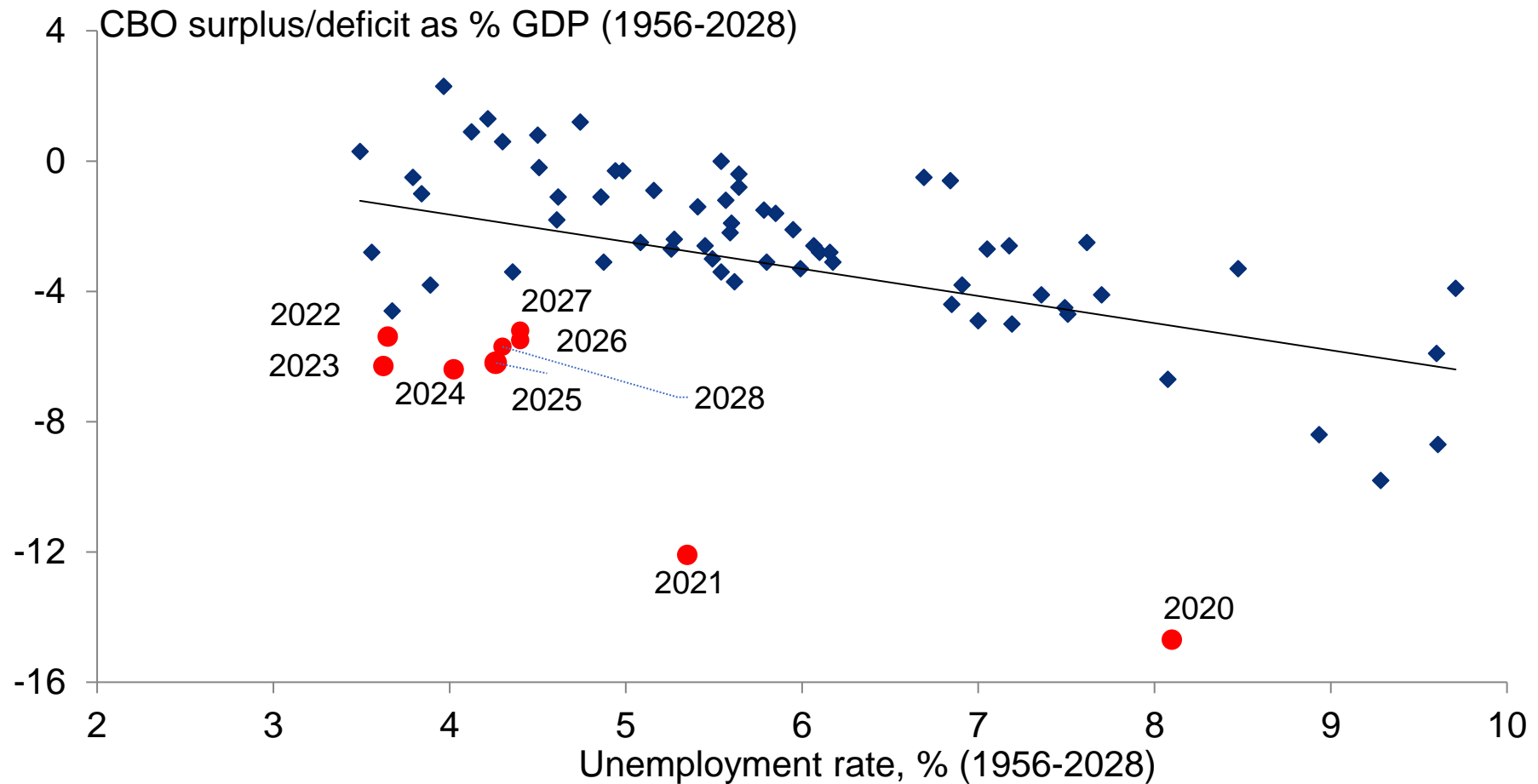


Note: Gray bars are CBO's baseline budget projections from January 2025. Blue bars are DB projections. Source: CBO, BEA, Haver Analytics, Deutsche Bank



Budget deficit to remain historically elevated, particularly in an economy with a relatively healthy labor market

