The Dollar's Path: A 10-Year Outlook

Key Factors, Projections, & Cross-Asset Impacts

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5th Nov 2024

Brief

DXY – Historical Performance
(5-Year Retrospective)

Historical Performance (5-Year Retrospective)

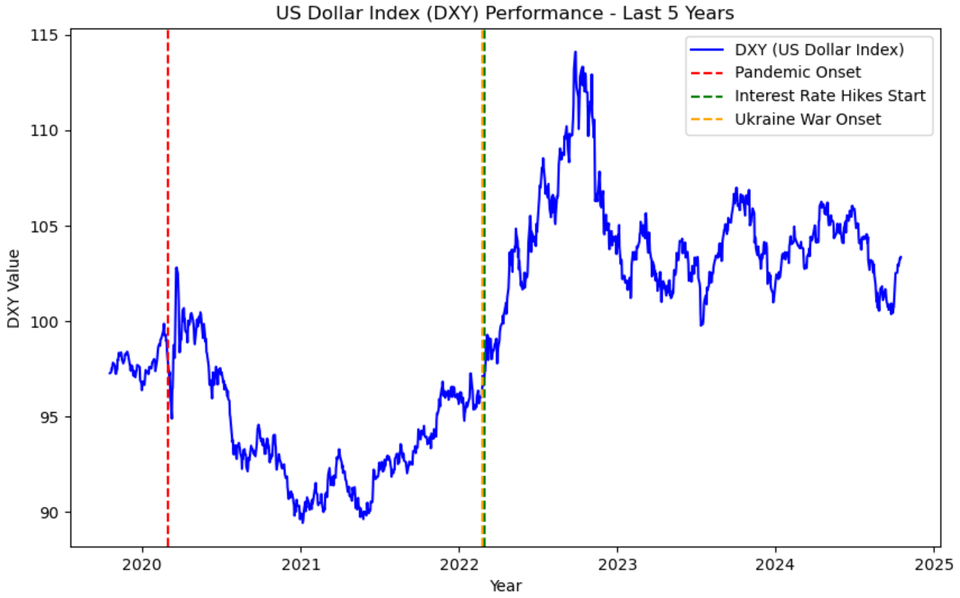
Key Drivers

- **US Federal Reserve's Policy:**
  - **Hikes (2022-2023):** Strengthened the dollar as higher rates attracted investors.
  - **Cuts (2019-2020):** Weakened the dollar during the pandemic to support economic recovery.

- **Global Economic Conditions:**
  - **Pandemic Onset (2020):** Initial surge in dollar as a safe haven.
  - **Recovery & Inflation (2021-2022):** Fluctuations with post-pandemic recovery and rising inflation, prompting Fed tightening.

- **Geopolitical Factors:**
  - **Trade War (2019):** Volatility from US-China tensions impacted dollar strength.
  - **Ukraine War (2022):** Boosted the dollar due to increased global uncertainty.

Price Movements



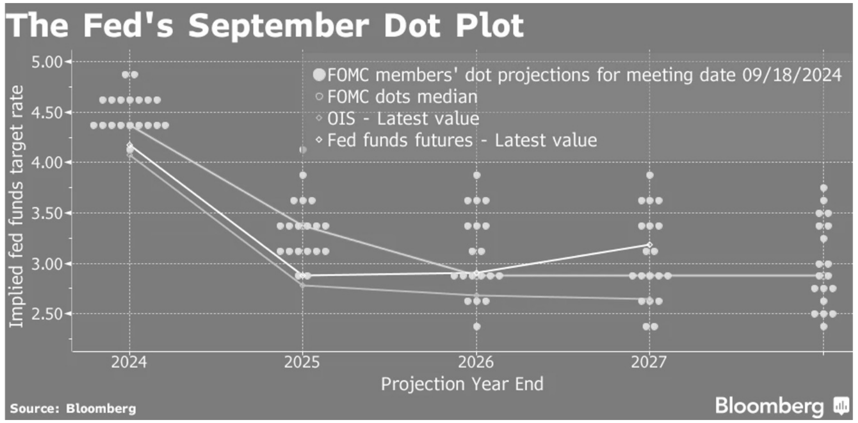
Lessons Learned

- **Fed policy has a direct impact on dollar strength—tightening boosts the dollar, easing weakens it.**
- **Global crises (pandemic, war) cause dollar strength due to safe-haven demand.**
- **Geopolitical tensions drive volatility but can support the dollar short-term.**

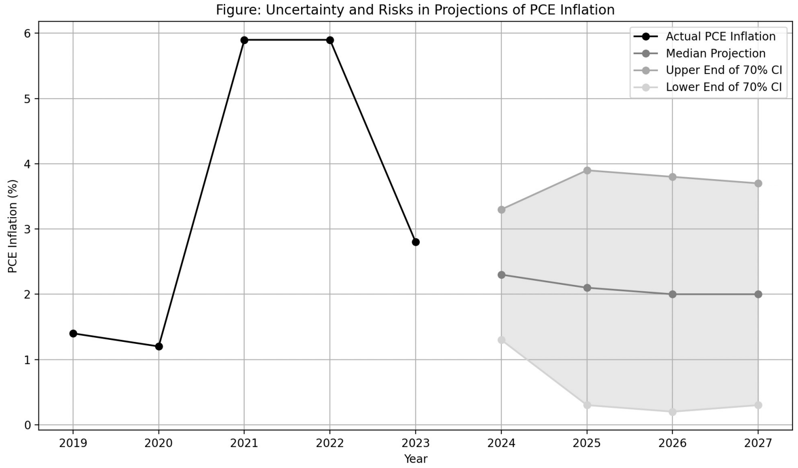
DXY – Short Term Outlook

Short-Term Outlook

Fed’s Dot Plot



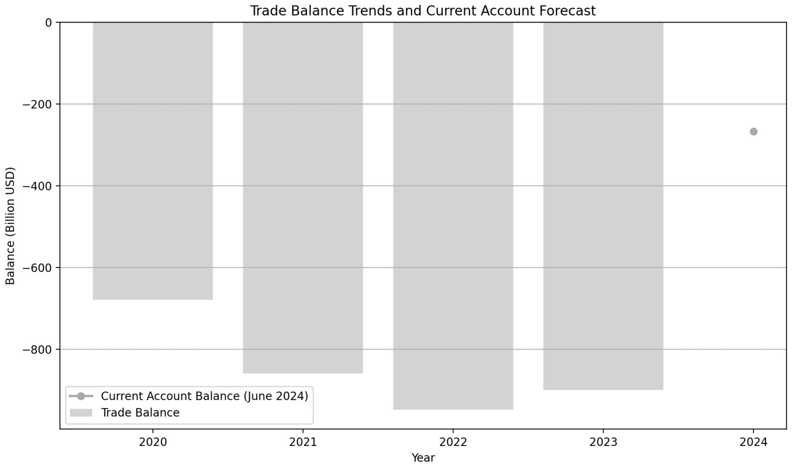
Inflation Expectations – PCE projections



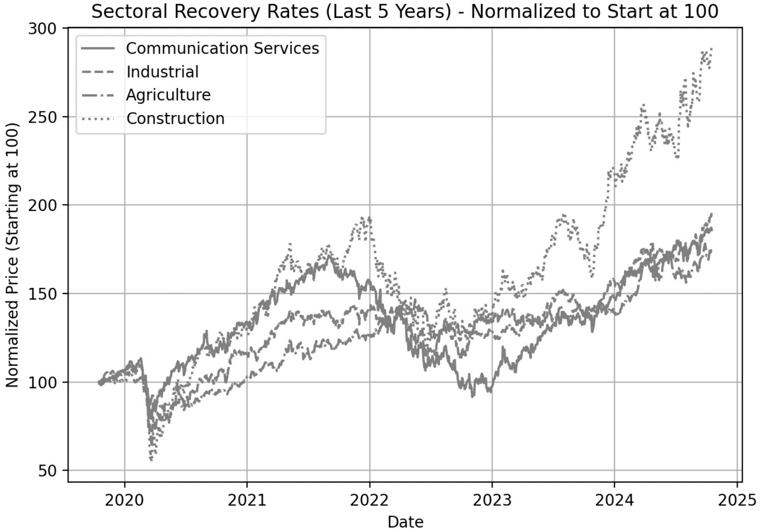
Key Takeaway

The Federal Reserve's monetary policy will be a primary driver of dollar movement, with particular focus on interest rate projections (as evidenced by the dot plot from latest Fed meetings) and inflation expectations (tracked through PCE and CPI projections).

