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Request IR-01:

References: **(A) On page 4 (lines 16-26) of its evidence, Concentric states:**

As discussed in Section 4 of our report, Concentric's research indicates that authorized ROEs for other subsea cable electric transmission lines, which are regulated by the Federal Energy Regulatory Commission ("FERC") in the U.S., range from 10.57% to 13.50%. Because there are a limited number of authorized ROEs for subsea transmission lines similar to Maritime Link, we also considered investor return requirements for a group of electric T&D utilities in Canada and the U.S. As shown in Figure 1, the average of all three methods for the proxy group of North American Electric T&D utilities is 9.34%, within the range of 8.82% to 9.92%. Based on this analysis, we estimate a base required ROE of 9.35%. We also considered the unique risks of NSPML as discussed later in this report, and determined that a risk premium of 75 to 100 basis points above the return for the electric T&D proxy group is appropriate. Our ROE estimate is therefore from 10.10% to 10.35% for NSPML.[3]

[3] NSPML's authorized ROE is currently tied to that of NSPI. The current NSUARB-approved range for NSPI is between 8.75 and 9.25 percent, with rates set on a 9.0 percent ROE.

Preamble: **Concentric's ROE and equity ratio (ER) recommendations rely extensively on the argument that since allowed ROEs and ERs for primarily U.S. utilities are higher than those for NSPML, the allowed ROE and ER for NSPML need to be increased.**

Question:

Does Concentric agree that as or more important than considering allowed ROEs and ERs in other jurisdictions in determining the appropriate ROE and ER for NSPML is an examination of NSPML's business risk and financial risk, as well as an examination of

market-based evidence regarding factors that should impact earned ROEs, such as expected future stock market returns, government bond yields, yields on NSP and similar Canadian utility bonds.

Response IR-01:

In addition to providing authorized ROEs for other electric transmission companies and specifically for subsea cables in Section 4 of our report, Concentric's report also provides a discussion of NSPML's unique business and financial risks (see Section 7), an analysis of the investor-required cost of equity for a proxy group of North American T&D utilities based on market data as of May 31, 2025 (see Section 6), and a summary of current conditions in the economy and capital markets, including a discussion of government and utility bond yields, projected economic growth rates, and historical stock market returns (see Section 3). All of this data and analysis informed our recommended ROE for NSPML of 10.10% to 10.35%. The Company, however, elected to request continuation of its existing authorized ROE of 9.0% even though the market data supports a higher return for NSPML, and other subsea transmission lines in the U.S. have authorized ROEs in the range of 10.57% to 13.50%.

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Request IR-02:

References:

(A) On page 24 (footnote 24) of its evidence, Concentric refers to the following source for the "forecast" data for "Long-Term Forecast for 10-Year Government Bond Yields" for Government of Canada bonds that is used to prepare Figure 10: "Consensus Forecasts by Consensus Economics Inc., Survey Date April 7, 2025, at 3 and 29."

(B) During the 2024 Ontario Energy Board (OEB) proceedings dealing with the "2024 REVIEW OF COST OF CAPITAL PARAMETERS AND DEEMED CAPITAL STRUCTURE" (EB-2024-0063), in Exhibit N-M2-7-AMPCO/IGUA-1 IGUA-AMPCO, in response to IR-1 (b-d), Concentric confirmed the following (bold added for emphasis):

b) The "OEB Deemed Long-Term Debt Rate" is provided annually by the OEB in its Cost of Capital Parameter Calculations. It is the 10-year Government of Canada Consensus Forecast, plus the actual spread of the 30-year over 10-year Government of Canada bond yields, plus the actual A-rated utility bond yield spread over 30-year Government of Canada bond yields.

c) Concentric confirms that the cited reference indicates that the actual long-term debt cost rates have exceeded the OEB's deemed long-term debt cost rate by an average of 40 basis points since 2010.

d) Concentric confirms that, as stated in the Concentric report, the average difference between the OEB's deemed long-term debt cost rate and the Bloomberg index has been 40 basis points since 2010, and that that figure is approximately the same as the "about 0.4%" difference found by Dr. Cleary when he compared average actual 30-year government yields from 2011-2023 to average September (November) Consensus forecasts.

Question:

(a) Please provide the source Consensus Forecast document used to provide the figures, which are reported in Figure 10 (page 24) of its evidence.

(b) Given the upward bias of +0.40% confirmed in Concentric's 2024 OEB evidence that shows the deemed long-term debt rates (based on forecast yields) averaged +0.40% higher than the actual yields, please explain why Concentric continues to rely upon "forecasts" for 10-year Canada yields and then estimates a spread it adds to this forecast to estimate 30-year Canada yields, as opposed to using actual 30-year Canada yields.

Response IR-02:

a) Please see Attachment 1 for the referenced report.

b) The cost of capital is a forward-looking estimate that represents investors' return requirements based on their expectations for interest rates, inflation, GDP growth, earnings growth, utility risk as measured by beta, and other market data and economic indicators. Therefore, Concentric believes it is reasonable to use forecasts of 30-year government bond yields rates as the risk-free rate in the CAPM analysis rather than historical average interest rates.

With regard to the "upward bias of 0.40%" noted in our 2024 evidence in Ontario, while forecast bond yields were higher than actual bond yields for many years following the financial crisis of 2007-2009, that has changed in the last several years, as actual interest rates have exceeded the level of forecasts due to higher-than-expected inflation. If we had used current actual interest rates instead of forecast bond yields in our CAPM and Risk Premium analysis, our ROE results for NSPML would have been higher. For example, in Canada, Concentric uses a risk-free rate of 3.60% in our CAPM analysis, while the yield on the 30-year Government of Canada bond was in the range of 3.85 to 3.90% from August 15 to 21, 2025.

The same is true in the U.S., with the 30-year Treasury yield in the range of 4.905 while the risk-free rate used in our CAPM analysis was 4.495.

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NSPML 2026 Assessment Application NSEB - CLEARY IR-02 Attachment 1 Page 1 of 32

CONSENSUS FORECASTS®

Surveys of International Economic Forecasts

- G-7 & Western Europe

Survey Date: April 7, 2025

Every month, Consensus Economics surveys over 250 prominent financial and economic forecasters in G-7 & Western Europe for their macro estimates of a range of variables including future growth, inflation, interest rates and exchange rates. More than 20 countries are covered and the reference data, together with analysis and polls on topical issues, is rushed to subscribers.

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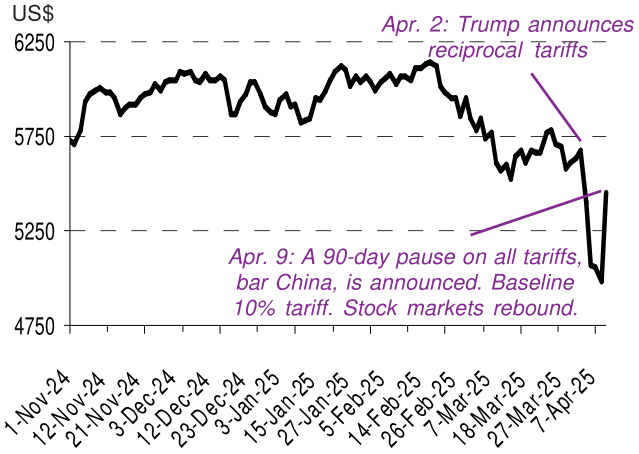
Survey Highlights

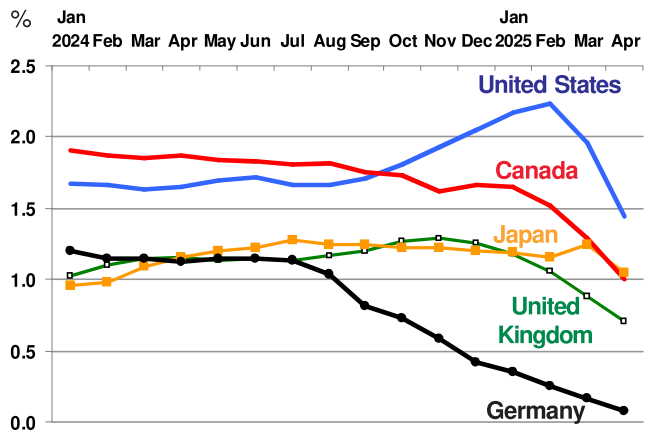
Our survey deadline (April 7) occurred during significant market turbulence, with our contributing forecasters operating under challenging conditions and deep uncertainty. Economic outlooks for the US, Canada, Japan, Germany, the UK and others were deteriorating in real time at certain moments as the financial markets swooned. The global economy essentially experienced a supply-side shock after the April 2 announcement by US President Trump of tariffs on nearly all countries exporting goods into the US. After a week of upheaval and tanking sentiment, at approximately 2pm Washington time on Wednesday, April 9, President Trump called a 90-day pause on the tariff rollout, bar China, upon which it announced further tariff increases. Retaliatory levies between the US and China risk escalating the trade war. Moreover, this targeted disruption of the global trading system has prompted GDP growth forecasts for many economies to be cut back, with our forecasters cautiously pricing in stagflation and some acknowledging possible recession risk. Potential levies would increase import costs substantially, pushing up inflation expectations. Mixed messages from the White House have added to the churn of the past few weeks. Indeed, the 90-day pause announced on April 9 does not dissipate the tariff threat or the uncertainty of the past few months, reflected in the consensus forecasts chart below.

This month we surveyed our panels for their **Long-Term Forecasts** (pages 2-3, 28-30). The **Significant Changes** charts (pages 2, 3 and 28) contrast **long-term rolling aggregate forecasts for 2031-35** with comparable previous surveys, some all the way back to April 1996. These are proxies for **potential GDP growth & inflation**.

S&P 500 Index – Nov. 1, 2024 to April 9, 2025



2025 GDP Growth Consensus Forecasts – US, Japan, Germany, UK, Canada



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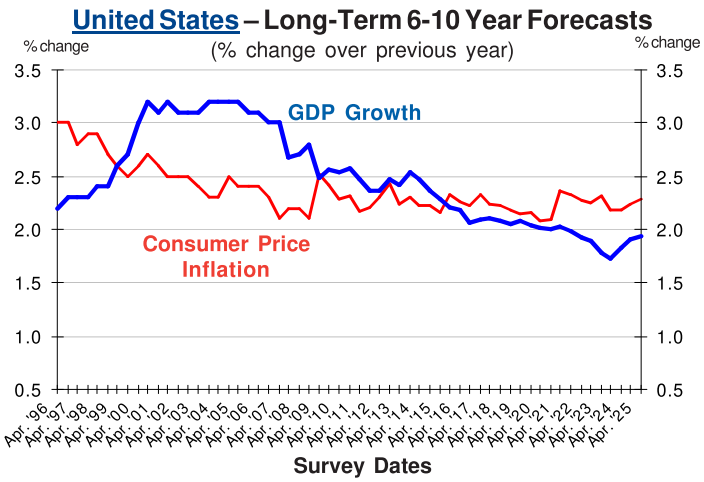
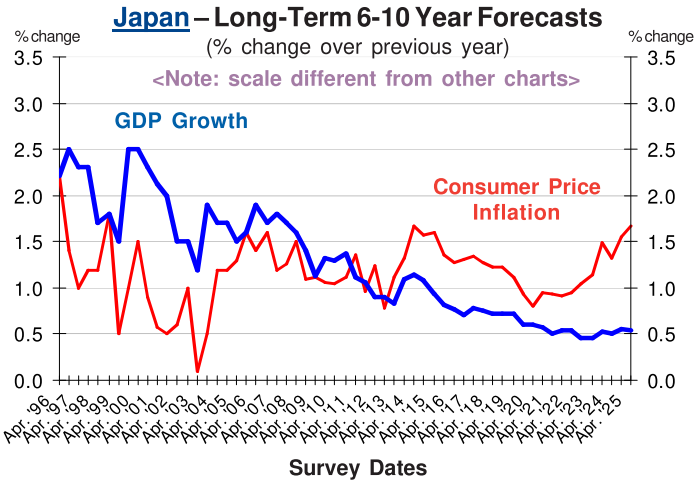
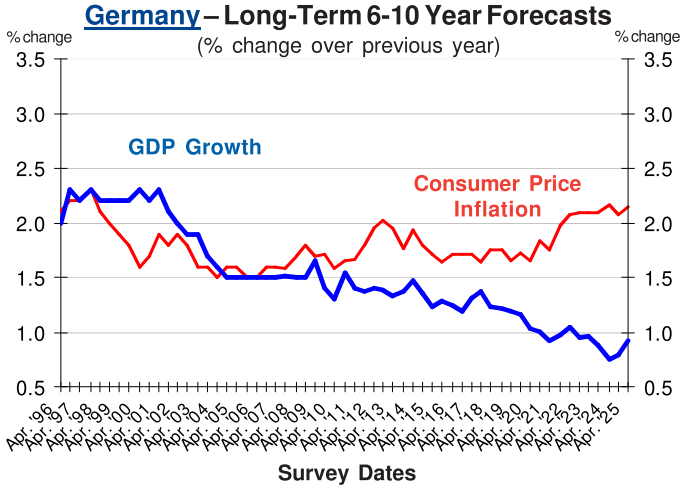
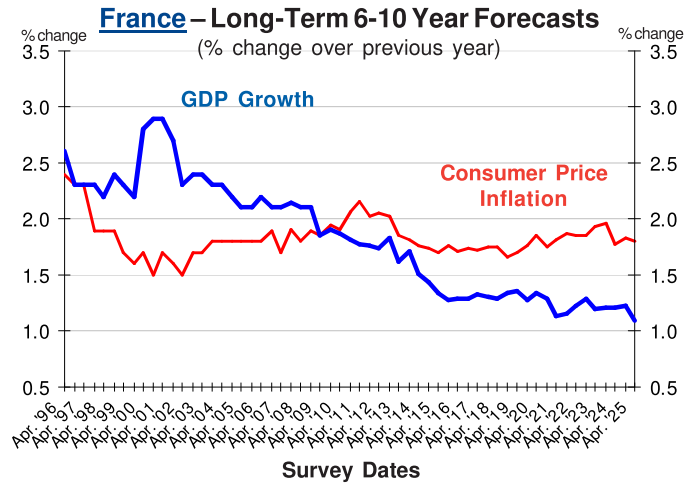
SIGNIFICANT CHANGES IN THE LONG-TERM CONSENSUS APRIL 2025

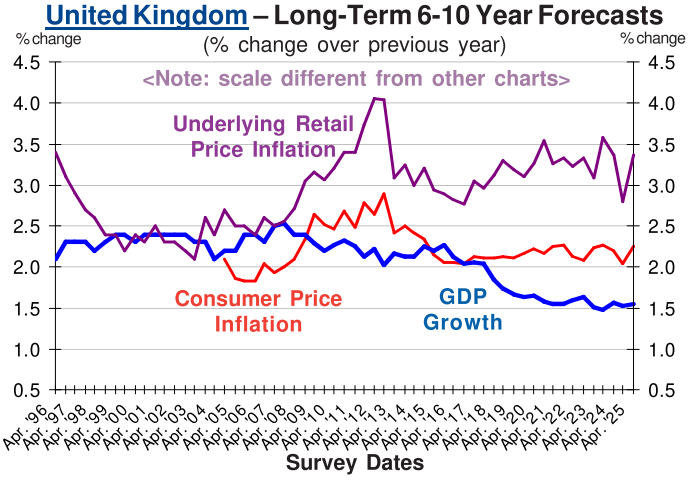
This month, we chart **Significant Changes in Long-Term Forecast Trends for GDP Growth and Inflation** for the **US, Japan, Germany, France,** the **UK, Italy** and **Canada**. Twice-yearly long-term projections for the 6-10 year period averages (in this case 2031-2035) are contrasted with those long-term forecasts surveyed back to April 1996. It is this rolling 6-10 year trendline average which we show in the charts below. The 6-10-year trend averages may be viewed as a measure of **potential GDP and inflation** expectations. This construct has two problems, however. One is that the 6-10 year horizon is a moving horizon shifting forward one year, each year. The other is that the number of panellists responding to our long-term surveys is smaller and therefore somewhat less representative than the panellist numbers responding to our one and two-year surveys on pages 4-24.

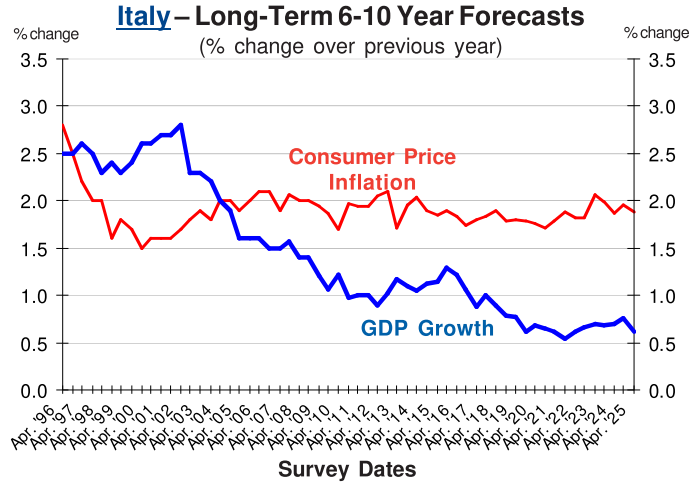


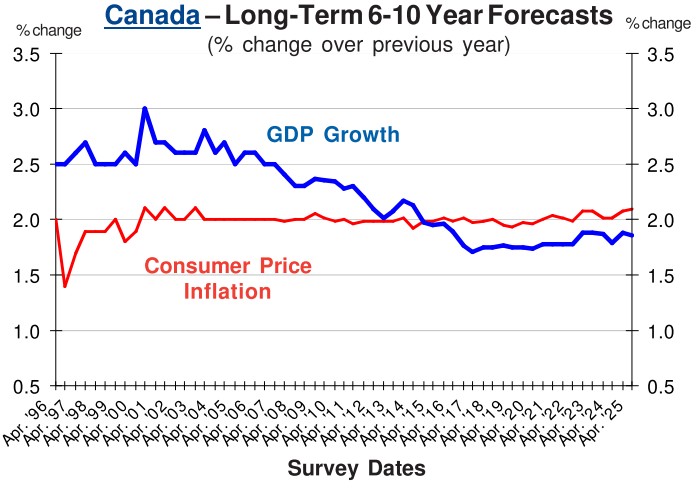












 Source: Consensus Forecasts

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In addition to their regular forecasts, country panellists were asked to provide longer-term forecasts covering the period until 2035 for growth in real GDP, consumer spending, investment and industrial production, along with consumer price inflation, current account balances and long-term bond yields. Definitions correspond to those used in the individual country pages.

United States

* % change over previous year	Historical				Consensus Forecasts						
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.1	2.5	2.9	2.8	1.4	1.7	2.1	2.1	2.0	2.0	1.9
Personal Consumption*	8.8	3.0	2.5	2.8	1.8	1.5	2.1	2.1	2.1	2.1	1.9
Business Investment*	6.0	7.0	6.0	3.6	1.2	1.6	3.3	3.3	3.2	3.3	3.0
Industrial Production*	4.4	3.4	0.2	-0.3	0.7	1.1	1.9	1.9	1.9	2.0	1.8
Consumer Prices*	4.7	8.0	4.1	3.0	3.2	2.7	2.3	2.2	2.2	2.2	2.3
Current Account Balance (USbn)	-868	-1012	-905	-1134	-1194	-1157	-1106	-1081	-1081	-1189	-1190
10 Year Treasury Bond Yield, %[2]	1.6	3.9	3.9	4.6	4.1 [3]	4.1 [4]	4.1	4.1	4.0	4.0	4.0

The past few years have seen a rise in intense competition between economies. The **US** Inflation Reduction Act and CHiPS legislation, for example, extended tax relief and subsidies, boosted tech infrastructure and relocated strategic supply chains closer to home. China's Belt and Road initiative gave it a head start in accessing in-demand raw materials. The rest of the **G7 & Western Europe** struggled to meet the scope of these ambitious and highly-subsidised policies. And now, the **US** administration's lingering threat of higher tariffs have turbo-charged this pugnacious competitive environment and disrupted the global trading system. In the near-term, growth forecasts have softened, while those for inflation have jumped. Over the longer-term, countries may be re-evaluating economic strategy to meet a new set of competitive and geopolitical challenges. **Germany's** medium-term growth outlook has lifted above 1% for the first time in a while, due to greater defence spending. Other European economies may follow suit as the US retreats from European military commitments. After an initial hit from US tariffs, **Canada's** growth outlook is expected to push towards 2% from 2027 onwards, buoyed by its energy, raw materials and manufacturing hubs. The **G7** is also impacted by ageing populations. **Japan** is further along in managing this, which will likely mean greater automation as well as possibly working longer and retiring later. Demographics, along with softer growth dynamics and a narrowing taxpayer pool add to fiscal pressures, especially on **Europe**, as governments add defence to their growing list of public spending requirements.

Tables continue on pages 28-30

Japan

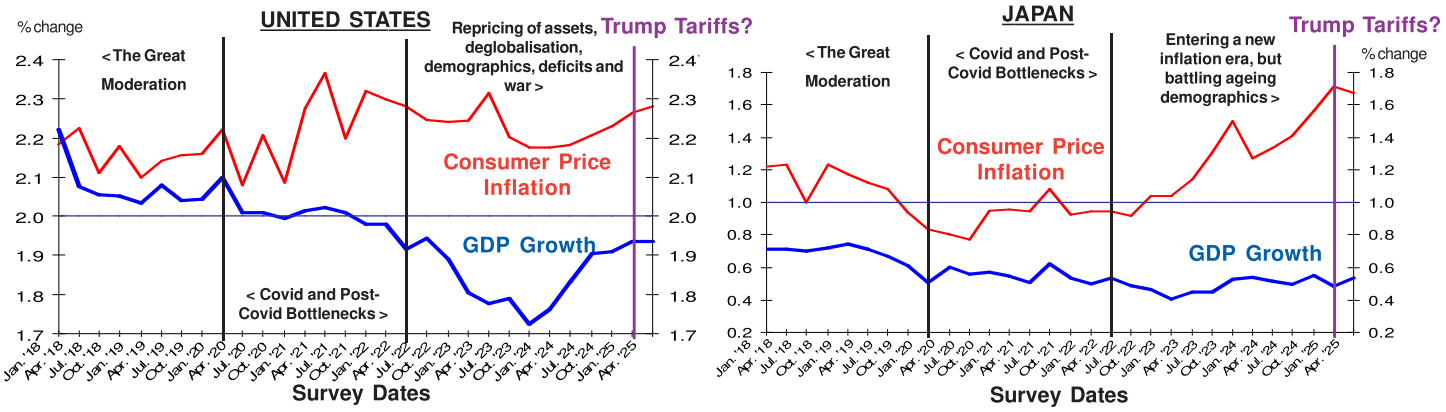
* % change over previous year	Historical				Consensus Forecasts						
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	2.7	0.9	1.5	0.1	1.0	0.7	0.9	0.8	0.7	0.6	0.5
Private Consumption*	0.7	2.1	0.8	0.0	0.9	0.8	0.8	0.8	0.7	0.6	0.5
Business Investment*	1.7	2.6	1.5	1.2	1.4	1.2	1.4	1.3	1.3	1.2	1.0
Industrial Production*	5.8	0.0	-1.4	-3.0	1.7	1.2	1.4	1.2	1.2	0.9	0.6
Consumer Prices*	-0.2	2.5	3.3	2.7	2.9	1.8	1.7	1.7	1.7	1.6	1.7
Current Account Balance (¥tn)	21.2	10.5	22.6	28.7	30.3	30.3	27.9	27.5	27.0	24.7	21.2
10 Year Treasury Bond Yield, %[2]	0.1	0.4	0.6	1.1	1.4 [3]	1.6 [4]	1.8	1.9	1.9	1.8	1.8

[1]*Signifies average for period* [2]*End period* [3]*End July 2025* [4]*End April 2026*

We have 'telescoped' the **6-10 year rolling-period average of GDP and CPI forecasts (collected four times a year)** from **January 2018 to April 2025**. This encapsulates the Great Moderation era of globalisation and 0% interest rates, followed by the Covid and Post-Covid era, and finally the current period. Inflection points like war in Ukraine, inflation, rapidly tightening monetary policies have triggered a reset in geopolitics and globalisation, not to mention repriced assets, labour and debt.

United States and Japan – Long-Term 6-10 Year Forecasts between January 2018 - April 2025

(annual % change over previous year)



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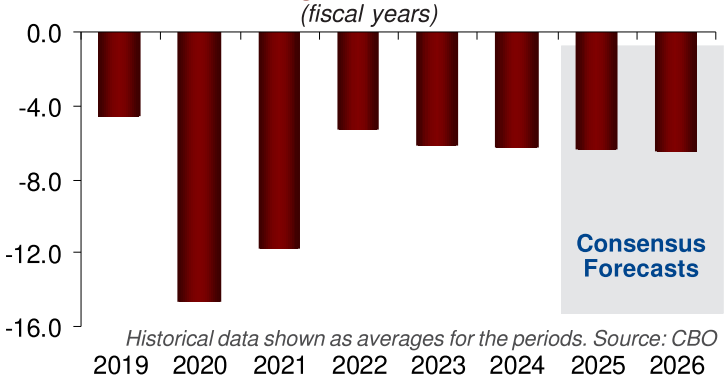
UNITED STATES — APRIL 2025

	Average % Change on Previous Calendar Year																		Annual Total	
	Gross Domestic Product		Personal Consumption		Business Investment		Pre - Tax Corporate Profits		Industrial Production		Consumer Prices		Core PCE Prices (ex. food & energy)		Producer Prices		Employment Costs		Auto & Light Truck Sales (inc. imports, mn units)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Econ Intelligence Unit	2.1	2.2	2.2	2.0	na	na	na	na	1.1	1.5	2.4	2.3	na	na	2.0	2.4	na	na	na	na
PNC Financial Services	2.0	2.1	2.5	2.0	1.6	3.6	na	na	1.4	2.6	2.8	2.7	2.6	2.3	2.4	2.2	na	na	16.8	17.2
Oxford Economics	2.0	2.5	2.7	2.4	1.7	4.5	4.4	6.9	0.8	2.0	3.0	2.1	3.1	1.8	2.6	1.3	3.7	3.6	15.9	16.2
Georgia State University	1.8	1.4	2.4	1.7	2.7	1.2	-2.7	-5.5	0.9	0.5	3.2	2.2	3.0	2.2	1.2	0.9	3.9	4.3	15.6	15.2
Inforum	1.7	1.9	2.1	1.9	1.3	2.4	3.2	2.8	1.1	1.1	3.4	2.9	3.0	2.8	3.5	2.7	3.6	3.5	15.8	16.2
ICIS	1.7	1.6	2.1	1.9	1.7	2.2	5.3	4.3	1.5	1.5	3.3	2.9	3.2	2.9	3.8	2.8	3.6	3.6	15.5	15.8
The Conference Board	1.6	1.4	1.7	1.5	1.8	3.0	na	na	na	na	na	na	3.0	3.0	na	na	na	na	na	na
EY Parthenon	1.6	1.6	2.0	1.5	1.0	1.1	na	na	0.8	1.2	2.8	2.7	2.6	2.6	2.4	2.2	3.3	3.3	15.1	13.9
Eaton Corporation	1.6	2.4	1.8	1.8	2.2	2.3	na	na	0.9	1.2	3.5	3.0	na	na	4.1	2.2	na	na	15.3	15.5
Visa Business & Econ	1.5	2.1	1.7	2.0	1.4	1.7	2.8	5.7	na	na	2.9	2.2	3.2	2.4	na	na	na	na	15.7	16.3
Ford Motor Company	1.5	1.6	1.7	1.3	1.7	0.6	na	na	1.1	-0.2	3.2	3.3	3.4	3.1	3.1	1.2	na	na	na	na
BMO Capital Markets	1.4	1.4	1.8	1.5	1.4	1.1	7.0	4.1	1.6	1.4	3.5	3.2	3.4	3.2	na	na	3.6	3.4	15.0	15.1
Dynamic Econ Strategy	1.4	1.8	0.3	1.3	0.8	1.2	-8.7	12.4	-3.0	0.4	3.3	3.2	2.9	2.8	-0.8	-1.2	2.8	3.2	15.4	14.9
S&P Global Market Intel	1.3	1.5	1.8	1.1	1.2	-1.4	-7.8	-0.2	1.1	-0.5	3.6	2.8	3.6	2.6	3.3	1.3	na	na	16.0	15.7
Moody's Analytics	1.3	1.4	2.0	1.4	0.8	-0.2	-1.6	4.3	0.5	-0.9	3.3	2.9	2.8	2.6	5.3	-0.3	3.1	3.1	16.1	16.1
Wells Fargo	1.3	1.5	1.8	1.5	1.1	2.0	0.1	3.9	0.0	0.6	2.8	2.9	3.0	2.8	3.0	2.1	3.6	3.5	15.1	15.2
Goldman Sachs	1.3	1.3	1.9	1.6	1.6	2.0	na	na	1.1	1.5	3.2	2.8	3.2	2.8	na	na	na	na	na	na
First Trust Advisors	1.2	2.0	1.9	2.1	2.1	2.3	na	na	1.2	2.0	2.7	2.7	2.6	2.5	na	na	na	na	16.0	16.0
Barclays	1.1	0.6	1.6	0.3	0.6	0.8	na	na	-0.3	0.9	3.0	3.0	3.1	3.2	na	na	na	na	na	na
Robert Fry Economics	1.0	1.3	1.0	0.6	1.1	2.2	3.3	3.9	1.2	2.5	3.5	2.8	3.4	2.6	3.2	2.5	3.5	3.5	14.9	15.0
Citigroup	1.0	1.2	1.6	1.4	-0.7	-0.1	na	na	na	na	2.5	2.5	2.7	2.3	na	na	na	na	na	na
JP Morgan	1.0	0.9	1.5	0.7	0.6	1.1	7.1	3.3	0.7	1.6	3.8	2.7	3.8	2.7	na	na	3.3	2.6	15.4	15.5
Allianz	0.8	2.2	1.3	2.1	-0.5	2.4	na	na	-0.5	0.3	3.8	1.8	na	na	na	na	na	na	na	na
Consensus (Mean)	1.4	1.7	1.8	1.5	1.2	1.6	1.0	3.8	0.7	1.1	3.2	2.7	3.1	2.7	2.8	1.6	3.5	3.4	15.6	15.6
Last Month's Mean	2.0	2.0	2.5	2.0	1.9	2.8	1.9	3.9	1.0	1.5	2.9	2.6	2.7	2.4	2.7	1.8	3.6	3.5	16.0	16.3
3 Months Ago	2.2	2.0	2.5	2.1	2.6	3.1	2.9	2.7	0.9	1.6	2.6	2.6	2.5	2.4	1.7	2.0	3.5	3.5	16.0	16.3
High	2.1	2.5	2.7	2.4	2.7	4.5	7.1	12.4	1.6	2.6	3.8	3.3	3.8	3.2	5.3	2.8	3.9	4.3	16.8	17.2
Low	0.8	0.6	0.3	0.3	-0.7	-1.4	-8.7	-5.5	-3.0	-0.9	2.4	1.8	2.6	1.8	-0.8	-1.2	2.8	2.6	14.9	13.9
Standard Deviation	0.3	0.5	0.5	0.5	0.8	1.3	5.3	4.2	1.0	0.9	0.4	0.4	0.3	0.4	1.4	1.2	0.3	0.4	0.5	0.8
Comparison Forecasts																				
CBO (Jun. '24)	2.1	1.8	1.8	1.3	3.0	2.7					2.4	2.2	2.4	2.1			3.7	3.4		
IMF (Jan. '25)	2.7	2.1																		
OECD (Mar '25)	2.2	1.6									2.8	2.6	3.0	2.6						

Government and Background Data

President- Mr. Donald J. Trump (Republican). **Congress -** Republicans have retained a majority in the House of Representatives (lower house) and taken control of the Senate (upper house). **Next Elections -** November 2026 (congressional and gubernatorial); November 2028 (presidential and congressional). **Nominal GDP -** US$27,720bn (2023). **Population -** 343.5mn (UN, Mid 2023).

Federal Budget Balance – % of GDP
(fiscal years)



Historical data shown as averages for the periods. Source: CBO

Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	6.1	2.5	2.9	2.8
Personal Consumption*	8.8	3.0	2.5	2.8
Business Investment*	6.0	7.0	6.0	3.6
Pre - Tax Corporate Profits*	27.6	7.8	6.9	7.9
Industrial Production*	4.4	3.4	0.2	-0.3
Consumer Prices*	4.7	8.0	4.1	3.0
Core PCE Prices*	3.6	5.4	4.1	2.8
Producer Prices*	8.9	13.4	1.6	1.2
Employment Costs*	3.3	4.9	4.5	4.0
Auto & Light Truck Sales (inc. imports), mn	14.9	13.8	15.5	15.8
Housing Starts, mn	1.60	1.55	1.42	1.36
Unemployment Rate, %	5.4	3.6	3.6	4.0
Current Account, US bn	-868	-1012	-905	-1134
Federal Budget Balance fiscal years, US bn	-2775	-1376	-1694	-1832
3 mth Treasury Bill, %, end yr	0.1	4.3	5.3	4.2
10 Yr Treasury Yield, %, end yr	1.6	3.9	3.9	4.6

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Annual Total		Year Average		Annual Total		Fiscal Years (Oct-Sep)		Rates on Survey Date 4.2 %		4.2 %	
Housing Starts (mn units)		Unemployment Rate (%)		Current Account (US$ bn)		Federal Budget Balance (US$ bn)		3 month Treasury Bill Rate (%)		10 Year Treasury Bond Yield (%)	
2025	2026	2025	2026	2025	2026	FY 24-25	FY 25-26	End Jul '25	End Apr '26	End Jul '25	End Apr '26
na	na	4.3	4.2	na	na	-2173	-2336	na	na	na	na
1.47	1.63	4.2	4.2	na	na	na	na	3.7	3.6	4.1	4.1
1.30	1.38	4.2	4.3	-1160	-1191	-2072	-2060	4.3	3.9	4.5	4.4
1.35	1.32	4.5	4.8	-1303	-1300	-1762	-1813	3.7	3.1	3.6	4.5
1.33	1.37	4.3	4.3	na	na	na	na	4.0	3.8	4.2	4.2
1.39	1.41	4.4	4.7	-1163	-1193	-1948	-1952	4.2	3.5	4.3	4.1
na	na	4.4	4.5	na	na	na	na	na	na	na	na
1.38	1.41	4.4	4.6	na	na	na	na	4.2	3.7	4.1	3.9
1.37	1.44	4.4	4.5	na	na	na	na	na	na	na	na
1.36	1.40	4.2	4.2	na	na	-2020	-2198	4.2	3.7	4.0	3.9
1.40	1.35	4.3	4.7	na	na	-1903	-1684	4.0	3.8	4.4	4.4
1.41	1.42	4.5	5.0	-1275	-1300	-1909	-1910	4.3	3.1	3.9	3.8
1.41	1.52	4.7	5.8	-1162	-1322	-1926	-2127	4.0	3.8	4.1	4.0
1.40	1.34	4.4	4.9	-1185	-857	na	na	na	na	na	na
1.40	1.44	4.2	4.8	-1168	-940	na	na	na	na	na	na
1.32	1.37	4.4	4.5	na	na	-1750	-1950	na	na	na	na
1.41	1.48	4.4	4.6	na	na	-1800	-2050	4.0	3.9	4.4	4.4
1.42	1.51	4.4	4.6	-1318	-1324	-1925	-2025	4.3	3.5	3.9	3.8
na	na	4.3	4.6	-1208	-1211	-1865	-2073	na	na	4.0	na
1.42	1.50	4.5	4.6	na	na	-2400	-2400	4.1	3.3	3.8	4.2
na	na	4.7	4.4	-1122	-1028	-1949	-1897	4.0	3.3	na	na
1.35	1.35	4.4	5.2	-1067	-1061	-1820	-2250	na	na	na	na
na	na	4.5	4.7	na	na	-2073	-2378	na	na	na	na
1.38	1.42	4.4	4.6	-1194	-1157	-1956	-2069	4.1	3.6	4.1	4.1
1.38	1.42	4.2	4.3	-1204	-1158	-1938	-2008				
1.37	1.42	4.3	4.3	-1152	-1121	-1919	-1991				
1.47	1.63	4.7	5.8	-1067	-857	-1750	-1684	4.3	3.9	4.5	4.5
1.30	1.32	4.2	4.2	-1318	-1324	-2400	-2400	3.7	3.1	3.6	3.8
0.04	0.08	0.1	0.4	77	162	166	205	0.2	0.3	0.2	0.2
		4.0	4.2	-1060	-1056	-1938	-1851				

Current US Fed Funds Rate (Mid-Point of Target Range): 4.375%

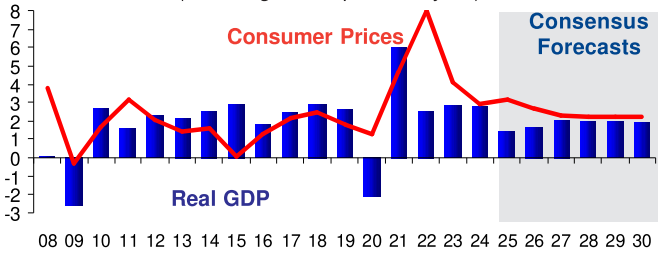
Average probability of a change in the Funds Rate on May 6-7:

Increase 1.4% No change 86.6% Decrease 12.1%

Consensus Forecasts	End Jun '25	End Sep '25	End Dec '25	End Mar '26	End Jun '26	End Sep '26	End Dec '26	End Mar '27
Mean Average:	4.264%	4.040%	3.790%	3.610%	3.471%	3.415%	3.346%	3.373%
Median:	4.375%	4.125%	3.875%	3.625%	3.625%	3.375%	3.375%	3.375%

US Real Growth and Inflation

(% change over previous year)

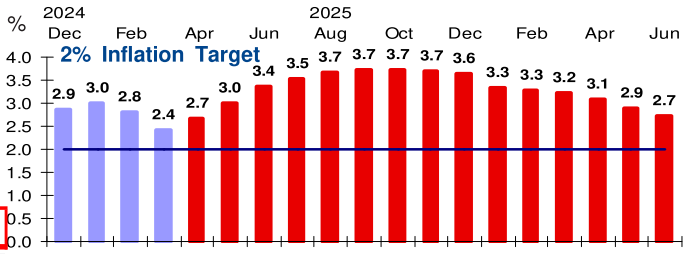


Trade Turmoil Pummels US Forecasts

As mentioned on the front page, the April 2 declaration by President Trump of tariffs roiled the financial markets, as did the announcement on April 9, after our survey deadline, and barring China, of a 90-day pause on the tariff rollout. Despite its huge internal market, the US is exposed to and dependent on foreign trade in terms of importing and exporting finished goods, as well as supplementing processes along complex global supply-chains. For example, Nike and Apple rely on Vietnam and China to produce clothing and tech parts, and the trade war against China has been ramped up significantly with no sign of let-up. A jump in US imports in January underscored the front-loading ahead of the proposed levies. Meanwhile, consumer confidence, as measured by The Conference Board and University of Michigan, saw purchases pared back and inflation expectations priced up. Tariffs are inflationary, and our panel's CPI forecasts have jumped; the economy is not self-sufficient, nor is it primed to produce every commodity and component that it needs. Manufacturing entities or agriculture relying on crucial imported fertilizer or machinery will find their input costs have soared, for example. On the positive side, March's headline CPI surprised on the lower side, decelerating to 2.4% (y-o-y) and falling for the first time in five years by -0.1% (m-o-m), thanks to falling gasoline costs. Meanwhile, payrolls advanced by a stronger-than-expected 228,000 in March, accelerating from 117,000 in February, and underscoring unexpected resilience in the jobs market. Nevertheless, our panel has sharply downgraded its GDP outlook again this month (see chart below). Even with the April 9 pause, the tariff threat has not gone away, but merely been postponed. The question now is whether the sharp hit to sentiment over the past few weeks has done deeper damage to overall confidence in the US economy.

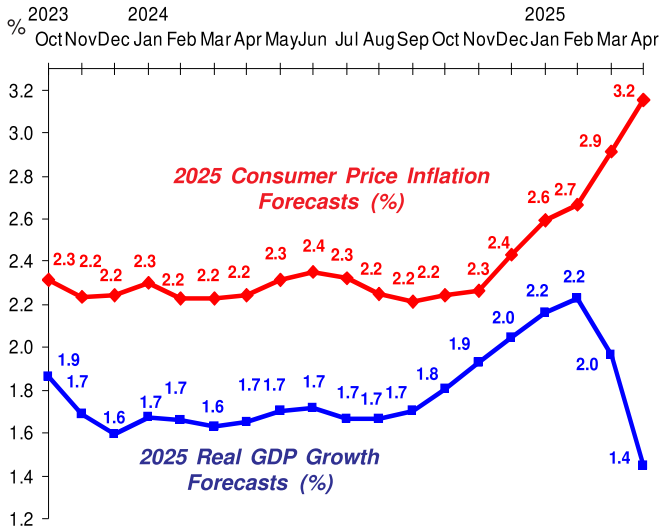
Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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JAPAN — APRIL 2025

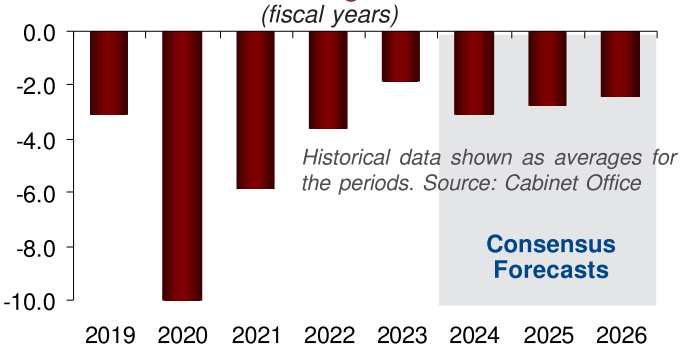
	Average % Change on Previous Calendar Year																Annual Total	
	Gross Domestic Product		Private Consumption		Business Investment		Industrial Production		Consumer Prices		Core-Core Consumer Prices (ex. all food (less alcohol) & energy)		Domestic Corporate Goods Prices		Total Cash Earnings (nominal)		Housing Starts (mn)	
	国内総生産		民間消費		民間設備投資		鉱工業生産		消費者物価		及びエネルギーを除く総合		卸売物価		現金給与総額（名目）		新設住宅着工（百万戸）	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Deutsche Securities	1.6	1.0	1.2	0.9	1.5	1.5	2.7	1.7	3.3	2.0	2.5	2.0	3.7	2.4	3.6	3.5	na	na
JP Morgan - Japan	1.5	0.9	1.3	1.0	1.3	0.6	0.3	0.7	3.0	2.4	2.0	2.6	3.7	2.6	na	na	na	na
ITOCHU Institute	1.5	1.0	1.3	1.4	1.5	1.1	2.4	1.6	3.0	1.6	2.4	2.0	2.8	1.6	2.6	2.8	0.77	0.78
Citigroup Japan	1.4	1.1	1.1	1.1	2.2	2.3	2.7	2.0	2.8	1.9	na	na	na	na	na	na	na	na
Japan Ctr for Econ Research	1.2	0.9	0.9	0.7	2.2	2.5	2.2	0.9	2.7	2.0	2.0	2.2	3.0	1.0	2.7	2.2	0.78	0.77
Euromonitor Intl	1.2	0.8	1.3	0.9	na	na	1.6	0.8	2.3	1.9	na	na	na	na	na	na	0.81	0.85
UBS	1.2	0.7	1.0	0.9	na	na	1.3	-1.0	3.0	1.6	na	na	na	na	na	na	na	na
Mizuho Research Institute	1.1	0.6	0.6	0.7	1.6	1.6	1.8	0.7	3.0	2.1	1.7	1.7	2.5	1.6	3.0	2.7	0.78	0.78
HSBC	1.1	0.8	0.8	0.8	na	na	1.5	1.0	2.9	1.9	2.5	2.0	2.8	1.8	2.8	2.6	na	na
Daiwa Institute of Research	1.0	0.8	1.2	1.0	1.2	1.2	2.2	1.7	3.3	2.0	1.7	1.9	3.0	1.2	na	na	na	na
Oxford Economics	1.0	0.6	0.9	0.7	-0.4	-0.1	3.0	1.9	2.7	1.8	na	na	na	na	3.4	3.8	0.77	0.77
MUFG Bank	1.0	0.6	1.0	0.8	1.5	1.1	2.1	0.9	na	na	na	na	na	na	na	na	na	na
Nomura Securities	1.0	0.6	0.8	0.8	1.1	1.1	0.5	1.6	3.0	1.4	1.6	1.7	2.6	0.2	2.7	2.4	na	na
Barclays	0.9	0.4	0.5	0.7	0.7	-0.2	1.9	0.5	2.8	1.9	na	na	na	na	na	na	na	na
Dai-Ichi Life Research	0.9	0.8	0.7	0.9	1.5	1.1	1.2	1.4	3.0	1.6	1.5	1.5	2.5	0.7	3.0	2.5	0.78	0.78
NLI Research Institute	0.9	1.0	0.9	1.3	2.4	2.1	0.7	0.9	2.9	1.7	1.7	1.5	2.7	0.8	3.1	2.9	0.78	0.78
Moody's Analytics	0.8	0.4	0.4	0.1	1.1	1.6	0.8	3.7	2.9	1.0	2.2	1.8	na	na	na	na	0.79	0.81
Capital Economics	0.8	0.5	1.7	0.6	3.0	1.2	na	na	na	na	na	na	na	na	na	na	na	na
Econ Intelligence Unit	0.7	0.8	0.7	1.0	na	na	2.3	1.8	2.5	1.7	na	na	2.5	1.6	na	na	na	na
S&P Global Mkt Intelligence	0.6	0.5	0.9	1.0	0.9	-0.2	1.8	0.4	3.0	2.1	1.9	1.9	3.4	2.7	na	na	0.79	0.79
Eaton Corporation	0.5	0.9	-0.4	-0.3	1.0	1.0	0.0	1.3	2.2	1.8	na	na	2.3	2.0	na	na	na	na
Consensus (Mean)	1.0	0.7	0.9	0.8	1.4	1.2	1.7	1.2	2.9	1.8	2.0	1.9	2.9	1.6	3.0	2.8	0.8	0.8
Last Month's Mean	1.2	0.9	1.1	0.8	1.4	1.4	2.1	1.5	2.8	1.8	1.9	1.9	2.8	1.6	2.9	2.7	0.8	0.8
3 Months Ago	1.2	0.9	1.2	0.8	1.8	1.5	2.5	1.5	2.3	1.8	2.0	1.9	2.4	1.6	3.1	2.8	0.8	0.8
High	1.6	1.1	1.7	1.4	3.0	2.5	3.0	3.7	3.3	2.4	2.5	2.6	3.7	2.7	3.6	3.8	0.8	0.9
Low	0.5	0.4	-0.4	-0.3	-0.4	-0.2	0.0	-1.0	2.2	1.0	1.5	1.5	2.3	0.2	2.6	2.2	0.8	0.8
Standard Deviation	0.3	0.2	0.4	0.4	0.8	0.8	0.9	0.9	0.3	0.3	0.3	0.3	0.5	0.8	0.3	0.5	0.0	0.0
Comparison Forecasts																		
IMF (Jan. '25)	1.1	0.8																
OECD (Mar. '25)	1.1	0.2							3.2	2.1								

Government and Background Data

Prime Minister - Mr. Shigeru Ishiba of the Liberal Democratic Party (LDP). **Parliament -** The LDP is a minority government in the Lower House of Parliament (the Diet). **Next Elections** House of Representatives (by 2029). **Nominal GDP -** ¥593.4tn (2023). **Population -** 124.4mn (UN, Mid 2023). **Yen/$ Exchange Rate -** 140.3 (average, 2023).

