Santander Private Banking

CENTRAL BANKS FOCUS

Quarterly Report

October 2023

Difficult balance between growth and inflation

After the steepest interest rate hikes in decades, central banks and markets are shifting their focus from inflation to growth. This dynamic has different speeds, with emerging economies leading and already shifting the focus from inflation containment to economic slowdown. Overall, the effect of monetary tightening on economic activity is occurring more slowly than in previous cycles and this may lead to a period of higher for longer interest rates. The strength of the labor market and generous fiscal stimulus have made this economic cycle more resilient than previous periods of adjustment.

Investors in general, and more conservative investors in particular, may benefit from the resurgence of fixed income as an investment alternative. **Interest rates have most probably reached their terminal level and that supports the attractiveness of increasing exposure and duration in bond portfolios.** They may also want to keep equity exposure at moderate levels as long as the risk of further adjustment in earnings estimates persists. The aggregated return of a diversified portfolio of bonds and equities with a risk profile (60% Fixed income/40% Equities) is very attractive in comparison with the past fifteen years.

Difficult balance between growth and inflation

01 Focus on inflation in Europe and the U.S.

The market is starting to give a high probability to both the Fed and the ECB have completed the process of interest rate hikes. However, **we believe that the focus will remain on controlling inflation for some time and we rule out rate cuts in the short-term.** The risk of a deterioration in economic growth fundamentals remains elevated for the coming quarters. Our belief is that growth will decrease only moderately due to the labor market support and the absence of marked imbalances in the private sector, although the magnitude of the adjustment is uncertain. Rates should remain higher for longer and **this is going to imply a headwind in terms of growth.**

02 Focus on growth in emerging markets

China fails to meet expectations of a rebound in growth after the reopening. There are concerns about the situation in the real estate sector and the Asian country is once again exporting deflation to the rest of the world. There are doubts about the effectiveness of the Chinese government's measures to shore up growth. **In other emerging economies, central banks** have made substantial progress towards their goal of controlling inflation with early and decisive action, **as a result, they have already shifted the focus to growth and have started an interest rate cutting phase.** This is the case of Chile, Brazil, Peru and Uruguay, as well as Poland, although the latter is focusing on growth despite high inflation.

03 Time to lock-in high interest rates

Monetary policy tightening has brought interest rates to the highest level in decades. **Interest rates have most probably reached their terminal level and that supports the attractiveness of increasing exposure and duration in bond portfolios.** Investors may also want to keep equity exposure at moderate levels as long as the risk of further adjustment in earnings estimates persists. The aggregated yield of a diversified portfolio of bonds and equities with a balanced risk profile (60% Fixed income/40% Equities) is very attractive compared with the past 15 years' returns.

01 U.S.: Longer adjustment

Market participants are increasingly wondering whether the time has come for central banks to pause the interest rate tightening process (the fastest and most aggressive since the 1980s). It will all depend on the **relative degree of concern between two sources of imbalance: inflation and growth.** In the United States, the Federal Reserve (Fed) looks favorably on a significant moderation in price pressures on year-on-year inflation which -according to data from the U.S. Bureau of Labor Statistics (BLS) data- has fallen from a peak of 9.1% in June 2022 to 3.7% in August 2023. However, **the Fed cannot yet call the battle over** as the fall in core inflation is much more incipient and there is more downward resistance in wages, as seen in the chart to the right. If this trend persists, the goal of bringing inflation back to 2%, given the importance of wages in services inflation, is at risk.

The **lagged adjustment in wage inflation is due to a robust labor market** that remains at full employment because, as seen in the left chart, the **U.S. economy continues to show signs of strength thanks to stable consumer growth.** Consumer strength has been supported by two key drivers: the savings accumulated during the pandemic and the confidence provided by a robust labor market. The Fed's forecasts assumed a cost in terms of job destruction and economic slowdown as a result of monetary policy tightening, which has not yet come into effect, as a counterpart to achieving price equilibrium. As a result, in its September Summary of Economic Projections, the Fed revised up growth for both 2023 and 2024 and revised down the unemployment rate for both periods as well.

Further signs of economic weakness are likely to appear in the coming quarters. In any case, **concerns about economic growth are low, which is why we believe that the time for the first interest rate cut by the Fed is still a long way off.** The financial balance sheet of households and companies as a whole is quite healthy and this would mean that the growth adjustment process of this monetary tightening cycle would be particularly moderate.

The most resilient components of inflation show signs of turning around

A surprisingly strong labor market supports consumer spending (and stokes inflation)

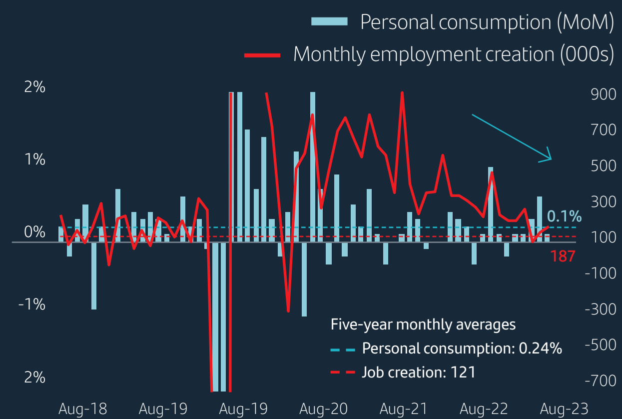
Excess savings are being depleted and consumers are replacing them by credit, which is beginning to show signs of deterioration

The trade-off between inflation control and economic slowdown is balancing and endorses monetary pause

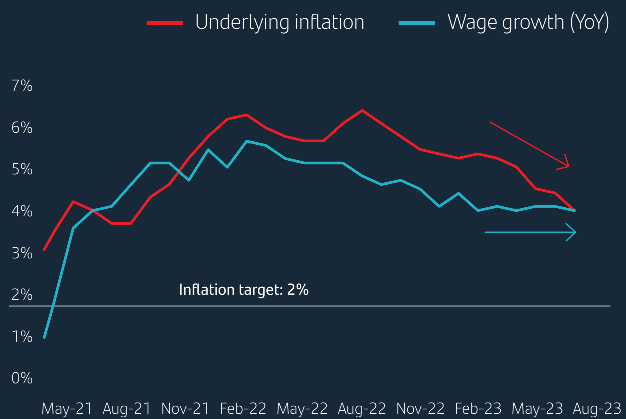
FED FOCUS

Job creation is moderating but remains robust and supports consumption

Wage pressure casts doubt on the 2% inflation target



Source: Bloomberg. Data as of the end of August 2023.