Trade Balance



Post Pandemic Recovery Dynamic



Key Takeaway

Post-pandemic recovery dynamics, particularly the varying sectoral recovery rates, combined with trade balance trends, will shape the dollar's trajectory in the near term.

Source: Bloomberg, Federal Reserve’s SEP – Sep 2024, Quantwater Tech analysis

DXY – Medium Term Outlook
Baseline Scenario

DXY Index Forecast Model Output – Baseline Scenario

Key Points

-Model Type:
XGBoost Regressor

-Purpose:
Forecasting the DXY Index based on economic indicators

-Forecast Period:
2024 onward with confidence intervals

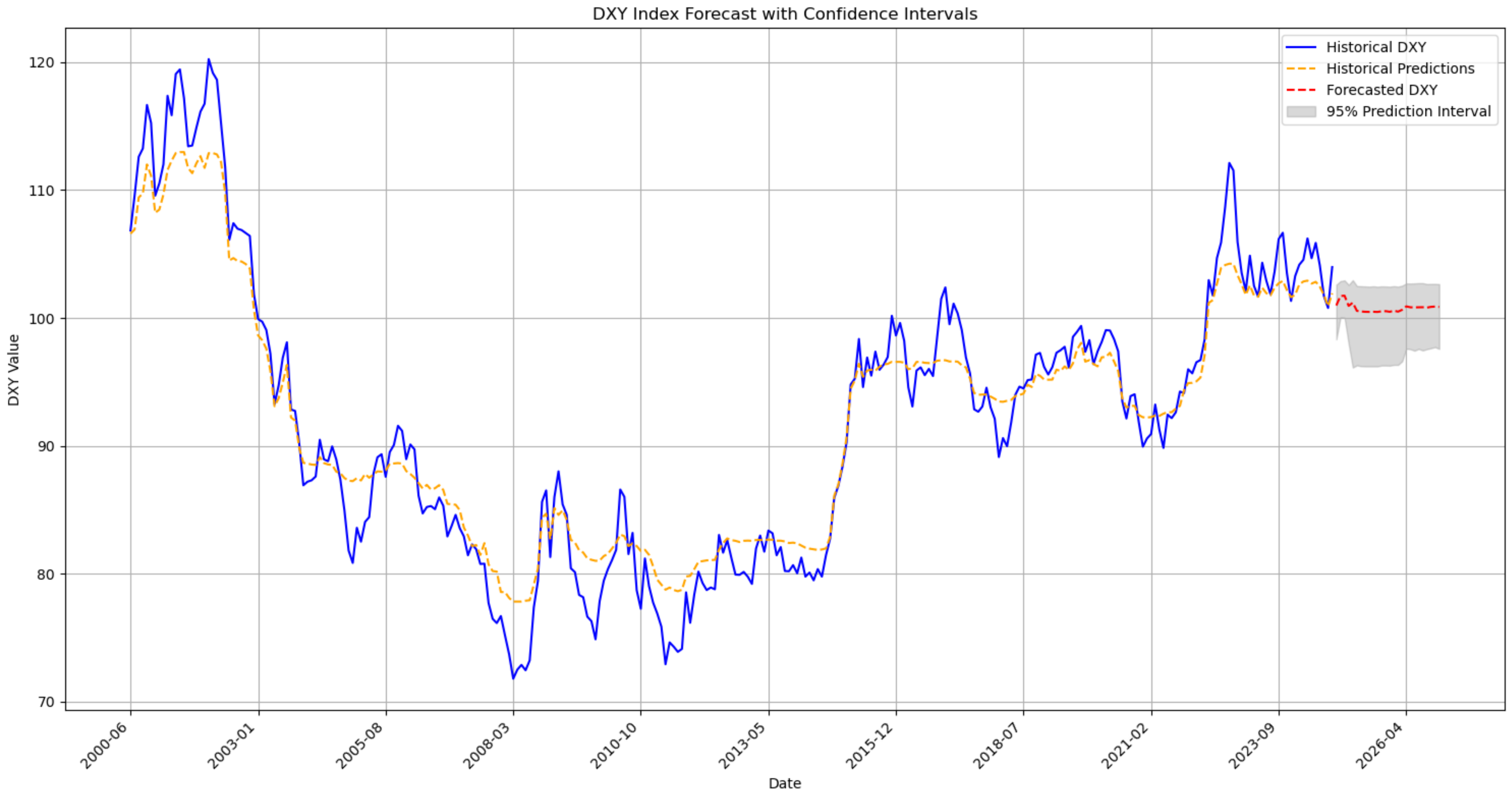
-Performance Metrics:
-R-Squared: 0.9496
-RMSE: 2.5492
-MAE: 1.9982

-Training Data:
Features: Interest rate differentials, inflation differentials, shock indicators (COVID-19 impact, recessions), Balance of Trade, GDP, fiscal deficit-to-GDP, US unemployment rate
Target: DXY Index values

-Projection Data:
Sourced from respective Central Bank's latest projections
Economies: US, EU, UK, Japan