General Government Budget Balance – % of GDP

(fiscal years)



Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	2.7	0.9	1.5	0.1
Private Consumption*	0.7	2.1	0.8	0.0
Business Investment*	1.7	2.6	1.5	1.2
Industrial Production*	5.8	0.0	-1.4	-3.0
Consumer Prices*	-0.2	2.5	3.3	2.7
Core-Core Consumer Prices*	-0.8	0.1	2.6	1.9
Domestic Corp. Goods Prices*	4.6	9.8	4.3	2.3
Total Cash Earnings (nominal)*	0.3	2.0	1.2	2.9
Housing Starts, mn	0.86	0.86	0.82	0.79
Unemployment Rate, %	2.8	2.6	2.6	2.5
Trade Balance, ¥ tn	-1.8	-20.3	-9.3	-5.3
Current Account, ¥ tn	21.2	10.5	22.6	28.7
General Govt Budget Balance, SNA basis, fiscal years[1], ¥tn	-32.5	-20.1	-11.0	-18.9 *e*
3 mth TIBOR, % (end yr)	0.1	0.1	0.1	0.6
10 Yr Govt Bond, % (end yr)	0.1	0.4	0.6	1.1

e = consensus estimate based on latest survey

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APRIL 2025 JAPAN

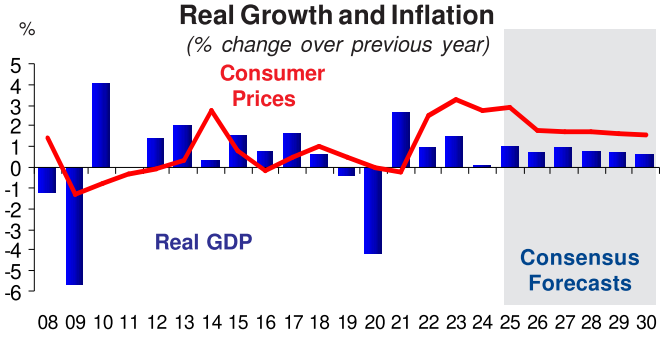
Year Average		Annual Total		Annual Total		Fiscal Years (Apr-Mar)		Rates on Survey Date 0.8 %		Rates on Survey Date 1.2 %	
Unemployment Rate (%)		Trade Balance (¥tn)		Current Account (¥tn)		General Government Budget Balance (¥tn)		3 month Yen TIBOR Rate (%)		10 Year Govt Bond Yield (%)	
失業率				経常収支		一般政府財政収支（SNA ベース、兆円）		3ヵ月物円建譲渡性預金		10年物国債利回り	
2025	2026	2025	2026	2025	2026	FY 25-26	FY 26-27	End Jul '25	End Apr '26	End Jul '25	End Apr '26
2.4	2.4	2.6	5.1	38.9	41.1	-8.5	-6.3	0.7	1.1	1.5	na
2.4	2.4	-5.8	-4.2	28.9	32.0	na	na	na	na	na	na
2.6	2.6	na	na	28.2	29.8	na	na	0.9	1.1	1.6	1.9
2.5	2.4	na	na	28.8	27.1	-14.6	-16.3	0.8	1.0	na	na
2.4	2.4	na	na	34.1	37.8	-13.8	-10.3	na	na	1.4	1.6
2.4	2.4	na	na	31.3	28.7	na	na	na	na	na	na
2.2	2.1	na	na	32.2	36.9	na	na	na	na	na	na
2.5	2.4	na	na	32.4	31.7	na	na	na	na	na	na
2.4	2.4	-1.7	-6.0	26.7	26.3	-21.0	na	na	na	1.3	1.4
2.4	2.3	na	na	32.6	31.1	na	na	na	na	1.7	1.8
2.4	2.4	na	na	31.2	29.6	-21.2	-21.0	0.7	1.0	1.5	1.7
na	na	-3.6	-4.9	32.1	31.3	na	na	0.9	0.9	1.5	1.6
2.5	2.4	na	na	29.3	28.6	na	na	na	na	na	na
2.5	2.6	na	na	na	na	na	na	na	na	na	na
2.4	2.4	na	na	29.0	28.0	na	na	na	na	1.3	1.6
2.5	2.4	-4.0	-5.7	29.7	29.0	-12.1	-10.1	0.8	1.3	1.4	1.6
2.5	2.4	na	na	30.1	28.4	-20.2	-16.1	na	na	1.3	1.5
2.6	2.6	na	na	26.6	31.3	na	na	na	na	na	na
2.7	2.6	na	na	na	na	-30.1	-29.2	na	na	na	na
2.5	2.4	na	na	22.4	16.8	na	na	0.8	1.0	1.4	1.6
na	na	na	na	na	na	na	na	na	na	na	na
2.5	2.4	-2.5	-3.1	30.3	30.3	-17.7	-15.6	0.8	1.0	1.4	1.6
2.4	2.4	-1.6	-1.1	31.2	30.8	-17.6	-15.3				
2.4	2.4	-8.5	-8.5	26.5	25.4	-18.4	-16.6				
2.7	2.6	2.6	5.1	38.9	41.1	-8.5	-6.3	0.9	1.3	1.7	1.9
2.2	2.1	-5.8	-6.0	22.4	16.8	-30.1	-29.2	0.7	0.9	1.3	1.4
0.1	0.1	3.2	4.7	3.5	5.1	6.8	7.8	0.1	0.1	0.1	0.1

Current Bank of Japan Overnight Call Rate: 0.50%

Av.probability of a change in the Overnight Call Rate on Apr. 30-May 1

Increase 9.8% No change 88.7% Decrease 1.5%

Consensus Forecasts Mean	End Jun '25	End Sep '25	End Dec '25	End Mar '26	End Jun '26	End Sep '26	End Dec '26	End Mar '27
Average:	0.52%	0.69%	0.73%	0.90%	0.94%	1.02%	1.02%	1.09%
Median:	0.50%	0.75%	0.75%	1.00%	1.00%	1.00%	1.00%	1.00%

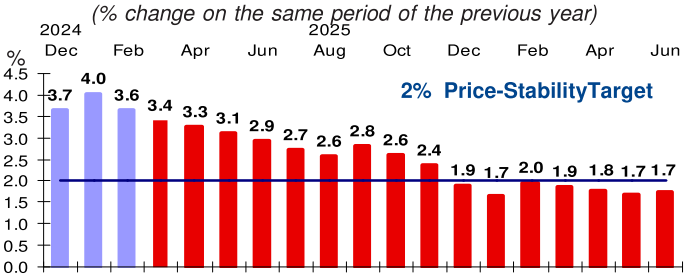


Government Reeling From US Tariff Broadside

On April 2, President Donald Trump announced 24% levies on Japanese products going into the US, although these were later rolled back on April 9 with a 90-day extension. Nevertheless, autos, a sector in which Japanese carmakers dominate, were hit with a separate 25% duty. The announcement shook policymakers. Prime Minister Shigeru Ishiba said that the government would continue to negotiate in order to try and bring down the levies, which is the off-ramp now being offered by the White House, but also indicated possible supplemental support to shore up affected industries should tariffs proceed. The trade crisis hit our panel's GDP growth forecasts. Japan's large manufacturing base is predicated on export demand (Japanese autos alone make up over 28% of total exports to the US) and therefore exposed to any possible global recession. Indeed, tariffs on neighbouring China were not removed and, indeed, were increased. Meanwhile, February industrial production jumped by an outsized 2.5% (m-o-m) following a -1.1% drop in January, spurred by machinery & semiconductor-making equipment, which soared 8.2% (m-o-m), while electronic parts surged 10.1% amid likely frontloading to the US ahead of tariffs. In y-o-y terms, production accelerated from 2.3% in January to 4.5%, but this could wane in the months ahead as a result of lingering uncertainty. Meanwhile, retail sales softened to +1.4% (y-o-y) in February after a +4.4% jump in January. Inflation accelerated to 4.0% (y-o-y) in January before ebbing to 3.6% in February, pushed up by import costs and food prices. The Bank of Japan wants to bring inflation down sustainably towards its 2% target while also encouraging meaningful wage hikes to mitigate sticky inflation and entrench growth. The policy rate, which stayed at 0.5% on March 18, is likely to remain until Q3 2025, with the recent tariff shock could keep BoJ policymakers on hold in May.

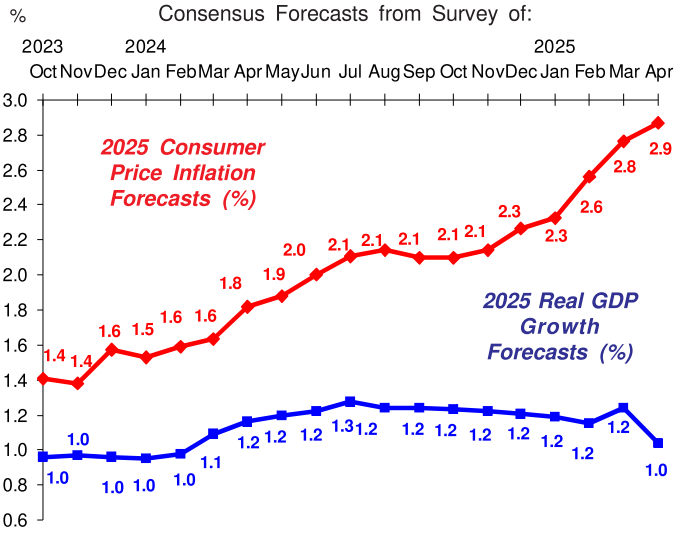
Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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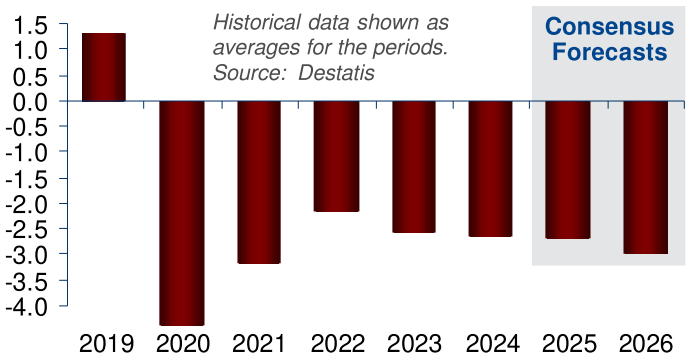
GERMANY — APRIL 2025

	Average % Change on Previous Calendar Year													
	Gross Domestic Product		Private Consumption		Machinery & Equipment Investment		Industrial Production		Consumer Prices		Producer Prices		Negotiated Wages and Salaries – Production Sector	
	Bruttoinlands-produkt		*Privater Verbrauch*		*Ausrüstungs-investitionen*		*Produktion im Produzierenden Gewerbe*		*Verbraucher-preisindex*		*Index für Erzeugerpreise*		*Tariflohn- und -gehaltsniveau*	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Morgan Stanley	0.8	1.3	0.8	0.9	na	na	na	na	2.3	1.8	na	na	na	na
DWS	0.4	1.6	0.7	1.2	-0.6	4.0	na	na	2.6	2.6	na	na	na	na
Capital Economics	0.3	1.2	0.6	1.1	na	na	na	na	2.4	2.0	na	na	na	na
Allianz	0.3	1.4	0.9	1.4	0.0	6.0	na	na	2.1	1.9	na	na	na	na
Econ Intelligence Unit	0.3	1.2	0.6	1.5	na	na	-0.6	0.7	2.3	2.3	2.0	1.5	na	na
Natixis	0.3	1.4	0.9	1.4	0.0	6.0	na	na	2.1	1.9	na	na	na	na
S&P Global Market Intel	0.3	1.5	1.2	1.5	-2.2	6.9	0.5	3.7	2.3	2.2	1.1	1.7	2.5	3.0
BayernLB	0.2	1.4	0.6	1.5	0.0	4.5	na	na	2.4	2.3	na	na	na	na
IFO - Munich Institute	0.2	0.8	0.4	0.7	-1.9	2.7	na	na	2.3	2.0	na	na	na	na
Swiss Life Asset Mgrs	0.2	1.1	na	na	na	na	na	na	2.1	2.1	na	na	na	na
IWH Halle Institute	0.1	1.3	0.2	0.7	-1.2	5.3	1.0	1.4	2.3	2.1	na	na	0.5	1.9
HSBC Trinkaus	0.1	1.6	0.4	0.9	-0.6	5.0	-1.1	1.9	2.3	2.4	1.0	1.5	na	na
UniCredit	0.1	1.3	0.9	1.1	-2.1	1.4	na	na	1.7	1.7	na	na	3.5	2.7
Citigroup	0.1	1.6	0.7	1.5	-1.4	4.5	-0.7	2.0	2.6	2.2	na	na	na	na
Oxford Economics	0.0	0.9	1.0	1.5	0.3	2.1	-1.8	1.4	2.1	1.8	-0.1	-2.6	2.6	2.4
DekaBank	0.0	1.3	0.7	1.3	-2.5	5.5	-2.0	0.8	2.3	2.0	na	na	2.9	2.7
Kiel Institute	0.0	1.5	0.3	0.7	-0.9	4.9	na	na	2.0	2.0	na	na	na	na
Commerzbank	0.0	1.5	0.8	1.8	-0.9	2.8	1.4	2.2	2.5	2.5	1.2	2.2	3.5	2.5
DIW - Berlin	0.0	1.1	0.4	1.2	-0.2	3.9	na	na	2.1	2.0	na	na	2.6	2.6
HWWI	0.0	1.5	0.8	1.4	-0.8	4.8	-0.5	1.8	2.1	2.0	1.4	2.1	3.5	3.0
DZ Bank	-0.1	1.2	0.2	0.3	-1.2	2.5	na	na	2.5	2.4	na	na	3.5	3.0
Bloomberg Economics	-0.1	0.9	0.6	0.8	-0.1	3.1	na	na	2.0	1.8	na	na	3.3	2.4
Bank Julius Baer	-0.1	1.5	0.8	1.6	-1.1	0.7	-2.2	1.2	1.9	1.6	na	na	2.0	2.1
Helaba Frankfurt	-0.1	1.8	1.0	1.5	-2.0	1.5	0.0	na	2.1	2.1	1.6	2.3	3.5	3.0
RWI Essen	-0.1	1.3	0.2	0.9	-0.6	5.1	na	na	2.0	2.0	na	na	na	na
Moody's Analytics	-0.1	0.9	0.6	1.0	na	na	-1.3	2.9	2.0	2.0	0.3	2.0	na	na
UBS	-0.3	1.0	0.9	1.0	na	na	-0.3	0.8	na	na	na	na	na	na
LB Baden-Württemberg	-0.3	1.5	0.4	1.2	-3.0	3.5	-1.5	1.5	2.1	2.3	1.5	1.5	3.0	2.5
Berliner Sparkasse	-0.4	0.5	0.5	0.9	-1.6	4.5	-1.9	0.2	2.1	2.2	1.0	2.8	3.0	2.7
Consensus (Mean)	0.1	1.3	0.6	1.2	-1.1	4.0	-0.7	1.6	2.2	2.1	1.1	1.5	2.8	2.6
Last Month's Mean	0.2	1.2	0.6	1.1	-1.1	3.5	-0.8	1.7	2.2	2.0	1.4	1.5	2.7	2.5
3 Months Ago	0.4	1.0	0.7	1.1	-0.7	2.6	-0.3	1.7	2.0	1.9	1.2	1.6	2.8	2.5
High	0.8	1.8	1.2	1.8	0.3	6.9	1.4	3.7	2.6	2.6	2.0	2.8	3.5	3.0
Low	-0.4	0.5	0.2	0.3	-3.0	0.7	-2.2	0.2	1.7	1.6	-0.1	-2.6	0.5	1.9
Standard Deviation	0.2	0.3	0.3	0.3	0.9	1.6	1.1	0.9	0.2	0.2	0.6	1.5	0.8	0.3
Comparison Forecasts														
Bundesbank (Dec. '24)	0.1	1.1	0.4	0.8									2.5	2.9
Government (Jan. '25)	0.3													
Joint Econ F'cast (Oct. '24)	0.8	1.3	0.9	1.0	0.5	5.0			2.0	2.0				
Eur Commission (Nov. '24)	0.7	1.3	0.7	1.0										

Government and Background Data

Incoming Chancellor - Friedrich Merz (Christian Democrats). **Parliament -** The February 23, 2025 election saw the CDU/CSU win 208 seats in the 630-seat Bundestag (lower house). A coalition government will most likley be formed with the SPD. **Next Elections -** on or before 25 March 2029. **Nominal GDP -** €4,122bn (2023). **Population -** 84.5mn (UN, Mid 2023). **$/Euro Exchange Rate -** 1.082 (average, 2023).

General Government Budget Balance – % of GDP



Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	3.7	1.4	-0.3	-0.2
Private Consumption*	2.3	5.6	-0.4	0.3
Machinery & Eqpt Investment*	3.5	4.5	-0.8	-5.5
Industrial Production*	3.6	-0.7	-1.8	-4.4
Consumer Prices*	3.1	6.9	5.9	2.3
Producer Prices*	9.6	29.8	0.2	-1.8
Negotiated Wages & Salaries*	1.4	2.0	5.3	4.1
Unemployment Rate, %	6.0	5.0	6.0	6.0
Current Account, Euro bn	255	175	243	249
Budget Balance, net lending/borrowing, (ESA10, Maastrict), Euro bn	-116	-84.9	-108	-113
3 mth Euro, % (end yr)	-0.6	2.1	3.9	2.7
10 Yr German Govt Bond, % (end yr)	-0.2	2.6	2.0	2.4

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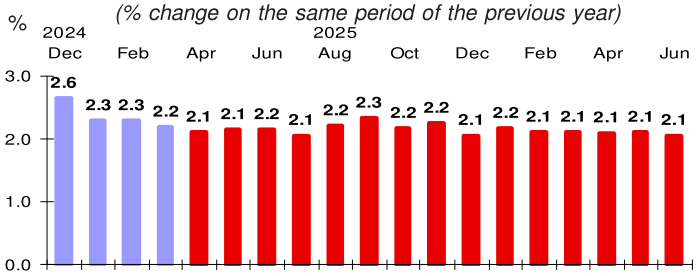
Year Average		Annual Total				Rates on Survey Date 2.4 %		2.6 %	
Unemployment Rate (%)		Current Account (Euro bn)		General Govt Budget Bal (Maastricht) (Euro bn)		3 month Euro Rate (%)		10 Year German Govt Bond Yield (%)	
Arbeitslosenquote, % der Erwerbspers. insgesamt		*Leistungsbilanz (€ bn)*		*Finanzierungssaldo des Staates (Maastricht) (€ bn)*		*3 Monate Euro (%)*		*Rendite von Bundesanleihen, 10 Jahre (%)*	
2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
na	na	303	324	-124.4	-136.7	na	na	na	na
na	na	na	na	na	na	na	na	na	na
na	na	212	208	-155.8	-184.6	na	na	na	na
na	na	na	na	na	na	2.0	2.1	2.9	3.1
na	na	233	240	-116.5	-93.3	na	na	na	na
na	na	na	na	na	na	2.0	2.1	2.9	3.1
na	na	296	303	-81.9	-83.6	2.2	2.1	2.5	2.5
6.4	6.2	240	230	-160.0	-230.0	2.2	2.2	2.9	3.1
6.2	6.0	188	166	-93.0	-107.8	2.2	2.0	2.5	2.5
6.2	6.1	na	na	na	na	na	na	na	na
6.1	6.0	200	200	-118.6	-143.8	2.5	2.0	2.5	2.2
6.3	6.2	254	268	-115.0	-135.0	na	na	na	na
6.0	5.8	220	250	-95.0	-135.0	na	na	na	na
6.5	6.8	208	196	-116.5	-122.7	na	na	2.6	2.6
6.2	5.7	210	228	-89.5	-64.1	2.1	1.6	2.9	2.8
6.3	6.3	280	268	-131.7	-188.5	2.1	2.1	2.6	2.6
na	na	191	175	-103.2	-154.5	na	na	na	na
6.4	6.5	170	170	-75.0	-71.0	2.0	2.0	2.8	3.4
6.2	6.1	193	187	-107.0	-101.7	2.3	2.3	2.7	2.7
6.3	6.0	230	235	-110.0	-90.0	2.2	2.1	2.4	2.5
6.5	6.5	na	na	-105.0	-154.0	2.2	2.0	2.6	3.0
na	na	na	na	na	na	na	na	na	na
6.2	5.7	na	na	na	na	2.1	2.0	2.5	2.7
6.4	6.1	190	210	-155.0	-155.0	2.0	2.0	2.7	2.8
6.2	6.2	182	182	na	na	2.3	2.3	2.6	2.5
6.6	6.5	187	181	-107.7	-124.2	na	na	na	na
na	na	165	145	na	na	na	na	na	na
6.2	6.0	230	220	-150.0	-170.0	2.0	2.0	2.8	3.0
6.3	6.3	196	193	-176.0	-202.0	na	na	na	na
6.3	6.2	217	217	-118.4	-135.6	2.1	2.0	2.7	2.8
6.2	6.1	234	236	-108.5	-116.0				
6.2	6.1	255	259	-81.2	-78.2				
6.6	6.8	303	324	-75.0	-64.1	2.5	2.3	2.9	3.4
6.0	5.7	165	145	-176.0	-230.0	2.0	1.6	2.4	2.2
0.1	0.3	38	45	27.4	44.1	0.1	0.1	0.2	0.3
6.3	6.0								
6.0	5.7	277	268	-82.5	-85.5				

Fiscal Package Boosts 2026 GDP Forecast

The German parliament approved a €500bn infrastructure fund, to be disbursed over the next 12 years, with €100bn directed into the Climate Transition Fund. Additionally, ramped-up defence spending will be exempt from the constitutional debt brake, and the allowance for structural deficits for individual states will increase from 0% of GDP to -0.35%. After an extended period of restrained spending, this about-face towards fiscal easing initially prompted 10-year government Bunds to jump to nearly 3%. However, the financial markets have received the news very positively. Already, the 2026 GDP consensus has been revised upwards from 1% in January to 1.3% this month, because the plans aim to stimulate long-term growth. Up until now, growth prospects have been weak: GDP in 2023 and 2024 declined by -0.3% and -0.2%, following acute foreign competition in Germany's major export industries. More recently, April 2 marked the announcement of US tariffs, particularly on cars, a crucial sector which has faced increased competition from China in the electric-vehicle space. In anticipation to these tariffs, Germany saw a frontloading of exports, which rose 1.8% (m-o-m) in February. But this boost will likely retreat in coming months. Meanwhile, industrial production reversed some of its 2% (m-o-m) gain in January by dropping -1.3% in February. However, March's manufacturing PMI jumped to 48.3 (its highest level in 31 months). Businesses have increased production for the first time in nearly two years as they front-load orders for US counterparts ahead of the tariff deadline. The PMI report noted that after the deadline, manufacturing orders would see a correction, especially as the US is a major trading partner. Exports are unlikely to contribute significantly to growth this year, and the government's spending package will have little immediate impact in 2025. GDP forecasts have seen another downgrade.

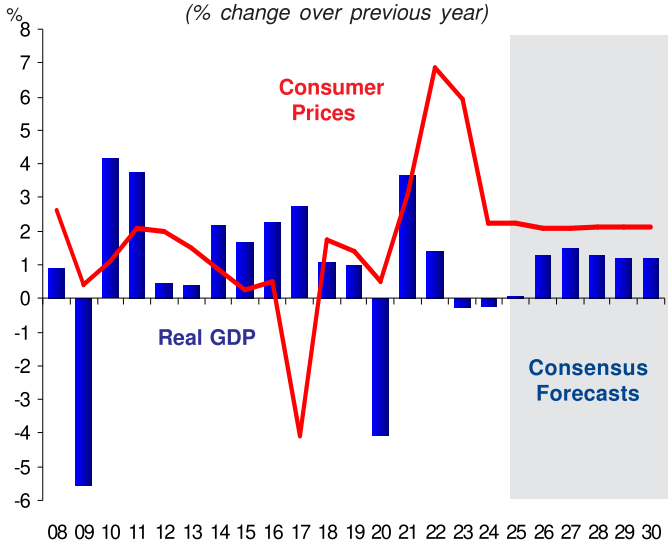
Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



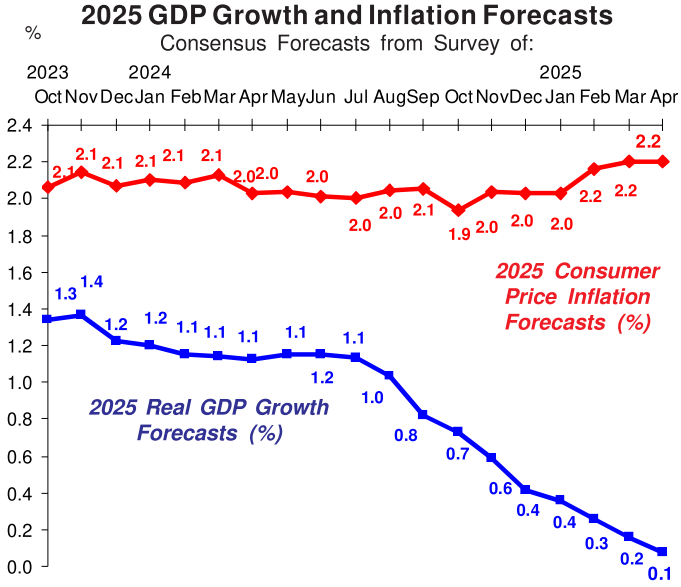
Real Growth and Inflation

(% change over previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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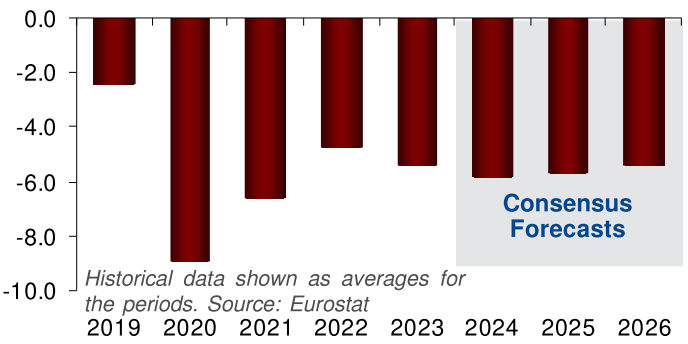
FRANCE — APRIL 2025

	Average % Change on Previous Calendar Year											
	Gross Domestic Product		Household Consumption		Business Investment		Manufacturing Production		Consumer Prices (INSEE)		Hourly Wage Rates	
	Produit Intérieur Brut		*Consommation des Ménages*		*Investissements des Entreprises*		*Production Manufacturière*		*Prix à la Consommation (INSEE)*		*Taux de Salaire Horaire*	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
BNP Paribas	0.8	1.2	0.8	1.0	-1.7	-0.8	-1.0	0.5	1.0	1.1	1.6	1.4
Econ Intelligence Unit	0.8	1.1	0.8	1.3	na	na	1.1	1.7	1.7	1.8	na	na
Citigroup	0.8	1.1	1.2	1.0	-0.4	0.4	1.5	1.0	1.3	2.4	na	na
Credit Agricole	0.8	1.4	1.0	1.1	-0.1	2.3	na	na	1.1	1.3	na	na
S&P Global Ratings	0.7	1.1	1.2	1.4	na	na	na	na	1.5	1.8	na	na
BIPE - BDO Advisory	0.7	1.2	1.0	1.2	-0.3	1.5	na	na	1.3	1.6	na	na
EthiFinance Ratings	0.7	1.1	1.0	1.2	-0.3	0.8	na	na	na	na	na	na
Fitch Ratings	0.6	0.9	1.0	1.0	na	na	na	na	1.3	1.7	na	na
UBS	0.6	1.0	1.1	1.2	0.8	2.6	-0.4	1.2	na	na	na	na
Allianz	0.6	1.3	1.1	1.3	0.1	2.2	-0.4	1.1	1.0	1.5	2.3	2.4
HSBC	0.6	1.1	1.0	1.1	-0.3	1.8	-1.5	0.6	1.2	1.5	2.0	1.7
OFCE	0.6	1.2	1.0	1.1	-1.0	0.7	na	na	1.3	1.8	2.2	2.8
Rexecode	0.6	1.0	1.0	1.4	-1.3	1.0	na	na	1.1	1.6	2.4	2.5
Swiss Life Asset Mgrs	0.6	1.2	1.4	1.2	-1.6	1.5	na	na	1.1	1.6	na	na
Oxford Economics	0.5	1.0	1.4	1.3	-1.0	-0.8	-1.2	1.7	1.5	1.9	2.1	2.7
S&P Global Market Intel	0.5	1.1	1.1	1.3	-0.8	1.0	-0.3	0.9	1.4	1.7	na	na
Capital Economics	0.5	0.8	0.8	0.9	na	na	na	na	1.4	1.6	na	na
Natixis	0.5	0.9	1.0	0.9	-0.9	0.5	na	na	1.6	1.6	na	na
PAIR Conseil	0.5	1.0	0.6	1.2	-1.0	0.5	na	na	1.0	1.7	2.1	2.1
Goldman Sachs	0.5	0.9	1.4	1.1	na	na	na	na	1.7	2.0	na	na
Bloomberg Economics	0.4	0.6	1.1	1.0	-0.1	1.2	na	na	0.9	1.5	na	na
Moody's Analytics	0.4	0.6	1.0	0.9	na	na	-1.0	0.4	1.3	1.6	na	na
GAMA - Paris-Nanterre Univ	0.2	0.6	0.8	0.7	-3.0	0.5	na	na	1.4	1.6	na	na
Oddo BHF	0.0	0.6	0.5	0.8	-2.5	0.8	-1.9	0.7	1.0	1.4	1.8	2.0
Consensus (Mean)	0.6	1.0	1.0	1.1	-0.9	1.0	-0.5	1.0	1.3	1.6	2.1	2.2
Last Month's Mean	0.7	1.0	1.0	1.1	-0.7	1.0	-0.2	1.1	1.4	1.6	2.1	2.1
3 Months Ago	0.7	1.1	0.9	1.2	-0.7	1.4	0.0	1.0	1.4	1.6	2.1	2.1
High	0.8	1.4	1.4	1.4	0.8	2.6	1.5	1.7	1.7	2.4	2.4	2.8
Low	0.0	0.6	0.5	0.7	-3.0	-0.8	-1.9	0.4	0.9	1.1	1.6	1.4
Standard Deviation	0.2	0.2	0.2	0.2	0.9	0.9	1.1	0.5	0.2	0.3	0.3	0.5
Comparison Forecasts												
Banque de France (Mar. 25)	0.7	1.2										
Government (Apr. '25)	0.7											
Eur Commission (Nov. '24)	0.8	1.4	0.7	1.2								
IMF (Jan. '25)	0.8	1.1										
OECD (Mar '25)	0.8	1.0										

Government and Background Data

President - Mr. Emmanuel Macron (*Ensemble*). **Prime Minister -** Mr. François Bayrou (*MoDem*). **Parliament -** *Nouvelle Front Populaire* currently has 180 seats in the National Assembly; *Ensemble* has 159 seats; *Rassemblement National* has 142 seats. No party has an outright majority. **Next Elections -** Presidential: 2027. **Nominal GDP -** €2,826bn (2023). **Population -** 66.4mn (UN, Mid 2023). **$/Euro Exchange Rate -** 1.082 (average, 2023).

General Government Budget Balance – % of GDP



Historical data shown as averages for the periods. Source: Eurostat

Historical Data

** % change on previous year*	2021	2022	2023	2024
Gross Domestic Product*	6.8	2.6	1.1	1.1
Household Consumption*	5.2	3.0	0.9	0.9
Business Investment*	10.0	3.0	3.1	-1.6
Manufacturing Production*	5.4	2.1	0.9	-0.6
Consumer Prices (INSEE)*	1.6	5.2	4.9	2.0
Hourly Wage Rates*	1.4	3.8	4.7	3.1
Unemployment Rate (ILO), %	7.7	7.1	7.1	7.2
Current Account, Euro bn	7.8	-30.5	-28.5	-8.5
General Govt. Budget Balance (Maastricht definition), **Euro bn**	-165	-126	-152	-170
3 mth Euro, % (end yr)	-0.6	2.1	3.9	2.7
10 Yr French Govt Bond, % (end yr)	0.2	3.1	2.6	3.2

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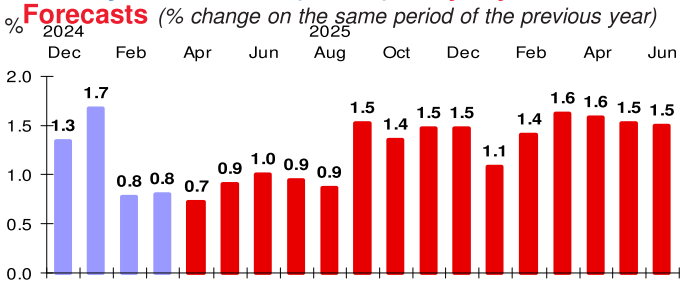
APRIL 2025 FRANCE

Year Average		Annual Total				Rates on Survey Date 2.4 %		3.4%	
Unemployment Rate, ILO (%)		Current Account (Euro bn)		General Govt Budget Balance (Maastricht) (Euro bn)		3 month Euro Rate (%)		10 Year French Govt Bond Yield (%)	
Taux de Chômage, BIT (%)		*Solde Courant (€ md)*		*Balance Budgétaire (Maastricht) (€ md)*		*Taux d'intéret 3 mois Euro (%)*		*Rendement des obligations d'Etat, 10 ans (%)*	
2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
7.6	7.7	-15.0	-15.0	na	na	na	na	na	na
7.6	7.6	-17.2	-17.9	-167.4	-161.0	na	na	na	na
7.6	7.6	-17.3	-20.7	na	na	na	na	3.4	3.6
7.5	7.6	na	na	-167.2	-155.8	na	na	na	na
7.6	7.8	na	na	na	na	na	na	na	na
7.8	7.8	na	na	na	na	2.2	2.0	3.1	3.3
na	na	na	na	na	na	na	na	na	na
7.7	7.6	5.5	-5.4	-165.1	-172.7	na	na	na	na
7.4	7.5	-1.7	-5.2	na	na	na	na	na	na
7.6	7.5	na	na	-165.0	-158.0	na	na	na	na
7.4	7.6	1.2	0.8	-167.9	-163.7	na	na	3.3	2.8
7.5	8.1	na	na	-166.0	-164.0	2.1	2.0	3.2	3.0
7.7	8.0	-4.7	-11.6	-164.0	-159.0	2.1	1.7	3.3	3.2
7.7	7.6	na	na	na	na	1.8	1.5	3.2	3.0
7.5	7.6	6.3	9.5	-176.3	-159.0	2.1	1.6	3.6	3.6
7.6	7.5	-26.1	-27.3	-184.9	-183.5	2.2	2.1	3.2	3.1
7.8	7.7	2.5	0.1	-161.8	-160.1	na	na	na	na
7.3	7.5	na	na	na	na	2.7	2.0	3.2	3.7
7.7	8.1	na	na	na	na	2.0	2.1	3.3	3.2
7.5	7.5	na	na	-170.9	-174.9	na	na	na	na
7.5	7.6	na	na	na	na	na	na	na	na
7.5	7.7	5.2	4.5	-166.2	-162.6	na	na	na	na
na	na	na	na	na	na	2.4	na	3.5	na
7.4	7.6	-12.5	-18.0	-172.1	-157.5	1.8	1.5	3.3	3.0
7.6	7.7	-6.1	-8.8	-168.8	-164.0	2.1	1.8	3.3	3.2
7.7	7.7	-14.9	-19.3	-172.5	-164.7				
7.6	7.7	-14.1	-17.7	-173.3	-162.3				
7.8	8.1	6.3	9.5	-161.8	-155.8	2.7	2.1	3.6	3.7
7.3	7.5	-26.1	-27.3	-184.9	-183.5	1.8	1.5	3.1	2.8
0.1	0.2	11.0	11.3	6.1	8.1	0.3	0.2	0.1	0.3
7.5	7.6								

2025 Budget Back in the Spotlight

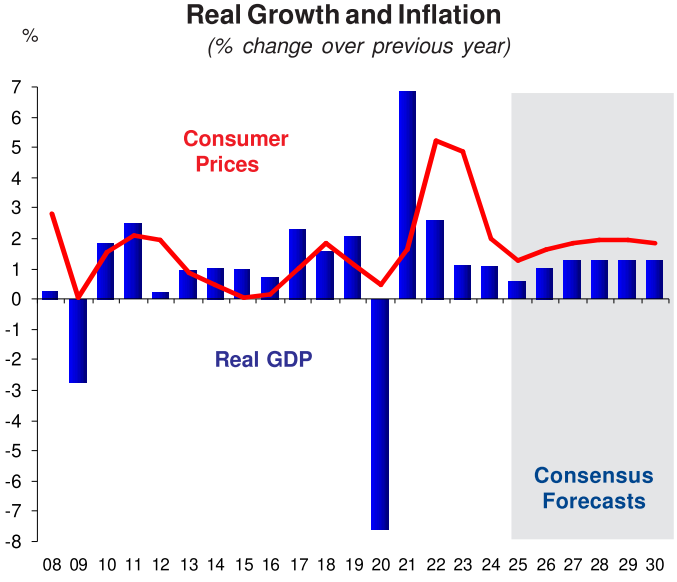
The 2024 budget deficit came out smaller than feared, widening by -5.8% of GDP compared to earlier estimates of -6%. This was largely due to higher-than-expected revenues at the end of the year, which provided a sliver of relief to the government which is desperately weighing up public spending cuts against tax hikes in an effort to bring the deficit down towards a -5.4% target for this year. The deficit still exceeds the -3%-of-GDP limit set by the European Commission. Moreover, the government originally forecasted growth of +0.9% in 2025 when finalizing the budget last year. However, according to the consensus, achieving nearly 1% growth looks increasingly unlikely in the current economic climate. The Banque de France revised its GDP forecast for 2025 downward, from +0.9% to +0.7%, citing unprecedented uncertainty related to the tariff war. Additionally, statistics office INSEE anticipates that economic activity will remain weak in H1 2025 at the very least. The government also lowered its growth forecast for 2025 to 0.7%, more or less in line with our panel's downgraded estimates, and complicating the budget deficit target. This reduction in growth forecast will need a corresponding decrease in government spending to maintain the projected deficit. Increased unemployment payments due to layoffs stemming from exacerbated economic weakness may further strain the budget. With US President Trump signalling US pull-back from European military commitment, EU member states will have to shoulder a greater share of defence spending, adding to budgetary challenges. Economy Minister Eric Lombard has indicated that if France increases defence spending by more than 3% of GDP, the government may need to impose higher taxes on wealthy earners, which could drive a wealth exodus and reduce overall tax revenues over the medium-term.

Monthly CPI Outturns (INSEE) and y-o-y Consensus Forecasts *(% change on the same period of the previous year)*



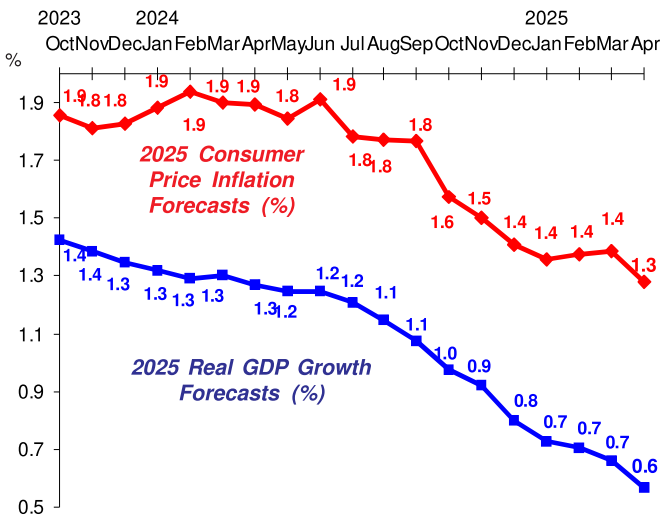
Real Growth and Inflation

(% change over previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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UNITED KINGDOM

APRIL 2025

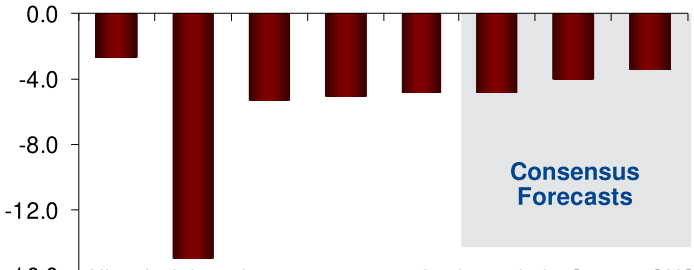
	Average % Change on Previous Calendar Year																	
	Gross Domestic Product		Household Consump-tion		Gross Fixed Investment		Company Trading Profits		Manufactur-ing Produc-tion		Retail Prices (RPI-X, underly-ing rate)		Consumer Prices Index		Output Prices		Average Weekly Earnings	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Confed of British Industry	1.6	1.5	1.7	1.4	na	na	na	na	na	na	na	na	na	na	na	na	3.4	2.6
Fitch Ratings	1.1	1.6	0.9	1.4	0.7	2.3	na	na	na	na	na	na	3.2	2.7	na	na	na	na
Oxford Economics	1.0	1.5	1.2	1.4	0.1	3.1	0.7	6.9	-0.7	1.0	3.9	3.6	3.2	2.6	0.5	1.0	5.1	3.0
HSBC	0.9	1.5	0.8	1.1	1.0	3.7	na	na	1.5	1.4	na	na	3.2	2.5	na	na	4.9	3.7
JP Morgan	0.9	1.0	0.8	0.7	na	na	na	na	na	na	na	na	3.1	2.5	na	na	na	na
Swiss Life Asset Mgrs	0.9	1.1	na	na	na	na	na	na	na	na	na	na	2.8	2.2	na	na	na	na
Heteronomics	0.9	1.2	1.4	1.5	0.6	0.2	na	na	na	na	4.2	4.3	3.6	3.2	1.1	1.2	3.8	2.5
Econ Intelligence Unit	0.8	1.4	1.3	1.5	1.2	1.8	na	na	na	na	na	na	2.9	2.3	na	na	na	na
KPMG	0.8	0.8	1.3	1.1	1.5	1.2	na	na	na	na	na	na	3.1	2.3	na	na	na	na
Liverpool Macro Research	0.8	1.0	0.8	0.9	na	na	na	na	na	na	3.0	3.0	2.1	2.0	na	na	3.7	3.2
Societe Generale CIB	0.8	1.3	0.8	1.5	0.2	1.2	na	na	na	na	na	na	3.1	2.1	na	na	4.7	3.3
S&P Global Ratings	0.8	1.6	1.0	1.4	1.0	3.0	na	na	na	na	na	na	3.3	2.5	na	na	na	na
Capital Economics	0.8	1.2	1.4	1.9	1.2	3.4	na	na	na	na	3.9	3.3	3.1	2.3	na	na	5.0	4.0
Goldman Sachs	0.7	1.1	1.1	1.1	0.0	1.9	na	na	na	na	na	na	3.3	2.2	na	na	na	na
Experian	0.7	1.0	0.7	1.0	0.4	1.3	na	na	na	na	3.7	3.4	3.2	2.4	na	na	4.7	3.0
Moody's Analytics	0.7	0.8	na	na	-3.1	-3.0	na	na	-1.7	-0.1	3.3	2.6	3.0	2.2	0.9	1.8	4.6	2.4
UBS	0.7	1.0	1.1	1.7	1.0	1.3	na	na	na	na	na	na	3.0	2.1	na	na	3.9	2.4
NatWest Markets	0.6	0.7	0.7	0.6	-0.8	-1.1	na	na	-0.7	0.2	3.9	2.8	3.1	1.9	1.1	1.8	4.7	2.9
Citigroup	0.6	1.0	0.7	0.6	1.2	4.7	-10.0	2.3	1.3	1.9	4.2	3.1	3.3	1.9	na	na	4.7	1.5
S&P Global Mkt Intelligence	0.6	1.0	0.8	1.1	-1.0	1.4	na	na	na	na	na	na	3.0	2.2	na	na	na	na
Barclays	0.5	1.3	0.5	0.9	0.0	1.2	na	na	na	na	na	na	3.1	1.9	na	na	na	na
Beacon Econ Forecasting	0.1	0.9	1.2	1.1	-1.1	-0.8	na	na	-0.4	0.8	3.8	3.7	3.2	3.1	1.9	1.7	4.8	4.2
Economic Perspectives	-0.9	-0.5	-0.5	-0.7	-0.4	-1.0	-9.0	-5.0	-1.4	0.4	4.3	3.8	3.6	3.2	1.8	2.5	5.0	4.8
Consensus (Mean)	0.7	1.1	0.9	1.1	0.2	1.4	-6.1	1.4	-0.3	0.8	3.8	3.4	3.1	2.4	1.2	1.7	4.5	3.1
Last Month's Mean	0.9	1.2	1.0	1.2	0.5	1.9	-3.0	1.5	-0.1	1.0	3.9	3.5	3.1	2.4	1.1	1.8	4.5	3.2
3 Months Ago	1.2	1.4	1.3	1.3	1.4	2.2	-0.8	0.9	0.2	1.2	3.7	3.3	2.6	2.3	1.2	1.8	4.1	3.1
High	1.6	1.6	1.7	1.9	1.5	4.7	0.7	6.9	1.5	1.9	4.3	4.3	3.6	3.2	1.9	2.5	5.1	4.8
Low	-0.9	-0.5	-0.5	-0.7	-3.1	-3.0	-10.0	-5.0	-1.7	-0.1	3.0	2.6	2.1	1.9	0.5	1.0	3.4	1.5
Standard Deviation	0.4	0.4	0.5	0.5	1.1	1.9	5.9	6.0	1.2	0.7	0.4	0.5	0.3	0.4	0.5	0.5	0.6	0.9
Comparison Forecasts																		
OBR - Treasury (Mar. '25)	1.0	1.9	1.2	1.5	0.0	2.4							3.2	2.1			4.3	2.3
Bank of England (Feb. '25)	0.8	1.5	1.5	1.8									3.5	2.5				
IMF (Jan. '25)	1.6	1.5																
OECD (Mar '25)	1.4	1.2											2.7	2.3				

Government and Background Data

Prime Minister - Sir Keir Starmer (Labour Party). **Parliament -** The Labour party won 412 seats in the 650-seat House of Commons (lower house) on July 4, 2024. **Next Election -** No later than July 2029 (general election). **Nominal GDP -** £2,690bn (2023). **Population -** 69.2mn (UN, Mid 2023). **$/£ Exchange Rate -** 1.243 (average, 2023).

Public Sector Net Borrowing – % of GDP

(fiscal years)



Historical data shown as averages for the periods. Source: ONS

Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	8.6	4.8	0.4	1.1
Household Consumption*	7.0	7.3	0.5	0.6
Gross Fixed Investment*	7.6	5.1	0.3	1.5
Company Trading Profits*	4.2	4.9	9.8	1.8
Manufacturing Production*	3.8	-7.4	1.0	-0.7
Retail Prices (RPI-X, underlying rate)*	4.6	11.6	8.3	2.5
Consumer Price Index*	2.6	9.1	7.3	2.5
Output Prices*	5.2	16.0	3.2	0.4
Average Weekly Earnings*	5.9	6.0	7.0	5.2
Unemployment Rate (LFS), %	4.6	3.8	4.1	4.3
Current Account, £ bn	-10.0	-53.1	-95.1	-75.7
Public Sector Net Borrowing (excl. financial interventions)				
fiscal years, £ bn	122.1	127.4	131.1	137.1 *e*
3 mth Interbank, % (end yr)	0.3	3.8	5.2	4.7
10 Yr Gilt Yield, % (end yr)	1.0	3.7	3.5	4.6

e = consensus estimate based on latest survey

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APRIL 2025 UNITED KINGDOM

Year Average		Annual Total		Fiscal Years (Apr-Mar)		Rates on Survey Date 4.4 %			4.6%
Unemployment Rate (%) (Labour Force Survey)		Current Account (£ bn)		Public Sector Net Borrowing (£ bn)		3 month SONIA Rate (%)		10 Year Gilt Yield (%)	
2025	2026	2025	2026	FY 25-26	FY 26-27	End Jul '25	End Apr '26	End Jul '25	End Apr '26
4.4	4.3	na	na	111.8	91.0	na	na	na	na
4.5	4.3	na	na	na	na	na	na	na	na
4.5	4.5	-85.5	-89.4	109.1	95.1	4.3	3.5	4.7	4.5
4.8	4.7	na	na	na	na	na	na	na	na
4.4	4.4	na	na	na	na	na	na	na	na
4.5	4.6	na	na	na	na	na	na	na	na
4.5	4.7	na	na	na	na	4.2	4.4	na	na
4.4	4.3	-81.6	-96.4	na	na	na	na	na	na
4.5	4.7	-101.8	-115.0	117.8	108.1	4.2	3.7	3.7	3.7
na	na	-40.6	-30.1	99.9	80.3	4.0	3.5	na	na
4.9	5.1	-79.9	-82.5	134.6	119.9	na	na	na	na
4.6	4.7	na	na	na	na	na	na	na	na
4.8	4.9	-80.3	-89.5	116.6	92.8	4.2	3.5	4.4	4.1
4.6	4.6	na	na	na	na	na	na	na	na
4.6	4.7	-82.0	-84.0	108.0	96.0	na	na	na	na
4.5	4.6	-64.2	-44.2	na	na	na	na	na	na
4.5	4.2	-99.9	-83.8	na	na	na	na	na	na
4.8	5.4	-79.0	-76.0	132.0	115.0	4.0	3.8	4.6	4.4
5.1	5.8	-24.2	-18.1	105.6	88.5	4.3	2.8	na	na
5.6	6.6	-82.2	-64.2	na	na	4.6	3.6	4.7	4.4
4.6	4.8	-47.2	-37.1	109.3	91.7	na	na	na	na
4.7	5.1	-78.9	-52.3	146.3	146.8	4.0	4.0	4.4	4.2
5.0	5.7	-75.0	-70.0	115.0	110.0	4.3	3.8	4.5	4.8
4.7	4.9	-73.5	-68.8	117.2	102.9	4.2	3.6	4.4	4.3
4.6	4.8	-68.5	-64.0	115.8	101.3				
4.5	4.5	-83.8	-85.9	108.2	93.9				
5.6	6.6	-24.2	-18.1	146.3	146.8	4.6	4.4	4.7	4.8
4.4	4.2	-101.8	-115.0	99.9	80.3	4.0	2.8	3.7	3.7
0.3	0.6	21.2	27.3	13.6	18.2	0.2	0.4	0.3	0.4
4.5	4.3			117.7	97.2				
4.5	4.8								

Current Bank of England Bank Rate: 4.50%

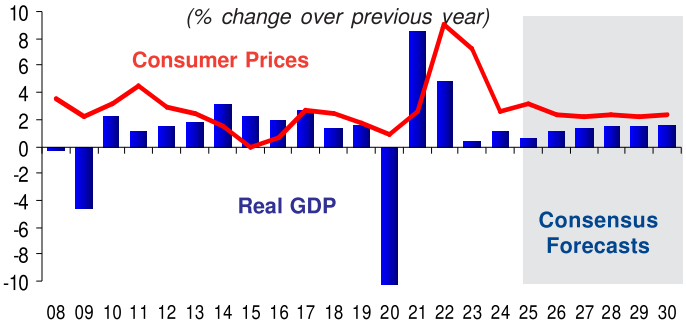
Average probability of a change in the Bank Rate on May 8:

Increase 0.0% **No change** 33.3% **Decrease** 66.7%

Consensus Forecasts	End Jun '25	End Sep '25	End Dec '25	End Mar '26	End Jun '26	End Sep '26	End Dec '26	End Mar '27
Mean Average:	4.25%	4.02%	3.86%	3.70%	3.55%	3.49%	3.41%	3.25%
Median:	4.25%	4.00%	3.75%	3.50%	3.50%	3.50%	3.38%	3.00%

UK Real Growth and Inflation

(% change over previous year)

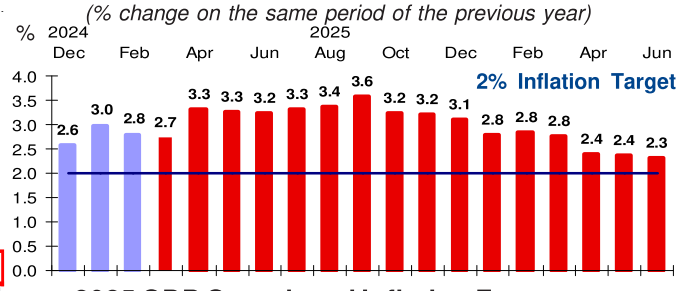


Stagflation Scenario Deepens

The outlook is characterized by sluggish growth and rampant inflationary pressures. In the 2025 Spring Statement, Chancellor Rachel Reeves stressed that the Office for Budget Responsibility (OBR) expects real GDP growth to be 1% in 2025, half of October's 2% forecast. Public spending has been cut due to financing pressures and high borrowing costs, eradicating all the fiscal buffer under the main fiscal rule and compromising government efforts to boost growth. There could even be tax increases to come later in the year. Already, the UK has seen its tax burden rise to its highest level in decades. April 2025 is likely to be an especially painful month, following increases in energy and utility rates, payroll and council taxes and the US tariff threat earlier in the month. The negative outlook for GDP growth is further exacerbated by low productivity. March's manufacturing PMI declined at its most rapid rate in 19 months, reaching a low of 44.9, down from 46.9 in February. Manufacturers are implementing cost-cutting in payrolls and investment. The OBR expects the unemployment rate to peak in 2025 at 4.5%. Meanwhile, the headline CPI rose by 2.8% (y-o-y) in February, down from 3% (y-o-y) in January. However, the OBR forecasted inflation at 3.2% in 2025 as a whole, up from 2.6% in their October forecast. As mentioned, the energy price cap is being raised, while hikes in National Insurance contributions, other taxes, and the minimum wage will also have ramifications on growth and inflation. Our panel is pricing in monthly inflation peaks of 3.3% or above over the course of this year, complicating the Bank of England's task as it will only be able to cut the policy rate gradually in the face of increased stagflation (see our GDP and CPI forecast chart below), exacerbated by worldwide upheaval regarding the threat of US tariffs.

