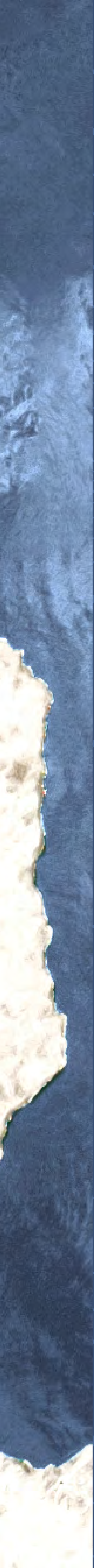

moneyfarm

# STRATEGIC ASSET ALLOCATION

# '23

# INDEX

# Richard Flax Editorial

**Richard Flax**
Chief Investment Officer, Moneyfarm

Welcome to the 2023 Strategic Asset Allocation report. The Strategic Asset Allocation (SAA) process starts each December, gets published and sent to clients at the end of February the following year. It allows the Investment Committee to focus on the long-term outlook for a broad range of asset classes. The goal is really to step back from the day-to-day noise of the global economy and financial markets and think about where we might be in ten years time. It's an important reminder of some of the core tenets of Moneyfarm, which are:

- Focus on the long-term
- Keep your costs and turnover low
- Don't get too distracted by all the daily noise.

In the SAA process, we focus on the key macro drivers for long-term expected returns, notably economic growth, inflation and starting valuations. It's quite a mechanical process, so there's relatively little scope for human judgment.

As you'll see later in the document, at the end of last year, the SAA pointed to a more optimistic outlook for financial returns across the board. The painful market environment in 2022 had produced better starting valuations in both bonds and equities. The impact was particularly pronounced in sovereign bonds, where returns improved significantly relative to what we had seen in past years.

What will it take for these forecasts to be correct? There are a few points to make.

First, the SAA assumes macroeconomic stability - inflation comes down and economic growth, albeit quite muted, resumes. Second, valuations normalise towards their ten-year average. Third, implicitly, we assume that profits stay about the same as a proportion of the economy - so economic growth is a decent proxy for profit growth. We don't think these are particularly heroic assumptions, but it's always worth highlighting them.

What does this say about 2023? Not much, at least, in theory. Long-term expected returns probably won't tell you much about what to expect in any single year, even if they prove to be accurate in the end. This year is likely to have its fair share of challenges, in both economics and geopolitics. But the SAA suggests that some part of that is already reflected in asset prices and that the long-term outlook may already be improving.

In this paper we are going to introduce our asset allocation process and discuss our macroeconomic view for the long and short term. This year we decided to add a special section to answer some of the most pressing questions our customers have for next year. Finally, we will present long term expected returns for each asset class and present our strategic portfolios for 2023.

We hope you enjoy reading the paper.

**Richard Flax**
Chief Investment Officer

# What is the Strategic Asset Allocation?

## The Strategic Asset Allocation (SAA) plays a fundamental role in the Moneyfarm investment process.

Each year, the asset allocation team (AAT) produces long-term valuations (10 years) on all the main asset classes that make up the Moneyfarm portfolios. These evaluations are used to find the right combination of assets to create portfolios that meet all customers' risk and return needs. It is a complex and important process and is the result of studying and monitoring markets throughout the year.

**What are the strategic portfolios?**
The ultimate goal of strategic asset allocation is the identification of the 7 strategic allocations that are the basis of the 14 portfolios we offer to investors. These combinations of assets are the final result of the SAA.

The strategic portfolios are then transformed into the "tactical" investment portfolios that we offer to investors. They serve:

- To outline the long-term perimeter within which to build the portfolios to guarantee adequate levels of risk and reward
- To guide the decisions of the Investment Committee regarding rebalancing
- To benchmark the performance of portfolios

**How are the strategic portfolios built?**
To build our strategic portfolios, we develop asset class forecasts for:

- » Expected returns are the forecast of the growth potential of the various asset classes from now to 10 years' time. Expected returns are a result of our team's vision of how economic, demographic and social trends will impact the valuation of the assets.
- » Expected volatility is a measure of risk and is estimated based on historical data.
- » Correlations help us to understand how the value of an asset moves relative to that of another.

Once the three ingredients of strategic asset allocation have been identified, it is possible to build portfolios that meet pre-established long-term risk and return objectives.

**How does the strategic asset allocation process work?**
It is a qualitative and quantitative process. Forecasts are made using a mathematical process but there are then various steps of control and validation of the results, and finally sign off by the Investment Committee.

# The strategic asset allocation process

### Correlations

This measures the tendency of assets to move together, in opposite directions or completely independently. This is the basis of diversification: asset classes that tend to move in different directions decrease the risk in the portfolio.

### Estimation of volatility

Strategy cannot be separated from risk analysis. Volatility is estimated for each asset class based on historical data.

### Expected returns

By looking at economic forecasts and current valuations of various asset classes, we estimate long-term returns.

### Risk/return profile for each asset class

### Provisional portfolios

### Limits

The portfolio managers set limits for asset classes that the SAA cannot breach. This ensures the portfolios remain diversified and are not over or underexposed to any particular geography or asset class.

### Robust optimisation

We carry out simulations to analyse the behaviour of the portfolio in different scenarios. This allows us to stress test our models and our assumptions and to create portfolios that are tested in adverse scenarios.

### Strategic portfolios

### Qualitative review

The Investment Committee monitors the results obtained through the quantitative process and takes corrective action if necessary.

# Market Editorial

# Navigating through extreme environments

## 2022 propropelled investors into uncharted territory: here are the reasons why we still think they can look at the journey ahead with confidence.

Almost exactly a year ago, as the first bombs fell on Kiev, few would have thought that the year of markets would be so difficult. The war in Ukraine served as the catalyst for the perfect storm that hit both the stock and bond markets.

The speed with which markets corrected was impressive, but the factors that led to the collapse were simmering in the background, as we pointed out in the same report last year. The euphoria that had hit markets and the economy, kept up by the massive aid programs that governments put in place during the pandemic, was gradually losing propulsion and the frenzy had already given way to cautious pessimism.

The imbalances caused by the pandemic were countered by the liquidity pumped into the system by central banks. What was surprising was the impact. The war in Europe, the energy crisis and rising inflation have moved us back a few decades. The energy crisis, the scarcity of resources and the re-emergence of international tensions have opened a gloomy glimpse into the future. The return of high inflation has thrown entire economies into a forgotten economic environment, outside the comfort zone created by Paul Volcker's Fed.

Last year projected investors into an extreme environment and will be remembered as one of the worst for those who invested in a multi-asset bond/equity strategy. If we look at the last 90 years, there are only five cases where both the stock index and the bond index have performed so negatively. However, for those who believe that the glass is half full, this means that statistically an investor can expect to see only a handful of such negative periods during his life.

As wealth managers, it is normal that a year like this leads us to reassess our point of view: testing the method and principles that characterize our approach to current reality. The good news is that we still have plenty of reasons to look to the future optimistically.

**Short term analysis**

Over the coming months we cannot ignore that the events that unfolded in 2022 continue to influence markets. There are three forces that will drive us but they can all also play a positive role: inflation, monetary policy and growth.

As far as economic growth is concerned, we have seen a steady deterioration in sentiment indicators in recent months. This widespread pessimism is not yet fully justified by a worsening of actual data (for example: consumption, labour market statistics, inventories, unemployment rates, car registrations, real estate deals) which offer, both in Europe and in the USA, a contrasting scenario with some indices showing signs of fatigue and other indicators, crucially including corporate earnings, which seem to be holding up and even beating expectations. In 2023 analysts expect monetary tightening to begin having a negative effect on the economy. For this reason, the probability of a recession is estimated by Bloomberg at 65% both in Europe and in the United States.

However, we believe that the crucial question is not whether the recession will come, but how intense it will be and especially if it has been priced in by markets. The first piece of good news is that we believe a mild recessionary scenario has already partly been priced in: equity prices and valuations have dropped significantly over the year, despite listed companies managing to keep earnings stable. Another potential good sign is that a mild recession (or no recession at all) remains by far the most likely case according to big economic institutes and analysts.

The other crucial issue lies in the link between economic policy and inflation. A slight slowdown in economic activity would reduce the upward pressure on prices, easing pressure on central banks.

If we look at the forecasts of the rate hikes implicit in the economy, we notice that in the United States, but also in Europe, markets are expecting an inversion toward expansionary policy at the end of the year. This decline should coincide with central bank intervention to support the economy that has entered recession. This eventuality is linked to the opportunity for inflation to go definitively under control.

Central banks have used a lot of rhetoric. They communicate to the market that their absolute priority now is not only to calm inflation, but also to bring it back to the 2% target. The reality is that markets believe that beyond this rhetoric, central banks will gradually shift their focus from inflation to supporting the economy.

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**The first piece of good news is that we believe a mild recessionary scenario has already partly been priced in**

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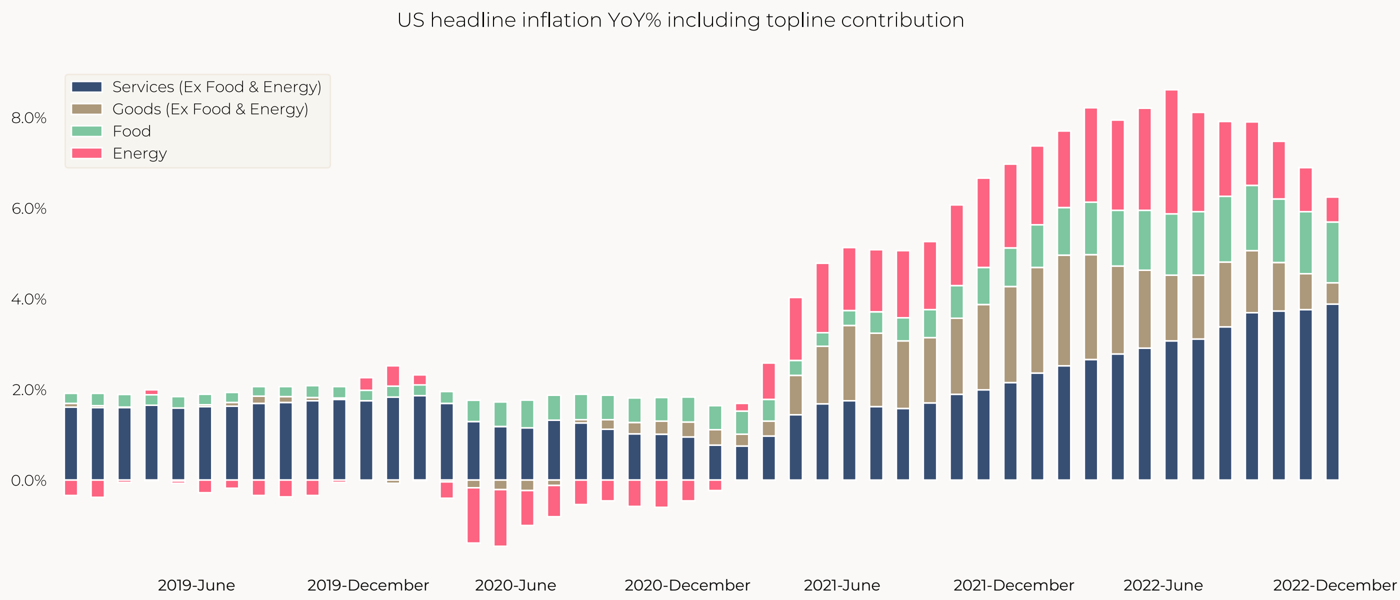
Who will be right? Much will depend on how price dynamics react to the monetary tightening we have witnessed. Even though we think inflation has reached its peak, if we analyze the contributing components of inflation, we find that the services part is still in an expansionary phase and could make reaching the 2% target an unrealistic goal. Here again we see a stark discrepancy between central bank expectations and those of the market.




*The deceleration of inflation in America was mainly due to decreasing energy prices.*
*Source: Moneyfarm Research, Bloomberg Data*

So will the US experience a recession? The answer to this question will unravel in the coming months. The good news is that as time passes on, the chances of a recession hitting the economy, with inflation running out of control and central banks with no leeway seems to recede. We believe that the possibility of a recession has already been partly priced in by the market and economic fundamentals suggest that the economy could be even more resilient, holding the door open for a positive surprise.

**It's still a good time to invest**

Let's not forget that strategic asset allocation is the time to focus on the long term. So what does the future hold for us? What can we expect from the financial markets in the next 10 years?

Again, 2022 was a year that made us think a lot. More people are wondering if we are actually facing a regime change: such as the end of the golden age characterized by low growth, low inflation and technological innovation, which has rewarded investors with sizable returns.

If we look at the history of the financial markets in recent years, we cannot deny that the system has been able to hold up quite solidly to some rather significant crises such as the Global Financial Crisis of 2008 and Covid.