-Baseline Assumptions: Median/Central estimates from the latest projections

Model Output

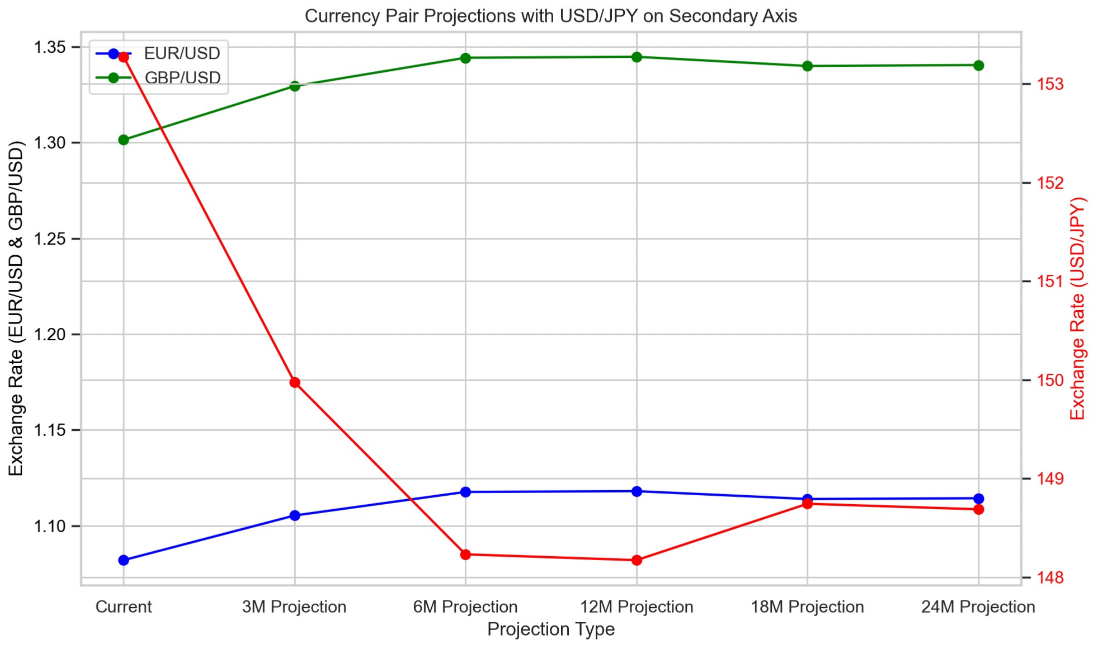


Impact on FX Markets - Baseline Scenario

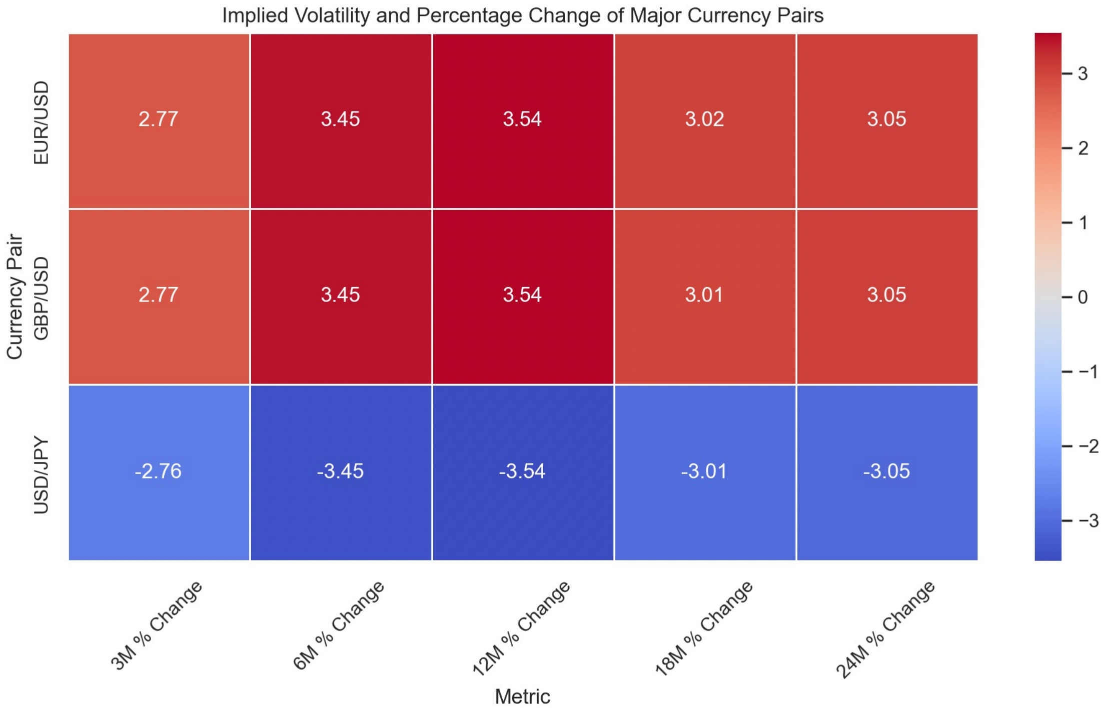
Currency Pair Projections

Currency Pair	Current Rate	3M	6M	12M	18M	24M
EURUSD	1.0821	1.1054	1.1177	1.1181	1.114	1.1144
GBPUSD	1.3014	1.3294	1.3442	1.3447	1.3399	1.3404
USDJPY	153.2740	149.975	148.2304	148.1715	148.7432	148.687

Currency Pair Projections



Projected Volatility



DXY – Medium Term Outlook
Optimistic Scenario

DXY Index Forecast Model Output – Optimistic Scenario

Key Points

-Model Type:
XGBoost Regressor

-Purpose:
Forecasting the DXY Index based on economic indicators

-Forecast Period:
2024 onward with confidence intervals

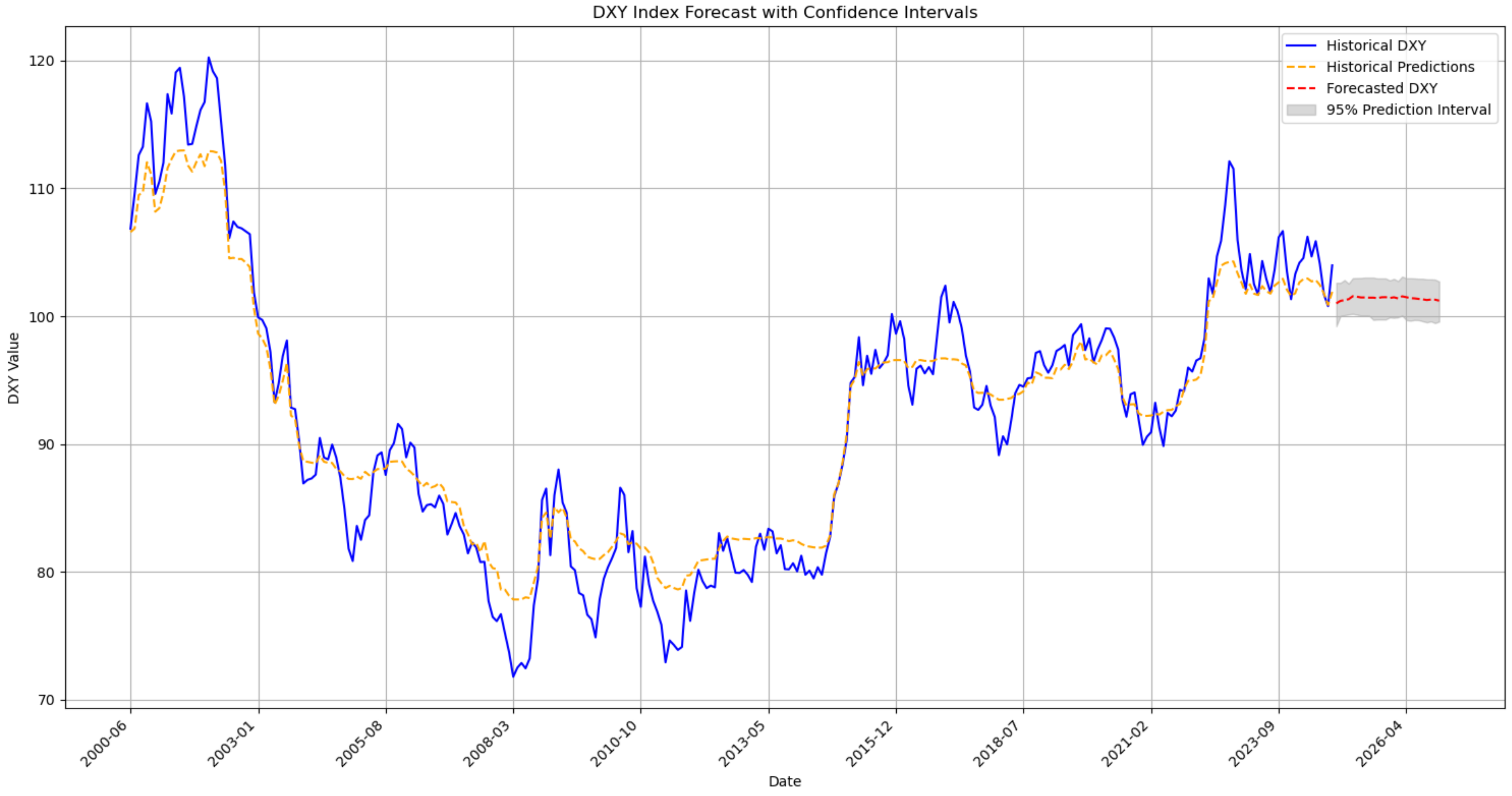
-Performance Metrics:
-R-Squared: 0.9496
-RMSE: 2.5491
-MAE: 1.9975

-Training Data:
Features: Interest rate differentials, inflation differentials, shock indicators (COVID-19 impact, recessions), Balance of Trade, GDP, fiscal deficit-to-GDP, US unemployment rate
Target: DXY Index values

-Projection Data:
Sourced from respective Central Bank's latest projections
Economies: US, EU, UK, Japan

-Optimistic Assumptions: Upper end of estimates wrt GDP, and lower end (-50 bps from median) wrt inflation, unemployment rate, interest rate from the latest projections.

