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Cost of Capital in the Current Environment

October 2024 Update

> “The soft-landing scenario for the global economy now appears to be the base case, despite the residual overhang of restrictive monetary policies. From a historical perspective, projected global growth for 2024-2025 falls short of the pre-pandemic levels of around 3.5% (based on 1980-2019 average). The U.S. economy has continued to be stronger than expected, although a slowdown is expected in 2025, as labor markets cool down and pandemic-related excess savings are used up. The significant 0.50% interest rate cut by the U.S. central bank in September was a sign that the Fed is confident about achieving its 2.0% inflation target in the near term. The anticipation of future rate cuts and the promise of higher profits from generative artificial intelligence have propelled U.S. stock markets to new record highs. Some of this optimism could wane as we approach the U.S. general elections in November. The outcome of the presidential election may have reverberations around the globe and heighten uncertainty for financial markets. In Europe, while a modest recovery is under way, challenges remain ahead for the UK and the Eurozone economies, with Germany remaining a weak spot. Inflation has decelerated significantly, which bodes well for further Bank of England and ECB policy rate cuts, but recovery in 2025 is still expected to be sluggish. Meanwhile, China continues to suffer from lackluster domestic demand and a struggling property sector, contributing to a deflationary environment. Additional trade tariffs on Chinese exports could weigh down growth in 2025. Other geopolitical risks such as the potential escalation of various ongoing Middle East conflicts and the Russia-Ukraine war should also be monitored, but for now equity investors appear to be largely ignoring their impact on markets.”

Carla S. Nunes, CFA – Managing Director, Valuation Digital Solutions/Office of Professional Practice, Kroll

Kroll Cost of Capital Inputs

Data as of September 26, 2024

	Normalized Risk-Free Rate	Kroll-Recommended Equity Risk Premium
U.S. (in USD)	Higher of 3.5% or Spot*	5.0%
Eurozone *** (in EUR)	Higher of 2.5% or Spot**	5.5% to 6.0%

* We recommend using the spot 20-year U.S. Treasury yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended U.S. normalized risk-free rate of 3.5%. This guidance is effective when developing USD-denominated discount rates as of June 16, 2022, and thereafter.

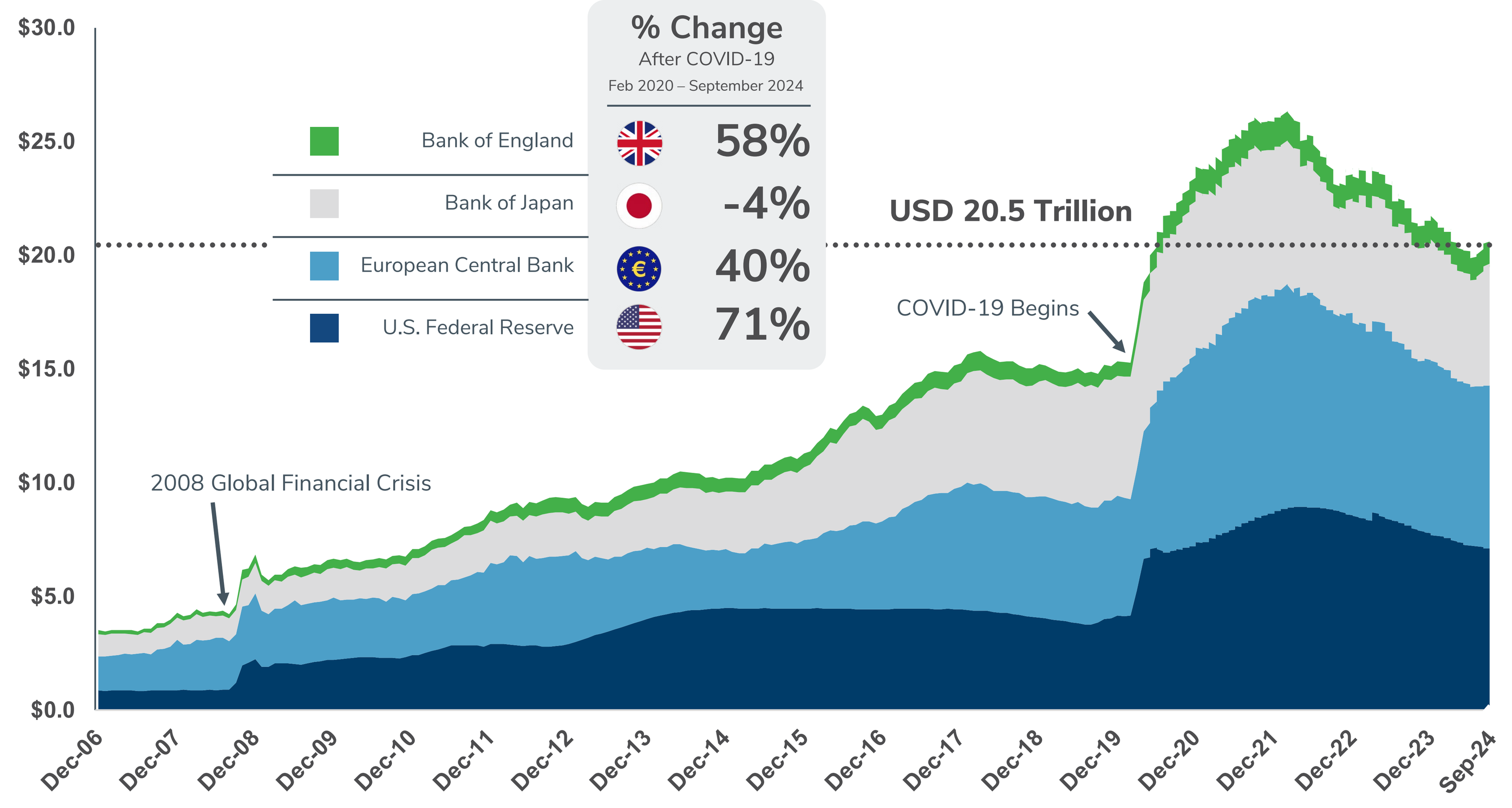
** We recommend using the spot 15-year German government bond yield as the proxy for the risk-free rate, if the prevailing yield as of the valuation date is higher than our recommended German normalized risk-free rate of 2.5%. This guidance is effective when developing EUR-denominated discount rated as of March 31, 2024, and thereafter.