Now, according to some, the economic imbalances that emerged very clearly last year would lead us towards a new economic phase: the end of the era of hyper consumerism, mass accessibility of services and full employment; the slowdown of globalization, with the recrudescence of major geopolitical tensions. In this new environment, money would be more expensive, growth slower, and financial returns more limited

We believe that all these trends should be observed carefully. However, we must not make the mistake of looking at short term volatility and letting that dictate our long term goals.

Here we highlight why we should still be confident in the economic and financial system, which is capable of evolving and prospering:

Technical innovation still has a long way to go. Much has been said about the crisis of Big Tech and the crisis of the growth sector, in a world of higher rates, where investments are more expensive and therefore rarer. But we see a very clear potential for evolution, and we believe there have never been so many innovative industries or technologies with a high potential for impact and growth. These technologies will play a role in solving the many imbalances we see around us, but they could also become a source of returns for investors. This is why we have launched thematic investments.

The risk premium remains favourable, both in terms of shares and bonds. This means that while cash accounts may seem more attractive than in the past, the multi-asset diversified approach remains the way forward.

It's too early to declare the end of great moderation. It seems that markets have more confidence in the ability of central banks to control inflation than they do in themselves. We believe that inflation can be tamed and that the prospect of a new period of economic stability is real. We believe that a higher level of inflation than we have seen in recent years, especially in Europe, is not necessarily a bad thing, as long as you take the right countermeasures to protect your savings.

The green transition has not lost momentum and the challenge to save the planet will be a catalyst for investments, ideas and resources over the next 10 years and beyond. Investing also means participating in this challenge with your savings.

Above all, as far as our management is concerned: the 10-year expected returns, which we will present further down, are the best for most asset classes of those we have encountered in the last 10 years.

All this shows that it's still worth investing today and that a good time to do it is now. For this reason, also this year, we renew our faith in the diversified and multi-asset approach and we continue to believe that investing is the best way to protect the financial interest of our clients in an uncertain world. Even when walking in the most hostile or extreme environments, the journey - if approached in the right way - can become a pleasant adventure.

The 10-year expected returns are the best for most asset classes of those we have encountered in the last 10 years. This means that it is a good moment to invest for people with a long term approach.

The risk premium remains favourable, both in terms of shares and bonds. This means that we think that financial market investments will have an edge vs cash instruments in the next 10 years.

We stick with our diversified and multi-asset approach and we continue to believe that investing is the best way to protect the financial interest of our clients in an uncertain world.

SOCIALLY RESPONSIBLE INVESTING:

# Finding a way ahead

## After massive growth in 2020 and 2021, both in terms of asset under management and performance, 2022 was a mixed year for ESG Investments.

**The conflict in Ukraine and the spiking inflation represented a challenge for both ESG investment and green transition.**

The conflict in Ukraine led to an energy crisis in Europe and in the United Kingdom to a scale not seen since the 1970s. The conflict led to a rethinking of the geopolitical risk. Rightly or wrongly, during the last few decades, the European Union ended up with a reliance on Russian natural gas to match its internal energy demand. With the break in relationship between the West and Russia, energy prices spiked by up to 15 times in a single year, reflecting in higher inflation and therefore becoming a headache for European governments and Central banks.

Market wise, oil and gas price spikes led to “windfall profits” for energy companies that recorded earnings 30% higher than other stocks. These abnormal profits allowed energy stocks, especially those directly related to extraction and refinement of fossil fuels, to outperform the S&P 500 by an estimated 80% in 12 months.

**EPS of energy company outperformed other by 30%**

For most of the other sectors 2022 was very volatile. Inflation, which was already under pressure, spiked even more and Central Banks increased rates significantly with the goal of keeping prices under control. In this environment, corporates saw margins shrink due to higher costs of raw materials and wages. The stocks with higher valuations (so-called “growth stocks”) saw further drops due to their higher dependency on lower interest rates.

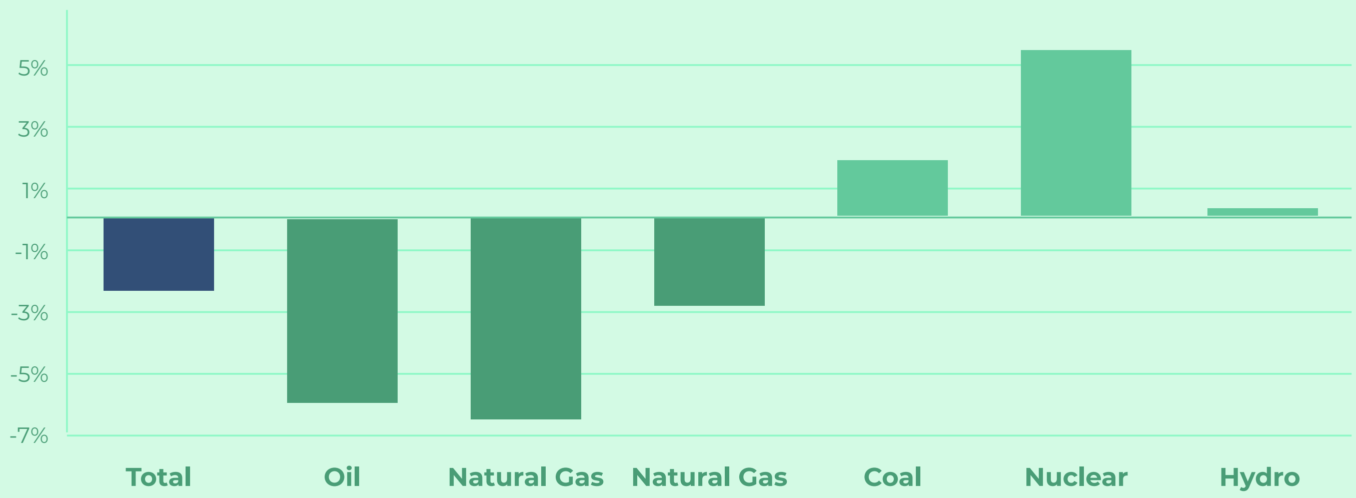
Overall, Socially Responsible funds that did not invest in business that generate revenues from fossil-fuel related activities generally underperformed traditional investments, as they were not supported by the spike in commodity prices.

Looking at the energy transition, the reduction of gas supplies from Russia and the increasing cost of energy had a dual effect. To address the lack of energy supply and the associated risks, many countries, such as Germany and France, reopened coal mines as a temporary measure. This is bad news for the environment as it is one of the least efficient energy resources in terms of carbon emission output.

However, over the long term there will be an acceleration toward clean energy and this can only be good news for ESG Investments. The energy crisis made various governments understand the importance  of renewables and other sources of energy to reduce the reliance on Russia's fossil fuels before 2030.

## Change in primary energy to 2035

(Change in 2035 relative to 2022 report)




*Our primary energy sources will change by 2035. The chart shows that clean energy reliance will grow while reliance on fossil fuel will reduce.*
*Source: Moneyfarm Research, BP Energy Outlook 2023 Data*

Meanwhile, the United States is investing in domestic energy production through the introduction of the Inflation Reduction Act (IRA). This federal law was signed by President Joe Biden in August 2022 and is said to be the argest ever investment into addressing climate change. Europe dealt with the impact of the Ukraine/Russia war in a similar way with the introduction of REPowerEU, which was issued by the European Commission on 18 May 2022. Its aim is to help Europe rapidly reduce its reliance on Russian fossil fuels by accelerating Europe's clean energy transition and by diversifying the source of Natural Gas.

# Three ESG trends

*What does this all mean for ESG trends in the future? Last year was disappointing for ESG Investors and green transitions, but now we expect 3 trends to emerge that will be meaningful in the development of ESG:*

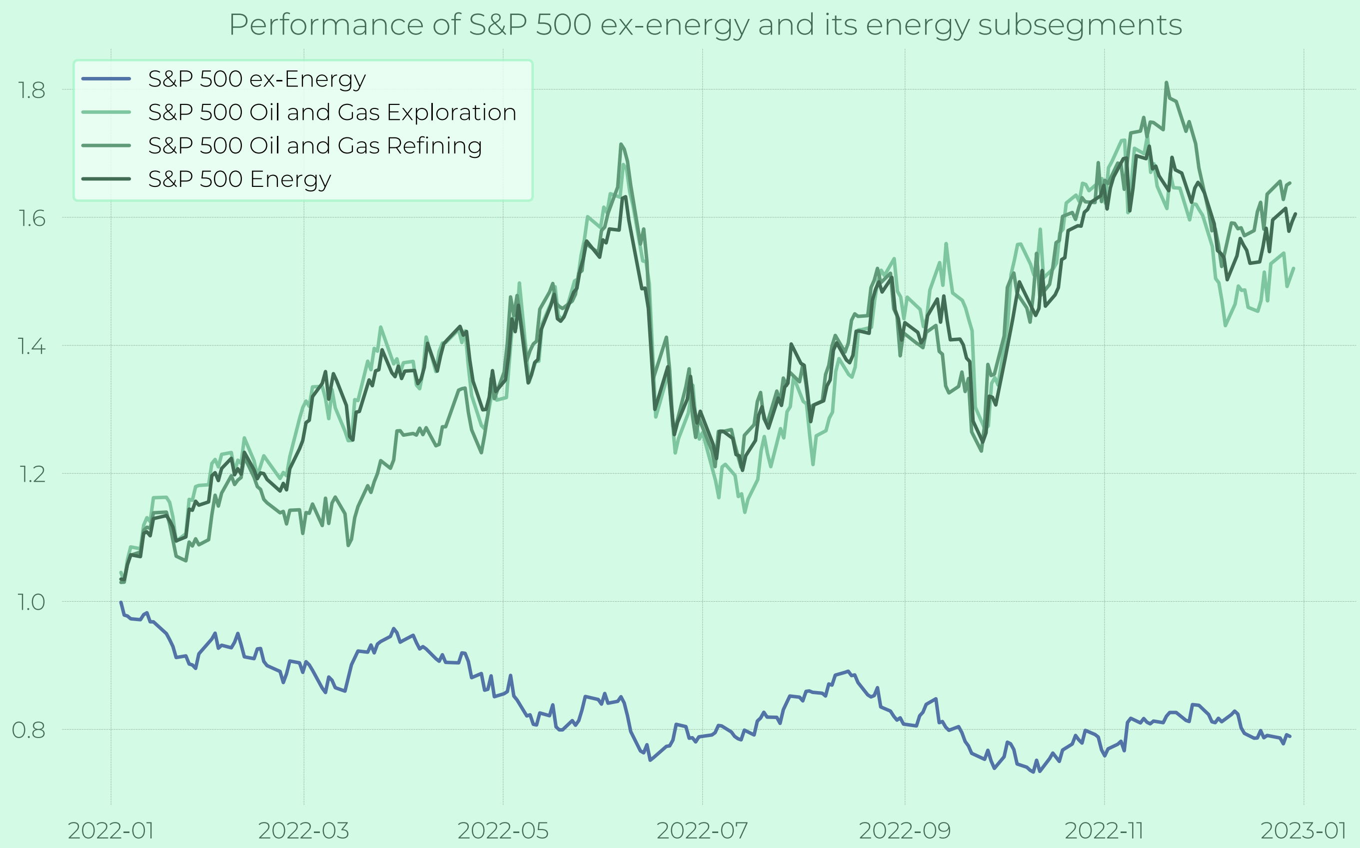
- **An increasing sophistication of ESG techniques**, ESG Data and regulation. We've seen the launch of new ETFs with sophisticated ESG integration techniques. There is still some work to be done. One of the key elements is the improvement in the way companies are evaluated in terms of their Carbon Intensity, CO2 netting and the reliability of CO2 estimates for the companies. We've already seen more forward-looking techniques being issued, but we expect even further innovation here in the future.

- **Green transition and Energy Securities** are becoming a stronger priority for regulators. We've seen further improvements in the regulatory framework, especially in the Eurozone, which introduced the Sustainable Finance Disclosure Regulation (SFDR) to have better oversight on greenwashing. We expect that the EU Taxonomy and the Corporate Sustainability Reporting Directive (CSRD), which was published in its final form in mid December 2022, will allow investors to have more clarity over which companies are really considered sustainable by the Regulator, standardizing the approach across the industry. The goal is to reduce greenwashing and boost capital flows from financial market participants resulting in an increase in Sustainable Impact investments. One of the effects in the regulation might be a boost in flows through companies that will innovate and actively engage in the energy transition. As announced by the ECB in the January meeting (but widely expected), Central Banks will tilt reinvestments of their corporate bond portfolio toward issuers with a better track record on climate and green bonds. Targeting sustainable companies with quantitative easing will increase the liquidity in the market and improve the financing of those companies.

- **There will be an increased awareness of active ownership** and engagement from investors. In 2021 the industry saw more active voting and engagement from some of the biggest asset managers to promote ESG resolutions. This trend is likely to continue in 2023. There may be some reluctance from some asset managers but we expect such participants to pass through the voting rights to the individual investor.