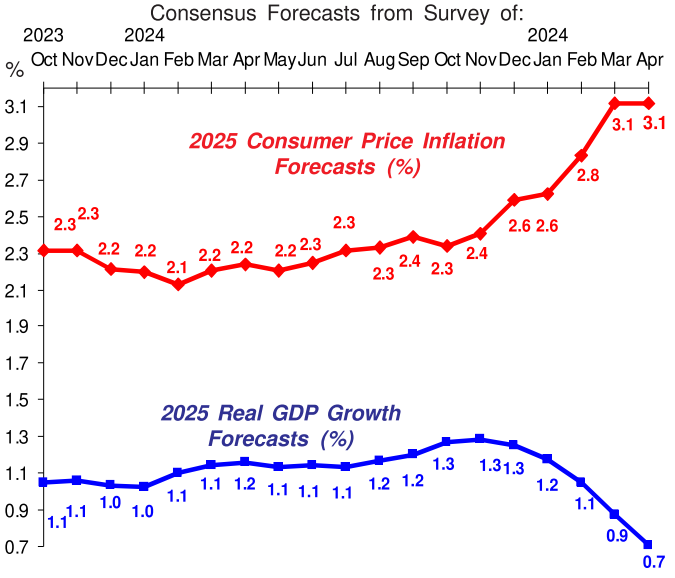
Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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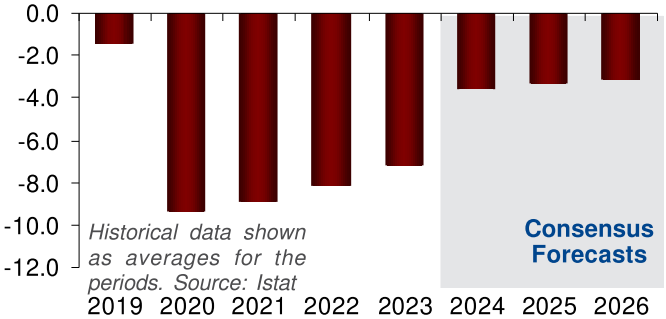
ITALY — APRIL 2025

	Average % Change on Previous Calendar Year													
	Gross Domestic Product		Household Consumption		Gross Fixed Investment		Industrial Production		Consumer Prices (CPI)		Producer Prices		Contractual Hourly Earnings	
	Prodotto Interno Lordo		*Consumi delle Famiglie*		*Investimenti Fissi Lordi*		*Produzione Industriale*		*Prezzi al Consumo (NIC)*		*Prezzi alla Produzione*		*Retribuzione Oraria Contrattuali*	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Societe Generale CIB	0.9	0.9	0.9	0.7	0.5	1.2	na	na	1.9	1.3	na	na	na	na
Intesa Sanpaolo	0.7	1.0	1.1	1.0	0.1	1.7	0.3	1.3	2.0	1.5	2.4	0.4	3.3	2.7
Bloomberg Economics	0.6	0.6	1.3	1.5	1.5	2.3	na	na	1.8	1.3	na	na	3.2	3.0
Centro Europa Ricerche	0.6	1.0	0.8	0.9	0.1	0.6	na	na	1.8	2.1	na	na	na	na
Econ Intelligence Unit	0.6	0.7	0.9	1.0	0.3	0.7	0.5	1.3	1.7	1.8	1.3	1.8	na	na
HSBC	0.6	1.1	1.0	0.9	1.3	2.6	-0.9	1.0	1.7	1.6	na	na	3.2	2.6
S&P Global Ratings	0.6	1.0	1.0	1.2	1.0	1.7	na	na	1.7	1.7	na	na	na	na
Prometeia	0.6	0.7	0.7	0.8	0.3	-0.8	0.0	1.3	1.7	1.8	na	na	na	na
Confindustria	0.6	1.0	0.8	1.0	-0.8	0.9	0.3	2.4	1.8	2.0	na	na	na	na
S&P Global Market Intel	0.5	0.9	0.7	0.8	0.6	2.1	-0.3	1.4	1.9	1.8	1.3	2.2	na	na
LC Macro Advisors	0.5	0.6	0.5	0.5	1.4	2.4	0.2	1.4	2.1	1.5	5.5	2.3	3.7	2.6
Citigroup	0.5	1.3	0.8	0.6	1.3	4.8	na	na	1.9	1.5	na	na	na	na
Deutsche Bank	0.5	0.8	0.8	0.7	-0.9	1.7	na	na	1.5	1.7	na	na	na	na
Fitch Ratings	0.5	0.8	0.9	1.1	0.9	1.2	na	na	1.7	1.8	na	na	na	na
Capital Economics	0.5	0.7	0.9	0.8	na	na	na	na	2.0	1.3	na	na	na	na
Oxford Economics	0.4	0.7	1.1	0.7	-2.0	-1.2	0.1	2.1	2.1	1.8	2.7	-0.4	na	na
EY	0.4	0.7	0.9	1.2	-0.4	-1.8	na	na	2.1	1.9	na	na	na	na
Allianz	0.4	0.8	na	na	na	na	na	na	1.8	1.9	na	na	na	na
REF Ricerche	0.4	0.5	0.8	1.0	-1.4	-1.0	na	na	2.1	1.8	na	na	3.0	2.7
UBS	0.4	0.5	0.8	0.6	1.1	1.9	na	na	na	na	na	na	2.1	2.0
Moody's Analytics	0.4	0.1	na	na	0.2	0.8	-0.4	0.5	1.9	2.1	0.6	-0.5	na	na
Goldman Sachs	0.3	0.9	1.3	1.1	-2.6	0.5	na	na	2.0	2.0	na	na	na	na
Natixis	0.3	0.9	1.3	1.2	-3.1	-1.2	na	na	2.1	1.7	na	na	na	na
Barclays	0.0	0.6	0.7	0.9	na	na	na	na	na	na	na	na	na	na
Consensus (Mean)	0.5	0.8	0.9	0.9	0.0	1.0	0.0	1.4	1.9	1.7	2.3	1.0	3.1	2.6
Last Month's Mean	0.6	0.9	1.1	0.9	-0.1	1.3	-0.5	1.3	1.8	1.7	2.5	1.5	3.1	2.6
3 Months Ago	0.7	0.9	1.2	0.9	0.3	1.3	0.3	1.3	1.7	1.7	1.5	1.1	3.0	2.5
High	0.9	1.3	1.3	1.5	1.5	4.8	0.5	2.4	2.1	2.1	5.5	2.3	3.7	3.0
Low	0.0	0.1	0.5	0.5	-3.1	-1.8	-0.9	0.5	1.5	1.3	0.6	-0.5	2.1	2.0
Standard Deviation	0.2	0.2	0.2	0.2	1.3	1.6	0.4	0.6	0.2	0.2	1.8	1.3	0.5	0.3
Comparison Forecasts														
Banca d'Italia (Dec. '24)	0.8	1.1	1.0	0.9	-0.5	1.2								
Government (Apr. '25)	0.6	0.8												
Eur Commission (Nov. '24)	1.0	1.2	1.0	1.2	0.2	2.0								
IMF (Jan. '25)	0.7	0.9												
OECD (Mar '25)	0.7	0.9												
UPB (Feb. '25)	0.8	0.9	1.0	1.0	0.3	0.9								

Government and Background Data

Prime Minister - Ms. Giorgia Meloni (Brothers of Italy). **Parliament -** Meloni won the largest percentage of votes at the election on September 25, 2022 and formed a centre-right coalition to gain an absolute majority of seats. **Next Election -** No later than 22 December 2027 (parliamentary). **Nominal GDP -** €2,085bn (2023). **Population -** 59.5mn (UN, Mid 2023). **$/Euro Exchange Rate -** 1.082 (average, 2023).

General Government Budget Balance – % of GDP



Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	8.9	4.8	0.7	0.7
Household Consumption*	5.9	6.2	0.4	0.5
Gross Fixed Investment*	21.5	7.4	9.0	0.5
Industrial Production*	12.3	0.3	-2.1	-3.9
Consumer Prices (CPI)*	1.9	8.1	5.7	1.0
Producer Prices*	10.7	34.4	-5.6	-4.2
Contractual Hourly Earnings*	0.7	1.1	3.0	2.8
Unemployment Rate, %	9.4	8.1	7.7	6.5
Current Account, Euro bn	38.7	-34.9	-0.3	30.0
Budget Balance, net lending/borrowing, (Maastricht definition), Euro bn	-163	-162	-153	-77.8 *e*
3 mth Euro, % (end yr)	-0.6	2.1	3.9	2.7
10 Yr Italian Govt Bond, % (end yr)	1.2	4.7	3.7	3.5

e = consensus estimate based on latest survey

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Year Average		Annual Total				Rates on Survey Date 2.4 %		3.9 %	
Unemployment Rate (%)		Current Account (Euro bn)		General Govt Budget Bal (Maastricht) (Euro bn)		3 month Euro Rate (%)		10 Year Italian Govt Bond Yield (%)	
Tasso di Disoccupazione (%)		*Partite Correnti (€ mld)*		*Indebitamento netto (Maastricht) (€ mld)*		*Interessi Euro Trimestrali (%)*		*Buoni del Tesoro Decennali (%)*	
2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
6.0	5.5	30.9	41.5	-74.5	-76.5	na	na	na	na
6.1	6.6	25.5	42.4	-68.0	-66.8	2.1	2.0	3.7	4.3
6.3	6.4	na	na	na	na	na	na	na	na
6.0	5.9	13.5	15.0	-68.1	-65.9	2.2	2.1	3.7	3.6
6.6	6.6	31.2	33.4	-80.5	-73.6	na	na	na	na
6.1	6.2	15.4	12.7	-72.8	-70.8	na	na	na	na
6.5	6.6	na	na	na	na	na	na	na	na
6.4	6.3	42.7	49.6	-74.1	-64.6	2.0	2.0	4.0	4.2
6.3	5.8	23.1	25.5	-73.0	-64.6	na	na	na	na
7.0	7.3	30.4	28.7	-80.0	-73.1	2.2	2.1	4.0	4.3
6.2	6.5	38.5	42.6	-73.0	-62.4	1.9	1.9	3.6	3.2
6.2	5.9	15.2	19.2	-74.4	-75.2	na	na	3.6	3.6
6.4	6.2	na	na	na	na	na	na	na	na
6.2	6.1	26.9	37.6	-72.2	-63.8	na	na	na	na
6.3	6.3	26.9	32.2	-81.6	-81.5	na	na	na	na
6.3	7.0	32.7	46.3	-72.0	-68.4	2.1	1.6	4.0	4.1
6.4	7.1	na	na	-66.1	-68.0	na	na	na	na
na	na	na	na	na	na	na	na	na	na
6.1	5.8	36.8	27.7	-76.0	-73.5	2.2	2.0	3.3	3.1
6.4	6.3	33.7	37.0	na	na	na	na	na	na
6.1	6.2	33.9	29.7	-79.2	-93.3	na	na	na	na
6.1	6.0	na	na	-68.4	-67.8	na	na	na	na
6.0	6.1	na	na	na	na	na	na	na	na
6.4	6.8	na	na	na	na	na	na	na	na
6.3	6.3	28.6	32.6	-73.8	-71.2	2.1	2.0	3.7	3.8
6.3	6.3	28.7	32.4	-75.7	-67.9				
6.3	6.3	28.2	33.4	-79.4	-70.9				
7.0	7.3	42.7	49.6	-66.1	-62.4	2.2	2.1	4.0	4.3
6.0	5.5	13.5	12.7	-81.6	-93.3	1.9	1.6	3.3	3.1
0.2	0.4	8.5	10.9	4.6	7.7	0.1	0.2	0.2	0.5
6.1	6.1								
6.3	6.2								
5.9	5.8								

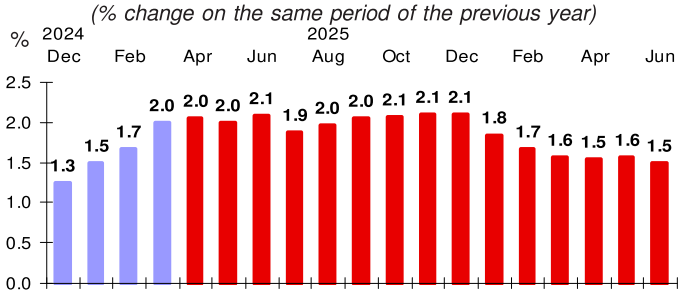
Manufacturing Sector Declines

Declining industrial activity and exports have been weighing on growth; recent hard and soft data are painting a mixed picture of industry. On the one hand, the anecdotal manufacturing PMI reached 46.6 in March, from 47.4 in February, on the back of falling output and new orders. On a better note, the monthly industrial production indices, both adjusted for working days and seasonally adjusted, were higher in January on a m-o-m basis than in December. Nevertheless, it does not appear that Italian industry benefited enormously from front loading ahead of April's US tariffs deadline. The economy continues to be buoyed by the services sector, but that is showing signs of slowing. Lower exports with non-EU trading partners, such as China and the US, are a concern. In January 2025, exports rose by +1.8% (m-o-m) for EU countries, but fell -0.6% for non-EU countries. Imports increased at a faster rate than exports, with a 3.2% (m-o-m) rise in January. Expectations for global trade are further aggravated by the escalation in the tariff war, and have reduced our panel's forecast for GDP growth this year, not to mention dragged the industrial outlook further into recession.

In February 2025, the unemployment rate fell to 5.9% and the inactivity rate rose to 32.9%, the latter posing a concern. The problem of inactivity is exacerbated by demographic decline. Babies born in Italy dropped by -2.6% last year, while those Italians immigrating abroad reached 191,000. However, the number of new Italians receiving citizenship rose 217,000 in 2024. In the past two decades, the country has experienced a 'brain-drain' phenomenon among youth especially, reflecting the uphill battle that Prime Minister Giorgia Meloni faces in reversing demographic decline. She has implemented incentives to increase migration, as well as foreign investment into the country.

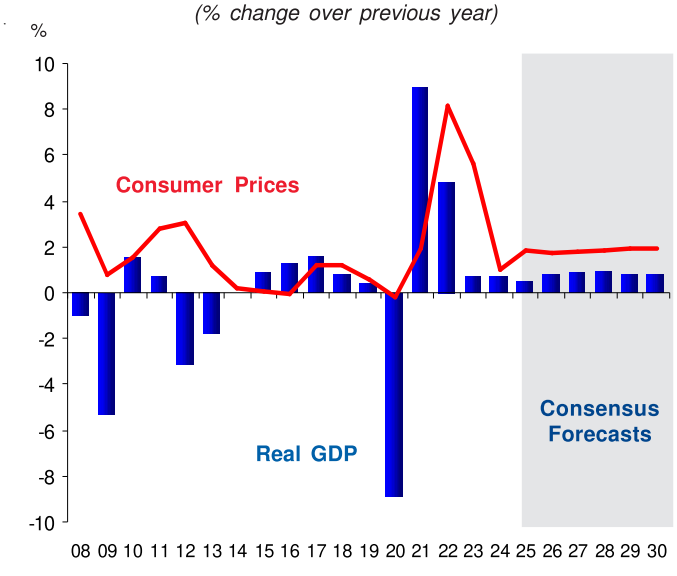
Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



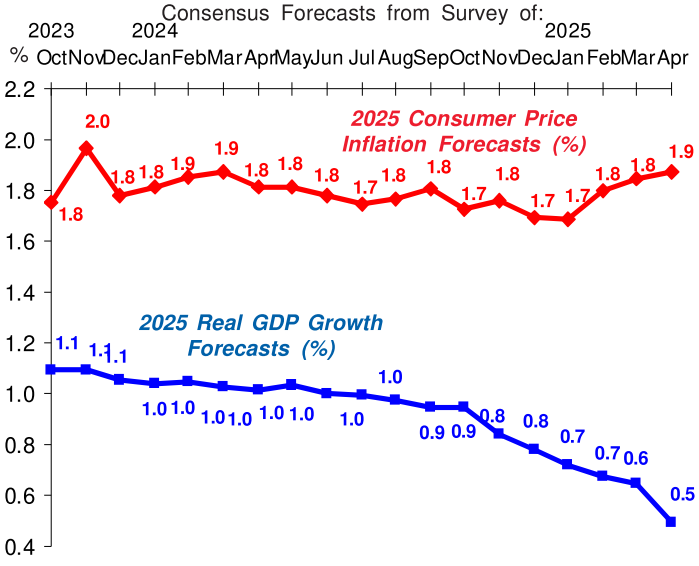
Real Growth and Inflation

(% change over previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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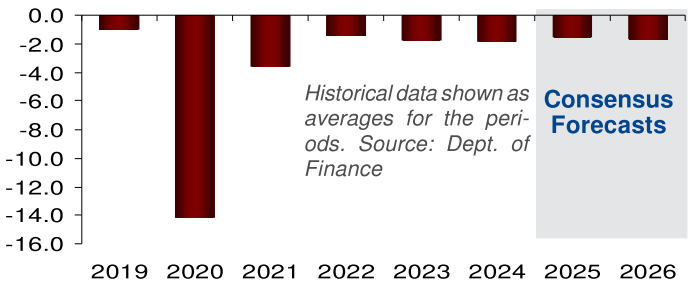
CANADA — APRIL 2025

	Average % Change on Previous Calendar Year																Annual Total	
	Gross Domestic Product		Household Final Consumption Expenditure		Machinery & Equipment Investment		Net Operating Surplus: Corporations		Industrial Production		Consumer Prices		Industrial Product Prices		Average Hourly Earnings		Housing Starts (thousand units)	
	Produit Intérieur Brut		*Dépenses de Consommation Finale des Ménages*		*Investissement de Machines et Matériel*		*Excédent d'exploitation net: sociétés*		*Production Industrielle*		*Prix à la Consommation*		*Prix des Produits Industriels*		*Rémunération Horaire Moyenne*		*Construction de Logements mises en chantier, milliers*	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
Scotia Economics	1.7	1.5	1.4	0.7	na	na	na	na	1.0	0.8	1.9	2.0	na	na	na	na	240	250
University of Toronto	1.3	0.6	1.8	0.0	-1.4	0.9	4.1	-2.2	na	na	2.3	2.2	na	na	na	na	244	250
National Bank of Canada	1.2	1.0	2.1	1.1	-2.6	0.5	4.3	2.9	na	na	2.3	2.0	na	na	na	na	232	228
Moody's Analytics	1.2	0.1	na	na	-2.7	-3.6	-1.5	-3.8	-1.9	-2.0	2.4	2.6	4.9	1.9	4.6	3.7	254	246
Oxford Economics	1.1	-0.1	1.8	-0.1	-4.2	-0.7	2.6	4.0	-1.5	-2.5	3.4	2.0	2.4	-1.1	2.7	1.7	228	221
JP Morgan	1.0	0.4	1.8	0.5	-10.5	-9.4	na	na	-0.2	0.3	2.5	1.8	2.1	2.0	na	na	na	na
Citigroup	0.9	0.8	1.9	0.9	-7.8	-1.3	na	na	na	na	2.6	2.1	na	na	na	na	na	na
Conf Board of Canada	0.9	1.9	2.2	1.9	-0.9	3.5	-9.5	15.1	na	na	2.4	1.9	na	na	na	na	231	229
Econ Intelligence Unit	0.9	1.0	1.8	1.6	na	na	na	na	0.4	2.0	2.5	2.3	2.5	2.2	na	na	na	na
Inst Fiscal Studies	0.7	0.9	1.9	1.4	-5.4	-6.3	na	na	0.7	1.4	2.3	2.2	na	na	na	na	236	221
Economap	0.6	0.8	1.8	1.5	-6.0	-5.0	-7.0	3.0	0.4	1.0	2.4	2.0	2.5	2.2	3.5	3.6	235	230
BMO Capital Markets	0.5	0.5	2.2	1.2	-6.0	-6.5	-8.0	2.5	0.5	1.3	2.4	2.0	2.0	2.0	4.5	3.7	235	225
Consensus (Mean)	1.0	0.8	1.9	1.0	-4.7	-2.8	-2.1	3.1	-0.1	0.3	2.4	2.1	2.7	1.5	3.8	3.2	237	233
Last Month's Mean	1.3	1.2	1.9	1.3	-3.4	-0.6	0.7	3.8	0.3	0.7	2.3	2.0	2.8	1.5	4.2	3.5	241	238
3 Months Ago	1.7	1.7	2.0	1.6	-1.4	2.6	0.9	5.0	1.5	1.1	2.0	2.1	1.8	1.7	3.8	3.3	244	247
High	1.7	1.9	2.2	1.9	-0.9	3.5	4.3	15.1	1.0	2.0	3.4	2.6	4.9	2.2	4.6	3.7	254	250
Low	0.5	-0.1	1.4	-0.1	-10.5	-9.4	-9.5	-3.8	-1.9	-2.5	1.9	1.8	2.0	-1.1	2.7	1.7	228	221
Standard Deviation	0.3	0.6	0.2	0.6	3.0	4.0	6.0	6.1	1.1	1.6	0.3	0.2	1.1	1.3	0.9	1.0	8	12
Comparison Forecasts																		
Bank of Canada (Jan. '25)	1.8	1.8	1.3	0.9							2.3	2.1						
IMF (Jan. '25)	2.0	2.0																
OECD (Mar '25)	0.7	0.7									3.1	2.9						

Government and Background Data

Prime Minister - Mr. Mark Carney (Liberals). **Government -** The Liberals hold 160 out of 338 seats in parliament (170 seats are needed for an outright majority). **Next Election -** 28 April, 2025 (Federal election). **Nominal GDP -** C$2,892bn (2023). **Population -** 39.3mn (UN, Mid 2023). **C$/$ Exchange Rate -** 1.349 (average, 2023).

Federal Government Budget Balance – % of GDP



Historical Data

	2021	2022	2023	2024
Gross Domestic Product*	6.0	4.2	1.5	1.5
Household Consumption Expenditure*	5.9	5.5	1.8	2.4
Machinery & Eqpt. Invt*	12.2	4.7	-2.7	-2.1
Net Operating Surplus: Corporations*	40.1	17.9	-14.8	-4.2
Industrial Production*	5.4	3.8	-0.1	-0.2
Consumer Prices*	3.4	6.8	3.9	2.4
Industrial Product Prices*	13.9	12.8	-1.8	0.9
Average Hourly Earnings*	2.8	4.0	3.5	4.8
Housing Starts, '000 units	271	262	240	245
Unemployment Rate, %	7.5	5.3	5.4	6.4
Current Account, C$bn	-0.5	-8.7	-18.4	-15.6
Federal Govt Budget Balance, fiscal years, C$bn	-90.3	-41.3	-50.9	-57.5 *e*
3 mth Trsy Bills, % (end yr)	0.2	4.3	4.9	3.1
10 Yr Govt Bond, % (end yr)	1.4	3.3	3.1	3.2

e = consensus estimate based on latest survey

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APRIL 2025 CANADA

Year Average		Annual Total		Fiscal Years (Apr-Mar)		Rates on Survey Date 2.6 %			3.1%
Unemploy - ment Rate (%)		Current Account (C$ bn)		Federal Govt Budget Balance (C$ bn)		3 month Treasury Bill Rate (%)		10 Year Government Bond Yield (%)	
Taux de Chômage (%)		*Balance Courante (C$ md)*		*Balance Budgétaire (C$ md)*		*Rendement sur les Bons du Trésor de 3 mois %*		*Rendement des Obligat- ions d'État de 10 ans %*	
2025	2026	2025	2026	FY 25-26	FY 26-27	End Jul '25	End Apr '26	End Jul '25	End Apr '26
6.8	6.7	-30.1	-34.2	na	na	2.7	2.7	3.0	3.2
7.2	7.3	-5.0	-26.8	na	na	2.0	2.0	3.1	3.5
7.0	7.0	-20.0	-17.0	na	na	2.4	2.0	2.8	2.7
6.9	7.0	-38.9	-47.5	na	na	na	na	na	na
7.3	6.9	-19.3	-23.7	-52.7	-83.5	2.7	2.7	3.3	3.7
7.5	7.4	-20.6	-18.2	na	na	na	na	na	na
7.2	6.7	-23.3	-55.8	-40.7	-27.1	2.3	2.0	3.1	3.1
6.7	6.1	-55.2	-41.2	-30.4	-25.8	2.5	2.5	3.4	3.4
7.3	7.5	-42.6	-63.0	na	na	na	na	na	na
7.7	7.5	na	na	na	na	2.4	2.0	2.9	2.7
7.5	7.8	-48.0	-50.0	-50.0	-60.0	2.4	1.9	2.9	2.7
7.5	7.9	-42.0	-57.0	-75.0	-65.0	2.3	2.0	2.8	2.8
7.2	7.1	-31.4	-39.5	-49.8	-52.3	2.4	2.2	3.0	3.1
6.9	6.7	-29.4	-37.3	-53.6	-45.7				
6.7	6.3	-26.0	-36.3	-42.0	-34.0				
7.7	7.9	-5.0	-17.0	-30.4	-25.8	2.7	2.7	3.4	3.7
6.7	6.1	-55.2	-63.0	-75.0	-83.5	2.0	1.9	2.8	2.7
0.3	0.5	15.1	16.4	16.6	25.2	0.2	0.3	0.2	0.4

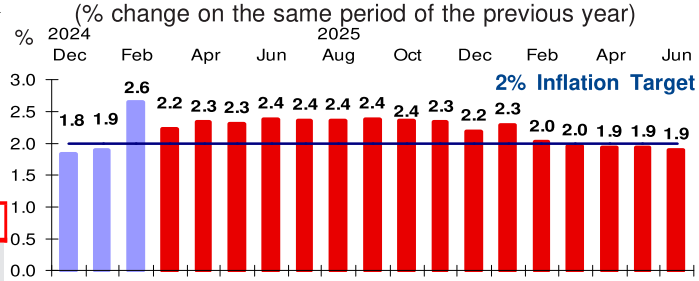
Fear of US Tariffs Deepens Downturn

Over the past month, the US has implemented 25% tariffs on Canadian steel, aluminium and cars. On April 2, no further tariffs were imposed on Canada, as it was exempt under the USMCA trade agreement, but the free trade benefits which Canada has enjoyed will be deeply affected by tariffs. These target its biggest sectors, like energy and manufacturing. Prime Minister Mark Carney has responded with reciprocal tariffs on US cars. The threat of US tariffs has hit the consensus across the board, even before the hard data reflects their actual impact. For example, the 2025 forecast for machinery & equipment investment has dropped to -5.3% (y-o-y), due to concerns over factories closing, jobs being cut and a drop-off in US demand. It will take time to recalibrate to a new world trading system. Even before the imposition of tariffs, consumers were pulling back on purchases. This is reflected in a -0.6% (m-o-m) decrease in retail trade in January, with the largest contributor being the -3.2% (m-o-m) fall in new car sales.

A recent spike in exports was noted, prior to tariffs coming into place, likely as a front-loading measure. The goods-producing industries recorded a 1.1% (m-o-m) jump in January, with manufacturing, the most US-exposed sector, growing by 0.8% (m-o-m), and mining, quarrying, oil & gas extraction increasing by 1.8%. These industries were the largest contributors to +0.4% (m-o-m) growth in January. The CPI surged by 2.6% (y-o-y) in February, following a tamer 1.9% outturn in January. Inflation was boosted by an end to the GST/HST (goods & services tax) break, which eliminated taxes on certain items between December 14, 2024 and February 15, 2025. Our panellists expect inflation to increase. The outlook is marked by uncertainty as the economic relationship with the US deteriorates, putting the onus on policymakers to support activity.

Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



Current BoC Overnight Lending Rate: 2.75%

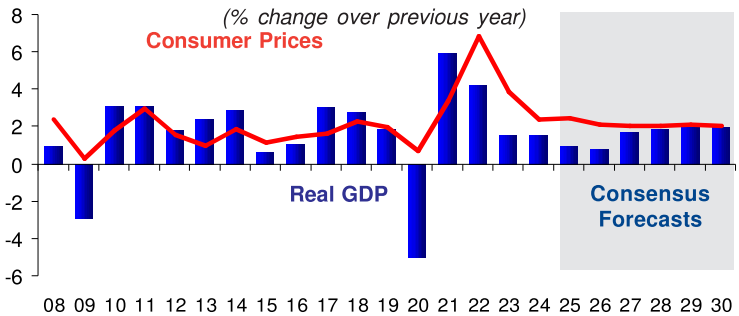
Average probability of a change in the Lending Rate on Apr. 16:

Increase 0.0% No change 45.7% Decrease 54.3%

Consensus Forecasts Mean	End Jun '25	End Sep '25	End Dec '25	End Mar '26	End Jun '26	End Sep '26	End Dec '26	End Mar '27
Average:	2.55%	2.28%	2.11%	2.09%	2.09%	2.16%	2.22%	2.32%
Median:	2.50%	2.25%	2.00%	2.00%	2.00%	2.13%	2.25%	2.33%

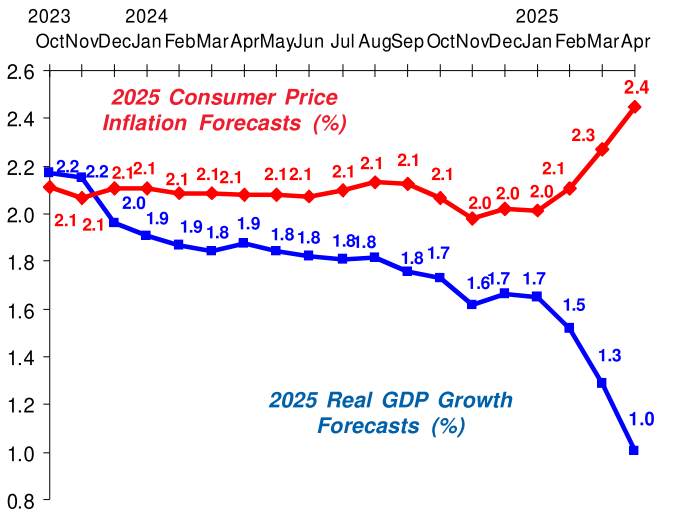
Canada Real Growth and Inflation

(% change over previous year)



2025 GDP Growth and Inflation Forecasts

Consensus Forecasts from Survey of:



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EURO ZONE — APRIL 2025

The EURO ZONE is: Austria, Belgium, Croatia, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia and Spain.

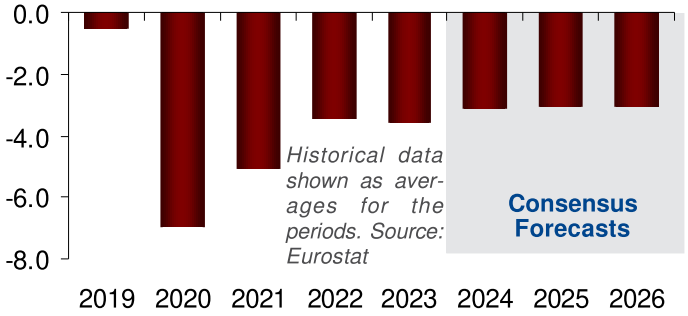
Average % Change on Previous Calendar Year

Economic Forecasters	Gross Domestic Product		Household Consumption Expenditure		Govt Con-sumption		Gross Fixed Investment		Industrial Product-ion		Harmo-nised Consumer Prices (HICP)		Core HICP (ex. energy, food, alcohol & tobacco		Industrial Producer Prices		Hourly Labour Costs – Total	
	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
ETLA	1.4	1.5	1.4	1.3	2.0	2.0	2.7	4.0	na	na	2.0	2.0	2.3	2.0	na	na	na	na
BNP Paribas	1.3	1.5	1.2	1.2	na	na	na	na	na	na	2.4	1.9	2.4	2.2	na	na	na	na
Societe Generale CIB	1.1	1.3	1.3	1.2	1.6	1.1	1.0	1.8	na	na	2.3	1.7	2.4	2.1	na	na	na	na
Citigroup	1.0	1.3	1.3	1.2	1.4	1.2	1.4	3.2	na	na	2.2	1.8	2.3	1.7	na	na	na	na
Econ Intelligence Unit	1.0	1.4	1.2	1.5	1.5	1.7	1.7	1.5	0.6	1.5	2.2	2.1	na	na	1.5	1.4	na	na
IWH Halle Institute	1.0	1.3	1.2	1.2	1.9	1.8	2.6	2.4	0.2	0.3	2.2	2.0	na	na	na	na	2.9	2.3
Morgan Stanley	1.0	1.1	1.3	1.1	1.4	0.8	1.2	2.1	na	na	2.2	1.8	2.3	1.8	na	na	na	na
JP Morgan	1.0	1.2	1.3	0.8	1.5	0.8	na	na	-0.5	1.1	2.2	1.7	2.3	2.0	1.6	0.5	na	na
S&P Global Mkt Intelligence	0.9	1.4	1.4	1.5	2.2	1.5	0.9	3.0	0.3	2.0	2.3	2.0	2.4	2.0	1.8	2.3	na	na
Capital Economics	0.9	1.2	1.2	1.3	1.6	1.7	1.6	1.9	na	na	2.1	1.7	2.3	2.0	na	na	na	na
Oxford Economics	0.9	1.2	1.5	1.5	1.0	0.5	1.2	1.4	-0.4	1.9	2.1	1.8	2.4	2.1	1.7	-0.7	na	na
Allianz	0.8	1.4	na	na	na	na	na	na	na	na	1.9	1.9	2.0	1.9	na	na	na	na
HSBC	0.8	1.6	1.1	1.3	1.5	1.9	1.4	3.6	-0.7	1.6	2.2	2.1	2.3	2.0	na	na	na	na
Bloomberg Economics	0.8	0.8	1.3	1.1	1.6	1.6	1.9	1.9	na	na	1.9	1.5	2.3	1.8	na	na	3.0	2.3
Goldman Sachs	0.8	1.1	1.6	1.2	na	na	0.3	0.8	na	na	2.4	2.0	2.4	2.1	na	na	na	na
Intesa Sanpaolo	0.8	1.1	1.3	1.5	1.5	1.2	0.4	2.3	0.3	2.1	2.3	1.8	2.5	2.0	3.3	1.8	3.2	2.9
Moody's Analytics	0.8	0.8	na	na	2.0	1.7	0.8	1.3	0.0	1.6	2.1	1.9	na	na	1.7	1.7	na	na
Commerzbank	0.7	1.3	1.2	1.1	1.6	1.5	1.1	1.4	na	na	2.1	2.4	2.3	2.3	na	na	na	na
FUNCAS	0.7	1.0	1.1	1.4	1.6	1.3	1.0	1.6	na	na	1.9	1.8	na	na	na	na	na	na
Natixis	0.7	1.1	1.3	1.1	1.6	1.3	0.7	3.0	na	na	2.3	1.9	2.3	2.1	na	na	na	na
Swiss Life Asset Mgrs	0.7	1.1	na	na	na	na	na	na	na	na	2.1	2.0	na	na	na	na	na	na
Bank Julius Baer	0.6	1.0	1.2	1.4	1.0	0.5	1.2	1.4	-0.5	1.2	2.1	1.7	2.1	1.6	na	na	3.3	3.0
UBS	0.5	0.8	1.3	1.1	1.6	1.2	1.4	2.1	na	na	2.3	2.0	2.3	1.9	na	na	na	na
Barclays	0.3	0.7	1.0	1.1	1.6	1.0	-0.1	1.2	na	na	2.1	1.8	2.3	2.0	na	na	na	na
Consensus (Mean)	0.9	1.2	1.3	1.2	1.6	1.3	1.2	2.1	-0.1	1.5	2.2	1.9	2.3	2.0	1.9	1.1	3.1	2.6
Last Month's Mean	0.9	1.2	1.2	1.2	1.4	1.0	1.1	1.8	0.0	1.5	2.2	1.9	2.3	2.0	1.9	1.2	3.2	2.6
3 Months Ago	1.0	1.2	1.2	1.3	1.2	0.9	1.2	1.8	0.4	1.7	1.9	1.9	2.2	1.9	1.3	1.5	3.3	2.7
High	1.4	1.6	1.6	1.5	2.2	2.0	2.7	4.0	0.6	2.1	2.4	2.4	2.5	2.3	3.3	2.3	3.3	3.0
Low	0.3	0.7	1.0	0.8	1.0	0.5	-0.1	0.8	-0.7	0.3	1.9	1.5	2.0	1.6	1.5	-0.7	2.9	2.3
Standard Deviation	0.2	0.2	0.1	0.2	0.3	0.4	0.7	0.9	0.5	0.6	0.1	0.2	0.1	0.2	0.7	1.1	0.2	0.4
Comparison Forecasts																		
Eur Commission (Nov. '24)	1.3	1.6	1.2	1.4			1.8	2.5			2.1	1.9	2.4	2.0				
ECB (Mar. '25)	0.9	1.2	1.4	1.2	1.2	1.1	1.2	1.7			2.3	1.9						
IMF (Jan. '25)	1.0	1.4																
OECD (Mar '25)	1.0	1.2									2.2	2.0	2.2	2.0				

European Monetary Union

Euro zone - The 20 European countries (listed at the top of this page) are united by a common currency (the euro), monetary policy and adherence to the Maastricht Treaty. **Monetary Policy** - is set by the European Central Bank's (ECB) governing board, headed by Christine Lagarde. **Nominal GDP -** €14,379bn (2023). **Population -** 349.6mn (Eurostat, 2023). **$/Euro** - 1.082 (average, 2023).

General Government Budget Balance – % of GDP



Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	6.3	3.5	0.4	0.9
Private Consumption*	4.7	5.0	0.5	1.0
Government Consumption*	4.4	1.1	1.4	2.8
Gross Fixed Capital Formation*	3.8	2.0	1.7	-1.9
Industrial Production*	8.9	1.7	-1.6	-3.0
Harmonised Consumer Prices (HICP)*	2.6	8.4	5.4	2.4
HICP ex. food, energy, alco. & tob. *	1.5	4.0	5.0	2.8
Industrial Producer Prices*	12.2	32.7	-2.1	-4.2
Hourly Labour Costs – Total*	1.1	5.0	5.0	4.5 *e*
Unemployment Rate, (%)	7.8	6.7	6.6	6.4
Exports - Goods & Services*	11.4	7.3	-0.8	1.0
Imports - Goods & Services*	9.0	8.3	-1.4	0.2
Current Account, Euro bn	326	1.4	247	428
General Govt. Budget Balance (Maastricht definition), Euro bn	-641	-474	-521	-475 *e*
Money Supply, M3, end period*	7.0	3.8	0.0	3.4

e = consensus estimate based on latest survey

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APRIL 2025 — EURO ZONE

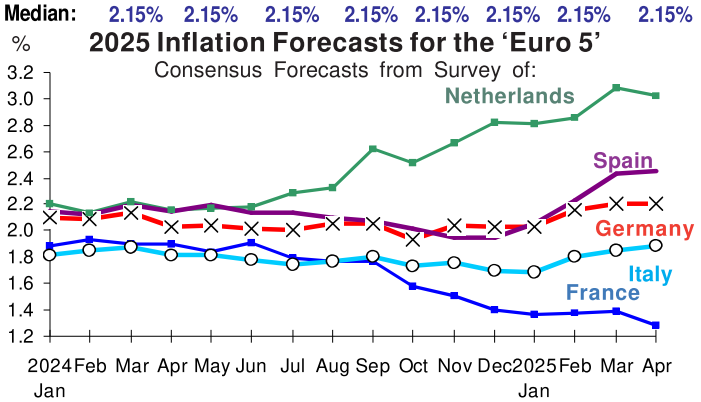
Year Average		Average % Change on Previous Calendar Year				Annual Total				Average % Change on Prev. Year	
Unemployment Rate (%)		Export of Goods & Services		Import of Goods & Services		Current Account (€ bn)		General Govt Budget Balance (Maastricht) (€ bn)		Money Supply, M3, end period	
2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026
6.2	6.0	3.3	3.5	4.3	4.8	na	na	na	na	na	na
6.3	6.3	na	na	na	na	na	na	na	na	na	na
6.3	6.2	1.1	2.3	1.9	2.5	436	455	na	na	na	na
5.9	5.9	1.0	1.4	1.9	2.4	284	292	-440	-448	na	na
6.4	6.4	1.8	2.0	2.5	2.3	453	437	-513	-460	na	na
6.3	6.2	0.3	3.7	1.9	3.7	342	338	-490	-539	na	na
6.3	6.5	1.0	1.9	2.0	2.4	na	na	na	na	na	na
6.4	6.4	0.4	2.1	1.2	2.1	na	na	na	na	na	na
6.3	6.4	0.3	1.4	1.8	2.2	480	498	-488	-474	4.5	4.5
6.2	6.2	-0.2	0.7	1.0	1.3	353	365	-534	-601	na	na
6.3	6.3	0.1	1.3	1.3	1.7	346	391	-456	-411	4.0	3.9
6.7	6.5	na	na	na	na	na	na	na	na	na	na
6.4	6.6	0.3	1.3	1.7	2.2	na	na	-352	-356	na	na
6.3	6.6	0.0	1.2	1.6	2.3	na	na	na	na	na	na
6.5	6.6	0.3	1.0	1.4	1.2	na	na	-576	-623	na	na
6.3	6.4	0.0	1.4	1.8	2.7	348	394	-389	-427	2.6	1.7
6.4	6.5	-0.3	0.4	1.3	1.1	349	314	-518	-545	4.7	3.8
6.5	6.5	0.6	1.2	2.2	2.4	200	100	na	na	4.0	4.0
6.5	6.7	-0.1	1.0	1.2	1.7	na	na	na	na	na	na
6.4	6.5	0.1	1.1	1.3	2.1	na	na	na	na	na	na
6.3	6.5	na	na	na	na	na	na	na	na	na	na
6.3	6.3	0.2	1.2	1.7	1.9	na	na	na	na	na	na
6.7	6.6	-0.1	0.6	1.6	1.7	244	250	na	na	na	na
6.4	6.8	na	na	na	na	na	na	na	na	na	na
6.4	6.4	0.5	1.5	1.8	2.2	349	349	-475	-488	4.0	3.6
6.4	6.5	1.0	2.0	2.0	2.4	380	382	-481	-464	3.7	3.6
6.5	6.5	1.6	2.2	2.3	2.5	414	412	-472	-438	3.9	3.5
6.7	6.8	3.3	3.7	4.3	4.8	480	498	-352	-356	4.7	4.5
5.9	5.9	-0.3	0.4	1.0	1.1	200	100	-576	-623	2.6	1.7
0.2	0.2	0.8	0.9	0.7	0.8	85	110	68	86	0.8	1.1
6.3	6.3	1.1	1.5	-1.1	-1.4						
6.3	6.3	0.8	2.3	1.9	2.6						

Current ECB Main Refinancing Rate: 2.65%

Average probability of a change in the Main Refi Rate on Apr. 16-17:

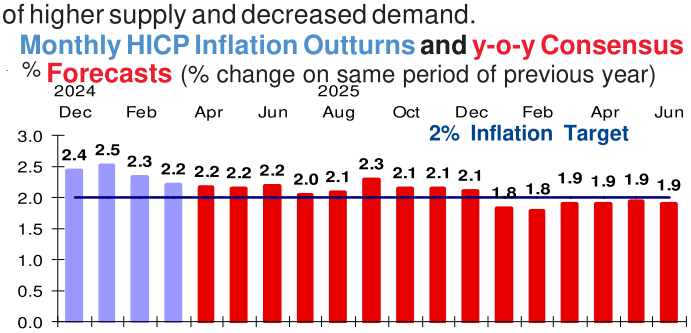
Increase 0.5% No change 21.0% Decrease 78.5%

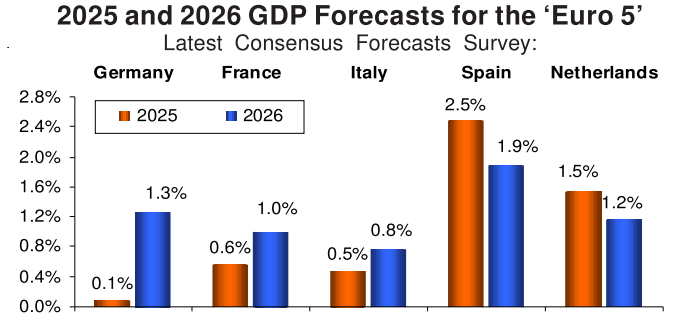
Consensus Forecasts	End Jun '25	End Sep '25	End Dec '25	End Mar '26	End Jun '26	End Sep '26	End Dec '26	End Mar '27
Mean Average:	2.23%	2.11%	2.09%	2.07%	2.05%	2.09%	2.13%	2.12%
Median:	2.15%	2.15%	2.15%	2.15%	2.15%	2.15%	2.15%	2.15%

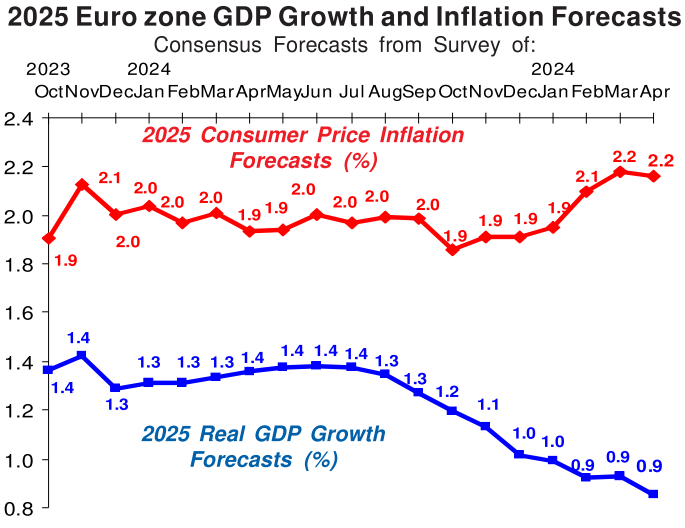


Easing Services Inflation + Tariffs Complicate ECB Task

The headline HICP unexpectedly eased to 2.2% (y-o-y) in March, down from 2.3% in February. This moderation followed unexpected fallbacks in inflation in Germany, France, and Spain. Euro-wide services inflation slowed to a 33-month low of 3.4% in March, compared to 4% in December 2024 and 3.7% in February. This slowdown in partially attributed to Easter falling later in April compared with March last year (aka a base-year effect), which may lead to a rebound in service prices in April 2025. Despite this, the deceleration in services prices will be good news for ECB policymakers, who previously expressed concerns about the persistence of services inflation impacting the monetary policy outlook. Our panel is now pricing in a cut to the current refinancing rate at the ECB's upcoming meeting on April 17 (see rates forecasts, below left), although there is also potential room for a cut at the June 5 meeting. Policymakers will need to balance the potential growth boost from the approval of a fiscal package in Germany, which reduces the downside risks to its medium-term growth outlook, alongside the negative impact on growth from the threat of US tariffs and retaliatory measures imposed by the EU. US tariffs could lead to European disinflation in the long term, as slower growth and reduced exports to the US might prompt domestic companies to sell their increased inventories in domestic markets at a lower prices, due to the combination of higher supply and decreased demand.