Model Output

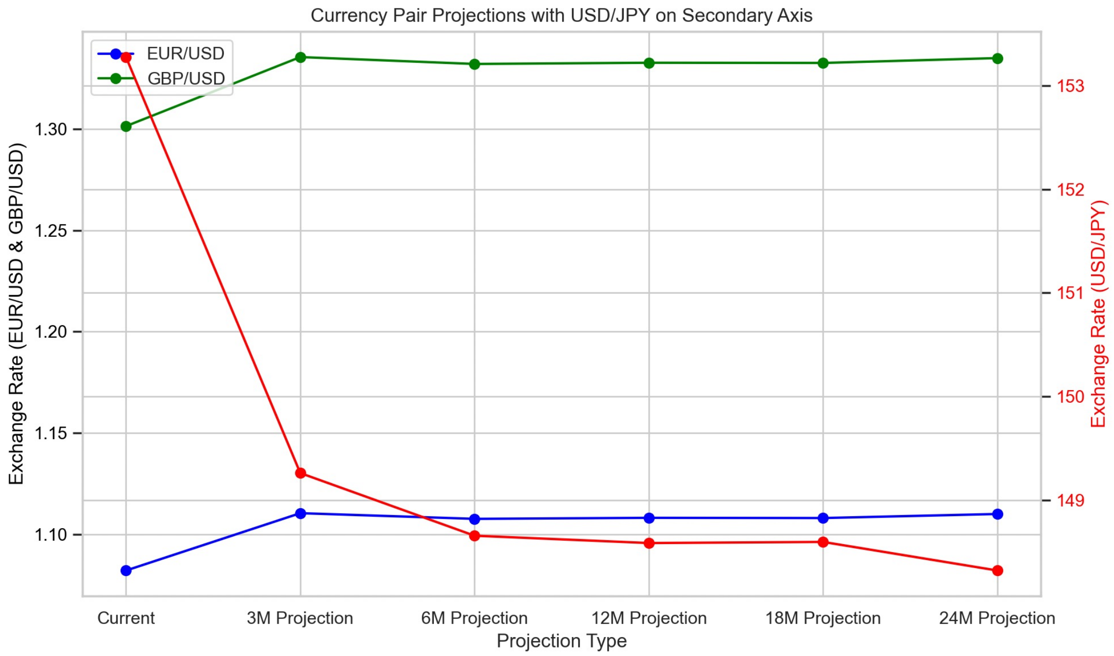


Impact on FX Markets - Optimistic Scenario

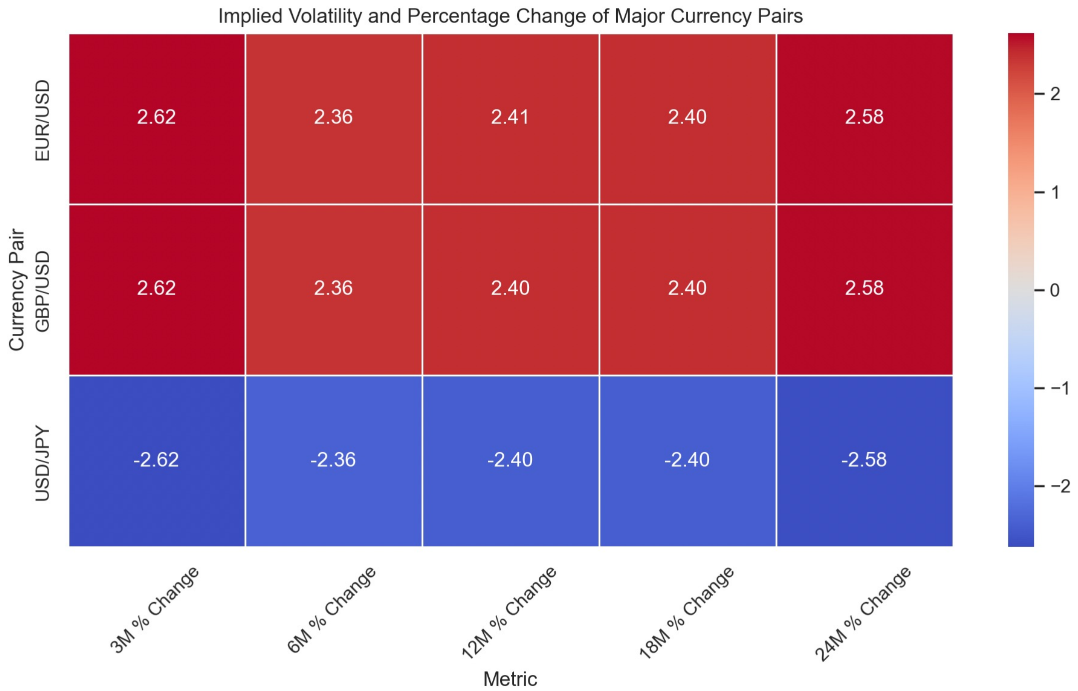
Currency Pair Projections

Currency Pair	Current Rate	3M	6M	12M	18M	24M
EURUSD	1.0821	1.1104	1.1076	1.1081	1.108	1.11
GBPUSD	1.3014	1.3355	1.3321	1.3327	1.3326	1.335
USDJPY	153.2740	149.2629	149.6587	149.5881	149.5988	149.3231

Currency Pair Projections



Projected Volatility



DXY – Medium Term Outlook
Pessimistic Scenario

DXY Index Forecast Model Output – Pessimistic Scenario

Key Points

-Model Type:
XGBoost Regressor

-Purpose:
Forecasting the DXY Index based on economic indicators

-Forecast Period:
2024 onward with confidence intervals

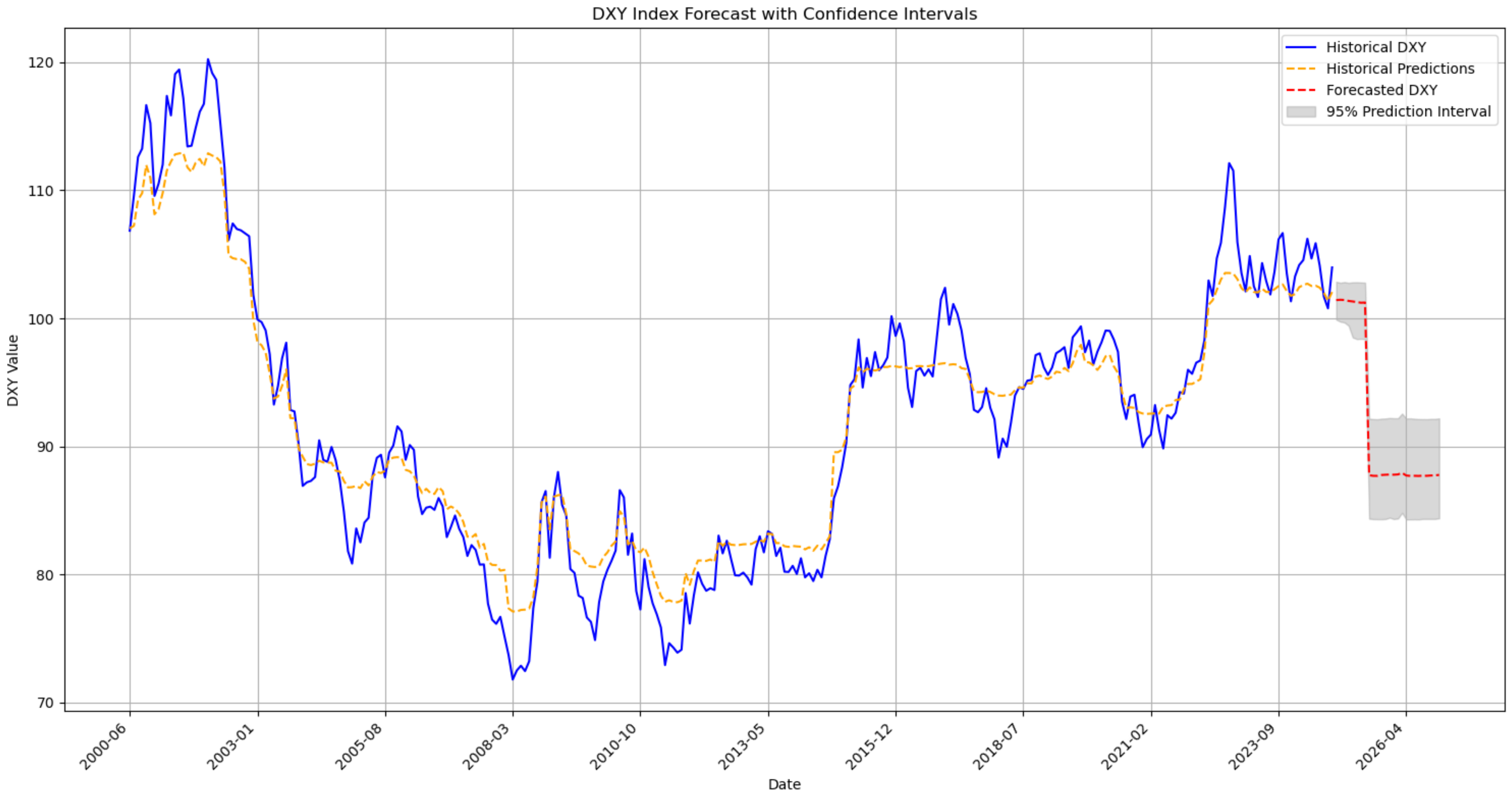
-Performance Metrics:
-R-Squared: 0.9503
-RMSE: 2.5322
-MAE: 1.9969

-Training Data:
Features: Interest rate differentials, inflation differentials, shock indicators (COVID-19 impact, recessions), Balance of Trade, GDP, fiscal deficit-to-GDP, US unemployment rate
Target: DXY Index values

-Projection Data:
Sourced from respective Central Bank's latest projections
Economies: US, EU, UK, Japan

-Pessimistic Assumptions: Lower end of estimates wrt GDP, and upper end (+50 bps from median) wrt inflation, unemployment rate, interest rate from the latest projections.