Source: Bloomberg. Data as of the end of August 2023.

The Federal Reserve faces a scenario in which the economy continues to show signs of strength despite high interest rates.

01 Eurozone: Inflation remains sticky

The European Central Bank (ECB) is facing **greater concern about inflation and price dynamics in the Eurozone** compared to the United States. The chart on the right shows a **significant lag in disinflation trends with a particular focus of concern in Germany.** This is why the ECB raised its deposit rate to a record high of 4% at its September '23 meeting, despite signs that monetary tightening is significantly affecting financial conditions. The ECB has signaled that interest rates have reached a level that, if sustained for a sufficiently long period of time, will help inflation return to its 2% target over the medium-term. The market gives a high probability that the September hike may have been the last in this cycle and **the focus now is on the length of the period for which policy rates will remain high.**

Inflation is moving back towards its target more slowly than in the U.S. due to the war in Ukraine and the delay in the start of rate hikes

The added concern for the ECB is that the economy is already showing signs of a slowdown, as can be seen in the chart on the left. The higher demand for services vs. goods (as a result of the post-pandemic normalization dynamics) is negatively affecting the European economy due to its greater exposure to the manufacturing sector. This is **particularly significant in the case of the German economy, which also suffers from the lower dynamism of exports to China.** Southern European countries, with a greater weight of the services sector, show less deterioration in activity but, according to Bloomberg consensus estimates, growth for the Eurozone as a whole would be extremely low in 2023.

Germany, the main engine of the European economy, faces difficulties due to China's slower growth dynamics

The ECB faces a particularly difficult challenge because rate hikes have had an impact on credit and economic activity but have failed so far to have a marked effect on core inflation. Both inflation and growth are worrisome and this complicates monetary policy. **The focus needs to remain on inflation and investors and economic agents are realizing the new monetary outlook in which rate cuts are highly unlikely in the short-term.**

The ECB is facing an economy in slowdown and inflation that has not yet slowed down as much as desirable

EUROPEAN CENTRAL BANK FOCUS

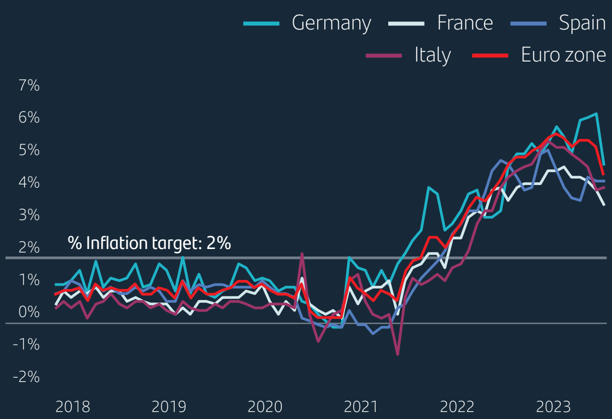
Growth

Germany's manufacturing sector affected by China's economic dynamics

Source: Bloomberg. Data as of the end of September 2023.

Inflation

Core inflation is still far from the 2% target



Source: Bloomberg. Data as of the end of September 2023.

The ECB has probably activated the pause in rate hikes, but inflation would not allow it to consider lowering rates in the short term despite the economic slowdown.

02 China: Doubts about the economic model

Unlike the United States, China has missed expectations in terms of growth in 2023. The announcement of the **end of the Covid-zero policy aroused great expectations of a resurgence of consumption that has not followed through.** The economy grew at an annualized rate of only 3.2% in the second quarter (the government target is 5%), housing prices weakened further and real estate developers continue to have serious financial problems due to excessive indebtedness. The Chinese government has announced a series of economic stimulus measures but so far they have failed to have the desired effect. In addition, consumer spending, business investment and exports stagnated. **Finally, while much of the world is struggling with high inflation, China is on the verge of deflation.**

Doubts about the effectiveness of the Chinese government's measures to revive growth

Some analysts suggest that China could enter a deflationary trap like Japan in the 1990s and the future sustainability of the investment-led growth model is in question. **China is likely to grow by close to 5% this year, but market sentiment is less confident in the government's ability to redirect that investment-dependent growth** to a consumption-based model. The need is clear because, as the chart on the left shows, reliance on investment, especially real estate, is dragging down growth.

Elevated indebtedness of companies and authorities at the local level hamper the implementation of a massive stimulus

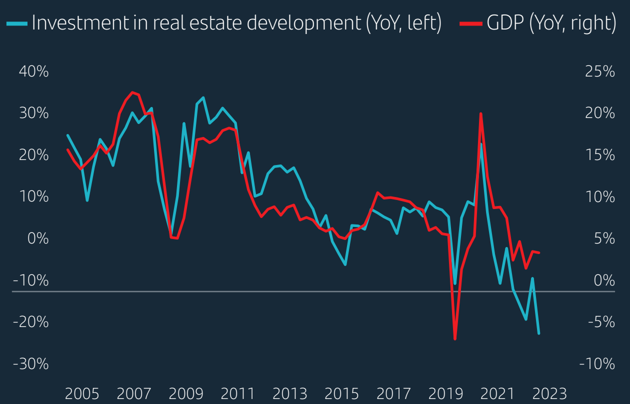
Indicators highlight the need to focus on growth, but **to date the measures announced have not been strong enough to halt the negative trend** and the market is waiting for a more ambitious fiscal stimulus program. Xi Jinping's government has prioritized other objectives (corruption, equality, financial stability, geopolitics...) over short-term growth. After three decades of successful management of the macroeconomic framework, **the Chinese authorities are beginning to show difficulties in adapting the growth model to the new challenges and realities.**