Federal budget deficit versus unemployment

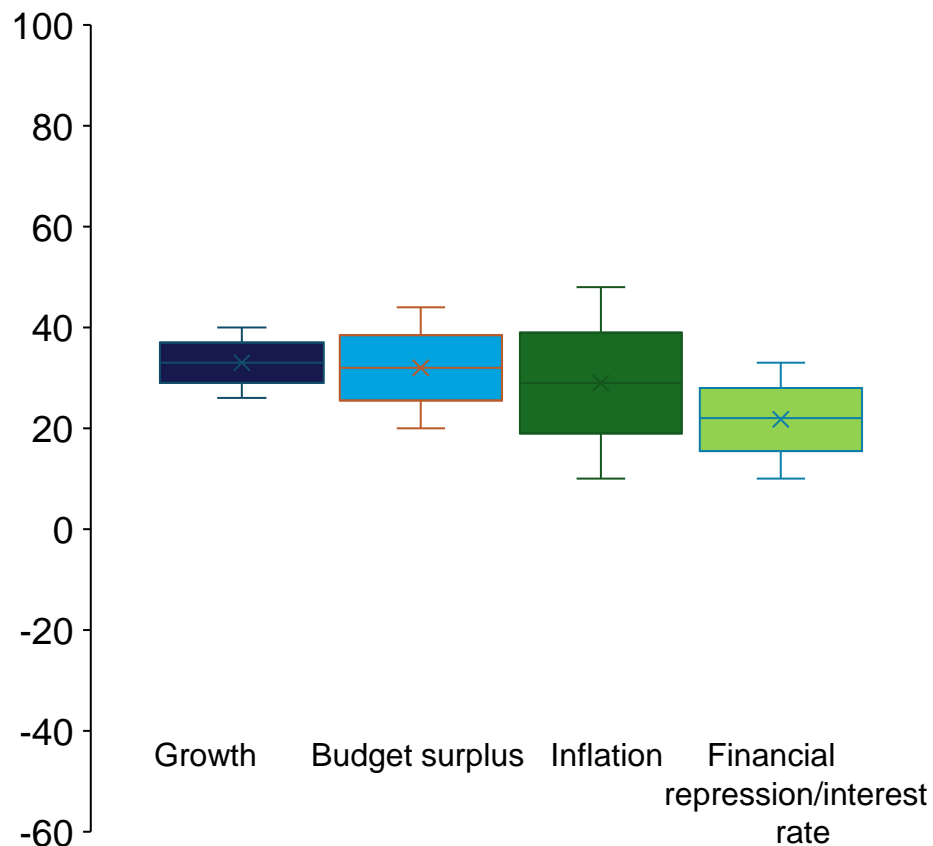


Source: BLS, CBO, Haver Analytics, Deutsche Bank

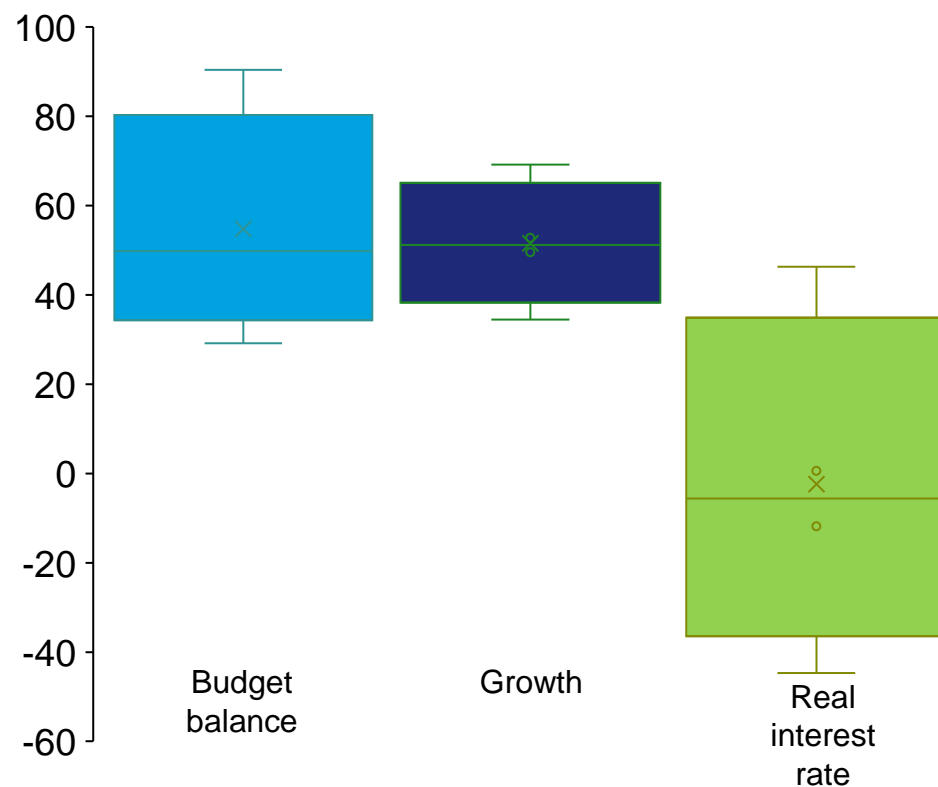


How have historical debt consolidations been achieved? Stronger growth and budget consolidation are critical

US: % of debt consolidation post WWI due to...



International: % of debt consolidation due to...



Source: Acalin and Ball (2023), Eichengreen and Esteves (2022), Hall and Sargent (2011), Deutsche Bank



Starting point for US debt consolidation is (much) less favorable than in the past

	Change in debt-to-GDP	Real GDP growth	Nominal GDP growth	Headline CPI inflation	Treasury 10-year yield	Fed funds rate	Fiscal deficit/surplus
1946-1956	-55.4	4.2	6.9	2.3	2.8	1.8	-0.2
1957-1974	-24.1	3.7	7.1	3.4	5.1	4.7	-0.9
Current		2.5	5.1	2.6	4.3	4.2	-5.4

Note: Figures represent average over the period specified, for current that is 2025

Source: Deutsche Bank

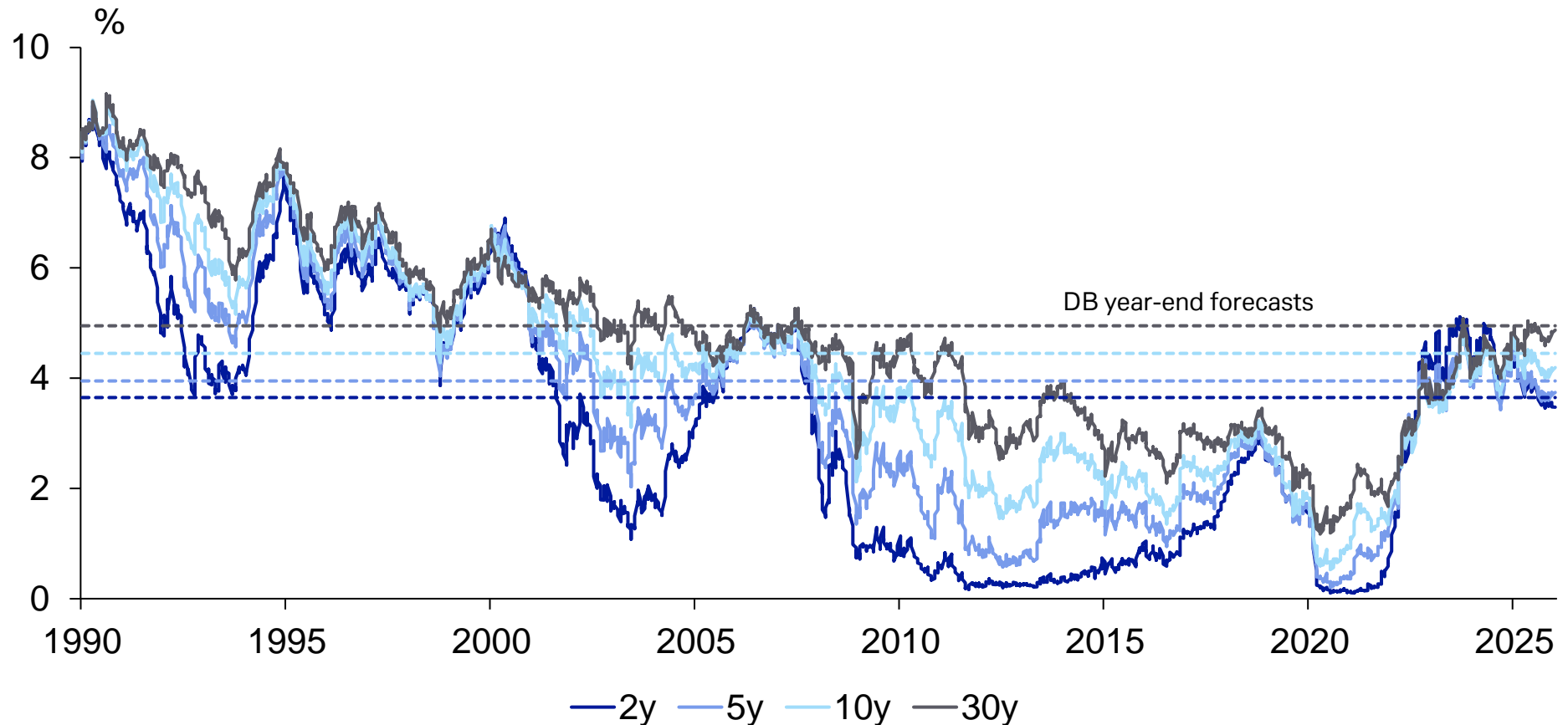


6. Interest rates to remain higher for longer

We think US yields are likely to stay higher for longer, with 10y Treasury yields approaching 4.5%