### What's the role of Moneyfarm in all of this?

The sophistication of the regulation and investment techniques make it necessary to have clear Responsible Investment goals. In line with our mission of "making finance simple and accessible" for our customers, at Moneyfarm we are continuously working to improve our ESG offerings, not only in their diversification, performance and resilience, but also to integrate the evolution of ESG techniques and requirements from the Regulator. In 2023, we will keep building the portfolios with what we deem to be the best ETFs on the market and analyze the active engagement of the asset managers.




*The blue line shows the performance of the SP 500 excluding the energy sector. In green you can see the performance of different energy related industries in the S&P. It shows how much fossil fuel companies outperformed the Ex Energy Index last year, a trend that we expect will revert in the long term.*
*Source: Moneyfarm Research, Bloomberg Data*

# KEY TAKEAWAYS

*ESG technique and investment offer are becoming richer and more sophisticated. This is positive as it gives us more freedom to design effective and reliable strategies.*

- We see a more positive regulatory framework toward ESG.
- The financial industry is playing a more active role in supporting sustainable investing.
- 2022 was negative for ESG but made many governments aware of the importance of energy diversification. We predict that this will result in a stronger push to renewable energy in the long term.
- With the launch of the new thematic portfolios we are also offering customers the ability to invest in companies actively providing solutions to the climate and environmental challenges that our world is facing.

THE INVESTORS' COMPASS:

# How we will help you to navigate the future with confidence

**Last year was a nerve-wracking year for investors. During volatile times and extreme market conditions it is easy to focus on what went wrong and lose perspective. We think that using Strategic Asset Allocation is the perfect tool to use to avoid getting influenced by market news and focus on the future.**

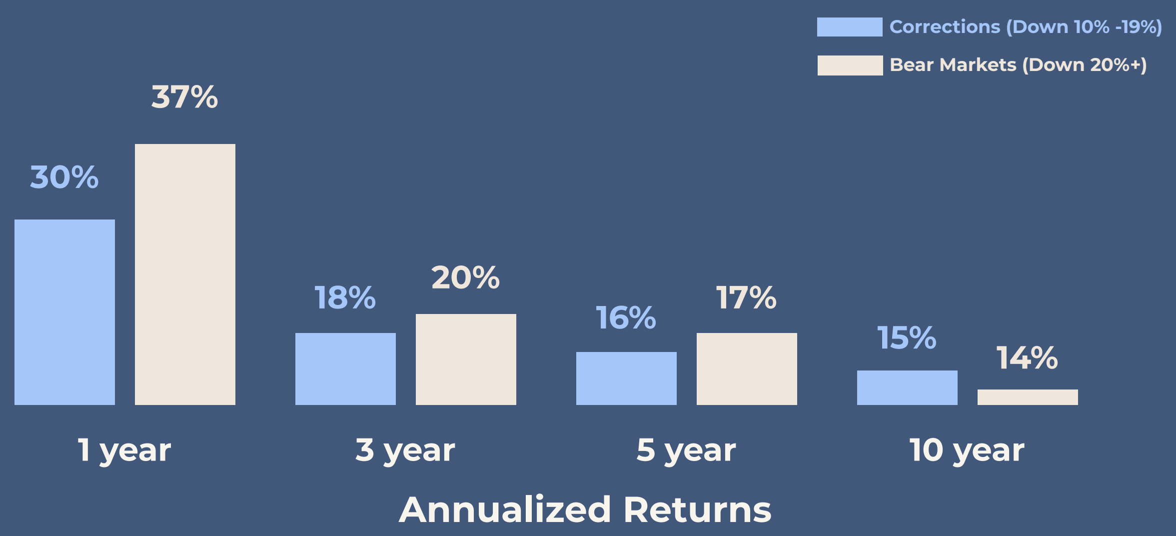
A few months ago we asked some of our customers about their main worries regarding their investments. There were a number of concerns that we've highlighted below and answered.

We don't have a crystal ball to look into the future (nobody does of course). However, we are confident that we can give investors the navigational tools to cruise the next few months and help them look more confidently ahead.

**How long will the recovery take?**
Over the last few decades, stock markets have had plenty of bear and bull runs. A bear market, by definition, is a fall of 20% or more while falls between 10%-20% are considered merely a correction. Historically, markets tend to have stronger performances after bear markets rather than corrections.

## Median Returns following large stock market selloffs

(1950-2022)




*The chart shows the median return of the S&P 500 after relevant market corrections and bear markets between 1950 and 2022. As you can see, after one year from the sell off the market has historically experienced higher returns that tend to normalise over time. This is called the "rebound" effect and it's one of the main reasons why it is important to keep investing following negative market periods.*
*Source: Moneyfarm Research, Bloomberg Data*

When it comes to recovering from a market downturn, risk management and diversification are key. In some cases, a recovery can take quite a long time, particularly if the portfolio is not diversified and 100% invested in US equity funds, for example.

Recovery can typically take as long as four years if we look at the last four financial crises. But this all really depends on the structure of your portfolio.

After particularly bad years, where both equities and bonds generated a loss (as is the case in 2022), multi-asset portfolios tend to recover more quickly and, in the majority of the cases, it takes them less than 10 months to break even.

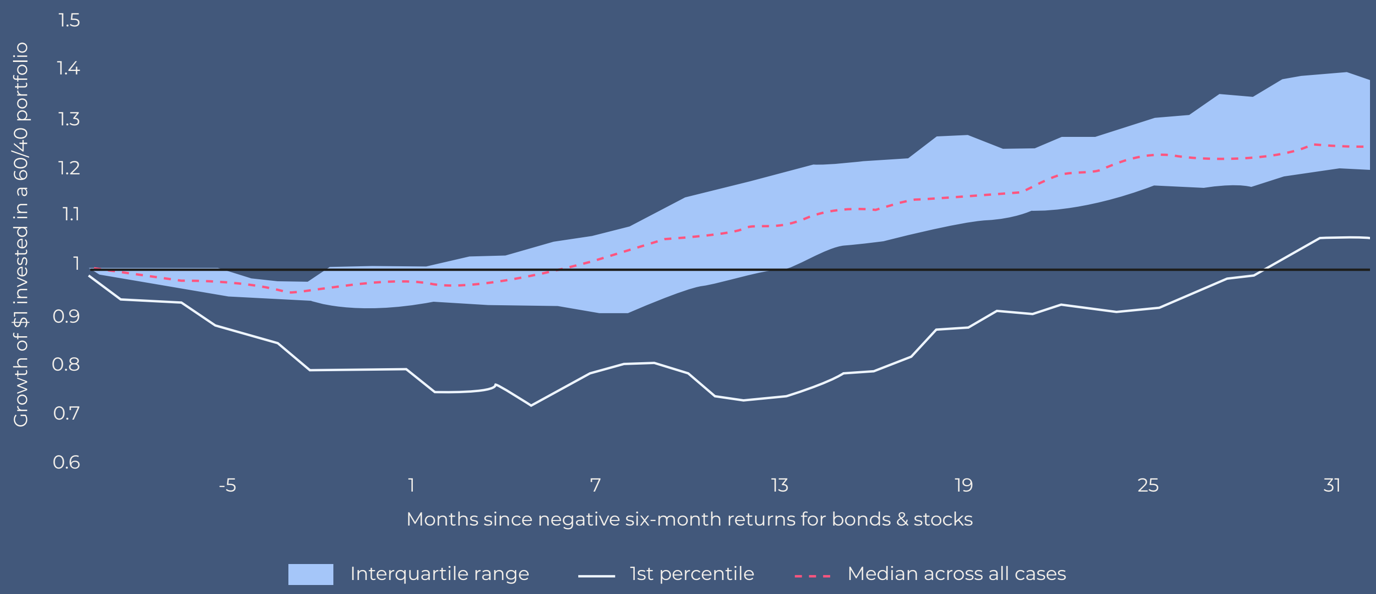
| Event | S&P 500 (TR) Drop from peak | Days to recover from low (TR) |
|---|---|---|
| 1998 Russian crisis and collapse of Long-Term Capital Management | -19% | 50 |
| The collapse of 200 'Dotcom' bubble 2000 to 2003 | -47% | 1,515 |
| Global Financial Crisis 2007-2009 | -56% | 1,286 |
| Covid early pandemic 2020 | -34% | 141 |
| Current 2022 (so far) | -24% | ? |

Investing your entire portfolio in equities could be risky. Even though the market took as little as 100 days to recover from some of the biggest financial crises of the past, recoveries can take longer. Be careful, though: if you are already invested you don't want to miss the positive returns during the rebound.
Source: Moneyfarm Research, Bloomberg Data

# Multi-asset portfolios tend to recover more quickly and, in the majority of the cases, it takes them less than 10 months to break even

## Multi-Asset portfolio offer resilience

3-year performance of 60/40 portfolios after correlated bond and equity market loses, 1920-2022



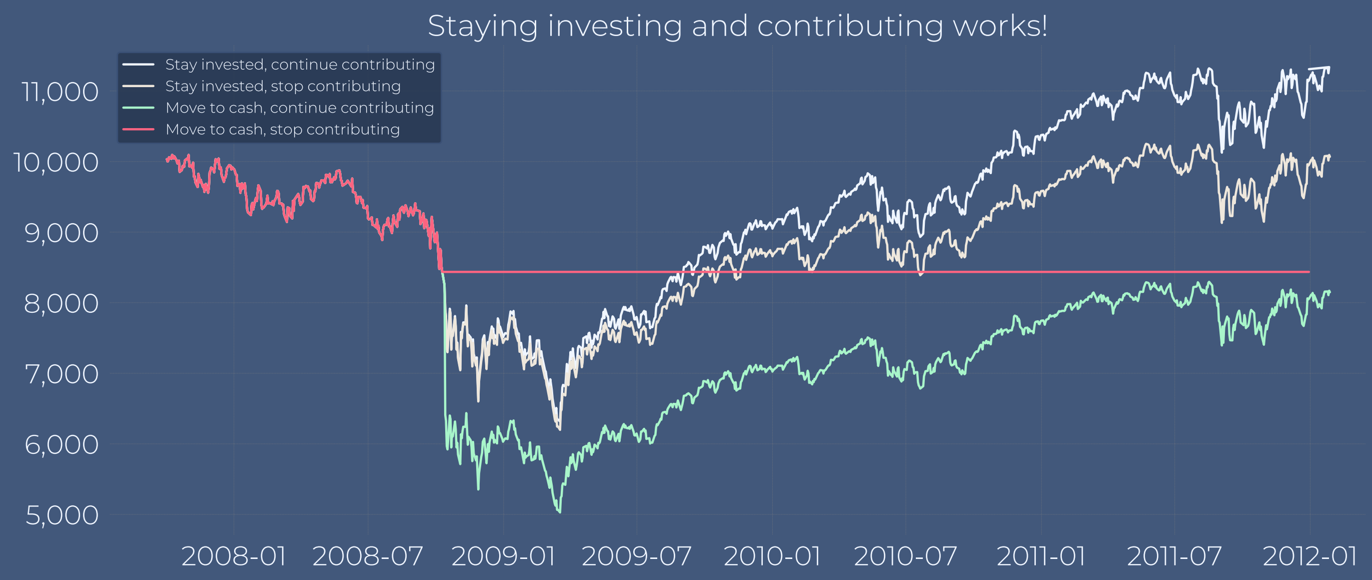

# Median

| 10 | -4.4% | 8.4% |
|---|---|---|
| Months to recover | Drawdown | Average 3 years return |

*The chart shows the 3 year performance of 60/40 portfolios after correlated bond and equity losses from 1920 to 2022. The median time to recover is 10 months and average historic performance is 9,9% a year.*
*Source: Moneyfarm Research*

Things look even better for investors who stay invested and keep on contributing to existing investments. We know this is not always possible but it really is the best strategy to adopt even during volatile market conditions. An investor that makes regular contributions but who disinvests after the first 20% drop of a 70/30 portfolio during the Global Financial Crisis (GFC) would typically take one extra year to break even, and would have missed around 30% of cumulative profit by then.

The natural conclusion from this analysis is that it's best to hold on and be patient. Moneyfarm acknowledges that investing during a downturn can be extremely stressful. However, historically, the easiest way to recover has been to remain invested and to keep on contributing to existing investments (if possible).