The market remains hopeful that a thorough economic stimulus plan will be approved

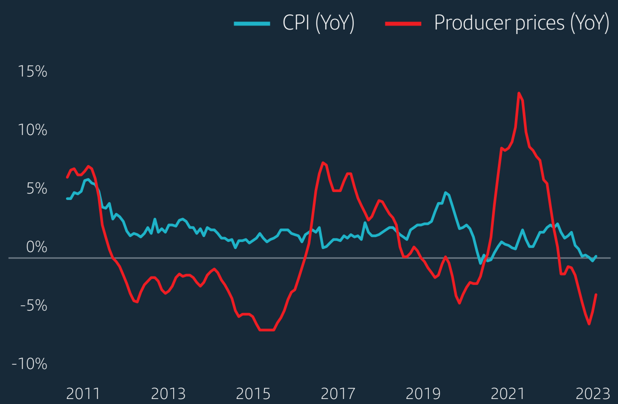
PEOPLE'S BANK OF CHINA FOCUS

Weak residential investment is a drag on growth

China is once again exporting deflation to the rest of the world



Source: Bloomberg. Data as of the end of August 2023.



Source: Bloomberg. Data as of the end of August 2023.

The growth model based on residential investment is losing momentum and the consumer is not taking up the baton due to concerns, amongst other factors, about real estate valuations.

02 Emerging economies ex China: Mature monetary cycle

The countries of the emerging bloc ex China (and in particular Latin American countries) are ahead of the developed economies regarding the monetary policy cycle. As an example, the Banco Central do Brasil began to raise rates in March 2021, a year ahead of the first interest rate hike by the U.S. Federal Reserve, and it did so very aggressively. As can be seen in the graph on the right, actions such as this have allowed **real interest rates to** be placed **in very restrictive territory** (except in Poland) and have significantly reduced inflation levels. In the case of Mexico, inflation has moderated from 9.1% in September 2022 to 4.6% in August 2023 with an official interest rate that has remained at 11.25% for more than six months. This represents a real interest (net of inflation) of 6.6%, which has whetted the appetite of foreign investors and led to a **10% appreciation of the Mexican peso in the first nine months of 2023.**

This aggressive process of rate hikes is taking a toll in terms of growth, as can be seen in the graph on the left. Inflation control has been achieved thanks to the intensity and duration of monetary tightening and has **enabled monetary authorities to focus on growth. At the end of September, Chile and Brazil had lowered rates by 100 and 175bp respectively.** The National Bank of Poland (BNP) surprised the market with a rate cut of 75bp despite little progress in inflation control (now at 10.1% YoY). Volatility of the **Polish zloty** has increased and the currency has depreciated as the market interpreted the monetary authority as prioritizing economic growth and being more lax and is more lenient on the inflation target (2.5%). **Weak growth dynamics in major trading partners (China and Germany) are adding to the negative effects of monetary policy on growth.** Countries where central banks have acted with discipline and have reinforced their anti-inflationary credibility will be able to enjoy lower interest rates faster and alleviate pressures on economic growth.

Chile, Brazil and, surprisingly, Poland, have started their interest rate cutting cycle

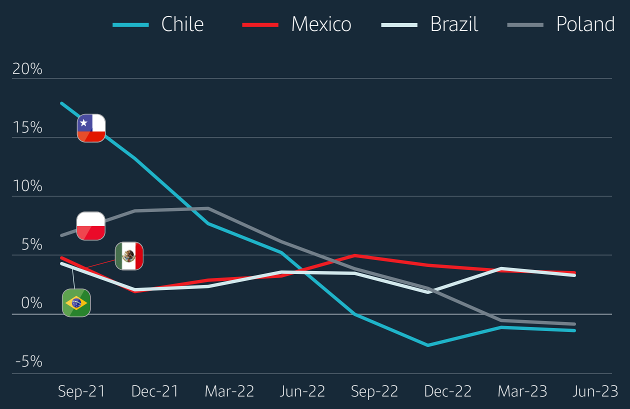
Real interest rates in the largest Latin American economies are at high levels

Slower economic dynamism of trading partners such as China and Germany may affect the growth of other emerging markets

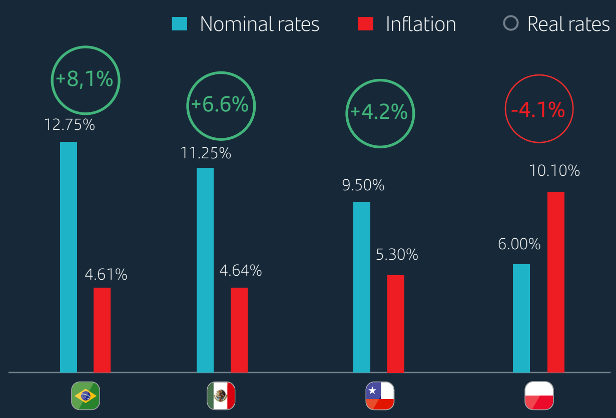
OTHER EMERGING ECONOMIES CENTRAL BANKS' FOCUS

Economic growth on a yearly basis has weakened and, in the case of Poland and Chile, has entered negative territory

Real rates (nominal rates - inflation) have reached very high levels in Latin America. In Poland they are negative due to monetary policy focus on growth



Source: Bloomberg. Data as of the end of August 2023.



Source: Bloomberg. Data as of the end of August 2023.

Early action to control inflation with rate hikes allows these emerging economies to move the focus to growth.

03 Time to lock-in high interest rates

The focus of concern will eventually shift, as a logical sequence, from inflation to economic growth. There are many nuances depending on the geographic area and the maturity of the rate adjustment process, although **globally we see greater downside risk in growth estimates than in those related with inflation and interest rates.** We therefore remain cautious when allocating resources between more conservative assets (very sensitive to interest rates) and riskier assets (more sensitive to growth). In contrast to the environment of recent years, where risk-free investment was very penalized by low interest rates, **the risk/return trade-off** now **favors precisely the lower-risk investment options.** Inverstors are no longer forced to increase risk in order to obtain positive real returns.