UST yields and DB forecasts

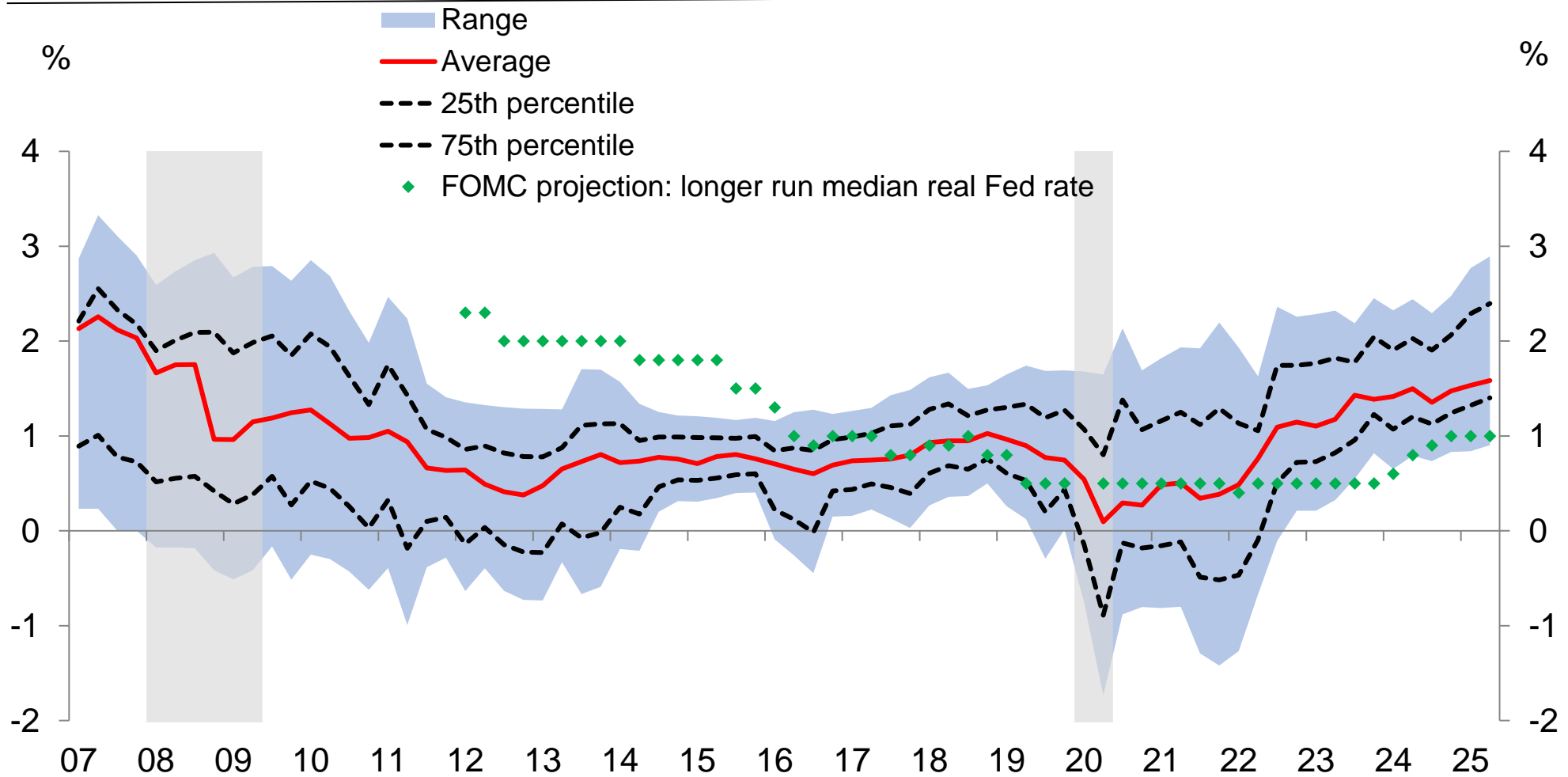


See [2026 Rates Outlook](#). Source: FRB, Haver Analytics, Deutsche Bank

Fed may have more limited scope to cut: R-star estimates on average remain anchored in 1.5-1.75% range



Measures of r-star

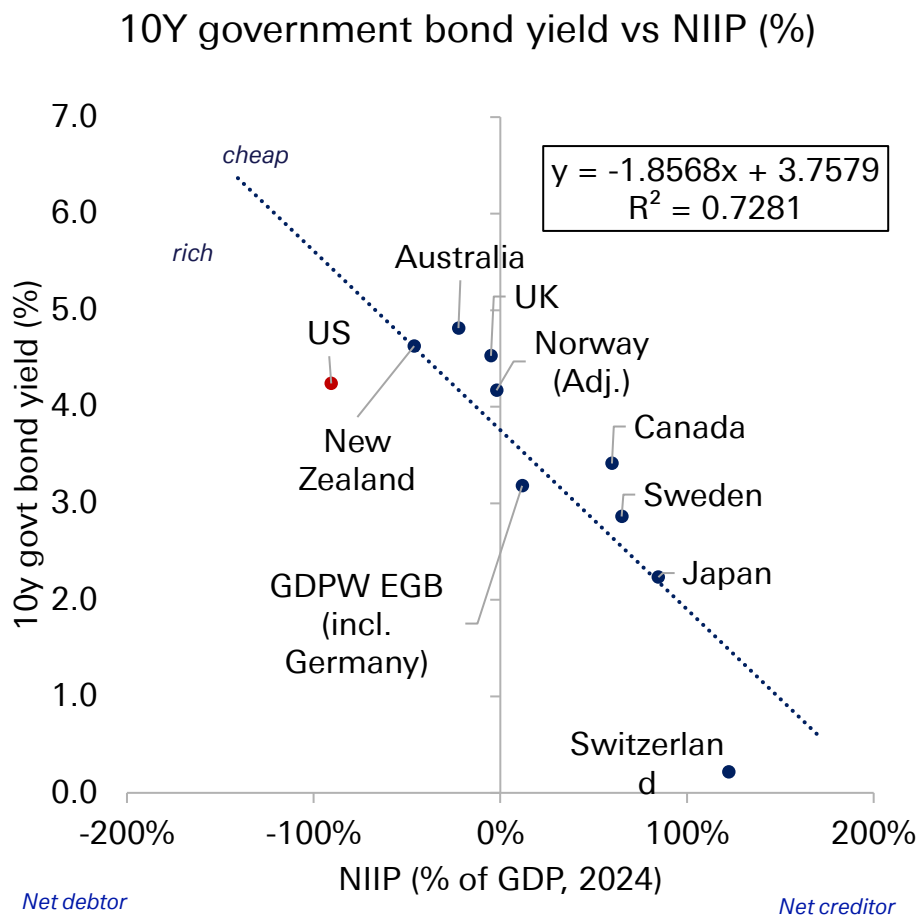


Source: FRB, FRBNY, FRB Richmond, FRB Cleveland, FRB San Francisco, Bloomberg Finance LP, Haver Analytics, Deutsche Bank