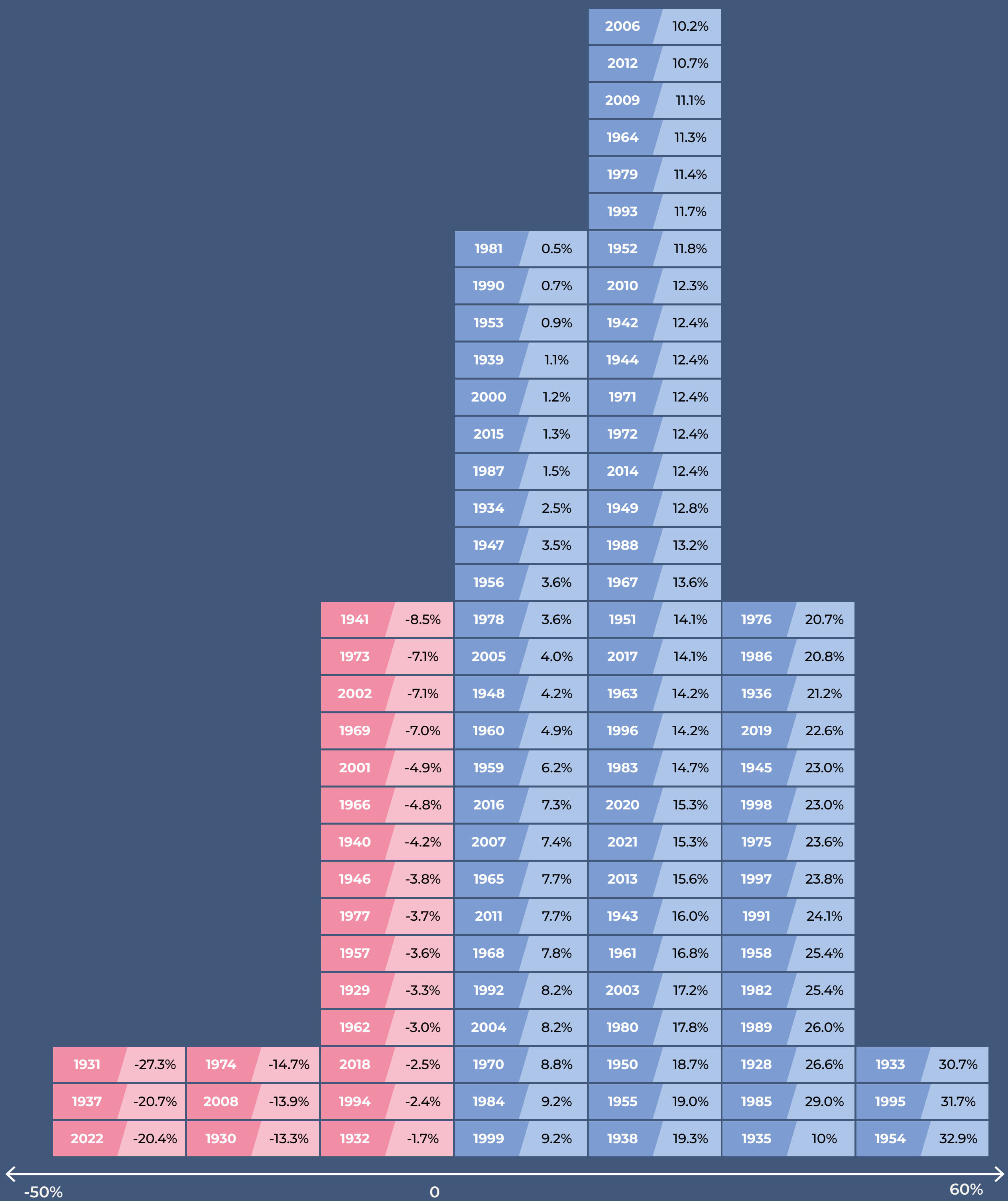



*Staying invested and keeping up with contributions gives you the best chance of recovery after financial crises. Here you can see how four different investors' decisions would have paid off after the great financial crisis of 2008 starting from the moment when market dropped by 20% (assuming a £20,000 investment in the S&P 500 and £300 of monthly contributions).*
*Source: Moneyfarm Research*

**Will we see returns as high as the ones we have experienced before?**
If you were to look over several decades you will notice that there are positive as well as negative years. For instance, 2021 was a year of great performance and, interestingly, it is not an outlier when looking at the past performance of a 60/40 allocation (S&P 500 and US Tresuries).

In contrast, 2022 certainly is an outlier in terms of performance - down 20.4%. However, when you compare the number of positive years to the number of negative ones, statistically it's more likely that we'll see more 2021 type returns and not years that perform dismally, like we saw in 2022.

# It's more likely that we'll see more positive returns and not years that perform dismally, like we saw in 2022



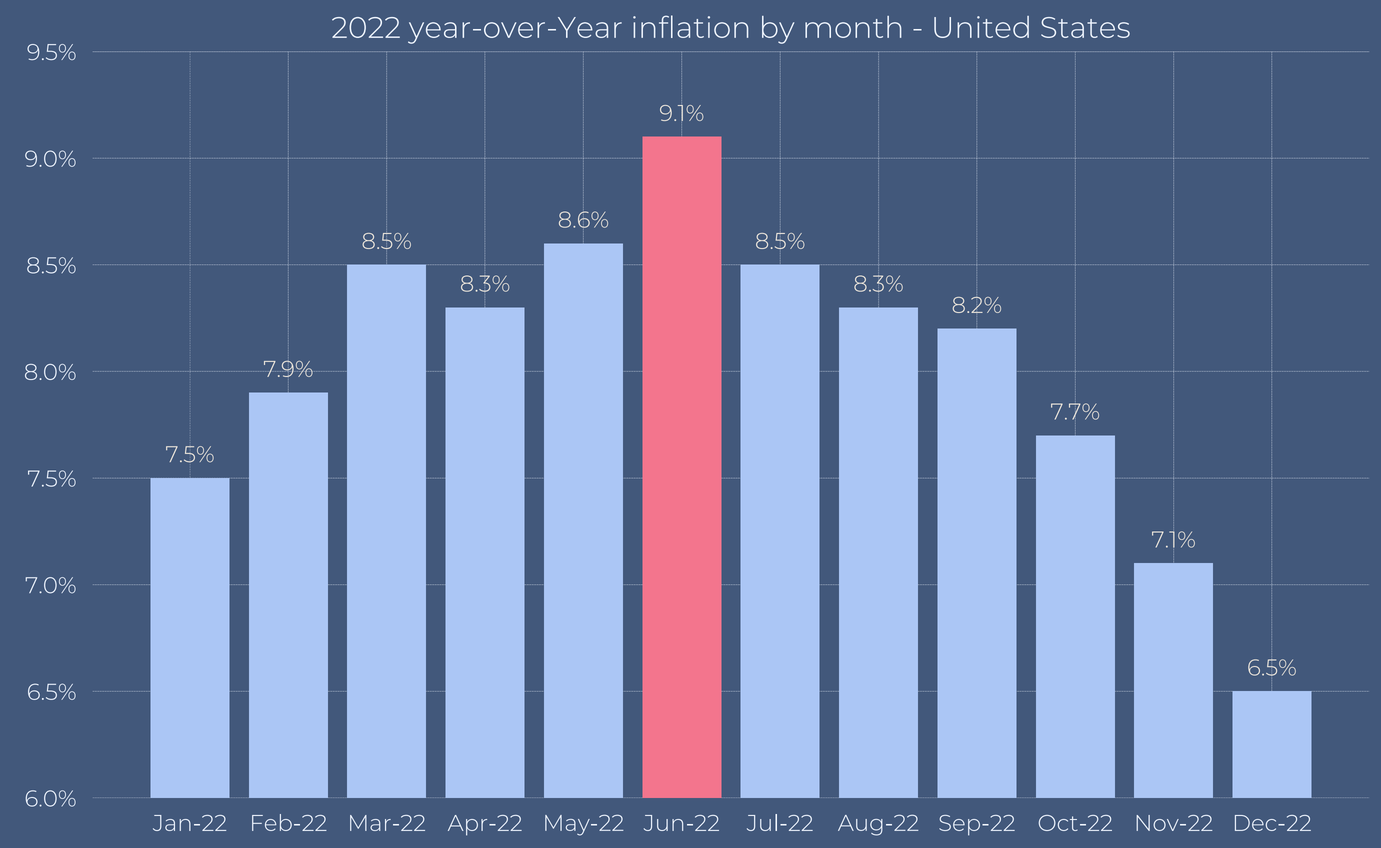

*Despite 2022 having been the third-worst year ever for 60/40 investment since 1930, historically positive years outnumber the negative ones significantly.*

There are no particular reasons to believe that returns will be lower in the future, especially if you also consider that, typically, markets tend to perform extremely well after an exceptional correction such as the one we saw in 2022.

Looking at data from 1950 to 2022, a bear market correction is usually followed by an returns averaging 20% per year over the next three years per year. This is positive news for investors but means riding out the volatility first before the good years follow.

**Will inflation keep rising?**

In the US, market analysts believe that inflation peaked in June at 9.1% year-on-year (YoY). The expectation now is that inflation will keep falling. The hawkish monetary policy, together with the partial normalisation of commodity prices (energy in particular), and the easing of pandemic-related supply chain problems have all contributed to a much lower rate of 7.1% in December. The data all points to a decisive decrease over next year, with the market expecting a 2% inflation rate at the end of 2023.



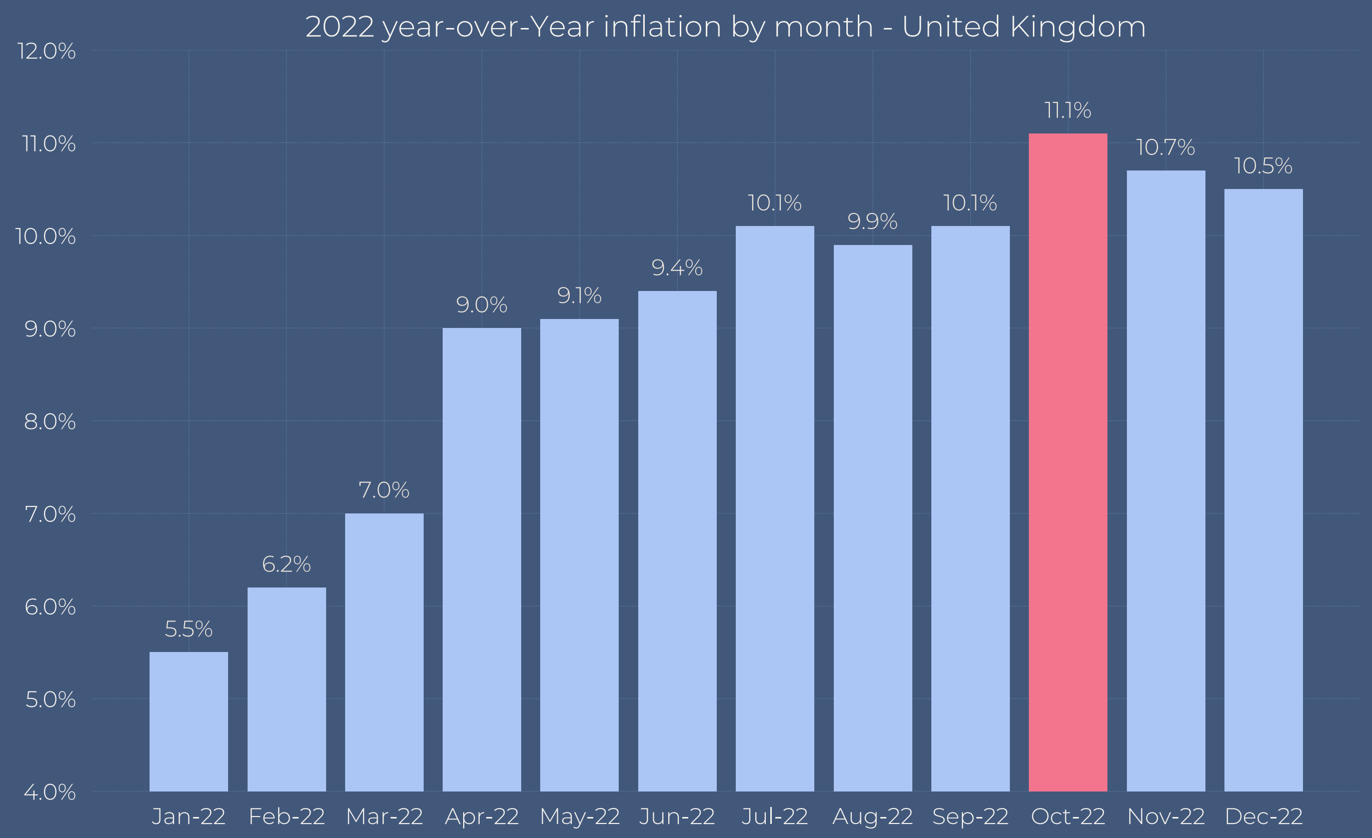

*This chart shows the headline CPI year on year in the US by month in 2022.*
*Source: U.S. Bureau of Labor Statistics*

