Santander
Private Banking

The great interest rate reset

Market Outlook 2023

Summary

Adjusting portfolios after the great interest rate reset

Over the past decades we have enjoyed an environment of price stability and low interest rates. This reality has now been structurally shattered by inflation figures above 10%. As central banks have been forced to raise interest rates aggressively to control the inflationary upswing, the full force a negative effect on growth is yet to be seen over the coming quarters. Though this **complex backdrop calls for an initial cautious investment strategy,** we believe that the **foundations for a market recovery are being laid in 2023 in two distinct stages.**

Inflation is reaching a turning point in some of its components and in some geographies. This milestone is the starting point for **the first stage of recovery: monetary stability.** Confirmation that **peak inflation has been reached may lead to a pause in interest rate hikes, which would set in motion the recovery process in fixed-income markets.** Investors are envisaging the end of interest rate hikes on the horizon and are beginning to **appreciate the silver lining of higher risk-free rates.** Asset valuations have been dramatically impacted by these monetary policy decisions, but these hikes have allowed markets to turn the page on the long period of artificially ultralow interest rates.

The second stage of the recovery is expected to happen in the second half of 2023, once central banks signal a change in monetary policy and the market will probably experience volatility between the interest rate pause and the pivot. These market pullbacks could thus be used to increase the weight in cyclical assets (equities and high yield credit) which are more sensitive to the economic recovery. History teaches us that markets are forward looking and anticipate events, so **we recommend paying close attention to the recovery signals,** as monetary policy pivots and leading activity indicators bottom out.

The transition from one stage of recovery to the other won't happen without pitfalls. In this report, we detail some of the risks that could delay recovery and that should be monitored. However, **this focus in the short-term could distract us and neglect the importance of having exposure to long-term growth opportunities.** The world is facing changes of enormous strategic significance that are triggering opportunities in key areas of innovation (ESG in general, energy transition, biomedicine, artificial intelligence, sustainable agriculture, etc.). Likewise, alternative investment strategies -with an emphasis in private markets- maintain their long-term appeal as portfolio diversifiers. More than ever, **it is paramount to balance a short- and long-term vision when managing investments.** Our advisors will be available to suggest tailor-made investment opportunities as rates reset and markets reprice.

Thank you once again for trusting us with your investment, financing, and real estate planning needs.

Víctor Matarranz
Global Head
Santander Wealth Management & Insurance Division

Key Messages 2023

The great interest rate reset

A new policy regime after the shock

The sharp rebound in inflation is not only due to the Russian invasion of Ukraine but is also the result of major structural changes in the economy (increased tightness in the labor market, energy transition, etc.) and in geopolitics (pause in globalization).

The current process of recalibration in monetary policies is likely to lead us to a new interest rate environment. The future equilibrium level of interest rates is likely to be higher than in the previous decade and will rely more on market dynamics than on central bank interventions.

Markets will adjust to the new rate environment

Our base case envisages an adjustment process that would already be reaching its final phase from a monetary perspective. We believe that we are close to terminal policy rates and that the level of monetary tightening reflected in the curves will be enough to change the course of inflation. This phase of monetary stabilization will probably last most of 2023 as we do not expect a rate cut until there are clear signs that inflation is under control. The good news will come first to defensive assets (investment grade fixed income) and then to cyclical o (equities and high yield).

The road to monetary stability

First signs of inflation peaking during Q1´23

The message from central banks is clear: the priority in the current environment is to sacrifice economic growth on the altar of price stability.

When analyzing inflation dynamics and differentiating between its different components, we can observe two positive developments: decreasing tensions in prices of goods and anchored inflation expectations. Although we expect positive news on inflation readings soon, the battle for monetary stability is likely to be protracted. The pause in rate hikes seems close, but the pivot towards monetary easing will take longer.

Value returns to fixed income markets

The resetting of monetary policy has been painful, but looking forward it provides bond investors with two positive benefits: increased diversification for portfolio construction and higher yields to maturity. The monetary environment is once again favorable for fixed income investment after a prolonged period of artificially low rates. Market discipline has returned to fixed income valuation and yields are once again making sense as central banks' buying action has been withdrawn. Yield has returned to fixed income and bonds are back in the game.

Vigilant on the cyclical pivot

Recessionary risks, but crisis unlikely

Monetary tightening, the higher cost of credit, the cost of living crisis and high uncertainty will undoubtedly dent growth in 2023. Economists' consensus already assigns a high probability of GDP contraction in several countries (mainly in Europe). In contrast, the private sector is starting from high levels of savings and the banking sector enjoys solid solvency ratios.

We expect a complex environment for growth in 2023, but we do not detect factors that could trigger a crisis like that of 2000 or 2008.

Risk premia could still widen during downturn

Yields across asset classes have increased as investors have priced in a higher likelihood of a severe economic slowdown. In this report we analyze the adjustment in risk premia of cyclical assets (those sensitive to the economic cycle like equities) in the context of previous episodes of economic contractions.

We maintain a cautious tilt in our asset allocation, as risky assets could experience headwinds and further volatility during the coming economic slowdown. However, investors need to be on the lookout for the cyclical pivot as buying opportunities hardly occur at times of optimism.

Investment strategies after the great rate reset

Capturing the value of the yield curve in the short-term

Central banks – with the Fed and emerging markets leading the way – have accelerated the process of rate hikes and markets glimpse the moment of reaching terminal rates. There is value in yields at the short end of the curve and there are **investment solutions (funds and structured products) that allow us to anticipate the remaining rate hikes discounted by the market.**
Rate increases have been the villain of the markets in 2022 but going forward they provide a bedrock of safe yield. **Conservative investors are celebrating the fact that liquidity is no longer penalized.**

Focus on safe carry in exposure to corporate bonds

The deterioration of global growth expectations and the high probability of recession (more or less technical) demands a cautious approach to **credit risk management.** However, the market has already discounted a high degree of pessimism and **credit spreads are starting to offset the expected worsening of financial conditions.**
We consider the current levels of corporate bond yields to be attractive in the high credit quality tranches. **The risk of holding bonds of corporates with strong balance sheets is low, and well remunerated. Credit risk premia are at levels seen only in deep recessions and systemic events.**

More constructive on interest rate risk

The process of repricing the end of the ultralow rate environment is nearly over. **Inflation surprises are likely to turn positive in the coming quarters and that could provide an opportunity to increase duration in fixed income portfolios.** We believe most of the core asset repricing has already occurred. The extraordinary rebound in yields on the long end of the curves again endows long duration bonds with the ability to mitigate negative shocks to equity positions. **The return of fixed income's ability to diversify is, for investors, the upside of this great interest rate adjustment.**

Fed pivot to signal a more pro-cyclical tilt in portfolios

Consensus corporate earnings forecasts still seem too optimistic against the backdrop of sharply decelerating economies. We remain cautious on asset allocation to equities **pending further progress on earnings revisions.** We estimate lower risk of earnings downgrades in U.S. equities and in sectors such as consumer staples, healthcare and energy. However, **valuations are already attractive relative to historical averages.** We will be paying close attention to any change in the Fed's bias to position in riskier areas of fixed income (emerging markets and high yield).

Maintain exposure to real assets as inflation is here to stay

Although we expect a turning point in price tensions, we believe that going forward there are **structural changes that will lead to higher level of inflation than in recent decades.** Maintaining our exposure to real assets (equities and real estate) in order to generate inflation-adjusted returns in the medium term (dividends and income). We see opportunities in sectors and companies with the capacity to maintain resilient margins in the cyclical adjustment phase. The sharp adjustment of valuations improves the future return outlook in private markets as managers have record amount of dry powder in the funds.

Investing in health, energy and sustainability innovation

Innovation themes have suffered to a greater degree from the adjustment in equity valuations as they are more sensitive to the upturn in interest rates. In a context of greater stability in rates, the markets will once again focus on the high-growth potential of innovative companies.
We believe the greatest opportunities lie in the fields of biotechnology, energy transition, cybersecurity, foodtech, robotics and sustainability. We particularly highlight the growth potential in renewable energies given the global priority of securing energy supply in a sustainable manner.

In depth:

01 The great interest rate reset

A new policy regime after the shock

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2022: A shocking year for investors

Until the end of 2021, macroeconomic volatility seemed a thing of the past with persistently low inflation and central banks cushioning market shocks with massive injections of liquidity. Fiscal discipline was sorely lacking as huge deficits were designed to mitigate the deflationary effects of the pandemic and the financial crisis.

2022 has been a sudden wake-up call. Economic agents and investors have had to adapt to a new reality as the multiple ramifications of Russian invasion of Ukraine on the real and financial economy have become apparent. It is difficult to list all the aspects in which the landscape has changed radically: double-digit inflation, concerns of energy shortages, food emergencies, geopolitical tensions, radical turns in monetary policy or iliquidity events.

In the chart below we point out some of the most important events that have affected global fixed income and equity markets in 2022. The cumulative impact of these negative surprises has resulted in widespread declines of close to 20% for the major stock and bond indices. The most significant aspect of this market behavior lies not in the magnitude of the adjustment but in its widespread effect on both conservative and more aggressive portfolios. **The traditional diversification between bonds and equities has failed to work because the upturn in inflation has hit all assets indiscriminately.**

The year 2022 will be remembered as the year in which interest rates adjusted to a new normal where inflation was once again in the spotlight. This is the reason why we have

The market has suffered the effects of a perfect storm with profound stagflationary effects

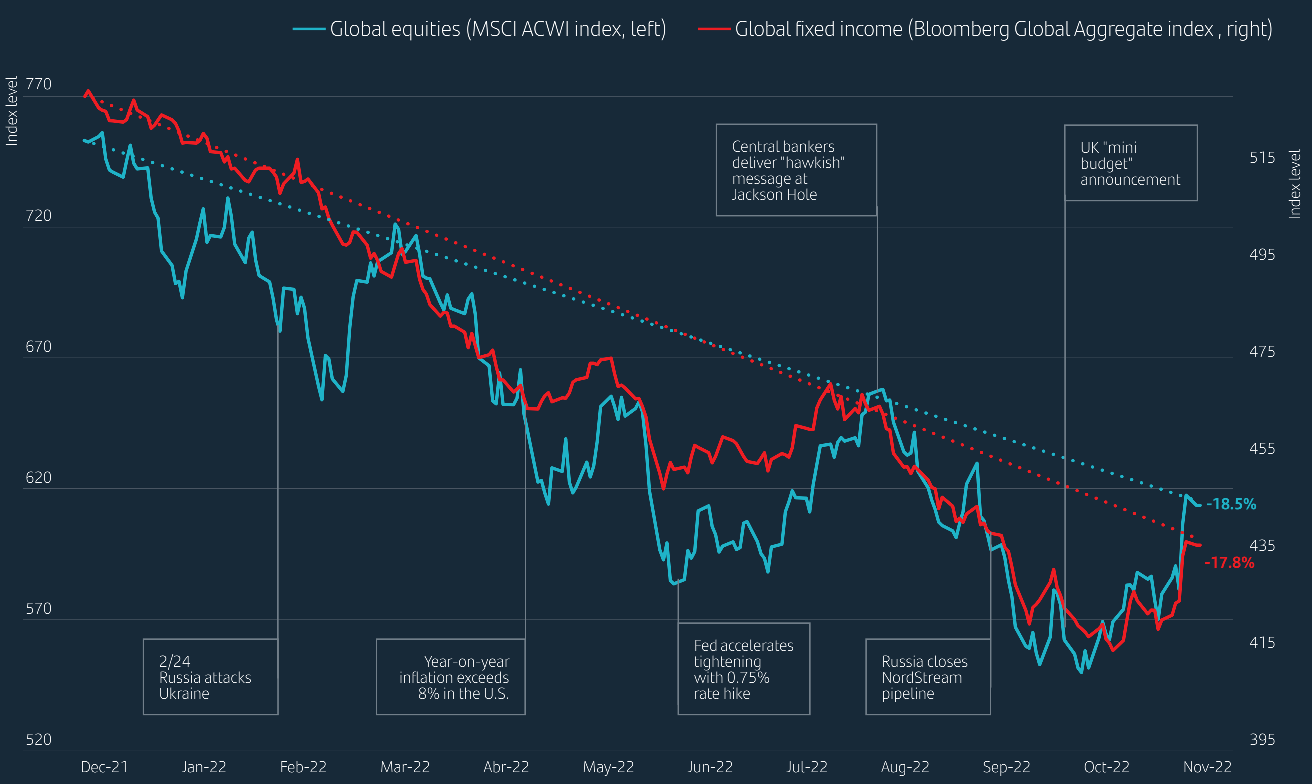
Negative inflation and slowdown surprises have hit bonds and equities alike

2022 will be remembered as the year of interest rate adjustment

2022: The Russian invasion of Ukraine triggered a perfect storm for markets

Source: Bloomberg and in-house. Data as of 11/15/2022

Interest rate and inflation shocks impact asset valuations across the board



titled the report "The Great Rate Reset" as it is the main cause of this dramatic market reversal. After a long period of time in which macroeconomic volatility was numbed by the actions of central banks, investors are awakening to a new normality in which they will have to pay close attention to macro imbalances.

The charts below **compares –with a historical perspective– 2022 returns in the fixed income and equity markets.** We use the U.S. markets as a benchmark as they allow us to trace data back to the1970s. Looking at the histogram of calendar year returns of the US stock market (S&P 500) we can see the magnitude of the adjustment. At the same time, however, we observe that there are precedents in previous crises such as those experienced in 1974, the dot-com bubble in 2001 and the 2008 financial crisis. If we do the same exercise of historical comparison with the returns of fixed income indices, we find an unprecedented market behavior. **A contraction of more than 10% in global fixed income markets marks a 50-year record.** The large interest rate reset has had an extraordinarily negative impact on bond investors for two reasons: the magnitude of the tightening in monetary policies, and the ultra-low starting point in yields. The average bond market yield in the Eurozone twelve months ago was below 0.5% (1% additional for U.S. bonds) and at the same time the average duration of bonds issued was close to historical highs. **The inflation shock and the consequent interest rate adjustment has occurred in the worst possible context for bond investors** as it was triggered at a time of maximum sensitivity to rate movements (long duration) and minimum capacity to absorb losses (ultra-low yield levels).