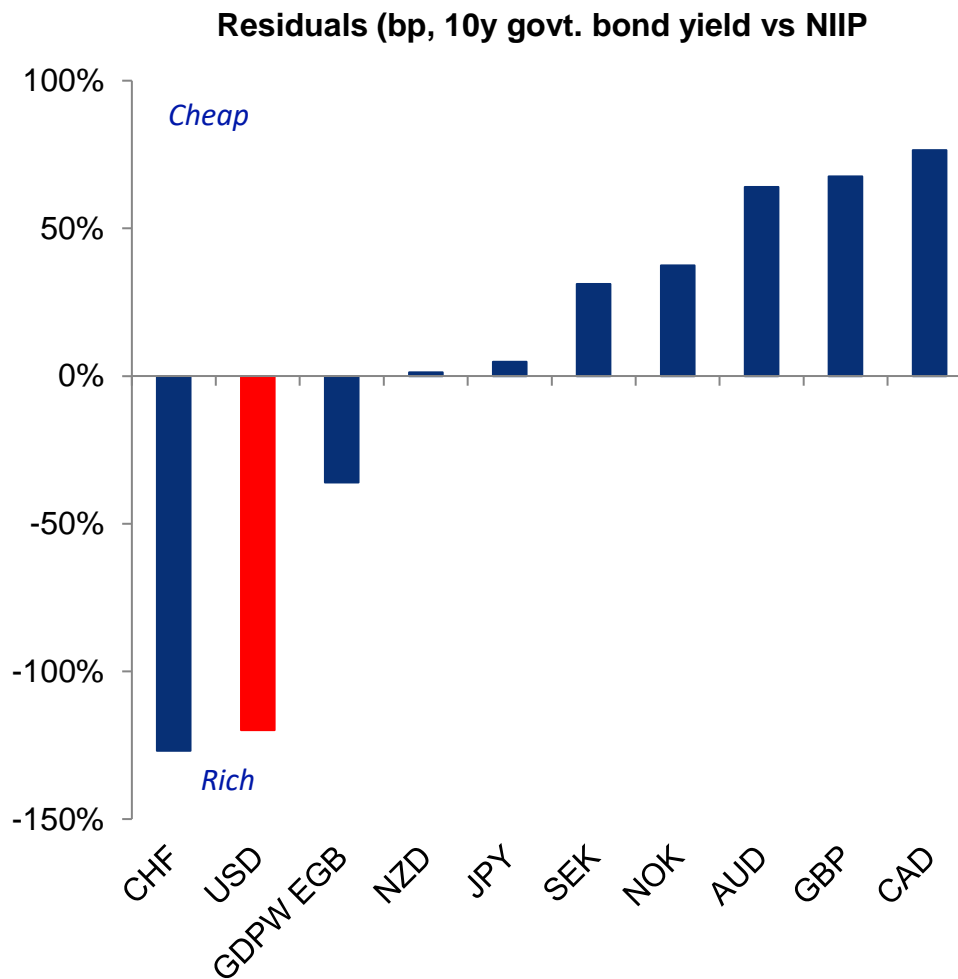


Longer-term interest rates in the US are substantially below levels implied by net international investment position (NIIP)