# All points to a decisive decrease over next year, with the market expecting a 2% inflation rate at the end of 2023

# What about the inflationary trends in the UK and Europe?

## Inflation in the UK

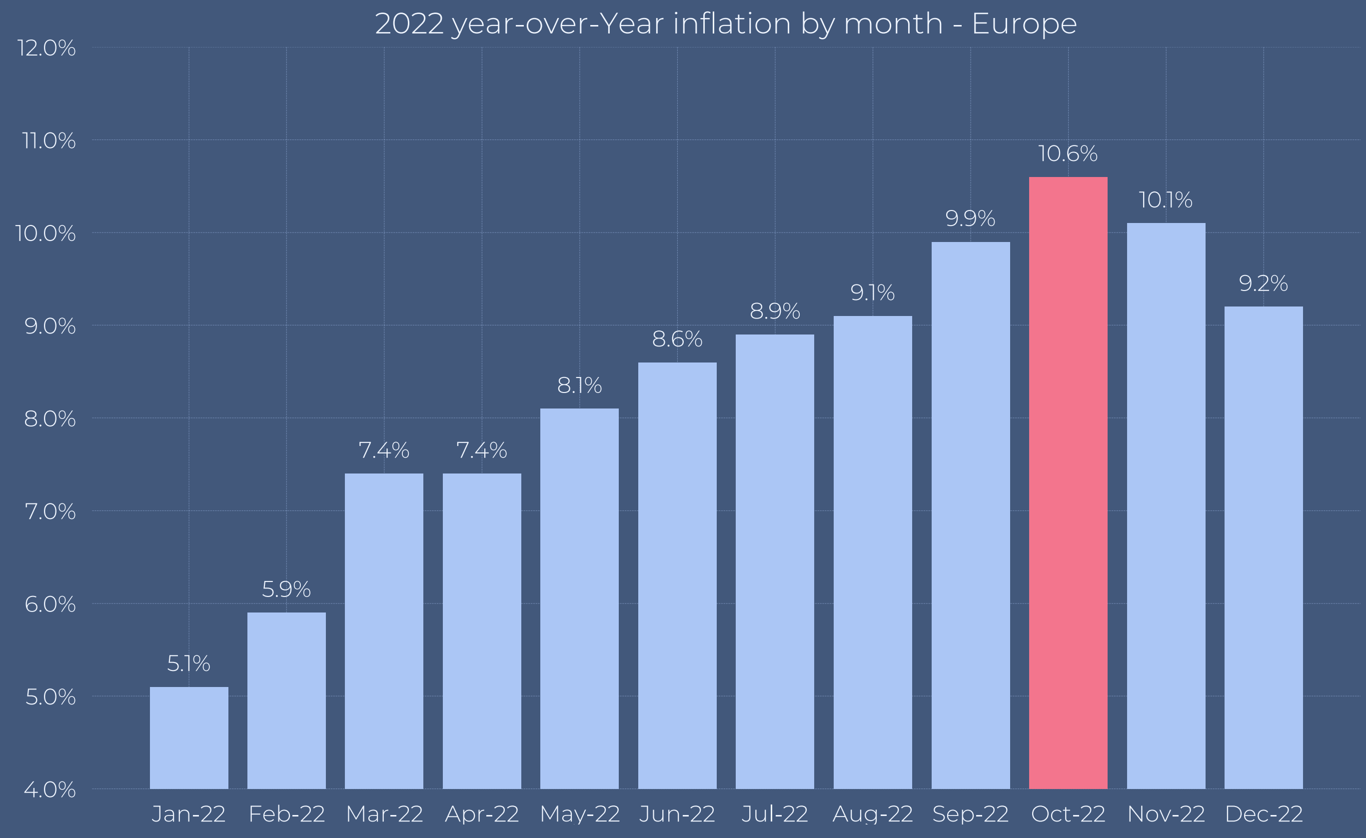
In the UK, market analysts believe that inflation may have peaked in October at 11.1% year-on-year (YoY). The expectation now is that inflation will keep falling. The hawkish monetary policy, together with the partial normalisation of commodity prices (energy in particular), and the easing of pandemic-related supply chain problems have all contributed to a lower rate in December, leading to hope for a continuous decrease over next year.




*The chart shows the headline CPI year on year in the UK by month during 2022.*
*Source: Office for National Statistics*

## Inflation in the EU

In Europe, while the nominal rate also seems to have peaked (in October), the ECB is still in the process of hiking rates. Markets' expectations are for a higher terminal rate, but the warm winter is starting to suggest that the nominal component of the price increase may come down faster, bringing it to lower levels than expected by the end of the year.




*The chart shows the headline CPI year on year in the EU by month.*
*Source: Eurostat*

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# How will a recession impact my savings and investments?

According to the Office of Budget Responsibility the UK is in a recession and will likely remain in one for the whole of 2023. The technical definition of a recession is when gross domestic product (GDP) falls for two consecutive quarters.

During normal times when the economy is enjoying growth people tend to earn more as GDP increases. However, generally, when GDP falls the economy suffers and people tend to earn less as companies restrict budgets and don't offer wage increases in line with inflation.

A recession is likely to impact our financial situation in many different ways. Some people may become more risk averse and turn to cash savings accounts. Some may be feeling an increased financial pinch, which could affect their ability to save.

In terms of market performance, a recession affects corporate earnings, which in turn results in negative market performance. Financial markets, however, tend to anticipate economic trends as the table below shows. Negative market performance tend to occur in the six months prior to a recession, whilst in most cases markets start to bounce back during the economic downturn.

| Recession | 6 months prior | During Recession | One Year | Three Years | Five Years | Ten Years |
|---|---|---|---|---|---|---|
| Nov 1948 - Oct 1949 | 9.83% | 4.12% | 31.48% | 87.98% | 171.33% | 497.04% |
| Jul 1953 - May 1954 | -6.46% | 27.57% | 35.92% | 83.74% | 144.81% | 294.38% |
| Aug 1957 - Apr 1958 | 9.28% | -6.51% | 37.31% | 66.35% | 89.72% | 211.33% |
| Apr 1960 - Feb 1961 | -1.04% | 18.40% | 13.61% | 35.06% | 68.41% | 111.33% |
| Dec 1969 - Nov 1970 | -7.78% | -3.45% | 11.24% | 20.63% | 25.16% | 145.87% |
| Nov 1973 - Mar 1975 | 2.86% | -17.90% | 28.32% | 21.99% | 55.33% | 252.40% |
| Jan 1980 - Jul 1980 | 7.67% | 16.14% | 12.92% | 55.89% | 100.89% | 345.64% |
| Jul 1981 - Nov 1982 | -1.02% | 14.66% | 25.40% | 67.24% | 103.23% | 350.51% |
| Jul 1990 - Mar 1991 | 3.09% | 7.64% | 11.04% | 29.84% | 98.21% | 284.66% |
| Mar 2001 - Nov 2001 | -17.84% | -7.18% | -16.51% | 8.44% | 34.33% | 33.16% |
| Dec 2007 - Jun 2009 | -2.33% | -35.46% | 14.43% | 57.70% | 136.98% | 294.17% |
| Mar 2020 - Apr 2020 | 1.92% | -1.12% | 45.98% | ??? | ??? | ??? |

*The chart shows how negative market performances in some cases tend to anticipate recessions, whereas during economic turndowns market rallies anticipate recovery. This is especially true in the case of recessions that were widely foreseen by markets, such as the one expected in 2023.*

“

*It may be tempting to keep your money in cash accounts as the interest rates offered by banks are looking more attractive and secure.*

**However, the key drawback is the risk of missing out on any rebound.**

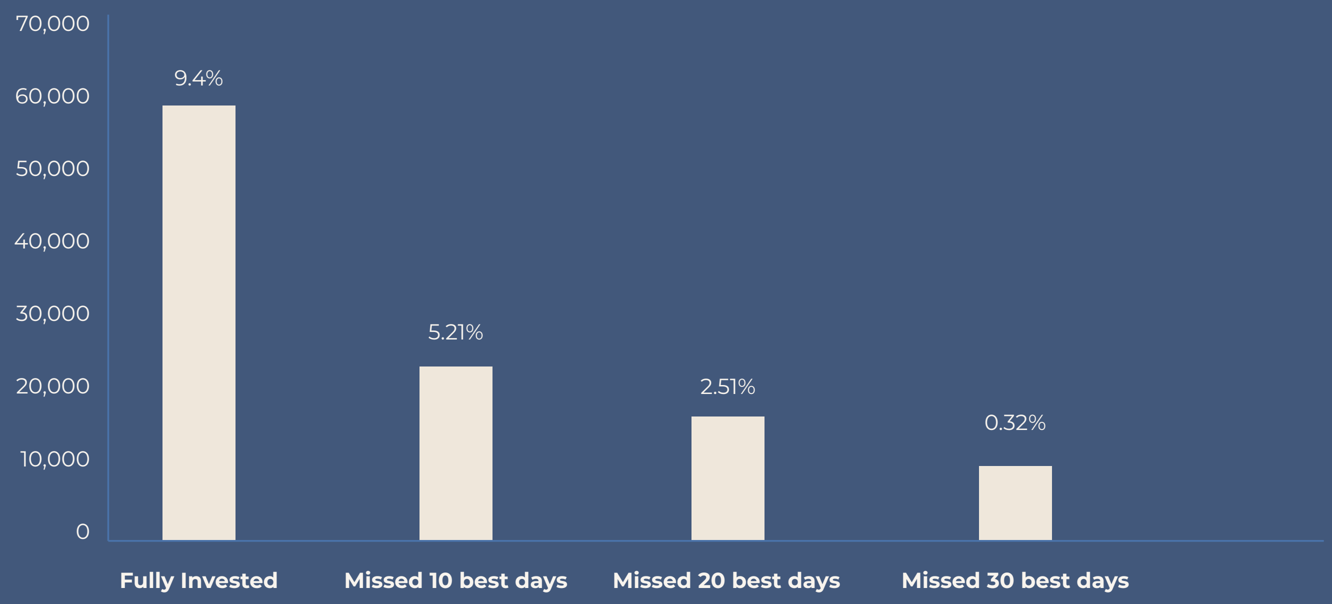
“

# What should I do as an investor?

While things may seem volatile, Moneyfarm believes that staying invested (and keeping up with contributions - if possible) is the best strategy. There will always be a reason not to invest or to disinvest, but missing out on markets' rebounds could be detrimental to achieving your long term financial goals. Missing 10 of the best days, which usually occur within 15 days of the worst 10 days, can halve performance of a portfolio when looking at the last 20 years.

**It's always darkest before dawn**

Annualized performance of a $10,000 ivestment between January 2002 and January 2022 ($)




*Source: Factset, Returns are based on the S&P 500 Total Return Index. Past performance is not indicative of future returns. An individual cannot invest directly in an index. Data is as of January 31, 2022*

*The chart shows the market performance of a 20 year investment (January 2002 - January 2022) in the S&P 500 and focuses on some of the best days in the market. It highlights how seven of the 10 best days occurred within fifteen days of the 10 worst days, this is why it's important to stay invested, even in difficult times.*
*Source: Moneyfarm Research*

As can be seen by the above chart, it's clear that the times where people would've chosen "not to invest" would have represented a missed opportunity.

From the 2008 financial crisis to the Covid pandemic, markets have always recovered. The reality is that we live in a world that keeps moving forward. The upward trend of the graph demonstrates the simple, inevitable, progress of the human race.

Few have the skills and foresight to time markets but if you remain invested you should, ultimately, benefit from the upswing when it happens.


*Historically financial markets have delivered long-term and significant growth despite numerous crises and setbacks.*
*Source: Moneyfarm Research*

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# STRATEGIC ASSET ALLOCATION

# '23

ANALYSIS OF:

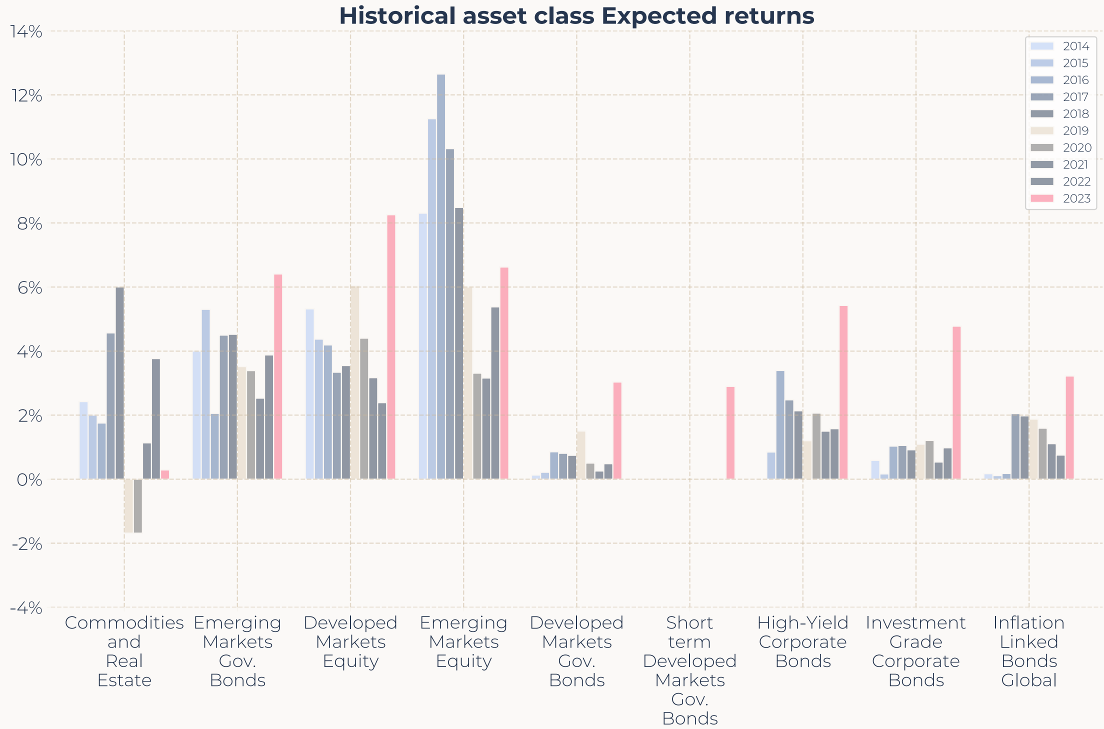
# Expected returns

**So, after establishing these key initial considerations, it's now time to turn our attention to the Strategic Asset Allocation (SAA) for 2023. Moneyfarm's team bases its decisions on macro variables and financial metrics, like starting valuations, to evaluate the future financial performance of our main asset classes. We apply it to broad regions and asset classes, rather than focusing on specific sectors and sub-sectors.**

The construction of the strategic portfolios is based on the long-term projected returns for each asset class and the estimate of expected volatility. Those estimates, about asset profitability and risk (along with our views on correlations), are then used to build the strategic portfolios.