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NETHERLANDS APRIL 2025

	Average % Change on Previous Calendar Year												Annual Total				Rates on Survey Date			
	Gross Domestic Product		Private Con-sumption		Gross Fixed Investment		Manufac-turing Produc-tion		Con-sumer Prices (CPI)		Hourly Wages (Manu-factur-ing)		Current Account (€ bn)		General Govt Bud Balance (Maastricht) (€ bn)		2.4 % 3 month Euro Rate (%)		2.9% 10 Year Dutch Govt Bond Yield (%)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
Capital Economics	2.0	1.8	2.1	2.2	2.3	1.8	na	na	na	na	na	na	107.0	112.9	-23.8	-30.1	na	na	na	na
CPB	1.9	1.5	2.6	2.4	2.3	4.0	na	na	3.2	2.6	na	na	123.9	118.5	-21.4	-30.3	2.3	2.1	2.7	2.7
ABN AMRO	1.8	1.0	1.7	1.5	0.1	1.4	na	na	2.8	2.5	na	na	87.4	80.3	na	na	2.1	1.0	2.5	1.8
S&P Global Ratings	1.5	1.2	1.9	1.5	1.9	1.7	na	na	2.8	2.2	na	na	na	na	na	na	na	na	na	na
Euromonitor Intl	1.5	1.4	1.7	1.7	1.5	1.9	na	na	2.7	2.3	na	na	100.9	107.0	-22.9	-24.9	na	na	na	na
S&P Global Market Intel	1.4	1.3	1.7	1.3	2.2	2.0	0.0	1.3	3.0	1.8	na	na	95.0	83.6	-18.4	-13.3	2.2	2.1	2.8	2.7
Oxford Economics	1.3	0.8	1.1	1.4	0.8	3.5	na	na	2.9	2.1	3.9	2.7	109.7	106.9	-17.7	-28.6	2.1	1.6	3.1	3.0
Econ Intelligence Unit	1.3	1.3	1.0	1.6	0.8	1.5	na	na	2.8	1.9	na	na	100.7	96.6	-29.4	-27.5	na	na	na	na
Rabobank Nederland	1.3	1.0	2.2	1.7	2.0	2.8	na	na	3.8	3.2	na	na	na	na	na	na	2.2	2.4	2.6	2.3
Moody's Analytics	1.3	0.4	3.0	1.7	1.1	0.1	1.8	2.4	3.1	2.1	na	na	135.8	122.2	-30.8	-41.1	na	na	na	na
Consensus (Mean)	1.5	1.2	1.9	1.7	1.5	2.1	0.9	1.9	3.0	2.3	na	na	107.6	103.5	-23.5	-28.0	2.2	1.8	2.7	2.5
Last Month's Mean	1.6	1.2	1.6	1.7	1.3	2.2	0.9	2.1	3.1	2.4	4.2	3.0	109.6	105.8	-22.2	-25.5				
3 Months Ago	1.5	1.3	1.5	1.7	1.4	1.9	0.0	1.8	2.8	2.2	4.1	2.9	104.4	102.7	-24.2	-30.8				
High	2.0	1.8	3.0	2.4	2.3	4.0	1.8	2.4	3.8	3.2	na	na	135.8	122.2	-17.7	-13.3	2.3	2.4	3.1	3.0
Low	1.3	0.4	1.0	1.3	0.1	0.1	0.0	1.3	2.7	1.8	na	na	87.4	80.3	-30.8	-41.1	2.1	1.0	2.5	1.8
Standard Deviation	0.3	0.4	0.6	0.4	0.8	1.1	1.3	0.8	0.3	0.4	na	na	15.7	15.4	5.0	8.3	0.1	0.5	0.2	0.5
Comparison Forecasts																				
De Nederlandsche Bank (Dec. '24)	1.5	1.5																		
Eur Commission (Nov. '24)	1.6	1.5	1.6	1.8	1.2	1.4														
IMF (Oct. '24)	1.6	1.7							2.3	2.0										
OECD (Dec '24)	1.6	1.6	2.0	1.7	1.0	0.9														

◈ The CPI surged to 3.7% (y-o-y) in March, a slight decrease from 3.8% (y-o-y) in February, primarily driven by increases in housing, water, energy, alcohol, and food prices. The cost of owner-occupied dwellings saw a significant rise of 10.6% (y-o-y), underscoring the inflationary problem in the housing sector. Statistics Netherlands reports a growing pessimism among consumers and decline in producer confidence, which comes alongside an eighth consecutive reduction in job numbers. Manufacturing new orders fell in March, although this was somewhat balanced by an increase in production volumes. The 20% tariffs imposed by the US on all EU goods, along with 25% tariffs on cars and auto parts, are expected to affect the trade-dependent economy. Germany, being the largest trading partner, particularly in car parts and metals, will also feel the impact of the US tariffs on car imports.

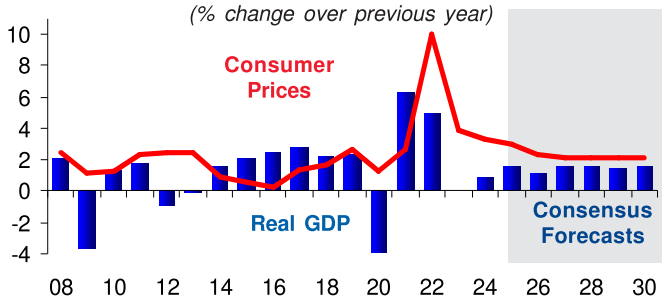
Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	6.3	5.0	0.1	1.0
Private Consumption*	4.5	6.9	0.8	1.2
Gross Fixed Investment*	2.4	3.4	1.3	-0.5
Manufacturing Production*	7.2	7.8	-0.4	-3.0
Consumer Prices*	2.7	10.0	3.8	3.3
Hourly Wages (manufacturing)*	2.2	3.4	5.7	5.9
Current Account, Transactions basis, Euro bn	89.3	65.7	105.2	112.7
General Govt. Budget Balance (Maastricht definition), Euro bn	-19.5	-0.9	-3.8	-12.4
3 mth Euro, % (end year)	-0.6	2.1	3.9	2.7
10 Yr Dutch Govt Bond Yield % (end year)	0.0	2.9	2.3	2.6

Nominal GDP - €1,033bn (2023). **Popn -** 18.1mn (UN, Mid 2023). **$/Euro Exch. Rate -** 1.082 (average, 2023).

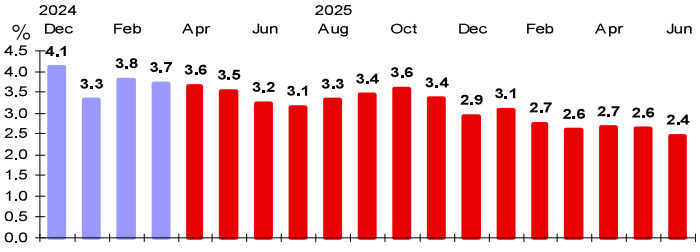
Real Growth and Inflation

(% change over previous year)



Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



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APRIL 2025 NORWAY

	Average % Change on Previous Calendar Year														Annual Total		Rates on Survey Date			
	Gross Domestic Product (Mainland)		Gross Domestic Product (Total)		Private Consumption		Gross Fixed Investment		Manufacturing Production		Consumer Prices		Wages & Salaries		Current Account (Nkr bn)		4.6% 3 month Interbank Rate (%)		3.9 % 10 Year Govt Bond Yield (%)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
Econ Intelligence Unit	na	na	1.4	1.5	2.3	1.9	5.4	1.9	na	na	2.0	1.9	na	na	866	773	na	na	na	na
Fitch Ratings	na	na	1.7	1.7	na	na	na	na	na	na	2.7	2.3	na	na	622	566	na	na	na	na
S&P Global Market Intel	na	na	1.3	2.1	1.5	1.7	3.8	2.2	na	na	4.1	2.3	na	na	na	na	4.2	3.4	3.7	3.6
Moody's Analytics	1.8	1.1	1.3	1.4	2.2	3.3	-0.8	3.2	-1.0	1.6	2.8	1.7	3.7	3.6	775	643	na	na	na	na
NHO Conf Nor Enterprise	1.6	1.9	2.2	1.1	2.0	1.9	-1.3	1.0	na	na	na	2.5	na	na	na	na	na	na	na	na
Citigroup	1.3	2.0	na	na	1.1	1.5	1.5	2.4	na	na	3.3	2.3	na	na	770	809	4.0	3.0	4.1	3.8
Statistics Norway	1.2	1.9	-0.4	1.5	2.1	2.3	-1.6	0.5	3.2	4.0	2.7	2.6	4.2	3.8	778	719	na	na	na	na
Oxford Economics	1.2	2.2	-0.3	0.8	1.7	2.7	-0.8	-0.5	1.0	0.8	2.6	2.1	3.7	3.9	906	735	4.5	3.8	3.9	3.7
HSBC	1.1	1.8	na	na	1.7	1.9	0.7	1.8	na	na	2.5	2.0	4.2	3.8	na	na	na	na	na	na
Goldman Sachs	0.8	1.2	na	na	na	na	na	na	-0.6	-1.9	3.0	2.7	na	na	na	na	na	na	na	na
Capital Economics	0.8	1.8	na	na	1.4	1.6	1.1	3.5	na	na	3.8	2.3	na	na	na	na	na	na	na	na
Consensus (Mean)	1.2	1.7	1.0	1.4	1.8	2.1	0.9	1.8	0.7	1.1	2.9	2.2	4.0	3.8	786	708	4.2	3.4	3.9	3.7
Last Month's Mean	1.5	1.7	1.3	1.4	1.9	2.1	1.5	1.8	1.3	1.0	2.5	2.1	3.9	3.8	746	658				
3 Months Ago	1.5	1.7	1.5	1.3	1.9	2.1	1.3	2.1	3.2	2.0	2.5	2.1	4.0	3.8	756	668				
High	1.8	2.2	2.2	2.1	2.3	3.3	5.4	3.5	3.2	4.0	4.1	2.7	4.2	3.9	906	809	4.5	3.8	4.1	3.8
Low	0.8	1.1	-0.4	0.8	1.1	1.5	-1.6	-0.5	-1.0	-1.9	2.0	1.7	3.7	3.6	622	566	4.0	3.0	3.7	3.6
Standard Deviation	0.4	0.4	1.0	0.4	0.4	0.6	2.4	1.3	1.9	2.4	0.6	0.3	0.3	0.1	98	89	0.2	0.4	0.2	0.1
Comparison Forecasts																				
Norges Bank (Feb. '25)	1.4	1.4	2.4	0.1	2.6	1.8					2.6	2.8								
Min. of Finance (Sep. '24)	2.3	2.1	2.1	1.2							3.0	2.5								
IMF (Oct. '24)			1.8	1.7							2.4	2.0								
OECD (Dec '24)	1.8	2.0	1.7	1.0	1.8	2.2	3.1	2.5			2.6	2.3								

*Individual forecasts available in Excel

General Govt Budget Balance (Nkr bn)		
	2025	2026
Consensus*	*537.2*	*470.5*

◈ The Norges Bank maintained its policy rate at 4.5% for the tenth consecutive month at its March meeting. Policymakers observed that inflation has sharply risen and remains significantly above expectations. Indeed, policymakers revised their CPI forecasts from 2.6% to 3% for 2025. The CPI jumped from 2.3% (y-o-y) in January to 3.6% in February, before unexpectedly easing to 2.6% in March. Norges Bank indicated that its first cut in the current monetary policy cycle will likely occur later in the year, and forecasts suggest a reduction in interest rates to 4% by the end of the year, implying at least two policy rate cuts. However, uncertainties regarding economic developments may impact the Bank's expected rate reductions.

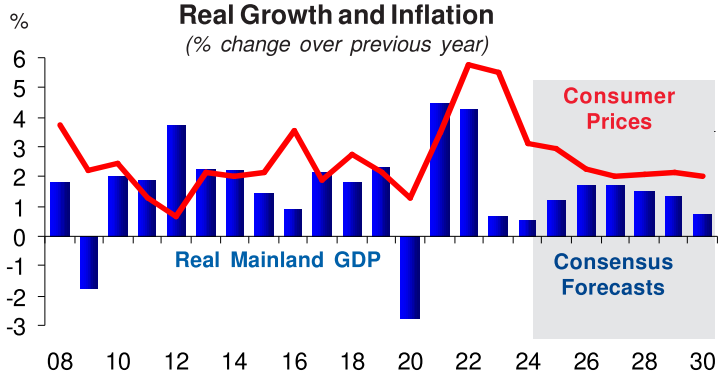
Historical Data

* % change on previous year	2021	2022	2023	2024
GDP (Mainland)*	4.5	4.3	0.7	0.6
GDP (Total)*	3.9	3.2	0.1	2.1
Private Consumption*	5.1	7.4	-1.4	1.3
Gross Fixed Investment*	0.7	0.3	-1.5	-1.9
Manufacturing Production*	3.2	-0.3	-0.2	1.8
Consumer Prices*	3.5	5.8	5.5	3.1
Wages & Salaries per Full-Time Employee (Total)*	3.4	4.3	5.9	5.6
Current Account, Nkr bn	644	1699	887	890
General Govt. Bud Bal, Nkr bn	445	1464	841	688
3 mth Interbank Rate, % End yr	1.0	3.3	4.7	4.7
10 Yr Govt Bond Yield, % End yr	1.7	3.2	3.3	3.9

Nominal GDP (total) - Nkr 5,129bn (2023). **Population -** 5.5mn (UN, Mid 2023). **Nkr/$ Exchange Rate -** 10.56 (average, 2023).

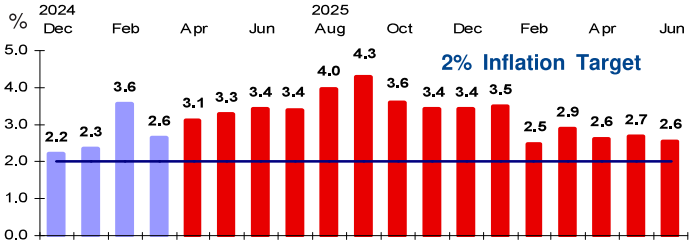
Real Growth and Inflation

(% change over previous year)



Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



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SPAIN — APRIL 2025

	Average % Change on Previous Calendar Year										Year Avg.		Annual Total		Rates on Survey Date			
	Gross Domestic Product		House-hold Con-sumption		Gross Fixed Invest-ment		Industrial Produc-tion		Con-sumer Prices (CPI)		Unem-ployment Rate (%)		Current Account (€ bn)		General Govt Bud Balance (Maastricht) (€ bn)		2.4 % 3 month Euro Rate (%)		3.3 % 10 Year Spanish Govt Bond Yield (%)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
Capital Economics	3.2	2.6	2.8	4.2	2.3	4.0	na	na	na	na	10.2	9.7	33.6	22.0	-46.2	-44.0	na	na	na	na
AFI	2.8	2.3	3.8	2.8	5.3	2.2	na	na	2.6	1.7	10.4	10.2	42.3	47.7	-44.3	-44.6	2.3	2.2	3.8	4.0
HSBC	2.8	2.3	3.5	2.7	4.4	4.0	0.7	2.4	na	na	10.3	10.0	44.0	38.9	-41.7	-39.6	na	na	na	na
BBVA	2.8	1.8	3.1	1.9	6.2	5.3	na	na	2.4	2.1	10.4	9.9	44.7	40.6	-44.9	-42.6	2.1	2.2	3.4	3.5
Oxford Economics	2.6	1.7	3.3	1.8	4.1	2.0	1.0	2.9	2.5	1.8	10.6	10.8	54.7	54.1	-49.2	-52.4	2.1	1.6	3.6	3.6
Citigroup	2.6	2.0	2.8	1.8	2.4	4.3	na	na	2.5	2.0	10.1	9.4	40.1	30.6	-48.3	-49.1	na	na	3.2	3.1
Econ Intelligence Unit	2.6	1.9	2.7	1.9	3.2	2.6	1.4	2.2	2.3	2.0	10.9	10.8	41.7	39.4	-53.2	-50.4	na	na	na	na
S&P Global Ratings	2.6	2.0	3.2	2.0	3.3	3.3	na	na	2.5	2.0	10.6	10.2	na	na	na	na	na	na	na	na
Moody's Analytics	2.6	1.8	4.0	2.4	3.2	3.4	1.7	1.6	1.9	1.8	10.8	10.5	41.4	39.2	-48.5	-50.6	na	na	na	na
CEPREDE	2.5	2.1	2.8	2.2	3.6	3.3	1.1	1.8	2.7	2.2	10.8	10.4	21.2	17.6	-53.4	-58.6	2.3	2.3	2.9	2.9
La Caixa	2.5	2.1	3.1	2.4	3.1	3.0	0.3	0.8	2.5	2.2	10.7	10.2	44.3	48.2	-46.9	-45.5	1.9	1.9	2.9	2.8
CEOE	2.5	2.0	2.7	1.8	3.7	2.2	na	na	2.4	1.9	10.5	10.0	43.4	38.3	-46.8	-46.9	2.1	2.1	2.9	2.8
EthiFinance Ratings	2.5	2.2	2.4	2.1	4.1	5.7	na	na	2.3	2.1	10.7	10.5	40.7	42.5	-45.0	-44.0	2.3	2.2	3.2	3.0
Fitch Ratings	2.5	1.8	2.8	1.6	3.6	2.4	na	na	2.6	2.1	10.6	10.3	41.6	39.3	-45.1	-49.6	na	na	na	na
Repsol	2.5	2.0	2.9	2.0	2.6	3.8	1.5	1.9	2.6	2.0	10.4	9.7	39.8	30.3	-52.6	-47.8	2.4	2.4	3.1	3.2
Bloomberg Economics	2.5	1.2	2.7	1.2	3.9	2.4	na	na	2.5	1.9	10.7	10.5	na	na	na	na	na	na	na	na
FUNCAS	2.4	1.8	3.0	2.0	2.1	2.8	0.4	1.2	2.6	1.8	10.3	9.8	47.5	46.8	-48.3	-41.5	2.2	2.0	3.2	3.1
Inst Estud Economicos	2.4	1.8	2.5	1.8	1.9	1.4	na	na	2.4	2.1	10.7	10.3	43.4	38.1	-46.7	-46.8	2.0	2.1	3.2	3.0
UBS	2.3	1.5	2.9	1.5	3.4	1.4	na	na	na	na	10.8	10.7	33.2	30.8	na	na	na	na	na	na
Natixis	2.3	1.9	2.4	1.2	3.7	2.6	na	na	2.3	1.9	10.3	9.9	na	na	na	na	na	na	na	na
Euromonitor Intl	2.3	1.9	2.6	1.9	2.6	2.7	1.6	1.6	2.2	2.0	na	na	na	na	-48.9	-46.9	na	na	na	na
Goldman Sachs	2.3	1.5	3.5	1.8	3.7	3.2	na	na	2.0	2.0	11.2	11.0	na	na	-43.2	-41.8	na	na	na	na
S&P Global Market Intel	2.2	1.9	2.7	1.9	3.2	2.6	0.4	1.0	3.0	2.0	10.4	10.3	45.0	47.3	-58.6	-64.1	2.2	2.1	3.5	3.6
Societe Generale CIB	2.2	1.7	3.3	1.7	1.5	1.9	na	na	2.8	1.7	9.8	9.1	45.0	40.5	-50.1	-47.3	na	na	na	na
Barclays	1.7	1.2	2.4	1.5	na	na	na	na	na	na	10.8	11.1	na	na	na	na	na	na	na	na
Consensus (Mean)	2.5	1.9	3.0	2.0	3.4	3.0	1.0	1.7	2.5	2.0	10.5	10.2	41.5	38.5	-48.1	-47.7	2.2	2.1	3.2	3.2
Last Month's Mean	2.5	1.9	2.9	2.0	3.3	3.1	1.2	1.6	2.4	2.0	10.8	10.5	42.9	40.5	-48.6	-47.8				
3 Months Ago	2.3	1.8	2.5	1.9	2.4	3.1	1.4	1.8	2.1	2.0	11.1	10.8	42.2	42.4	-47.3	-46.6				
High	3.2	2.6	4.0	4.2	6.2	5.7	1.7	2.9	3.0	2.2	11.2	11.1	54.7	54.1	-41.7	-39.6	2.4	2.4	3.8	4.0
Low	1.7	1.2	2.4	1.2	1.5	1.4	0.3	0.8	1.9	1.7	9.8	9.1	21.2	17.6	-58.6	-64.1	1.9	1.6	2.9	2.8
Standard Deviation	0.3	0.3	0.4	0.6	1.0	1.1	0.6	0.7	0.2	0.1	0.3	0.5	6.7	9.1	4.0	5.8	0.1	0.2	0.3	0.4
Comparison Forecasts																				
Banco de Espana (Dec. '24)	2.5	1.9							2.1	1.7										
Government (Sep. '24)	2.4	2.2	2.1	2.0																
Eur Commission (Nov. '24)	2.3	2.1	2.2	2.0	3.2	3.7														
IMF (Jan. '25)	2.3	1.8																		
OECD (Mar '25)	2.6	2.1																		

*Individual forecasts available in Excel

	Salary Cost per Hour	
	2025	2026
Consensus*	3.3	2.4

◈ Headline inflation recorded 2.3% (y-o-y) this month, an improvement compared to the 3% (y-o-y) surge in February. Strong growth and declining unemployment contribute to a positive outlook. GDP growth was 3.4% (y-o-y) in Q4 2024, mostly driven by domestic demand. However, tariffs imposed by the US will pose challenges, especially as Spain exports important quantities of auto parts and steel to the US. The tariffs have created difficulty in planning ahead for companies, sparking uncertainty and lower business confidence, which led to a fall in client demand, new orders and inventory. This pushed the March manufacturing PMI to 49.5, down from 49.7 in February. As a response, the Spanish government announced a €1.4 billion package of measures to support activity.

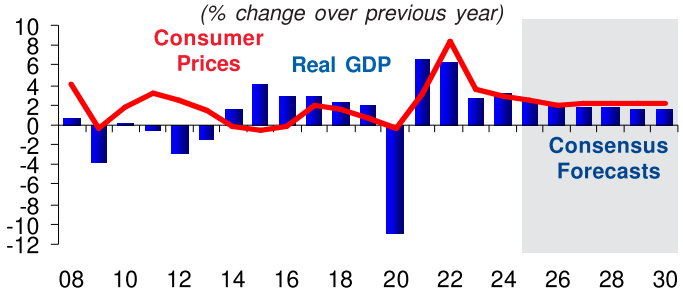
Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	6.7	6.2	2.7	3.2
Household Consumption*	7.2	4.9	1.7	2.8
Gross Fixed Investment*	2.6	3.3	2.1	2.3
Industrial Production*	7.1	2.3	-1.6	0.7
Consumer Prices*	3.1	8.4	3.5	2.8
Salary Cost per Hour*	-0.2	2.3	5.0	4.1
Unemployment Rate, %	14.9	13.0	12.2	11.3
Current Account, Euro bn	9.5	4.8	39.8	48.1
General Govt. Budget Balance (Maastricht definition), Euro bn	-82.3	-63.7	-53.2	-49.6 *e*
3 mth Euro, % (end year)	-0.6	2.1	3.9	2.7
10 Yr Govt Bond Yield % (end year)	0.6	3.7	3.0	3.0

Nominal GDP - €1,462bn (2023). **Popn -** 47.9mn (UN, Mid 2023). **$/Euro Exch. Rate -** 1.082 (average, 2023).

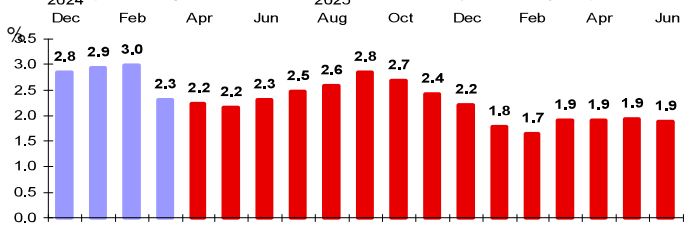
Real Growth and Inflation

(% change over previous year)



Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



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APRIL 2025 SWEDEN

	Average % Change on Previous Calendar Year												Annual Total				Rates on Survey Date			
	Gross Domestic Product		House-hold Con-sumption		Gross Fixed Invest-ment		Mining & Manu-facturing Produc-tion		Con-sumer Prices (CPI)		Hourly Earnings (Mining & Manuf.)		Current Account (SEK bn)		General Govt Budget Balance (SEK bn)		2.4 % 3 month Interbank Rate (%)		2.5 % 10 Year Govt Bond Yield (%)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
HSBC	2.4	2.8	2.2	2.0	3.8	5.9	na	na	1.0	1.8	na	na	na	na	na	na	na	na	na	na
Capital Economics	2.4	2.7	2.4	2.7	2.4	3.9	na	na	na	na	na	na	504	516	na	na	na	na	na	na
Oxford Economics	2.3	2.1	1.8	1.9	2.4	1.8	2.1	2.4	1.5	2.2	3.1	2.7	338	332	-101.1	-90.2	2.4	2.4	2.4	2.5
SE Banken	2.2	3.1	2.5	3.2	2.0	4.0	na	na	0.4	1.9	3.6	3.5	372	341	na	na	2.4	2.4	2.7	3.0
Econ Intelligence Unit	1.9	2.2	2.0	2.7	2.0	3.5	1.9	2.0	1.9	2.0	na	na	402	365	-60.0	na	na	na	na	na
S&P Global Market Intel	1.8	2.3	1.5	2.3	1.6	3.2	na	na	1.4	1.7	na	na	281	228	-121.2	-73.0	2.3	2.3	2.6	2.7
Confed of Swed Enterprise	1.8	2.8	2.0	3.2	2.7	4.8	na	na	na	na	na	na	na	na	na	na	na	na	na	na
Euromonitor Intl	1.8	2.4	2.1	3.1	1.9	3.8	na	na	1.0	1.7	na	na	383	379	-62.3	-46.8	na	na	na	na
Citigroup	1.8	1.3	1.4	1.8	3.0	1.9	na	na	na	na	na	na	335	322	-89.5	-78.6	2.0	1.8	2.4	2.4
National Institute - NIER	1.7	2.9	1.2	3.4	2.0	4.6	2.4	3.5	0.7	1.5	3.6	3.4	498	456	-26.0	-22.0	na	na	2.5	2.7
Swedbank	1.7	3.3	1.8	3.7	2.1	4.4	na	na	0.6	1.8	3.6	3.6	na	na	na	na	na	na	na	na
Svenska Handelsbanken	1.4	1.8	1.0	2.5	1.9	1.8	na	na	1.2	2.0	3.7	3.6	na	na	na	na	2.0	1.7	2.2	2.3
Moody's Analytics	1.4	1.4	na	na	1.8	3.1	na	na	1.9	1.7	na	na	270	199	na	na	na	na	na	na
Morgan Stanley	1.4	1.8	0.8	1.9	2.0	1.6	na	na	0.5	1.7	na	na	na	na	na	na	na	na	na	na
Consensus (Mean)	1.9	2.4	1.7	2.6	2.3	3.5	2.1	2.6	1.1	1.8	3.5	3.4	376	349	-76.7	-62.1	2.2	2.1	2.5	2.6
Last Month's Mean	1.8	2.5	1.8	2.7	2.1	3.5	1.8	3.2	0.9	1.8	3.5	3.4	356	336	-88.9	-70.1				
3 Months Ago	1.8	2.4	1.9	2.6	2.0	3.7	1.6	3.5	1.0	1.7	3.4	3.3	348	333	-74.1	-48.2				
High	2.4	3.3	2.5	3.7	3.8	5.9	2.4	3.5	1.9	2.2	3.7	3.6	504	516	-26.0	-22.0	2.4	2.4	2.7	3.0
Low	1.4	1.3	0.8	1.8	1.6	1.6	1.9	2.0	0.4	1.5	3.1	2.7	270	199	-121.2	-90.2	2.0	1.7	2.2	2.3
Standard Deviation	0.3	0.6	0.5	0.6	0.6	1.3	0.3	0.8	0.5	0.2	0.2	0.4	83	99	34.1	27.5	0.2	0.3	0.2	0.2
Comparison Forecasts																				
Riksbank (Mar. '25)	1.9	2.4	1.8	2.6	2.0	3.2			1.0	1.8	3.6	3.6								
Government (Mar. '25)	2.1	2.8	2.0	2.9	2.5	4.1			0.7	1.8										
Eur Commission (Nov. '24)	1.8	2.6	2.5	3.0	1.3	3.7														
IMF (Oct. '24)	2.4	2.2																		
OECD (Dec '24)	1.8	2.8	2.0	3.3	2.0	3.6			0.8	1.9										

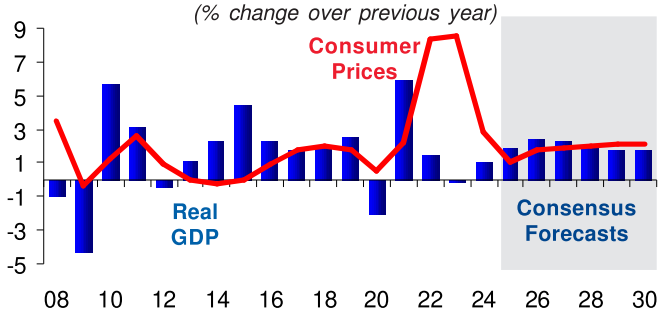
General Govt Budget Balance (% of GDP)	
2025	2026
Consensus*	*-1.2* *-0.9*

◈ Sweden's prime minister, Ulf Kristersson, announced that defence spending will increase from a projected 2.4% of GDP this year to 3.5% by 2030. This rise in spending will primarily be funded by borrowing and comes amid uncertainty about European security, as the US government reveals plans to reduce European defence commitments.

◈ Meanwhile, headline inflation unexpectedly decelerated to 0.5% (y-o-y) in March, from 1.3% in February. This marks the lowest rate since December 2020. Similarly, CPIF (which includes a fixed interest rate and is the preferred core measure by the Riksbank) eased to 2.3%, from 2.9% in February. US tariffs remain an element of uncertainty for the Riksbank, which held rates at 2.25% on March 20.

Real Growth and Inflation

(% change over previous year)



Historical Data

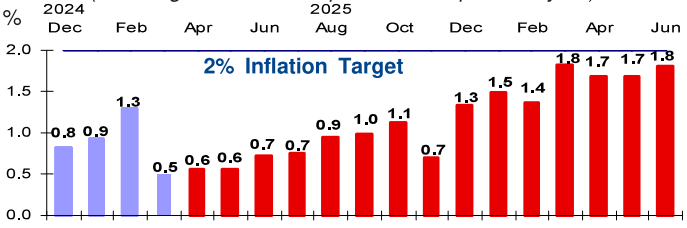
* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	5.9	1.5	-0.1	1.0
Household Consumption*	6.0	2.8	-2.1	0.3
Gross Fixed Investment*	7.3	0.3	-1.5	-1.0
Min. & Manufacturing Prodn*	6.9	2.5	1.7	-0.7
Consumer Prices*	2.2	8.4	8.5	2.8
Average Hourly Earnings (Mining & Manufacturing)*	2.6	2.4	3.8	4.0
Current Account, SEK bn	365	276	433	479 *e*
General Govt. Bud Bal, SEK bn	-7.8	59.1	-47.7	-94.2
% of GDP	-0.1	1.0	-0.8	-1.5
3 mth Interbank Rate, % end yr	0.0	2.7	4.1	2.5
10 Yr Govt Bond Yield, % end yr	0.2	2.4	2.1	2.4

Nominal GDP - Skr 6,206bn (2023). **Population -** 10.6mn (UN, Mid 2023). **Skr/$ Exchange Rate -** 10.61 (average, 2023).

e = consensus estimate based on latest survey

Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



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SWITZERLAND — APRIL 2025

	Average % Change on Previous Calendar Year												Annual Total				Rates on Survey Date			
	Gross Domestic Product		GDP, Sports Event Adjusted		Private Consump-tion		Gross Fixed Invest-ment		Industrial Production		Consumer Prices		Merchan-dise Exports (SwFrbn)		Current Account (SwFrbn)		0.2 % 3 month Swiss Av. Rate (SAR3M) (%)		0.4 % 10 Year Govt Bond Yield (%)	
Economic Forecasters	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	2025	2026	End Jul '25	End Apr '26	End Jul '25	End Apr '26
Capital Economics	1.5	2.2	na	na	2.3	2.0	0.8	2.1	na	na	0.3	0.6	na	na	59.5	62.8	na	na	na	na
Citigroup	1.4	1.4	na	na	1.7	1.6	2.0	3.0	na	na	0.5	1.0	na	na	44.4	43.8	0.3	0.0	0.4	0.4
Luzerner Kantonalbank	1.3	1.4	1.6	1.2	1.6	1.2	2.0	3.0	na	na	0.4	0.8	na	na	na	na	0.3	0.3	0.6	0.7
Zürcher Kantonalbank	1.3	1.8	1.6	1.5	1.7	1.7	1.3	2.6	3.1	3.3	0.6	0.7	289	295	41.8	54.0	0.2	0.2	0.5	0.5
S&P Global Ratings	1.2	1.5	na	na	1.6	1.5	1.0	1.7	na	na	0.5	0.8	na	na	na	na	na	na	na	na
Swiss Life Asset Mgrs	1.2	1.8	1.5	1.5	na	na	na	na	na	na	na	na	na	na	na	na	0.2	0.2	0.5	na
S&P Global Market Intel	1.2	1.5	1.2	0.8	1.6	1.4	1.6	3.2	1.0	0.5	0.5	0.8	278	284	46.4	54.4	0.2	0.2	0.7	0.9
Moody's Analytics	1.1	0.9	na	na	1.4	1.1	0.9	1.1	1.0	2.1	0.2	0.5	na	na	80.1	74.0	na	na	na	na
Econ Intelligence Unit	1.1	1.4	na	na	1.5	1.4	1.5	1.8	2.6	2.2	0.3	0.9	na	na	57.0	56.4	na	na	na	na
HSBC	1.1	1.5	na	na	1.8	1.6	1.7	2.8	1.8	2.2	0.4	0.7	na	na	59.0	58.9	0.0	0.0	na	na
Fitch Ratings	1.1	1.1	na	na	1.5	1.2	1.0	1.2	na	na	0.7	1.0	na	na	44.8	46.2	na	na	na	na
Bank Julius Baer	1.0	1.6	1.2	1.4	1.7	1.5	1.2	2.0	na	na	0.4	0.7	na	na	na	na	0.2	0.2	0.6	0.8
KOF Swiss Econ Inst	1.0	2.3	1.4	1.9	1.7	1.7	1.5	2.9	na	na	0.5	0.6	281	293	32.7	42.2	0.2	0.2	0.8	0.8
Oxford - BAK	0.8	1.2	1.2	1.2	1.6	1.4	0.8	1.1	1.5	1.5	0.4	0.5	na	na	38.6	44.2	0.5	0.5	0.6	0.6
Goldman Sachs	0.8	1.2	na	na	na	na	na	na	2.3	2.1	0.3	0.6	na	na	na	na	na	na	na	na
Allianz	0.8	1.2	na	na	na	na	na	na	na	na	0.5	0.8	na	na	na	na	0.5	0.6	0.5	0.5
Bank J Safra Sarasin	0.8	1.6	1.2	1.3	1.6	1.5	0.4	1.0	na	na	0.4	0.9	na	na	na	na	0.0	0.0	0.4	0.5
UBS	0.7	1.6	1.0	1.2	1.7	1.5	0.8	1.0	na	na	0.4	0.7	na	na	na	na	0.3	0.3	0.5	0.5
Consensus (Mean)	1.1	1.5	1.3	1.3	1.7	1.5	1.2	2.0	1.9	2.0	0.4	0.7	283	291	50.4	53.7	0.2	0.2	0.6	0.6
Last Month's Mean	1.2	1.6	1.4	1.4	1.6	1.4	1.1	1.9	1.7	2.1	0.5	0.8	280	287	59.9	61.9				
3 Months Ago	1.3	1.6	1.5	1.5	1.5	1.4	1.1	2.0	2.3	2.2	0.6	0.8	280	289	62.5	65.5				
High	1.5	2.3	1.6	1.9	2.3	2.0	2.0	3.2	3.1	3.3	0.7	1.0	289	295	80.1	74.0	0.5	0.6	0.8	0.9
Low	0.7	0.9	1.0	0.8	1.4	1.1	0.4	1.0	1.0	0.5	0.2	0.5	278	284	32.7	42.2	0.0	0.0	0.4	0.4
Standard Deviation	0.2	0.4	0.2	0.3	0.2	0.2	0.5	0.8	0.8	0.8	0.1	0.2	6	6	13.7	10.0	0.1	0.2	0.1	0.2
Comparison Forecasts															*Individual forecasts available in Excel*		General Govt Budget Balance (SwFrbn)			
IMF (Oct. '24)	1.3	1.8									1.0	1.0					2025	2026		
SECO (Mar. '25)	1.0	2.0	1.4	1.6							0.3	0.6								
OECD (Dec '24)	1.5	1.9			1.5	1.6	1.0	1.3			0.9	1.0			Consensus*		1.2	0.3		

◈ The Swiss National Bank cut its policy rate by 25bps to 0.25% at its March meeting, in response to low inflation (0.3% y-o-y in March) and ongoing global economic uncertainty. The implementation of 32% tariffs by the US (a percentage that has surprised many, notably SNB policymakers) could cause the Swiss franc to appreciate, a drop in demand, and encourage the SNB to cut rates and enter negative territory more quickly than previously anticipated. Additionally, a global trade war and worldwide economic weakness will weigh on the broader economy. The SNB projects growth to average between 1% and 1.5%, while the government revised its GDP forecasts for 2025 down to 1.4% (although these forecasts were made before the announcement of the tariffs).

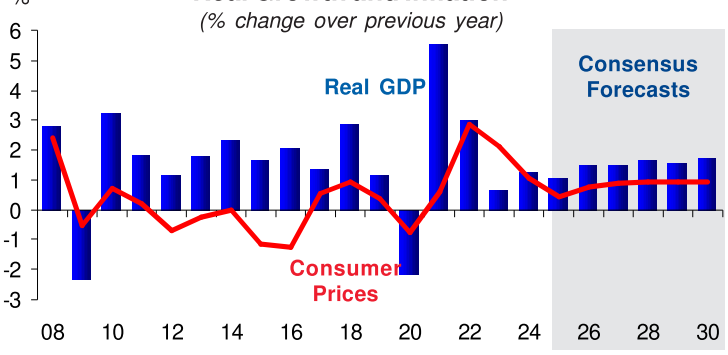
Historical Data

* % change on previous year	2021	2022	2023	2024
Gross Domestic Product*	5.6	3.0	0.7	1.3
GDP, Sports Events Adjusted	5.3	2.8	1.1	0.9
Private Consumption*	2.2	4.3	1.5	1.8
Gross Fixed Investment*	2.7	-0.1	0.1	-1.0
Industrial Production*	8.9	5.6	0.6	2.3
Consumer Prices*	0.6	2.8	2.1	1.1
Merch Exports, SwFr bn*	201	235	226	222
Current Account, SwFr bn	52.5	69.0	42.2	41.8
General Govt Bud Bal, SwFr bn	-6.7	6.8	4.4	2.7 *e*
3mth Swiss Av. Rate, % End yr	-0.7	1.0	1.7	0.5
10Yr Govt Bond Yield, % End yr	-0.2	1.6	0.7	0.3

Nominal GDP - CHF795bn (2023). **Population -** 8.9mn (UN, Mid 2023). **SwFr/$ Exchange Rate -** 0.898 (average, 2023).
e = consensus estimate based on latest survey

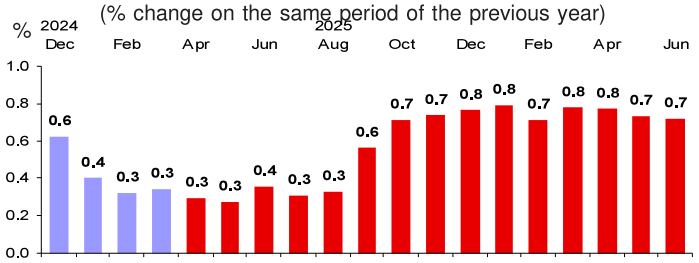
Real Growth and Inflation

(% change over previous year)



Monthly CPI Outturns and y-o-y Consensus Forecasts

(% change on the same period of the previous year)



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APRIL 2025 ADDITIONAL COUNTRIES

Forecasts for the countries in Western Europe, the Middle East and Africa shown on the next two pages were provided by the following leading economic forecasters, among others:

ABSA Capital, Akava Works, Allianz, Bank Leumi, Barclays, Capital Economics, Citigroup, Danske Bank, Deutsche Bank, Dun & Bradstreet, Economist Intelligence Unit, EthiFinance Ratings, ETLA, Euromonitor, Fitch Ratings, Forecaster Ecosa, Goldman Sachs, Moody's Analytics, Nedbank, Oxford Economics, Scope Ratings, S&P Global Market Intelligence, S&P Global Ratings, Universidade Catolica Portuguesa

AUSTRIA

Population - 9.1mn (Mid 2023, UN)

Nominal GDP - US$516.1bn (2023)

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	4.8	5.3	-1.0	-1.2	0.4	1.3
Industrial Production *(% change on previous year)*	11.2	5.6	0.3	-4.3	-0.3	2.5
Consumer Prices *(% change on previous year)*	2.8	8.6	7.8	2.9	2.6	2.1
Current Account *(US Dollar bn)*	8.3	-4.1	6.7	12.3	9.2	9.5

BELGIUM

Population - 11.6mn (2022, IMF)

Nominal GDP - US$578.5bn (2022)

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	6.2	4.2	1.3	1.0	1.0	1.3
Industrial Production *(% change on previous year)*	25.5	-0.8	-7.5	-1.4	0.4	1.0
Consumer Prices *(% change on previous year)*	2.4	9.6	4.1	3.1	2.8	1.9
Current Account *(US Dollar bn)*	9.3	-7.4	-4.1	-5.2	-3.5	-1.7

DENMARK

Population - 5.9mn (Mid 2023, UN)

Nominal GDP - US$405.2bn (2023)

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	7.4	1.5	2.5	3.7	2.8	1.9
Manufacturing Production *(% change on previous year)*	10.4	13.4	10.5	8.6	3.1	3.8
Consumer Prices *(% change on previous year)*	1.9	7.7	3.3	1.4	1.9	1.9
Current Account *(US Dollar bn)*	35.4	46.9	40.0	59.5	59.5	60.4
					Jul '25	Apr '26
3 month Interbank Rate, *End period %*	-0.3	2.5	3.9	2.8	2.2	1.8

EGYPT

Population - 104.1mn (Mid 2023, UN)

Nominal GDP - US$395.9bn (2023)[1]

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*[1]	3.3	6.6	3.8	2.9 *e*	4.0	4.7
Industrial Production *(% change on previous year)*	10.5	6.7	0.2	-0.3	1.6	4.3
Consumer Prices *(% change on previous year)*	5.2	13.9	33.8	28.5	15.6	11.0
Current Account *(US Dollar bn)*	-18.6	-10.5	-12.6	-20.9 *e*	-15.4	-13.9

[1] *year(s) ending June 30*

FINLAND

Population - 5.9mn (Mid 2023, UN)

Nominal GDP - US$300.2bn (2023)

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	2.7	0.8	-0.9	-0.1	1.3	1.5
Industrial Production *(% change on previous year)*	4.1	3.6	-2.1	-0.4	1.4	2.1
Consumer Prices *(% change on previous year)*	2.2	7.1	6.3	1.6	1.6	1.8
Current Account *(US Dollar bn)*	1.0	-6.8	-1.5	0.9	-1.6	-2.2

GREECE

Population - 10.2mn (Mid 2023, UN)

Nominal GDP - US$238.2bn (2023)

	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	8.7	5.7	2.3	2.3	2.2	2.0
Industrial Production *(% change on previous year)*	10.1	2.4	2.3	5.3	2.4	1.8
Consumer Prices *(% change on previous year)*	1.2	9.6	3.5	2.7	2.5	2.1
Current Account *(US Dollar bn)*	-14.5	-22.3	-15.1	-16.5	-16.0	-15.2

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ADDITIONAL COUNTRIES — APRIL 2025

IRELAND

Population - 5.2mn (Mid 2023, UN)

Nominal GDP - US$545.7bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	16.3	8.6	-5.5	1.2	3.3	2.7
Industrial Production *(% change on previous year)*	30.4	12.3	-2.5	-5.1	0.5	1.4
Consumer Prices *(% change on previous year)*	2.3	7.8	6.3	2.1	1.9	2.0
Current Account *(US Dollar bn)*	64.6	48.1	44.6	99.0	59.1	59.8

ISRAEL

Population - 9.3mn (Mid 2023, UN)

Nominal GDP - US$507.2bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	9.4	6.3	1.8	0.9	3.3	3.7
Industrial Production *(% change on previous year)*	7.3	14.2	0.8	-0.7	3.9	3.4
Consumer Prices *(% change on previous year)*	1.5	4.4	4.2	3.1	2.9	2.2
Current Account *(US Dollar bn)*	16.2	17.4	19.0	17.1	19.4	20.1
					Jul '25	Apr '26
3 Month Interbank Rate, *end period %*	0.1	3.7	4.5	4.5	4.5	4.0

NIGERIA

Popn - 227.9mn (Mid 2023, UN)

Nominal GDP - US$367.4bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	4.8	3.3	2.9	3.4	3.3	3.4
Consumer Prices *(% change on previous year)*	19.2	18.9	24.6	33.2	21.8	15.2
Current Account *(US Dollar bn)*	-3.3	3.5	6.0	17.2	10.7	8.8

PORTUGAL

Population - 10.4mn (Mid 2023, UN)

Nominal GDP - US$287.4bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	5.6	7.0	2.6	1.9	2.1	1.9
Industrial Production *(% change on previous year)*	3.9	0.2	-3.2	0.5	-0.1	1.7
Consumer Prices *(% change on previous year)*	1.3	7.8	4.3	2.4	2.2	1.9
Current Account *(US Dollar bn)*	-1.7	-5.2	1.6	6.6	5.1	5.6

SAUDI ARABIA

Popn - 33.3mn (Mid 2023, UN)

Nominal GDP - US$1,067.1bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	5.1	7.5	-0.8	1.3	3.7	4.1
Consumer Prices *(% change on previous year)*	3.1	2.5	2.4	1.6	2.1	2.0
Current Account *(US Dollar bn)*	40.5	150.4	35.1	-5.7	-12.2	-14.0

SOUTH AFRICA

Popn - 63.2mn (Mid 2023, UN)

Nominal GDP - US$379.4bn (2023)	Historical Data				Consensus Forecasts	
	2021	2022	2023	2024	2025	2026
Gross Domestic Product *(% change on previous year)*	4.7	1.8	0.6	1.6	1.6	2.0
Manufacturing Production *(% change on previous year)*	6.2	-0.3	0.6	-0.5	1.4	2.2
Consumer Prices *(% change on previous year)*	4.6	6.9	5.9	4.4	3.8	4.2
Current Account *(US Dollar bn)*	15.5	-2.0	-6.1	-2.4	-8.4	-10.2
					Jul '25	Apr '26
3 Month Interbank Rate, *end period %*	3.9	7.3	8.5	7.8	7.4	7.1

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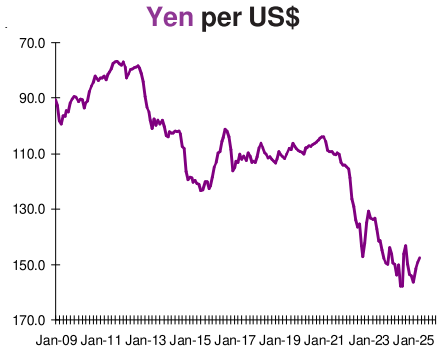
APRIL 2025 FOREIGN EXCHANGE FORECASTS

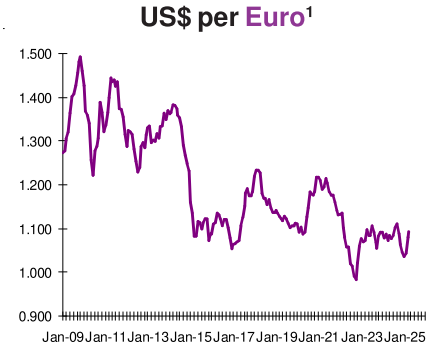
Foreign Exchange Rates*

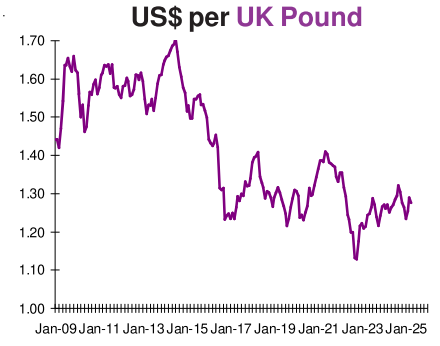
*All US$ rates are amounts of currency per dollar, except the UK pound and the euro which are reciprocals. A positive (+) sign for the % change implies an appreciation of the currency against the US Dollar and vice versa.

	Historical Data: Rates at end of:				Latest Spot Rate (Apr. 7)	Consensus Forecasts					
	2021	2022	2023	2024		Forecast End Jul '25	Percent Change	Forecast End Apr '26	Percent Change	Forecast End May '27	Percent Change
Rates per US Dollar*											
Canadian Dollar	1.263	1.355	1.319	1.438	1.422	1.441	-1.3	1.418	0.3	1.376	3.4
Egyptian Pound	15.66	24.75	30.90	50.87	51.39	52.32	-1.8	54.19	-5.2	55.62	-7.6
European Euro	1.137	1.067	1.105	1.036	1.092	1.075	-1.6	1.088	-0.4	1.109	1.5
Israeli Shekel	3.112	3.529	3.601	3.644	3.779	3.649	3.6	3.614	4.6	3.571	5.8
Japanese Yen	115.2	131.9	141.0	157.2	147.6	147.9	-0.2	144.9	1.8	138.8	6.3
Nigerian Naira	410.2	460.8	905.5	1532.5	1587	1578	0.6	1644	-3.5	1771	-10.4
Saudi Arabian Riyal	3.750	3.758	3.750	3.755	3.755	3.750	0.1	3.750	0.1	3.750	0.1
South African Rand	15.96	17.02	18.29	18.87	19.58	18.64	5.1	18.56	5.5	18.39	6.4
United Kingdom Pound	1.354	1.203	1.275	1.252	1.276	1.281	0.4	1.291	1.2	1.303	2.1
Rates per Euro											
Danish Krone	7.438	7.436	7.455	7.457	7.464	7.456	0.1	7.457	0.1	7.457	0.1
Norwegian Krone	10.03	10.51	11.22	11.76	11.94	11.45	4.3	11.19	6.7	10.94	9.2
Swedish Krona	10.30	11.12	11.13	11.44	10.96	11.04	-0.7	10.88	0.7	10.58	3.6
Swiss Franc	1.036	0.987	0.930	0.938	0.941	0.947	-0.7	0.949	-0.9	0.963	-2.3

*For more forecasts covering a majority of world currencies, please email us about **Foreign Exchange Consensus Forecasts.***







APRIL 2025 OIL PRICES

Brent, US$ per barrel

Range 1990-2025	US$9.10 - US$143.95
Spot Rate (Apr. 7)	US$ 66.13

Brent April 2025 survey	Forecasts for End Jul 2025	End Apr 2026
Consensus (Mean) Forecasts	70.1	70.0
High	77.8	83.0
Low	60.0	60.0
Standard Deviation	4.3	4.3
No. of Forecasts	40	38

Oil Prices Plunge on Back of Tariff Shock

The news on April 2 that the US wanted to levy tariffs against a broad range of countries hit the price of oil which saw big sell-offs, as this hikes the probability of recession in the global economy. Brent fell to US$65 per barrel at one point and ended April 7 at US$66.13, down from US$77.78 on April 1. In addition, eight key OPEC+ oil producers chose to push ahead with oil output increases, of 411,000 barrels per day. Expanding supply usually weighs on oil prices, and indeed, Brent fell by 6% on April 3. The OPEC+ supply increase could signal appeasement of a US administration demanding lower oil prices. It could also be a warning to OPEC members which overproduce, as well as an effort by OPEC+ generally to expand market share, though at a cost. OPEC+ continued to hold a relatively bullish view on oil demand for later this year, although pessimism and uncertainty are still roiling the markets as of April 10, even after a 90-day pause in the tariff rollout.