Our central scenario implies **adverse monetary and financial conditions for growth dynamics due to the delayed effect of the rate hike.** The debate centers on the type of growth adjustment: a soft-landing (low growth without pronounced recession and low unemployment), a hard-landing (recession with rising unemployment) or no-landing (no need for adjustment). The **scenario we see as most likely is that of a long-landing or prolonged period of below-normal growth** that would ensure the return of inflation to levels around the 2% target. Although the economic slowdown is occurring at different speeds around the globe, the mild economic adjustment hypothesis is supported by the fact that the US is showing unusual resilience in growth.

With the above, if we analyze the **investment alternatives for a client with a US$ profile,** we can see in the left chart that the current economic environment conditions a **certain degree of caution towards assets with greater sensitivity to the economic cycle.** The S&P 500 earnings growth projection seems to discount that the worst is behind and conveys a degree

The return on low-risk assets is no longer penalized by negative real returns

The risk of a slowdown has eased but has not disappeared, so we remain cautious on the risk budget

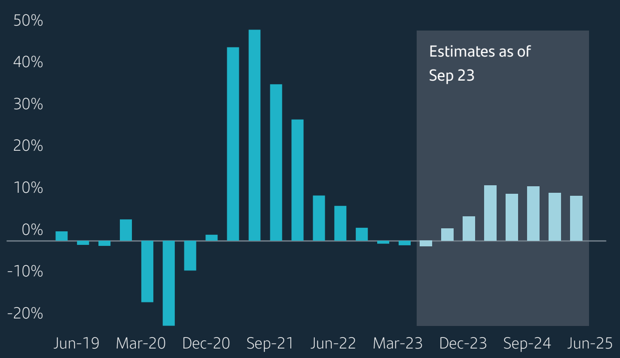
When it comes to asset allocation, we see greater risk in the expectations of growth-sensitive assets

ASSET ALLOCATION IN U.S. DOLLARS

Equities

Growth-sensitive assets

Earnings growth projections for the S&P 500 look optimistic in the context of weak economic growth

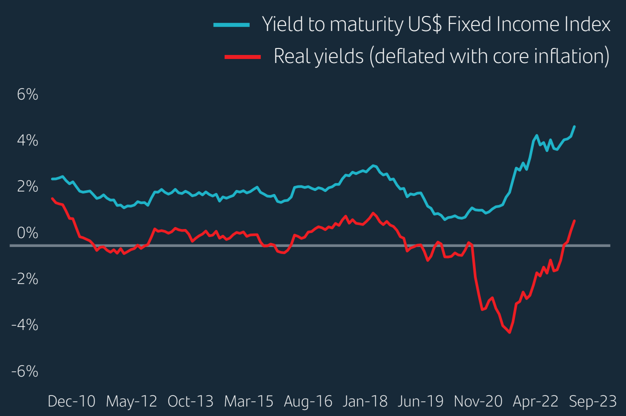


Source: Bloomberg. Data as of the end of August 2023.

Fixed income and high quality credit

Rate and inflation-sensitive assets

Fixed income is positioned as a low-risk and reasonable return investment alternative



Source: Bloomberg. US Agg Total Return Index. Data as of the end of September 2023.

The unusual resilience of the U.S. economy should be viewed with caution when investing. Preference for lower risk assets of optimism, but the market assumes a rapid recovery that may not occur given the low growth environment we see as more likely. The right chart shows how the yield to maturity of the fixed income bond index in US$ offers nominal yields (above 5%) not seen in the last fifteen years. In addition, the downward trend in inflation has also made it possible for these **fixed income asset** returns in real terms (net of inflation) to **return to positive territory and once again become an investment with an attractive risk-reward profile.**

The charts below illustrate a similar dilemma for an investor in **euros** in terms of asset allocation, with two particularities: **lower optimism in growth expectations and delayed recovery of positive real bond yields due to persistent inflation. The optimization of the risk-return trade-off for the investor in euro assets also favors fixed income investment due to the expected weakness in earnings growth** and the high probability that we have already seen the last rate hike by the ECB in this cycle.

The current environment is one of limited visibility regarding inflation and economic growth, but at the same time there are attractive alternatives available for investors to lock in high yields and build well-diversified portfolios. **The preference for fixed income in a global environment of low growth and high interest rates should not lead investors to deviate excessively from their strategic investment positioning.** Emerging and European stock markets may not be supported by a strong earnings growth environment, but they are trading at valuation levels below their historical averages. As to the United States, overvaluation and optimism are focused on a few companies with a common denominator: exposure to growth in artificial intelligence and leadership in global technological platforms. Elevated fixed income yields also help mitigate the impact of the volatility of stock market exposure in diversified portfolios. **We believe that there are very attractive opportunities to optimize the balance between return and risk in portfolios, diversifying in innovation themes, structured, alternative investments and investment styles.**

The change of bias in interest rates may be used to extend duration in bond positions

Excessive valuations are concentrated on a few companies that are also global technology leaders

Investors have access to a wide range of options for building diversified and balanced portfolios. in terms of risk-return

ASSET ALLOCATION IN EUROS

Equities

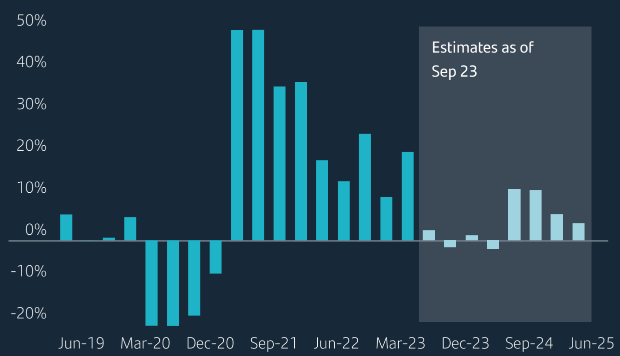
Growth-sensitive assets

The profile of expected earnings growth in the European stock market is less optimistic and so are growth expectations