Those portfolios maximize projected revenues for each risk level and are the guidelines for the actual portfolios, which takes in consideration also tactical-short term views.

In this next section, we'll go into detail about the valuations of the main asset classes that make up the expected returns.




*Source: Moneyfarm Research*

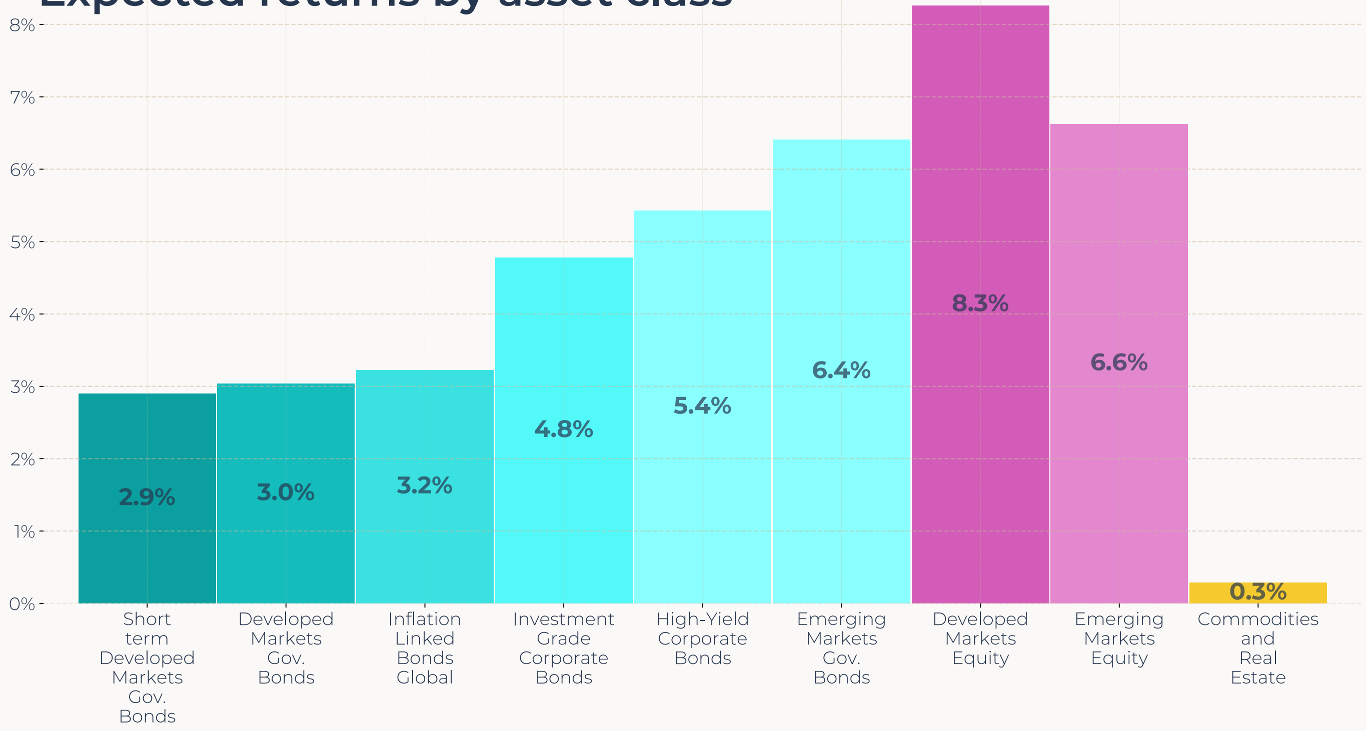
The chart above shows the long-term expected returns for 2023 SAA are generally quite high, with Developed Market (DM) Equity set to be the one of the best performing asset classes for the year. Equity risk premium is pretty solid at 5%, driven by still resilient expected earnings yields and growth. Emerging Markets also look promising, mostly thanks to an export outlook in line with the strong historical median.

As for government bonds, interestingly, the difference between short term and long term bond performance is not very significant, implying that taking on duration risk should not provide over performance, even if it still adds value as a diversifier or to take shorter term investment bets. Finally, with long-term inflation expectations remaining anchored, linkers and nominals are expected to perform similarly.

On the risky fixed income side, credit is expected to perform really well on the back of strong yields relative to the expected default rates, with high yield only slightly higher than investment grade, and emerging market debt showing the overall best long term expected return.

Finally, the SAA expects a poor performance for commodities, even if this asset class can still play an important role  as a hedge to geopolitical risks.

## Expected returns by asset class

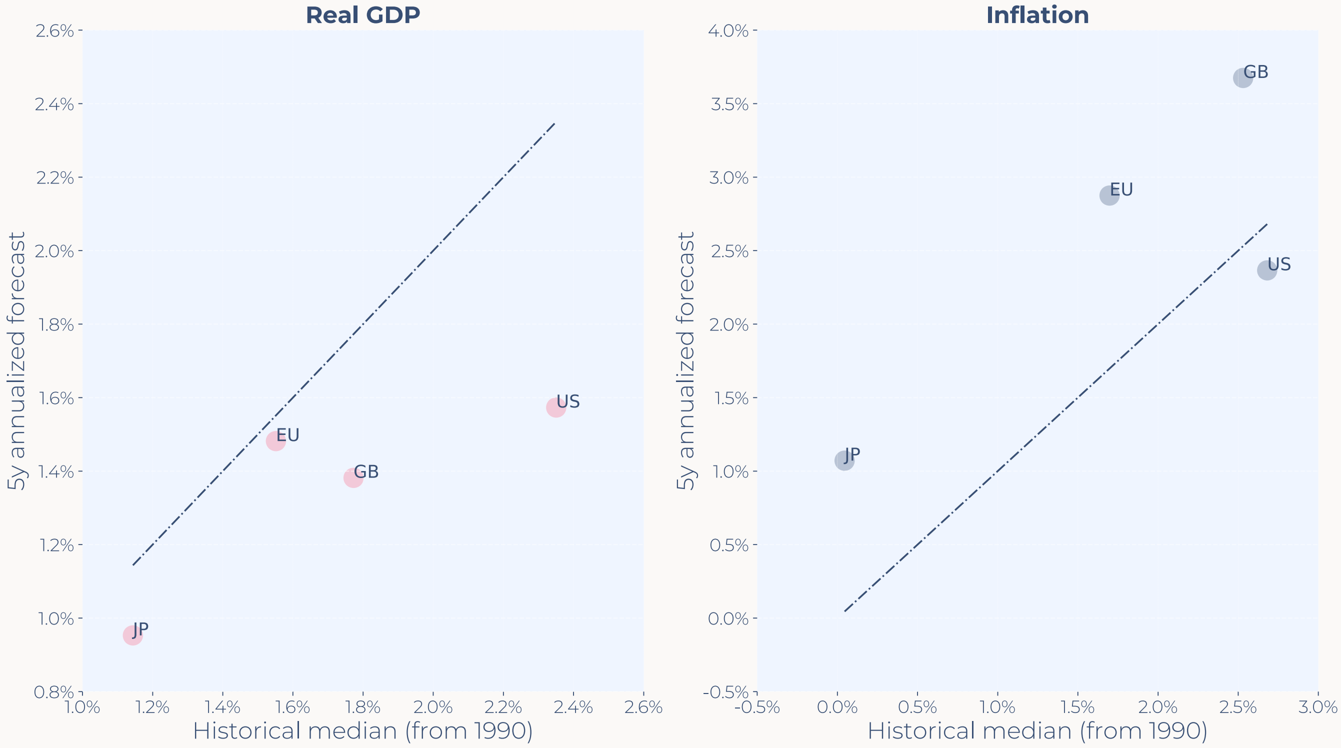



*Source: Moneyfarm Research*

# The macro environment

Forecasting the macro environment is a crucial element of the SAA process as it helps us estimate long term growth of earnings that affect equity and interest rate scenarios for fixed income.

The international Monetary Fund's (IMF) long term expectations of real GDP are less positive now than they have been in the last few years. For example, their expectations for US GDP growth over the next five years is 1.6% vs a historical median of 2.4% (from 1990). This is valid for most geographies except for the EU. CPI is supposed to be higher than historical levels, mainly over the next 12 months, with the US less impacted. These two combinations lead to a lower Nominal GDP for the US that will impact our EPS growth assumption.



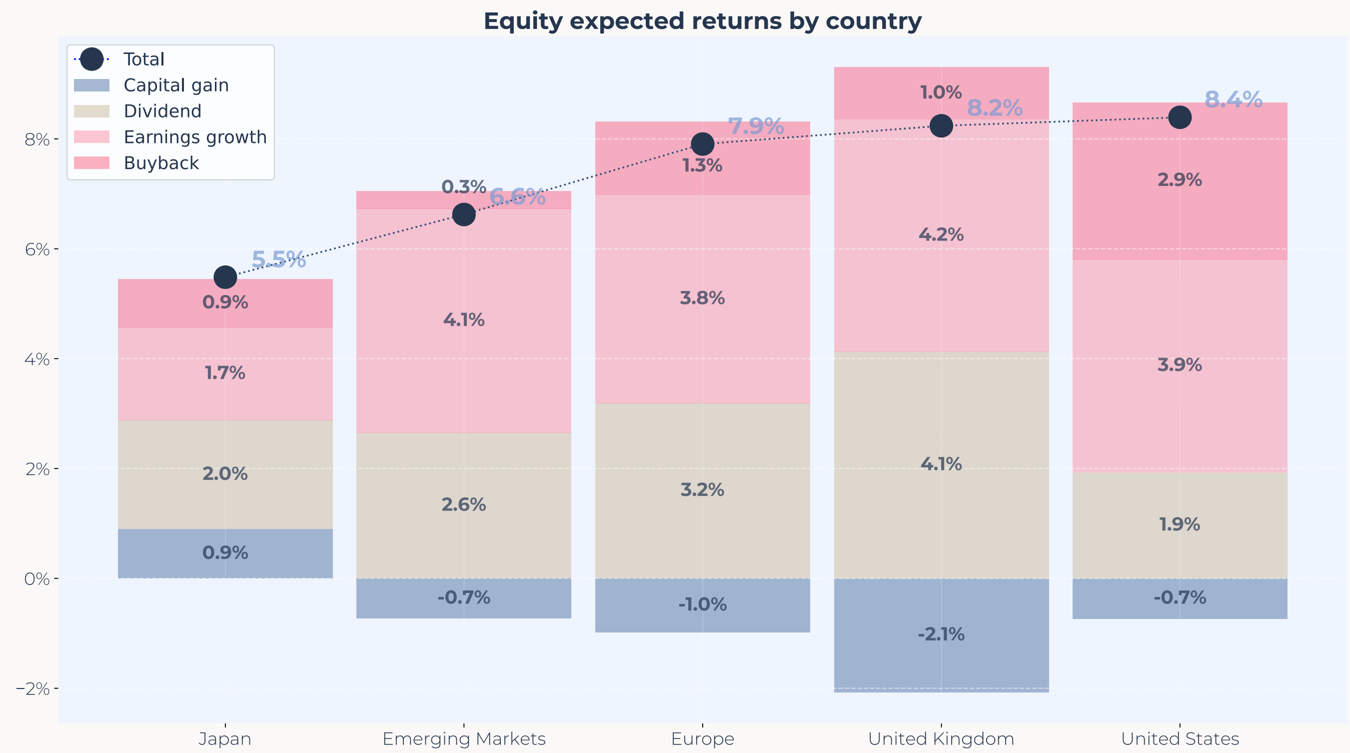

*The chart shows the relationship between current GDP and inflation as well as the IMF's expectations vs their historical median. As you can see, expectations for GDP are lower than they were previously, as inflation rises with the notable exception of the US. As we used those forecasts to calculate long term expected returns we believe there is room for a positive surprise on both sides.*
*Source: IMF*

For EM, exports estimates are flat at 4.2%, totally in line with their historical median, as shown in the chart on the next page.