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LONG-TERM FORECASTS — APRIL 2025

continued from page 3

Germany

* % change over previous year	Historical				Consensus Forecasts						
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	3.7	1.4	-0.3	-0.2	0.1	1.3	1.5	1.3	1.2	1.2	0.9
Private Consumption*	2.3	5.6	-0.4	0.3	0.6	1.2	1.3	1.2	1.2	1.2	1.0
Machinery & Eqpt Investment*	3.5	4.5	-0.8	-5.5	-1.1	4.0	3.8	2.9	2.4	2.3	1.7
Industrial Production*	3.6	-0.7	-1.8	-4.4	-0.7	1.6	2.3	1.7	1.5	1.2	0.9
Consumer Prices*	3.1	6.9	5.9	2.3	2.2	2.1	2.1	2.1	2.2	2.1	2.1
Current Account Balance (Euro bn)	255	175	243	249	217	217	211	206	204	215	221
10 Year Govt Bond Yield, % [1]	-0.2	2.6	2.0	2.4	2.7 [3]	2.8 [4]	2.7	2.7	2.7	2.6	2.6

France

* % change over previous year	Historical				Consensus Forecasts						
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.8	2.6	1.1	1.1	0.6	1.0	1.3	1.3	1.3	1.3	1.1
Household Consumption*	5.2	3.0	0.9	0.9	1.0	1.1	1.3	1.3	1.4	1.4	1.2
Business Investment*	10.0	3.0	3.1	-1.6	-0.9	1.0	1.8	2.0	1.6	1.8	1.2
Manufacturing Production*	5.4	2.1	0.9	-0.6	-0.5	1.0	1.6	1.5	1.4	1.3	0.9
Consumer Prices*	1.6	5.2	4.9	2.0	1.3	1.6	1.8	1.9	1.9	1.9	1.8
Current Account Balance (Euro bn)	7.8	-30.5	-28.5	-8.5	-6.1	-8.8	-12.6	-16.2	-17.1	-15.8	-21.8
10 Year Govt Bond Yield, % [1]	0.2	3.1	2.6	3.2	3.3 [3]	3.2 [4]	3.2	3.1	3.2	3.2	3.1

United Kingdom

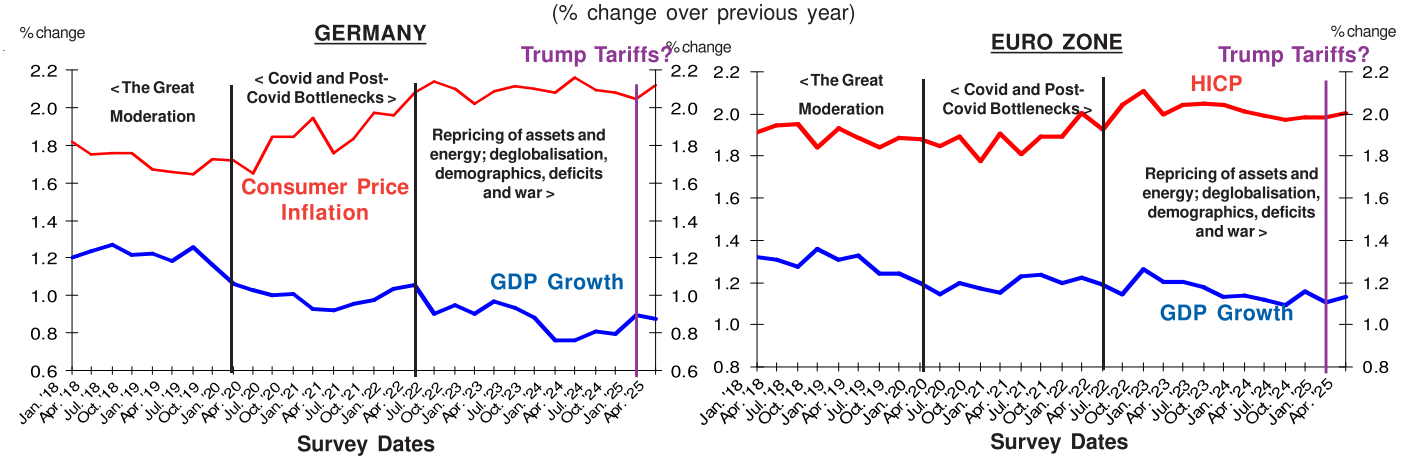
* % change over previous year	Historical				Consensus Forecasts						
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	8.6	4.8	0.4	1.1	0.7	1.1	1.4	1.5	1.5	1.6	1.5
Household Consumption*	7.0	7.3	0.5	0.6	0.9	1.1	1.4	1.4	1.4	1.5	1.5
Gross Fixed Investment*	7.6	5.1	0.3	1.5	0.2	1.4	2.1	2.1	2.1	1.8	1.9
Manufacturing Production*	3.8	-7.4	1.0	-0.7	-0.3	0.8	1.1	0.7	0.6	0.5	0.4
Retail Prices (underlying rate)*	4.6	11.6	8.3	2.5	3.8	3.4	3.3	3.5	3.5	3.5	3.4
Consumer Prices*	2.6	9.1	7.3	2.5	3.1	2.4	2.2	2.3	2.3	2.3	2.3
Current Account Balance (£ bn)	-10.0	-53.1	-95.1	-75.7	-73.5	-68.8	-60.2	-53.9	-54.0	-54.1	-64.3
10 Year Govt Bond Yield, % [2]	1.0	3.7	3.5	4.6	4.4 [3]	4.3 [4]	4.1	4.0	4.0	4.0	3.9

[1] *Signifies average for period* [2] *End period* [3] *End July 2025* [4] *End April 2026*

We have 'telescoped' the **6-10 year rolling-period average of GDP and CPI forecasts (collected four times a year)** from **January 2018 to April 2025**. This encapsulates the Great Moderation era of globalisation and 0% interest rates, followed by the Covid and Post-Covid era, and finally the current period. Inflection points like war in Ukraine, inflation, rapidly tightening monetary policies have triggered a reset in geopolitics and globalisation, not to mention repriced assets, labour and debt.

Germany and Euro zone – Long-Term 6-10 Year Forecasts between January 2018 - April 2025

(% change over previous year)



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Italy

* % change over previous year	Historical 2021	2022	2023	2024	Consensus Forecasts 2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	8.9	4.8	0.7	0.7	0.5	0.8	0.9	0.9	0.8	0.8	0.6
Household Consumption*	5.9	6.2	0.4	0.5	0.9	0.9	0.8	0.6	0.7	0.8	0.7
Gross Fixed Investment*	21.5	7.4	9.0	0.5	0.0	1.0	1.5	1.7	1.2	0.9	0.8
Industrial Production*	12.3	0.3	-2.1	-3.9	0.0	1.4	1.5	1.3	1.1	1.0	0.5
Consumer Prices*	1.9	8.1	5.7	1.0	1.9	1.7	1.8	1.8	1.9	1.9	1.9
Current Account Balance (Euro bn)	38.7	-34.9	-0.3	30.0	28.6	32.6	38.6	34.9	33.9	31.8	34.4
10 Year Treasury Bond Yield, %[2]	1.2	4.7	3.7	3.5	3.7 [3]	3.8 [4]	4.1	4.1	4.1	4.2	4.2

Canada

* % change over previous year	Historical 2021	2022	2023	2024	Consensus Forecasts 2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.0	4.2	1.5	1.5	1.0	0.8	1.7	1.9	1.9	1.9	1.9
Personal Expenditure*	5.9	5.5	1.8	2.4	1.9	1.0	1.8	2.0	2.1	2.1	2.0
Machinery & Eqpt Investment*	12.2	4.7	-2.7	-2.1	-4.7	-2.8	2.4	3.4	3.5	2.7	2.0
Industrial Production*	5.4	3.8	-0.1	-0.2	-0.1	0.3	2.0	1.9	1.9	1.7	1.5
Consumer Prices*	3.4	6.8	3.9	2.4	2.4	2.1	2.0	2.1	2.1	2.1	2.1
Current Account Balance (C$ bn)	-0.5	-8.7	-18.4	-15.6	-31.4	-39.5	-41.7	-43.3	-40.4	-54.0	-59.6
10 Year Treasury Bond Yield, %[2]	1.4	3.3	3.1	3.2	3.0 [3]	3.1 [4]	3.5	3.5	3.5	3.5	3.5

Euro zone

* % change over previous year	Historical 2021	2022	2023	2024	Consensus Forecasts 2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.3	3.5	0.4	0.9	0.9	1.2	1.5	1.4	1.4	1.3	1.1
Private Consumption*	4.7	5.0	0.5	1.0	1.3	1.2	1.4	1.3	1.4	1.3	1.1
Gross Fixed Investment*	3.8	2.0	1.7	-1.9	1.2	2.1	2.5	2.4	2.1	1.8	1.4
Industrial Production*	8.9	1.7	-1.6	-3.0	-0.1	1.5	2.0	1.6	1.4	1.3	1.1
Consumer Prices*	2.6	8.4	5.4	2.4	2.2	1.9	1.9	2.0	2.0	2.0	2.0
Current Account Balance (Euro bn)	326	1.4	247	428	349	349	381	379	372	392	441
3 month Euribor Rate, % **	-0.6	2.1	3.9	2.7	2.1 [3]	2.0 [4]	2.1	2.2	2.2	2.3	2.4

Netherlands

* % change over previous year	Historical 2021	2022	2023	2024	Consensus Forecasts 2025	2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.3	5.0	0.1	1.0	1.5	1.2	1.6	1.5	1.5	1.5	1.4
Private Consumption*	4.5	6.9	0.8	1.2	1.9	1.7	1.7	1.5	1.5	1.5	1.4
Gross Fixed Investment*	2.4	3.4	1.3	-0.5	1.5	2.1	2.1	2.1	1.9	1.9	1.4
Manufacturing Production*	7.2	7.8	-0.4	-3.0	0.9	1.9	2.0	2.0	1.9	1.6	1.2
Consumer Prices*	2.7	10.0	3.8	3.3	3.0	2.3	2.1	2.1	2.2	2.2	2.2
Current Account Balance (Euro bn)	89.3	65.7	105.2	112.7	107.6	103.5	106.4	103.9	105.9	104.9	117.1
10 Year Treasury Bond Yield, %[2]	0.0	2.9	2.3	2.6	2.7 [3]	2.5 [4]	2.6	2.7	2.7	2.6	2.8

[1] *Signifies average for period* [2] *End period* [3] *End July 2025* [4] *End April 2026*

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Norway

* % change over previous year	Historical 2021	2022	2023	2024	2025	Consensus Forecasts 2026	2027	2028	2029	2030	2031-35[1]
Gross Dom Prod (Mainland)*	4.5	4.3	0.7	0.6	1.2	1.7	1.7	1.5	1.4	1.3	1.3
GDP (Total)*	3.9	3.2	0.1	2.1	1.0	1.4	1.3	1.4	1.2	1.1	1.1
Private Consumption*	5.1	7.4	-1.4	1.3	1.8	2.1	2.2	2.1	1.9	1.8	1.8
Gross Fixed Investment*	0.7	0.3	-1.5	-1.9	0.9	1.8	2.9	2.7	2.4	2.0	1.6
Manufacturing Production*	3.2	-0.3	-0.2	1.8	0.7	1.1	-0.3	-0.1	-0.4	-0.4	-0.4
Consumer Prices*	3.5	5.8	5.5	3.1	2.9	2.2	2.0	2.1	2.1	2.0	2.0
Current Account Balance (Nkr bn)	644	1699	887	890	786	708	704	635	606	425	380
10 Year Treasury Bond Yield, %[2]	1.7	3.2	3.3	3.9	3.9 [3]	3.7 [4]	3.4	3.6	3.6	3.6	3.6

Spain

* % change over previous year	Historical 2021	2022	2023	2024	2025	Consensus Forecasts 2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	6.7	6.2	2.7	3.2	2.5	1.9	1.8	1.7	1.7	1.6	1.3
Household Consumption*	7.2	4.9	1.7	2.8	3.0	2.0	1.8	1.6	1.6	1.5	1.2
Gross Fixed Investment*	2.6	3.3	2.1	2.3	3.4	3.0	2.8	2.4	2.4	2.1	1.6
Industrial Production*	7.1	2.3	-1.6	0.7	1.0	1.7	2.0	1.9	1.8	1.8	1.1
Consumer Prices*	3.1	8.4	3.5	2.8	2.5	2.0	2.1	2.1	2.1	2.1	2.1
Current Account Balance (Euro bn)	14.9	13.0	12.2	11.3	41.5	38.5	38.1	40.0	41.7	49.9	57.2
10 Year Treasury Bond Yield, %[2]	0.6	3.7	3.0	3.0	3.2 [3]	3.2 [4]	3.4	3.4	3.4	3.5	3.6

Sweden

* % change over previous year	Historical 2021	2022	2023	2024	2025	Consensus Forecasts 2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	5.9	1.5	-0.1	1.0	1.9	2.4	2.3	2.0	1.8	1.7	1.7
Household Consumption*	6.0	2.8	-2.1	0.3	1.7	2.6	2.3	2.0	2.0	2.0	1.9
Gross Fixed Investment*	7.3	0.3	-1.5	-1.0	2.3	3.5	3.1	2.5	2.0	1.8	1.7
Mining & Manufacturing Productior	6.9	2.5	1.7	-0.7	2.1	2.6	2.5	2.2	1.3	1.4	1.6
Consumer Prices*	2.2	8.4	8.5	2.8	1.1	1.8	2.0	2.0	2.1	2.1	2.1
Current Account (Skr bn)	365	276	433	479	376	349	344	302	287	285	319
10 Year Treasury Bond Yield, %[2]	0.2	2.4	2.1	2.4	2.5 [3]	2.6 [4]	2.6	2.7	2.7	2.8	2.8

Switzerland

* % change over previous year	Historical 2021	2022	2023	2024	2025	Consensus Forecasts 2026	2027	2028	2029	2030	2031-35[1]
Gross Domestic Product*	5.6	3.0	0.7	1.3	1.1	1.5	1.5	1.7	1.5	1.7	1.6
GDP, Sports Events Adjusted*	5.3	2.8	1.1	0.9	1.3	1.3	1.5	1.4	1.6	1.5	1.6
Private Consumption*	2.2	4.3	1.5	1.8	1.7	1.5	1.4	1.3	1.4	1.4	1.3
Gross Fixed Investment*	2.7	-0.1	0.1	-1.0	1.2	2.0	1.9	1.9	2.0	1.9	1.9
Industrial Production*	8.9	5.6	0.6	2.3	1.9	2.0	2.1	2.0	2.1	2.0	1.7
Consumer Prices*	0.6	2.8	2.1	1.1	0.4	0.7	0.9	0.9	0.9	1.0	1.0
Current Account Balance (SwFr bn)	52.5	69.0	42.2	41.8	50.4	53.7	57.3	60.2	62.7	69.1	77.4
10 Year Treasury Bond Yield, %[2]	-0.2	1.6	0.7	0.3	0.6 [3]	0.6 [4]	0.9	1.0	1.1	1.2	1.2

[1]*Signifies average for period* [2]*End period* [3]*End July 2025* [4]*End April 2026*

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- **GDP** - Gross Domestic Product **IMF** - International Monetary Fund
  na - not available **Emu** - European economic and monetary union
  OECD - Organisation for Economic Co-operation and Development **ECB** - European Central Bank
  BoE - Bank of England **PMI** - Purchasing Managers Index
  y-o-y - year-on-year **q-o-q** - quarter-on-quarter **m-o-m** - month-on-month

- Measures of GDP, Consumption, Business Investment and Industrial Production are expressed in real (i.e. inflation-adjusted) terms. These variables, and certain others as indicated, are expressed as percentage changes over the previous year.

- All individual country forecasters on pages 4-24 are listed in descending order of their 2023 real GDP estimates. Consensus forecasts are mean arithmetic averages of the listed individual estimates.

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CONSENSUS FORECASTS: WORLD ECONOMIC ACTIVITY

↑ Consensus Forecast **Increase** From Prior Month ↓ Consensus Forecast **Decrease** From Prior Month

April Survey	Real GDP % increase			Consumer Prices % increase			Current Account Balance, US$bn		
	2024	2025	2026	2024	2025	2026	2024	2025	2026
Belgium	1.0	1.0 ↓	1.3	3.1	2.8 ↑	1.9 ↑	-5.2	-3.5	-1.7
Canada	1.5	1.0 ↓	0.8 ↓	2.4	2.4 ↑	2.1 ↑	-11.4	-21.9	-28.0
France	1.1	0.6 ↓	1.0	2.0	1.3 ↓	1.6	-9.2	-6.6	-9.6
Germany	-0.2	0.1 ↓	1.3 ↑	2.3	2.2	2.1 ↑	269.1	232.8	237.2
Italy	0.7	0.5 ↓	0.8 ↓	1.0	1.9 ↑	1.7	32.4	30.7	35.5
Japan	0.1	1.0 ↓	0.7 ↓	2.7	2.9 ↑	1.8	190.3	203.3	210.8
Netherlands	1.0 ↑	1.5 ↓	1.2	3.3	3.0 ↓	2.3 ↓	122.0	115.4	113.0
Norway	0.6	1.2 ↓	1.7	3.1	2.9 ↑	2.2 ↑	82.9	73.3	69.3
Spain	3.2	2.5	1.9	2.8	2.5 ↑	2.0	52.1	44.5	42.1
Sweden	1.0	1.9 ↑	2.4 ↓	2.8	1.1 ↑	1.8	45.4	36.5	35.2
Switzerland	1.3	1.1 ↓	1.5 ↓	1.1	0.4 ↓	0.7 ↓	47.6	57.1	61.6
United Kingdom	1.1 ↑	0.7 ↓	1.1 ↓	2.5	3.1	2.4	-96.8	-93.8	-89.0
United States	2.8	1.4 ↓	1.7 ↓	3.0	3.2 ↑	2.7 ↑	-1134	-1194	-1157
North America[1]	2.7	1.4 ↓	1.6 ↓	2.9	3.1 ↑	2.7 ↑	-1145	-1216	-1185
Western Europe[2]	0.9	0.9 ↓	1.3 ↓	2.2	2.1	1.9	702.0	601.6	611.4
European Union[2]	1.2	1.1 ↓	1.5	2.8	2.2	2.0	550.8	537.3	543.3
Euro zone[2]	0.9	0.9	1.2	2.4	2.2	1.9	462.6	373.9	380.6
Asia Pacific[3]	3.8	3.7	3.5	1.6	1.6	1.8	821.3	730.8	690.5
Eastern Europe[4,7]	3.2	2.6	2.6	14.7	10.0	7.0	1.0	-21.9	-29.5
LatAm ex Venezuela[5,7]	2.2	2.1	2.2	14.7	6.2	4.9	-75.2	-93.2	-103.6
Other Countries[6]	1.9	3.3	3.7	12.7	8.4	6.3	1.4	-6.0	-9.2
Total[7]	2.7	2.3	2.4	3.8	3.0	2.6			

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*Regional totals and the grand totals for GDP growth and inflation, are weighted averages calculated using **2020 GDP weights, converted at average 2020 US$ exchange rates.** These weights and rates were last updated in July 2021. Due to annual updates in exchange rates and GDP weights in July-September of each year, there will be differences in the Regional and World Aggregates in those months. Therefore, some aggregates may not be comparable to the aggregates from previous months. Current account forecasts given in national currencies on pages 7-24 have been converted using consensus exchange rate forecasts for the purposes of comparison. [1] USA and Canada. [2] The Euro zone aggregate is taken from our panel's latest forecasts (pages 18-19). The Euro zone current account data and forecasts are based on extra-euro zone data, i.e., an aggregate of the Euro zone member states' transactions with nonresidents of theat economic area. The European Union data includes the Euro zone countries listed on page 18 plus Denmark and Sweden, as well as the Czech Republic, Hungary, Poland, Romania, Bulgaria (data taken from Eastern Europe Consensus Forecasts). Western Europe comprises the six Euro zone countries listed in the table above, plus Austria, Denmark, Finland, Greece, Ireland, Norway, Portugal, Sweden, Switzerland and the United Kingdom. [3] Survey results for Japan plus sixteen other countries taken from **Asia Pacific Consensus Forecasts**. [4] Twenty-seven countries, including twelve European Union countries taken from the latest issue of **Eastern Europe Consensus Forecasts.** [5] Seventeen countries taken from the latest issue of **Latin American Consensus Forecasts** (inflation figures are on a December/December basis). Venezuela is excluded beginning in April 2018. [6] Egypt, Israel, Nigeria, Saudi Arabia and South Africa. [7] The **Eastern Europe** and **Latin American** components of the **World Total** are taken from the prior month's survey.*

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Request IR-03:

Reference: On pages 26-28 of its evidence, Concentric discusses the integration of Canadian and U.S. capital markets in order to justify its heavy reliance on U.S. utilities, as well as U.S. capital market statistics such as U.S. Treasury yields. As part of its discussion, Concentric's Figure 13 (on page 27), includes a dated 2021 assessment of country risk ratings for Canada and the U.S. that are provided by a European bank (UBS), as opposed to referencing more recent ratings provided by reputable debt rating agencies.

Question:

(a) Please confirm that more recent (July 2025) data from reputable debt rating agencies reports the following debt ratings, which show that Canada has higher debt ratings than the U.S. with S&P and Moody's, consistent with their currently lower government market bond yields than U.S government yields[1]:

Canada's sovereign debt: AAA (S&P); Aaa (Moody's); and AA+ (Fitch)

U.S. sovereign debt: AA+ (S&P); Aa1 (Moody's), and AAA (Fitch).

If not confirmed, please provide the corrected ratings and the sources for these ratings.

(b) Would Concentric agree that there is a "home bias" among investors, not only from Canada, but also globally. For example, while Canadian equities generally represent less than 3% of world stock markets (e.g., 2.9% as of September 30, 2021) Canadian investors (including institutions) had a domestic allocation for equities of over 40% in 2020.[2] The home bias is even more dramatic in Canadian fixed income markets, which similarly comprise about 3% of global fixed income markets, but

[1] Source: Sovereigns Ratings List 2025 | countryeconomy.com, July 31, 2025.
[2] Source: https://www.finiki.org/wiki/Home_country_bias#cite_note-8, September 10, 2022.

Canadian investors had a domestic allocation for fixed income of approximately 84%[3].

If not confirmed, please explain and provide empirical support for any such assertions.

(c) Please confirm that U.S. yields have been higher than Canada yields for several years, and that this is still the case. For example, as of July 30, 2025, 30-year Government of Canada bond yields were 3.79%, while U.S. Government 30-year Treasury Bond yields were 1.07% higher at 4.86%. If not confirmed, please explain.

(d) In light of the information cited in questions (b) and (c) above, does Concentric believe that NSPML would choose to borrow at rates that are over 1% higher in the U.S. rather than borrow in Canada, and in the process also expose themselves to currency risk, on top of paying higher interest costs? If so, please elaborate on 16 the basis for this belief.

Response IR-03:

a) Confirmed.

b) "Home bias" refers to an investor's tendency to invest a majority of their portfolio in domestic equities or to have a concentrated exposure to their employer's stock rather than diversifying by investing in foreign equities. Systematic risk is reduced by investing in foreign equities because they are not fully impacted by changes in domestic markets. Concentric does not agree that there is "home bias" among investors in the utility industry. For example, as shown in the table below, there have been approximately two dozen acquisitions of U.S. utilities by Canadian utility holding companies since 2000. This track

[3] Ibid.

record does not suggest a "home bias" from Canadian investors.

Cross-Border Utility Acquisitions

Buyer	Target	Deal Value (US$ Millions)	Year Closed
Canadian Buyers Acquiring U.S. Utilities Since 2000			
Enbridge Inc.	Public Service Co. of NC	$4,297	2024
Enbridge Inc.	Questar Gas Co.	$5,798	2024
Enbridge Inc.	East Ohio Gas Company	$8,917	2024
ENMAX Corporation	Emera Maine	$959	2020
Liberty Utilities Co.	St. Lawrence Gas Company, Inc.	$65	2019
AltaGas	WGL Holdings Inc.	$6,955	2018
Algonquin Power & Utilities	Empire District Electric Co	$2,349	2017
Fortis Inc.	ITC Holdings Corp	$11,577	2016
Emera Inc.	TECO Energy Inc.	$10,585	2016
Caisse de dépôt et placement	IPALCO Enterprises Inc.	$134	2016
Caisse de dépôt et placement	IPALCO Enterprises Inc.	$247	2015
Algonquin Power & Utilities	New Hampshire Gas Corp	$3	2015
Fortis Inc.	UNS Energy Corp	$4,383	2014
Algonquin Power & Utilities	New England Gas Company	$74	2013
Fortis Inc.	CH Energy Group Inc.	$1,526	2013
Algonquin Power & Utilities	Natural Gas Distribution Operations	$141	2013
Algonquin Power & Utilities	California Pacific Electric Co.	$39	2012
AltaGas	SEMCO Holding Corp	$1,156	2012
Algonquin Power & Utilities	Midwest Natural Gas Distribution	$124	2012
Algonquin Power & Utilities	Granite State / EnergyNorth	$285	2012
Gaz Metro LP	Central Vermont Public Service	$700	2012
Emera Inc	Maine & Maritimes Corporation	$99	2010
Gaz Métro LP	Green Mountain Power Corp	$293	2007
NS Power Holdings Inc.	Bangor Hydro-Electric Co.	$365	2001
Total U.S. Acquisitions by Canadian Utilities		**$61,071**	

Further, an August 25, 2025 article from Bloomberg reported that "Canadian investors have injected C$124 billion ($89.7 billion) into U.S. Stocks in 2025, even as Trump's trade war disrupted the two countries' longstanding, largely tariff-free relationship, according to data

compiled by Warren Lovely at National Bank of Canada Financial Markets. That's on track for the largest yearly inflow since at least the 1990s."

"Canadian investors can't seem to resist the lure of the US market, which has outperformed the domestic benchmark in each of the past two years. Pinpointing the exact reason for this year's enthusiasm – when the relations between the two countries have grown more tense – is a tricky proposition. But optimism over an artificial intelligence frenzy that's pushed US tech titans to multiple records looms large."

c) Concentric agrees that U.S. government bond yields have generally been higher than Canadian government bond yields for the past several years, and this continues to be the case as of August 2025. However, Canadian and US government bond yields have shown a strong correlation, moving in the same direction over the long term. The relationship between Canadian and US government bond yields is complex and influenced by a variety of economic and political factors. While recent trends indicate a divergence with lower Canadian yields, the potential for future convergence exists, driven by a potential weakening of the US economy, the impact of trade policies, and shifts in monetary and fiscal policies in both countries. This is consistent with the April 2025 forecast from Consensus Economics, which shows the spread between 10-year government bond yields in Canada and the U.S. narrowing from 100 basis points in 2026 to 50 basis points by the end of the decade, as shown in the table below.

Long-Term Forecast for 10-Year Government Bond Yields[4]

	2026	2027	2028	2029	2030	2031-2035
Canada	3.1%	3.5%	3.5%	3.5%	3.5%	3.5%
U.S.	4.1%	4.1%	4.1%	4.0%	4.0%	4.0%

d) NSPML's borrowing costs are not addressed in Concentric's report, but Canadian utility companies borrow in both Canadian and U.S. markets for many reasons, including diversification of capital market access, currency risk management, and matching of revenue streams with capital costs. Of note, the risk premium model estimated by Concentric with only Canadian market inputs including treasury yields produces base results before any risk premium above that requested by the Company (See Concentric Report p. 51, Figure 26). The Company has requested a continuation of its existing authorized ROE of 9.0% even though the market data supports a higher return for NSPML.

[4] Consensus Forecasts by Consensus Economics Inc., Survey Date April 7, 2025, at 3 and 29.

Request IR-04:

Preamble: **In Figure 14 on page 29 of its' evidence, Concentric lists four US-based utilities that it denotes as "FERC Authorized Transmission ROEs – Subsea Cables." The figure also provides allowed ROEs for three of the four utilities.**

Question:

Please provide all details regarding these utilities included in a table that compares them to NSPML (which should also be included in that table) for the most recent reporting year along the following dimensions:

(i) Ownership structure (i.e., if they are owned partly or wholly by a larger utility company – including the entire ownership percentages);

(ii) Total regulated assets;

(iii) Total regulated revenue; and,

(iv) Total regulated net income.

Response IR-04:

Concentric provided the allowed ROEs for the representative subsea cables for context. The requested data was not part of that gathered by Concentric for its evidence and requires further research. Data for Trans Bay Cable is provided in the table below, which is a revised version of Figure 14 in Concentric's report. Financial and accounting data is filed by Cross-Sound Cable and Neptune Regional Transmission System in annual reports filed with the New York Public Service Commission. However, those annual reports are filed under confidential seal, and the relevant financial and accounting data is redacted.

Figure 1: FERC Authorized Transmission ROEs – Subsea Cables (revised)

Project	Ownership	Assets ($000)	Revenue ($000)	Net Income ($000)
Trans Bay Cable	NextEra Energy Inc.	751,760	135,130	51,551
Cross-Sound Cable	Argo Infrastructure Partners	N/A	N/A	N/A
NYPA Propel	The New York Power Authority (NYPA) and New York Transco (NY Transco is owned by subsidiaries of Con Edison, National Grid, Avangrid, and CH Energy Group)	N/A (in permitting and construction for operation in 2030)	N/A	N/A
Neptune Regional Transmission System	Calpers, NM Neptune, LLC (an affiliate of Northwestern Mutual Life), Ulico	N/A	N/A	N/A

Source: S&P Capital IQ, principally YE 2024 data, and web search.

Cross Sound Cable and Neptune collect revenue requirements under long-term contractual agreements with Long Island Power Authority (LIPA) and do not publish standard financial reports. Four submarine cables installed under Long Island Sound form part of the interconnection between the T&D System and other utility systems in upstate New York and Connecticut:

1. Dunwoodie to Shore Road (Y-50)
2. East Garden City to Sprain Brook (Y-49)
3. Northport to Norwalk Harbor (NNC)
4. Shoreham to East Shore (Cross Sound Cable)

A fifth submarine cable (Sayreville to Levittown, also known as the Neptune Cable) connects LIPA's service area with New Jersey and allows for the purchase of energy and capacity from resources in the Pennsylvania-New Jersey-Maryland region (PJM).

Request IR-05:

Preamble: **In Figure 17, on page 35 of its evidence, Concentric provides its North American Electric T&D proxy group of five utilities (two Canadian and three U.S) as copied below:**

Figure 17: North American Electric T&D Proxy Group

Company	Ticker
Canadian Utilities Ltd.	CU
Hydro One Ltd.	H
Consolidated Edison, Inc.	ED
Eversource Energy	ES
Exelon Corp.	EXC

During the 2024 Ontario Energy Board (OEB) proceedings dealing with the "2024 REVIEW OF COST OF CAPITAL PARAMETERS AND DEEMED CAPITAL STRUCTURE" (EB-2024-0063), Concentric advanced the following "North American Electric T&D Proxy Group" of 19 utilities (four Canadian and 15 U.S.) in Figure 7 on page 49 of its evidence (which was filed on July 19, 2024). The current sample includes two of the four Canadian utilities included in its 2024 OEB evidence, and two of the 15 U.S. utilities included in its OEB evidence, plus one "new" U.S. utility (Consolidated Edison, Inc.).

Figure 7: North American Electric Proxy Group

Company	Ticker
Canadian Utilities Limited	CU
Emera Corp.	EMA
Fortis, Inc.	FTS
Hydro One Ltd.	H
Alliant Energy Corporation	LNT
Ameren Corporation	AEE
American Electric Power Company, Inc.	AEP
Duke Energy Corporation	DUK
Entergy Corporation	ETR
Eversource Energy	ES
Exelon Corp.	EXC
Evergy, Inc.	EVRG
NextEra Energy Corp	NEE
OGE Energy Corporation	OGE
Pinnacle West Capital Corp	PNW
Portland General Electric Company	POR
PPL Corporation	PPL
Southern Company	SO
Xcel Energy Inc.	XEL

Question:

Please explain the significant difference in the composition of these North American Electric T&D proxy groups chosen by Concentric, given just a one-year time difference. In particular, please justify the exclusion of each utility not included in the current proxy group, as well as the inclusion of the additional utility included during these proceedings.

Response IR-05:

As Dr. Cleary is aware, the Ontario Energy Board was setting the authorized ROE for all electric and gas utilities in Ontario, including those that own generation, transmission, and distribution assets. For that case, Concentric included companies that own electric generation in our electric proxy groups. In the case of NSPML, our task is to identify companies that own electric transmission in particular. Since there are no publicly-traded pure play electric transmission companies, Concentric selected a group of electric T&D utilities, as described in Section 5 of our report. This is a relatively small sample of five companies, but it more closely matches the

business and financial risks of NSPML than the broader group that we used in the Ontario Generic Cost of Capital proceeding in 2024.

Request IR-06:

Preamble: **On pages 39-40 of its evidence, Concentric discusses states (bold added for emphasis):**

> **The DCF results are shown in Exhibits CEA-3 and CEA-4. To mitigate any concern that short-term EPS growth rates may not be sustainable, we have relied on the results of the Multi-Stage DCF model, which tempers the short-term growth rate in Years 1-5 with projected GDP growth in Years 11-200. The Multi-Stage DCF model produces an average cost of common equity of 9.28 percent for the proxy group companies, which includes an adjustment of 50 basis points for flotation costs and financial flexibility.**

Question:

a) Please confirm that the short-term EPS growth rates used by Concentric are based upon the average of Value Line, Zacks, S&P Capital IQ Pro and Seeking Alpha "sell-side" (and not "buy-side") analyst forecasts. If not confirmed please explain.

b) Please confirm that the average short-term growth rate of 5.53% used in its multi-stage DCF estimates exceed Concentric's own estimates for expected nominal GDP growth of 4.04% for Canada and 4.24% for the U.S. If not confirmed, please explain.

c) Please confirm in its multi-stage DCF model, that Concentric assumes the higher analyst average growth rate of 5.53% exists for a full 5 years, then gradually declines over the following 5 years to a stable long-term growth rate of 4.16% equal to its estimate of average long-term nominal GDP growth. Therefore, this approach assumes that utilities' earnings and dividends will grow at rates above nominal GDP growth for 10 years, then will grow at

estimated nominal GDP growth from year 11 to infinity. Hence, this approach implicitly assumes earnings and dividends will grow from now to infinity at an average rate "above" expected nominal GDP growth (i.e., since they would grow above estimated nominal GDP growth for 10 years and then fall to nominal GDP growth for years 11 to infinity). If not confirmed, please clarify.

d) Exhibit CEA-4 provides the multi-stage DCF Ke estimate for the North American proxy group of 9.28 after adding 0.50% for flotation costs. According to Exhibits CEA-3 and CEA-4, this estimate is based on an average growth rate of 5.53% for years 1-5, an average growth rate of 4.85% for years 6 through 10, followed by an average long-term growth of 4.16% from years 11 to infinity. Please confirm that the long-term growth rate that would also lead to a 8.78% Ke estimate (pre-flotation costs) for the North American proxy group in the Constant-Growth DCF model, based on the expected dividend yield (DY1) of 3.95% (provided in CEA-3) would be 4.83%. I.e., since in the Constant-Growth DCF model:

Ke (8.78%) = DY1 + g = 3.95% + 4.83%

If not confirmed, please provide the correct corresponding long-term growth rate in the Constant-Growth DCF model that would result in a cost of equity (Ke) estimate of 8.78% for the North American proxy group, based on its DY1 of 3.95%.

e) Please confirm the implied long-term growth rate of 4.83% determined in part (d) above is well above Concentric's estimate of North American long-term nominal GDP growth of 4.16%. If not confirmed, please explain.

f) Please confirm the analysis included in parts (c) and (d) above clearly demonstrate that Concentric's growth forecasts used in obtaining its multi-stage DCF estimates provide results are equivalent to using a growth rate of 4.83% in a Constant-Growth DCF model, which exceeds Concentric's 4.16% estimate of expected North American nominal GDP growth.

Response IR-06:

a) Confirmed.

b) Confirmed.

c) This cannot be confirmed. As shown in Exhibit CEA-4, at least one company (Canadian Utilities Ltd.) in the North American Electric T&D proxy group has a lower EPS growth rate in Stage 1 than the GDP growth rate in Stage 3. As explained in Concentric's report, the Multi-Stage DCF model is intended to allow for the use of varying growth rates in the three stages. The growth rate in Stage 1 is not always materially higher than the growth rate in Stage 3, as the question assumes.

d) The multi-stage DCF results in Exhibit CEA-4 are 9.37%, not 9.28% as stated in the question. The average expected dividend yield in Exhibit CEA-3 is 4.13%, not 3.95% as stated in the question, and the average constant growth DCF result is 9.66%, not 8.78% as stated in the question. In order to achieve that same Ke result, the long-term growth rate would need to be 5.53%, not 4.83% as stated in the question.

Ke (9.66%) = DY + g = 4.13% + **5.53%**

e) Confirmed.

f) Not confirmed. Concentric's ROE recommendation of 10.1% to 10.35% for NSPML does not include the results of the Constant Growth DCF model. Further, Concentric does not agree that this is the correct way to interpret the results of the Multi-Stage and Constant Growth DCF models. This is because current stock prices for the proxy group companies are based on investor assumptions regarding near-term growth and longer-term growth.

Based on Concentric's prior research, it is entirely possible, if not probable, that utilities will realize EPS growth rates above GDP growth in the near to intermediate term.

Request IR-07:

Preamble: **On page 41 of its evidence, Concentric discusses its risk-free (RF) rate estimates it uses in its CAPM cost of equity calculations.**

Question:

(a) Please confirm that in the CAPM, RF represents the actual existing risk-free asset that an investor can invest in today and earn the risk-free rate of return. If not confirmed, please explain.

(b) Please explain how a Canadian investor today could buy a 30-year U.S. Government bond promising a risk-free rate of return of 4.49%, which is not currently available to investors (i.e., Concentric's estimated U.S. RF)?

Response IR-07:

a) Not confirmed. In many Canadian jurisdictions, the utility regulator uses a projected government bond yield as the risk-free rate in the CAPM. For example, the current Ontario formula relies on forecast government bond yields, and other utility regulators in Canada including the British Columbia Utilities Commission and the Alberta Utilities Commission also rely on bond yield forecasts to set the authorized ROE. This is because the cost of equity is a forward-looking estimate that is intended to represent the return investors expect to earn in the future. The projected government bond yield better reflects that perspective than does the current average bond yield, and in particular it is not appropriate to use a current spot yield as the risk-free rate because it does not take into account the variability that occurs in financial markets over the course of 30 or 90 trading days.

b) The yield on 30-year U.S. Treasury bonds ranged from 4.41% to 5.08% in the 90-day period ending May 31, 2025, so it would have been possible for an investor to buy 30-year

bonds at 4.49% during that period. Nevertheless, the risk-free rate in the CAPM analysis should be based on the interest rate that investors are expecting during an upcoming future period, such as the next three or five years, not the interest rate an investor would receive today if they were to purchase a particular bond.

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Request IR-08:

a) **References: On pages 41-44 of its evidence, Concentric discusses its beta estimates that it 10 uses in its CAPM cost of equity calculations.**

b) **On pages 41-42 of its evidence, Concentric states that:**

Both Value Line and Bloomberg provide adjusted betas to compensate for the tendency of beta to revert toward the market mean of 1.0 over time. The average beta for the North American Electric T&D proxy group is 0.64, as shown in Exhibit CEA-5.

c) **On page 42 of its evidence Concentric refers to a 55-year old study by Marshall Blume (referenced in footnote 44).**

Question:

a) **Please confirm that the Blume (1970) study referenced by Concentric examines beta estimates for the entire universe of stocks across all industries, and does not focus on one particular industry (including utility stocks). If not confirmed, please explain.**

(b) Please provide the Blume (1970) study referenced in footnote 44.

(c) Please provide all the associated raw "unadjusted" beta estimates for the beta estimates provided in Exhibit CEA-5 for the North American proxy group, and recalculate Concentric's CAPM cost of equity estimate of 8.82% as reported on page 44 of its evidence using raw beta estimates. If Concentric is unable to locate the raw or unadjusted beta estimates from the initial data sources, please adjust the beta estimates using the formula:

$$\text{Raw Beta} = (\text{Adj. Beta} - 1/3) \times (3/2)$$

For example, the average adjusted beta of 0.64 for Concentric's North American T&D proxy group would equate to a raw beta of 0.465 as calculated below:

$$\text{Raw Beta} = (0.64 - 0.33)(3/2) = 0.465$$

Please provide all supporting data and worksheets (in excel format), with all accompanying formulae.

Response IR-08:

a) Confirmed.

b) Please see Attachment 1 for the article referenced in footnote 44.

c) Please see Attachment 2 for the revised betas. As shown in the Attachment, the average raw beta from Bloomberg is 0.40 and from Value Line is 0.63. The average CAPM results for the proxy group are 7.66%, compared to 8.82% when adjusted betas are used. Concentric does not agree with the use of raw or unadjusted betas for the reasons explained in our report at pages 41-44, nor is it the practice of either Canadian or U.S. utility regulators.

On the Assessment of Risk

Marshall E. Blume

The Journal of Finance, Vol. 26, No. 1. (Mar., 1971), pp. 1-10.

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ON THE ASSESSMENT OF RISK

MARSHALL E. BLUME*

INTRODUCTION

THE CONCEPT OF RISK has so permeated the financial community that no one needs to be convinced of the necessity of including risk in investment analysis. Still of controversy is what constitutes risk and how it should be measured. This paper examines the statistical properties of one measure of risk which has had wide acceptance in the academic community: namely the coefficient of non-diversifiable risk or more simply the beta coefficient in the market model.

The next section defines this beta coefficient and presents a brief non-rigorous justification of its use as a measure of risk. After discussing the sample and its basic properties in Section III, Section IV examines the stationarity of this beta coefficient over time and proposes a method of obtaining improved assessments of this measure of risk.

II. THE RATIONALE OF BETA AS A MEASURE OF RISK

The interpretation of the beta coefficient as a measure of risk rests upon the empirical validity of the market model. This model asserts that the return from time (t-1) to t on asset i, $\tilde{R}_{it}$,[1] is a linear function of a market factor common to all assets $\tilde{M}_t$, and independent factors unique to asset i, $\tilde{\varepsilon}_{it}$.

Symbolically, this relationship takes the form

$$\tilde{R}_{it} = \alpha_i + \beta_i \tilde{M}_t + \tilde{\varepsilon}_{it}, \tag{1}$$

where the tilde indicates a random variable, α_i is a parameter whose value is such that the expected value of $\tilde{\varepsilon}_{it}$ is zero, and β_i is a parameter appropriate to asset i.[2] That the random variables $\tilde{\varepsilon}_{it}$ are assumed to be independent and

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1. In this paper, return will be measured as the ratio of the value of the investment at time t with dividends reinvested to the value of the investment at time (t-1). Dividends are assumed reinvested at time t.

2. The parameter β_i is defined as Cov $(\tilde{R}_i, \tilde{M})$/Var $(\tilde{M})$.

unique to asset i implies that Cov ($\tilde{\varepsilon}_{it}$, $\tilde{M}_t$) is zero and that Cov ($\tilde{\varepsilon}_{it}$, $\tilde{\varepsilon}_{jt}$), $i \neq j$, are zero. This last conclusion is tantamount to assuming the absence of industry effects.

The empirical validity of the market model as it applies to common stocks listed on the NYSE has been examined extensively in the literature.[3] The principal conclusions are: (1) The linearity assumption of the model is adequate.[4] (2) The variables $\tilde{\varepsilon}_{it}$ cannot be assumed independent between securities because of the existence of industry effects. However, these industry effects, as documented by King,[5] probably account for only about ten percent of the variation in returns, so that as a first approximation they can be ignored. (3) The unique factors $\tilde{\varepsilon}_{it}$ correspond more closely to non-normal stable variates than to normal ones. This conclusion means that variances and covariances of the unique factors do not exist. Nonetheless, this paper will make the more common assumption of the existence of these statistics in justifying the beta coefficient as a measure of risk since Fama[6] and Jensen[7] have shown that this coefficient can still be interpreted as a measure of risk under the assumption that the $\tilde{\varepsilon}_{it}$'s are non-normal stable variates.

That the beta coefficient, β_i, in the market model can be interpreted as a measure of risk will be justified in two different ways: the portfolio approach and the equilibrium approach.

A. *The Portfolio Approach*

The important assumption underlying the portfolio approach is that individuals evaluate the risk of a portfolio as a whole rather than the risk of each asset individually. An example will illustrate the meaning of this statement. Consider two assets, each of which by itself is extremely risky. If, however, it is always the case that when one of the assets has a high return, the other has a low return, the return on a combination of these two assets in a portfolio may be constant. Thus, the return on the portfolio may be risk free whereas each of the assets has a highly uncertain return. The discussion of such an

3. See Marshall E. Blume, "Portfolio Theory: A Step Towards Its Practical Application," forthcoming *Journal of Business;* Eugene F. Fama, "The Behavior of Stock Market Prices," *Journal of Business* (1965), 34-105; Eugene F. Fama, Lawrence Fisher, Michael Jensen, and Richard Roll, "The Adjustment of Stock Prices to New Information," *International Economic Review* (1969), 1-21; Michael Jensen, "Risk, the Pricing of Capital Assets, and the Evaluation of Investment Portfolios," *Journal of Business* (1969), 167-247; Benjamin F. King, "Market and Industry Factors in Stock Price Behavior," *Journal of Business* (1966), 139-90; and William F. Sharpe, "Mutual Fund Performance," *Journal of Business* (1966), 119-38.

4. The linearity assumption of the model should not be confused with the equilibrium requirement of William F. Sharpe, "Capital Asset Prices: A Theory of Market Equilibrium Under Conditions of Risk," *Journal of Finance* (1964), 425-42, which states that $\alpha_i = (1 - \beta_i)\ R_F$, where R_F is the risk free rate. It is quite possible that this equality does not hold and at the same time that the market model is linear.

5. King, *op. cit.*

6. Eugene F. Fama, "Risk, Return, and Equilibrium" (Report No. 6831, University of Chicago, Center for Mathematical Studies in Business and Economics, June, 1968).

7. Jensen, *op. cit.*

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obvious point may seem unwarranted, but there is very little empirical work which indicates that people do in fact behave according to it.

Now if an individual is willing to judge the risk inherent in a portfolio solely in terms of the variance of the future aggregate returns, the risk of a portfolio of n securities with an equal amount invested in each, according to the market model, will be given by

$$\text{Var}(\tilde{W}_t) = \left(\sum_{i=1}^{n} \frac{1}{n}\beta_i\right)^2 \text{Var}(\tilde{M}_t) + \sum_{i=1}^{n} \left(\frac{1}{n}\right)^2 \text{Var}(\tilde{\varepsilon}_{it}) \qquad (2)$$

where $\tilde{W}_t$ is the return on the portfolio. Equation (2) can be rewritten as

$$\text{Var}(\tilde{W}_t) = \bar{\beta}^2 \text{Var}(\tilde{M}_t) + \frac{\overline{\text{Var}(\tilde{\varepsilon})}}{n} \qquad (3)$$

where the bar indicates an average. As one diversifies by increasing the number of securities n, the last term in equation (3) will decrease. Evans and Archer[8] have shown empirically that this process of diversification proceeds quite rapidly, and with ten or more securities most of the effect of diversification has taken place. For a well diversified portfolio, Var $(\tilde{W}_t)$ will approximate $\bar{\beta}^2$ Var $(\tilde{M}_t)$. Since Var $(\tilde{M}_t)$ is the same for all securities, $\bar{\beta}$ becomes a measure of risk for a portfolio and thus β_i, as it contributes to the value of $\bar{\beta}$, is a measure of risk for a security. The larger the value of β_i, the more risk the security will contribute to a portfolio.[9]

B. *The Equilibrium Approach*

Using the market model, Sharpe[10] and Lintner,[11] as clarified by Fama,[12] have developed a theory of equilibrium in the capital markets. This theory relates the risk premium for an individual security, $E(\tilde{R}_{it}) - R_F$, where R_F is the risk free rate, to the risk premium of the market, $E(\tilde{M}_t) - R_F$, by the formula

$$E(\tilde{R}_{it}) - R_F = \beta_i[E(\tilde{M}_t) - R_F]. \qquad (4)$$

The risk premium for an individual security is proportional to the risk premium for the market. The constant of proportionality β_i can therefore be interpreted as a measure of risk for individual securities.

8. John L. Evans and Stephan H. Archer, "Diversification and the Reduction of Dispersion: An Empirical Analysis," *Journal of Finance* (1968), 761-68.