10y UST yields versus NIIP



Residual from this relationship

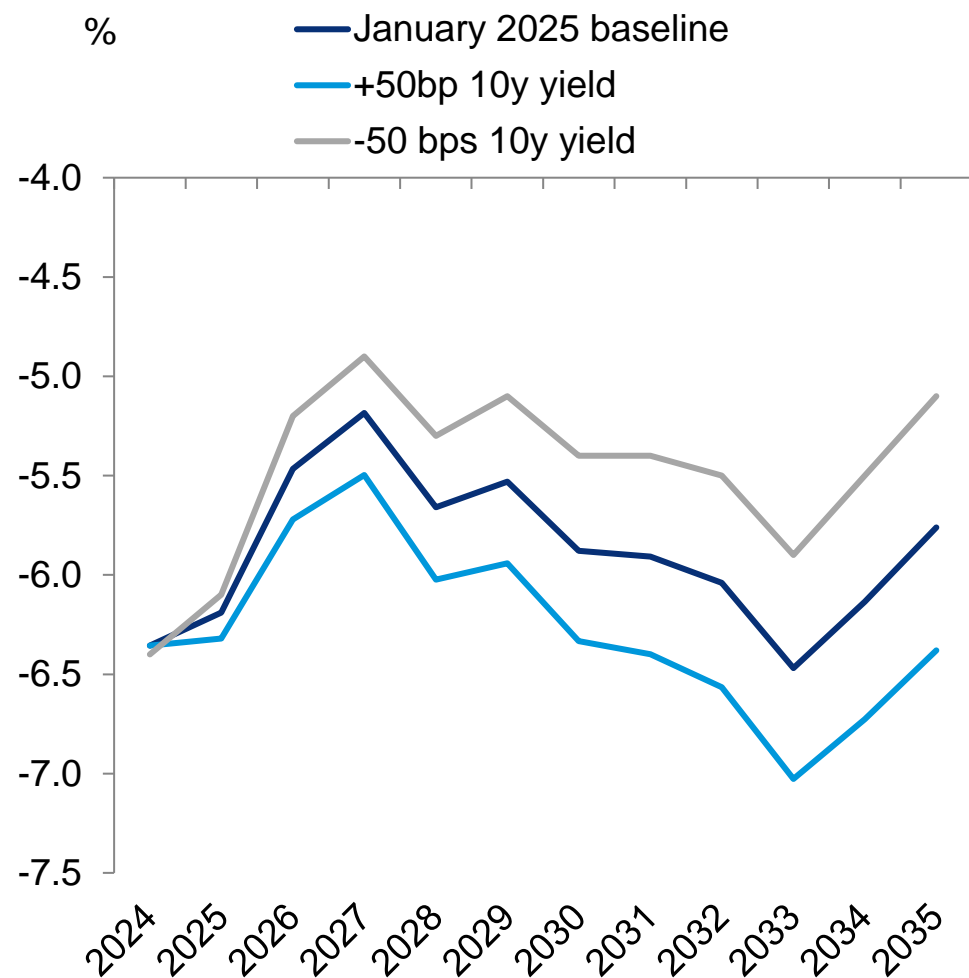


Source: IMF, Haver Analytics, Deutsche Bank

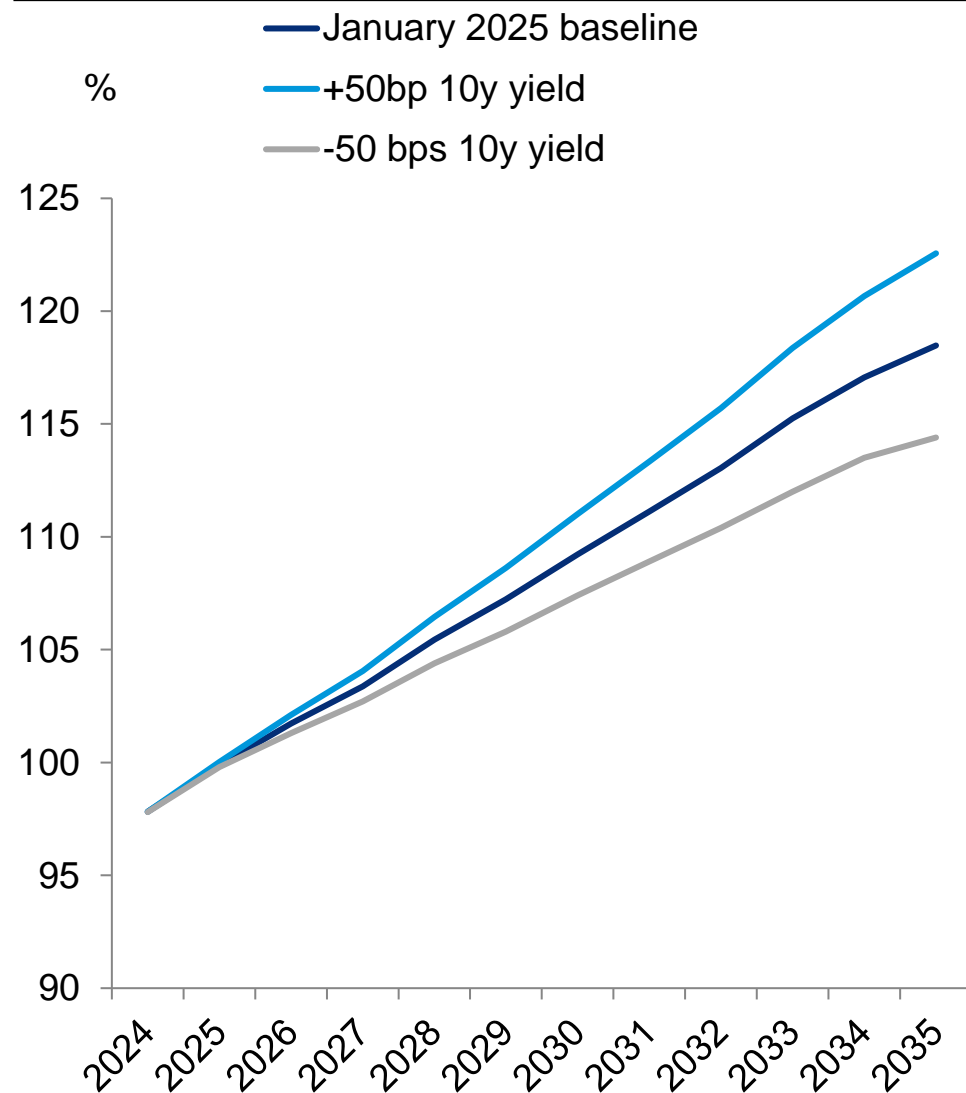
Higher interest rates than assumed in CBO would lead to more adverse deficit and debt dynamics



Deficit (-) / surplus (+) (% of GDP)



Debt held by public (% of GDP)

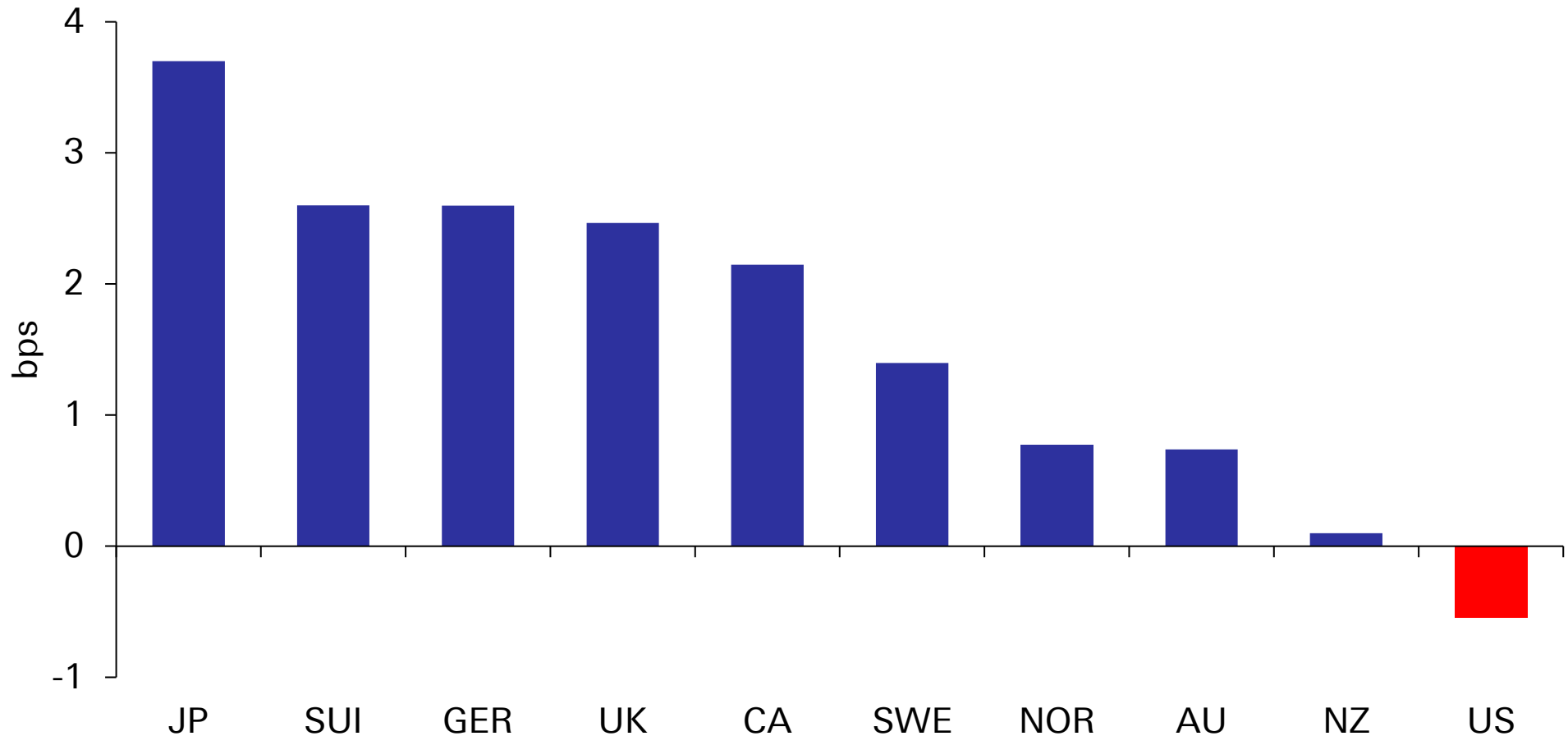


Note: Baseline is CBO projection from January 2025. Source: [CBO](#), Deutsche Bank

Yield curve slope fell during week of Jan 16th, despite focus on foreign investor demand for USD assets