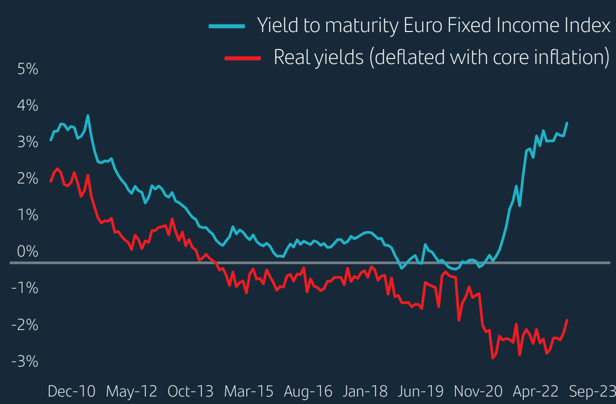
Fixed income and high quality credit

Rate and inflation-sensitive assets

Unlike in the U.S., real yields have yet to recover



Source: Bloomberg. Data as of the end of August 2023.



Source: Bloomberg. Euro Agg Total Return Index. Data as of the end of September 2023.

Preference for fixed income investment given reduced visibility in terms of growth versus inflation

Appendix: Tables.

Returns of main assets in last 10 years.

Source: Bloomberg.

Data as of 09/30/2023

	Returns							Annualized returns		
	2017	2018	2019	2020	2021	2022	YTD	3 years	5 years	10 years
Short-term (USD) (1)	**1.0%**	**1.9%**	**2.2%**	**0.4%**	**0.1%**	**1.7%**	**3.8%**	**1.9%**	**1.7%**	**1.2%**
Short-term (EUR) (2)	**-0.4%**	**-0.4%**	**-0.4%**	**-0.5%**	**-0.5%**	**0.1%**	**2.3%**	**0.6%**	**0.2%**	**0.0%**
Global Fixed Income (3)	**7.4%**	**-1.2%**	**6.8%**	**9.2%**	**-4.7%**	**-16.2%**	**-2.2%**	**-6.9%**	**-1.6%**	**-0.4%**
Fixed Income (USD) (4)	**3.5%**	**0.0%**	**8.7%**	**7.5%**	**-1.5%**	**-13.0%**	**-1.2%**	**-5.3%**	**0.1%**	**1.1%**
Sovereign (USD) (5)	1.1%	1.4%	5.2%	5.8%	-1.7%	-7.8%	0.3%	-3.2%	0.7%	0.8%
Corporates (USD) (6)	6.4%	-2.5%	14.5%	9.9%	-1.0%	-15.8%	0.0%	-5.0%	0.9%	2.2%
High Yield (USD) (7)	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	5.9%	1.9%	3.0%	4.2%
Fixed Income (EUR) (8)	**0.7%**	**0.4%**	**6.0%**	**4.0%**	**-2.9%**	**-17.2%**	**0.6%**	**-6.5%**	**-2.1%**	**0.6%**
Sovereign (EUR) (9)	0.2%	1.0%	6.8%	5.0%	-3.5%	-18.5%	-0.1%	-7.4%	-2.2%	0.7%
Corporates (EUR) (10)	2.4%	-1.3%	6.2%	2.8%	-1.0%	-13.6%	2.5%	-3.7%	-1.0%	1.0%
High Yield (EUR) (11)	6.2%	-3.6%	12.3%	1.8%	4.2%	-11.1%	6.8%	1.4%	1.7%	3.5%
Emerging Global Fixed Income (USD) (12)	**8.2%**	**-2.5%**	**13.1%**	**6.5%**	**-1.7%**	**-15.3%**	**0.9%**	**-4.2%**	**0.2%**	**2.3%**
LatAm (USD) (13)	10.6%	-4.9%	12.3%	4.5%	-2.5%	-13.2%	0.9%	-2.9%	-0.2%	2.0%
MSCI World (USD)	**20.1%**	**-10.4%**	**25.2%**	**14.1%**	**20.1%**	**-19.5%**	**9.6%**	**6.5%**	**5.5%**	**6.3%**
S&P 500 (USD)	19.4%	-6.2%	28.9%	16.3%	26.9%	-19.4%	11.7%	8.7%	8.0%	9.7%
MSCI Europe (EUR)	7.3%	-13.1%	22.2%	-5.4%	22.4%	-11.9%	6.2%	8.1%	3.2%	3.6%
MSCI Emerging Markets (USD)	34.3%	-16.6%	15.4%	15.8%	-4.6%	-22.4%	-0.4%	-3.8%	-1.9%	-0.5%
MSCI Asia Pac. ex-Japan (USD)	37.0%	-13.9%	19.2%	22.4%	-2.9%	-17.5%	-0.4%	-1.4%	1.2%	3.3%
MSCI Latin America (USD)	20.8%	-9.3%	13.7%	-16.0%	-13.1%	-0.1%	8.1%	8.5%	-2.2%	-3.6%

(1) Barclays Benchmark Overnight USD Cash Index; 2) Barclays Benchmark 3mEUR Cash Index; 3) Bloomberg Barclays Global Aggregate Total Return Index Value Unhedged USD; 4) Bloomberg Barclays US Agg Total Return Value Unhedged USD; 5) Bloomberg Barclays US Intermediate Treasury TR Index Value Unhedged SD; 6) Bloomberg Barclays US Corporate Total Return Value Unhedged USD; 7) Bloomberg Barclays US Corporate High Yield Total Return Value Unhedged USD; 8) Bloomberg Barclays EuroAgg Total Return Index Value Unhedged EUR; 9) Bloomberg Barclays EuroAgg Treasury Total Return Index Value Unhedged EUR; 10) Bloomberg Barclays Euro Aggregate Corporate Total Return Index Value Unhedged EUR; 11) Bloomberg Barclays Pan-European Aggregate High Yield TR Index Value Unhedged EUR; 12) Bloomberg Barclays EM Aggregate Total Return Value Unhedged USD; 13) Bloomberg Barclays Emerging Markets LatAm Total Return Value Unhedged USD

Equities indices.