9. This argument has been extended to a non-Gaussian, symmetric stable world by E. F. Fama, "Portfolio Analysis in a Stable Paretian Market," *Management Science* (1965), 404-19; and P. A. Samuelson, "Efficient Portfolio Selection for Pareto-Levy Investments," *Journal of Financial and Quantitative Analysis* (1967), 107-22.

10. Sharpe, "Capital Asset Prices," *op. cit.*

11. John Lintner, "The Valuation of Risk Assets and the Selection of Risky Investments in Stock Portfolios and Capital Budgets," *Review of Economics and Statistics* (1965), 13-37.

12. Eugene F. Fama, "Risk, Return, and Equilibrium: Some Clarifying Comments," *Journal of Finance* (1968), 29-40.

This theory of equilibrium, although theoretically sound, is based upon numerous assumptions which obviously do not hold in the real world. A theoretical model, however, should not be judged by the accuracy of its assumptions but rather by the accuracy of its predictions. The empirical work of Friend and Blume[13] suggests that the predictions of this model are seriously biased and that this bias is primarily attributable to the inaccuracy of one key assumption, namely that the borrowing and lending rates are equal and the same for all investors. Therefore, although Sharpe's and Lintner's theory of equilibrium can be used as a justification for β_i as measure of risk, it is a weaker and considerably less robust justification than that provided by the portfolio approach.

III. The Sample and Its Properties

The sample was taken from the updated Price Relative File of the Center for Research in Security Prices at the Graduate School of Business, University of Chicago. This file contains the monthly investment relatives, adjusted for dividends and capital changes of all common stocks listed on the New York Stock Exchange during any part of the period from January 1926 through June 1968, for the months in which they were listed. Six equal time periods beginning in July 1926 and ending in June 1968 were examined. Table 1 lists these six periods and the number of companies in each for which there was a complete history of monthly return data. This number ranged from 415 to 890.

The investment relatives for a particular security and a particular period were regressed[14] upon the corresponding combination market link relatives, which were originally prepared by Fisher[15] as a measure of the market factor. This process was repeated for each security and each period, yielding, for instance, in the July 1926 through June 1933 period, 415 separate regressions. The average coefficient of determination of these 415 regressions was 0.51. The corresponding average coefficients of determination for the next five periods were, respectively, 0.49, 0.36, 0.32, 0.25, and 0.28. These figures are consistent with King's findings[16] in that the proportion of the variance of returns explained by the market declined steadily until 1960 when his sample terminated. Since 1960, the importance of the market factor has increased slightly according to these figures.

Table 1, besides giving the number of companies analyzed, summarizes the distributions of the estimated beta coefficients in terms of the means, standard deviations, and various fractiles of these distributions. In addition, the number of estimated betas which were less than zero is given. In three of the periods,

13. Irwin Friend and Marshall Blume, "Measurement of Portfolio Performance Under Uncertainty," *American Economic Review* (1970), 561-75.

14. John Wise, "Linear Estimators for Linear Regression Systems Having Infinite Variances," (Berkeley-Stanford Mathematics-Economics Seminar, October, 1963) has given some justification for the use of least squares in estimating coefficients of regressions in which the disturbances are non-normal symmetric stable variates.

15. Lawrence Fisher, "Some New Stock-Market Indexes," *Journal of Business* (1966), 191-225.

16. King, *op. cit.*

TABLE 1

DESCRIPTIVE SUMMARY OF ESTIMATED BETA COEFFICIENTS

Period	Number of Companies	Mean	Standard Deviation	Number of BETAS less than Zero	Fractiles				
					.10	.25	.50	.75	.90
7/26-6/33	415	1.051	0.462	1	0.498	0.711	1.023	1.352	1.616
7/33-6/40	604	1.036	0.474	0	0.436	0.701	1.015	1.349	1.581
7/40-6/47	731	0.990	0.504	0	0.500	0.643	0.872	1.186	1.606
7/47-6/54	870	1.010	0.409	2	0.473	0.727	0.996	1.263	1.565
7/54-6/61	890	0.998	0.423	0	0.458	0.678	0.984	1.250	1.558
7/61-6/68	847	0.962	0.390	4	0.475	0.681	0.934	1.199	1.491

none of the estimated betas was negative. Of the 4357 betas estimated in all six periods, only seven or 0.16 per cent were negative. This means that although the inclusion of a stock which moves counter to the market can reduce the risk of a portfolio substantially, there are virtually no opportunities to do this. Nearly every stock appears to move with the market.[17]

IV. The Stationarity of Beta over Time

No economic variable including the beta coefficient is constant over time. Yet for some purposes, an individual might be willing to act *as if* the values of beta for individual securities were constant or stationary over time. For example, a person who wishes to assess the future risk of a well diversified portfolio is really interested in the behavior of averages of the β_i's over time and not directly in the values for individual securities. For the purposes of evaluating a portfolio, it may be sufficient that the historical values of β_i be unbiased estimates of the future values for an individual to act *as if* the values of the β_i's for individual securities are stationary over time. This is because the errors in the assessment of an average will tend to be less than those of the components of the average providing that the errors in the assessments of the components are independent of each other.[18] Yet, a statistician or a person who wishes to assess the risk of an individual security may have completely different standards in determining whether he would act as if the β_i's are constant over time. The remainder of the paper examines the stationarity of the β_i's from the point of view of a person who wishes to analyze a portfolio.

A. *Correlations*

To examine the empirical behavior of the risk measures for portfolios over time, arbitrary portfolios of n securities were selected as follows: The estimates of β_i were derived using data from the first period, July 1926 through June 1933, and were then ranked in ascending order.[19] The first portfolio of n securities consisted of those securities with the n smallest estimates of β_i. The second portfolio consisted of those securities with the next n smallest estimates of β_i, and so on until the number of securities remaining was less than n. The number of securities n was allowed to vary over 1, 2, 4, 7, 10, 20, 35, 50, 75, and 100. This process was repeated for each of the next four periods.

Table 2 presents the product moment and rank order correlation coefficients between the risk measures for portfolios of n securities assuming an equal investment in each security estimated in one period and the corresponding risk

17. The use of considerably less than seven years of monthly data such as two or three years to estimate the beta coefficient results in a larger proportion of negative estimates. This larger proportion is probably due to sampling errors which, as documented in Richard Roll, "The Efficient Market Model Applied to U. S. Treasury Bill Rates," (Unpublished Ph.D. thesis, Graduate School of Business, University of Chicago, 1968) may be quite large for models with non-normal symmetric stable disturbances.

18. This property of averages does not hold for all distributions (*cf.* Eugene F. Fama, "Portfolio Analysis in a Stable Paretian Market"), but for the distributions associated with stock market returns it almost certainly holds.

19. Only securities which also had complete data in the next seven year period were included in this ranking.

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measure for the same portfolio estimated in the next period.[20] The risk measure calculated using the earlier data might be regarded as an individual's assessment of the future risk, and the measure calculated using the later data can be regarded as the realized risk. Thus, these correlation coefficients can be interpreted as a measure of the accuracy of one's assessments, which in this case are simple extrapolations of historical data.

TABLE 2

PRODUCT MOMENT AND RANK ORDER CORRELATION COEFFICIENTS OF BETAS FOR PORTFOLIOS OF N SECURITIES

Number of Securities per Portfolio	7/26-6/33 and 7/33-6/40		7/33-6/40 and 7/40-6/47		7/40-6/47 and 7/47-6/54		7/47-6/54 and 7/54-6/61		7/54-6/61 and 7/61-6/68	
	P.M.	Rank	P.M.	Rank	P.M.	Rank	P.M.	Rank	P.M.	Rank
1	0.63	0.69	0.62	0.73	0.59	0.65	0.65	0.67	0.60	0.62
2	0.71	0.75	0.76	0.83	0.72	0.79	0.76	0.76	0.73	0.74
4	0.80	0.84	0.85	0.90	0.81	0.89	0.84	0.84	0.84	0.85
7	0.86	0.90	0.91	0.93	0.88	0.93	0.87	0.88	0.88	0.89
10	0.89	0.93	0.94	0.95	0.90	0.95	0.92	0.93	0.92	0.93
20	0.93	0.99	0.97	0.98	0.95	0.98	0.95	0.96	0.97	0.98
35	0.96	1.00	0.98	0.99	0.95	0.99	0.97	0.98	0.97	0.97
50	0.98	1.00	0.99	0.98	0.98	0.99	0.98	0.98	0.98	0.97

The values of these correlation coefficients are striking. For the assessments based upon the data from July 1926 through June 1933 and evaluated using data from July 1933 through June 1940, the product moment correlations varied from 0.63 for single securities to 0.98 for portfolios of 50 securities. The high value of the latter coefficient indicates that substantially all of the variation in the risk among portfolios of 50 securities can be explained by assessments based upon previous data. The former correlation suggests that assessments for individual securities derived from historical data can explain roughly 36 per cent of the variation in the future estimated values, leaving about 64 per cent unexplained.[21]

These results, which are typical of the other periods, suggest that at least as measured by the correlation coefficients, naively extrapolated assessments of future risk for larger portfolios are remarkably accurate, whereas extrapolated assessments of future risk for individual securities and smaller portfolios are of some, but limited value in forecasting the future.

B. *A Closer Examination*

Table 3 presents the actual estimates of the risk parameters for portfolios of 100 securities for successive periods. For all five different sets of portfolios, the rank order correlations between the successive estimates are one, but there is obviously some tendency for the estimated values of the risk parameter to

20. Because of the small number of portfolios of 100 securities, correlations are not presented in Table 2 for these portfolios.

21. This large magnitude of unexplained variation may make the beta coefficient an inadequate measure of risk for analyzing the cost of equity for an individual firm although it may be adequate for cross-section analyses of cost of equity.

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TABLE 3

ESTIMATED BETA COEFFICIENTS FOR PORTFOLIOS OF 100 SECURITIES IN TWO SUCCESSIVE PERIODS

Portfolio	7/26-6/33	7/33-6/40	7/33-6/40	7/40-6/47	7/40-6/47	7/47-6/54	7/47-6/54	7/54-6/61	7/54-6/61	7/61-6/68
1	0.528	0.610	0.394	0.573	0.442	0.593	0.385	0.553	0.393	0.620
2	0.898	1.004	0.708	0.784	0.615	0.776	0.654	0.748	0.612	0.707
3	1.225	1.296	0.925	0.902	0.746	0.887	0.832	0.971	0.810	0.861
4			1.177	1.145	0.876	1.008	0.967	1.010	0.987	0.914
5			1.403	1.354	1.037	1.124	1.093	1.095	1.138	0.995
6					1.282	1.251	1.245	1.243	1.337	1.169

change gradually over time. This tendency is most pronounced in the lowest risk portfolios, for which the estimated risk in the second period is invariably higher than that estimated in the first period. There is some tendency for the high risk portfolios to have lower estimated risk coefficients in the second period than in those estimated in the first. Therefore, the estimated values of the risk coefficients in one period are biased assessments of the future values, and furthermore the values of the risk coefficients as measured by the estimates of β_i tend to regress towards the means with this tendency stronger for the lower risk portfolios than the higher risk portfolios.

C. *A Method of Correction*

In so far as the rate of regression towards the mean is stationary over time, one can in principle correct for this tendency in forming one's assessments. An obvious method is to regress the estimated values of β_i in one period on the values estimated in a previous period and to use this estimated relationship to modify one's assessments of the future.

Table 4 presents these regressions for five successive periods of time for individual securities.[22] The slope coefficients are all less than one in agreement with the regression tendency, observed above. The coefficients themselves do change over time, so that the use of the historical rate of regression to correct

TABLE 4

MEASUREMENT OF REGRESSION TENDENCY OF ESTIMATED BETA COEFFICIENTS FOR INDIVIDUAL SECURITIES

Regression Tendency Implied Between Periods	$\beta_2 = a + b\beta_1$
7/33-6/40 and 7/26-6/33	$\beta_2 = 0.320 + 0.714\beta_1$
7/40-6/47 and 7/33-6/40	$\beta_2 = 0.265 + 0.750\beta_1$
7/47-6/54 and 7/40-6/47	$\beta_2 = 0.526 + 0.489\beta_1$
7/54-6/61 and 7/47-6/54	$\beta_2 = 0.343 + 0.677\beta_1$
7/61-6/68 and 7/54-6/61	$\beta_2 = 0.399 + 0.546\beta_1$

22. The reader should not think of these regressions as a test of the stationarity of the risk of securities over time but rather merely as a test of the accuracy of the assessments of future risk which happen to be derived as historical estimates. In this test of accuracy, the independent variable in these regressions is measured without error, so that the estimated coefficients are unbiased. In the test of the stationarity of the risk measures over time, the independent variable would be measured with error, so that the coefficients in Table 4 would be biased.

for the future rate will not perfectly adjust the assessments and may even overcorrect by introducing larger errors into the assessments than were present in the unadjusted data.

To examine the efficacy of using historical rates of regression to correct one's assessments, the estimated risk coefficients for the individual securities for the period from July 1933 through June 1940 were modified using the first equation in Table 4 to obtain adjusted risk coefficients under the assumption that the future rate of regression will be the same as the past. This process was repeated for each of the next three periods using respectively the next three equations in Table 4 to estimate the rate of regression.

Table 5 compares these adjusted assessments with the unadjusted assessments which were used in Tables 2 and 3. For the portfolios selected previously using the data from July 1933 through June 1940, both the unadjusted

TABLE 5

MEAN SQUARE ERRORS BETWEEN ASSESSMENTS AND FUTURE ESTIMATED VALUES

Number of Sec./ Port.	Assessments Based Upon							
	7/33-6/40		7/40-6/47		7/47-6/54		7/54-6/61	
	unadjusted	adjusted	unadjusted	adjusted	unadjusted	adjusted	unadjusted	adjusted
1	0.1929	0.1808	0.1747	0.1261	0.1203	0.1087	0.1305	0.1013
2	0.0915	0.0813	0.1218	0.0736	0.0729	0.0614	0.0827	0.0535
4	0.0538	0.0453	0.0958	0.0483	0.0495	0.0381	0.0587	0.0296
7	0.0323	0.0247	0.0631	0.0276	0.0387	0.0281	0.0523	0.0231
10	0.0243	0.0174	0.0535	0.0220	0.0305	0.0189	0.0430	0.0169
20	0.0160	0.0090	0.0328	0.0106	0.0258	0.0139	0.0291	0.0089
35	0.0120	0.0055	0.0266	0.0080	0.0197	0.0101	0.0302	0.0089
50	0.0096	0.0046	0.0192	0.0046	0.0122	0.0097	0.0237	0.0064
75	0.0081	0.0035	0.0269	0.0067	0.0112	0.0078	0.0193	0.0056
100	0.0084	0.0020	0.0157	0.0035	0.0114	0.0084	0.0195	0.0056

and adjusted assessments of future risk were obtained. The accuracy of these two alternative methods of assessment were compared through the mean squared errors of the assessments versus the estimated risk coefficients in the next period, July 1940 through June 1947.[23] This process was repeated for each of the next three periods.

For individual securities as well as portfolios of two or more securities, the assessments adjusted for the historical rate of regression are more accurate than the unadjusted or naive assessments. Thus, an improvement in the accuracy of one's assessments of risk can be obtained by adjusting for the historical rate of regression even though the rate of regression over time is not strictly stationary.

23. The mean square error was calculated by $\frac{\Sigma(\beta_1 - \beta_2)^2}{n}$ where β_1 is the assessed value of the future risk, β_2 is the estimated value of the risk, and n is the number of portfolios. In using an estimate of beta rather than the actual value, the mean square error will be biased upwards, but the effect of this bias will be the same for both the adjusted and unadjusted assessments.

V. Conclusion

This paper examined the empirical behavior of one measure of risk over time. There was some tendency for the estimated values of these risk measures to regress towards the mean over time. Correcting for this regression tendency resulted in considerably more accurate assessments of the future values of risk.

Capital Asset Pricing Model - Historical MRP

		[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
North American Electric T&D Proxy Group	Ticker	Bloomberg	Value Line	Average Beta	Risk Free Rate	Average Market Risk Premium	Basic CAPM Calculation	Flotation Cost	Total CAPM
Canadian Utilities Limited	CU	0.44	n/a	0.44	3.60%	6.53%	6.47%	0.50%	6.97%
HydroOne Ltd.	H	0.36	n/a	0.36	3.60%	6.53%	5.98%	0.50%	6.48%
Consolidated Edison, Inc.	ED	0.23	0.48	0.36	4.49%	6.53%	6.81%	0.50%	7.31%
Eversource Energy	ES	0.45	0.78	0.62	4.49%	6.53%	8.51%	0.50%	9.01%
Exelon Corporation	EXC	0.54	NMF	0.54	4.49%	6.53%	8.03%	0.50%	8.53%
MEAN		0.40	0.63	0.46			7.16%		7.66%

Notes:
[1] Source: Bloomberg Professional, 5 year adjusted beta as of May 31, 2025
[2] Source: Value Line
[3] Equals mean of [1] and [2]
[4] Source: Equals average long-term Consensus Forecast of 10-year government bond yields for the period 2026-2028 as of April 7, 2025. (Pg. 3, 29)
plus the average spread between 10- and 30-year bond for the the last 10 years
[5] Source: Average of Kroll historical market risk premium of 5.75% for Canada and 7.31% for the U.S.
[6] Equals [4] + ([3] x [5])
[7] Flotation cost adjustment for equity issuance costs, administrative costs, impact of underpricing, potential for dilution, and equity cushion for investors.
[8] Equals [6] + [7]

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Request IR-09:

Preamble: **On page 44 of its evidence, Concentric discusses its market risk premium (MRP) estimates it uses in its CAPM cost of equity calculations.**

Question:

a) **Please provide the source documents, as well as workpapers including all data and calculations used to estimate the historical MRP estimates for Canada and the U.S. that are reported in Figure 21.**

b) **Please confirm that the historical MRP estimate for Canada of 5.75% is 37% higher than the arithmetic average estimate of 4.2% provided in the Dimson et al. (2016) study (which examines MRPs over the 1900-2015 period), and is 74% above the geometric average of 3.3% determined in the same study. If not confirmed please provide the actual percentage differences.**

c) **Please confirm that the historical MRP estimate for the U.S. of 7.31% is 26% higher than the arithmetic average estimate of 5.8% provided in the Dimson et al. (2016) study (which examines MRPs over the 1900-2015 period), and is 66% above the geometric average of 4.4% determined in the same study. If not confirmed please provide the actual percentage differences.**

d) **Please explain why Concentric's historical MRP estimates are so much higher than those included in the Dimson et al. (2016) study, given the significant overlap of a large number of annual observations included in both estimates.**

e) **Please provide intuitive justification and empirical support for using "income only returns" for bonds to determine MRPs rather than "total returns," which is standard practice for finance professionals. The justification should provide support that this is common practice in finance – aside from utilities' expert providing evidence on behalf of utilities during such proceedings, or in textbooks on regulatory finance published by authors such as Dr. Morin, who has provided**

evidence on behalf of utilities in over 50 cases through the years. Such support could come from sources advocating this approach to estimating market risk premiums such as: mainstream finance industry research publications or research reports; current College or University finance textbooks; recent CFA curriculum; and/or, mainstream academic articles that would have been published in one of the 50 top mainstream finance journals (which can be found at the following webpage: https://www.scimagojr.com/journalrank.php?category=2003).

Response IR-09:

a) Please see Attachment 1 (electronic only) for the requested source documents.

b) Confirmed.

c) Confirmed.

d) Dimson's estimates are actually higher than those used by Concentric. As explained in Concentric's report, the historical MRPs for Canada and the U.S. are the values reported by Kroll, which publishes information on historical market returns and government bond yields. The Canadian data cover the period from 1919-2024, while the U.S. data are from 1926-2024. The historical MRP reported by Kroll is based on the annual return on large company stocks (i.e., the S&P 500 in the U.S. and the TSX in Canada) less the income-only return on 20-year government bonds, equal to 7.31% for the U.S. and 5.75% for Canada. The Dimson study cited by Dr. Cleary used a different time period than the Kroll data that Concentric relied upon (1900-2015, vs. 1919-2024). Dimson computes a real return on equities, inflation, and real bond returns over this period. If you add Dimson's real equity returns to inflation and subtract the real bond yields, all reported by Dimson, these estimates are higher

than those used by Concentric from Kroll, resulting in an MRP of 8.8% in the U.S. and 8.5% in Canada.

e) Data on the historical market risk premium is published by Kroll (formerly Duff & Phelps). Kroll computes the historical MRP by subtracting the income-only return on government bonds from the total return on large company stocks (i.e., the S&P 500 in the U.S. and the S&P/TSX in Canada). Return data from Kroll is commonly used by finance professionals in valuations. Kroll explains why it uses the income-only return instead of the total return on government bonds as follows:

> *Another point to keep in mind when calculating the equity risk premium is that the income return on the appropriate-horizon Treasury security, rather than the total return, is used in the calculation. The total return comprises three return components: the income return, the capital appreciation return, and the reinvestment return. The income return is defined as the portion of the total return that results from a periodic cash flow, or in this case, the bond coupon payment. The capital appreciation return results from the price change of a bond over a specific period. Bond prices generally change in reaction to unexpected fluctuations in yields. Reinvestment return is the return on a given month's investment income when reinvested into the same asset class in the subsequent months of the year. The income return is thus used in the estimation of the equity risk premium because it represents the truly riskless portion of the return.*[1]

[1] Duff & Phelps, 2021 SBBI Yearbook, at 10-22.

NSEB - CLEARY IR-09 Attachment 1
has been filed as an Excel Attachment

Request IR-10:

Preamble: **On pages 47-51 of its evidence, Concentric discusses what it refers to as its risk premium analysis.**

Question:

a) Please confirm that the Risk Premium approach discussed on pages 47-51 of Concentric's evidence is the same model that Mr. Coyne labelled as his Bond Yield Plus Risk Premium Model "BYPRPM" during the 2018 Alberta GCOC proceedings. If not confirmed, please explain.

b) Please confirm that the Risk Premium approach discussed on pages 47-51 of Concentric's evidence:

i. estimates the risk premium in excess of long-term U.S. government bond yields (i.e., the U.S. risk-free rate), and hence does not take advantage of incorporating observable market data on utilities' credit spreads, which is included in utility bond yields; and

ii. uses the approved ROEs of regulators in the U.S., which do not represent actual capital market based data.

c) Please provide justification for the use of allowed ROEs in the U.S., which do not provide market-based evidence, do not account for issues such as jurisdiction-specific legislations and case law, nor do they reflect NSPML utility-specific business risks.

Response IR-10:

a) Confirmed.

b)

i. Confirmed. However, regardless of whether the Risk Premium model is based on the relationship between government bond yields or utility bond yields, the regression analysis demonstrates that there is an inverse relationship between interest rates and the equity risk premium. If Concentric had used utility bond yields instead of government bond yields, the Risk Premium regression analysis would have produced similar results. In addition, Concentric notes that we also provided a Risk Premium approach based on Canadian ROE decisions.

ii. Confirmed. Concentric, however, does not agree with those concerns. The September 2023 BCUC decision is instructive on this point. On page 117 of Decision and Order G-236-23, the BCUC writes:

> Consequently, the Panel considers that circularity concerns alone do not justify eliminating reliance on the Risk Premium Model, or any particular model, for determining the appropriate ROE for FEI and FBC. Instead, it is a factor in the overall consideration of model results.

c) While Concentric recognizes the limitations of the Risk Premium approach, we believe these concerns are mitigated by the fact that our Risk Premium analysis is based on more than 1,000 electric utility rate case decisions in the U.S. since 1992. In addition, Concentric has presented a risk premium analysis based on more than 60 Canadian ROE decisions dating back to 2000. Further, in our experience, the regulatory environment in many Canadian jurisdictions is not materially different than it is in many U.S. states. Moody's Ratings has expressed that same view on the similarity of utility regulation in Canada and the U.S. since 2013.

REDACTED

Request IR-11:

References: **(A) On page 57 of its evidence, Concentric states the following (bold added for emphasis):**

> **Some may argue that the debt used to finance the Maritime Link project cost of $1.7 billion issued by the Maritime Link Financing Trust and guaranteed by the government of Canada lowers NSPML's risk. However, the debt guarantee does not protect equity investors. Any disallowances are 100% assigned to equity, and given the relatively thin equity ratio, these risks are disproportionately larger than would be the case with a typical capital structure.**

(B) On page 58 of its evidence, Concentric states the following:

> **Additionally, an incremental $500 million in debt (backed by GOC guarantee) was issued in December 2024 at 4.04%.**

(C) On page 58 of its evidence, Concentric states the following:

> **As a result, NSPML now has an actual equity ratio of approximately 78% debt / 22% equity. Although the additional debt is separated from a regulated capital structure basis, this debt and additional balance sheet leverage would be considered by creditors as debt obligations of NSPML.**

Question:

a) Please explain Concentric's assertion that "Some may argue that the debt used to finance the Maritime Link project cost of $1.7 billion issued by the Maritime Link Financing Trust and guaranteed by the government of Canada lowers NSPML's risk." Is Concentric asserting that this loan guarantee does NOT lower NSPML's risk? If so, please explain how this could be so?

b) Regarding the second quote, please provide the yield that some of NS Power's bonds of similar maturity date were yielding at the time this debt was issued as 4.04%.

c) Please provide all details used by Concentric to estimate NSPML's "actual equity ratio of approximately 78% debt / 22% equity." The details should include the balance sheet totals and specifics used to determine this ratio, and should list the amounts an maturity dates of all outstanding debt that Concentric used to arrive at this estimate.

d) Please provide the current market yields and originally issued yields for all of the debt instruments referenced in response to part (c)

e) Please explain why Concentric asserts that NSPML requires an equity ratio of 40% or 50% or even higher, given that its current equity ratio of 22% is below its allowed equity ratio of 30%.

Response IR-11:

a) No. Concentric is asserting that the Maritime Link Financing Trust as guaranteed by the government of Canada does not lower risk for equity investors. The guarantee is for the benefit of debt investors only. Any disallowances are 100% assigned to equity, and given the relatively thin equity ratio, these risks are disproportionately larger than would be the case with a typical capital structure. Specifically, although a $10M disallowance has the same impact for customers notwithstanding equity investment percentage, it has a disproportionately higher impact on a 30% equity holder than it does a 40% equity holder in terms of return on investment.

b) At the time of the FLG2 debt issuance in December 2024, NSPI's 10-year and 30-year bonds would have priced at spreads of approximately 137bps and 167bps over the 10-year bond and 30-year bond, respectively. NSPML's new FLG2 bond has a 14.2-year term

(paid down over 28 years). There is no 14-year pricing available for NSPI's bonds, however, the average of the 10-year and 30-year spread above would indicate a NSPI bond spread of approximately 152bps for a similar term.

c) Please see partially confidential Attachment 1. Note the ~78/22 was determined using the forecasting model at the time of FLG2. NSPML's actual 2024 DER was ~79/21 based on its annual audited financial statements. The only outstanding long-term debt is FLG1 ($1.3B) and FLG2 ($500M) which are both amortizing bonds and repaid fully by 2052.

d) NSPML's original FLG was issued at 3.5%, the current yield is 4.0%. NSPML's FLG2 was issued at 4.048%, the current yield is [redacted]. Concentric is referring to NSPML's regulated ROE, not its legal ROE. NSPML's current equity ratio (whether 70/30 (regulated) or 78/22 (legal)) is anomalous by any objective standard for regulated utilities, and reflects the debt issued in December 2024 to finance the amount owed by customers to NS Power for the deferred FAM balance. Concentric's evidence points out that as a point of comparison, NS Power has a deemed equity ratio of 40%, and the U.S. average authorized equity ratio is slightly over 50% for electric T&D utilities. Neither NSPML's current or allowed equity ratios would satisfy the comparability requirement of the fair return standard.

Maritime Link Draft - Confidential

Financials

CAD Millions

BALANCE SHEET CAD Millions	2024 Forecast	2025 Forecast	2026 Forecast
Assets			
Current assets	12.4	13.1	12.5
Receivables	-	-	
Total	12.4	13.1	12.5
CWIP			
Property, plant & equipment - ML Project	1,765.3	1,765.3	1,765.3
[redacted]			
Accumulated Depreciation ML Project	(344.2)	(396.3)	(447.0)
[redacted]			
Deferred Financing Charge	36.6	35.2	33.8
Regulated Asset	116.1	111.6	107.2
Regulated Asset (Debt)	500.0	482.1	464.3
Total	2,086.1	2,011.1	1,961.2
Liabilities			
Current Liabilities (excluding accrued interest on LTD)			
Accrued interest on LTD			
Regulated Liability	-	-	-
Long term debt (Project)	1,120.0	1,080.0	1,040.0
[redacted]			
Long term debt (2025)	500.0	482.1	464.3
SDN			
Total	1,620.0	1,562.1	1,521.9
Equity			
Shareholder's Equity - opening		466.1	449.0
Equity injection			7.8
Return of equity (ML Project)		(17.1)	(17.1)
[redacted]			
Retained Earnings			
Total	466.1	449.0	439.3
Total Liabilities and Equity	2,086.1	2,011.10	1,961.19
DER:			
Debt	**78%**	**78%**	**78%**
Equity	**22%**	**22%**	**22%**

Request IR-12:

Preamble: **On page 58 of its evidence, Concentric states the following (bold added for emphasis):**

> **The Maritime Link will require additional capital investment (sustaining capital) over the next 25-30 years, with the majority of this requirement occurring in the later years of operations. The debt financing for this incremental investment is not covered by the federal loan guarantees that apply to the debt that was issued originally to construct the Maritime Link. Rather, NSPML will need to obtain financing for this additional sustaining capital with a balance sheet that is highly leveraged and with the rights of new debt holders being subordinate to the existing debt and thus creating additional risk. Consequently, Concentric finds that this portion of NSPML's rate base (that being sustaining capital) should have a higher deemed equity ratio of 40%, equivalent to NS Power's deemed equity ratio, instead of the 30% deemed equity ratio used for ratemaking purposes for the Maritime Link.**

Question:

(a) Please provide the dollar estimates (by year) of the "additional capital investment" that will be required by NSPML over the next "25-30 years" that Concentric references in the quote above.

(b) If the "majority of this requirement is expected to occur in the later years of operations" please explain why the equity ratio should be adjusted in 2026 at the expense of current rate payers, as opposed to being adjusted at some point in the future.

Response IR-12:

a) Over the long term, there is a range of capital futures that can be prepared to sustain the Maritime Link for it's 50-year service life. Any assessment prepared today will differ from future projections and estimates, informed by a host of future information factors including condition-based assessments and lowest life cycle cost alternatives.

Please refer to Confidential Attachment 2 of the Application for the 10-year asset management outlook. The long-term view can be currently characterized as follows:

- For overland transmission assets, future capital investments are anticipated to be relatively low.
- For the submarine HVDC cable system, future capital investments are anticipated to be focused on cable protection maintenance requirements.
- The HVDC converter and related station assets are expected to be the most significant area of future investment. Industry standards developed and informed by experience is one method that can be used to predict the potential timing of replacements or refurbishment.[1] While there are many components employed on the Maritime Link that will be available in the market if and when necessary long into the future, the "voltage source converter" or VSC is a relatively new technology which has and will continue to evolve into the future.

Even with preliminary assumptions around timing, costing over a long-term horizon cannot be accurately predicted and there is a high degree of uncertainty in cost factors that serve to widen the potential capital range. While it is possible to predict future capital, the only certainty is that the future will be significantly different.

[1] One such industry standard for equipment common to the Maritime Link is the Electric Power Research Group ("EPRI") Life Extension Guidelines of Existing HVDC Systems, Technical Update 2007 which is publicly available. Table C-1 provides a summary list of the asset types and potential reinvestment intervals. Life Extension Guidelines for HVDC Systems https://www.epri.com/research/products/1012516

b) Concentric understands that NSPML's first material sustaining capital will occur in 2026 related to the submarine capital protection project. The recommendation to increase equity ratio is for future sustaining capital and will only apply to capital at the point when NSPML makes those investments, so there is no intergenerational equity risk associated with those investments.

Source Guidelines for life extension of existing HVDC systems working group B4.54, Mar 2007
Table page 11, 12

	HVDC Equipment Lifetimes	
	Note: Excludes design and production run quality issues	
	HVDC Station Design life 35 to 40 years	
Equipment	Lifetime (Years)	Comments
Converter Transformer	40	
AC Bushings	25-30	25 OIP , 30 RIP
DC Bushings	30-35	30 OIP, 35 RIP - DC bushings have more insulation
Tapchanger	30	or 350 000 Operations, Seals and springs
Coolers	25	
Thyristor Valves	35	
Thyristors	35	
Valve Reactors	30	
Tubing	25	
Fiber Optics	35	
Damping Capacitor	30	
Damping Resistor	30	
Electronic cards	25 - 30	
Coolers	25	
HVDC Controls (analogue)	35	
HVDC Controls (digital)	12 - 15	
HMI	7	
DC Smoothing Reactor (oil)	35	Bushing may have a shorter life
DC Smoothing Reactor (air core)	35	
Optical DCCT	30	Electronics may have a shorter life
DC Voltage Divider	30	
DC Surge Arrestors	35	
DC Insulators	35	
DC Wall Bushings	30-35	30 OIP, 35 RIP - DC bushings have more insulation
DC Switching Equipment	35	
DC Buswork, structures	50	
Ground Electrode	40 - 50	Normal Design Life
Civil Work	50	
Communications Systems	15	

Request IR-13:

Reference:

On page 49 (footnote 50) of its evidence, Concentric refers to "Blue Chip Forecasts."

Question:

Please provide the source "Blue Chip Forecasts" document referenced in footnote 50 of its evidence.

Response IR-13:

Please see Attachment 1 for the referenced report.

Blue Chip Financial Forecasts®

Top Analysts' Forecasts Of U.S. And Foreign Interest Rates, Currency Values And The Factors That Influence Them

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Diminished Tariff Risks; Heightened Budget Risks

Concern among investors and traders over the economic effects of President Trump's tariffs has lessened. Major indexes of equity values have retraced all the ground lost after the announcement of reciprocal tariffs on April 2, and they are down only moderately for the year thus far (-0.2% for the S&P 500 and -2.0% for NASDAQ). The 90-day delay in the implementation of reciprocal tariffs supported the view that President Trump is using tariffs as a bargaining tool in trade negotiations rather than as a major revenue-raising effort. This view was reinforced by the rapid adjustment to the surprise announcement on May 24 of a 50% tariff on goods from the European Union. More important, the recent decision by the U.S. Court of International Trade that President Trump does not have authority to impose many of his announced tariffs seems to dampen risks, although this decision could change on appeal.

While tariffs are weighing less heavily on financial markets, the budget of the U.S. government might be moving to center stage. The downgrading of federal debt by Moody's on May 16 served as a wake-up call, signaling that the United States is on an unsustainable fiscal path. Budget negotiations now underway in Congress will keep budget issues in the news, and figures on deficits and debt highlighted by the media are likely to be discouraging.

Estimates from the Joint Committee on Taxation and the Congressional Budget Office based on the "One Big Beautiful Bill" approved by the House of Representatives show that the cumulative budget deficit over the next 10 years will be $2.3 trillion wider than it would be in the absence of the new legislation. Most of this deterioration is the result of Congress making permanent many of the 2017 tax cuts that expire at the end of this year. The bill also includes numerous other measures, some widening and others narrowing budget deficits. In total, if not altered substantially by the Senate, the budget bill will worsen an already uncomfortable fiscal position.

The fixed income markets have shifted with the tariff and budget news. Interest rates on long-term Treasury securities eased in the early months of the year, when tariff talk and thoughts of recession carried sway. Longer-term rates have increased approximately 50 basis points in the past several weeks as perceived tariff threats have diminished and as budget news has become more prominent. Yields on 20-year and 30-year Treasury securities moved to the upper ends of the ranges from the past few years, exceeded only slightly by readings in late 2023, which were the highest since mid-2007.

Of note, the increase in Treasury rates has been accompanied by a softening in the foreign exchange value of the U.S. dollar. In the past five months, the Federal Reserve's dollar index against advanced foreign currencies has moved from the upper portion of its post-pandemic range to the lower portion, dropping more than 8% over this span. The shift signals a loss of interest in U.S. securities by foreign investors at a time when funding needs are elevated. It also suggests a clash in policies of the Trump administration. Tariffs, if successful, would reduce trade deficits, which would require an easing in the inflow of foreign investment to maintain balance in international accounts. The loss of foreign financial support complicates the funding of undisciplined fiscal policies.

The views of the Blue Chip panel on long-term interest rates have changed only modestly in response to the shifting news on tariffs and the budget. The expected yield on 10-year Treasury securities has remained in the low-to-mid 4% area in all the monthly surveys so far this year; the expected yield on 30-year treasuries has fluctuated in the mid-to-upper 4% area.

Panelists apparently are not alarmed about the fiscal challenges facing the federal government, as the long-range views collected in this survey show stable long-term rates. The yield on 10-year Treasuries averages either 4.0% or 4.1% every year from 2026 to 2031; the projected 30-year yield ranges from 4.3% to 4.5% over the same time span.

From a short-term cyclical perspective, The Blue Chip panel expects that tariffs, although less threatening than they were two months ago, will have a constraining influence on economic growth and will boost inflation for a time. The third quarter of this year is expected to show the sharpest effects of tariffs, with GDP growth totaling only 0.4% (q/q, SAAR) and PCE inflation jumping to 3.5%. Although expected growth in Q3 is modest, it is a tad better than the 0.3% in the prior survey – consistent with diminished risks from tariffs. After Q3, growth gradually quickens, moving to 2.0% in 2026-Q3; inflation slows to 2.3% at the end of the forecast horizon, only slightly above the Fed's target of 2.0%.

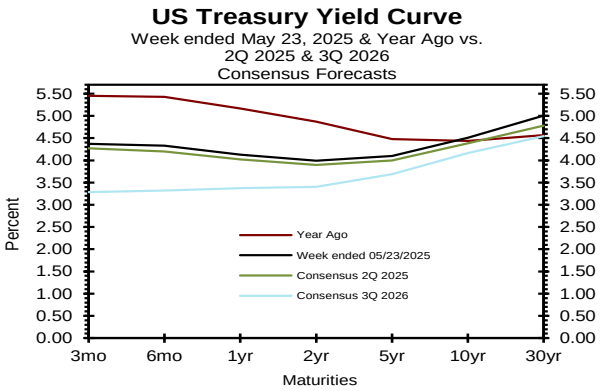
Blue Chip forecasters expect the Federal Reserve to provide support during the period of slow growth, with the expected federal funds rate falling almost a full percentage point over the forecast horizon (from 4.3% to 3.4%). Fed Chair Jerome Powell has noted on several occasions that the Fed is well positioned to fight either slower growth or faster inflation – implying that the next change in policy could be a rate hike. However, the special questions in this survey show unanimous expectations of easier policy. Long-term rates usually show smaller changes than short-term rates as monetary policy shifts. That pattern is evident in the Blue Chip survey, as long-term rates are expected to change moderately, with the consensus view on the 30-year Treasury yield moving from 4.8% in 2025-Q2 to 4.5% in the third quarter of 2026.

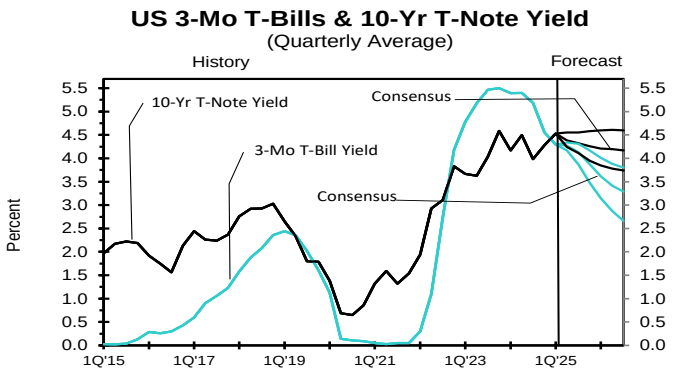
Mike Moran (Haver Analytics, New York, NY)

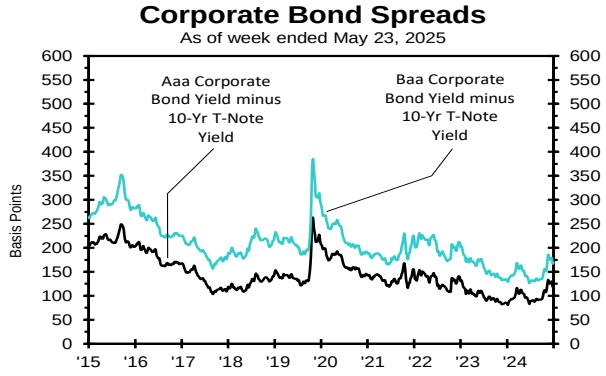
Consensus Forecasts of U.S. Interest Rates and Key Assumptions

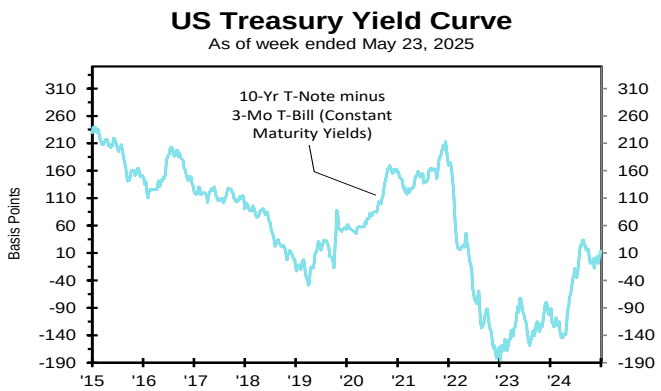
	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month			*Latest Qtr*	2Q	3Q	4Q	1Q	2Q	3Q
Interest Rates	May 23	May 16	May 9	May 2	Apr	Mar	Feb	1Q 2025	2025	2025	2025	2026	2026	2026
Federal Funds Rate	4.33	4.33	4.33	4.33	4.33	4.33	4.33	4.33	**4.3**	**4.2**	**3.9**	**3.7**	**3.5**	**3.4**
Prime Rate	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	**7.5**	**7.4**	**7.1**	**6.8**	**6.6**	**6.5**
SOFR	4.27	4.30	4.30	4.38	4.35	4.33	4.34	4.33	**4.3**	**4.2**	**4.0**	**3.7**	**3.5**	**3.3**
Commercial Paper, 1-mo.	4.31	4.32	4.33	4.31	4.34	4.32	4.31	4.32	**4.3**	**4.2**	**3.9**	**3.7**	**3.4**	**3.3**
Treasury bill, 3-mo.	4.37	4.40	4.34	4.32	4.32	4.34	4.33	4.34	**4.3**	**4.1**	**3.9**	**3.6**	**3.4**	**3.3**
Treasury bill, 6-mo.	4.33	4.29	4.27	4.22	4.20	4.27	4.30	4.28	**4.2**	**4.1**	**3.8**	**3.6**	**3.5**	**3.3**
Treasury bill, 1 yr.	4.13	4.12	4.02	3.92	3.95	4.06	4.19	4.14	**4.0**	**3.9**	**3.8**	**3.6**	**3.5**	**3.4**
Treasury note, 2 yr.	3.99	4.00	3.83	3.69	3.78	3.97	4.21	4.15	**3.9**	**3.8**	**3.7**	**3.5**	**3.5**	**3.4**
Treasury note, 5 yr.	4.10	4.10	3.94	3.81	3.91	4.04	4.28	4.25	**4.0**	**4.0**	**3.9**	**3.8**	**3.7**	**3.7**
Treasury note, 10 yr.	4.51	4.47	4.33	4.23	4.28	4.28	4.45	4.45	**4.4**	**4.3**	**4.3**	**4.2**	**4.2**	**4.2**
Treasury note, 30 yr.	5.01	4.92	4.81	4.70	4.71	4.60	4.68	4.71	**4.8**	**4.7**	**4.6**	**4.6**	**4.6**	**4.5**
Corporate Aaa bond	5.73	5.66	5.63	5.52	5.56	5.38	5.39	5.44	**5.4**	**5.4**	**5.3**	**5.3**	**5.2**	**5.2**
Corporate Baa bond	6.20	6.14	6.12	6.01	6.06	5.81	5.82	5.86	**6.2**	**6.2**	**6.2**	**6.1**	**6.1**	**6.0**
State & Local bonds	4.48	4.46	4.46	4.48	4.50	4.22	4.16	4.19	**4.6**	**4.6**	**4.5**	**4.4**	**4.5**	**4.4**
Home mortgage rate	6.86	6.81	6.76	6.76	6.73	6.65	6.84	6.82	**6.8**	**6.7**	**6.5**	**6.4**	**6.3**	**6.3**
	History								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q
Key Assumptions	2023	2023	2023	2024	2024	2024	2024	2025	2025	2025	2025	2026	2026	2026
Fed's AFE $ Index	114.6	115.0	116.6	115.5	117.3	114.9	117.9	119.8	**115.1**	**114.4**	**113.6**	**113.0**	**112.9**	**113.0**
Real GDP	2.4	4.4	3.2	1.6	3.0	3.1	2.4	-0.2	**1.3**	**0.4**	**0.9**	**1.4**	**1.8**	**2.0**
GDP Price Index	1.9	3.2	1.5	3.0	2.5	1.9	2.3	3.7	**2.9**	**3.4**	**2.8**	**2.6**	**2.2**	**2.3**
Consumer Price Index	3.0	3.5	2.8	3.7	2.8	1.4	3.0	3.8	**2.7**	**3.7**	**3.1**	**2.8**	**2.5**	**2.5**
PCE Price Index	2.9	2.7	1.7	3.4	2.5	1.5	2.4	3.6	**2.7**	**3.5**	**2.9**	**2.7**	**2.4**	**2.3**

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE Price Index are seasonally adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; SOFR from the New York Fed. All interest rate data are sourced from Haver Analytics. Historical data for Fed's Major Currency Index are from FRSR H.10. Historical data for Real GDP, GDP Price Index and PCE Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index history is from the Department of Labor's Bureau of Labor Statistics (BLS).









----------Policy Rates[1]----------

	History: Latest:	Month Ago:	Year Ago:	Consensus Forecasts Months From Now: 3	6	12
U.S.	4.38	4.38	5.38	**4.31**	**4.03**	**3.51**
Japan	0.50	0.50	0.05	**0.50**	**0.51**	**0.67**
U.K.	4.25	4.50	5.25	**4.10**	**3.83**	**3.58**
Switzerland	0.25	0.25	1.50	**0.20**	**0.13**	**0.19**
Canada	2.75	2.75	5.00	**2.54**	**2.40**	**2.30**
Australia	3.85	4.10	4.35	**3.72**	**3.45**	**3.37**
Euro area	2.40	2.40	4.50	**2.04**	**1.80**	**1.82**

----------10-Yr. Government Bond Yields[2]------

	History: Latest:	Month Ago:	Year Ago:	Consensus Forecasts Months From Now: 3	6	12
U.S.	4.51	4.29	4.46	**4.33**	**4.29**	**4.28**
Germany	2.57	2.47	2.58	**2.56**	**2.59**	**2.63**
Japan	1.56	1.35	1.02	**1.37**	**1.36**	**1.42**
U.K.	4.69	4.44	4.27	**4.56**	**4.49**	**4.36**
France	3.30	3.15	3.06	**3.27**	**3.34**	**3.47**
Italy	3.61	3.57	3.89	**3.69**	**3.75**	**3.92**
Switzerland	0.35	0.42	0.76	**0.38**	**0.47**	**0.59**
Canada	3.35	3.17	3.61	**3.08**	**3.13**	**3.32**
Australia	4.42	4.19	4.31	**4.25**	**4.27**	**4.32**
Spain	3.23	3.11	3.33	**3.11**	**3.13**	**3.35**

----------Foreign Exchange Rates[3]----------

	History: Latest:	Month Ago:	Year Ago:	Consensus Forecasts Months From Now: 3	6	12
U.S.	112.30	112.77	116.93	**115.8**	**112.9**	**109.8**
Japan	142.61	143.75	156.90	**144.1**	**142.0**	**138.6**
U.K.	1.35	1.33	1.27	**1.31**	**1.31**	**1.30**
Switzerland	0.82	0.83	0.91	**0.85**	**0.84**	**0.84**
Canada	1.38	1.39	1.37	**1.39**	**1.39**	**1.37**
Australia	0.65	0.64	0.66	**0.64**	**0.65**	**0.66**
Euro	1.14	1.14	1.09	**1.12**	**1.13**	**1.15**

	Consensus Policy Rates vs. US Rate: Now	In 12 Mo.
Japan	-3.88	**-2.84**
U.K.	-0.13	**0.07**
Switzerland	-4.13	**-3.31**
Canada	-1.63	**-1.21**
Australia	-0.53	**-0.14**
Euro area	-1.98	**-1.69**

	Consensus 10-Year Gov't Yields vs. U.S. Yield: Now	In 12 Mo.
Germany	-1.94	**-1.65**
Japan	-2.95	**-2.86**
U.K.	0.18	**0.08**
France	-1.23	**-0.81**
Italy	-0.90	**-0.36**
Switzerland	-4.16	**-3.69**
Canada	-1.16	**-0.96**
Australia	-0.09	**0.04**
Spain	-1.28	**-0.93**

Forecasts of panel members are on pages 10 and 11. Definitions of variables are as follows: [1]Monetary policy rates. [2]Government bonds are yields to maturity. [3]Foreign exchange rate forecasts for U.K., Australia and the Euro are U.S. dollars per currency unit. For the U.S dollar, forecasts are of the U.S. Federal Reserve Board's AFE Dollar Index.

International. Financial markets remained volatile through May, as the global economy continued to absorb the aftershocks of the Trump administration's sweeping "Liberation Day" tariffs unveiled on April 2. Though increases were broadly spread, the program quickly escalated tensions with China. However, a turning point came on May 12, when both sides agreed to a 90-day pause. This reset has not resolved the underlying conflict, but it has materially improved bilateral trade relations—at least for now. The move also provided modest relief to markets and supply chains where exemptions were granted. Further uncertainty has since emerged following a May 28 ruling by the US Court of International Trade, which blocked key elements of the Trump administration's reciprocal tariff strategy—casting doubt over the legal durability and future direction of US trade policy.