Model Output

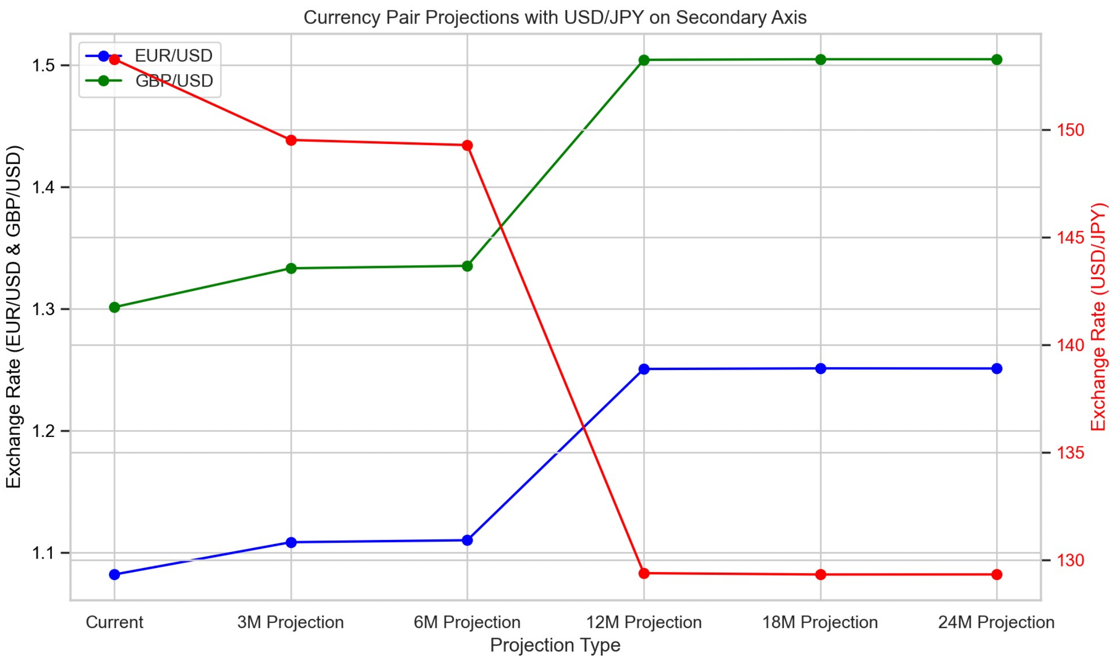


Impact on FX Markets - Pessimistic Scenario

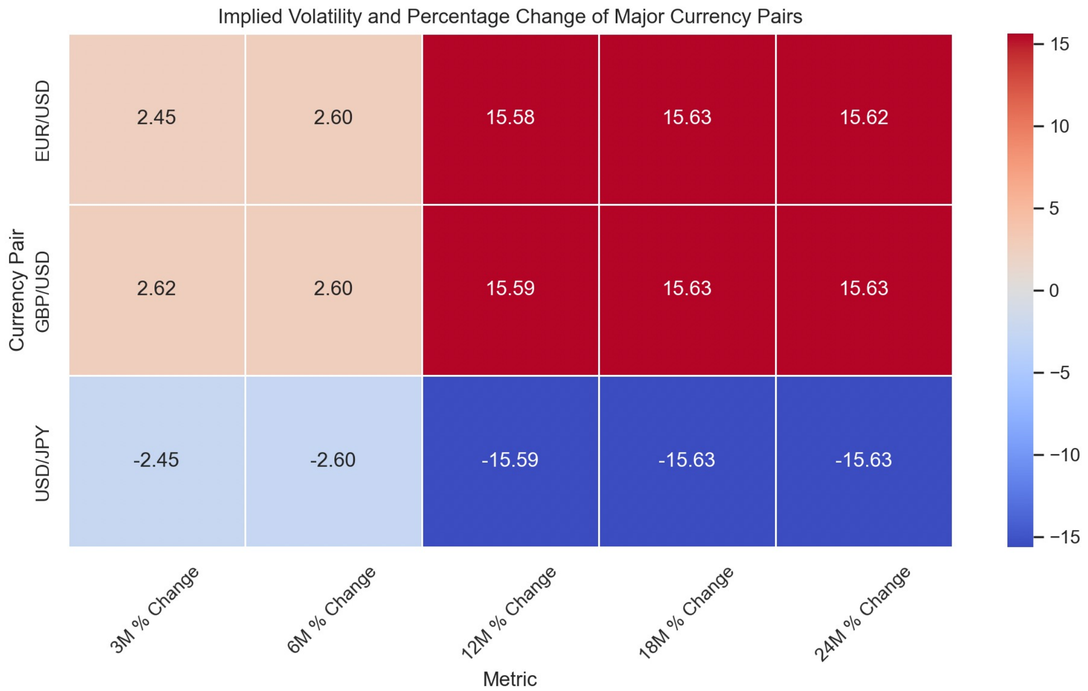
Currency Pair Projections

Currency Pair	Current Rate	3M	6M	12M	18M	24M
EURUSD	1.0821	1.1086	1.1102	1.2507	1.2512	1.2511
GBPUSD	1.3014	1.3333	1.3353	1.5043	1.5048	1.5048
USDJPY	153.2740	149.5208	149.2816	129.382	129.3201	129.3231