The most complex market environment for porfolio managers and advisors is the one in which the two fundamental pillars of traditional investment portfolios (bonds and equities)

In 2022, central banks hiked at the fastest pace in decades. 2023 is when most of the economic effect will be felt

Defining this year as terrible for bonds is far from overstating

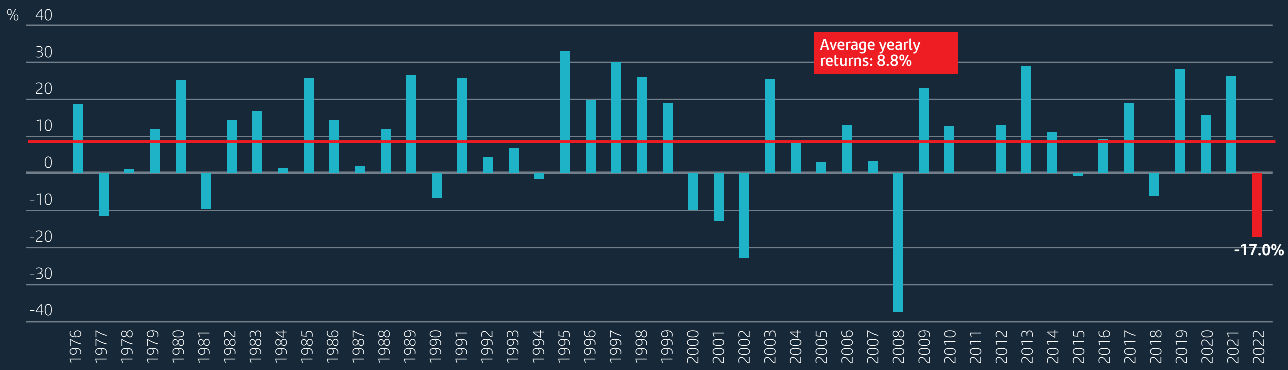
The monetary shock has occurred at the worst possible time for fixed income, with minimal initial yield and very long duration (rate sensitivity)

Negative returns in 2022 for both bonds and equities

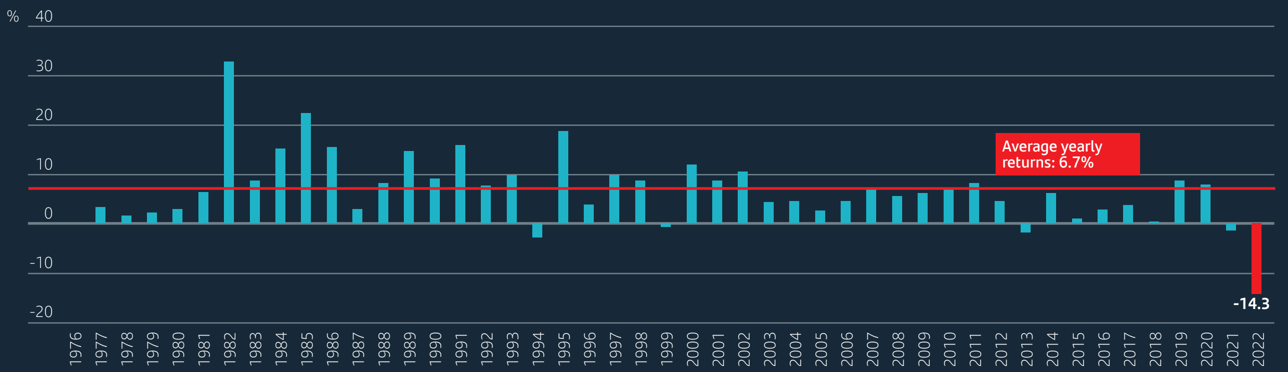
Source: Bloombeg. Data as of 11/15/2022

Bond market declines are the steepest since 1970

Annual equity returns in the United States (S&P 500)



Annual U.S. fixed income returns (Bloomberg US Agg USD Index)



experience simultaneous corrections. The traditional inverse correlation between bonds and equities is the cornerstone of portfolio construction but has been disrupted by the surge in inflation.

Another driver of complexity has been the high sensitivity to interest rate movements as a result of the expansionary monetary policies of the last decade. In particular, it is worth mentioning the change in the reaction function of fixed income when interest rates are at near-zero. At those levels, downward movements are very limited while the scope for interest rate increases is higher. **The volatility and liquidity of bond markets is being profoundly altered by the reversal of central banks' asset purchase policies.** Ultra accommodative monetary policies (with quantitative easing as the flagship) had a temporary positive effect on economies and markets, but its withdrawal is having an equally significant and negative impact.

The chart below shows the difficulty of managing the impact of a stagflationary shock such as the current one with asset allocation decisions in portfolios. **The only two assets that have experienced positive returns in this context of rising inflation and deteriorating growth expectations have been the US dollar and commodities.** In addition to the aforementioned losses in equities and bonds, there have been significant drawdowns in listed real estate and inflation-linked bonds due to their high sensitivity to interest rates . The surprising lack of protection from precious metals also has not helped. Once the initial shock has passed, assets such as have historically shown a capacity to generate positive returns in inflationary environments.

A positive correlation between bonds and stocks increases volatility and risk for balanced portfolios

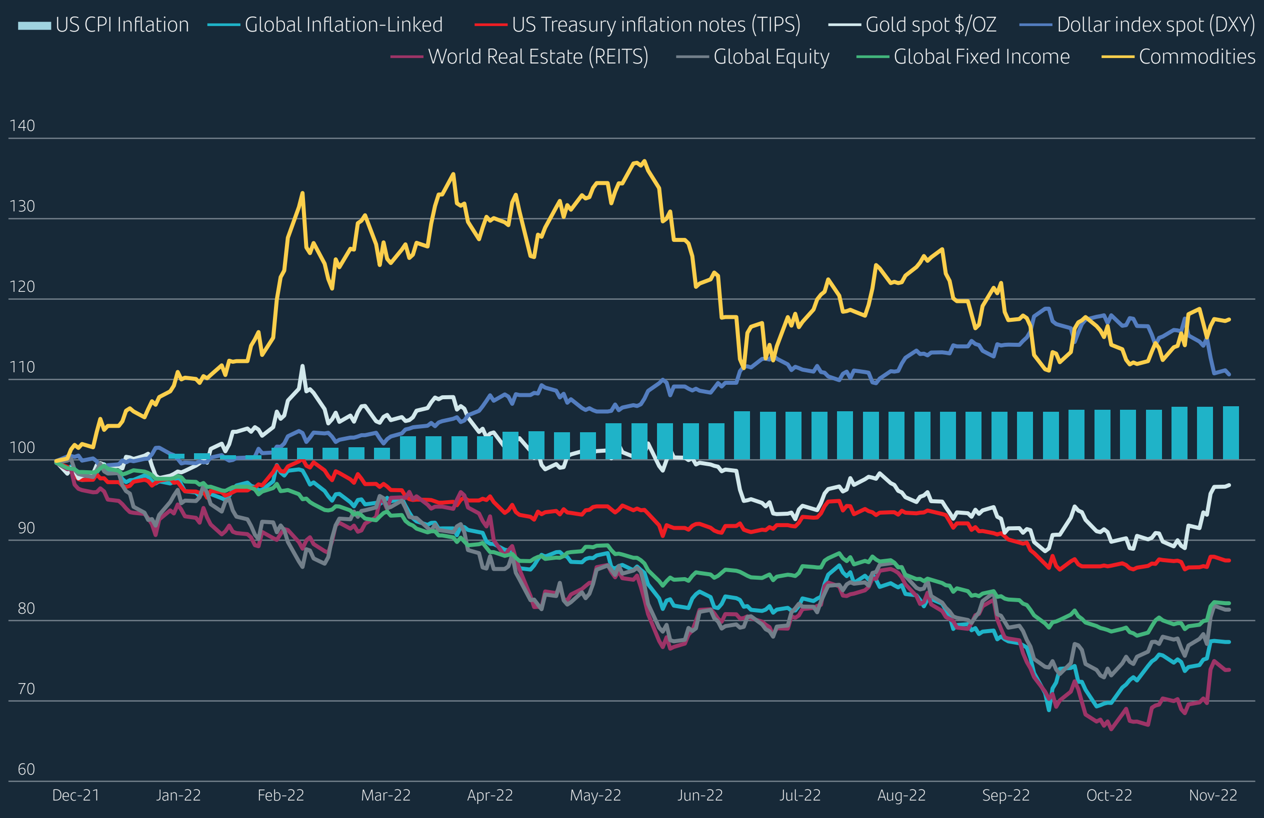
The traditional behavior of fixed income has been altered by the combined effect of low interest rates and quantitative easing policies

In this market context, only commodities and the dollar have been effective hedges against rising inflation and interest rates

In 2022, U.S. dollar and global commodities have been the only assets providing a hedge from inflation

Source: Bloomberg. Dec 2021=100. Data as of 11/15/2022

There are few ways to mitigate an adverse inflation shock in the short-term



In the graph below we illustrate the history of inflation and interest rates in developed economies over the last decades, segmented in three periods. In the first, which we call **"The Great Moderation",** central banks were able to reduce interest rate levels significantly by anchoring inflation at levels very close to the 2% target. **Economies benefited from deflationary tendencies brought about by the strong push for globalization.**

The Global Financial Crisis (GFC) triggered a new phase where deflationary trends accelerated, leading to **"The Great Monetary Expansion".** In this phase, ultra-expansionary monetary policy was implemented through massive asset purchases by central banks in order to boost growth and avoid deflation. **Average inflation during that period stood at 1.3% and interest rates reached negative territory in some countries** (Switzerland, Japan, Eurozone, etc.). The peripheral debt crisis in Europe and the initial shock of the pandemic in 2020 were factors that **pushed inflation and activity levels down, further increasing the need for accommodative monetary and fiscal policies.**

The reopening of the global economy resulted in excess demand and bottlenecks in supply chains. Inflation accelerated and we entered the **current phase of rate readjustment** where central banks have had to radically change their discourse and priorities. The Russian invasion of Ukraine triggered a new inflationary shock but we cannot ignore other more structural factors **that are also pushing up the new interest rate equilibrium.** These include factors affecting the lab market such as restrictions on immigration and population ageing, and factors that are **reducing the momentum of globalization,** such as on-shoring and the imposition of tariffs or sanctions on technology transfers. It is also worth mentioning the difficulties in **energy transition** that are causing price increases and supply tensions in the development of renewable energies. **We are facing a foreseeable change in the inflation regime as the structural factors pushing up prices accumulate, leading to higher interest rates than in the recent past.**

Investors have become accustomed to an environment of low inflation and high support via monetary and fiscal stimulus

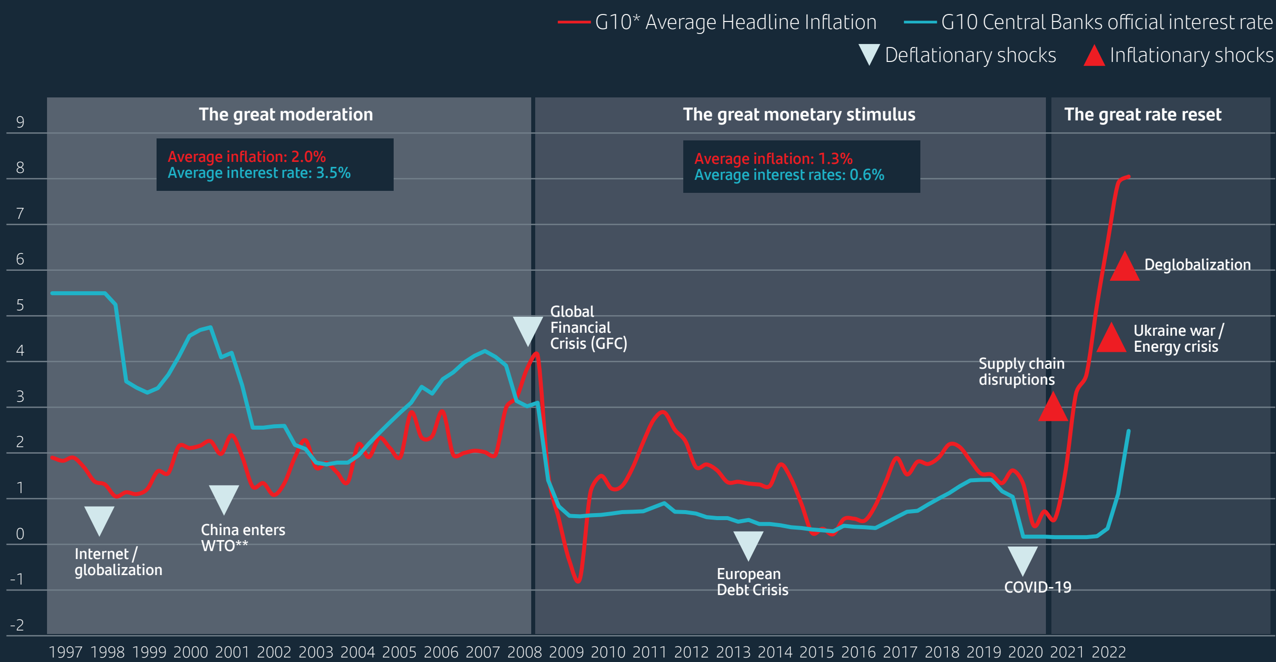
The Russian invasion of Ukraine has been the trigger, but the upturn in inflation is also due to structural changes

Investors will need to adjust as we are likely moving back to the old norms that prevailed before the great monetary stimulus

Interest rate reset: A regime change in monetary policy.

Source: IMF, Bloomberg and in-house

A cycle of expansionary policies and minimal levels of inflation is coming to an end. Structural forces are accentuating inflationary pressures.



* G10: United States, eurozone, Japan, United Kingdom, Canada, Australia, New Zealand, Switzerland, Denmark, Norway, Sweden.
**WTO: World Trade Organization

We believe, therefore, that we have to make a **reset or paradigm shift** in which we will not be able to ignore the inflation variable and we will have higher benchmark interest rates than in the recent past. This does not mean that we are headed toward a scenario of uncontrolled inflation, or that the current levels of rates and inflation are the new normal. Our base case for 2023 is summarized in the table below in which we identify two phases in the normalization process and three main milestones.