Still, while tensions with China have eased and legal challenges have begun to undermine enforceability, broader risks to global trade and capital flows remain elevated. Frictions with Europe persist, and concerns over US capital flight have begun to surface as global investors reassess the safety and predictability of US policy. With trade policy now a source of volatility, and the US running large twin deficits, the risk is that demand for Treasuries weakens just as issuance surges—putting renewed pressure on global bond markets and amplifying the fragilities already exposed by rising real yields.

Against this backdrop, a defining financial market development in May has been a broad-based rise in long-term interest rates. In the US, the 10-year Treasury yield climbed to 4.58% on May 21, reaching its highest level since October 2024. Similarly, Germany's 10-year government bond yields rose to 2.68% in mid-May, a jump of 35bps compared with end-April. Japan's 10-year government bond yield increased to 1.56% on May 22, marking a significant rise from 1.31% at end-April. These movements reflect a repricing of risk and term premia, as investors reassess the inflation outlook, fiscal trajectories, and structural imbalances in major economies. While there has been a modest decline in global yields in recent days, the overall trend underscores the heightened sensitivity of global bond markets to evolving economic and policy developments.

That repricing is occurring against a backdrop of economic data that paint a picture of fragile resilience. In the US, the labor market has remained steady, though recent indicators suggest some cooling in consumer spending and business investment. The Conference Board gauge of consumer sentiment, however, rebounded in May, offering a modest counterpoint to otherwise cautious data. In Europe, the tone remains subdued. Business surveys suggest tentative stabilization, but growth momentum is weak and uneven across sectors. Japan's economy contracted in Q1, driven by a pullback in consumer spending and sluggish business investment, renewing concerns about the durability of its recovery and prompting speculation (and reinforced in our panelists' forecasts) that the Bank of Japan may delay further tightening. Meanwhile, China has delivered mixed signals: industrial production has picked up pace, suggesting some traction in manufacturing and export-oriented sectors, but the housing market remains troubled.

In this environment, central banks face an increasingly asymmetric challenge. While our panelists still anticipate rate cuts from most major central banks in the months ahead, the global backdrop no longer supports the clean disinflation narrative that previously underpinned a broad easing cycle. Instead, our latest survey shows modest upward revisions to policy rate expectations in most major economies compared with last month, while projections for 10-year bond yields have also been marked higher.

Despite higher US yields, the dollar has remained soft in recent weeks—a divergence that continues to reflect structural concerns around the durability of the US's global financial leadership. However, in our latest survey, there were no further major downward revisions to dollar forecasts. This suggests that, for now, Blue Chip forecasters see limited additional downside, perhaps reflecting a more measured view of the economic fallout from US tariff policies.

Second Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr.---	(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
J.P. Morgan Chase	4.5 H	na	na	na	na	na	na	3.9	4.0	4.3	4.6	na	na	na	na	na	2.0	2.1	2.3	2.3
Naroff Economics LLC	4.5 H	7.5 H	4.5	4.8 H	4.3	4.3 H	4.1	4.0	3.9	4.6	4.7	na	na	4.1 L	6.7	115.5	1.1	2.7	2.8	2.7
Scotiabank Group	4.5 H	na	4.3	na	4.3	na	na	3.9	4.0	4.3	4.8	na	na	na	na	na	0.8	3.3	3.6	2.6
Bank of America	4.4	na	na	na	na	na	na	3.9	4.0	4.4	4.8	na	na	na	na	na	2.0	2.5	2.4	2.3
Barclays	4.4	na	na	na	na	na	na	3.9	3.9	4.3	4.7	na	na	na	na	na	1.0	2.2	2.2	2.0
BMO Capital Markets	4.4	7.5 H	4.3	4.3	4.4 H	4.3 H	4.0	3.9	4.0	4.4	4.8	5.7	6.4	4.5	6.8	113.8	1.0	3.0	1.9	2.1
Daiwa Capital Markets America	4.4	7.5 H	na	na	4.3	na	na	3.9	4.0	4.4	4.8	na	na	na	6.8	117.0	0.6	2.9	2.7	2.6
Economist Intelligence Unit	4.4	7.5 H	na	na	4.4 H	na	4.3 H	na	na	4.5	na	na	na	na	na	na	-1.2 L	na	4.5	na
Georgia State University	4.4	7.5 H	na	na	4.3	4.2	4.0	3.9	4.0	4.3	4.7	5.3	6.1	na	6.6	na	3.2	2.7	3.0	3.4
Goldman Sachs & Co.	4.4	na	na	na	4.0	na	na	4.0	4.1	4.5	4.9	na	na	na	na	na	2.3	2.2	2.9	2.3
ING	4.4	na	na	na	na	na	na	4.0	4.3	4.8 H	5.2 H	na	na	na	na	na	1.4	na	na	na
KPMG	4.4	7.5 H	4.4	4.4	4.3	4.2	4.0	4.0	4.1	4.4	4.5 L	5.0	6.2	na	6.9	na	1.2	1.9	0.9 L	1.6
MacroPolicy Perspectives	4.4	7.5 H	4.4	4.3	4.3	4.2	4.0	3.8	4.0	4.3	4.8	5.4	6.1	4.5	6.8	113.9	4.5 H	2.4	1.9	2.3
Nomura Securities, Inc.	4.4	7.5 H	na	na	na	na	na	4.0	4.1	4.2	na	na	na	na	na	na	1.2	1.8	2.0	2.2
Oxford Economics	4.4	7.5 H	4.4	na	4.4 H	4.2	4.0	3.9	3.9	4.3	4.8	4.7 L	na	na	6.8	116.2	1.5	1.6	1.6	1.8
S&P Global Market Intelligence	4.4	7.5 H	4.3	na	4.2	4.1	3.9	3.7 L	3.8 L	4.1 L	4.6	na	na	na	6.6	na	1.0	7.0 H	5.6 H	6.5 H
The Lonski Group	4.4	7.5 H	4.3	4.4	4.3	4.2	4.1	3.9	4.0	4.4	4.8	5.6	6.1	4.6	6.8	112.9	1.5	3.0	1.8	1.9
The Northern Trust Company	4.4	7.5 H	4.3	4.4	4.3	4.2	4.0	3.8	3.9	4.3	4.7	5.3	6.0	4.4	6.8	114.0	1.2	2.5	3.2	3.0
Wells Fargo	4.4	7.5 H	4.4	4.4	4.3	4.1	3.8 L	3.7 L	3.8 L	4.2	4.8	5.4	6.4	4.8	6.6	na	1.6	2.0	1.8	2.0
Action Economics	4.3	7.5 H	4.6 H	4.3	4.2	4.1	3.9	3.8	3.9	4.3	4.8	5.5	6.2	4.4	7.0	119.8	2.0	3.0	1.9	2.0
Chan Economics	4.3	7.5 H	4.3	4.3	4.2	4.1	4.0	3.9	4.0	4.4	4.6	5.3	6.1	4.6	6.7	112.3	1.5	2.3	2.6	2.4
Chmura Economics & Analytics	4.3	7.5 H	4.3	4.3	4.3	4.2	4.0	3.9	4.0	4.4	4.8	5.5	na	na	6.8	na	0.6	3.4	3.5	2.8
Comerica Bank	4.3	7.5 H	4.4	na	4.3	4.3 H	4.1	3.9	4.1	4.5	4.9	5.8	6.5	na	6.9	na	-1.0	3.0	1.6	2.1
DePrince & Assoc.	4.3	7.5 H	4.3	4.3	4.3	4.2	4.0	3.8	3.9	4.3	4.8	5.5	6.3	4.6	6.8	113.7	1.5	2.9	3.1	3.0
EY-Parthenon	4.3	na	na	na	4.3	na	na	na	na	4.2	na	na	na	na	na	na	1.0	3.6	2.9	2.9
Fannie Mae	4.3	7.5 H	na	na	4.3	4.3 H	4.0	3.9	4.0	4.4	4.9	na	na	na	6.8	na	1.7	5.2	3.9	4.7
Loomis, Sayles & Company	4.3	7.5 H	4.3	4.3	4.3	4.2	4.0	3.8	3.9	4.3	4.8	5.3	6.1	4.5	6.7	114.1	1.2	2.9	2.4	2.4
MacroFin Analytics & Rutgers Bus School	4.3	7.5 H	4.3	4.3	4.3	4.3 H	4.2	4.0	4.1	4.5	5.0	5.7	6.2	4.5	6.9	112.1 L	-0.5	2.6	3.6	2.8
Moody's Analytics	4.3	7.5 H	4.3	4.3	4.2	4.0	3.9	3.7 L	3.8 L	4.2	4.6	5.4	6.1	4.2	6.6	na	0.4	4.8	3.8	4.8
NatWest Markets	4.3	7.5 H	na	4.3	4.2	4.2	4.2	4.5 H	4.8 H	4.7	4.7	6.3 H	7.2 H	5.7 H	7.1 H	na	2.5	1.2 L	2.0	1.5 L
PNC Financial Services Corp.	4.3	7.5 H	4.3	na	4.3	4.3 H	4.1	3.9	4.0	4.4	4.8	na	6.3	5.1	6.8	122.9 H	1.2	2.7	2.8	2.5
Regions Financial Corporation	4.3	7.5 H	4.3	4.3	4.4 H	4.3 H	4.1	3.9	4.0	4.4	4.9	5.2	5.9 L	4.4	6.7	113.8	2.1	2.1	3.0	2.2
Roberts Capital Advisors	4.3	7.5 H	4.4	4.3	4.3	4.2	4.0	3.9	4.0	4.4	4.8	5.3	6.1	4.4	6.8	113.0	1.0	2.9	3.3	3.1
Santander Capital Markets	4.3	7.5 H	4.3	4.3	4.3	4.3 H	4.1	3.9	4.0	4.4	4.9	5.5	6.2	5.2	6.8	113.5	4.3	3.4	3.1	3.3
Societe Generale	4.3	7.5 H	4.3	na	4.3	4.2	4.0	3.8	3.8 L	4.3	4.8	na	na	na	na	na	2.6	2.1	1.8	1.7
Via Nova Investment Mgt.	4.3	7.5 H	4.3	4.3	4.3	4.3 H	4.0	3.9	4.1	4.5	4.9	5.8	6.3	4.4	6.9	113.3	0.0	3.0	3.5	3.0
TS Lombard	3.9 L	7.0 L	3.9 L	3.9 L	3.8 L	3.9 L	3.8 L	3.7 L	3.8 L	4.5	4.6	5.3	6.2	4.5	6.3 L	120.0	-1.2 L	3.0	3.0	3.0
June Consensus	**4.3**	**7.5**	**4.3**	**4.3**	**4.3**	**4.2**	**4.0**	**3.9**	**4.0**	**4.4**	**4.8**	**5.4**	**6.2**	**4.6**	**6.8**	**115.1**	**1.3**	**2.9**	**2.7**	**2.7**
Top 10 Avg.	4.4	7.5	4.4	4.4	4.3	4.3	4.1	4.0	4.2	4.6	4.9	5.7	6.4	4.8	6.9	116.7	2.8	4.0	3.9	3.8
Bottom 10 Avg.	4.3	7.5	4.3	4.3	4.2	4.1	3.9	3.8	3.9	4.2	4.6	5.2	6.1	4.4	6.6	113.2	-0.1	1.9	1.7	1.9
Standard Deviation	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.3	0.3	0.4	0.2	3.0	1.2	1.1	0.9	1.0
May Consensus	4.3	7.5	4.3	4.3	4.2	4.1	4.0	3.9	4.0	4.3	4.6	5.3	6.1	4.5	6.6	114.9	0.8	3.4	3.4	3.5
Number of Forecasts Changed From A Month Ago:																				
Down	0	0	0	3	1	2	7	9	9	2	0	2	1	2	1	5	7	19	21	23
Same	30	24	20	11	19	13	7	11	13	13	8	8	8	5	6	4	7	9	6	7
Up	7	6	5	6	12	12	14	15	12	22	26	12	12	11	20	9	23	7	9	5
Diffusion Index	59%	60%	60%	58%	67%	69%	63%	59%	54%	77%	88%	73%	76%	75%	85%	61%	72%	33%	33%	24%

Third Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter: 1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	Avg. For ---Qtr.--- A. Fed's Adv Fgn Econ $ Index	(Q-Q % Change) (SAAR) B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
J.P. Morgan Chase	4.5 H	na	na	na	na	na	na	3.8	3.9	4.3	4.8	na	na	na	na	na	0.0	4.0	5.1	4.3
Scotiabank Group	4.5 H	na	4.3	na	4.3	na	na	3.8	3.9	4.2	4.6	na	na	na	na	na	0.7	2.9	1.7 L	2.1 L
Bank of America	4.4	na	na	na	na	na	na	3.8	4.1	4.4	4.8	na	na	na	na	na	0.6	3.4	3.8	3.7
Barclays	4.4	na	na	na	na	na	na	3.8	3.9	4.3	4.6	na	na	na	na	na	0.5	3.6	4.1	3.7
Goldman Sachs & Co.	4.4	na	na	na	3.9	na	na	4.0	4.1	4.5	4.9	na	na	na	na	na	1.2	4.2	3.8	3.9
KPMG	4.4	7.5 H	4.3	4.4	4.3	4.2	4.1	4.0	4.1	4.3	4.3	4.9	6.0	na	6.7	na	-1.3	5.7 H	4.8	4.7
Nomura Securities, Inc.	4.4	7.5 H	na	na	na	na	na	3.8	4.0	4.2	na	na	na	na	na	na	0.9	1.9 L	3.7	3.6
Oxford Economics	4.4	7.5 H	4.4	na	4.4 H	4.2	4.1	3.9	3.8	4.2	4.7	4.7 L	na	na	6.7	114.1	1.3	3.2	4.6	4.2
S&P Global Market Intelligence	4.4	7.5 H	4.3	na	4.2	4.0	3.8	3.5	3.7	4.1	4.5	na	na	na	6.5	na	0.9	2.8	2.5	2.3
Chmura Economics & Analytics	4.3	7.4	4.3	4.3	4.3	4.2	4.1	3.9	4.1	4.4	4.7	5.4	na	na	6.6	na	0.3	3.3	3.4	2.7
Comerica Bank	4.3	7.5 H	4.3	na	4.3	4.3 H	4.3 H	4.0	4.3	4.8 H	5.2 H	6.2	7.0	na	7.1	na	1.5	3.5	3.8	3.6
Daiwa Capital Markets America	4.3	7.4	na	na	4.2	na	na	3.8	3.9	4.3	4.9	na	na	na	6.7	116.0	0.9	3.0	3.1	2.9
DePrince & Assoc.	4.3	7.4	4.2	4.3	4.2	4.2	3.9	3.8	3.9	4.3	4.8	5.5	6.3	4.7	6.6	114.4	1.5	2.9	3.1	3.0
Economist Intelligence Unit	4.3	7.2	na	na	4.2	na	4.2	na	na	4.5	na	na	na	na	na	na	-0.9	na	4.1	na
Fannie Mae	4.3	7.4	na	na	4.3	4.2	4.0	3.9	4.1	4.5	5.1	na	na	na	6.7	na	0.4	3.4	3.2	2.8
MacroPolicy Perspectives	4.3	7.5 H	4.3	4.3	4.2	4.3 H	4.3 H	4.3	4.3	4.3	4.5	4.8	5.1 L	4.3	6.8	113.9	-3.5 L	3.2	3.6	3.1
Naroff Economics LLC	4.3	7.3	4.2	4.6 H	4.2	4.2	4.1	4.0	3.9	4.2	4.4	na	na	3.9 L	6.5	114.1	0.6	2.9	2.9	2.7
NatWest Markets	4.3	7.5 H	na	4.3	4.2	4.2	4.2	4.4 H	4.6 H	4.5	4.4	6.4 H	7.3 H	5.8 H	7.2 H	na	1.2	2.2	3.2	3.0
PNC Financial Services Corp.	4.3	7.5 H	4.3	na	4.3	4.2	4.1	3.9	4.0	4.4	4.8	na	6.5	4.9	6.6	124.8 H	-0.2	3.7	4.7	4.5
Regions Financial Corporation	4.3	7.5 H	4.3	4.3	4.3	4.2	4.1	3.8	4.0	4.4	4.8	5.2	6.0	4.5	6.6	113.1	0.4	4.2	5.5 H	4.6
Roberts Capital Advisors	4.3	7.4	4.3	4.3	4.2	4.2	4.0	3.9	4.0	4.3	4.8	5.3	6.1	4.4	6.8	113.5	1.4	2.8	3.2	3.0
Santander Capital Markets	4.3	7.5 H	4.3	4.3	4.2	4.1	3.9	3.9	4.0	4.3	4.9	5.6	6.3	5.1	6.7	113.0	0.9	3.6	3.8	3.6
Societe Generale	4.3	7.5 H	4.3	na	4.2	4.0	3.8	3.7	3.6 L	4.3	4.6	na	na	na	na	na	2.0 H	2.4	3.4	3.1
The Lonski Group	4.3	7.5 H	4.2	4.3	4.3	4.2	4.0	3.8	4.1	4.4	4.8	5.6	6.2	4.6	6.8	113.0	0.9	3.2	3.6	3.4
The Northern Trust Company	4.3	7.5 H	4.3	4.3	4.2	4.2	4.1	4.1	4.2	4.4	4.8	5.6	6.3	4.6	6.9	113.0	0.4	3.9	4.5	4.4
EY-Parthenon	4.2	na	na	na	4.3	na	na	na	na	4.0	na	na	na	na	na	na	0.9	4.3	3.7	3.5
MacroFin Analytics & Rutgers Bus School	4.2	7.3	4.2	4.3	4.2	4.3 H	4.1	4.0	4.0	4.6	5.0	5.7	6.2	4.5	6.9	111.9 L	-0.4	2.7	3.7	3.0
Action Economics	4.1	7.3	4.6 H	4.1	4.1	4.0	3.8	3.9	4.0	4.2	4.6	5.4	6.2	4.3	6.9	114.2	2.0 H	3.2	3.9	3.4
Chan Economics	4.1	7.5 H	4.1	4.1	4.0	3.9	3.8	3.7	3.8	4.2	4.4	5.1	5.9	4.4	6.5	112.1	0.8	2.2	2.5	2.3
Loomis, Sayles & Company	4.1	7.3	4.1	4.1	4.1	4.0	3.8	3.5	3.7	4.1	4.4	5.1	5.9	4.3	6.5	113.3	0.6	5.5	4.9	4.9 H
Moody's Analytics	4.1	7.3	4.1	4.1	3.9	3.8	3.8	3.8	3.9	4.1	4.5	5.5	6.5	4.2	6.4	na	1.3	2.8	3.3	3.1
BMO Capital Markets	4.0	7.2	4.0	4.0	4.2	4.1	3.9	3.7	3.9	4.2	4.7	5.7	6.6	4.4	6.6	113.3	1.0	3.6	4.2	4.0
Georgia State University	4.0	7.1	na	na	3.8	3.7	3.6	3.4 L	3.6 L	3.9 L	4.2 L	5.0	5.7	na	6.2 L	na	0.9	5.2	4.7	4.9 H
Via Nova Investment Mgt.	4.0	7.3	4.0	4.0	4.0	4.0	3.8	3.7	4.0	4.5	4.8	5.8	6.3	4.3	6.9	112.0	0.0	2.5	3.0	2.7
ING	3.9	na	na	na	na	na	na	3.6	4.0	4.5	4.9	na	na	na	na	na	-0.9	na	na	na
Wells Fargo	3.9	7.0	3.9	3.9	3.7	3.6	3.5	3.6	3.7	4.1	4.7	5.3	6.3	4.7	6.5	na	-1.5	2.7	2.6	2.7
TS Lombard	3.1 L	6.2 L	3.1 L	3.2 L	3.0 L	3.1 L	3.3 L	3.5	4.0	4.7	4.8	5.5	6.4	4.7	6.5	120.0	-2.5	3.5	3.5	3.5
June Consensus	**4.2**	**7.4**	**4.2**	**4.2**	**4.1**	**4.1**	**3.9**	**3.8**	**4.0**	**4.3**	**4.7**	**5.4**	**6.2**	**4.6**	**6.7**	**114.4**	**0.4**	**3.4**	**3.7**	**3.5**
Top 10 Avg.	4.4	7.5	4.3	4.3	4.3	4.2	4.2	4.1	4.2	4.6	4.9	5.8	6.6	4.8	6.9	115.8	1.4	4.4	4.7	4.4
Bottom 10 Avg.	3.9	7.1	4.0	4.0	3.9	3.8	3.7	3.6	3.8	4.1	4.4	5.1	5.9	4.3	6.5	112.8	-1.1	2.5	2.8	2.6
Standard Deviation	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.2	3.2	1.2	0.9	0.8	0.8
May Consensus	4.1	7.3	4.1	4.1	4.0	4.0	3.8	3.7	3.9	4.2	4.5	5.3	6.1	4.4	6.5	114.2	0.3	3.2	3.7	3.4
Number of Forecasts Changed From A Month Ago:																				
Down	1	1	1	2	2	2	5	4	5	1	1	2	1	1	2	6	10	9	15	13
Same	20	18	13	9	13	13	8	16	12	16	15	8	8	8	9	3	8	11	7	10
Up	16	11	11	9	17	12	15	15	17	20	18	12	12	9	16	9	19	15	14	12
Diffusion Index	70%	67%	70%	68%	73%	69%	68%	66%	68%	76%	75%	73%	76%	72%	76%	58%	62%	59%	49%	49%

Fourth Quarter 2025

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr.---	(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
Scotiabank Group	4.5 H	na	4.3	na	4.2	na	na	3.6	3.9	4.3	4.8	na	na	na	na	na	0.0	2.7	3.2	2.5
Bank of America	4.4	na	na	na	na	na	na	3.8	4.1	4.5	4.9	na	na	na	na	na	1.6	3.2	3.0	3.4
J.P. Morgan Chase	4.4	na	na	na	na	na	na	3.7	3.9	4.4	4.9	na	na	na	na	na	0.5	2.1	2.6	2.3
Comerica Bank	4.3	7.5 H	4.3	na	4.3 H	4.3 H	4.3 H	4.0	4.2	4.8	5.3 H	6.3	7.0	na	7.1	na	1.8	3.2	3.9	3.6
NatWest Markets	4.3	7.5 H	na	4.3 H	4.2	4.2	4.2	4.5 H	4.7 H	4.6	4.5	6.6 H	7.5 H	6.0 H	7.4 H	na	1.3	2.5	4.0	3.7
Oxford Economics	4.3	7.4	4.3	na	4.3 H	4.1	3.9	3.7	3.8	4.1	4.6	4.8	na	na	6.6	114.2	1.3	2.2	3.3	2.6
PNC Financial Services Corp.	4.3	7.4	4.2	na	4.1	3.9	3.9	3.8	4.0	4.3	4.7	na	6.7	4.7	6.4	123.3 H	0.9	2.5	3.2	3.0
S&P Global Market Intelligence	4.3	7.4	4.3	na	4.1	4.0	3.8	3.5	3.7	4.1	4.5	na	na	na	6.4	na	1.4	2.7	2.4	2.4
Barclays	4.1	na	na	na	na	na	na	3.7	3.8	4.2	4.6	na	na	na	na	na	1.0	3.4	3.4	3.4
Chmura Economics & Analytics	4.1	7.3	4.1	4.1	4.2	4.2	4.0	3.9	4.0	4.3	4.6	5.3	na	na	6.5	na	1.0	3.0	3.0	2.5
Goldman Sachs & Co.	4.1	na	na	na	3.9	na	na	3.9	4.0	4.5	4.9	na	na	na	na	na	1.3	3.6	3.3	3.4
KPMG	4.1	7.2	4.0	4.1	4.0	4.1	4.0	3.9	4.0	4.3	4.1	4.9	5.9	na	6.6	na	0.7	1.2 L	1.0 L	1.0 L
Nomura Securities, Inc.	4.1	7.3	na	na	na	na	na	3.6	3.9	4.2	na	na	na	na	na	na	1.2	2.5	3.3	3.1
The Northern Trust Company	4.1	7.3	4.1	4.1	4.1	4.2	4.2	4.3	4.4	4.5	4.9	5.8	6.6	4.8	7.0	112.0	0.2	3.1	3.9	3.5
Action Economics	4.0	7.2	4.4 H	4.0	3.9	3.8	3.7	3.8	3.9	4.1	4.5	5.3	6.0	4.2	6.7	114.9	2.0 H	2.8	3.4	3.1
Daiwa Capital Markets America	4.0	7.1	na	na	3.9	na	na	3.6	3.7	4.1	4.7	na	na	na	6.5	115.0	1.3	2.8	3.0	2.8
DePrince & Assoc.	4.0	7.1	4.0	4.1	4.0	3.9	3.7	3.6	3.8	4.3	4.8	5.5	6.3	4.7	6.5	115.2	1.6	2.7	2.8	2.7
EY-Parthenon	4.0	na	na	na	3.9	na	na	na	na	4.0	na	na	na	na	na	na	0.9	3.5	3.3	3.2
MacroFin Analytics & Rutgers Bus School	4.0	7.2	4.1	4.1	4.1	4.2	4.1	3.9	4.0	4.5	5.0	5.7	6.2	4.5	6.8	111.7	0.8	2.8	3.6	3.3
Naroff Economics LLC	4.0	7.0	4.1	4.3 H	4.1	4.2	4.0	3.8	3.8	4.1	4.3	na	na	3.9	6.0	114.3	-1.9	1.9	2.6	2.6
Regions Financial Corporation	4.0	7.2	4.0	4.1	4.1	4.0	3.9	3.7	3.9	4.4	4.9	5.2	6.0	4.5	6.6	112.2	1.4	3.5	4.6 H	3.6
Roberts Capital Advisors	4.0	7.2	4.1	4.0	4.1	4.1	4.0	3.9	3.9	4.3	4.8	5.3	6.1	4.4	6.8	114.0	1.6	2.7	3.0	2.9
Santander Capital Markets	4.0	7.2	4.1	4.0	3.9	3.9	3.8	3.8	3.9	4.2	4.8	5.6	6.4	5.0	6.5	112.5	1.9	2.4	2.0	2.0
Societe Generale	4.0	7.2	4.0	na	3.9	3.8	3.5	3.4	3.6	4.3	4.6	na	na	na	na	na	1.8	2.4	3.4	3.1
Chan Economics	3.9	7.3	3.9	3.9	3.8	3.7	3.6	3.5	3.6	4.0	4.2	4.9	5.7	4.2	6.3	112.0	1.5	2.1	2.4	2.2
Economist Intelligence Unit	3.9	6.8	na	na	3.9	na	4.0	na	na	4.3	na	na	na	na	na	na	0.9	na	2.2	na
Fannie Mae	3.9	7.0	na	na	4.0	4.0	3.9	3.9	4.1	4.6	5.1	na	na	na	6.5	na	0.9	2.9	3.2	2.8
BMO Capital Markets	3.8	6.9	3.8	3.8	3.8	3.8	3.6	3.5	3.7	4.1	4.5	5.6	6.5	4.2	6.4	112.4	1.1	3.4	4.0	3.8
MacroPolicy Perspectives	3.8	7.0	3.8	3.8	3.7	3.7	3.7	3.7	3.7	4.0	4.2	4.2 L	4.4 L	4.0	6.5	113.9	-3.0 L	3.2	3.7	3.1
Moody's Analytics	3.8	6.9	3.7	3.7	3.5	3.6	3.7	3.8	3.9	4.1	4.5	5.6	6.5	4.2	6.3	na	1.6	2.8	3.2	2.9
The Lonski Group	3.8	6.9	3.7	3.8	3.8	3.7	3.6	3.6	3.9	4.2	4.5	5.3	5.9	4.3	6.4	113.6	1.1	2.7	2.8	3.0
Via Nova Investment Mgt.	3.8	7.0	3.8	3.8	3.8	3.9	3.7	3.6	3.9	4.4	4.7	5.6	6.2	4.1	6.7	111.0	2.0 H	2.0	2.5	2.3
Loomis, Sayles & Company	3.6	6.8	3.6	3.6	3.6	3.5	3.3	3.0	3.2	3.6	4.0	4.6	5.4	3.8 L	6.0	113.3	1.6	3.4	3.5	3.1
Wells Fargo	3.4	6.5	3.4	3.4	3.3	3.3	3.3	3.4	3.6	4.0	4.6	5.2	6.2	4.6	6.3	na	0.3	3.3	3.3	3.3
ING	3.3	na	na	na	na	na	na	3.2	3.8	4.5	4.9	na	na	na	na	na	0.1	na	na	na
TS Lombard	2.9	6.0 L	2.9 L	2.9 L	2.8	2.9	3.2	3.5	4.2	4.9 H	5.0	5.7	6.6	4.9	6.7	110.0 L	-0.5	4.0 H	4.0	4.0 H
Georgia State University	2.8 L	6.0 L	na	na	2.7 L	2.7 L	2.4 L	2.4 L	2.9 L	3.5 L	3.9 L	4.5	5.3	na	5.8 L	na	0.7	3.4	1.6	2.4
June Consensus	**3.9**	**7.1**	**4.0**	**3.9**	**3.9**	**3.8**	**3.8**	**3.7**	**3.9**	**4.3**	**4.6**	**5.3**	**6.2**	**4.5**	**6.5**	**113.6**	**0.9**	**2.8**	**3.1**	**2.9**
Top 10 Avg.	4.3	7.4	4.2	4.1	4.2	4.2	4.1	4.0	4.2	4.6	5.0	5.8	6.6	4.8	6.8	115.2	1.8	3.5	3.9	3.6
Bottom 10 Avg.	3.5	6.7	3.7	3.7	3.5	3.5	3.4	3.3	3.6	4.0	4.3	4.9	5.7	4.1	6.2	112.1	-0.3	2.1	2.2	2.2
Standard Deviation	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.6	0.6	0.5	0.3	2.8	1.0	0.6	0.7	0.6
May Consensus	3.9	7.0	3.9	3.9	3.8	3.7	3.7	3.6	3.8	4.1	4.5	5.2	6.0	4.4	6.4	113.3	0.8	2.9	3.1	3.0
Number of Forecasts Changed From A Month Ago:																				
Down	2	3	3	3	5	3	4	6	6	2	1	4	3	1	2	6	10	11	13	13
Same	23	17	15	12	15	13	13	17	15	17	16	8	6	8	9	3	12	14	9	9
Up	12	10	7	5	12	11	11	12	13	18	17	10	12	9	16	9	15	10	14	13
Diffusion Index	64%	62%	58%	55%	61%	65%	63%	59%	60%	72%	74%	64%	71%	72%	76%	58%	57%	49%	51%	50%

First Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	Percent Per Annum -- Average For Quarter															Avg. For	(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	A.	B.	C.	D.	E.
	Federal Funds Rate	Prime Bank Rate	SOFR Rate	Com. Paper 1-Mo.	Treas. Bills 3-Mo.	Treas. Bills 6-Mo.	Treas. Bills 1-Yr.	Treas. Notes 2-Yr.	Treas. Notes 5-Yr.	Treas. Notes 10-Yr.	Treas. Bond 30-Yr.	Aaa Corp. Bond	Baa Corp. Bond	State & Local Bonds	Home Mtg. Rate	Fed's Adv Fgn Econ $ Index	Real GDP	GDP Price Index	Cons. Price Index	PCE Price Index
Bank of America	4.4 H	na	na	na	na	na	na	3.8	4.2	4.6	5.0	na	na	na	na	na	1.6	2.4	2.3	2.2
Comerica Bank	4.3	7.5 H	4.3 H	na	4.3 H	4.3 H	4.2 H	3.8	4.1	4.7	5.2	6.1	6.9	na	7.0	na	2.0	2.7	3.2	2.9
NatWest Markets	4.3	7.5 H	na	4.3 H	4.2	4.2	4.2 H	na	na	4.3	na	6.6 H	7.5 H	6.0 H	7.4 H	na	1.7	2.4	3.4	4.3
Scotiabank Group	4.3	na	4.1	na	4.0	na	na	3.5	4.0	4.3	4.8	na	na	na	na	na	-0.2 L	2.4	-0.1 L	1.2 L
J.P. Morgan Chase	4.2	na	na	na	na	na	na	3.6	3.8	4.4	4.9	na	na	na	na	na	1.5	1.8	2.0	1.8
The Northern Trust Company	4.1	7.3	4.1	4.1	4.1	4.1	4.2 H	4.3 H	4.5	4.6	5.0	6.0	6.7	5.1	7.1	111.0	0.7	2.5	3.0	2.9
Chmura Economics & Analytics	4.0	7.1	4.0	4.0	4.0	4.0	4.0	3.9	4.0	4.3	4.5	5.3	na	na	6.3	na	1.3	2.7	2.8	2.4
Barclays	3.9	na	na	na	na	na	na	3.6	3.8	4.2	4.5	na	na	na	na	na	1.5	2.6	2.2	2.4
Chan Economics	3.9	7.3	3.9	3.9	3.8	3.7	3.6	3.5	3.6	4.0	4.2	4.9	5.7	4.2	6.3	111.8	1.2	2.1	2.4	2.2
Goldman Sachs & Co.	3.9	na	na	na	3.9	na	na	3.9	4.0	4.5	5.0	na	na	na	na	na	1.5	3.3	3.2	3.2
PNC Financial Services Corp.	3.9	7.0	3.9	na	3.7	3.6	3.6	3.7	3.9	4.3	4.7	na	6.6	4.7	6.3	122.6 H	0.8	2.3	2.8	2.7
S&P Global Market Intelligence	3.9	7.0	3.9	na	3.7	3.9	3.8	3.4	3.6	4.0	4.5	na	na	na	6.3	na	2.0	3.2	3.3	2.7
Action Economics	3.8	7.0	4.3 H	3.8	3.8	3.7	3.6	3.6	3.8	3.9	4.4	5.1	5.9	4.0	6.6	115.6	2.0	2.5	2.7	2.5
Daiwa Capital Markets America	3.8	6.9	na	na	3.5	na	na	3.5	3.6	4.1	4.7	na	na	na	6.4	114.0	1.6	2.7	2.8	2.6
DePrince & Assoc.	3.8	6.9	3.7	3.8	3.7	3.7	3.5	3.4	3.7	4.2	4.7	5.5	6.3	4.6	6.3	115.5	2.0	2.4	2.6	2.5
MacroFin Analytics & Rutgers Bus School	3.8	6.9	3.8	3.9	3.8	4.0	4.0	3.9	4.0	4.5	5.0	5.6	6.1	4.4	6.8	111.5	1.0	2.8	3.5	3.5
Naroff Economics LLC	3.8	6.8	3.7	4.0	3.8	3.9	3.9	3.8	3.7	4.0	4.2	na	na	3.9	5.7	114.7	0.8	1.4 L	2.3	2.5
Oxford Economics	3.8	7.0	3.8	na	3.9	3.7	3.6	3.5	3.7	4.1	4.5	4.7	na	na	6.3	114.1	1.6	2.0	2.7	2.6
Regions Financial Corporation	3.8	7.0	3.9	3.9	3.9	3.9	3.8	3.6	3.9	4.5	4.9	5.3	6.0	4.6	6.5	111.9	1.5	2.3	2.7	2.6
Roberts Capital Advisors	3.8	7.0	3.9	3.8	4.0	4.0	3.9	3.8	3.9	4.2	4.7	5.2	6.0	4.3	6.7	114.5	1.8	2.6	2.9	2.7
Santander Capital Markets	3.8	7.0	3.8	3.8	3.7	3.8	3.8	3.8	3.9	4.2	4.7	5.6	6.4	5.0	6.5	112.5	2.1	2.8	3.0	2.9
Societe Generale	3.8	7.0	3.8	na	3.7	3.5	3.3	3.3	3.6	4.3	4.6	na	na	na	na	na	1.6	2.1	2.8	2.5
KPMG	3.7	6.8	3.6	3.7	3.5	3.9	3.9	3.8	4.0	4.2	4.0	4.7	5.8	na	6.4	na	2.2 H	3.6	4.0	3.1
Fannie Mae	3.6	6.8	na	na	3.8	3.8	3.8	3.9	4.2	4.6	5.1	na	na	na	6.4	na	1.6	3.3	3.4	2.9
Nomura Securities, Inc.	3.6	6.8	na	na	na	na	na	3.5	3.8	4.2	na	na	na	na	na	na	1.0	1.9	2.6	2.3
EY-Parthenon	3.5	na	na	na	3.5	na	na	na	na	3.9	na	na	na	na	na	na	1.2	2.7	3.1	2.5
Moody's Analytics	3.5	6.7	3.5	3.5	3.3	3.4	3.6	3.7	3.9	4.1	4.6	5.6	6.6	4.2	6.3	na	1.4	2.8	3.5	3.0
Via Nova Investment Mgt.	3.5	6.8	3.5	3.5	3.4	3.5	3.5	3.0	3.4	3.8	4.1	5.1	5.6	3.6 L	6.2	110.0	2.0	2.0	2.0	2.0
BMO Capital Markets	3.4	6.5	3.4	3.4	3.4	3.4	3.3	3.2	3.6	3.9	4.4	5.4	6.3	4.1	6.2	111.8	1.6	2.6	2.8	2.6
Economist Intelligence Unit	3.4	6.3	na	na	3.5	na	3.6	na	na	4.2	na	na	na	na	na	na	1.4	na	2.4	na
The Lonski Group	3.4	6.5	3.3	3.4	3.4	3.3	3.3	3.4	3.7	4.0	4.3	5.1	5.7	4.1	6.1	114.8	1.4	2.2	1.6	1.6
Wells Fargo	3.4	6.5	3.4	3.4	3.4	3.4	3.4	3.5	3.6	4.1	4.7	5.3	6.3	4.7	6.3	na	0.8	3.0	3.4	3.0
ING	3.1	na	na	na	na	na	na	3.2	3.7	4.3	4.6	na	na	na	na	na	1.2	na	na	na
MacroPolicy Perspectives	3.0	6.2	3.0	3.0	2.9	2.8	2.8	2.8	2.8 L	4.0	4.2	3.6 L	3.8 L	4.0	6.2	113.9	1.0	2.4	2.5	2.3
Loomis, Sayles & Company	2.9	6.1	2.9 L	2.9 L	2.9	2.8	2.8	2.6	2.9	3.5 L	3.7 L	4.5	5.2	3.7	5.9	113.3	1.8	3.4	3.3	2.9
TS Lombard	2.9	6.0	2.9 L	2.9 L	2.8	2.9	3.5	4.0	4.6 H	5.3 H	5.4 H	6.1	7.0	5.3	7.1	100.0 L	1.5	4.5 H	4.5 H	4.5 H
Georgia State University	2.6 L	5.7 L	na	na	2.5 L	2.7 L	2.6 L	2.4 L	2.9	3.5 L	3.9	4.6	5.3	na	5.6 L	na	1.4	2.6	1.9	2.3
June Consensus	**3.7**	**6.8**	**3.7**	**3.7**	**3.6**	**3.6**	**3.6**	**3.5**	**3.8**	**4.2**	**4.6**	**5.3**	**6.1**	**4.4**	**6.4**	**113.0**	**1.4**	**2.6**	**2.8**	**2.7**
Top 10 Avg.	4.1	7.2	4.0	4.0	4.0	4.0	4.0	3.9	4.2	4.6	5.0	5.8	6.7	4.9	6.8	115.3	2.0	3.3	3.6	3.3
Bottom 10 Avg.	3.2	6.3	3.3	3.4	3.2	3.2	3.2	3.1	3.4	3.9	4.1	4.8	5.5	4.0	6.1	110.8	0.8	2.0	1.9	2.0
Standard Deviation	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.6	0.8	0.6	0.4	4.2	0.5	0.6	0.8	0.6
May Consensus	3.6	6.7	3.6	3.6	3.6	3.5	3.5	3.5	3.7	4.1	4.4	5.2	6.0	4.3	6.3	112.6	1.4	2.6	2.8	2.6
Number of Forecasts Changed From A Month Ago:																				
Down	1	3	1	2	5	2	3	8	6	2	1	4	3	1	3	6	9	10	11	10
Same	26	19	19	13	18	16	13	16	14	16	13	7	7	7	11	3	14	14	12	12
Up	10	8	5	5	9	9	12	10	13	18	19	11	11	10	13	9	14	10	13	12
Diffusion Index	62%	58%	58%	58%	56%	63%	66%	53%	61%	72%	77%	66%	69%	75%	69%	58%	57%	50%	53%	53%

Second Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr.---	(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
Bank of America	4.4 H	na	na	na	na	na	na	3.8	4.2	4.6	5.0	na	na	na	na	na	1.6	2.4	2.4	2.2
Comerica Bank	4.3	7.5 H	4.3 H	na	4.3 H	4.3 H	4.1	3.6	3.9	4.6	5.0	5.9	6.7	na	6.8	na	1.9	2.4	2.6	2.4
NatWest Markets	4.3	7.5 H	na	4.3 H	4.2	4.2	4.2 H	na	na	na	na	6.6 H	7.5 H	6.0 H	7.4 H	na	1.9	1.9	2.0	2.7
Scotiabank Group	4.0	na	3.8	na	3.7	na	na	3.5	3.9	4.3	4.9	na	na	na	na	na	0.8 L	2.6	2.7	2.9
The Northern Trust Company	3.9	7.0	3.8	3.9	3.7	3.9	4.0	4.1	4.4	4.6	5.0	6.0	6.7	5.1	7.1	109.0	1.4	2.3	2.6	2.4
Action Economics	3.8	6.9	4.2	3.8	3.7	3.6	3.4	3.5	3.6	3.8	4.2	5.0	5.7	3.9	6.4	116.2	2.1	2.5	2.5	2.3
Chmura Economics & Analytics	3.8	6.9	3.8	3.8	3.8	3.9	3.9	3.9	4.0	4.2	4.4	5.1	na	na	6.1	na	2.0	2.6	2.7	2.4
J.P. Morgan Chase	3.8	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.0	1.7	1.9	1.6
Roberts Capital Advisors	3.8	7.0	3.8	3.8	3.9	4.0	3.8	3.7	3.8	4.2	4.7	5.2	6.0	4.3	6.7	115.0	1.9	2.5	2.8	2.6
Santander Capital Markets	3.8	7.0	3.8	3.8	3.8	3.8	3.9	3.9	4.0	4.2	4.7	5.6	6.5	5.0	6.4	113.0	2.4	2.5	2.8	2.6
Chan Economics	3.7	7.0	3.7	3.7	3.6	3.5	3.4	3.3	3.4	3.8	4.0	4.7	5.5	4.0	6.1	111.5	1.5	2.1	2.4	2.2
Barclays	3.6	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.5	2.2	2.1	2.0
Goldman Sachs & Co.	3.6	na	na	na	3.9	na	na	3.9	4.0	4.5	5.0	na	na	na	na	na	1.8	3.0	3.0	2.9
Nomura Securities, Inc.	3.6	6.8	na	na	na	na	na	3.5	3.8	4.2	na	na	na	na	na	na	1.1	1.5	2.1	1.9
PNC Financial Services Corp.	3.6	6.8	3.6	na	3.5	3.5	3.6	3.6	3.9	4.3	4.7	na	6.4	4.7	6.3	121.8 H	1.2	1.9	2.4	2.2
Regions Financial Corporation	3.6	6.8	3.6	3.6	3.7	3.7	3.7	3.6	3.8	4.5	5.0	5.3	6.1	4.6	6.6	112.1	2.4	2.2	2.6	2.4
S&P Global Market Intelligence	3.6	6.7	3.5	na	3.4	3.6	3.5	3.3	3.6	4.0	4.4	na	na	na	6.2	na	2.0	1.6	2.4	2.2
Daiwa Capital Markets America	3.5	6.6	na	na	3.4	na	na	3.4	3.6	4.1	4.7	na	na	na	6.3	114.0	1.8	2.6	2.7	2.5
DePrince & Assoc.	3.5	6.7	3.5	3.6	3.5	3.5	3.3	3.2	3.5	4.2	4.7	5.5	6.2	4.6	6.2	115.4	2.0	2.4	2.5	2.5
Fannie Mae	3.5	6.7	na	na	3.8	3.8	3.8	3.9	4.2	4.6	5.1	na	na	na	6.3	na	2.0	1.6	2.2	2.2
MacroFin Analytics & Rutgers Bus School	3.5	6.7	3.6	3.6	3.6	3.8	3.8	3.8	4.0	4.4	4.9	5.6	6.1	4.4	6.7	111.3	1.0	2.9	3.4	3.5
Naroff Economics LLC	3.5	6.5	3.5	3.6	3.5	3.6	3.6	3.7	3.7	3.9	4.1	na	na	4.1	5.5 L	115.0	2.2	1.8	2.2	2.0
Societe Generale	3.5	6.7	3.5	na	3.4	3.3	3.2	3.4	3.6	4.3	4.6	na	na	na	na	na	1.7	2.1	2.7	2.4
Via Nova Investment Mgt.	3.5	6.8	3.5	3.5	3.4	3.5	3.6	3.7	4.1	4.5	4.8	5.7	6.3	4.2	6.8	110.0	2.0	2.0	2.0	2.0
Economist Intelligence Unit	3.4	6.3	na	na	3.4	na	3.5	na	na	4.2	na	na	na	na	na	na	1.6	na	2.0	na
Wells Fargo	3.4	6.5	3.4	3.4	3.4	3.4	3.5	3.5	3.7	4.2	4.8	5.4	6.4	4.8	6.4	na	2.8 H	2.2	2.6	2.2
Moody's Analytics	3.3	6.5	3.3	3.2	3.1	3.2	3.5	3.6	3.9	4.2	4.6	5.7	6.7	4.3	6.3	na	1.7	2.8	2.9	2.9
Oxford Economics	3.3	6.5	3.3	na	3.4	3.3	3.3	3.4	3.6	4.1	4.5	4.7	na	na	6.2	113.8	2.5	2.0	2.1	2.2
EY-Parthenon	3.2	na	na	na	3.3	na	na	na	na	3.8	na	na	na	na	na	na	1.6	2.3	2.0	2.4
KPMG	3.2	6.3	3.1	3.2	3.0	3.4	3.4	3.3	3.6	4.1	4.0	4.6	5.9	na	6.2	na	2.0	0.9 L	1.8	1.6
TS Lombard	3.2	6.3	3.2	3.2	3.1	3.2	3.7	4.3 H	4.8 H	5.5 H	5.6 H	6.4	7.2	5.5	7.3	100.0 L	2.0	4.0 H	4.0 H	4.0 H
ING	3.1	na	na	na	na	na	na	3.2	3.7	4.3	4.6	na	na	na	na	na	1.9	na	na	na
BMO Capital Markets	3.0	6.2	3.0	3.1	3.1	3.2	3.1	3.0	3.4	3.8	4.2	5.3	6.2	4.0	6.1	111.2	1.6	2.4	2.5	2.3
The Lonski Group	2.9	6.0	2.8	2.9	2.9	2.8	3.0	3.2	3.5	3.8	4.0	4.8	5.4	3.8	5.7	116.0	1.7	2.0	2.1	1.4 L
Georgia State University	2.4	5.5 L	na	na	2.2 L	2.5	2.5	2.5	3.1	3.6	4.0	4.8	5.5	na	5.6	na	1.4	2.1	1.7 L	2.3
MacroPolicy Perspectives	2.4	5.6	2.4	2.4	2.3	2.3 L	2.3 L	2.3 L	2.3 L	4.0	4.2	3.0 L	3.3 L	4.0	5.8	113.9	1.4	2.4	2.5	2.3
Loomis, Sayles & Company	2.3 L	5.5 L	2.3 L	2.3 L	2.3	2.4	2.4	2.5	2.8	3.3 L	3.5 L	4.2	4.9	3.4 L	5.7	113.3	1.8	1.8	2.9	2.4
June Consensus	**3.5**	**6.6**	**3.5**	**3.4**	**3.4**	**3.5**	**3.5**	**3.5**	**3.7**	**4.2**	**4.6**	**5.2**	**6.1**	**4.5**	**6.3**	**112.9**	**1.8**	**2.2**	**2.5**	**2.4**
Top 10 Avg.	4.0	7.0	3.8	3.8	3.9	3.9	3.9	3.9	4.2	4.6	5.0	5.8	6.7	4.9	6.8	115.4	2.2	2.8	3.0	2.9
Bottom 10 Avg.	2.9	6.1	3.0	3.1	2.9	3.0	3.0	3.0	3.3	3.8	4.1	4.6	5.4	4.0	5.9	110.5	1.3	1.7	2.0	1.9
Standard Deviation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.4	0.4	0.8	0.9	0.6	0.5	4.3	0.4	0.5	0.5	0.5
May Consensus	3.4	6.6	3.4	3.4	3.4	3.4	3.4	3.5	3.7	4.1	4.4	5.2	6.0	4.3	6.2	112.5	1.8	2.3	2.5	2.4
Number of Forecasts Changed From A Month Ago:																				
Down	3	4	3	4	6	4	6	8	8	0	1	4	3	2	3	6	9	7	7	4
Same	26	20	17	12	17	13	10	16	15	18	14	9	8	7	10	3	15	14	14	15
Up	8	6	5	4	9	10	12	8	8	16	16	9	10	9	14	9	13	13	15	15
Diffusion Index	57%	53%	54%	50%	55%	61%	61%	50%	50%	74%	74%	61%	67%	69%	70%	58%	55%	59%	61%	66%