Net change in 5s10s gov't bond TP 1/16-1/23



Source: National sources, Bloomberg Finance LP, Deutsche Bank

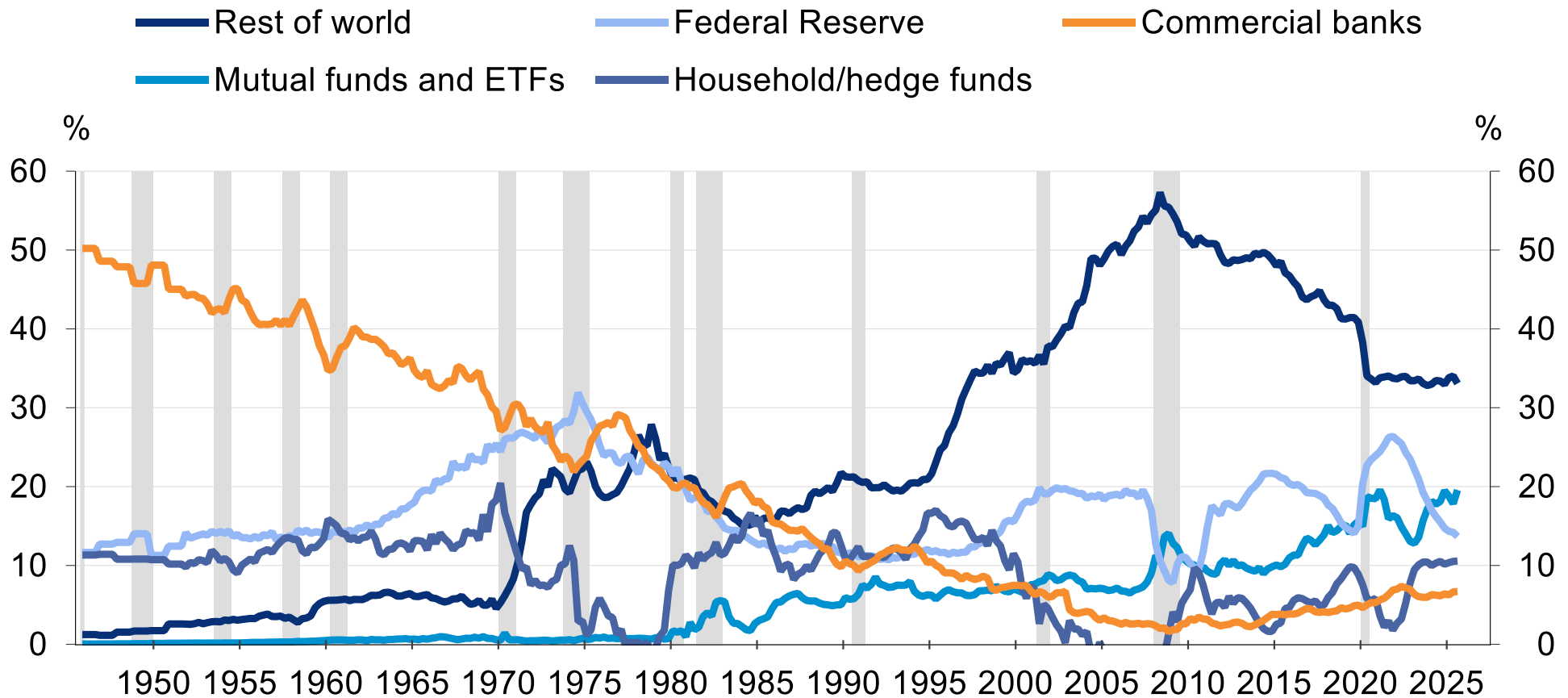


7. Holdings of US Treasury securities

Foreign investor share of US Treasury holdings has been steady around 1/3



Holdings of Treasuries as a % of Treasury debt outstanding - Top 5

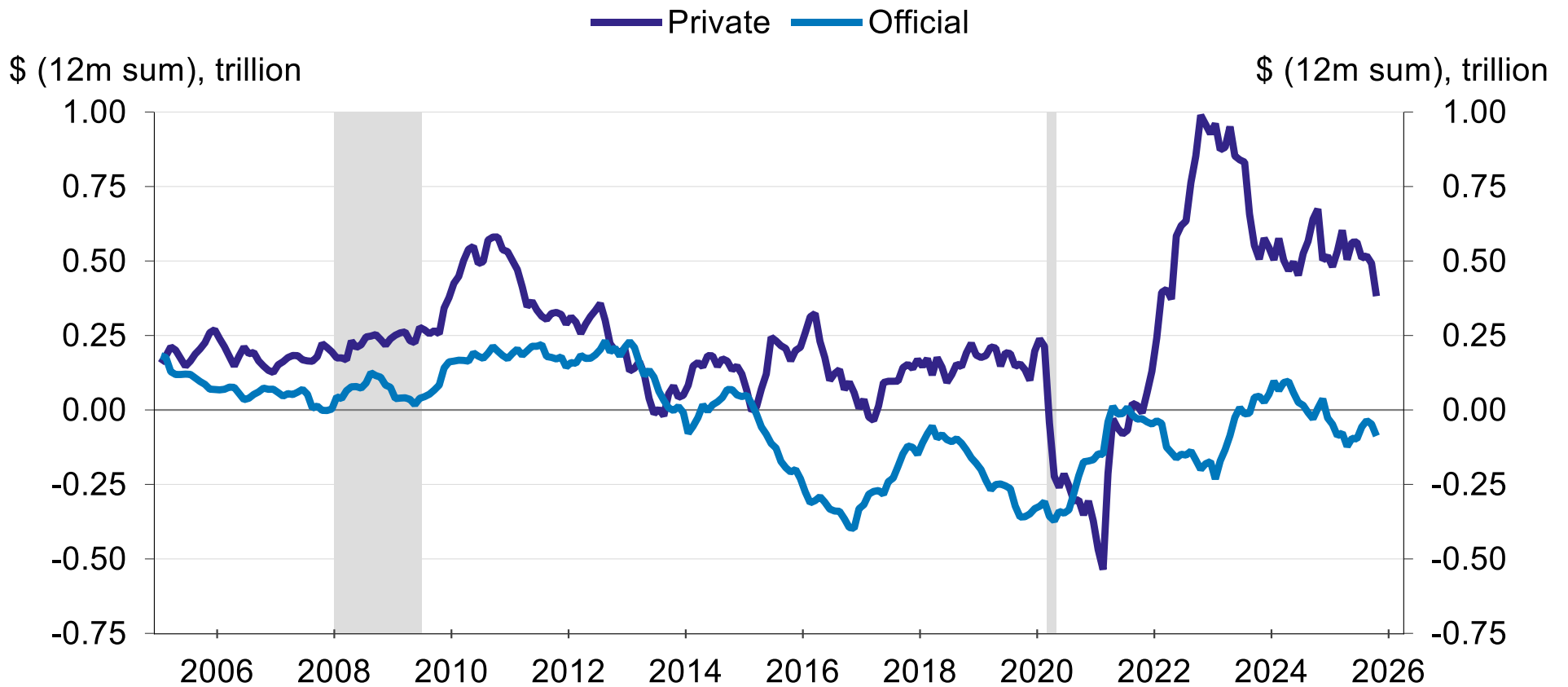


Source: Fed, Macrobond, Deutsche Bank

Foreign purchases of Treasury securities driven predominantly by the private sector in recent years