The first phase would be **monetary stabilization,** which we explain in detail in the second chapter of this document, and whose most important milestone is **for price pressures to reach a turning point.** The timing of the **inflation peak** will depend on each particular geography and factors causing inflation, but broadly speaking we believe that clear signs of a turnaround could be seen during the first quarter of 2023. Progress in monetary stability would provide plenty of **opportunities in fixed income assets as yields stabilize at very attractive levels relative to the previous decade.**

The second phase would begin once rate hikes reach the terminal rate and central banks **pause monetary tightening** to assess its impact on inflation. This phase may cover a large part of 2023, where investment in cyclical assets may still be complex as it coexists with an **environment of economic slowdown.** The final, more favorable phase for investment in equities and credit would only take place once central banks indicate the proximity of the **pivot towards potential rate cuts.** In the third chapter, we explain the conditions that need to be in place for central banks to lower rates once again and for the **recovery to begin.**

The base case we are considering is moderately positive, although it is not without risks, among which we find geopolitical tensions, liquidity risk, debt sustainability and the appreciation of the dollar against all currencies, and their implications

Our base case calls for a normalization of inflation and growth variables throughout 2023

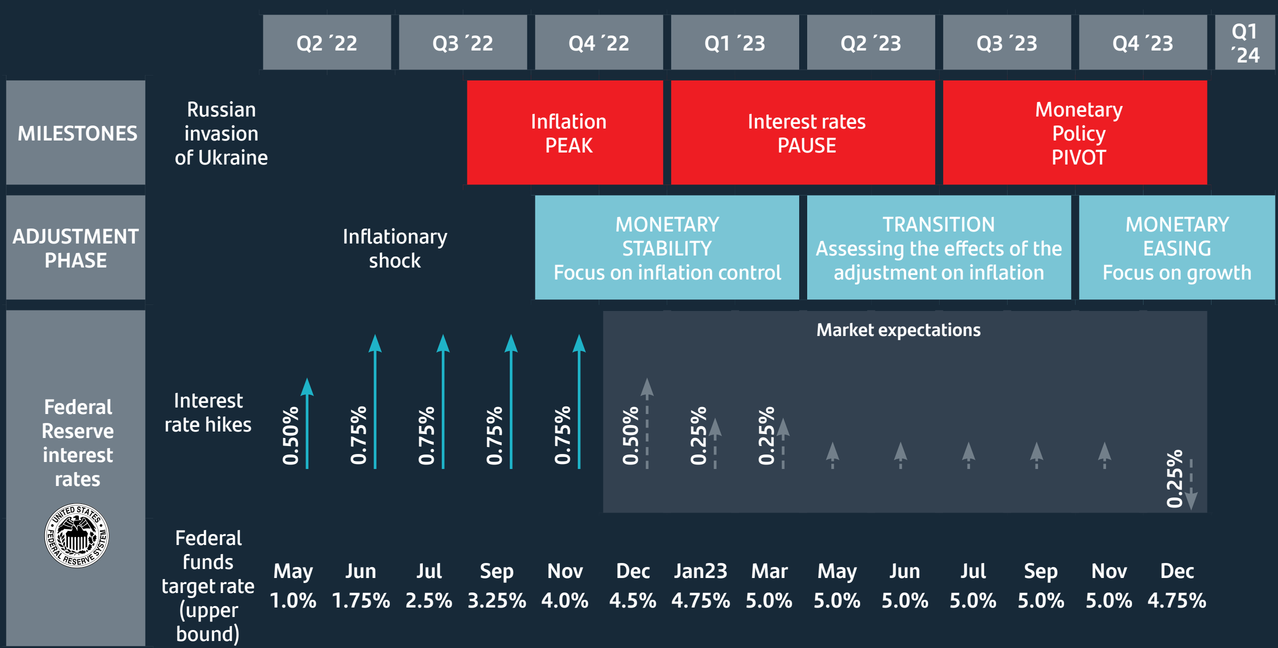
The monetary normalization process depends on three milestones: inflation peak, pause in rate hikes and monetary policy pivots

We do not expect a pivot in interest rates until the second half of 2023 – tight monetary policy takes time to have an effect on the economy

Central scenario 2023: Economic slowdown as the price to pay for monetary stability

Source: In-house

Investors will need to navigate the transition from inflation peak to monetary pivot

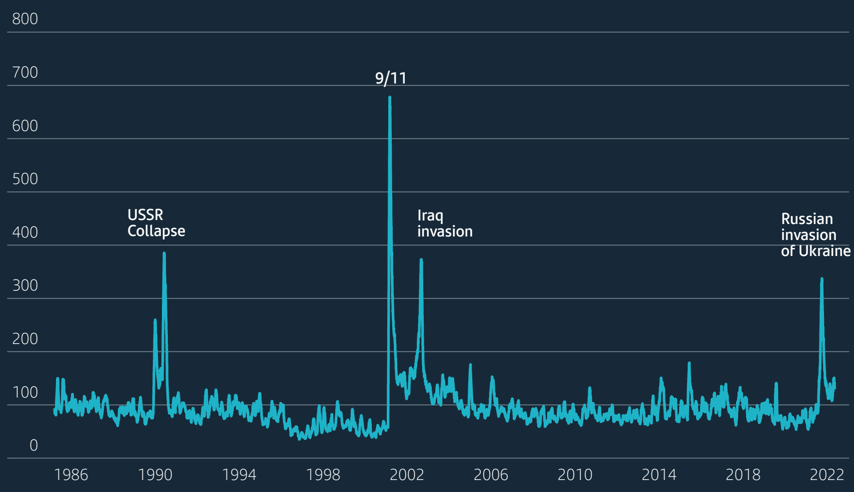


Global risks with potential to negatively affect the base case

Global geopolitical risk indices remain at elevated levels. The conflict in Ukraine has festered and tensions between the United States and China have intensified with restrictions on semiconductor trade and the threat of conflict over Taiwan.

1. Geopolitical tensions: Europe-Russia and U.S.-China confrontation

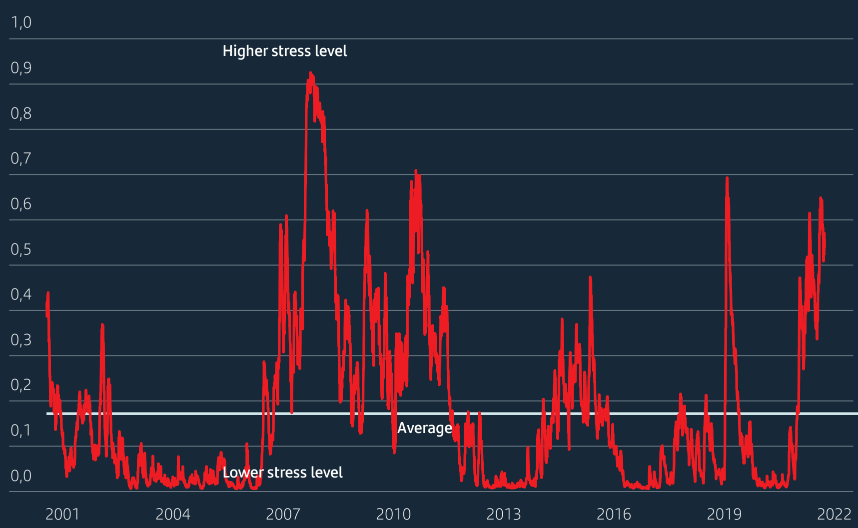
Source: Geopolitical Risk Index (GPR) developed by Dario Caldara and Matteo Iacoviello



The recent episode of illiquidity in UK government bonds has revealed the fragility of markets in a context of withdrawal of central bank purchase programs. This deterioration in liquidity conditions increases the likelihood of very large price movements in financial asset prices.

2. Liquidity risk: Deterioration in liquidity conditions in the markets

Source: Bloomberg. ECB Systemic Stress Indicator (Eurozone Systemic Stress Indicator Composite Index)

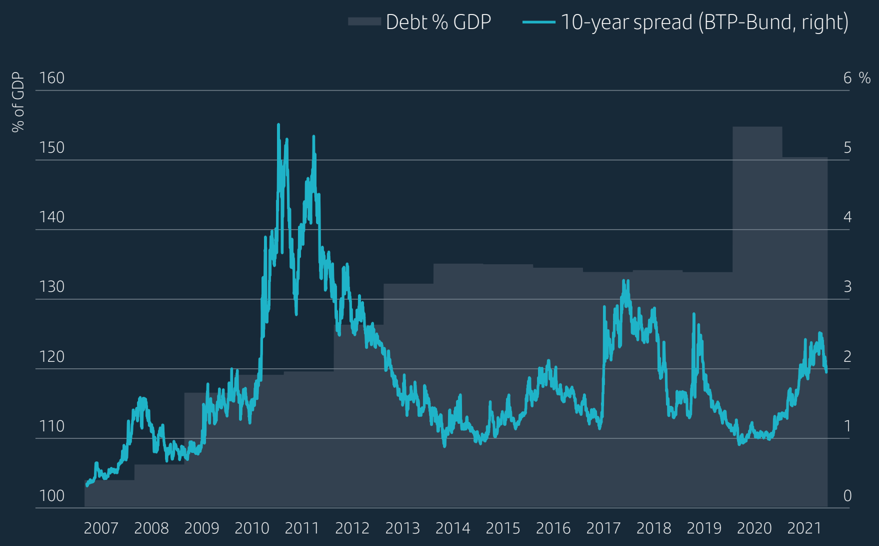


The high level of public indebtedness and the rising cost of debt increase the danger of a potential loss of fiscal credibility with bond investors.

The focus is on the new government's fiscal plans in Italy and the upcoming negotiations to raise the debt ceiling in the U.S.

3. Risk of public debt sustainability

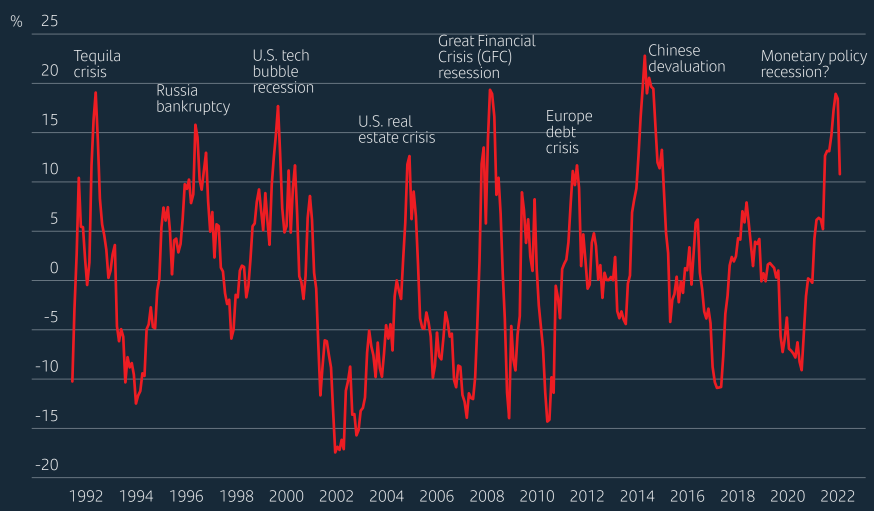
Source: Bloomberg



The U.S. dollar has experienced a strong rebound against most currencies. The appreciation of close to 20% year-on-year is a stress for international issuers that have issued debt in that currency. If this trend of US$ appreciation continues, it increases the probability of crises in certain emerging countries.

4. Currency market tensions: US$ appreciation is reaching extreme levels

Source: Bloomberg and in-house



In depth:

02 The road to monetary stability

First signs of inflation peaking during Q1´23

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The road to monetary stability

The epicenter of the earthquake that has shaken markets is the dramatic price shock and its stagflationary repercussions. As explained in the previous section, the recovery must begin by achieving stability in the variable causing the uncertainty, that is, inflation. Prioritizing price equilibrium over any other consideration has also been the core message from central banks, with Jerome Powell acting as the main spokesman. The lesson of the 1970s is clear: administering insufficient doses of rate hikes is a greater danger for the economy than failing to do so.

The chart below shows how central banks in different geographies have reacted to the inflationary shock and market expectations for future interest rate decisions. Monetary authorities in countries with a longer tradition of inflationary pressures (Brazil and Mexico) were the first to react and did not hesitate to raise rates aggressively. **The central banks of developed countries were slow to realize that the upturn in prices was not transitory and the Federal Reserve had to accelerate the process of rate hikes in an attempt to recover lost ground.** Current monetary tightening has been the fastest in recent decades, and also the most significant in cumulative terms. The repercussions of the rate hikes are beginning to be transmitted to the real economy and many are calling for a pause to assess the cooling effect on prices and growth.

We will reach, in the coming months, the point where central bank rates are sufficiently restrictive and they will keep it there for a while, carefully assessing the effects on the economy. The market will start to wonder about the timing of the next milestone: the famous pivot or signal to the market of a change in bias to lower rates.

The transition from pause to pivot will not be quick and is likely to be prolonged until central banks see clear signs that inflation is contained.

Central banks are applying the lessons learned in the 1970s and prioritizing the fight against inflation by bearing the economic cost of rate increases

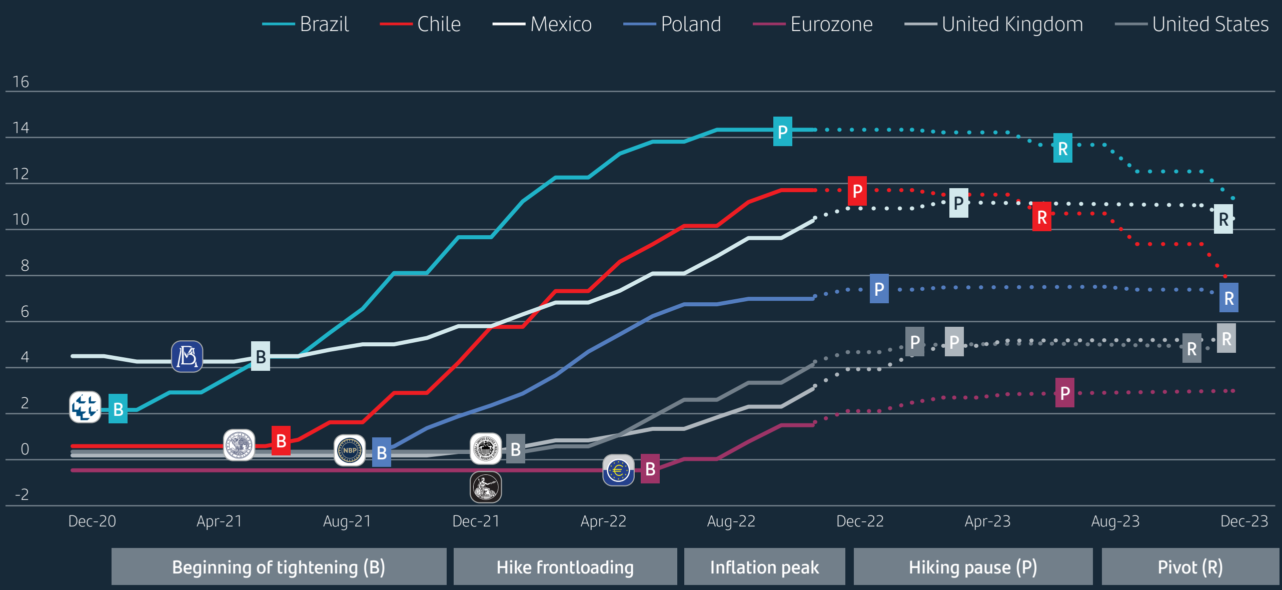
A pause in hikes is approaching, but rates will remain high for a prolonged period

Central banks will not change their bias for tightening until there are unambiguous signs of price stabilization

Phases in the implementation of the monetary tightening by central banks

Source: Bloomberg WIRP. Data as of 11/15/2022

Markets are looking forward to the timing of the pause in interest rate hikes globally



The outlook for global economies in the coming quarters depends to a large extent on inflation dynamics and the central banks' response. In order to understand how this monetary phenomenon evolves, we find useful an in-depth analysis of the different variables affecting the inflation phenomenon as well as the transmission mechanisms of price pressures.