Third Quarter 2026

Interest Rate Forecasts

Key Assumptions

Blue Chip Financial Forecasts Panel Members	1 Federal Funds Rate	2 Prime Bank Rate	3 SOFR Rate	4 Com. Paper 1-Mo.	5 Treas. Bills 3-Mo.	6 Treas. Bills 6-Mo.	7 Treas. Bills 1-Yr.	8 Treas. Notes 2-Yr.	9 Treas. Notes 5-Yr.	10 Treas. Notes 10-Yr.	11 Treas. Bond 30-Yr.	12 Aaa Corp. Bond	13 Baa Corp. Bond	14 State & Local Bonds	15 Home Mtg. Rate	A. Fed's Adv Fgn Econ $ Index	B. Real GDP	C. GDP Price Index	D. Cons. Price Index	E. PCE Price Index
	Percent Per Annum -- Average For Quarter															Avg. For ---Qtr.---	(Q-Q % Change) (SAAR)			
	Short-Term							Intermediate-Term			Long-Term									
Comerica Bank	4.3 H	7.5 H	4.3 H	na	4.2 H	4.1	3.9	3.4	3.8	4.5	4.8	5.7	6.5	na	6.7	na	1.7	2.2	2.4	2.3
NatWest Markets	4.3 H	7.5 H	na	4.3 H	4.2 H	4.2 H	4.2 H	na	na	na	na	6.6 H	7.5 H	6.0 H	7.4 H	na	2.2	1.9	2.0	1.9 L
Bank of America	3.9	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.8	2.4	2.1	2.2
The Northern Trust Company	3.9	7.0	3.8	3.9	3.7	3.8	3.9	4.1	4.4	4.6	5.0	6.0	6.7	5.1	7.1	108.0	1.7	2.2	2.4	2.4
Santander Capital Markets	3.8	7.0	3.8	3.8	3.8	3.8	3.9	4.0	4.1	4.3	4.7	5.6	6.5	5.1	6.5	113.5	2.6	2.4	2.6	2.2
Scotiabank Group	3.8	na	3.6	na	3.5	na	na	3.5	3.9	4.3	4.9	na	na	na	na	na	1.6	2.1	2.2	2.0
Chan Economics	3.7	7.0	3.7	3.7	3.6	3.5	3.4	3.3	3.4	3.8	4.0	4.7	5.5	4.0	6.1	111.2	1.5	2.0	2.3	2.1
Action Economics	3.6	6.8	4.0	3.6	3.5	3.4	3.3	3.4	3.5	3.6	4.1	4.8	5.6	3.7	6.3	116.5	na	na	na	na
Chmura Economics & Analytics	3.6	6.8	3.6	3.6	3.7	3.7	3.8	3.8	3.8	4.0	4.3	4.9	na	na	5.9	na	2.8	2.4	2.5	2.2
Goldman Sachs & Co.	3.6	na	na	na	3.9	na	na	3.9	4.1	4.6	5.0	na	na	na	na	na	2.0	2.6	2.6	2.5
J.P. Morgan Chase	3.6	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	2.5	2.0	2.3	2.1
Nomura Securities, Inc.	3.6	6.8	na	na	na	na	na	3.5	3.8	4.2	na	na	na	na	na	na	1.7	1.5 L	2.2	1.9 L
PNC Financial Services Corp.	3.6	6.8	3.6	na	3.5	3.5	3.6	3.6	3.9	4.3	4.7	na	6.3	4.8	6.4	121.3 H	1.4	1.7	2.3	2.0
Roberts Capital Advisors	3.5	6.7	3.5	3.5	3.6	3.8	3.7	3.6	3.8	4.2	4.7	5.2	5.9	4.2	6.6	115.0	2.0	2.4	2.7	2.5
Via Nova Investment Mgt.	3.5	6.8	3.5	3.5	3.4	3.5	3.6	3.7	4.1	4.5	4.8	5.7	6.3	4.2	6.8	110.0	2.5	2.0	2.0	2.0
Barclays	3.4	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	1.5	2.2	2.1	1.9 L
Daiwa Capital Markets America	3.4	6.5	na	na	3.4	na	na	3.5	3.6	4.1	4.8	na	na	na	6.4	114.0	1.7	2.5	2.5	2.3
DePrince & Assoc.	3.4	6.5	3.3	3.5	3.4	3.3	3.1	3.0	3.5	4.1	4.6	5.5	6.2	4.6	6.1	115.4	2.1	2.3	2.4	2.4
Economist Intelligence Unit	3.4	6.3	na	na	3.3	na	3.5	na	na	4.2	na	na	na	na	na	na	2.0	na	2.3	na
Fannie Mae	3.4	6.5	na	na	3.8	3.8	3.9	3.9	4.3	4.7	5.1	na	na	na	6.3	na	2.2	2.1	2.5	2.2
MacroFin Analytics & Rutgers Bus School	3.4	6.5	3.4	3.5	3.4	3.7	3.7	3.8	4.0	4.4	4.9	5.5	6.0	4.3	6.7	111.1	1.0 L	3.0	3.3	3.2
Regions Financial Corporation	3.4	6.6	3.4	3.4	3.5	3.5	3.5	3.5	3.8	4.6	5.0	5.4	6.1	4.7	6.5	112.4	2.2	2.1	2.4	2.2
TS Lombard	3.4	6.5	3.4	3.4	3.3	3.4	4.0	4.5 H	4.8 H	5.5 H	5.6 H	6.4	7.2	5.5	7.3	100.0 L	2.0	3.8 H	3.8	3.8 H
Wells Fargo	3.4	6.5	3.4	3.4	3.4	3.5	3.5	3.6	3.8	4.2	4.8	5.4	6.4	4.8	6.4	na	2.3	2.0	2.3	2.0
Naroff Economics LLC	3.3	6.3	3.3	3.4	3.3	3.4	3.5	3.5	3.8	4.1	4.3	na	na	4.3	5.6	116.5	3.0 H	2.1	2.3	2.2
S&P Global Market Intelligence	3.3	6.5	3.3	na	3.1	3.3	3.3	3.2	3.5	3.9	4.4	na	na	na	6.1	na	2.0	1.9	2.6	2.1
Societe Generale	3.3	6.5	3.3	na	3.2	3.1	3.1	3.4	3.7	4.3	4.6	na	na	na	na	na	2.3	2.1	2.7	2.4
ING	3.1	na	na	na	na	na	na	3.2	3.6	4.0	4.4	na	na	na	na	na	2.2	na	na	na
Oxford Economics	3.1	6.2	3.1	na	3.1	3.1	3.2	3.2	3.6	4.1	4.4	4.7	na	na	6.0	113.5	2.7	1.9	1.9	2.2
EY-Parthenon	3.0	na	na	na	3.0	na	na	na	na	3.8	na	na	na	na	na	na	1.9	2.3	1.8 L	2.5
Moody's Analytics	3.0	6.2	3.0	3.0	2.9	3.0	3.3	3.5	3.9	4.3	4.7	5.8	6.8	4.3	6.3	na	1.9	1.9	2.1	1.9 L
BMO Capital Markets	2.9	6.0	2.9	2.9	2.8	2.9	2.9	2.9	3.4	3.8	4.3	5.2	6.2	4.0	6.2	110.7	1.8	2.5	2.6	2.4
KPMG	2.9	6.0	2.8	2.9	2.7	3.0	3.1	3.1	3.5	3.9	3.9	4.5	5.8	na	6.0	na	2.3	2.3	3.0	2.5
The Lonski Group	2.6	5.8	2.5	2.6	2.6	2.7	2.8	3.0	3.3	3.6	3.8	4.5	5.1	3.5	5.5	117.3	1.8	2.1	2.1	2.4
Georgia State University	2.4	5.5	na	na	2.2	2.4	2.5	2.6	3.1	3.7	4.0	4.9	5.6	na	5.7	na	1.6	2.3	2.3	2.3
Loomis, Sayles & Company	2.3	5.5	2.3	2.3	2.3	2.4	2.4	2.5	2.8	3.3 L	3.5 L	4.1	4.7	3.4 L	5.6	113.3	1.9	2.1	2.8	2.3
MacroPolicy Perspectives	2.0 L	5.1 L	2.0 L	2.0 L	1.9 L	1.8 L	1.8 L	1.8 L	1.8 L	4.0	4.2	2.6 L	2.8 L	4.0	5.3 L	113.9	1.5	3.5	4.0 H	3.5
June Consensus	**3.4**	**6.5**	**3.3**	**3.3**	**3.3**	**3.3**	**3.4**	**3.4**	**3.7**	**4.2**	**4.5**	**5.2**	**6.0**	**4.4**	**6.3**	**113.0**	**2.0**	**2.3**	**2.5**	**2.3**
Top 10 Avg.	3.9	7.0	3.7	3.7	3.8	3.8	3.9	3.9	4.2	4.6	5.0	5.8	6.6	4.9	6.8	115.7	2.5	2.8	3.0	2.8
Bottom 10 Avg.	2.7	5.9	2.9	2.9	2.7	2.8	2.8	2.9	3.2	3.7	4.0	4.5	5.3	4.0	5.8	110.4	1.5	1.9	2.1	2.0
Standard Deviation	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.8	1.0	0.7	0.5	4.5	0.4	0.4	0.5	0.4
May Consensus	3.3	6.4	3.3	3.3	3.2	3.3	3.3	3.4	3.7	4.1	4.4	5.1	5.9	4.3	6.2	112.4	2.0	2.3	2.4	2.3
Number of Forecasts Changed From A Month Ago:																				
Down	3	5	3	4	6	4	5	6	4	2	1	2	2	1	4	6	12	8	6	8
Same	23	17	14	11	15	12	11	16	16	15	11	10	8	8	8	2	16	14	15	11
Up	11	8	8	5	11	11	12	9	10	16	18	10	11	9	15	10	8	11	13	14
Diffusion Index	61%	55%	60%	53%	58%	63%	63%	55%	60%	71%	78%	68%	71%	72%	70%	61%	44%	55%	60%	59%

International Interest Rate And Foreign Exchange Rate Forecasts

United States

Blue Chip Forecasters	Fed Fund Target Rate			10 Yr. Gov't Bond Yield %			Fed's AFE $ Index		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	4.38	4.21	3.88	4.27	4.22	--	--	--	--
BMO Capital Markets	4.13	3.88	3.13	4.24	4.06	3.75	113.3	112.4	111.2
ING Financial Markets	4.38	3.88	3.13	4.75	4.50	4.25	115.5	116.2	114.9
Moody's Analytics	4.37	4.17	3.59	4.16	4.11	4.13	--	--	--
Nomura Securities	4.38	4.38	3.63	--	--	--	--	--	--
Northern Trust	4.38	4.13	3.88	4.40	4.50	4.60	114.0	112.0	109.0
Oxford Economics	4.38	4.38	3.84	4.32	4.21	4.11	116.2	114.1	114.1
Economist Intelligence Unit	4.38	3.88	3.38	4.40	4.30	4.10	--	--	--
Scotiabank	4.38	4.38	3.88	4.15	4.25	4.25	--	--	--
TS Lombard	3.90	3.13	2.88	4.45	4.65	5.25	120.0	110.0	100.0
Wells Fargo	4.38	3.88	3.38	4.20	4.10	4.05	--	--	--
June Consensus	**4.31**	**4.03**	**3.51**	**4.33**	**4.29**	**4.28**	**115.8**	**112.9**	**109.8**
High	4.38	4.38	3.88	4.75	4.65	5.25	120.0	116.2	114.9
Low	3.90	3.13	2.88	4.15	4.06	3.75	113.3	110.0	100.0
Last Months Avg.	4.24	3.95	3.44	4.26	4.23	4.25	115.5	112.9	109.8

Japan

Blue Chip Forecasters	Policy-Rate Balance Rate			10 Yr. Gov't Bond Yield %			Yen per US$		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.50	0.50	0.75	1.38	1.43	--	142.0	143.3	--
BMO Capital Markets	0.50	0.50	0.50	1.26	1.21	1.20	143.7	142.4	141.2
ING Financial Markets	0.75	0.75	1.00	1.50	1.50	1.75	158.0	158.0	155.0
Moody's Analytics	0.50	0.50	0.69	1.29	1.31	1.46	148.9	146.8	141.7
Nomura Securities	0.50	0.50	0.75	--	--	--	140.0	138.0	--
Northern Trust	0.50	0.50	0.75	1.50	1.50	1.60	142.0	139.0	136.0
Oxford Economics	0.50	0.50	0.50	1.31	1.31	1.33	148.2	150.2	151.5
S&P Global Market Intelligence	--	--	--	--	--	--	143.8	142.0	139.0
Economist Intelligence Unit	0.50	0.50	0.50	1.20	1.20	1.22	134.0	132.0	128.0
Scotiabank	--	--	--	--	--	--	140.0	135.0	130.0
TS Lombard	0.25	0.35	0.50	1.30	1.20	1.10	145.0	135.0	125.0
Wells Fargo	0.50	0.50	0.75	1.55	1.55	1.70	--	--	--
June Consensus	**0.50**	**0.51**	**0.67**	**1.37**	**1.36**	**1.42**	**144.1**	**142.0**	**138.6**
High	0.75	0.75	1.00	1.55	1.55	1.75	158.0	158.0	155.0
Low	0.25	0.35	0.50	1.20	1.20	1.10	134.0	132.0	125.0
Last Months Avg.	0.55	0.61	0.73	1.36	1.36	1.36	144.4	141.9	137.9

United Kingdom

Blue Chip Forecasters	Official Bank Rate			10 Yr. Gilt Yields %			US$ per Pound Sterling		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	3.75	3.50	3.50	4.67	4.70	--	1.38	1.39	--
BMO Capital Markets	4.25	4.00	4.00	4.57	4.57	4.47	1.34	1.35	1.36
ING Financial Markets	4.25	4.00	3.50	4.60	4.60	4.40	1.31	1.29	1.29
Moody's Analytics	4.35	4.10	3.60	4.45	4.42	4.36	1.30	1.25	1.24
Nomura Securities	4.00	3.75	3.50	--	--	--	1.30	1.30	--
Northern Trust	4.00	3.75	3.25	4.70	4.60	4.50	1.32	1.35	1.35
Oxford Economics	4.35	4.10	3.60	4.63	4.64	4.42	1.30	1.32	1.32
S&P Global Market Intelligence	--	--	--	--	--	--	1.30	1.30	1.31
Economist Intelligence Unit	3.88	3.63	3.13	4.20	4.00	3.50	1.28	1.33	1.33
Scotiabank	4.00	3.75	3.25	--	--	--	1.33	1.33	1.37
TS Lombard	4.00	3.50	4.50	4.50	4.25	4.75	1.25	1.20	1.12
Wells Fargo	4.25	4.00	3.50	4.70	4.60	4.45	--	--	--
June Consensus	**4.10**	**3.83**	**3.58**	**4.56**	**4.49**	**4.36**	**1.31**	**1.31**	**1.30**
High	4.35	4.10	4.50	4.70	4.70	4.75	1.38	1.39	1.37
Low	3.75	3.50	3.13	4.20	4.00	3.50	1.25	1.20	1.12
Last Months Avg.	4.17	3.87	3.64	4.53	4.45	4.35	1.30	1.29	1.27

Switzerland

Blue Chip Forecasters	SNB Policy Rate			10 Yr. Gov't Bond Yield %			CHF per US$		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	0.00	-0.25	--	--	--	--	0.82	0.82	--
BMO Capital Markets	0.25	0.25	0.25	--	--	--	0.83	0.82	0.82
ING Financial Markets	0.00	0.00	0.00	0.40	0.50	0.80	0.91	0.85	0.85
Moody's Analytics	0.00	0.00	0.00	0.47	0.67	0.79	0.84	0.85	0.85
Nomura Securities	0.00	-0.25	-0.25	--	--	--	0.84	0.87	--
Northern Trust	0.00	0.00	0.00	0.30	0.40	0.50	0.83	0.83	0.82
Oxford Economics	0.23	0.00	0.00	0.35	0.40	0.48	0.85	0.83	0.82
S&P Global Market Intelligence	--	--	--	--	--	--	0.84	0.84	0.84
Economist Intelligence Unit	0.28	0.25	0.25	0.27	0.24	0.24	0.87	0.87	0.87
Scotiabank	--	--	--	--	--	--	0.81	0.81	0.78
TS Lombard	1.00	1.00	1.25	0.50	0.60	0.70	0.90	0.90	0.90
Wells Fargo	0.25	0.25	0.25	--	--	--	--	--	--
June Consensus	**0.20**	**0.13**	**0.19**	**0.38**	**0.47**	**0.59**	**0.85**	**0.84**	**0.84**
High	1.00	1.00	1.25	0.50	0.67	0.80	0.91	0.90	0.90
Low	0.00	-0.25	-0.25	0.27	0.24	0.24	0.81	0.81	0.78
Last Months Avg.	0.25	0.20	0.22	0.50	0.56	0.69	0.85	0.84	0.84

Canada

Blue Chip Forecasters	O/N MMkt Financing Rate			10 Yr. Gov't Bond Yield %			C$ per US$		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.50	2.25	--	--	--	--	1.40	1.39	--
BMO Capital Markets	2.50	2.25	2.00	3.05	2.92	2.70	1.40	1.40	1.38
ING Financial Markets	2.50	2.25	2.25	3.00	3.25	3.75	1.39	1.40	1.38
Moody's Analytics	2.75	2.54	2.00	3.03	3.07	3.29	1.43	1.42	1.40
Nomura Securities	2.50	2.50	2.50	--	--	--	1.39	1.38	--
Northern Trust	2.25	2.25	2.25	3.30	3.25	3.20	1.39	1.36	1.33
Oxford Economics	2.75	2.75	2.75	3.13	3.23	3.32	1.44	1.40	1.40
S&P Global Market Intelligence	--	--	--	--	--	--	1.40	1.44	1.44
Economist Intelligence Unit	2.24	2.10	1.95	2.64	2.80	3.20	1.38	1.37	1.37
Scotiabank	2.75	2.75	2.25	3.05	3.00	3.20	1.38	1.38	1.36
TS Lombard	2.50	2.25	2.75	3.25	3.45	4.05	1.30	1.30	1.30
Wells Fargo	2.75	2.50	2.25	3.25	3.20	3.15	--	--	--
June Consensus	**2.54**	**2.40**	**2.30**	**3.08**	**3.13**	**3.32**	**1.39**	**1.39**	**1.37**
High	2.75	2.75	2.75	3.30	3.45	4.05	1.44	1.44	1.44
Low	2.24	2.10	1.95	2.64	2.80	2.70	1.30	1.30	1.30
Last Months Avg.	2.54	2.35	2.27	3.03	3.09	3.26	1.41	1.41	1.40

International Interest Rate And Foreign Exchange Rate Forecasts

Australia

Blue Chip Forecasters	Official Cash Rate			10 Yr. Gov't Bond Yield %			US$ per A$		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	3.60	3.35	--	--	--	--	0.63	0.63	--
BMO Capital Markets	3.60	3.35	3.35	--	--	--	--	--	--
ING Financial Markets	3.85	3.60	3.35	4.25	4.50	5.00	0.62	0.62	0.64
Moody's Analytics	3.98	3.84	3.35	4.24	4.19	4.07	0.63	0.64	0.65
Nomura Securities	3.65	3.35	3.35	--	--	--	0.65	0.66	--
Northern Trust	3.35	3.35	3.35	4.35	4.25	4.15	0.63	0.65	0.68
Oxford Economics	3.97	3.73	3.35	4.27	4.16	4.17	0.63	0.63	0.64
S&P Global Market Intelligence	--	--	--	--	--	--	0.65	0.66	0.67
Economist Intelligence Unit	3.60	3.10	3.10	3.90	3.80	3.20	0.64	0.65	0.65
Scotiabank	--	--	--	--	--	--	0.64	0.66	0.68
TS Lombard	3.75	3.25	3.75	4.50	4.70	5.30	0.65	0.65	0.65
Wells Fargo	3.85	3.60	3.35	--	--	--	--	--	--
June Consensus	**3.72**	**3.45**	**3.37**	**4.25**	**4.27**	**4.32**	**0.64**	**0.65**	**0.66**
High	3.98	3.84	3.75	4.50	4.70	5.30	0.65	0.66	0.68
Low	3.35	3.10	3.10	3.90	3.80	3.20	0.62	0.62	0.64
Last Months Avg.	3.82	3.58	3.42	4.21	4.24	4.37	0.63	0.64	0.64

Euro area

Blue Chip Forecasters	Main Refinancing Rate			US$ per Euro		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.15	1.90	1.65	1.15	1.15	--
BMO Capital Markets	2.00	1.75	1.75	1.13	1.15	1.16
ING Financial Markets	2.00	1.75	1.75	1.13	1.11	1.12
Moody's Analytics	2.41	1.97	1.90	1.12	1.11	1.12
Nomura Securities	1.75	1.50	1.50	1.14	1.15	--
Northern Trust	1.90	1.90	1.90	1.11	1.14	1.16
Oxford Economics	2.36	2.15	2.15	1.11	1.13	1.13
S&P Global Market Intelligence	--	--	--	1.13	1.13	1.14
Economist Intelligence Unit	2.00	1.75	1.75	1.11	1.14	1.06
Scotiabank	1.90	1.90	1.90	1.14	1.14	1.18
TS Lombard	2.00	1.50	2.00	1.08	1.10	1.25
Wells Fargo	2.00	1.75	1.75	--	--	--
June Consensus	**2.04**	**1.80**	**1.82**	**1.12**	**1.13**	**1.15**
High	2.41	2.15	2.15	1.15	1.15	1.25
Low	1.75	1.50	1.50	1.08	1.10	1.06
Last Months Avg.	2.02	1.76	1.80	1.11	1.12	1.14

Blue Chip Forecasters	10 Yr. Gov't Bond Yields %											
	Germany			France			Italy			Spain		
	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.	In 3 Mo.	In 6 Mo.	In 12 Mo.
Barclays	2.78	2.87	--	--	--	--	--	--	--	--	--	--
BMO Capital Markets	2.45	2.39	2.27	--	--	--	--	--	--	--	--	--
ING Financial Markets	2.50	2.60	2.80	3.25	3.35	3.55	3.65	3.75	3.95	3.15	3.25	3.45
Moody's Analytics	2.55	2.58	2.61	3.19	3.12	3.06	3.75	3.79	3.77	3.23	3.21	3.20
Northern Trust	2.55	2.50	2.45	3.25	3.20	3.15	3.65	3.55	3.50	3.20	3.15	3.10
Oxford Economics	2.51	2.59	2.72	3.24	3.36	3.56	3.67	3.78	4.05	3.20	3.29	3.49
Economist Intelligence Unit	2.50	2.50	2.40	3.40	3.40	3.30	3.76	3.80	3.79	2.70	2.50	2.83
TS Lombard	2.65	2.85	3.45	3.30	3.60	4.20	3.65	3.85	4.45	3.20	3.40	4.00
Wells Fargo	2.55	2.45	2.35	--	--	--	--	--	--	--	--	--
June Consensus	**2.56**	**2.59**	**2.63**	**3.27**	**3.34**	**3.47**	**3.69**	**3.75**	**3.92**	**3.11**	**3.13**	**3.35**
High	2.78	2.87	3.45	3.40	3.60	4.20	3.76	3.85	4.45	3.23	3.40	4.00
Low	2.45	2.39	2.27	3.19	3.12	3.06	3.65	3.55	3.50	2.70	2.50	2.83
Last Months Avg.	2.55	2.52	2.59	3.31	3.39	3.51	3.74	3.82	3.96	3.20	3.19	3.36

	Consensus Forecasts 10-year Bond Yields vs U.S. Yield			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-2.95	-2.97	-2.93	-2.86
United Kingdom	0.18	0.22	0.20	0.08
Switzerland	-4.16	-3.95	-3.82	-3.69
Canada	-1.16	-1.26	-1.16	-0.96
Australia	-0.09	-0.08	-0.02	0.04
Germany	-1.94	-1.77	-1.70	-1.65
France	-1.23	-1.06	-0.95	-0.81
Italy	-0.90	-0.65	-0.54	-0.36
Spain	-1.28	-1.22	-1.16	-0.93

	Consensus Forecasts Policy Rates vs U.S. Target Rate			
	Current	In 3 Mo.	In 6 Mo.	In 12 Mo.
Japan	-3.88	-3.81	-4.54	-2.84
United Kingdom	-0.13	-0.21	-0.20	0.07
Switzerland	-4.13	-4.11	-3.90	-3.31
Canada	-1.63	-1.77	-1.63	-1.21
Australia	-0.53	-0.59	-0.58	-0.14
Euro area	-1.98	-2.27	-2.23	-1.69

Special Questions:

1. a. At what FOMC meeting will the next fed funds rate (FFR) cut occur?

Jun 2025	3%	Jul 2025	16%	Sep 2025	42%	Later	39%	The next move is more likely to be a hike	0%

b. How much will the next cut be? 25 bps 87% 50 bps 13%

c. By how much will the FFR target decline in total in 2025? 56 bps

2. What is the probability of a recession occurring over the next twelve months in the:

	US	euro area	UK
Consensus	41%	45%	45%
Top 10	58%	55%	55%
Bot 10	27%	36%	35%
Median	38%	40%	45%

3. If tariffs went back to pre-April 2 levels, what would your probability of a US recession be within the next twelve months?

Consensus	34%	Top 10	54%	Bot 10	17%	Median	25%

4. Will the tariff policies that have been announced so far provide a significant boost to US inflation?

No meaningful effect on inflation	0%
A one-time increase in prices only	63%
A longer-lasting pickup in inflation	37%

5. a. What is your estimate of the US unemployment rate in:

Dec 2025	4.6%	Jun 2026	4.7%

b. What is your estimate of the long-run natural unemployment rate?

Consensus	4.1%	Top 10	4.3%	Bot 10	3.9%	Median	4.0%

6. a. When will the next ECB policy rate cut occur?

Jun 2025	91%	Jul 2025	4%	Sep 2025	0%	Later	4%

b. When will the next BoE Bank rate cut occur?

Jun 2025	41%	Aug 2025	41%	Sep 2025	9%	Later	9%

c. When will the Bank of Japan next increase its uncollateralized overnight call rate?

Jun 2025	9%	Jul 2025	13%	Sep 2025	13%	Later	61%	The next move is more likely to be a cut	4%

Viewpoints:

A Sampling of Views on the Economy, Financial Markets and Government Policy Excerpted from Recent Reports Issued by our Blue Chip Panel Members and Others

Government Transfer Payments Cannot Forever Outrun Wage and Salary Incomes

Trouble ahead if rates are slow to decline …

The S&P 500 is now up by 1.9% from last Friday's close. Relief from tariffs may explain why the 4.9% advance by the automaker share price index leads the market for the week-to-date.

With help from NVIDIA's 6.0% advance, information technology stocks were higher by 2.8%. The NASDAQ trailed both with a gain of 2.3% for the nearly finished week.

Still historically thin junk-bond yield spreads suggest the credit market does not expect a profits recession. Barring a profits recession, the economy may grow, albeit at a subpar pace. I sense that stagnation is more likely than stagflation.

The labor market will be key as to whether the US incurs an economic recession. I cannot predict with confidence that payrolls will contract by enough to shrink consumer spending and, thereby, push the US economy into a recessionary downward spiral.

Of the utmost importance is that the federal funds rate and Treasury bond yields are quick to decline by enough to extend the current economic recovery. The 10-year Treasury yield eased from the 4.51% of Friday, May 23 to May 29's 4.42%. At the same time, the 2-year Treasury note eased from 4.00% to 3.95%. Though I expect Treasury bond yields to be lower by half of a percentage point a year from now, to the degree tariffs temporarily boost inflation during the summer of 2025, the 10-year Treasury yield may make a short-lived run towards 4.75%.

Housing may not normalize until the 10-year Treasury yield approaches 3.5% and home prices remain flat to lower.

Any tariff induced rise by consumer prices will probably be resisted by consumers. After being downwardly revised from 1.8% to 1.2%, real consumer spending's annualized quarterly growth rate may improve to 2.2% in the second quarter but then rise no faster than 1.5% annualized, on average, during 2025's second half.

Growth benefits if taxes are skewed away from income and towards consumption …

If the private-sector is the primary driver behind faster current-dollar GDP growth, the federal budget deficit will shrink both absolutely and relative to GDP. The federal government's taxation and spending programs must be designed to promote the growth of the private sector. Thus, federal revenues should go light on the taxation of personal income and corporate income and be skewed more towards consumption taxes. In addition, federal spending should attempt to boost production and enhance labor productivity.

Q1 2025's 7.5% yy surge by government transfer payments to persons sped past 4.2% rise by wages and salaries …

The Friday, May 30 release of April's report on personal income, consumer spending, and the PCE price indices will supply the latest estimates of government transfer payments for social security, Medicare, and Medicaid, as well as personal income tax payments.

Preliminary estimates for 2025's first quarter showed year-over-year increases of 7.2% for social security payments, 9.6% for Medicare payments, 6.8% for Medicaid payments, and 7.5% for personal income taxes paid. First-quarter 2025's grand total for all government transfer payments to individuals rose by 7.5% year-on-year to $4.64 trillion annualized.

The first quarter of 2025 also showed a yearly increase of 4.2% for wage and salary income that was divided between a 4.0% rise for private-sector wages and salaries and a 5.6% increase for wages and salaries paid to government employees. Nevertheless, I expect private-sector employee compensation to be revised higher once bonuses and stock options are fully accounted for.

Rapid growth of government outlays on healthcare says it's time to broaden definition of sin taxes …

The sum of government transfer payments for Medicare and Medicaid soared higher by 8.3% year-over-year in 2025's first quarter. Total government payments for Medicare and Medicaid approximated 61.4% of Q1 2025's consumer spending on healthcare as measured by the GDP accounts.

Making America healthier would help curb the growth of mandatory federal expenditures. An expansion of sin taxes beyond alcoholic beverages and tobacco products would both help to slow the growth of government outlays on medical care and lift tax revenues.

The sugar and salt content of processed foods, as well as other products that are injurious to human health provide a starting point. And what about the damage inflicted by social media in terms of indolence, mental health, and diminished intellectual achievement? Moving away from income taxes and towards consumption taxes makes so much sense.

Government transfer payments grew no faster than GDP prior to 2020 …

Reflecting both the aging of the population, faster price inflation, and government profligacy, government transfer payments advanced by a rapid 7.7% annualized, on average, for the 21-quarter span stretching from 2020's first quarter through 2025's first quarter. The growth by transfer payments over the 21-quarter span was much faster than the comparably measured growth rates of 6.1% for current-dollar GDP and 5.8% for wage and salary income.

In stark contrast, during the 21 quarters ending with 2019's final quarter, total government transfer payments to individuals showed a much slower average annualized growth rate of 4.1%. The latter matched the accompanying 4.1% annualized rate of current-dollar GDP growth over the 21 quarters ending with Q4 2019.

John Lonski (thruthecycle.com)

Long-Range Survey:

The table below contains results of our semi-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are estimates for the years 2026 through 2031 and averages for the five-year periods 2027-2031 and 2032-2036. Apply these projections cautiously. Few economic, demographic and political forces can be evaluated accurately over such long time spans.

		Average For The Year						Five-Year Averages	
		2026	2027	2028	2029	2030	2031	2027-2031	2032-2036
1. Federal Funds Rate	**CONSENSUS**	**3.4**	**3.2**	**3.2**	**3.2**	**3.1**	**3.1**	**3.2**	**3.1**
	Top 10 Average	3.7	3.5	3.4	3.4	3.4	3.4	3.4	3.4
	Bottom 10 Average	3.1	3.0	2.9	2.9	2.8	2.9	2.9	2.8
2. Prime Rate	**CONSENSUS**	**6.5**	**6.4**	**6.3**	**6.3**	**6.2**	**6.2**	**6.3**	**6.2**
	Top 10 Average	6.7	6.6	6.5	6.6	6.5	6.5	6.5	6.5
	Bottom 10 Average	6.2	6.2	6.0	6.0	5.9	5.9	6.0	5.9
3. SOFR	**CONSENSUS**	**3.4**	**3.3**	**3.2**	**3.1**	**3.1**	**3.1**	**3.2**	**3.1**
	Top 10 Average	3.6	3.4	3.3	3.3	3.3	3.3	3.3	3.3
	Bottom 10 Average	3.2	3.2	3.0	2.9	2.9	2.9	3.0	2.8
4. Commercial Paper, 1-Mo	**CONSENSUS**	**3.4**	**3.3**	**3.2**	**3.1**	**3.1**	**3.1**	**3.2**	**3.1**
	Top 10 Average	3.5	3.4	3.3	3.2	3.2	3.2	3.3	3.3
	Bottom 10 Average	3.3	3.3	3.1	3.0	3.0	3.0	3.1	2.9
5. Treasury Bill Yield, 3-Mo	**CONSENSUS**	**3.3**	**3.2**	**3.2**	**3.1**	**3.1**	**3.1**	**3.1**	**3.1**
	Top 10 Average	3.6	3.4	3.4	3.4	3.3	3.3	3.4	3.3
	Bottom 10 Average	3.1	2.9	2.9	2.8	2.8	2.8	2.9	2.8
6. Treasury Bill Yield, 6-Mo	**CONSENSUS**	**3.3**	**3.2**	**3.2**	**3.1**	**3.1**	**3.1**	**3.2**	**3.1**
	Top 10 Average	3.6	3.4	3.4	3.3	3.3	3.3	3.3	3.3
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.9	2.9	3.0	2.8
7. Treasury Bill Yield, 1-Yr	**CONSENSUS**	**3.3**	**3.3**	**3.3**	**3.2**	**3.2**	**3.2**	**3.2**	**3.2**
	Top 10 Average	3.6	3.5	3.4	3.4	3.4	3.4	3.4	3.4
	Bottom 10 Average	3.1	3.1	3.1	3.1	3.0	3.0	3.1	3.0
8. Treasury Note Yield, 2-Yr	**CONSENSUS**	**3.4**	**3.4**	**3.5**	**3.4**	**3.4**	**3.4**	**3.4**	**3.4**
	Top 10 Average	3.7	3.6	3.7	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.1
9. Treasury Note Yield, 5-Yr	**CONSENSUS**	**3.7**	**3.7**	**3.7**	**3.7**	**3.7**	**3.7**	**3.7**	**3.7**
	Top 10 Average	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.0
	Bottom 10 Average	3.4	3.5	3.5	3.5	3.4	3.4	3.5	3.4
10. Treasury Note Yield, 10-Yr	**CONSENSUS**	**4.0**	**4.1**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
	Top 10 Average	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
	Bottom 10 Average	3.8	3.9	3.8	3.8	3.8	3.8	3.8	3.8
11. Treasury Bond Yield, 30-Yr	**CONSENSUS**	**4.5**	**4.4**	**4.4**	**4.3**	**4.3**	**4.3**	**4.4**	**4.3**
	Top 10 Average	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.7
	Bottom 10 Average	4.2	4.3	4.1	4.1	4.1	4.1	4.1	4.1
12. Corporate Aaa Bond Yield	**CONSENSUS**	**5.2**	**5.2**	**5.2**	**5.1**	**5.1**	**5.1**	**5.1**	**5.1**
	Top 10 Average	5.4	5.5	5.4	5.4	5.4	5.4	5.4	5.4
	Bottom 10 Average	5.0	5.0	4.9	4.9	4.9	4.9	4.9	4.9
13. Corporate Baa Bond Yield	**CONSENSUS**	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**	**6.0**
	Top 10 Average	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
	Bottom 10 Average	5.8	5.9	5.8	5.8	5.8	5.7	5.8	5.8
14. State & Local Bonds Yield	**CONSENSUS**	**4.3**	**4.3**	**4.3**	**4.2**	**4.2**	**4.2**	**4.3**	**4.1**
	Top 10 Average	4.5	4.5	4.5	4.4	4.4	4.4	4.4	4.4
	Bottom 10 Average	4.1	4.2	4.1	4.1	4.1	4.1	4.1	3.8
15. Home Mortgage Rate	**CONSENSUS**	**6.2**	**6.2**	**6.1**	**6.0**	**6.0**	**6.0**	**6.1**	**5.9**
	Top 10 Average	6.4	6.4	6.4	6.3	6.3	6.3	6.3	6.3
	Bottom 10 Average	5.9	6.0	5.8	5.8	5.8	5.7	5.8	5.6
A. Fed's AFE Nominal $ Index	**CONSENSUS**	**113.3**	**112.7**	**112.7**	**112.2**	**111.7**	**111.3**	**112.1**	**110.8**
	Top 10 Average	114.2	113.3	113.4	112.9	112.5	112.2	112.8	112.4
	Bottom 10 Average	112.2	111.9	112.0	111.3	110.7	110.3	111.3	109.1
		Year-Over-Year, % Change						Five-Year Averages	
		2026	2027	2028	2029	2030	2031	2027-2031	2032-2036
B. Real GDP	**CONSENSUS**	**1.5**	**1.9**	**2.0**	**2.0**	**1.9**	**2.0**	**2.0**	**1.9**
	Top 10 Average	1.9	2.1	2.2	2.2	2.2	2.2	2.2	2.1
	Bottom 10 Average	1.1	1.8	1.8	1.8	1.7	1.7	1.8	1.8
C. GDP Chained Price Index	**CONSENSUS**	**2.4**	**2.2**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
	Top 10 Average	2.6	2.3	2.2	2.2	2.2	2.2	2.2	2.2
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0
D. Consumer Price Index	**CONSENSUS**	**2.5**	**2.2**	**2.2**	**2.1**	**2.1**	**2.2**	**2.2**	**2.2**
	Top 10 Average	2.9	2.4	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.1
E. PCE Price Index	**CONSENSUS**	**2.4**	**2.0**	**2.0**	**1.9**	**1.9**	**1.9**	**1.9**	**1.9**
	Top 10 Average	2.8	2.3	2.2	2.1	2.1	2.1	2.2	2.1
	Bottom 10 Average	2.1	1.8	1.8	1.8	1.7	1.8	1.8	1.8

Databank:

2025 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.9	0.0	1.7	0.1	....	....	....	....	....	....	....	....
Auto & Light Truck Sales (b)	15.53	15.96	17.83	17.25	....	....	....	....	....	....	....	....
Personal Income (a, current $)	0.5	0.8	0.7	0.8	....	....	....	....	....	....	....	....
Personal Consumption (a, current $)	-0.1	0.4	0.7	0.2	....	....	....	....	....	....	....	....
Consumer Credit (e)	2.3	-0.2	2.4	....	....	....	....	....	....	....	....	....
Consumer Sentiment (U. of Mich.)	71.7	64.7	57.0	52.2	52.2	....	....	....	....	....	....	....
Household Employment (c)	2234	-588	201	436	....	....	....	....	....	....	....	....
Nonfarm Payroll Employment (c)	111	102	185	177	....	....	....	....	....	....	....	....
Unemployment Rate (%)	4.0	4.1	4.2	4.2	....	....	....	....	....	....	....	....
Average Hourly Earnings (All, cur. $)	35.83	35.90	36.00	36.06	....	....	....	....	....	....	....	....
Average Workweek (All, hrs.)	34.1	34.2	34.3	34.3	....	....	....	....	....	....	....	....
Industrial Production (d)	1.7	1.4	1.3	1.5	....	....	....	....	....	....	....	....
Capacity Utilization (%)	77.5	78.1	77.8	77.7	....	....	....	....	....	....	....	....
ISM Manufacturing Index (g)	50.9	50.3	49.0	48.7	....	....	....	....	....	....	....	....
ISM Nonmanufacturing Index (g)	52.8	53.5	50.8	51.6	....	....	....	....	....	....	....	....
Housing Starts (b)	1.358	1.490	1.339	1.361	....	....	....	....	....	....	....	....
Housing Permits (b)	1.460	1.454	1.481	1.422	....	....	....	....	....	....	....	....
New Home Sales (1-family, c)	662	653	670	743	....	....	....	....	....	....	....	....
Construction Expenditures (a)	0.1	0.6	-0.5	....	....	....	....	....	....	....	....	....
Consumer Price Index (nsa, d)	3.0	2.8	2.4	2.3	....	....	....	....	....	....	....	....
CPI ex. Food and Energy (nsa, d)	3.3	3.1	2.8	2.8	....	....	....	....	....	....	....	....
PCE Chain Price Index (d)	2.5	2.6	2.3	2.1	....	....	....	....	....	....	....	....
Core PCE Chain Price Index (d)	2.7	2.9	2.7	2.5	....	....	....	....	....	....	....	....
Producer Price Index (nsa, d)	3.8	3.4	3.4	2.4	....	....	....	....	....	....	....	....
Durable Goods Orders (a)	0.2	1.0	7.6	-6.3	....	....	....	....	....	....	....	....
Leading Economic Indicators (a)	-0.2	-0.2	-0.8	-1.0	....	....	....	....	....	....	....	....
Balance of Trade & Services (f)	-130.7	-123.2	-140.5	....	....	....	....	....	....	....	....	....
Federal Funds Rate (%)	4.33	4.33	4.33	4.33	....	....	....	....	....	....	....	....
3-Mo. Treasury Bill Rate (%)	4.34	4.33	4.34	4.32	....	....	....	....	....	....	....	....
10-Year Treasury Note Yield (%)	4.63	4.45	4.28	4.28	....	....	....	....	....	....	....	....

2024 Historical Data

Monthly Indicator	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Retail and Food Service Sales (a)	-0.8	0.7	0.3	0.1	0.4	-0.1	1.2	-0.2	0.8	0.6	0.6	0.8
Auto & Light Truck Sales (b)	15.03	15.67	15.68	16.03	15.83	14.99	15.83	15.14	15.80	16.12	16.66	16.87
Personal Income (a, current $)	1.4	0.4	0.6	0.1	0.3	0.2	0.2	0.1	0.3	0.7	0.3	0.4
Personal Consumption (a, current $)	0.1	0.5	0.7	0.3	0.5	0.3	0.6	0.2	0.7	0.4	0.6	0.9
Consumer Credit (e)	3.4	2.5	0.1	0.9	2.1	0.5	4.2	2.0	1.0	2.5	-1.4	6.3
Consumer Sentiment (U. of Mich.)	79.0	76.9	79.4	77.2	69.1	68.2	66.4	67.9	70.1	70.5	71.8	74.0
Household Employment (c)	66	-177	412	70	-331	-9	64	206	377	-346	-273	478
Nonfarm Payroll Employment (c)	119	222	246	118	193	87	88	71	240	44	261	323
Unemployment Rate (%)	3.7	3.9	3.9	3.9	4.0	4.1	4.2	4.2	4.1	4.1	4.2	4.1
Average Hourly Earnings (All, cur. $)	34.47	34.54	34.67	34.75	34.89	35.00	35.07	35.23	35.33	35.48	35.61	35.68
Average Workweek (All, hrs.)	34.2	34.3	34.4	34.2	34.3	34.3	34.2	34.3	34.2	34.3	34.3	34.2
Industrial Production (d)	-1.2	-0.1	-0.3	-0.8	0.0	0.9	-0.5	-0.1	-0.7	-0.4	-0.9	0.4
Capacity Utilization (%)	77.2	78.1	77.8	77.7	78.1	78.2	77.6	77.9	77.5	77.1	76.8	77.5
ISM Manufacturing Index (g)	48.9	47.6	49.8	48.8	48.5	48.3	47.0	47.5	47.5	46.9	48.4	49.2
ISM Nonmanufacturing Index (g)	53.2	52.2	51.3	49.6	53.5	49.2	51.4	51.6	54.5	55.8	52.5	54.0
Housing Starts (b)	1.381	1.552	1.312	1.385	1.316	1.327	1.265	1.391	1.357	1.352	1.295	1.514
Housing Permits (b)	1.545	1.577	1.476	1.459	1.407	1.461	1.436	1.476	1.434	1.428	1.508	1.480
New Home Sales (1-family, c)	681	658	692	719	665	671	710	693	717	621	675	718
Construction Expenditures (a)	1.0	0.5	0.1	1.3	0.2	-1.1	0.0	0.9	-0.9	1.6	0.4	0.3
Consumer Price Index (nsa, d)	3.1	3.2	3.5	3.4	3.3	3.0	2.9	2.5	2.4	2.6	2.7	2.9
CPI ex. Food and Energy (nsa, d)	3.9	3.8	3.8	3.6	3.4	3.3	3.2	3.2	3.3	3.3	3.3	3.2
PCE Chain Price Index (d)	2.6	2.6	2.8	2.7	2.6	2.4	2.5	2.3	2.1	2.3	2.5	2.6
Core PCE Chain Price Index (d)	3.1	2.9	3.0	2.9	2.7	2.6	2.7	2.7	2.7	2.8	2.8	2.9
Producer Price Index (nsa, d)	1.0	1.6	2.0	2.3	2.5	2.9	2.4	2.1	2.1	2.8	2.9	3.5
Durable Goods Orders (a)	-7.8	0.7	1.7	-0.2	0.0	-2.0	4.3	-1.1	0.9	0.3	-1.7	0.8
Leading Economic Indicators (a)	-0.5	0.1	-0.2	-0.6	-0.4	-0.2	-0.5	-0.3	-0.4	-0.3	0.3	-0.1
Balance of Trade & Services (f)	-66.9	-69.3	-68.5	-75.9	-76.6	-74.2	-79.9	-71.4	-85.0	-73.7	-78.2	-98.1
Federal Funds Rate (%)	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.33	5.13	4.83	4.64	4.48
3-Mo. Treasury Bill Rate (%)	5.45	5.44	5.47	5.44	5.46	5.51	5.43	5.30	4.92	4.72	4.62	4.39
10-Year Treasury Note Yield (%)	4.06	4.21	4.21	4.54	4.48	4.31	4.25	3.87	3.72	4.10	4.36	4.39

(a) month-over-month % change; (b) millions, saar; (c) month-over-month change, thousands; (d) year-over-year % change; (e) annualized % change; (f) $ billions; (g) level. Most series are subject to frequent government revisions. Use with care.

Calendar of Upcoming Economic Data Releases

Monday	Tuesday	Wednesday	Thursday	Friday
June 2 Construction (Apr) ISM Manufacturing (May) S&P Global Mfg PMI (May)	**3** Manufacturers' Shipments, Inventories & Orders (Apr) JOLTS (Apr)	**4** ADP Employment Report (May) ISM Services PMI (May) S&P Global Services PMI (May) CEW (Q4) BEA Auto Sales (May) BEA Truck Sales (May) Mortgage Applications EIA Crude Oil Stocks	**5** International Trade (Apr & Rev) Productivity & Costs (Q1) Challenger Employment Report (May) Public Debt (May) Interest on Public Debt (May) Weekly Jobless Claims	**6** Employment Situation (May) Consumer Credit (Apr) Baker Hughes International Rig Count (May)
9 Wholesale Trade (Apr) Treasury Auction Allotments (May)	**10** QFR (Q1) Manpower Survey (Q3) NFIB (May) Kansas City Fed Labor Market Conditions Indicators (May)	**11** CPI & Real Earnings (May) Transportation Services Index (Apr) Cleveland Fed Median CPI (May) Monthly Treasury (May) Kansas City Financial Stress Index (May) Mortgage Applications EIA Crude Oil Stocks	**12** Producer Prices (May) QSS (Q1) Financial Account (Q1) Housing Affordability (Apr) Weekly Jobless Claims	**13** Housing g Affordability (Apr) Consumer Sentiment (Jun, Preliminary) ECEC (Q1)
16 Empire State Mfg Survey (Jun) NABE Outlook (Q2) OPEC Crude Oil Spot Prices (May)	**17** Import & Export Prices (May) Advance Retail Sales (May) IP & Capacity Utilization (May) MTIS (Apr) Business Leaders Survey (Jun) Home Builders (Jun) FOMC Meeting	**18** New Residential Construction (May) TIC Data (Apr) FOMC Meeting Weekly Jobless Claims Mortgage Applications EIA Crude Oil Stocks	**19** **Juneteenth National Independence Day All Markets Closed**	**20** Philadelphia Fed Mfg Business Outlook Survey (Jun) Composite Indexes (May)
23 Existing Home Sales (May) S&P Global Flash PMI (Jun)	**24** Intl Transactions (Q1 & Rev) FHFA & Case-Shiller HPI (Apr) H.6 Money Stock (May) Treas Auction Allotments (Jun) Consumer Confidence (Jun) Philadelphia Fed Nonmfg Business Outlook (Jun) Richmond Fed Mfg & Service Sector Surveys (Jun) Livingston Survey (Jan)	**25** New Residential Sales (May) Final Building Permits (May) Steel Imports for Consumption (May, Preliminary) Mortgage Applications EIA Crude Oil Stocks	**26** Adv Trade & Inventories (May) Advance Durable Goods (May) GDP (Q1, 3rd Estimate) Selected NIPA Tables & Key Source Data (Q1, 3rd Est) Chicago Fed National Activity Index (May) Kansas City Fed Manuf (Jun) Pending Home Sales (May) Weekly Jobless Claims	**27** Personal Income (May) Agricultural Prices (May) Dallas Fed Trim Mean PCE (May) Strike Report (Jun) Underlying NIPA Tables (Q1) Consumer Sentiment (Jun, Final) Kansas City Fed Services (Jun) FRB Philadelphia Coincident Economic Activity Index (May) Chicago PMI (May)
30 Chicago PMI (Jun) International Investment Position (Q1 & Rev) Dallas Fed Banking Conditions Survey (Apr) Texas Manufacturing Outlook Survey (Jun)	**July 1** Construction (May) ISM Manufacturing (Jun) S&P Global Mfg PMI (Jun) JOLTS (May) Texas Service Sector Outlook Survey (Jun)	**2** ADP Employment Report (Jun) BEA Auto Sales (Jun) BEA Truck Sales (Jun) Challenger Employment Report (Jun) Mortgage Applications EIA Crude Oil Stocks	**3** Employment Situation (Jun) Intl Trade/Supplement (May) MSIO (May) ISM Services PMI (Jun) S&P Global Services PMI (Jun) Trade by Port (May) Baker Hughes International Rig Count (Jun) Weekly Jobless Claims	**4** **Independence Day All Markets Closed**
7 Public Debt (Jun) Interest on Public Debt (Jun)	**8** Consumer Credit (May) NFIB (Jun) Kansas City Fed Labor Market Conditions Indicators (Jun)	**9** Wholesale Trade (May) Mortgage Applications EIA Crude Oil Stocks	**10** Transportation Services Index (May) Kansas City Financial Stress Index (Jun) Weekly Jobless Claims	**11** Monthly Treasury (Jun)

BLUE CHIP FORECASTERS

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