Source: Bloomberg.

Data as of 09/30/2023

			Change	Last 10 years			Return			Annualized returns			
		Last Price	12 months	Low	Range	High	2021	2022	YtD	1 year	3 years	5 years	10 years
US	S&P 500	4,288		1,757		4,766	26.9%	-19.4%	11.7%	19.6%	8.7%	8.0%	9.8%
	DOW JONES INDUS.	33,508		15,546		36,338	18.7%	-8.8%	1.1%	16.6%	6.9%	4.8%	8.3%
	NASDAQ	13,219		3,920		15,645	21.4%	-33.1%	26.3%	25.0%	6.0%	10.4%	13.4%
Europe	Stoxx 50	3,920		2,701		4,054	22.8%	-4.4%	7.3%	17.6%	10.3%	5.0%	3.5%
	Eurozone (EuroStoxx)	4,175		2,787		4,471	21.0%	-11.7%	10.0%	25.8%	9.1%	4.2%	3.7%
	Spain (IBEX 35)	9,428		6,452		11,521	7.9%	-5.6%	14.6%	28.0%	12.0%	0.1%	0.3%
	France (CAC 40)	7,135		4,166		7,498	28.9%	-9.5%	10.2%	23.8%	13.9%	5.4%	5.6%
	Germany (DAX)	15,387		9,034		16,447	15.8%	-12.3%	10.5%	27.0%	6.3%	4.7%	6.0%
	United Kingdom (FTSE 100)	7,608		5,577		7,876	14.3%	0.9%	2.1%	10.4%	8.9%	0.3%	1.6%
	Italy (MIB)	28,243		16,198		29,645	23.0%	-13.3%	19.1%	36.8%	14.0%	6.4%	4.9%
	Portugal (PSI 20)	6,090		3,945		7,608	13.7%	2.8%	6.4%	14.9%	14.7%	2.6%	0.2%
	Switzerland (SMI)	10,964		7,808		12,876	20.3%	-16.7%	2.2%	6.8%	2.3%	3.8%	3.2%
LatAm	Mexico (MEXBOL)	50,875		34,555		56,537	20.9%	-9.0%	5.0%	14.0%	11.1%	0.5%	2.4%
	Brazil (IBOVESPA)	116,565		40,406		126,802	-11.9%	4.7%	6.2%	5.9%	7.6%	8.0%	8.3%
	Argentina (MERVAL)	562,569		5,165		653,603	63.0%	142.0%	178.4%	304.4%	137.1%	75.8%	61.1%
	Chile (IPSA)	5,833		3,439		6,394	3.1%	22.1%	10.9%	14.1%	17.9%	2.0%	4.3%
Asia	Japan (NIKKEI)	31,858		14,304		33,189	4.9%	-9.4%	22.1%	22.8%	10.6%	5.7%	8.2%
	Hong Kong (HANG SENG)	17,810		14,687		32,887	-14.1%	-15.5%	-10.0%	3.4%	-8.5%	-8.5%	-2.5%
	South Korea (KOSPI)	2,465		1,755		3,297	3.6%	-24.9%	10.2%	14.4%	1.9%	1.0%	2.1%
	India (Sensex)	65,828		20,514		66,528	22.0%	4.4%	8.2%	14.6%	20.1%	12.7%	13.0%
	China (CSI)	3,690		2,146		5,352	-5.2%	-21.6%	-4.7%	-3.0%	-7.0%	1.4%	4.4%
World	MSCI WORLD	2,853		1,547		3,232	20.1%	-19.5%	9.6%	20.0%	6.5%	5.5%	6.3%

Equities by factor and sector.

Source: Bloomberg.

Data as of 09/30/2023			Change	Last 10 years			Return			Annualized returns				Ratios	
		Last Price	12 months	Low	Range	High	2021	2022	YtD	1 year	3 years	5 years	10 years	PE Ratio	Divi-dend Yield
	MSCI World	2,853		1,547		3,232	20.1%	-19.5%	9.6%	20.0%	6.5%	5.5%	6.3%	17.42	2.10
Factor	MSCI World High Dividend Yield	1,334		978		1,447	12.6%	-7.4%	-0.4%	13.4%	5.0%	1.8%	2.6%	13.15	3.73
	MSCI World Momentum	3,207		1,336		3,978	14.6%	-17.8%	-0.3%	12.6%	1.5%	5.4%	9.5%	18.38	1.71
	MSCI World Quality	3,716		1,314		4,058	25.7%	-22.2%	17.7%	29.7%	8.5%	10.6%	11.4%	22.08	1.64
	MSCI World Minimum Volatility	4,296		2,202		4,730	14.3%	-9.8%	0.7%	10.7%	3.3%	4.0%	7.0%	17.01	2.66
	MSCI World Value	11,279		6,429		11,937	21.9%	-6.5%	2.0%	17.1%	10.5%	4.4%	5.8%	12.85	3.37
	MSCI World Small Cap	582		318		705	15.8%	-18.8%	2.9%	14.0%	6.3%	3.1%	6.3%	17.44	2.33
	MSCI World Growth	8,294		3,189		9,693	21.2%	-29.2%	20.9%	26.6%	5.4%	9.4%	10.4%	26.11	0.92
Sector	Energy	479		164		479	40.1%	46.0%	6.9%	27.8%	37.1%	4.1%	2.4%	10.21	4.05
	Materials	522		229		590	16.3%	-10.7%	1.9%	17.3%	6.3%	5.7%	5.4%	15.10	3.19
	Industrials	479		238		520	16.6%	-13.2%	8.2%	17.9%	5.1%	3.9%	6.5%	18.27	2.04
	Consumer Discretionary	481		210		595	17.9%	-33.4%	21.5%	-2.4%	-2.9%	3.0%	6.9%	19.87	1.41
	Consumer Staples	424		241		470	13.1%	-6.1%	-2.8%	11.7%	4.3%	5.5%	6.2%	18.65	2.87
	Health Care	480		205		518	19.8%	-5.4%	-2.0%	13.1%	6.9%	7.5%	9.5%	18.98	1.82
	Financials	237		125		263	27.9%	-10.2%	2.6%	15.9%	12.7%	3.8%	5.6%	11.40	3.08
	Information Technology	616		126		682	29.8%	-30.8%	30.4%	5.1%	0.7%	9.4%	14.6%	28.48	0.88
	Real Estate	363		269		517	28.7%	-25.1%	-6.2%	5.6%	1.6%	1.4%	3.5%	23.97	3.98
	Communica-tion Services	169		106		220	14.4%	-36.9%	31.4%	0.4%	-5.8%	1.0%	2.3%	18.54	1.24
	Utilities	283		175		331	9.8%	-4.7%	-9.3%	11.0%	4.7%	6.2%	6.1%	13.84	4.20