The graph below shows the breakdown of inflation in the U.S. economy among its main components: the most volatile (energy and food), durable goods and services, and also shows future expectations. It shows that the trend before 2021 was deflationary, with practically all indicators below the 2% target set by the Federal Reserve for price stability. That **period of low price pressures was shattered by the combined effect of three inflationary shocks.** The first of these stems from the reopening of economies after lockdowns and the extensive fiscal stimulus programs that triggered a huge demand for goods. Oil prices rebound from very depressed levels and bottlenecks occur in critical elements of the supply chain (freight and semiconductors). This first **supply-side inflation episode** is amplified exponentially by all the events triggered by the Russian invasion of Ukraine with multiple ramifications in energy and food supply shortages. **The combined effect of these two supply shocks starts to filter into services inflation statistics from the second half of the year onwards through the so-called second round effects.**

The price increases are occurring against the backdrop of a very tight labor market with unemployment levels at record lows. While there are signs of unwinding of negative supply shocks in goods and energy, the concern of monetary authorities is focused on whether there will be a turning point in services inflation and whether there will be the most dangerous

The inflationary phenomenon has shifted from the supply side (energy and goods) to the demand side (services)

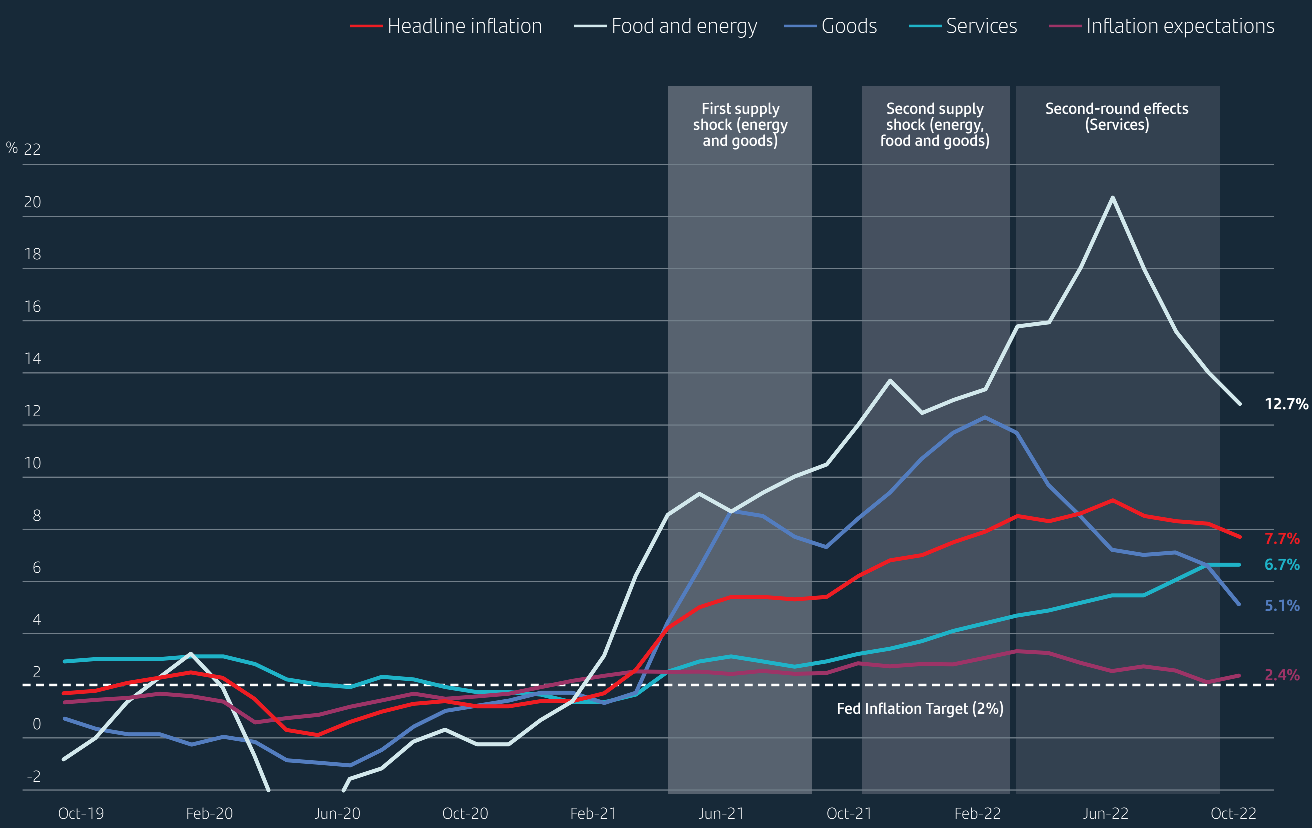
Low unemployment levels and loss of purchasing power put upward pressure on wage revisions

It is key that central banks remain credible in their policy actions and that future inflation expectations remain anchored at 2%

The different phases of the inflation spike in United States

Source: Bloomberg and in-house. Data as of October 2022. Inflation and its components are in YoY terms.

The inflation shock is shifting from the supply side (goods) to the demand side (services)



contagion of all: a spike in inflation expectations. **The only good news for inflation in 2022 is the anchoring of medium-term inflation expectations at 2%.**

The diagram below allows us to analyze the dynamics described above by breaking down each of the inflation components into some of their main sub components. In the case of the evolution of energy and food prices, we can see how the inflation peak occurred in June, with the inflection point attributable mostly to gasoline (electricity and food are still at their peak). **The good news is that the United States has been spared the worst of the gas crisis that is wreaking havoc in Europe.** The best progress is occurring in goods inflation as the shortages in autos and other consumer goods have been resolved. Within services inflation, rents have a very heavy weight and are one of the components that have surprised to the upside in recent months. **While the peak in US inflation is likely behind us, recent data confirm that core inflation is persistent and will not turn around until the economy and labor market cool.**

U.S. core inflation is persistent and still requires several quarters of tight monetary policy to achieve price stability

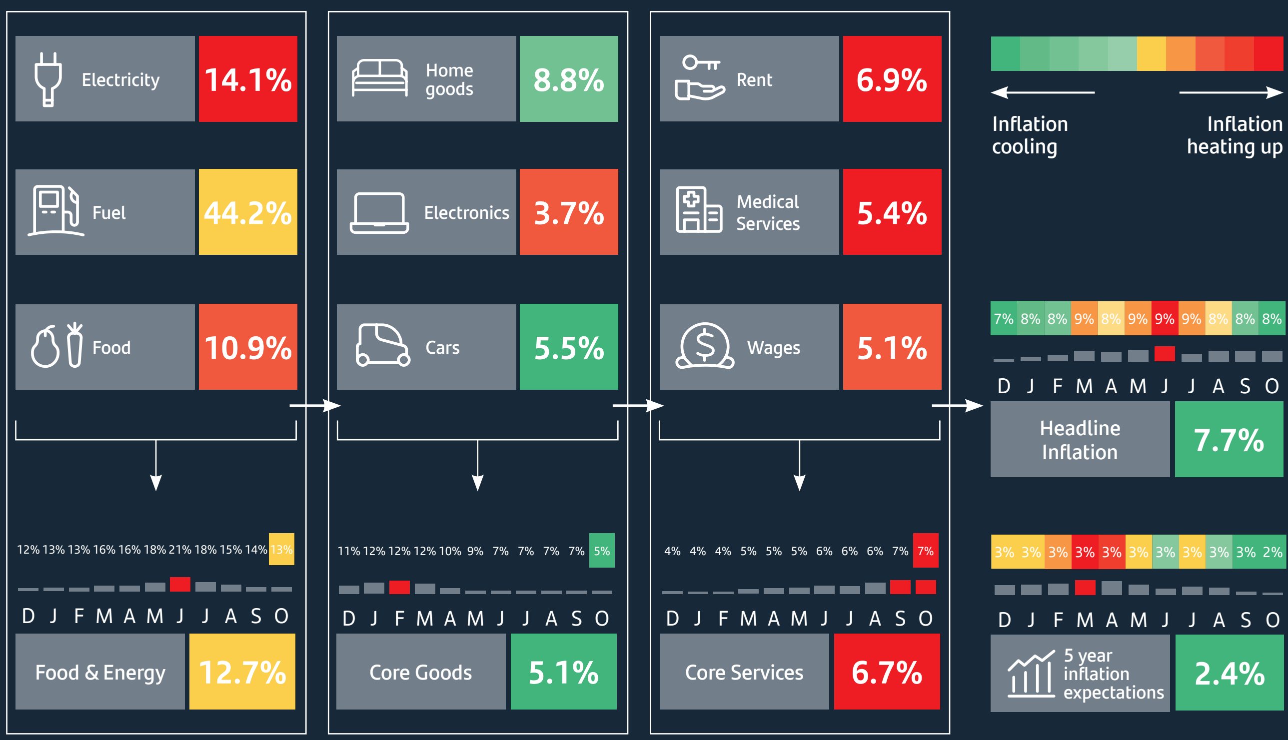
Rate hikes are producing a significant slowdown in the housing market and we expect to see improvements in rental inflation by the end of the first quarter of 2023. The point of greatest concern lies in wage revisions in a labor market where the number of job openings is twice as high as the unemployed labor force. **Inflation in the U.S. is more of an excess demand phenomenon and will require a rebalancing in the labor market that should occur in the first half of 2023.** Provided that U.S. inflation is due to excess demand rather than supply constraints, demand destruction will be needed to bring inflation below 4%. The Fed will need to maintain a relatively hawkish stance (i.e., no pause or pivot) until they see a few

We expect positive news on inflation developments from the first quarter of 2023 onwards, starting with cooling rents

Evolution of inflation in the United States broken down by component

Source: Bloomberg and in-house

Green shoots in goods inflation but second-round effects on wages and services



consecutive readings of both slower U.S. core inflation and softening labor market conditions (rising unemployment).

In the Eurozone, the main driver of inflation is energy prices. We believe that in this case **inflation is mostly an imported and supply-related phenomenon,** so the ECB faces a tough task: reducing demand will not necessarily curb inflation in the short-term, while tighter financial conditions may weigh further on supply.

Recent spending packages in Europe have tried to cushion the blow from energy prices. Despite this, electricity prices have risen by 40% (three times higher than the increase in the United States). The positive counterpart is in services inflation, which, while maintaining an upward trend, is still at 4.4% YoY (compared with 6.6%YoY in the U.S.) thanks to wage moderation. **The key in the battle to control inflation will lie in wage revisions and in the short-term there is likely to be upward pressure. So far, wages in Europe have risen moderately. The easing of energy tensions will soon allow for a turning point in inflation, some second-round effects on wages are likely to happen given the significant loss of purchasing power experienced in 2022.**

The monetary backdrop is still very uncertain, but the time when the major interest rate adjustments will be completed is approaching. **To the extent that investors can have a certain degree of certainty about the new equilibrium level of interest rates, the task of rebuilding the investment portfolios (that have been so severely punished during the rate readjustment phase) can begin.** The completion of the rate adjustment process and the stabilization of terminal rate levels (maximum interest rate level discounted by the market) is key.

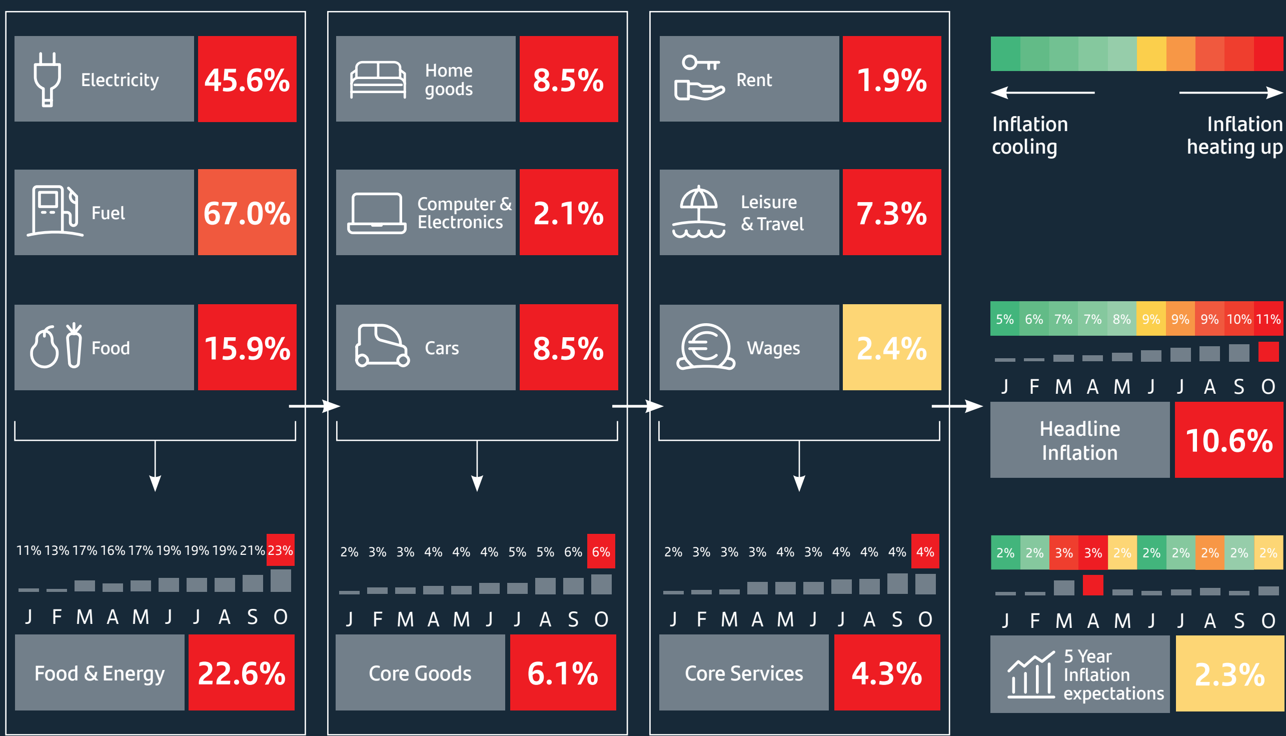
Inflation in Europe has not yet reached the tipping point due to the severity of the energy price squeeze

Second-round effects have been limited and services inflation remains contained

Evolution of inflation in the Eurozone broken down by component

Source: Bloomberg and in-house

Lower wage pressures but higher energy and food inflationary shock



The good news is that we could be close to achieving stability in short-term interest rates. In the chart below we can see how rate expectations have moved upwards and how the terminal rate has rebounded above 3% in the case of the Eurozone and above 5% in the case of the United States. In absolute terms, this means a 3% increase in risk-free investment remuneration since the beginning of the year in both areas. In relative terms, it means a positive real return if we compare rates with expected inflation over the medium-term. If inflation expectations are maintained, it is excellent news for risk-adverse investors: short-term interest rates are already offering real returns. **These real yields are an oasis in what has long been a desert given the absence of attractive yields in all tenors of the curve** (and in particular the short-end of the curve). We got used to money being practically free, but that was far from normal. What we are returning to is normal: an environment in which capital is appropriately priced to generate an adequate return.