*This chart demonstrates how the predicted exports volume is in line with the historical median, signaling a more robust and sustainable rebound from the lows of COVID. Our long term expected returns for emerging markets are based on this information and other factors.*

*Source: Moneyfarm Research*

# Equity




*The chart shows the different components that contribute to the expected return for equity (coloured bins) and the total expected return (dots). While Earnings Per Share growth is similar across the board (pink bin), the dividend yield for the US is lower than for the other countries. Moreover, the UK and the US are the only countries where we expect a significant capital loss, because valuations are still higher than their long term average. The chart shows the expected returns for equity by geography and by key contributors.*

*Source: Moneyfarm Research*

**Here we analyse each of the components that drive long term equity performance:**

- Valuations: valuations are important because they express how much investors are paying for earnings growth. Higher valuations indicate lower expected returns. The current level of valuations is in line to their long term historical average, meaning that stocks are not expensive or particularly cheap. For the US and the UK, the current value is still above their long term median and as such valuation carries a negative on long term expected returns.

- Earnings growth is a key driver for equity returns, since it represents how much business companies are expected to do and drives the cash flows for stockholders. Our expectations are quite conservative and in line with moderate GDP growth expectations. Historically, Median Earnings per share growth over the last 10 years for the US (our biggest equity exposure) is 8%, while we are expecting 4% for the next 10 years. Still this represents the biggest driver to our expected returns.

- Dividend: dividends and buybacks are generally the less volatile component of the equity returns. We evaluate the dividend yield with a 10 year average.

# Fixed Income Government Bonds

The expected return for fixed income are made of three main components:

- Yield to maturity (carry): it can be approximated as the coupon that is paid by the bond over its entire duration. Higher interest rates are positive for the expected return, but might be caused by higher risk.

- Capital gain / losses: If the bond is not held to maturity, the difference between the buy price and the sell price of the bond can generate a return or a loss. This price is affected by the movement of interest rates. Higher interest rates negatively affect the price level of the bond.

- Expected default: This component is generally pretty limited in developed economies. An increasing default risk might generally translate into wider spreads, leading to losses in capital gain.

We see a little difference between short term government bonds and long term government bond expected returns,

- Carry: the carry favors short term government bonds, because of the flat curves we see today. The short term US treasury is at 4.2% while the long term one is at 3.5%.

- Capital gain / loss: considering the US GDP long term growth and the US CPI, we estimate the equilibrium rate in 10y, would be around 2% for the short maturities and around 3.5% for the longer maturities. This means that we are going to have a capital loss for long term government bonds and a capital gain for short term ones.

As the chart on the next page shows, the expected returns for Fixed Income Government Bonds have increased massively compared to last year, thanks to the sell-off we saw in 2022. This means that the asset class is becoming more appealing than it was historically. So how should you approach bond investing?

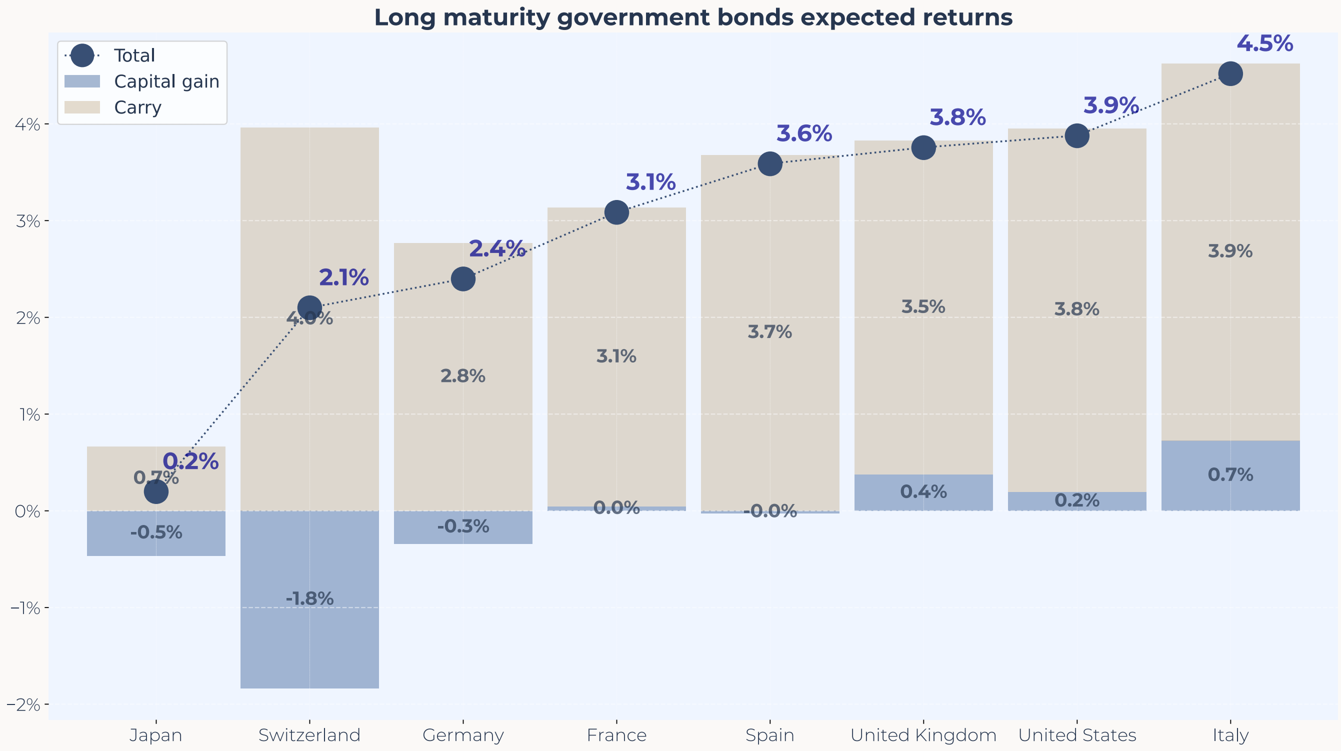
Investors need to be careful not to look at the attractiveness of bonds with rose-tinted glasses. The attractive coupons found on the market today could invite investors to put more of their assets into bonds than would be optimal. Another risk, which we see in the investment behavior of many investors, is that of concentrating the investment on a few bond issues.

In our view, there are several reasons to continue to favor a diversified bond index investing through ETFs (exchange traded funds), and most importantly, we still believe that bonds offer more benefits through a Multi-asset product.

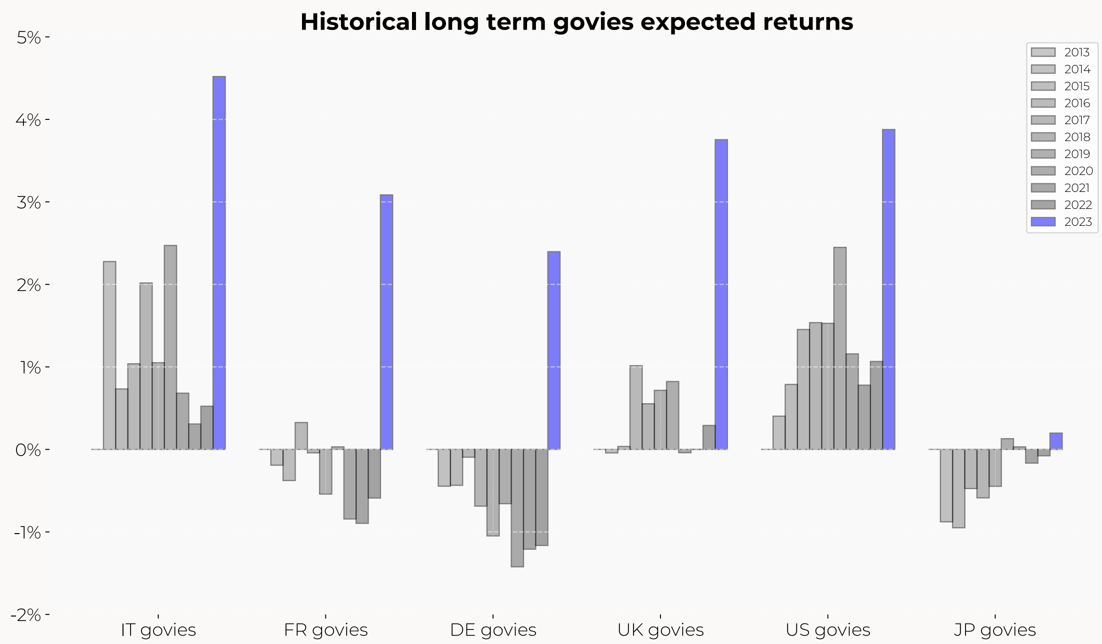
Inflation-linked bonds are worth a mention. Linkers are now pricing an expected long term inflation of 2%. If the inflation rate proves to be higher than that, they are going to overperform nominal government bonds. We think they are still important in multi asset portfolios because they can offer protection vs. inflation surprises.

# Main takeaways

- Expected returns are the highest they have been in the past 10 years for most asset classes.
- Government bonds are finally expected to yield significant returns.
- Despite that, equity still remains the asset class with the strongest expected return with a risk premium vs. fixed income - around 5% for developed markets.
- Credit shows a fantastic outlook with emerging markets government bonds being the most promising segment.




*The chart shows the expected returns for government bonds by geography and by key contributors.*
*Source: Moneyfarm Research*



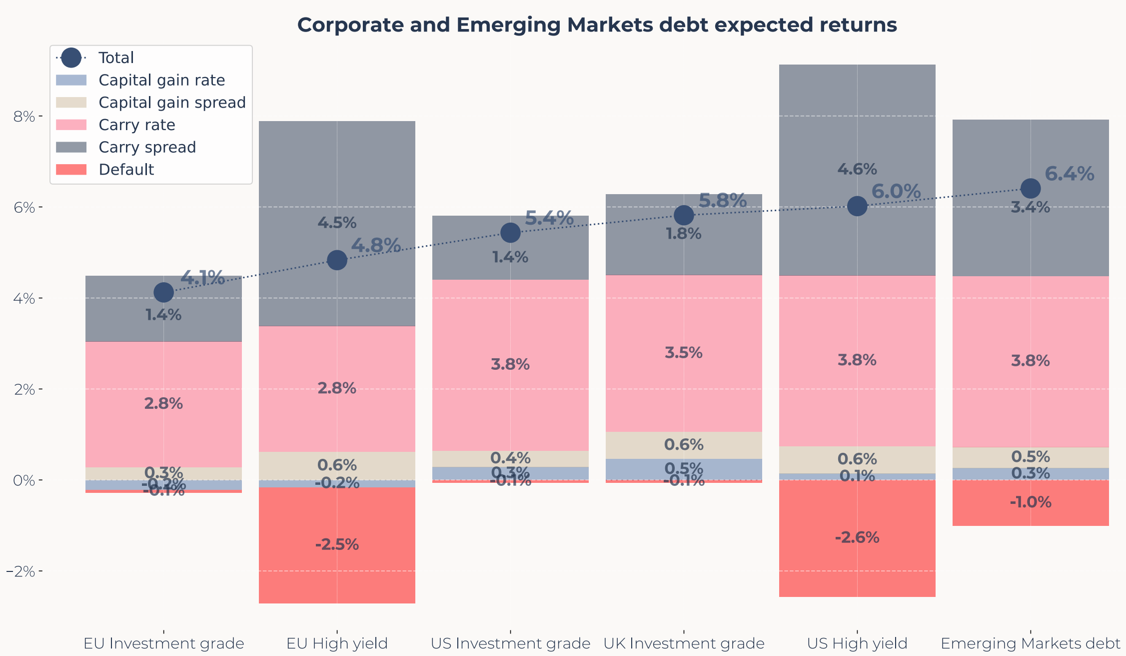

*Expected returns for government bonds by geography and by key contributors vs recent history.*
Source: Moneyfarm Research

# Credit and EMD

All asset classes in the credit space have a very strong expected return. In fact, expected returns for all asset classes are the highest ever forecasted by Moneyfarm. Emerging market government bonds lead the ranking, taking advantage both from a capital gain appreciation (driven mainly by credit spread shrinking) and much lower expected default rate than US Corporate Bond High Yield.

Investment Grade Corporate Bonds are also worth a special mention because of their risk-adjusted expected returns. Indeed, the expected default rate for this asset class is marginal, and they tend to underperform Government Bonds only in stressed scenarios.

For High Yield in the long term, as the chart shows, the current spreads (the extra yield they offer with respect to risk free bonds) should offset the annualized expected default rate (red bin) offering a risk premium that makes this asset class more appealing vs. how it performed in recent history.