Net foreign purchases: Treasury bonds and notes

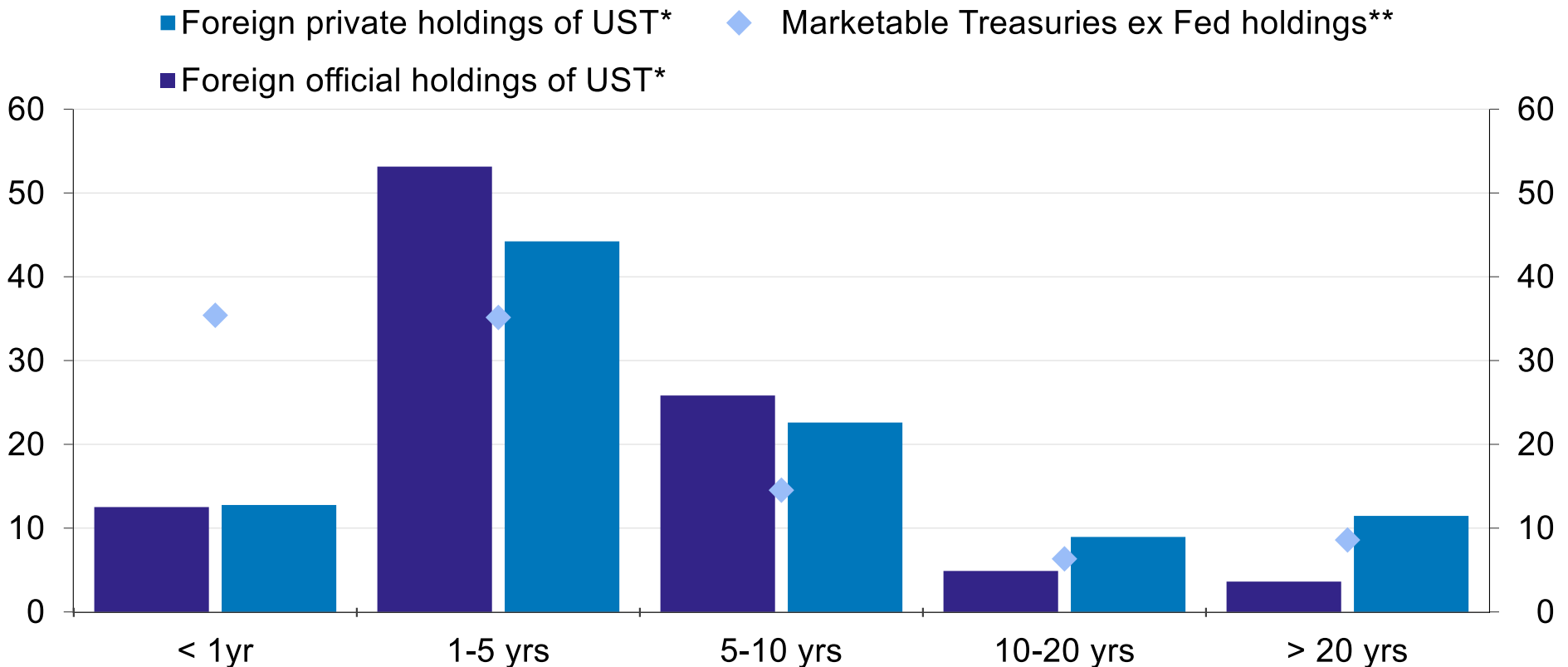


Source: U.S. Treasury, Macrobond, Deutsche Bank



Foreign holdings of Treasuries concentrated in 1- to 5-year maturity, but private investors have a longer skew

Maturity structure of Treasury holdings



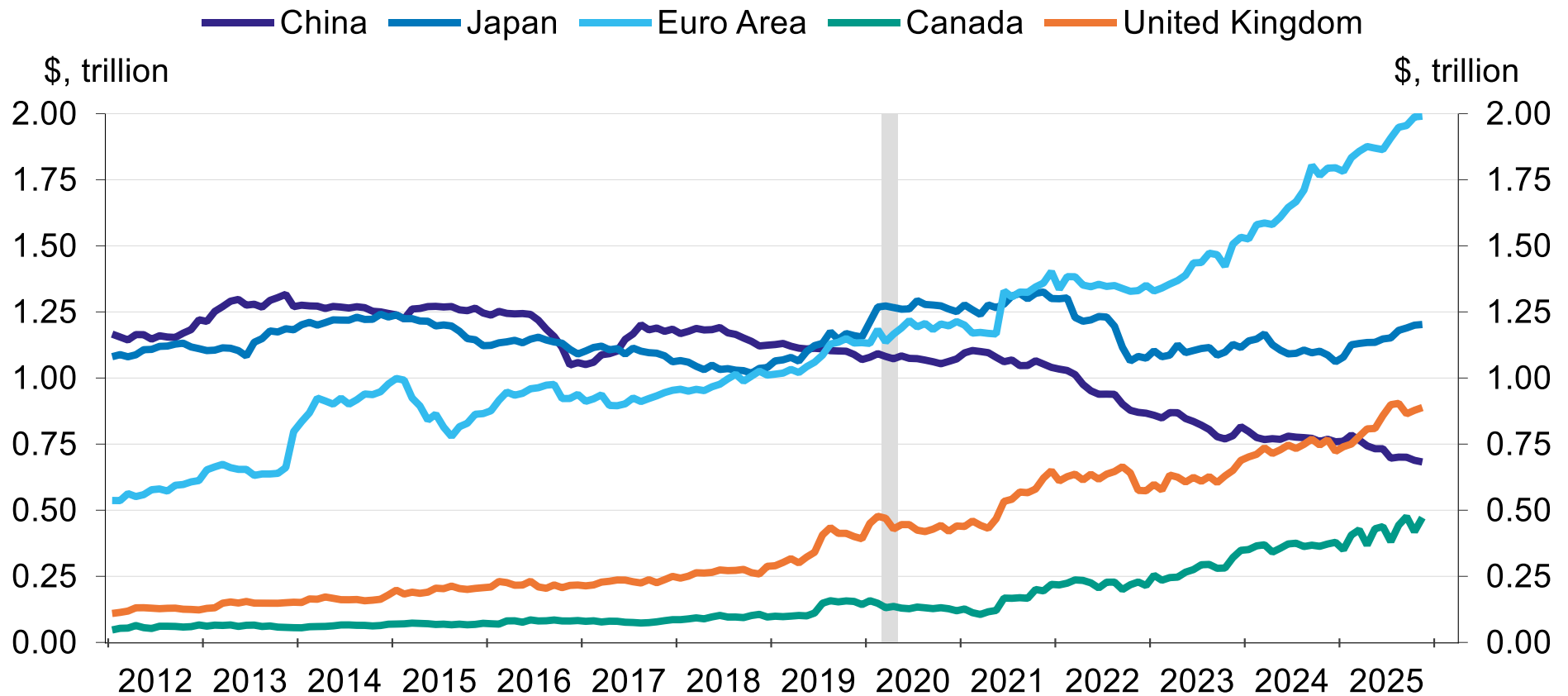
Source: U.S. Treasury, Macrobond, Deutsche Bank

* Latest data for 2024 released on 4/30/2025 ** Latest data for September 2025 released on 12/23/2025

China's reported holdings of Treasuries have fallen, while euro area, UK, and Canadian holdings have risen