The point at which intervention rates match the terminal rates expected by the market (and there are no further upward revisions) will vary by geography (first half of the year for the US and UK, second half for the Eurozone). But **investors already have investment solutions at their disposal (funds and structured products) that allow them to anticipate the increasingly rare rate hikes that the market is discounting.**

In the following page we can visually see this change in rates. The blue bars symbolize the level of yields available in mid-November 2022 in the various fixed income segments for Euro and US$ issues, and the red boxes mark the difference from the yields at the beginning of the year.

Thanks to this repricing, it is much easier for investors to hit yield targets without reaching down the credit curve or into longer tenors. Fixed income yields have gone from near-zero

The great interest rate adjustment is approaching its final phase and investors now have a solid valuation reference

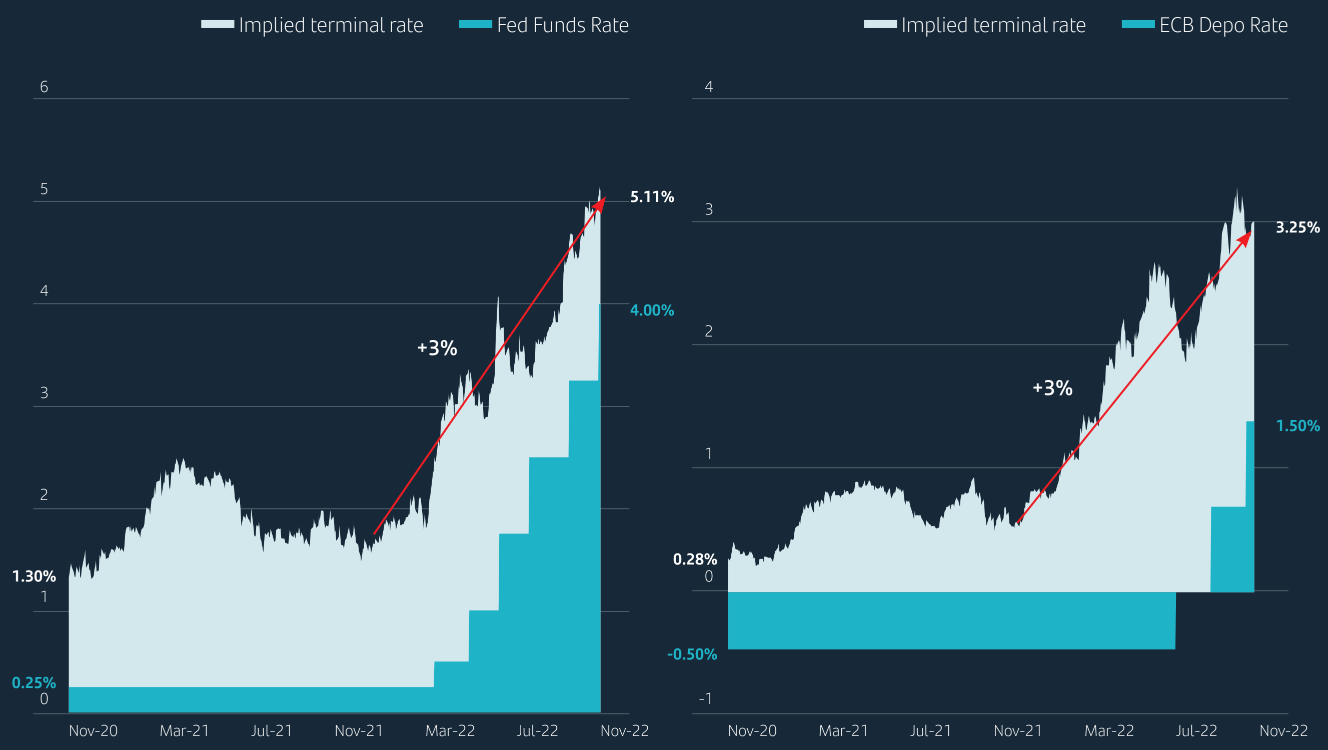
The monetary outlook is stabilizing and short-term rates offer a positive entry point

The risk-free rate returns to positive territory and conservative investors are able to capture value at the short-end of the curve

Terminal rates could reach 5% for the Federal Reserve and 3% for the ECB

Source: Bloomberg and in-house

Central banks are frontloading rate hikes and could reach soon the terminal rate



to 12-year highs in little more than a year and, depending on whether you're looking at core government bonds, investment grade corporates or high yield, that now means a 4%, 6% or 8% hurdle rate for other investments.

In addition, the minimal government bond yields resulting from quantitative easing programs had a side effect for investment portfolios: the inability of bonds to offset losses on risky positions in times of stress such as the one experienced in 2022. **The extraordinary rebound in yields on the long end of the curves again endows long duration bonds with the ability to mitigate negative shocks to equity positions.** Fixed income's regained ability to diversify is a positive consequence for investors navigating the great interest rate adjustment. While rates will not be immune to volatility, we believe that the probability of losses in longer duration fixed income has decreased significantly as the starting yield cushion has increased. We have experienced a historical repricing in the fixed income markets and with it the risk-return trade-off for traditional bond investments has improved. **The probability of future negative returns from investing in high credit quality fixed income has decreased considerably and bonds have regained their value in portfolio construction by providing safe returns and negative correlation with risky assets.**

Orthodoxy seems to have returned to monetary policy and closing the tap of the extraordinary flow of central bank buying liquidity has brought discipline back to fixed income markets. **We are entering a bondholder-friendly market cycle after a decade in which traditional fixed income investing was heavily penalized by unorthodox monetary policies.**

Bond markets could experience a renaissance in the first half of 2023 as rate repricing is completed

Bond yields return to normal territory triggering a reengagement of investors with fixed income

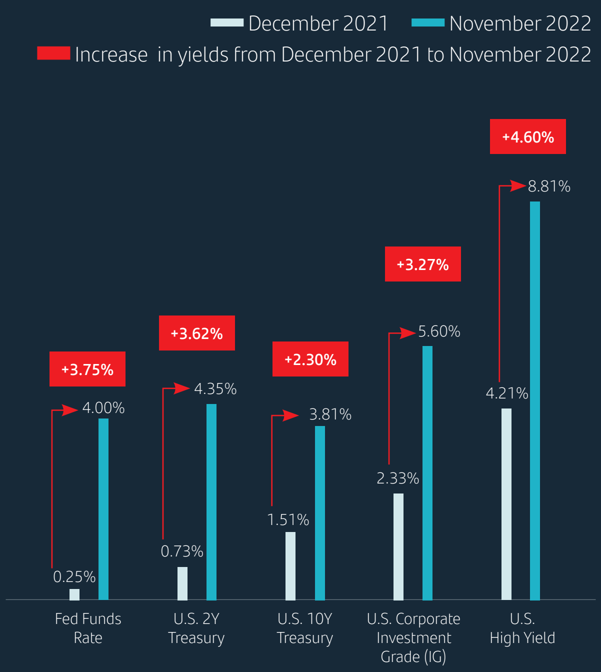
Fixed income returns to its essence and *raison d'être*, offering yields and protection against market shocks

Value is emerging in fixed income after the market repricing

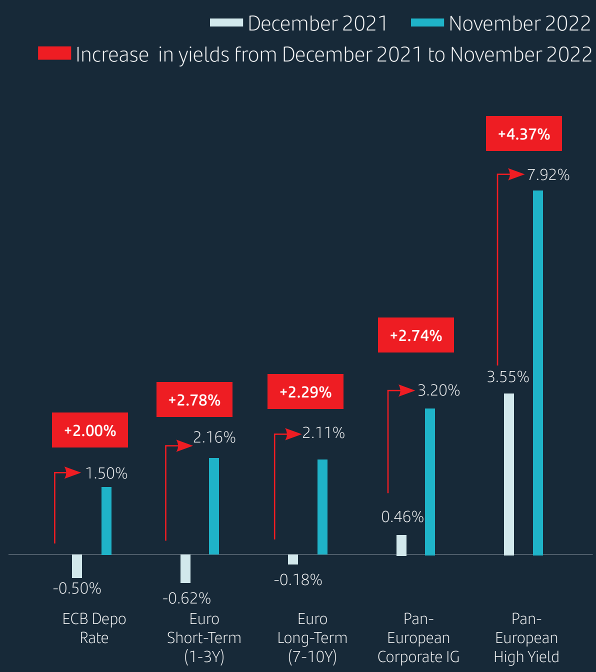
Source: Bloomberg and in-house

The return potential in bond markets appears compelling given higher yields across maturities

United States

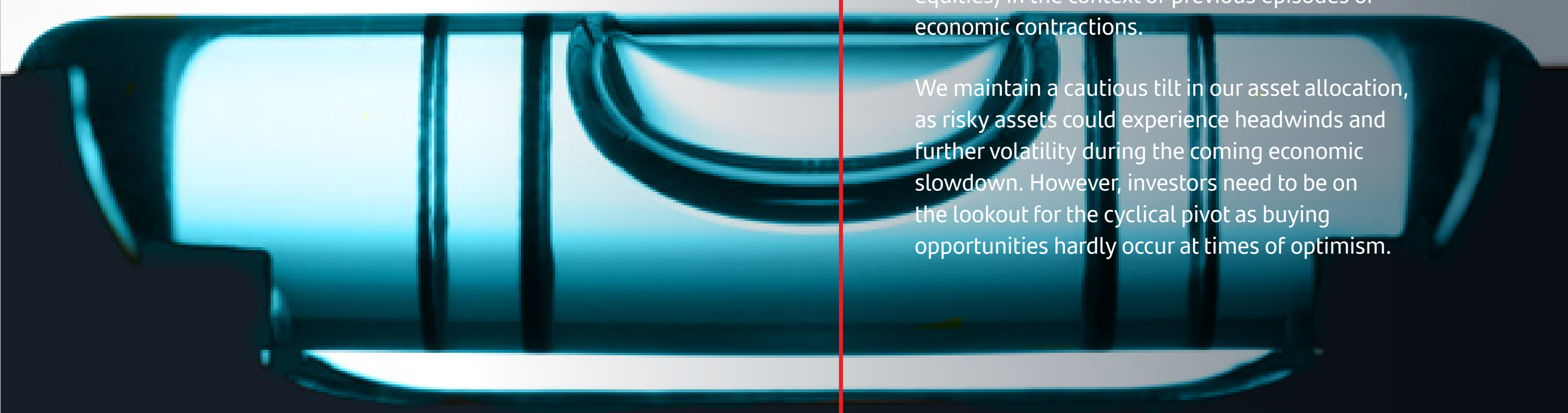


Eurozone



In depth:

03 Awaiting the cyclical pivot



Recessionary risks, but crisis unlikely

Monetary tightening, the higher cost of credit, the cost of living crisis and high uncertainty will undoubtedly dent growth in 2023. Economists' consensus already assigns a high probability of GDP contraction in several countries (mainly in Europe). In contrast, the private sector is starting from high levels of savings and the banking sector enjoys solid solvency ratios.

We expect a complex environment for growth in 2023, but we do not detect factors that could trigger a crisis like that of 2000 or 2008.

Risk premia could still widen during downturn

Yields across asset classes have increased as investors have priced in a higher likelihood of a severe economic slowdown. In this report we analyze the adjustment in risk premia of cyclical assets (those sensitive to the economic cycle like equities) in the context of previous episodes of economic contractions.

We maintain a cautious tilt in our asset allocation, as risky assets could experience headwinds and further volatility during the coming economic slowdown. However, investors need to be on the lookout for the cyclical pivot as buying opportunities hardly occur at times of optimism.

Cautious but open minded

In the final chapter we focus on our market outlook post stabilization of inflation and rates. Our base case for 2023 is broadly in line with the consensus of economists who publish their forecasts on Bloomberg (see table below). The consensus sees a significant drop in inflation levels by 2023 (between 2% and 4%) **and a final equilibrium of around 2% in 2024 due to the tightening of interest rates.** A significant adjustment in growth expectations is the price global economies have to pay to regain monetary stability. **2022 has been the year of the rate adjustment and 2023 will be the year of the economic slowdown.**

The environment for growth is adverse due to tightening monetary conditions and high energy prices

The severity of the economic slowdown will differ across geographies, with Europe being the economic zone most affected by geopolitical uncertainty and more intense energy price increases. Economists expect Germany to experience negative growth, and leading indicators already corroborate this perception with multiple industries affected by energy supply uncertainty. The **outlook for UK economic growth is also negative** for the upcoming quarters as the Bank of England acknowledged in its latest monetary policy report. European consumers have already started to cut back on discretionary spending due to the rising cost of living. Business confidence has also declined to levels that anticipate future cuts in investment and employment.

Europe is the most adversely affected region, where growth contractions are expected in Germany and the UK

As to the **Chinese economy,** the change in the government's policy approach will have a negative impact on long-term growth. In the short-term, however, **economic activity should react positively as Covid policies are less severe** next year and property developers receive additional financing that will help them improve their creditworthiness and allows for long-delayed projects to be completed, and the authorities to accelerate the pace of stimulus.