Currency Pair Projections



Projected Volatility

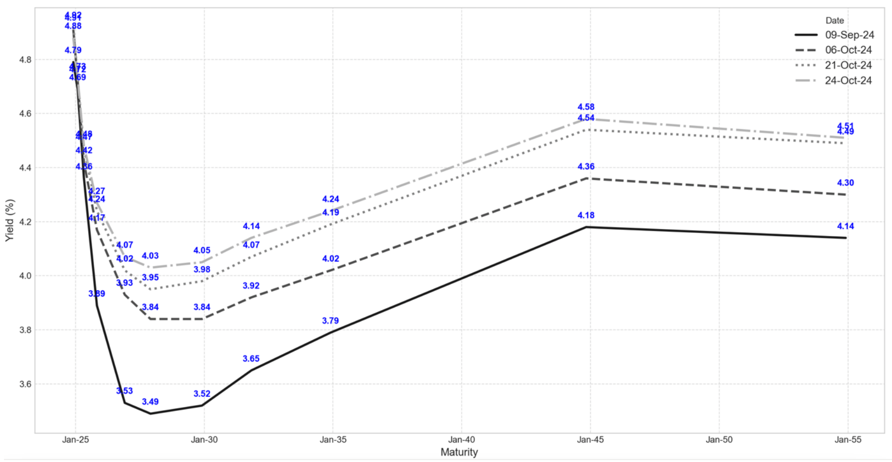


DXY – Impact on Interest Rates & Fixed Income

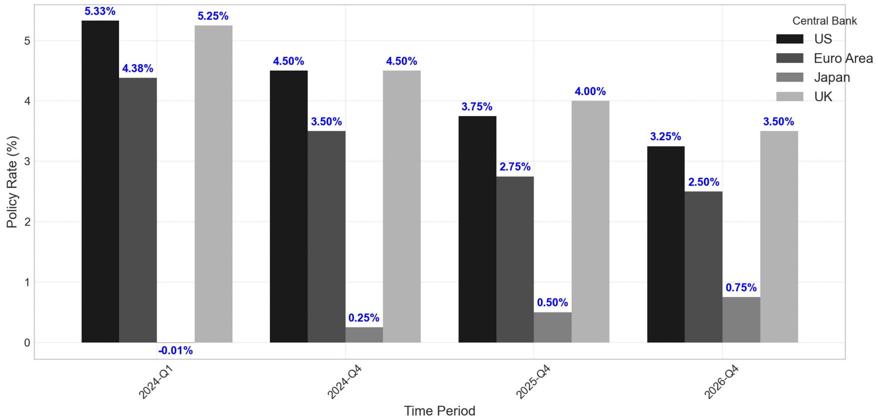
Baseline Scenario

Impact on Interest Rates & FI

US Treasury Nominal Yield Curve



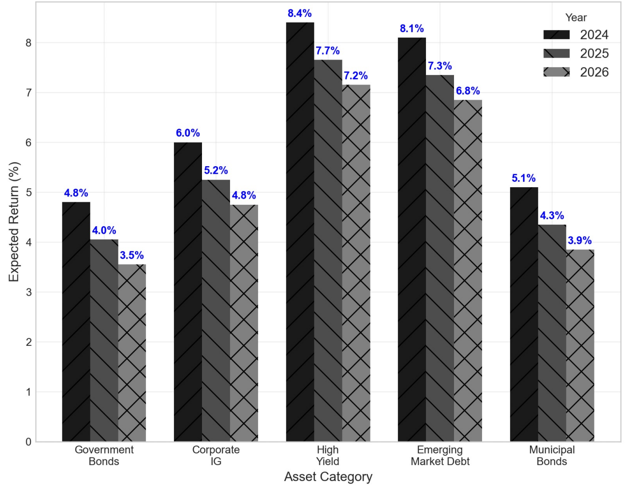
Central Bank Projections



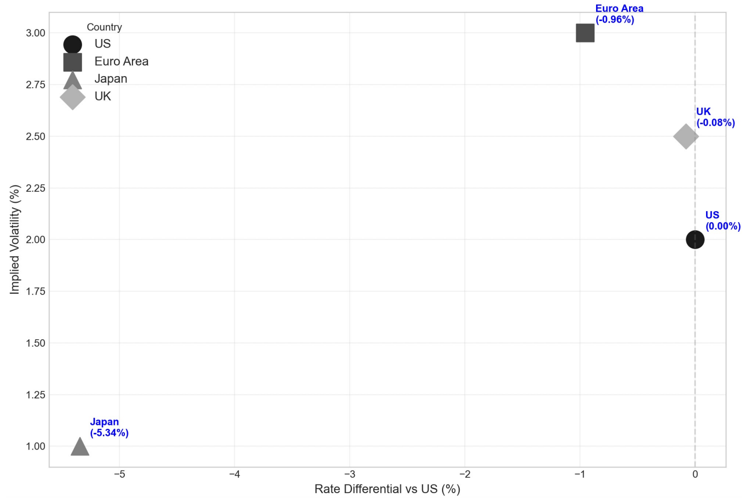
Key Takeaway

US Treasury yields show significant bear steepening since September, with the 2-10Y spread widening by 54bps, suggesting markets are pricing in persistent inflation and higher terminal rates despite expected policy easing in 2024.

Fixed Income Returns

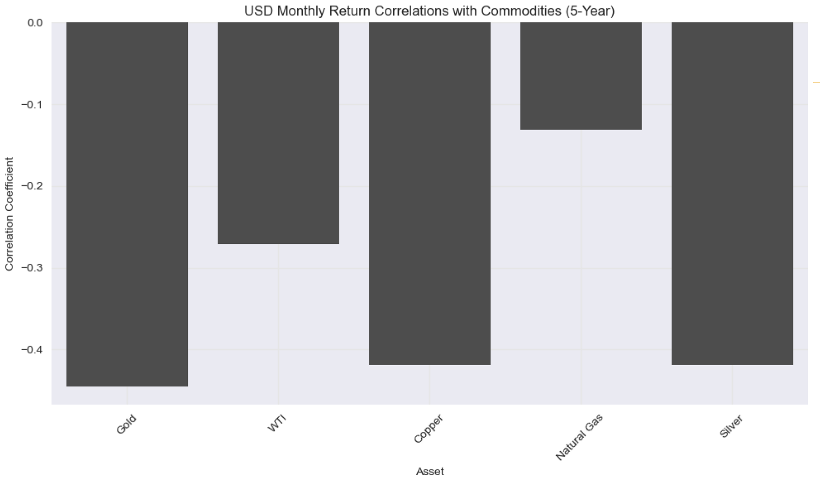


Rate Differentials

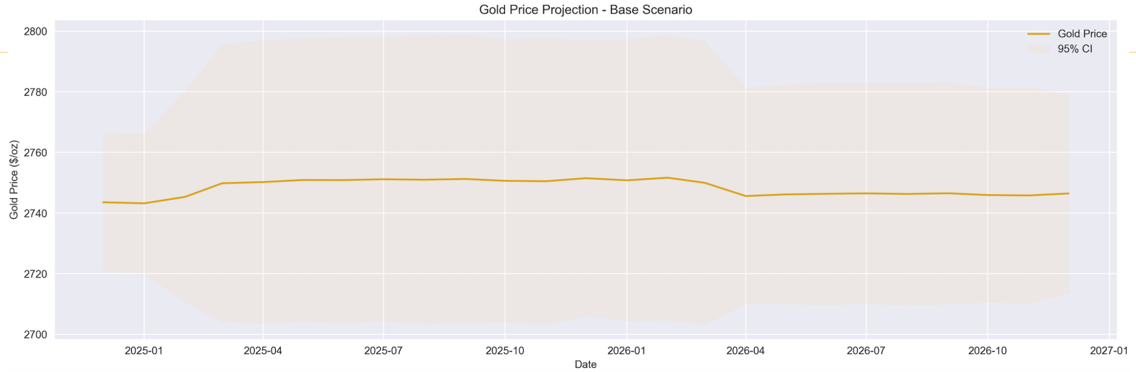


Impact on Commodity Markets

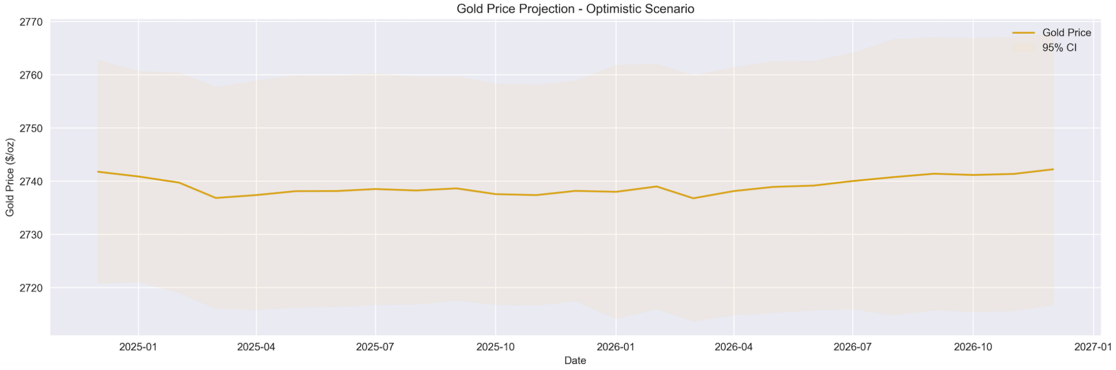
DXY - Commodity Correlations



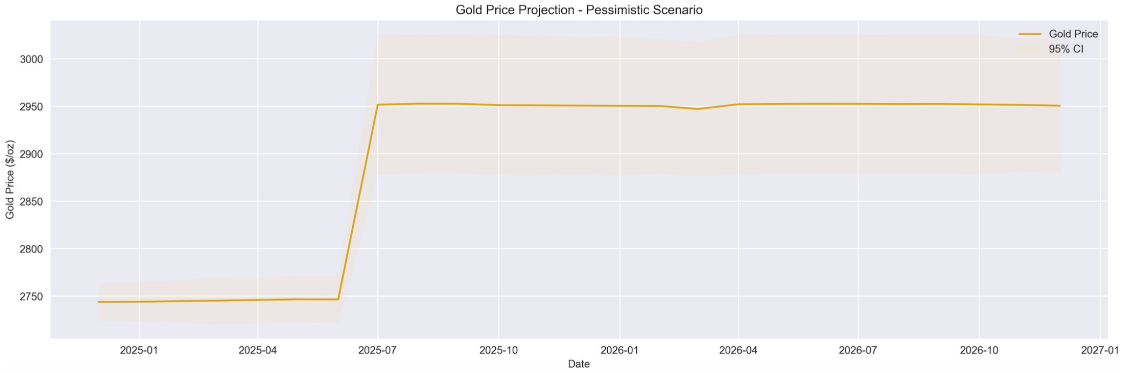
Gold Forecast – Baseline Scenario



Gold Forecast – Optimistic Scenario



Gold Forecast – Pessimistic Scenario



Fiscal Policy Impact -
US Federal Budget: 2026-2035

Fiscal Policy - US Federal Budget – 2026-2035

Fiscal Plan 1

The Harris Plan
(billions, 2026-2035)

Policy Proposals	Low	Central	High
Extend the TCJA for Households Making Less than $400k	-$2,050	-$3,000	-$3,600
Expand the Child Tax Credit and Earned Income Tax Credit	-$1,400	-$1,400	-$1,400
Extend and Expand the Enhanced ACA Premium Subsidies	-$350	-$550	-$600
Support Affordable Housing	-$200	-$250	-$500
Exempt Tips from Income Taxes and Raise the Minimum Wage	-$100	-$200	-$350
Improve Border Security	$0	-$100	-$200
Support Manufacturing, Technology, and Small Businesses	-$250	-$250	-$300
Expand Access and Funding for Pre-K and Child Care	-$400	-$700	-$950
Establish National Paid Family and Medical Leave	-$200	-$350	-$700
Support Affordable and Quality Education	-$150	-$350	-$700
Expand Medicare to Cover Long-Term Care, Hearing, and Vision	-$400	-$500	-$600
Subtotal, Tax Cuts and Spending Increases	**-$5,500**	**-$7,650**	**-$9,900**
Increase the Corporate Tax Rate from 21% to 28%	$1,350	$900	$750
Increase Taxes on Capital Income	$900	$850	$700
Increase NIIT/Medicare Taxes	$800	$800	$600
Reform International Tax Rules	$650	$550	$550
Lower Prescription Drug Costs	$400	$250	$200
Other Revenues from the President’s Budget, Including a Higher Book Minimum Tax, IRS Funding, and Compensation Deductibility Limits	$1,150	$900	$0
Subtotal, Revenue Increases and Spending Reductions	**$5,250**	**$4,250**	**$2,800**
Net Interest	**-$50**	**-$550**	**-$1,200**
Total, Net Deficit Impact	**-$300**	**-$3,950**	**-$8,300**