Holdings of US Treasury securities

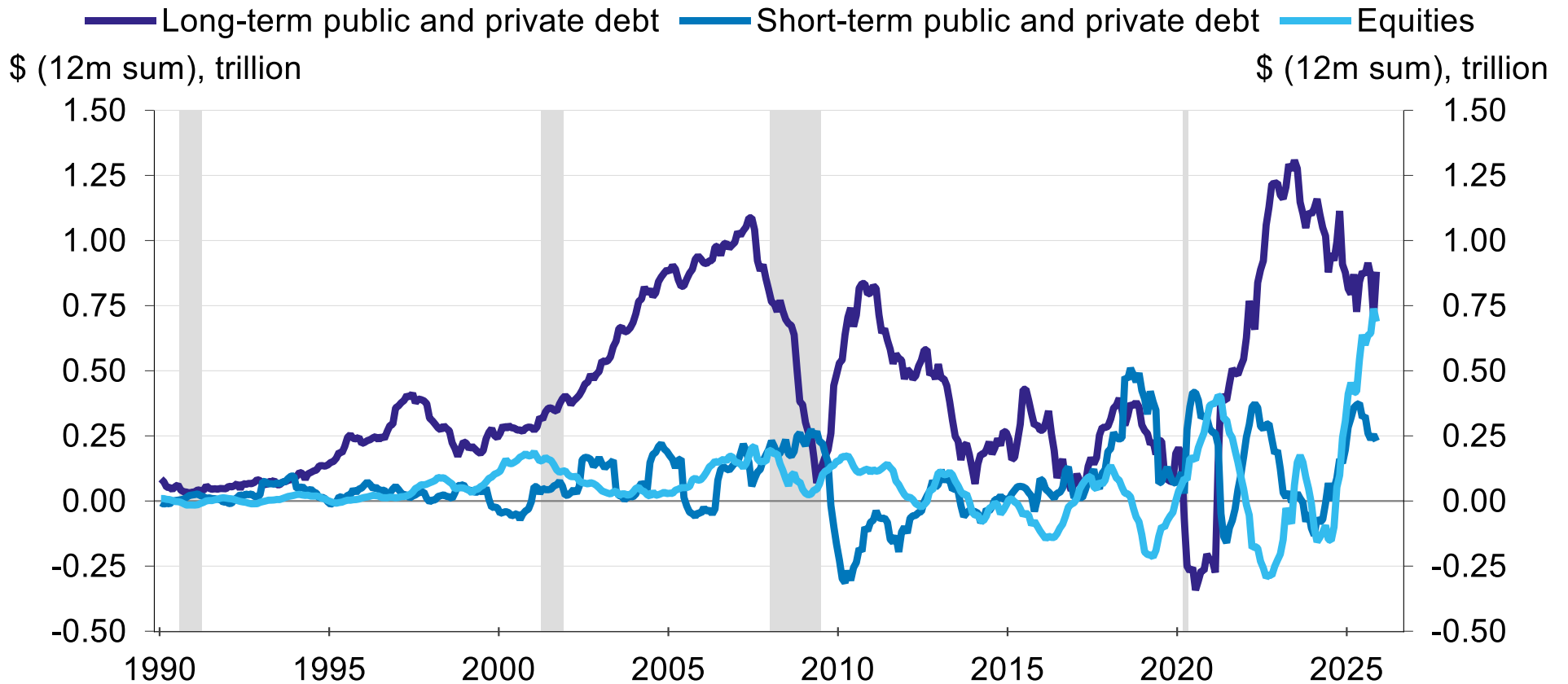


Source: U.S. Treasury, Macrobond, Deutsche Bank

Foreign buying of US equities has accelerated in recent quarters



Net foreign buying of all US securities



Source: U.S. Treasury, Macrobond, Deutsche Bank

DB's US economic forecast



Economic Activity (% qoq, saar)	2025				2026				2027				2028				2025F	2026F	2027F	2028F
	Q1	Q2	Q3	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F	Q4/Q4	Q4/Q4	Q4/Q4	Q4/Q4
GDP	-0.6	3.8	4.3	2.5	2.9	2.7	2.2	2.0	2.0	2.3	1.9	2.3	2.3	1.8	2.1	1.8	2.5	2.4	2.1	2.0
Private consumption	0.6	2.5	3.5	2.5	2.6	2.4	2.1	1.9	2.0	2.2	2.1	2.2	2.3	2.2	2.3	2.1	2.3	2.2	2.1	2.2
Investment	23.3	-13.7	-0.3	-1.0	5.6	8.0	4.1	3.2	3.7	4.2	2.7	4.4	4.8	2.6	3.6	2.5	1.2	5.2	3.7	3.4
Nonresidential	9.5	7.3	2.8	1.9	4.5	4.2	4.0	3.8	3.3	3.1	3.3	3.2	3.3	3.2	3.3	3.1	5.3	4.1	3.2	3.2
Residential	-1.0	-5.1	-5.1	-8.8	1.5	1.0	1.0	1.0	1.5	2.0	2.2	2.3	2.5	2.3	2.4	2.0	-5.0	1.1	2.0	2.3
Gov't consumption	-1.0	-0.1	2.2	-3.8	5.7	1.3	1.0	0.7	0.5	0.3	0.1	-0.1	-0.3	-0.5	-0.3	-0.3	-0.7	2.1	0.2	-0.3
Exports	0.2	-1.8	8.8	1.1	2.6	2.1	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.0	2.1	2.0	2.2	2.0	2.0
Imports	38.0	-29.3	-4.7	-7.5	7.5	4.5	2.6	2.3	2.2	2.0	1.9	2.0	2.1	2.2	2.1	2.2	-3.7	4.2	2.0	2.1
Contribution (pp):																				
Inventories	2.6	-3.4	-0.2	-0.5	0.3	0.8	0.1	-0.1	0.1	0.2	-0.1	0.2	0.3	-0.1	0.1	-0.1	-0.1	-0.1	0.1	0.1
Net trade	-4.7	4.8	1.6	1.3	-0.8	-0.4	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	1.3	-0.1	-0.1	-0.1
Unemployment rate, %	4.1	4.2	4.3	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.3	4.2	4.3	4.5	4.4	4.3	4.3
Prices (% yoy)																				
CPI	2.7	2.5	2.9	2.8	2.5	2.8	2.6	2.7	2.5	2.4	2.5	2.5	2.5	2.5	2.4	2.4	2.8	2.7	2.5	2.4
Core CPI	3.1	2.8	3.1	2.8	2.6	2.8	2.7	2.8	2.7	2.7	2.6	2.6	2.6	2.6	2.5	2.5	2.8	2.8	2.6	2.5
PCE	2.6	2.4	2.7	2.8	2.7	2.8	2.7	2.5	2.4	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.8	2.5	2.2	2.1
Core PCE	2.8	2.7	2.9	2.9	2.8	2.9	2.8	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.9	2.6	2.3	2.2
Fed Funds	4.38	4.38	4.13	3.63	3.63	3.63	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.38	3.63	3.38	3.38	3.38

Source: Deutsche Bank



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Matthew holds a Ph.D. in Economics from the University of California, Los Angeles. While at UCLA, he worked at the U.S. Department of the Treasury in the Office of Financial Research. Prior to graduate school, he spent two years as a research analyst in the macroeconomics department at the Federal Reserve Bank of Philadelphia.



Appendix 1

Important Disclosures

*Other information available upon request

*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For further information regarding disclosures relevant to Deutsche Bank Research, please visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/FICCDisclosures>. Aside from within this report, important risk and conflict disclosures can also be found at <https://research.db.com/Research/Disclosures/Disclaimer>. Investors are strongly encouraged to review this information before investing.

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