*** German normalized risk-free rate and Eurozone equity risk premium (ERP) for use in EUR-denominated discount rates from a German investor perspective. Our current ERP recommendation is at the bottom of the range, which was effective February 5, 2024. Additional country risk adjustments may be warranted when estimating discount rates for other countries in the Eurozone.

For more information, visit: https://www.kroll.com/costofcapitalnavigator

Total Assets Held by Major Central Banks Over Time

Data as of September 26, 2024



Sources: Capital IQ, FRED® Economic Data, Bank of England, Bank of Japan and European Central Bank. Data translated into U.S. dollars (USD), to allow for the balance sheet of these central banks to be aggregated. The percentage change after COVID-19 (until the present) in the balance sheet of each bank would be different in local currency.

Global 10-Year Government Bond Yields

Data as of September 26, 2024

North America: U.S. 3.79%; Canada 3.02%

Eurozone: Eurozone 2.25%; Germany 2.17%; Netherlands 2.46%; France 2.98%; Spain 2.91%; Italy 3.34%

Asia Pacific: Australia 3.97%; China 2.08%; India 6.74%; Japan 0.88%; Singapore 2.60%; South Korea 0.71%

Latin America: Brazil 12.21%; Chile 5.40%; Mexico 9.26%

Europe – Other: UK 4.00%; Switzerland 0.43%; Sweden 2.04%

Sources: Refinitiv (Brazil, Chile, India, Mexico), European Central Bank (Eurozone aggregate yield) and Capital IQ (other countries)

Global Credit Spreads

Data as of September 26, 2024

	U.S. Corporate Credit Spreads	Euro-Denominated Corporate Credit Spreads
Max during 2008 global financial crisis	14.9%	18.8%
Max during COVID-19 crisis	6.7%	7.7%
Long-term average	3.7%	5.0%
Current level	2.0%	2.7%

Sources: FRED® Economic Data, Bloomberg

U.S. corporate credit spreads are based on the difference in effective yields between the ICE BofA U.S. High Yield Index and the ICE BofA U.S. Corporate Index. Euro-denominated corporate credit spreads are based on the difference in effective yields between the Bloomberg Pan-European High Yield Index (EUR) and the Bloomberg Euro Aggregate Corporate Bond Index. Long-term averages are based on 1996 to present for U.S. credit spread daily series, and 1998 to present for EUR-denominated credit spread monthly series.

Global Market Volatility

Data as of September 26, 2024

	VIX Index (U.S.)	VSTOXX® (Europe)
Max during 2008 global financial crisis	80.9	87.5
Max during COVID-19 crisis	82.7	85.6
Long-term average	19.9	23.4
Current level	15.4	16.4

Source: Capital IQ

Long-term averages are based on 1995 to present for VIX daily series, 1999 to present for VSTOXX daily series.

Stock Market Performance

Data as of September 26, 2024

Calendar Year 2022

IBOVESPA (Brazil)	4.7%
BSE Sensex (India)	4.4%
FTSE 100 (UK)	0.9%
TOPIX (Japan)	-5.1%
S&P/ASX 200 (Australia)	-5.5%
IBEX 35 (Spain)	-5.6%
S&P TSX (Canada)	-8.7%
CAC 40 (France)	-9.5%
DAX (Germany)	-12.3%
STOXX® Europe 600 (Europe)	-12.9%
S&P 500 (U.S.)	-19.4%
MSCI ACWI (World)	-19.8%
CSI 300 (China)	-21.6%

Calendar Year 2023

TOPIX (Japan)	25.1%
S&P 500 (U.S.)	24.2%
IBEX 35 (Spain)	22.8%
IBOVESPA (Brazil)	22.3%
DAX (Germany)	20.3%
MSCI ACWI (World)	20.1%
BSE Sensex (India)	18.7%
CAC 40 (France)	16.5%
STOXX® Europe 600 (Europe)	12.7%
S&P TSX (Canada)	8.1%
S&P/ASX 200 (Australia)	7.8%
FTSE 100 (UK)	3.8%
CSI 300 (China)	-11.4%