Fiscal Plan 2

The Trump Plan
(billions, 2026-2035)

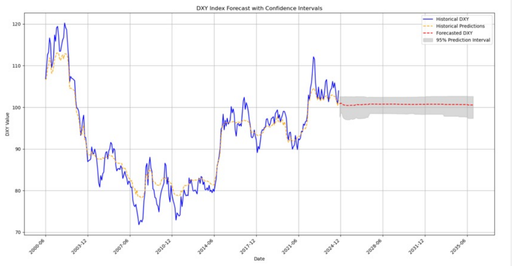
Policy Proposals	Low	Central	High
Extend and Modify the Tax Cuts & Jobs Act (TCJA)	-$4,600	-$5,350	-$5,950
Exempt Overtime Income from Taxes	-$500	-$2,000	-$3,000
End Taxation of Social Security Benefits	-$1,200	-$1,300	-$1,450
Exempt Tip Income from Taxes	-$100	-$300	-$550
Lower Corporate Tax Rate to 15% for Domestic Manufacturers	-$150	-$200	-$600
Enact or Expand Other Individual and Small Business Tax Breaks	-$150	-$200	-$350
Strengthen and Modernize the Military	-$100	-$400	-$2,450
Secure the Border and Deport Unauthorized Immigrants	$0	-$350	-$1,000
Enact Housing Reforms, Including Credits for First-Time Homebuyers	-$100	-$150	-$350
Boost Support for Health Care, Long-Term Care, and Caregiving	-$50	-$150	-$300
Subtotal, Tax Cuts and Spending Increases	**-$6,950**	**-$10,400**	**-$16,000**
Establish a Universal Baseline Tariff and Additional Tariffs	$4,300	$2,700	$2,000
Reverse Current Energy/Environment Policies and Expand Production	$750	$700	$550
Reduce Waste, Fraud, and Abuse	$250	$100	$0
End the Department of Education and Support School Choice	$200	$200	$0
Subtotal, Revenue Increases and Spending Reductions	**$5,500**	**$3,700**	**$2,550**
Net Interest	**-$200**	**-$1,050**	**-$2,100**
Total, Net Deficit Impact	**-$1,650**	**-$7,750**	**-$15,550**

Source:
[Bloomberg Brief, 5th November 2024;](https://www.crfb.org/papers/fiscal-impact-harris-and-trump-campaign-plans)
https://www.crfb.org/papers/fiscal-impact-harris-and-trump-campaign-plans

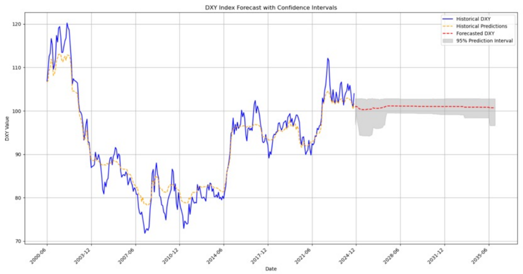
Quantwater Tech Investments

Fiscal Policy - US Federal Budget – 2026-2035

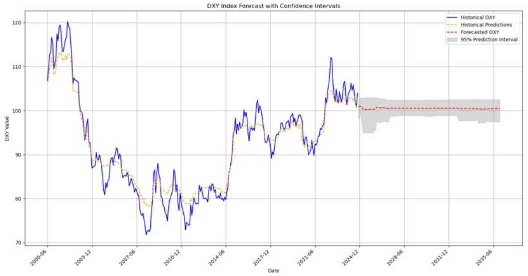
Fiscal Plan 1 – Baseline Scenario



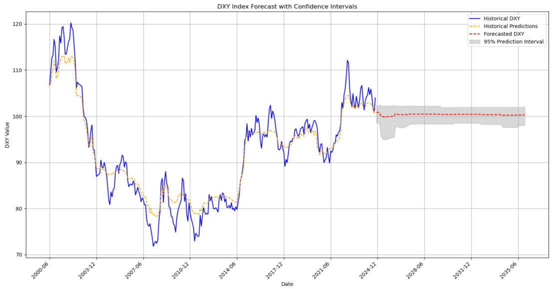
Fiscal Plan 2 - Baseline Scenario



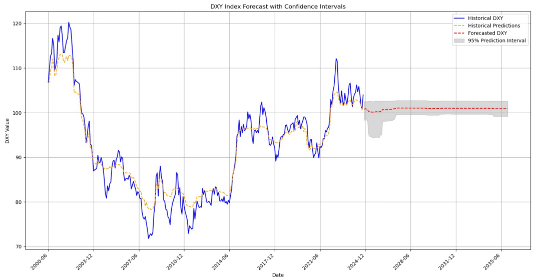
Fiscal Plan 1 – Optimistic Scenario



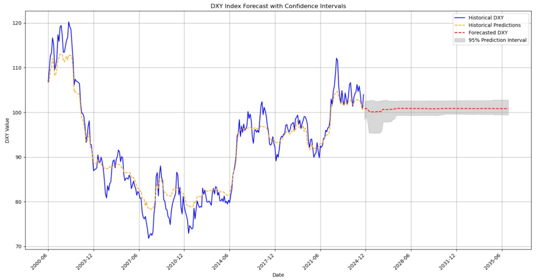
Fiscal Plan 2 – Optimistic Scenario



Fiscal Plan 1- Pessimistic Scenario



Fiscal Plan 2 - Pessimistic Scenario



Appendix – Data

Monetary Policy
Central Bank Projections - Nov’24

CB Projections - FED

FED															
Table 1: Economic Projections of Federal Reserve Board Members & Federal Reserve Bank Presidents, under their individual assumptions of projected appropriate monetary policy, September 2024															
Variable	**Median**					**Central Tendency**					**Range**				
	2024	**2025**	**2026**	**2027**	**Longer run**	**2024**	**2025**	**2026**	**2027**	**Longer run**	**2024**	**2025**	**2026**	**2027**	**Longer run**
Change in real GDP	2.0	2.0	2.0	2.0	1.8	1.9-2.1	1.8-2.2	1.9-2.3	1.8-2.1	1.7-2.0	1.8-2.6	1.3-2.5	1.7-2.5	1.7-2.5	1.7-2.5
June projection	2.1	2.0	2.0		1.8	1.9-2.3	1.8-2.2	1.8-2.1		1.7-2.0	1.4-2.7	1.5-2.5	1.7-.25		1.6-2.5
Unemployment rate	4.4	4.4	4.3	4.2	4.2	4.3-4.4	4.2-4.5	4.0-4.4	4.0-4.4	3.9-4.3	4.2-4.5	4.2-4.7	3.9-4.5	3.8-4.5	3.5-4.5
June projection	4.0	4.2	4.1		4.2	4.0-4.1	3.9-4.2	3.9-4.3		3.9-4.3	3.8-4.4	3.8-4.3	3.8-4.3		3.5-4.5
PCE inflation	2.3	2.1	2.0	2.0	2.0	2.2-2.4	2.1-2.2	2.0	2.0	2.0	2.1-2.7	2.1-2.4	2.0-2.2	2.0-2.1	2.0
June projection	2.6	2.3	2.0		2.0	2.5-2.9	2.2-2.4	2.0-2.1		2.0	2.5-3.0	2.2-2.5	2.0-2.3		2.0
Core PCE inflation	2.6	2.2	2.0	2.0		2.6-2.7	2.1-2.3	2.0	2.0		2.4-2.9	2.1-2.5	2.0-2.2	2.0-2.2	
June projection	2.8	2.3	2.0			2.8-3.0	2.3-2.4	2.0-2.1			2.7-3.2	2.2-2.6	2.0-2.3		
Memo: Projected appropriate policy path															
Federal funds rate	4.4	3.4	2.9	2.9	2.9	4.4-4.6	3.1-3.6	2.6-3.6	2.6-3.6	2.5-3.5	4.1-4.9	2.9-4.1	2.4-3.9	2.4-3.9	2.4-3.8
June projection	5.1	4.1	3.1		2.8	4.9-5.4	3.9-4.4	2.9-3.6		2.5-3.5	4.9-5.4	2.9-5.4	2.4-4.9		-3.8