China may be the exception with a faster pace of activity in 2023 if mobility restrictions are eased and the real estate sector receives some stimululs

With regard to the **U.S. economy,** we still see a **very resilient private consumption partly driven by the strength of the labor market and accumulated savings.** The loss

The global economy is slowing, and risks are to the downside next year

Source: Bloomberg Economic Forecasts Consensus

Tightening financial conditions will slow global economic growth and inflation

	Economic Growth (GDP)				Headline Inflation (CPI)				Unemployment Rate			
	2021	2022e	2023e	2024e	2021	2022e	2023e	2024e	2021	2022e	2023e	2024e
USA	5.9%	1.8%	0.4%	1.4%	4.7%	8.1%	4.2%	2.4%	5.4%	3.7%	4.3%	4.7%
China	8.1%	3.3%	4.8%	5.0%	0.9%	2.2%	2.4%	2.1%	4.0%	4.1%	4.0%	4.0%
Japan	1.8%	1.6%	1.4%	1.1%	-0.3%	2.3%	1.6%	0.9%	2.8%	2.6%	2.5%	2.4%
Eurozone	5.3%	3.1%	-0.1%	1.5%	2.6%	8.3%	5.6%	2.1%	7.7%	6.8%	7.1%	7.1%
Germany	2.6%	1.5%	-0.6%	1.5%	3.2%	8.5%	6.2%	2.4%	5.7%	5.3%	5.6%	5.5%
France	6.8%	2.5%	0.4%	1.4%	2.1%	5.8%	4.7%	2.1%	7.9%	7.4%	7.6%	7.6%
United Kingdom	8.5%	4.2%	-0.5%	1.1%	2.6%	9.0%	6.3%	2.6%	4.6%	3.8%	4.4%	4.7%
Italy	6.7%	3.4%	0.0%	1.3%	2.0%	8.0%	5.4%	1.9%	9.5%	8.2%	8.5%	8.5%
Spain	5.5%	4.5%	1.0%	2.0%	3.0%	8.8%	4.5%	2.2%	14.8%	13.0%	13.3%	12.9%
Portugal	5.4%	6.3%	1.0%	2.0%	0.9%	7.6%	4.3%	2.4%	6.6%	6.0%	6.2%	6.1%
Poland	5.9%	4.0%	1.0%	2.9%	5.1%	14.3%	12.5%	5.9%	3.4%	5.2%	5.5%	5.3%
Brazil	4.8%	2.7%	0.8%	1.9%	8.3%	9.2%	5.0%	3.9%	13.5%	9.5%	9.7%	10.0%
Mexico	4.8%	2.1%	1.2%	2.0%	5.7%	8.0%	5.7%	3.9%	4.1%	3.5%	3.7%	3.5%
Chile	11.7%	2.1%	-0.9%	2.2%	4.5%	11.7%	7.8%	3.6%	9.1%	7.7%	8.3%	7.5%

of purchasing power will eventually take its toll on consumption growth, but the recent trend remains strong. However, there are **clear signs of a slowdown in the residential sector** (higher mortgage rates) and in the exports sector (appreciation of the dollar). **We do not rule out a technical recession (two consecutive quarters of negative growth) scenario in the second half of 2023 as the Federal Reserve keeps interest rates high** and this impacts consumption and investment. The effects of the Fed's interest rate hikes should be felt more towards the second quarter, given the lagged effect of monetary policy on activity. In any case, we believe that the U.S. economy is starting from a position of strength and, if there is a contraction, it should be moderate compared to past episodes of recession.

The U.S. economy is still showing signs of strength in consumption and we do not expect weakness in growth until the second half of the year

In short, **our base case calls for negligible growth in the coming quarters, with some countries experiencing recessionary episodes of moderate intensity.** We do not, however, envisage a generalized recession and consider it unlikely for there to be economic adjustments similar to those that occurred in the Great Financial Crisis (GFC) or the dotcom crash of 2000. The main arguments supporting **this view of a slowdown but not a crisis** are based on the **relative strength of both the private and financial sectors.** In the bottom left graph we can see a significant increase in the **levels of capitalization of the banking sector** in the main developed economies compared to the time period prior to the GFC. The graph on the right shows, for the same period, that **households have reduced their level of indebtedness and are in a better financial position** to avoid having to make drastic adjustments to their level of spending during the expected economic slowdown scenario.

Households in developed economies have reduced their level of indebtedness and have a savings cushion at their disposal

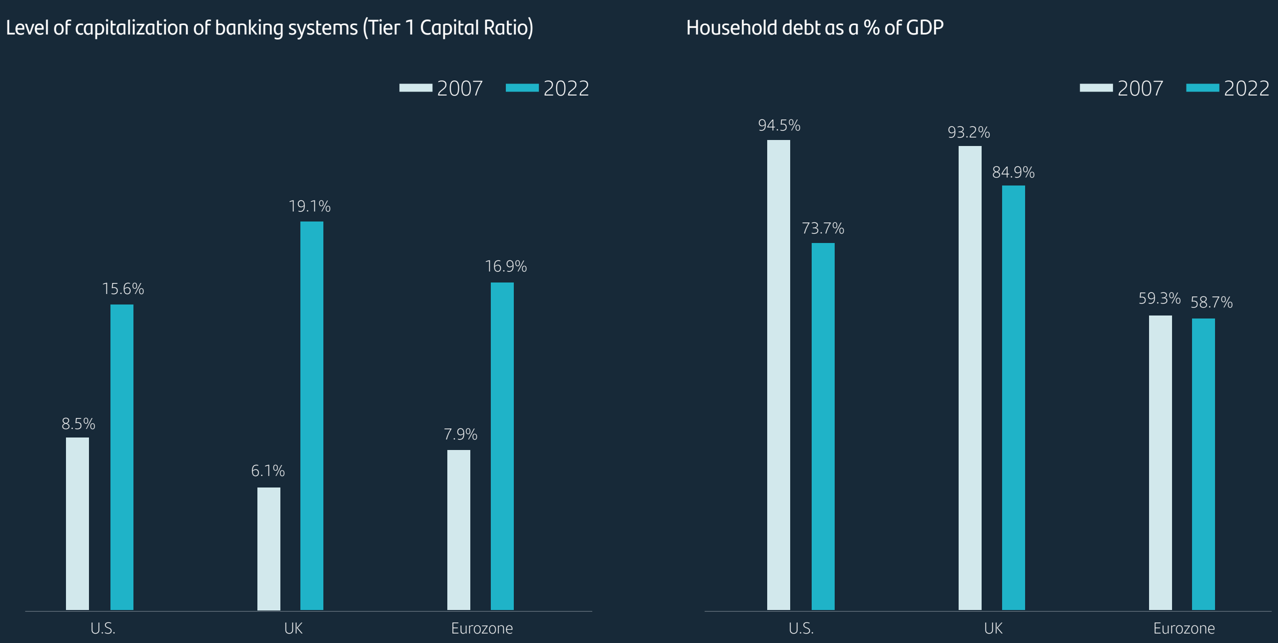
In line with this view of an economic slowdown, we recommend maintaining a **moderate level of risk with government bonds and high grade corporate bonds.** We believe that **there will be opportunities in the second half of 2023 to position more aggressively in cyclical assets** (mainly equities and corporate bonds), although it is advisable to wait for signs of stabilization in inflation and growth to be confirmed.

The banking sector has built significant capital buffers to face a downturn in the economic environment

Household leverage has declined and bank capitalization has significantly improved since 2007

Source: International Monetary Fund (IMF), Bank of England, European Central Bank and St. Louis Federal Reserve

The private and financial sectors are facing this downturn from a position of financial strength



One of the assets sensitive to the economic cycle that has already experienced a significant adjustment is **corporate bonds.** The chart below shows the yield of corporate bonds in the highest quality segment (investment grade). The blue line represents the yield offered by the government bond yield curve (in this case the United States, as the curve is in US$) and we can see that **the adjustment has been very high so the remuneration for the interest rate risk seems adequate.** The red line shows the credit risk premium that remunerates the investor, in addition to the risk-free rate, for the probability of default of the bond issuer. If we look at the historical behavior of this risk premium we can see that there is a high correlation with periods of economic slowdown. We can also see that risk premia tends to increase further during periods when interest rates start to fall due to the deteriorating economic activity. In line with this historical behavior, the risk premium spread may still increase during the first months of 2023. This may detract somewhat from high credit quality corporate bond yields in the initial stages of the downturn but **the sum of the two yields (government rates and credit spread) provides a cushion to mitigate volatility.**

We recommend increasing credit risk in portfolios during 2023 as default risks are likely to be contained

This positive view on high credit quality corporate bonds does not yet extend to the **high yield** segment or **emerging market issuers.** These types of bonds are more sensitive to the economic cycle and **may experience price pressures as long as there are no clear signs that the economic slowdown has bottomed.** In terms of emerging market bonds, we are waiting for U.S. currency appreciation to diminish in order to position ourselves more actively.

In the economic downturn, the fixed income investment with the best risk-return trade-off is investment grade corporate bonds

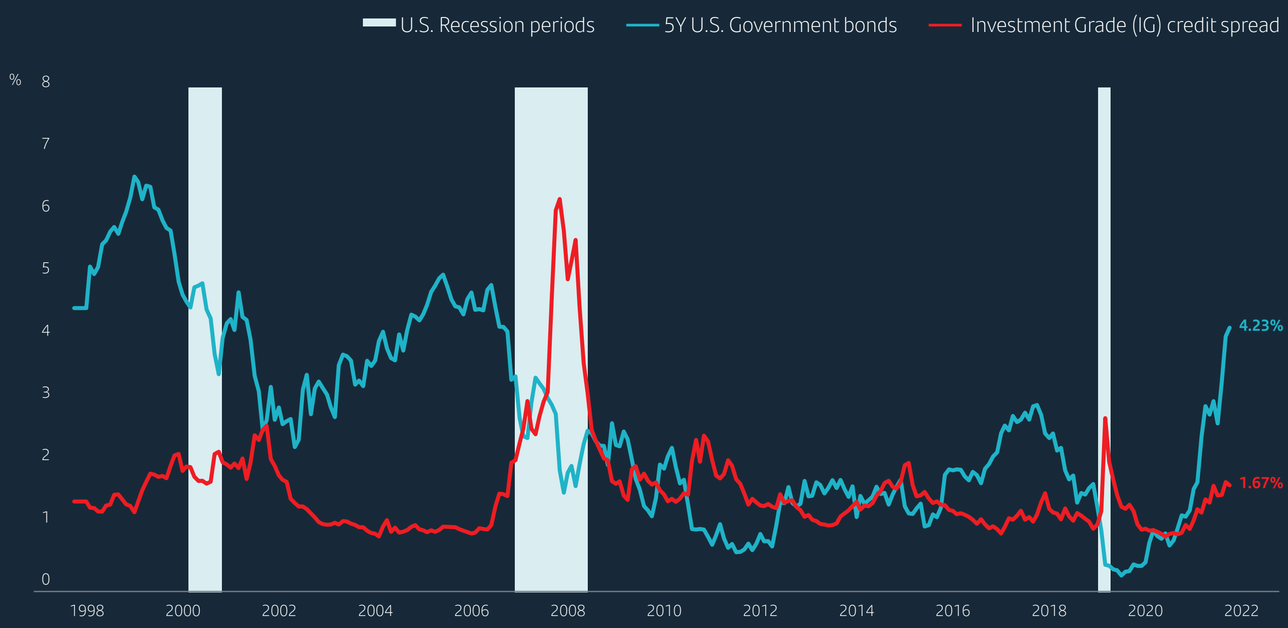
With regard to **equities,** we believe it makes sense to apply a strategy similar to that of for fixed income: **starting from a more defensive positioning to pivot towards strategies with greater recovery potential as the effect of monetary policy is confirmed.** The stock market might experience volatility due to uncertainty around inflation and growth. We believe that the **key milestone in the equity recovery will be linked to the timing of the central banks' pivot.** The transition from inflation concerns to growth concerns is likely to be accompanied by high volatility until we have confirmation of a change in monetary policy visibility of lower interest rates.

The timing for positioning in high yield and emerging market bonds will be linked to the change in monetary policy bias

The steep repricing of interest rate and credit risk improves the outlook for bonds

Source: Bloomberg. Data as of 11/15/2022

Credit spreads could continue to widen but current levels already price in a moderate recession



Another factor to consider in the timing of returning to an equity overweight position is the degree of **adjustment in equity valuations.** In the chart below we analyze this adjustment by breaking down equity valuation into its two key components: level of earnings and valuation multiples of expected earnings. The upper part of the chart shows the historical valuation of the U.S. stock market as a multiple of earnings (P/E ratio) and how it compares to its historical average. We can see that, after the price correction in 2022, **U.S. equities are now trading at valuation multiples similar to their historical average.** The bottom panel reflects the evolution of earnings growth and we can see that, in times of economic recession (shaded areas), a contraction in earnings tends to occur. We see further downward revisions to earnings, growth expectations as likely, in line with our expectations of economic slowdown in 2023. **The main factor behind our conservative equity stance is the perception that the downward adjustment in earnings expectations is still incomplete.**

By mid-2023, earnings expectations will be more realistic and markets will start to look ahead to the recovery giving investors an opportunity to add exposure to more cyclical stocks

Equity markets anticipate and will eventually react positively if progress in controlling inflation is confirmed and tight monetary policy proves its effectiveness. As this validation occurs, we will look for opportunities to increase equity exposure and position ourselves for the dynamics of the beginning of the recovery cycle. One indicator of potential equity performance going forward is global consumer confidence shown in the chart in the following page. It shows how **the 12-month return on equity investment is very high in the periods after consumer confidence has bottomed.** The inverse process is evident in the returns after the peak in consumer optimism.

Equities have already adjusted their valuations downwards in line with the new interest rate scenario

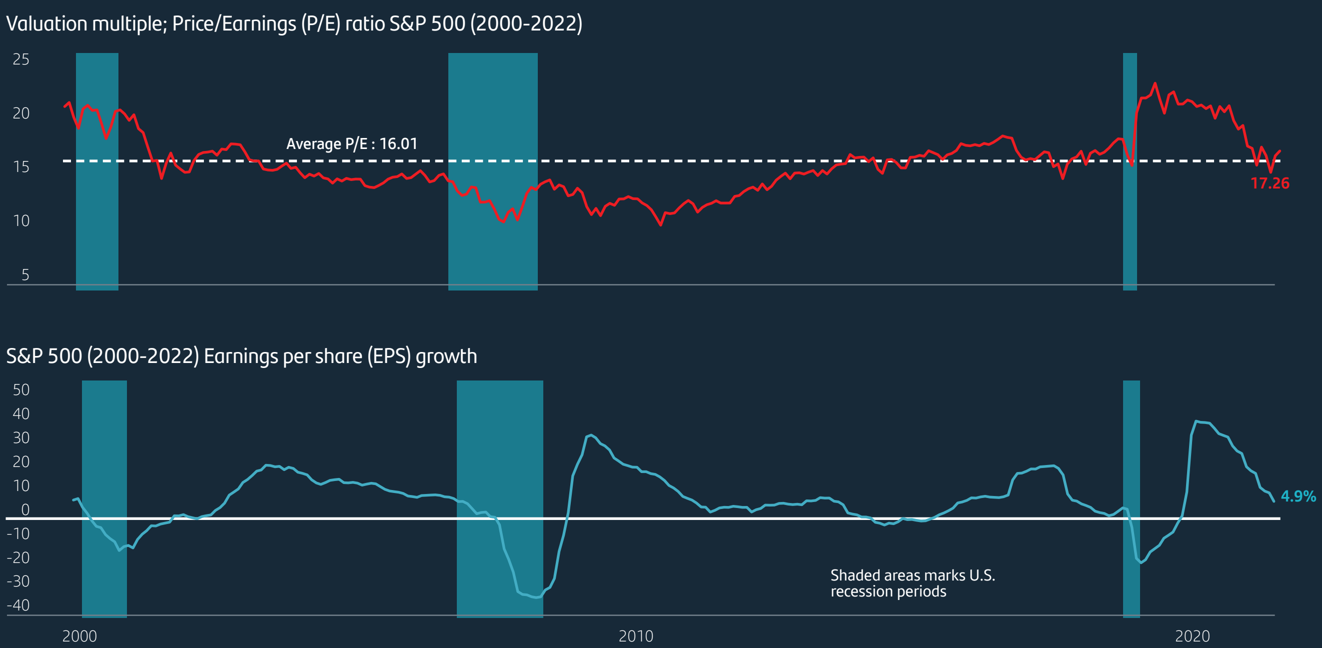
In addition, we cannot lose sight of the structural changes we mentioned in the first chapter regarding a new inflation equilibrium at higher levels. A future scenario where average inflation is above 2% implies a need to increase the neutral weighting in real assets. **The most representative real assets are equities, infrastructure and real estate and are characterised by their ability to generate returns (rents, dividends, or fees) that**

The adjustment in earnings expectations has begun but is still incomplete

Earning multiples have already been downgraded as a result of the rate reset

Source: Factset. Data as of 10/31/2022

Adjustment of earnings expectations has begun, but is still incomplete



are susceptible to adjustment with inflation. Although the initial positioning for this year is cautious, we recommend holding positions in equities for investors with a medium-term time horizon. Tactically, in the short-term, we believe that fixed income offers a better potential risk/return ratio, but with a more strategic vision we would take advantage of episodes of volatility to increase the weight in equities. During 2023 we may reach a point where bad news for the economy becomes good news for the markets, bringing potential opportunities to overweight equity markets. **In a potential future environment of higher inflation, we prefer real returns to nominal returns and a more constructive structural positioning in equities than in bonds.**

Experience warns us against waiting for the recovery to be complete before returning to overweight equities

The adjustment process will be uneven across sectors and geographies, so we recommend **less exposure to cyclical sectors** and economies such as Europe where there is a higher probability of adverse economic growth scenarios and earnings revisions. Fears around the impact of rising inflation on consumer discretionary spending are weighing heavily on retailers, travel and leisure and home construction companies. However, business-to-business spending is still strong.