Year-to-Date 2024

S&P 500 (U.S.)	20.5%
BSE Sensex (India)	18.8%
IBEX 35 (Spain)	18.3%
MSCI ACWI (World)	17.0%
TOPIX (Japan)	15.0%
DAX (Germany)	14.8%
S&P TSX (Canada)	14.7%
STOXX® Europe 600 (Europe)	9.7%
S&P/ASX 200 (Australia)	8.1%
FTSE 100 (UK)	7.1%
CSI 300 (China)	3.3%
CAC 40 (France)	2.6%
IBOVESPA (Brazil)	-0.9%

Source: Capital IQ

U.S. and Eurozone Consumer Sentiment vs. Business Confidence

Data as of September 26, 2024

		Pre-COVID-19 (February 2020)	Post-COVID-19 (September 2024)	Long-Term Avg.
Consumer Sentiment	U.S.	101.0	70.1	(1952–2024) 85.3
	Eurozone	108.3	95.6	(1985–2024) 100.0
Business Confidence	U.S.	99.0	98.6*	(1950–2024) 100.0
	Eurozone	100.4	92.3	(1985–2024) 100.0

* Latest data available is as of August 2024

Sources: Michigan University's Index of Consumer Sentiment, OECD's Business Confidence Index and European Commission business and consumer surveys [The same methodology that the European Commission uses to standardize its Economic Sentiment Indicator (ESI) was applied to the Eurozone Consumer Confidence and Business Climate Indicator series.]

Long-Term Inflation Expectations and Real GDP Growth (Median)

Data as of September 26, 2024

	U.S.	Germany
Long-Term Inflation Expectations	2.3%	2.1%
Long-Term Real GDP Projected Growth	2.0%	1.0%

U.S.: Inflation estimates over the long term have stabilized at **2.3%** since May 2024. Projected long-term real GDP growth in the U.S. stood at **2.0%** in September 2024, an uptick from 1.9% in May and 1.8% in January.

Germany: Long-term inflation expectations in Germany have been stable at **2.1%** since January 2024. Long-term real GDP growth expectations in Germany stood at **1.0%** in September 2024, matching the level observed in May 2024.

Sources of underlying U.S. data: 1) Real GDP growth data was sourced from Blue Chip Economic Indicators, Blue Chip Financial Forecasts, Consensus Economics, S&P Global Market Intelligence (formerly IHS Markit), Federal Reserve Bank of Philadelphia (Livingston Survey, and Survey of Professional Forecasters), and Oxford Economics. 2) Inflation expectations relied on the sources already listed under real GDP growth data, as well as data from the Federal Reserve Bank of Cleveland, the Federal Reserve Bank of Philadelphia (Aruoba Term Structure of Inflation Expectations), and the University of Michigan's Surveys of Consumers Inflation Expectations.

Sources of underlying German real GDP growth and inflation data: *Consensus Economics*, *Economist Intelligence Unit*, S&P Global Market Intelligence (formerly IHS Markit), *International Monetary Fund*, *Oxford Economics* and *PwC*.

U.S. vs. Eurozone Unemployment Rate

Data as of September 26, 2024

	U.S.	Eurozone
2020		
March	4.4%	7.2%
June	11.0%	8.1%
September	7.8%	8.6%
December	6.7%	8.2%
2021		
March	6.1%	8.2%
June	5.9%	7.9%
September	4.7%	7.4%
December	3.9%	7.0%
2022		
March	3.6%	6.8%
June	3.6%	6.7%
September	3.5%	6.7%
December	3.5%	6.7%
2023		
March	3.5%	6.6%
June	3.6%	6.5%
September	3.8%	6.6%
December	3.7%	6.5%
2024		
March	3.8%	6.5%
June	4.1%	6.5%
Latest Available*	4.2%	6.4%

Source: *U.S. Bureau of Labor Statistics and Eurostat*

* Data through August 2024 for the U.S. and July 2024 for the Eurozone.

Real GDP Growth (%) Estimates (Median)

Data as of September 26, 2024

	2020	2021	2022	2023	2024	2025
World	-2.9	6.3	3.1	2.8	2.7	2.7
U.S.	-2.2	6.1	2.5	2.9	2.5	1.8
Canada	-5.0	5.3	3.8	1.2	1.1	1.8
Eurozone	-6.1	5.9	3.4	0.5	0.8	1.4
UK	-10.4	8.7	4.3	0.1	1.0	1.2
Brazil	-3.6	4.8	3.0	2.9	2.1	2.1
China	2.2	8.5	3.0	5.2	4.8	4.5
India	-5.8	9.7	7.0	8.2	6.9	6.6

Sources: *OECD, International Monetary Fund, World Bank, Blue Chip Economic Indicators, Consensus Economics, Economic Intelligence Unit, Fitch Ratings,* S&P Global Market Intelligence (formerly IHS Markit) *Oxford Economics and S&P Global Ratings. Some sources did not have data available for all countries and regions.*