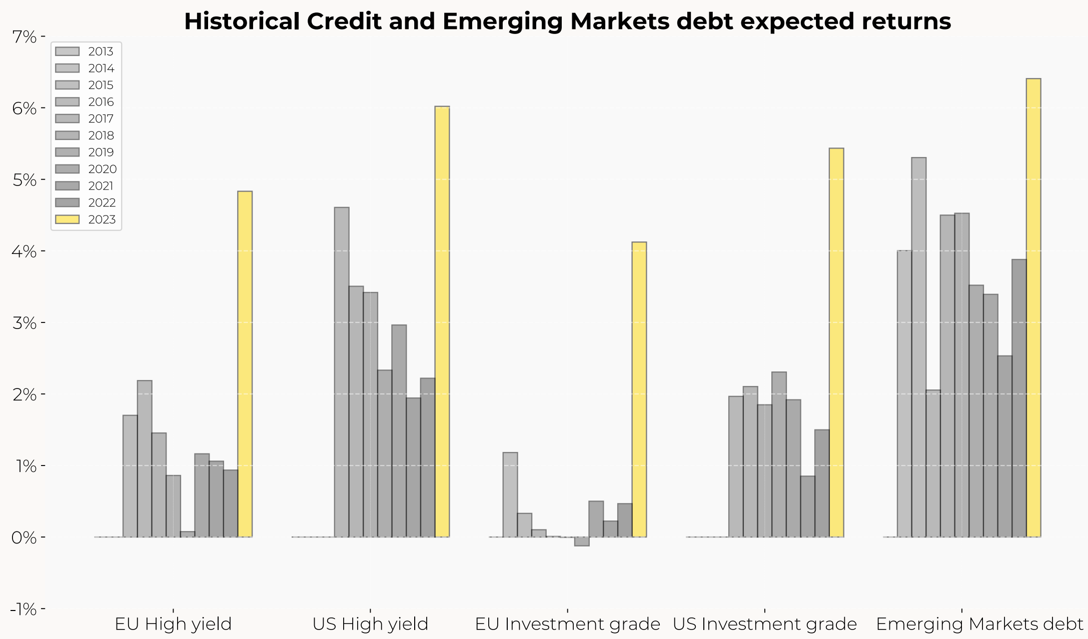

*The chart shows expected returns for credit by geography and by key contributors.*

**The expected return for corporate bonds are made of three main components:**

- Yield to maturity: it can be approximated as the coupon that is paid by the bond over its entire duration. Higher interest rates are positive for the expected return, but might be caused by higher risk. The yield to maturity of corporate bonds is measured in terms of spread vs the yield of risk-free government bonds. The spread is the risk premium paid by corporate bonds (you can find risk free yield and spread highlighted in light pink and dark gray in the chart).

- Capital gain/losses: If the bond is not held to maturity, the difference between the buy price and the sell price of the bond can generate a return or a loss. This price is affected by the movement of interest rates and the spread. Higher interest rates or spread negatively affect the price level of the bond (you can find risk free capital gain and spread capital gain highlighted in blue and light gray in the chart).

- Expected default: The default rate on the bond. This component tends to be correlated with credit risk. As you can see from the graph above, it is more relevant in  high yield products, which are the riskiest.




*The chart highlights the expected returns for credit by geography and by key contributors over the last 10 years.*
*Source: Moneyfarm Research*

# The main takeaways on IMF estimates are:

*Our expected returns (that are still positive and have grown significantly vs. last year) take into consideration that long term growth estimates that are pretty conservative. This may leave room open for a positive surprise in case of stronger long term GDP performance.*

- **IMF CPI** estimates are in line with market expectations for 2023, as of the end of October 2022.
- **GDP** estimates do not consider a recession for 2023 and 2024, but are pretty conservative in the long run.

# FINAL STAGES

**The final stage of the SAA process is the creation of our strategic portfolios.**

Once we have identified the spectrum of risk levels, we select the different combinations of assets that maximize the expected return for each portfolio.

Finding the optimal composition means considering the income component, the risk component and the interdependencies between the different asset classes. To consider these three elements at the same time, we use quantitative tools, created with safeguards against the underestimation of risk.

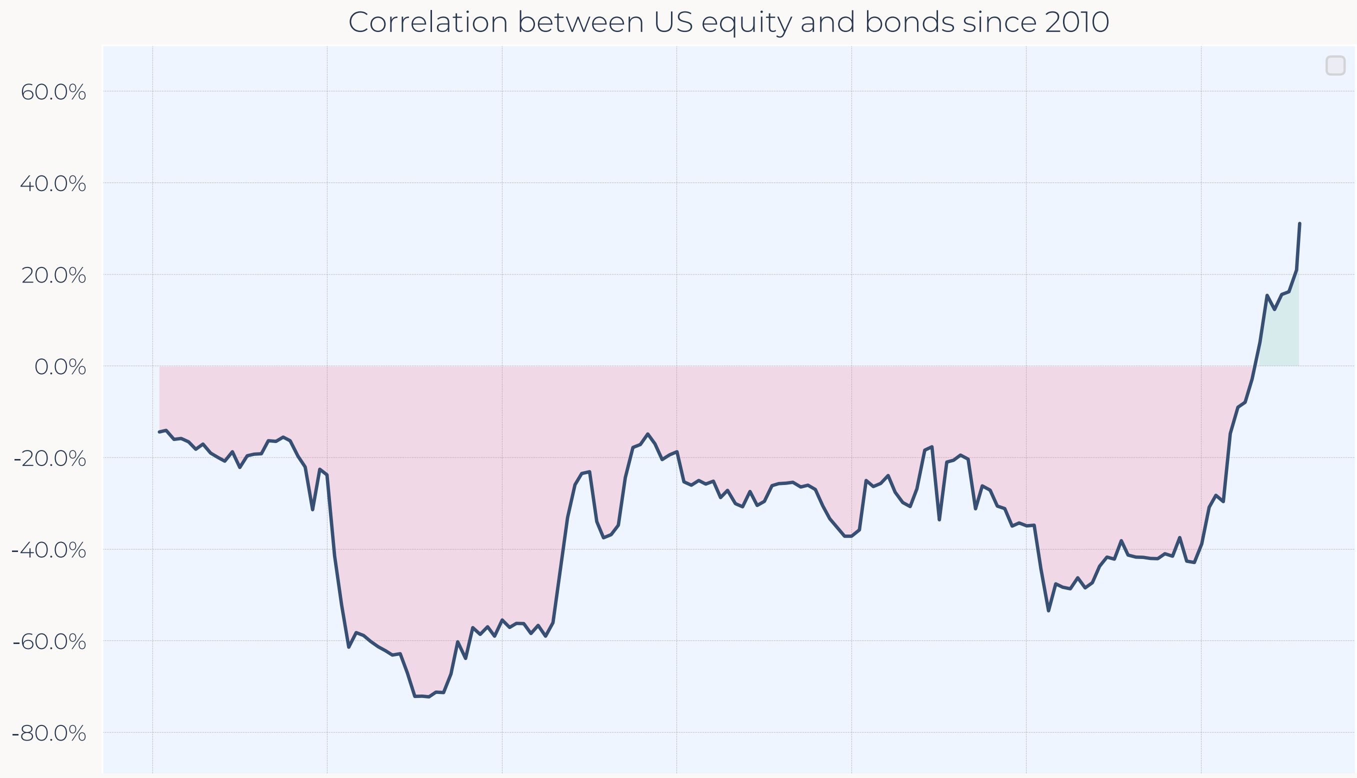
Quality checks are then performed at both input and output stages. Each assumption – from the risk level of the asset classes to the estimate of expected returns and the expected benefits of diversification – is subject to verification by the members of the Asset Allocation team, as well as the Investment Committee.

## RISK

Now we come to the final set of ingredients in the alchemy of the SAA: volatility and correlation. In portfolio construction it is important, when analyzing return, to consider the risk of the asset class and how different assets relate to each other.

Historically, correlations have proven to remain stable over time but 2022 saw a massive increase of correlation between risky assets and safe-heaven ones. The main cause was inflation. When inflation is too high, central banks react quickly to increase rates and at times this isn't helpful for equity or fixed income.

These situations might happen in specific circumstances but are not the rule of the financial market history. Given that the SAA time horizon is 10 years we can expect a normalization of the correlation in line with previous history. Moreover we expect inflation to get to more sustainable levels and we expect it to normalize the relationship between bonds and equities. Finally in case of a severe recession, when GDP falls and markets drop, central banks are probably going to cut rates, boosting the diversification of a multi asset portfolio.



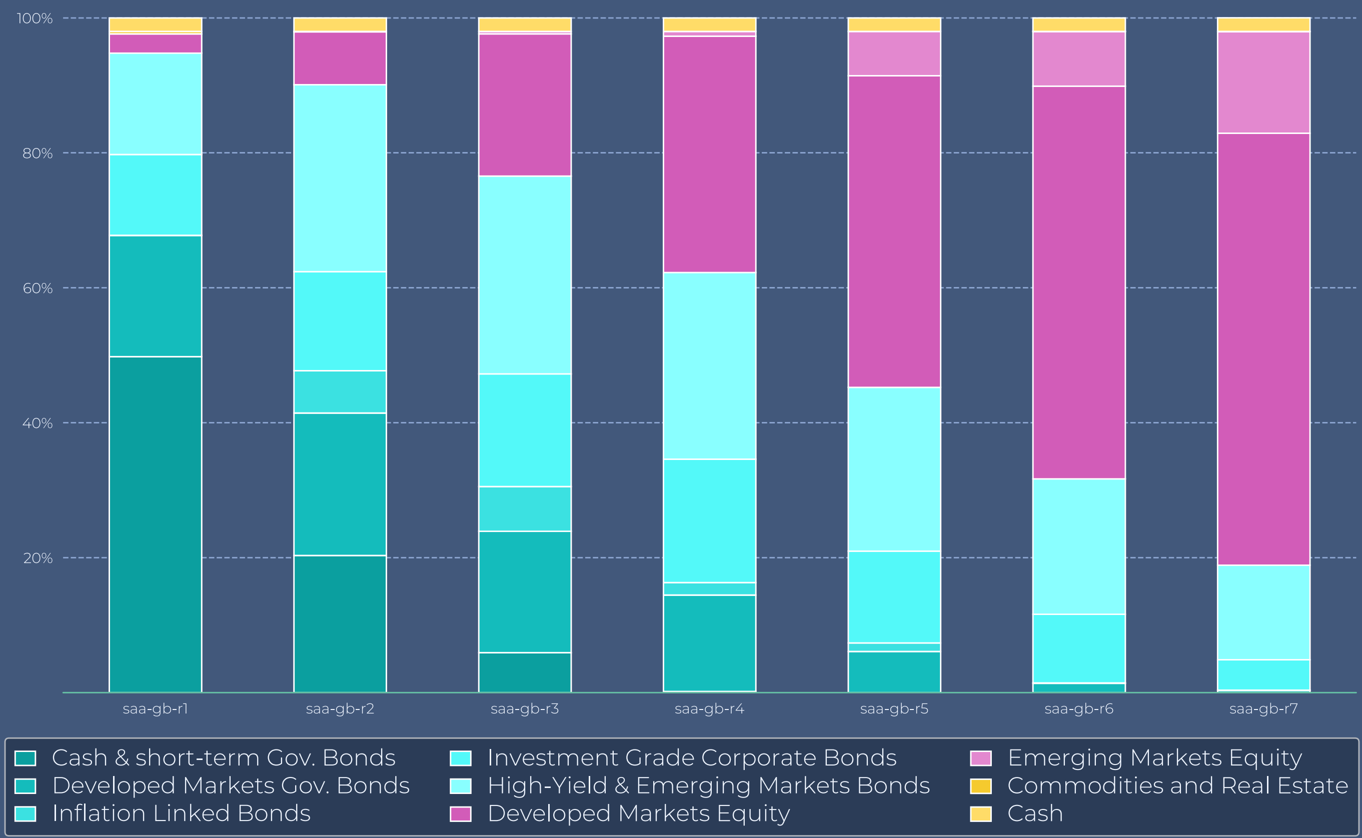

*The chart shows that, historically, bonds and equities tend to be uncorrelated. We don't have any reason to believe that they will keep moving in the same direction in the long term. This means that having a multi-asset approach will be a valuable strategy.*
*Source: Moneyfarm Research*

Last year risk was heightened and volatility increased due to geopolitics and monetary policy. In the short term volatility is likely to stay high, but on a long time horizon it should normalize. To consider both periods of normal volatility and periods of market stress, the SAA uses a 20-year history for estimating returns volatility factoring into the model the global financial crisis of 2008, the 2020 Covid pandemic and the  Ukraine war. The SAA 2023 optimal portfolios, considering these extreme events, offer robustness during the long term.

# Strategic portfolios for 2023

Below we highlight the strategic portfolios for 2023. Despite higher predicted returns for fixed income, the optimal multi-asset allocations will still rely heavily on equity and other riskier asset classes.

## Portfolio Strategy in 2023




## SAA 2023 vs 2022:

- No meaningful shifts in both the total equity exposure and the geographical breakdown.
- Investment Grade bonds look more appealing this year compared to 2022.
- A less conservative fixed income allocation, with a lower allocation to cash compared to 2022 recommended weights.
- Given the low expected returns, there's now 0% exposure to commodities. Last year the recommended commodity exposure was around 5% on average.