Government Bonds.

Source: Bloomberg.

Data as of 09/30/2023

		10 years											
		Interest rate			Change	Last 10 years							Yield curve
	Rating (S&P)	C. Bank*	2 years	10 years	12 months	Low	Range	High	Month	YtD	YoY	10-2 years	
Developed													
U.S.	AA+	5.50%	5.04%	4.57%		0.53%		4.67%	0	306	52	-0.47	
Germany	AAA	4.00%	3.20%	2.84%		-0.70%		2.90%	0	302	70	-0.36	
France	AA	4.00%	3.51%	3.40%		-0.40%		3.46%	0	320	72	-0.11	
Italy	BBB	4.00%	4.02%	4.78%		0.54%		4.80%	0	361	48	0.77	
Spain	A	4.00%	3.61%	3.93%		0.05%		4.15%	0	337	71	0.33	
United Kingdom	AA	5.25%	4.90%	4.44%		0.10%		4.52%	0	347	92	-0.47	
Greece	BB+	4.00%	n.d.	4.36%		0.61%		15.42%	0	302	-26	n.d.	
Portugal	BBB+	4.00%	3.24%	3.60%		0.03%		6.13%	0	314	46	0.36	
Switzerland	AAA	1.75%	1.20%	1.06%		-1.05%		1.58%	0	121	-6	-0.14	
Japan	A+	-0.10%	0.05%	0.77%		-0.27%		0.77%	0	69	52	0.72	
Emerging Markets													
Brazil	BB-	12.75%	10.64%	11.65%		6.49%		16.51%	0	81	-22	1.01	
Mexico	BBB	11.25%	10.64%	9.88%		5.24%		9.94%	0	231	3	-0.76	
Chile	A	9.50%	6.74%	6.34%		2.19%		6.79%	n.d.	n.d.	n.d.	n.d.	
Argentina	CCC-	118.00%	n.d.	n.d.		0.00%		0.00%	n.d.	n.d.	n.d.	n.d.	
Colombia	BB+	13.25%	10.52%	11.78%		5.39%		13.79%	0	359	n.d.	1.26	
Turkey	B	30.00%	27.81%	n.d.		6.98%		25.52%	n.d.	n.d.	n.d.	n.d.	
Poland	A-	6.00%	5.02%	5.91%		1.16%		8.37%	0	224	-245	0.90	
China	A+	2.46%	2.22%	2.67%		2.51%		4.58%	0	-10	3	0.45	
India	BBB-	6.50%	7.14%	7.21%		5.84%		8.86%	0	76	-23	0.07	

*Central Bank lending facility, except in Eurozone countries, where the marginal deposit facility is used.

Currencies.

Source: Bloomberg.

Data as of 09/30/2023

	Last Price	Change 12 months	Last 10 years Low	Range	High	Return YtD	Annualized returns 1 year	3 years	5 years	10 years
EUR/USD	1.0573		0.98		1.39	-1.2%	7.9%	-3.4%	-1.8%	-2.4%
EUR/GBP	0.87		0.70		0.92	2.2%	-1.2%	-1.7%	-0.5%	0.4%
EUR/CHF	0.97		0.96		1.23	2.3%	0.0%	3.7%	3.3%	2.4%
EUR/JPY	158		114		158	12.5%	-10.2%	-7.7%	-3.5%	-1.7%
EUR/PLN	4.62		4.04		4.86	1.3%	5.0%	-0.7%	-1.5%	-0.9%
GBP/USD	1.22		1.12		1.71	1.0%	9.2%	-1.8%	-1.3%	-2.8%
USD/CHF	0.92		0.87		1.03	1.0%	7.8%	0.2%	1.4%	-0.1%
USD/JPY	149		98		149	-12.2%	-3.1%	-10.9%	-5.3%	-4.1%
USD/MXN	17.42		12.86		24.17	11.9%	15.6%	8.8%	1.4%	-2.8%
USD/ARS	350.00		5.91		350.01	-49.4%	-57.9%	-39.9%	-34.8%	-33.6%
USD/CLP	892		507		969	-4.5%	8.7%	-4.1%	-5.9%	-5.5%
USD/BRL	5.03		2.21		5.75	4.9%	7.6%	3.8%	-4.3%	-7.9%
USD/COP	4.068		1.877		4.940	19.3%	13.3%	-1.5%	-6.1%	-7.3%
USD/CNY	7.30		6.05		7.31	-5.5%	-2.5%	-2.3%	-1.2%	-1.7%
EUR/SEK	11.55		8.81		11.88	-3.4%	-5.9%	-3.0%	-2.2%	-2.8%
EUR/NOK	11.32		8.07		11.85	-7.2%	-5.7%	-0.8%	-3.5%	-3.2%

Commodities.

Source: Bloomberg.