Excessive pessimism is a better travelling companion for the stock market investor than over-optimism

In this market environment we look for quality companies with resilient margins and low earnings volatility as they tend to outperform in recessions when profits decline. **We favor sectors such as healthcare that enjoy high margins, strong pricing power and attractive shareholder returns. We also favor value and high dividend yield as outperforming factors as the spread in valuation with growth stocks continues to be very wide.**

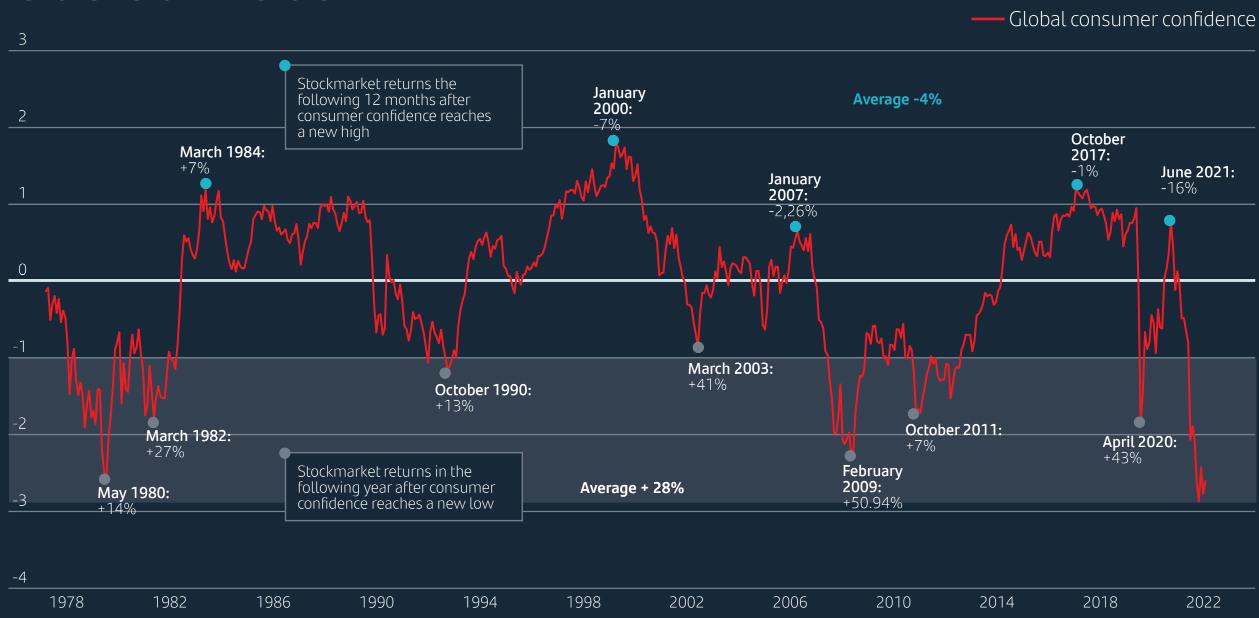
Real assets such as commodities, equities, real estate and infrastructure will be potential beneficiaries of structurally higher inflation

We anticipate that returns in **alternative investments** over the coming quarters will not be immune to the current economic backdrop and rate hikes. We expect some adjustments in valuations however more muted than those observed in traditional investments as the asset class has shown more resiliency than public markets in prior dislocations. As in previous episodes, there will be a high level of return dispersion between managers which highlights the importance of selecting managers with strong track records and experience navigating historical challenging market environments and mainly focused in diversified strategies.

Consumer confidence and subsequent global equity performance (MSCI World):

Source: Bloomberg and in-house

Extreme low levels of confidence in the past have seen significant stock market recoveries over the next 12 months



Private equity and private debt vehicles have record levels of dry powder and can benefit from the current valuation environment to opportunistically invest at attractive multiples in companies that require liquidity injections. The private credit market in particular has benefited from the current secular trends and rising rates have driven new origination terms and returns while at the same time managers have included additional protection in their covenants to protect potential defaults. **We believe that alternative investment strategies maintain their long-term appeal in their ability to diversify risk and earn differentiated returns.** Years of economic slowdown are often optimal times to increase positioning and access opportunities at lower multiples in secondary markets, tactical opportunities (distressed and special situations), private credit, and select real estate strategies.

The best point of entry into private equity is during periods of adverse economic environment in which there is an adjustment in valuation multiples

The coming months will require a great deal of attention to indicators and risk management, but this focus on the immediate should not make us forget the attractiveness of positioning ourselves in assets with high future growth. We continue to favor **strategic positioning in innovation themes.** The current environment points to investment in more traditional companies with closer cash flow generation but investors must have a balance between the short-term vision and long-term trends and opportunities. Today's society is experiencing a readjustment not only in monetary variables but also in economic and geopolitical priorities, and this **paradigm shift is accelerating innovation trends in countless fields: energy transition, food sustainability, digital security, or artificial intelligence to name a few.** In a context of more stable interest rates, investors will again focus on the potential of innovative companies to generate growth regardless of the cycle. We particularly highlight the **growth potential in renewable energy given the priority of securing energy supply in a sustainable manner** on a global basis (and in an accelerated manner in Europe). Energy independence is now a strategic and security goal for many countries, as well as an environmental imperative for the world at large. Innovation in clean energy development not only helps climate goals, but is now seen as a key strategy for improving energy security. The world markets and economies face great challenges but as history proves, economic agents' capacity for readjustment and innovation has allowed them to overcome great obstacles, generating opportunities for growth.

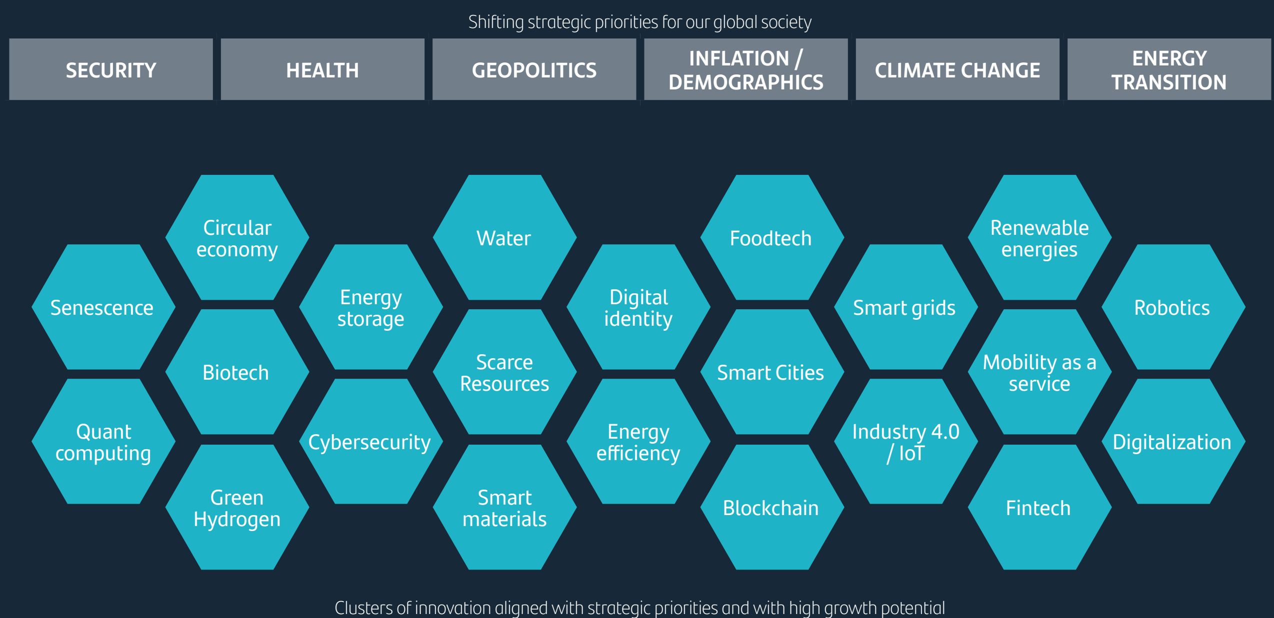
The current readjustment scenario should not make us ignore the potential of positioning in high growth sectors and thematics

The world is facing major challenges that offer opportunities for investment in innovation issues

Society is experiencing new challenges that imply a new balance of priorities.

Source: Own elaboration

The interplay between innovation and new priorities generates investment opportunities



Appendix: Tables.

Historical returns of main asset classes.

Source: Bloomberg and Santander.

Data as of 11/15/2022

	Returns						Annualized returns		
	2017	2018	2019	2020	2021	2022	3 years	5 years	10 years
Short-term (USD) (1)	**1.0%**	**1.9%**	**2.2%**	**0.4%**	**0.1%**	**1.2%**	**0.6%**	**1.2%**	**0.7%**
Short-term (EUR) (2)	**-0.4%**	**-0.4%**	**-0.4%**	**-0.5%**	**-0.5%**	**-0.1%**	**-0.4%**	**-0.4%**	**-0.2%**
Global Fixed Income (3)	**7.4%**	**-1.2%**	**6.8%**	**9.2%**	**-4.7%**	**-17.2%**	**-4.6%**	**-1.7%**	**-0.5%**
Fixed Income (USD) (4)	**3.5%**	**0.0%**	**8.7%**	**7.5%**	**-1.5%**	**-13.7%**	**-2.9%**	**-0.1%**	**1.0%**
Sovereign (USD) (5)	1.1%	1.4%	5.2%	5.8%	-1.7%	-8.0%	-1.4%	0.4%	0.6%
Corporates (USD) (6)	6.4%	-2.5%	14.5%	9.9%	-1.0%	-16.9%	-2.9%	0.4%	1.8%
High Yield (USD) (7)	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.3%	0.7%	2.6%	4.3%
Fixed Income (EUR) (8)	**0.7%**	**0.4%**	**6.0%**	**4.0%**	**-2.9%**	**-15.2%**	**-5.2%**	**-1.9%**	**1.0%**
Sovereign (EUR) (9)	0.2%	1.0%	6.8%	5.0%	-3.5%	-15.9%	-5.4%	-1.8%	1.3%
Corporates (EUR) (10)	2.4%	-1.3%	6.2%	2.8%	-1.0%	-13.2%	-4.1%	-1.5%	1.0%
High Yield (EUR) (11)	6.2%	-3.6%	12.3%	1.8%	4.2%	-11.3%	-1.4%	0.5%	3.7%
Emerging Global Fixed Income (USD) (12)	**8.2%**	**-2.5%**	**13.1%**	**6.5%**	**-1.7%**	**-17.8%**	**-4.3%**	**-0.8%**	**1.6%**
LatAm (USD) (13)	10.6%	-4.9%	12.3%	4.5%	-2.5%	-16.0%	-4.0%	-1.6%	1.2%
MSCI World (USD)	**20.1%**	**-10.4%**	**25.2%**	**14.1%**	**20.1%**	**-17.1%**	**5.5%**	**5.8%**	**7.9%**
S&P 500 (USD)	19.4%	-6.2%	28.9%	16.3%	26.9%	-16.2%	8.6%	9.3%	11.4%
MSCI Europe (EUR)	7.3%	-13.1%	22.2%	-5.4%	22.4%	-9.9%	2.2%	2.5%	4.7%
MSCI Emerging Markets (USD)	34.3%	-16.6%	15.4%	15.8%	-4.6%	-22.0%	-2.9%	-2.9%	-0.2%
MSCI Asia Pac. ex-Japan (USD)	37.0%	-13.9%	19.2%	22.4%	-2.9%	-18.2%	0.8%	0.6%	4.1%
MSCI Latin America (USD)	20.8%	-9.3%	13.7%	-16.0%	-13.1%	5.5%	-5.8%	-3.4%	-4.4%

(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 and Santander.