CB Projections - ECB

Table: Recent Forecasts for euro area real GDP growth and HICP inflation

ECB (annual percentage changes)

	Date of release	GDP growth			HICP inflation			HICP inflation excl. energy & food		
		2024	**2025**	**2026**	**2024**	**2025**	**2026**	**2024**	**2025**	**2026**
ECB staff projections	Sep-24	0.8	1.3	1.5	2.5	2.2	1.9	2.9	2.3	2
Consensus Economics	Aug-24	0.8	1.3	1.4	2.4	2	1.9	2.8	2.2	
Survey of Professional Forecasters	Jul-24	0.7	1.3	1.4	2.4	2	1.9	2.7	2.2	2
International Monetary Fund	Jul-24	0.9	1.5		2.4	2.1				
European Commission	May-24	0.8	1.4		2.5	2.1		2.7	2.1	
OECD	May-24	0.7	1.5		2.3	2.2		2.6	2.1	

Table		**Sep-24**		
Technical assumptions	**2023**	**2024**	**2025**	**2026**
Commodities:				
Oil price (USD/barrel)	83.7	83.2	76.1	73.2
Exchange rates:				
USD/EUR exchange rate	1.08	1.09	1.1	1.1
Euro nominal effective exchange rate (EER41) (Q1 1999 = 100)	121.8	124.5	125.1	125.1
Financial Assumptions				
Three-month EURIBOR (% per annum)	3.4	3.6	2.5	2.2
10-year government bond yields (% per annum)	3.1	2.9	2.8	3

Table		**Sep-24**		
Projections		**2024**	**2025**	**2026**
Interest rate on ECB's deposit facility & main refinancing operations (%)		3.89	2.42	2.2
EURUSD			1.11	1.12

CB Projections - BoE

Bank of England

Projections - Aug 24

Bank of England

Date	CPI Inflation	CPI ex energy	Real GDP (qoq)	Bank Rate		Real GDP
						574.7
2024 Q3	2.3	3.4	1.5%	5.1		577
2024 Q4	2.7	3.3	2.0%	4.87		578.1
2025 Q1	2.7	3.2	1.5%	4.62		579
2025 Q2	2.6	2.7	1.0%	4.4		580.2
2025 Q3	2.4	2.3	0.8%	4.23		581.7
2025 Q4	2.2	2.3	0.9%	4.09		583.5
2026 Q1	2	2.2	1.1%	3.97		585.4
2026 Q2	1.7	2.1	1.3%	3.86		587.5
2026 Q3	1.7	2	1.4%	3.8		589.9
2026 Q4	1.6	1.8	1.5%	3.67		592.3
2027 Q1	1.5	1.7	1.6%	3.6		594.9
2027 Q2	1.5	1.7	1.7%	3.54		597.5
2027 Q3	1.5	1.7	1.7%	3.5		600

CB Projections - BoJ

Forecasts of the Majority of the Policy Board Members **Jul-24**

Bank of Japan *y/y % chg.*

	Real GDP	**CPI (all items less fresh food)**	**CPI (all items less fresh food and energy)**
2024	0.5 to 0.7	2.5 to 2.6	1.8 to 2.0
Median estimate	0.6	2.5	1.9
Forecasts made in April 2024	0.7 to 1.0	2.6 to 3.0	1.7 to 2.1
Prev Median estimate	0.8	2.8	1.9
2025	0.9 to 1.1	2.0 to 2.3	1.8 to 2.0
Median estimate	1	1.9	1.9
Forecasts made in April 2024	0.8 to 1.1	1.7 to 2.1	1.8 to 2.0
Prev Median estimate	1	1.9	1.9
2026	0.8 to 1.0	1.8 to 2.0	1.9 to 2.2
Median estimate	1	1.9	2.1
Forecasts made in April 2024	0.8 to 1.0	1.6 to 2.0	1.9 to 2.1
Prev Median estimate	1	1.9	2.1

Based on OIS market Data

Year	Period	Projected Short-Term Interest Rate	Notes
2024	Q4	0.25% - 0.30%	OIS markets pricing in potential for slight increase
2025	Q1	0.30% - 0.35%	Gradual rise expected as per OIS pricing
	Q2	0.35% - 0.40%	Continued upward trend in OIS rates
	Q3	0.40% - 0.45%	OIS suggesting further policy normalization
	Q4	0.45% - 0.50%	Year-end expectations higher in OIS market
2026	H1	0.50% - 0.60%	OIS indicating continued policy tightening
	H2	0.60% - 0.75%	OIS pricing suggests peak rates by year-end

Appendix

Resources

Model & Data

- https://drive.google.com/drive/folders/1lc-w4y1NuNqcdwTDXuu7P2uG4UIlLa4j?usp=share_link

Important Information

Quantwater Tech Investments
Data Release Deck – 05th November 2024

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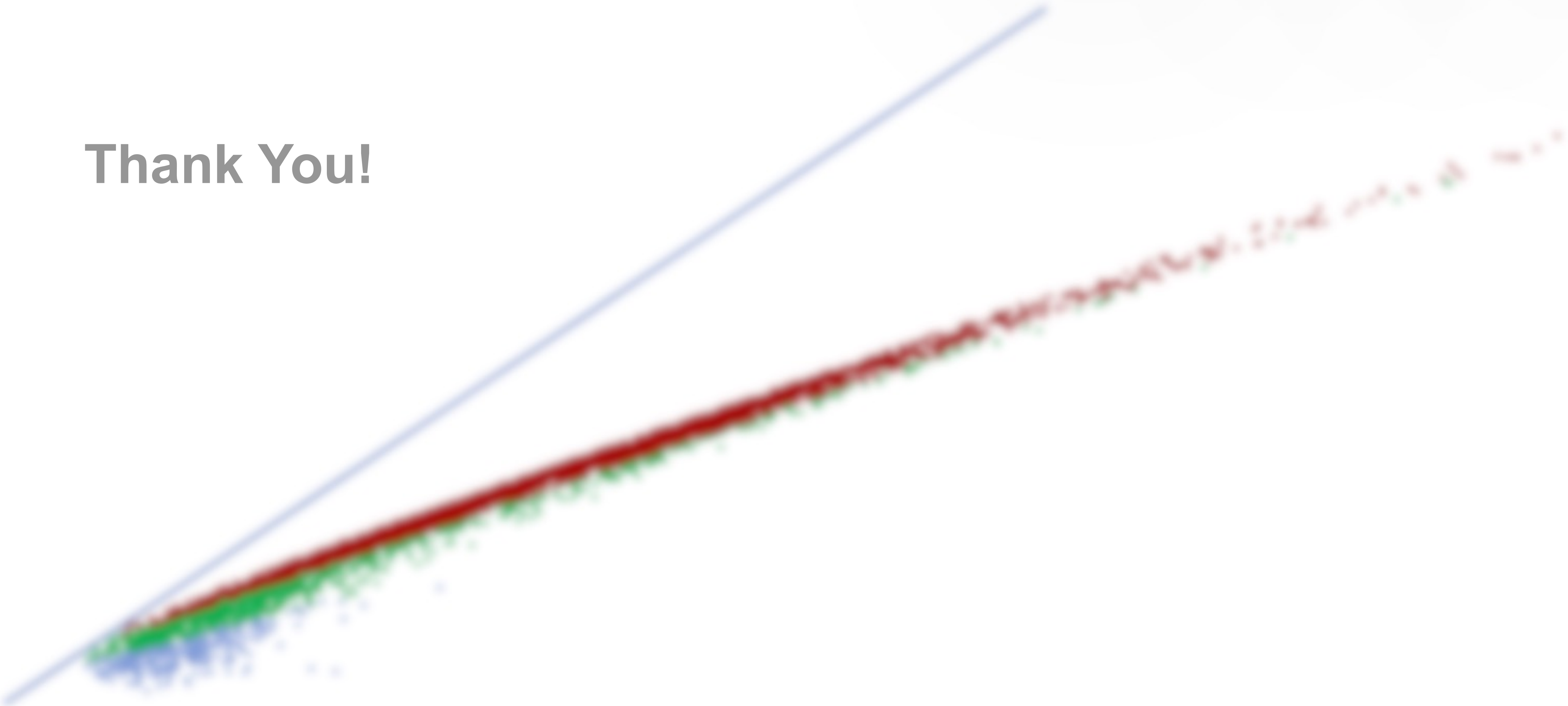

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