Data as of 09/30/2023

	Last Price	Change 12 months	Last 10 years Low	Range	High	Return 2021	2022	YTD	Annualized returns 3 years	5 years	10 years
Crude Oil (Brent)	96.3		18		124	49.2%	5.5%	18.4%	32.7%	5.6%	-3.2%
Crude Oil (W. Texas)	90.8		19		115	58.7%	4.2%	13.1%	32.2%	7.4%	-3.9%
Gold	1,848.1		1.060		1,999	-3.5%	-0.1%	1.2%	-0.8%	15.8%	11.7%
Copper	8,270.5		4.561		10,375	25.2%	-13.9%	-1.2%	7.9%	9.7%	4.2%
CRB Index	284.5		117		317	38.5%	19.5%	2.4%	24.7%	13.4%	-0.1%
Natural Gas (USA)	2.9		2		6	34.1%	36.0%	-34.7%	5.9%	3.1%	-21.4%
Natural Gas (Europe)	41.9		15		176	119.7%	144.3%	-49.9%	38.1%	29.6%	n.d.

"Periodic table" of asset returns.

Asset Class	Reference Index	Calendar Year Returns										
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023*
US Equities	S&P 500 TR	**54.4%** Japan Equities	**71.3%** Eurozone Government	**12.1%** Japan Equities	**14.8%** Global High Yield	**37.3%** Emerging Market Equities	**3.3%** Spain Government	**0.3%** US Equities	**18.4%** US Equities	**38.5%** Commodities	**22.0%** Commodities	**25.7%** Japan Equities
Japan Equities	Topix TR	**32.4%** US Equities	**61.3%** Spain Government	**6.4%** Europe Equities	**12.0%** US Equities	**22.4%** Global Equities	**0.1%** Eurozone Government	**0.3%** Europe Equities	**18.3%** Emerging Market Equities	**28.7%** US Equities	**0.1%** Liquidity	**18.3%** Spain Equities
Spain Equities	Ibex35 TR	**27.8%** Spain Equities	**13.7%** US Equities	**1.4%** US Equities	**11.2%** Emerging Market Equities	**22.2%** Japan Equities	**-0.4%** Liquidity	**0.3%** Global Equities	**0.2%** Global Equities	**23.2%** Europe Equities	**-2.0%** Spain Equities	**13.1%** US Equities
Emerging Markets Equities	MSCI EM TR	**26.7%** Global Equities	**10.3%** Japan Equities	**-0.1%** Liquidity	**9.7%** Commodities	**21.8%** US Equities	**-1.2%** Europe IG	**0.2%** Emerging Market Equities	**8.0%** Global High Yield	**21.8%** Global Equities	**-2.5%** Japan Equities	**12.8%** Europe Equities
Europe Equities	Eurostoxx50 TR	**21.5%** Europe Equities	**8.6%** Spain Equities	**-0.5%** Europe IG	**7.5%** Global Equities	**11.3%** Spain Equities	**-3.3%** Global High Yield	**0.2%** Japan Equities	**0.1%** Japan Equities	**12.7%** Japan Equities	**-9.5%** Europe Equities	**11.1%** Global Equities
Commodities	Commodity RB TR	**21.1%** Spain Government	**8.3%** Europe IG	**-0.8%** Global Equities	**6.6%** Eurozone Government	**10.2%** Global High Yield	**-4.4%** US Equities	**0.2%** Spain Equities	**6.4%** Eurozone Government	**10.8%** Spain Equities	**-13.2%** Global High Yield	**6.4%** Commodities
Global Equities	MSCI World TR	**8.0%** Global High Yield	**4.9%** Global Equities	**-3.6%** Spain Equities	**5.7%** Spain Government	**9.2%** Europe Equities	**-8.7%** Global Equities	**0.1%** Global High Yield	**4.4%** Spain Government	**1.4%** Global High Yield	**-14.4%** Europe IG	**5.4%** Global High Yield
Europe IG	ERL0 TR	**2.4%** Europe IG	**4.0%** Europe Equities	**-4.2%** Global High Yield	**4.8%** Europe IG	**2.5%** Europe IG	**-10.7%** Commodities	**0.1%** Commodities	**2.7%** Europe IG	**-0.5%** Liquidity	**-17.7%** Spain Government	**2.3%** Liquidity
Liquidity EUR	Eonia TR	**0.1%** Liquidity	**0.1%** Liquidity	**-10.5%** Spain Government	**3.7%** Europe Equities	**1.7%** Spain Government	**-11.5%** Spain Equities	**0.1%** Spain Government	**-0.5%** Liquidity	**-1.1%** Europe IG	**-17.8%** Eurozone Government	**2.3%** Europe IG
Global High Yield	HW00 TR	**-2.6%** Emerging Market Equities	**-0.1%** Global High Yield	**-16.3%** Eurozone Government	**2.6%** Spain Equities	**1.7%** Commodities	**-12.0%** Europe Equities	**0.1%** Eurozone Government	**-3.2%** Europe Equities	**-2.5%** Emerging Market Equities	**-18.1%** US Equities	**1.80%** Emerging Market Equities
Spain Government	SPAIN 10 YR	**-5.0%** Commodities	**-2.2%** Emerging Market Equities	**-14.9%** Emerging Market Equities	**0.6%** Japan Equities	**-0.2%** Eurozone Government	**-14.6%** Emerging Market Equities	**0.1%** Europe IG	**-0.1%** Commodities	**-2.7%** Eurozone Government	**-18.1%** Global Equities	**-0.2%** Spain Government
Eurozone Government	GERMANY 10 YR	**-46.6%** Eurozone Government	**-17.9%** Commodities	**-23.4%** Commodities	**-0.3%** Liquidity	**-0.4%** Liquidity	**-16.0%** Japan Equities	**0.0%** Liquidity	**-0.1%** Spain Equities	**-3.1%** Spain Government	**-20.09%** Emerging Market Equities	**-0.8%** Eurozone Government

\+ Returns -

*Data as of 09/30/2023
*Total return indices track both the capital gains as well as any cash distributions, such as dividends or interest, attributed to the components of the index.

Global team.
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Private Banking

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