Data as of 11/15/2022

			Change	Last 10 years			Return			Annualized return		
		Last Price	12 months	Low	Range	High	2020	2021	2022	3 years	5 years	10 years
US	S&P 500	3,992		1,426		4,766	16.3%	26.9%	-16.2%	8.6%	9.3%	11.4%
	DOW JONES INDUS.	33,593		13,104		36,338	7.2%	18.7%	-7.6%	6.3%	7.6%	10.4%
	NASDAQ	11,358		3,020		15,645	43.6%	21.4%	-27.4%	10.0%	11.1%	14.9%
Europe	Stoxx 50	3,693		2,578		3,818	-8.7%	22.8%	-3.3%	3.4%	3.4%	4.1%
	Eurozone (EuroStoxx)	3,915		2,603		4,298	-5.1%	21.0%	-8.9%	1.8%	2.0%	4.7%
	Spain (IBEX 35)	8,188		6,452		11,521	-15.5%	7.9%	-6.0%	-4.0%	-3.9%	0.6%
	France (CAC 40)	6,642		3,641		7,153	-7.1%	28.9%	-7.1%	3.8%	4.6%	7.0%
	Germany (DAX)	14,379		7,612		15,885	3.5%	15.8%	-9.5%	2.8%	2.1%	7.4%
	United Kingdom (FTSE 100)	7,369		5,577		7,749	-14.3%	14.3%	-0.2%	0.3%	0.0%	2.6%
	Italy (MIB)	24,700		15,239		27,347	-5.4%	23.0%	-9.7%	1.5%	2.2%	5.0%
	Portugal (PSI 20)	5,818		3,945		7,608	-6.1%	13.7%	4.5%	3.4%	2.0%	1.1%
	Switzerland (SMI)	11,026		6,822		12,876	0.8%	20.3%	-14.4%	2.3%	3.9%	5.3%
LatAm	Mexico (MEXBOL)	51,656		34,555		56,537	1.2%	20.9%	-3.0%	6.0%	1.6%	2.4%
	Brazil (IBOVESPA)	113,161		40,406		126,802	2.9%	-11.9%	8.0%	2.0%	9.8%	7.2%
	Argentina (MERVAL)	155,159		2,854		155,159	22.9%	63.0%	85.8%	69.5%	42.6%	52.2%
	Chile (IPSA)	5,239		3,439		5,855	-10.5%	3.1%	21.6%	2.5%	-0.1%	2.3%
Asia	Japan (NIKKEI)	27,990		10,395		29,453	16.0%	4.9%	-2.8%	6.3%	4.9%	12.2%
	Hong Kong (HANG SENG)	18,343		14,687		32,887	-3.4%	-14.1%	-21.6%	-11.3%	-8.7%	-1.4%
	South Korea (KOSPI)	2,480		1,755		3,297	30.8%	3.6%	-16.7%	4.7%	-0.3%	2.9%
	India (Sensex)	61,873		18,620		61,981	15.8%	22.0%	6.2%	15.3%	13.6%	12.8%
	China (CSI)	3,866		2,146		5,352	27.2%	-5.2%	-21.7%	-0.1%	-1.0%	5.8%
World	MSCI WORLD	2,678		1,339		3,232	14.1%	20.1%	-17.1%	5.5%	5.8%	7.9%

Equities by style and sector.

Source: Bloomberg and Santander.

Data as of 11/15/2022

			Change	Last 10 years			Return			Annualized return			Ratios	
		Last Price	12 months	Low	Range	High	2020	2021	2022	3 years	5 years	10 years	PE Ratio	Divi-dend Yield
	MSCI World	2,678		1,339		3,232	14.1%	20.1%	-17.1%	5.5%	5.8%	7.9%	16.00	2.16
Style	MSCI World High Dividend Yield	1,327		923		1,447	-3.0%	12.6%	-8.3%	1.0%	2.1%	4.3%	12.84	3.81
	MSCI World Momentum	3,221		1,083		3,978	28.3%	14.6%	-17.7%	7.9%	9.1%	12.0%	12.03	2.87
	MSCI World Quality	3,233		1,092		4,058	22.2%	25.7%	-20.3%	8.6%	10.4%	11.9%	19.38	1.81
	MSCI World Minimum Volatility	4,224		1,909		4,730	2.6%	14.3%	-10.7%	2.3%	5.4%	8.5%	18.04	2.43
	MSCI World Value	11,072		5,496		11,827	-1.2%	21.9%	-6.4%	5.1%	5.1%	8.0%	12.11	3.22
	MSCI World Small Cap	584		256		705	16.0%	15.8%	-16.1%	5.6%	5.3%	9.5%	16.09	2.18
	MSCI World Growth	7,242		2,627		9,693	33.8%	21.2%	-25.3%	8.0%	9.5%	11.4%	24.43	1.02
Sector	Energy	473		164		473	-31.5%	40.1%	54.1%	-0.5%	-0.7%	0.1%	7.54	3.73
	Materials	520		229		590	19.9%	16.3%	-9.4%	13.0%	8.7%	7.5%	11.12	3.79
	Industrials	446		195		509	11.7%	16.6%	-12.5%	9.4%	8.5%	11.0%	17.34	2.14
	Consumer Discretionary	430		158		595	36.6%	17.9%	-27.6%	18.6%	15.4%	15.1%	20.77	1.37
	Consumer Staples	426		210		465	7.8%	13.1%	-8.2%	7.8%	7.2%	8.7%	19.82	2.62
	Health Care	478		158		518	13.5%	19.8%	-7.7%	12.8%	12.1%	13.2%	17.11	1.73
	Financials	233		113		263	-2.8%	27.9%	-9.5%	8.7%	6.4%	9.5%	12.20	3.15
	Information Technology	509		105		682	43.8%	29.8%	-25.4%	25.3%	22.1%	21.3%	23.05	1.02
	Real Estate	392		260		517	-5.0%	28.7%	-24.1%	7.6%	7.3%	7.7%	22.72	3.92
	Communica-tion Services	135		86		220	23.0%	14.4%	-33.7%	12.9%	11.6%	9.4%	15.29	1.60
	Utilities	300		156		331	4.8%	9.8%	-8.2%	6.3%	6.7%	8.2%	17.69	3.62

Government Bonds.

Source: Bloomberg and Santander.

Data as of 11/15/2022

	Rating (S&P)	Interest rate: C. Bank*	Interest rate: 2 years	Interest rate: 10 years	10 years: Change 12 months	Last 10 years: Low	Last 10 years: Range	Last 10 years: High	Interest rates change (bp) 10 years: Month	YtD	YoY	Yield curve steepness: 10-2 years
Developed												
U.S.	AA+	3.25%	4.34%	3.77%		0.53%		4.05%	-28	226	233	-0.57
Germany	AAA	0.75%	2.17%	2.11%		-0.70%		2.14%	-3	229	246	-0.06
France	AA	0.75%	2.22%	2.60%		-0.40%		2.72%	-8	240	259	0.38
Italy	BBB	0.75%	2.71%	4.06%		0.54%		4.76%	-24	289	309	1.35
Spain	A	0.75%	2.42%	3.12%		0.05%		5.27%	-10	256	273	0.71
United Kingdom	AA	2.25%	3.10%	3.30%		0.10%		4.09%	-22	232	249	0.19
Greece	BB	0.75%	n.d.	4.27%		0.61%		15.42%	-35	293	301	n.d.
Portugal	BBB	0.75%	2.29%	3.05%		0.03%		7.01%	-10	258	272	0.75
Switzerland	AAA	0.50%	0.75%	1.04%		-1.05%		1.19%	-8	120	130	0.29
Poland	A-	6.75%	6.96%	6.96%		1.15%		8.34%	-138	331	388	0.00
Japan	A+	-0.10%	-0.05%	0.25%		-0.27%		0.86%	0	17	19	0.30
Emerging Markets												
Brazil	BB-	13.75%	13.15%	12.90%		6.49%		16.51%	102	206	160	-0.25
Mexico	BBB	8.50%	9.80%	9.16%		4.49%		9.85%	-69	159	164	-0.64
Chile	A	10.75%	6.84%	6.60%		2.19%		6.79%	n.d.	n.d.	n.d.	n.d.
Argentina	CCC+	75.00%	n.d.	n.d.		0.00%		0.00%	n.d.	n.d.	n.d.	n.d.
Colombia	BB+	9.00%	11.99%	13.16%		4.85%		13.79%	-63	497	n.d.	1.17
Turkey	B+	12.00%	12.98%	n.d.		6.21%		23.00%	n.d.	n.d.	n.d.	n.d.
Russia	BBB-	7.50%	n.d.	n.d.		5.55%		15.99%	n.d.	n.d.	n.d.	n.d.
China	A+	2.78%	2.16%	2.82%		2.51%		4.58%	17	5	-4	0.66
India	BBB-	5.40%	6.85%	7.26%		5.84%		8.86%	-18	81	93	0.41

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

Currencies.

Source: Bloomberg and Santander.

Data as of 11/15/2022

		Change	Last 10 years				Annualized return		
	Last Price	12 months	Low	Range	High	2022	3 years	5 years	10 years
EUR/USD	1,0349		0.98		1.39	-9.0%	-2.2%	-2.6%	-2.1%
EUR/GBP	0.87		0.70		0.92	-3.5%	0.6%	-0.5%	0.8%
EUR/CHF	0.98		0.97		1.24	6.2%	3.8%	3.6%	2.1%
EUR/JPY	144		114		148	10.1%	-5.9%	-1.5%	-3.4%
EUR/PLN	4.73		4.04		4.86	-3.1%	-3.3%	-2.1%	-1.3%
GBP/USD	1.19		1.12		1.71	-12.3%	-2.7%	-2.1%	-2.8%
USD/CHF	0.94		0.88		1.03	-3.3%	1.6%	0.9%	0.0%
USD/JPY	139		87		149	-17.4%	-7.9%	-4.0%	-5.4%
USD/MXN	19.37		12.13		24.17	6.0%	-0.3%	-0.2%	-3.7%
USD/ARS	162.12		4.92		162.12	-36.6%	-28.3%	-35.9%	-29.7%
USD/CLP	887		471		969	-4.0%	-4.3%	-6.6%	-5.9%
USD/BRL	5.33		1.98		5.75	4.7%	-7.7%	-9.0%	-9.0%
USD/COP	4,859		1,763		4,940	-16.0%	-11.0%	-9.1%	-9.4%
USD/CNY	7.05		6.05		7.31	-9.8%	-0.2%	-1.2%	-1.2%
EUR/SEK	10.85		8.37		10.93	-5.1%	-0.6%	-1.8%	-2.3%
EUR/NOK	10.35		7.34		11.48	-3.1%	-1.0%	-1.4%	-3.4%

Commodities.

Source: Bloomberg and Santander.

	Last	Change	Last 10 years			Return			Annualized return		
	Price	12 months	Low	Range	High	2020	2021	2022	3 years	5 years	10 years
Crude Oil (Brent)	93.4		21		120	-23.0%	51.4%	20.6%	13.5%	15.3%	-5.1%
Crude Oil (W. Texas)	86.9		19		115	-20.5%	58.7%	12.9%	14.6%	16.0%	0.2%
Gold	1,776.8		1,060		1,971	24.4%	-3.5%	-2.8%	6.6%	11.5%	0.9%
Copper	8,376.5		4,561		10,375	25.8%	25.2%	-13.8%	12.7%	7.4%	3.1%
CRB Index	284.4		117		317	-9.7%	38.5%	22.4%	16.3%	14.6%	-1.1%
Rogers International	6.0		3		9	4.1%	47.7%	51.5%	31.4%	25.5%	-2.6%
Soybean	124.1		15		244	-8.8%	296.1%	89.7%	87.9%	91.1%	n.d.

"Periodic table" for asset returns

Asset Class	Reference Index	Calendar Year Returns										
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022*
US Equities	S&P 500 TR	20.9% Japan Equities	54.4% Japan Equities	16.7% Spain Government	12.1% Japan Equities	14.8% Global High Yield	37.3% Emerging Markets Equities	2.6% Spain Government	31.5% US Equities	18.4% US Equities	38.5% Commodities	24.2% Commodities
Japan Equities	Topix TR	19.3% Global High Yield	32.4% US Equities	13.7% US Equities	6.4% Europe Equities	12.0% US Equities	22.4% Global Equities	2.4% Eurozone Government	28.2% Europe Equities	18.3% Emerging Markets Equities	28.7% US Equities	1.1% Japan Equities
Spain Equities	Ibex35 TR	18.22% Emerging Markets Equities	27.8% Spain Equities	10.3% Eurozone Government	1.6% Spain Government	11.2% Emerging Markets Equities	22.2% Japan Equities	-0.4% Liquidity EUR	27.7% Global Equities	15.9% Global Equities	23.2% Europe Equities	-0.1% Liquidity EUR
Emerging Markets Equities	MSCI EM TR	18.1% Europe Equities	26.7% Global Equities	10.3% Japan Equities	1.4% US Equities	9.7% Commodities	21.8% US Equities	-1.2% Europe IG	18.4% Emerging Markets Equities	8.0% Global High Yield	21.8% Global Equities	-2.9% Spain Equities
Europe Equities	Eurostoxx50 TR	16.0% US Equities	21.5% Europe Equities	8.6% Spain Equities	0.3% Eurozone Government	7.5% Global Equities	11.3% Spain Equities	-3.3% Global High Yield	18.1% Japan Equities	7.4% Japan Equities	12.7% Japan Equities	-6.7% Europe Equities
Commodities	RJ/CRB Total Return Index	15.8% Global Equities	11.0% Spain Government	8.3% Europe IG	-0.1% Liquidity EUR	4.8% Europe IG	10.2% Global High Yield	-4.4% US Equities	16.6% Spain Equities	4.4% Spain Government	10.8% Spain Equities	-13.7% Europe IG
Global Equities	MSCI World TR	13.2% Europe IG	8.0% Global High Yield	4.9% Global Equities	-0.5% Europe IG	4.2% Spain Government	9.2% Europe Equities	-8.7% Global Equities	13.7% Global High Yield	3.0% Eurozone Government	1.4% Global High Yield	-14.6% Global High Yield
Europe IG	ERL0 TR	5.5% Spain Government	2.3% Europe IG	4.0% Europe Equities	-0.9% Global Equities	4.0% Eurozone Government	2.5% Europe IG	-10.7% Commodities	11.8% Commodities	2.7% Europe IG	-0.5% Liquidity EUR	-15.0% Spain Government
Liquidity EUR	Eonia TR	4.6% Eurozone Government	0.1% Liquidity EUR	0.1% Liquidity EUR	-3.5% Spain Equities	3.7% Europe Equities	1.7% Commodities	-11.5% Spain Equities	8.6% Spain Government	-0.5% Liquidity EUR	-1.1% Europe IG	-15.1% US Equities
Global High Yield	HW00 TR	2.8% Spain Equities	-2.3% Eurozone Government	-0.1% Global High Yield	-4.2% Global High Yield	2.6% Spain Equities	1.1% Spain Government	-12.0% Europe Equities	6.3% Europe IG	-3.2% Europe Equities	-2.50% Emerging Markets Equities	-15.4% Eurozone Government
Spain Government	SPAIN 10 YR	0.2% Liquidity EUR	-2.6% Emerging Markets Equities	-2.2% Emerging Markets Equities	-14.9% Emerging Markets Equities	0.3% Japan Equities	-0.4% Liquidity EUR	-14.6% Emerging Markets Equities	3.0% Eurozone Government	-9.3% Commodities	-2.7% Eurozone Government	-15.9% Global Equities
Eurozone Government	GERMANY 10 YR	-3.3% Commodities	-5.0% Commodities	-17.9% Commodities	-23.4% Commodities	-0.3% Liquidity EUR	-1.4% Eurozone Government	-16.0% Japan Equities	-0.4% Liquidity EUR	-12.7% Spain Equities	-3.1% Spain Government	-20.03% Emerging Markets Equities

\+ Returns -

*Data as of 11/15/2022
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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