Panorama

Mid-year outlook 2022 | UBS Asset Management



The end of the 'NICE' years

High inflation = Lower growth

Climate transition and value investing

8 | Hedge funds as a diversifier



In this edition of Panorama, our investment experts assess the potential challenges and opportunities of an investment landscape experiencing high levels of inflation and the central bank responses to address it.

The following pages offer distinct viewpoints and investment insights across our global capabilities.

For additional content and previous editions of Panorama, including videos and additional in-depth investment insight, visit ubs.com/panorama or scan the below QR code.





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Contents

- O1 Investing for changing inflationary dynamics
 Barry Gill introduces the latest edition of Panorama
- O2 The end of the 'NICE' years
 Guest author Manoj Pradhan explains the impact of
 a shrinking workforce on inflation.
- O4 High inflation = Lower growth

 The Macro asset allocation team analyze four potential
 economic scenarios
- 08 The end of the 'Fed Put' Fixed income in the spotlight
- 12 Climate transition: opening the door to sustainable value investing

 Decarbonizing highly pollutive industries and the path to Net Zero
- 16 ESG asset allocation: performing under pressure How a higher adherence to sustainability principles may help create a more robust economy.
- 18 Hedge Funds as a diversifier
 Different strategies for challenging market conditions
- 22 Real Estate: aim for broad diversification A potential inflation hedge?
- 24 Private Markets: a welcome alternative Taking a look at the infrastructure and food and agriculture sectors
- 27 Why UBS Asset Management



2022 was supposed to play out quite differently: COVID-19 was moving from pandemic to endemic status, allowing countries and citizens around the world to travel and socialize more freely. Some of the cyclical inflation effects were set to wane as supply chains normalized.

Companies should have been able to plan ahead, possibly igniting a merger wave. This combination of factors was going to bring a potential cycle-ending final boom of growth and optimism. It should have been a good time for risk assets, with credit spreads staying tight and equities continuing to move upwards.

Unfortunately, none of this materialized. Repeated COVID-19 outbreaks in China kept supply chains in a mess; Russia instigated an armed conflict in Ukraine which exposed the fragility of a global trade system we have generally taken for granted. These factors cemented the inflationary dynamics that were already at play.

Optimism has been replaced with pessimism, and emerging clarity fudged by new-found uncertainty. The confidence that central bankers felt with respect to the transience of inflation has given way to a sense that they are behind the curve in taming the inflationary dragon.

Markets and investors have scrambled to reprice risk, particularly in the growthier areas of technology disruption. The S&P 500 formally entered a bear market, and bonds and stocks started to positively correlate for the first time in over 20 years. The primary questions investors are trying to answer now concern the durability of the inflationary pressures and whether central bankers in their zeal accidentally tip the global economy into recession.

The focus of our mid-year Panorama is squarely on what happens if inflation becomes a persistent problem. We open with a discussion I recently had with Manoj Pradhan, Chief Economist at Talking Heads Macro. Manoj has written an excellent book arguing for the return of structural inflation.

The theme is further explored in the context of asset allocation – what does structural inflation mean for equity and bond investors? And what does it mean for sustainable investing adoption given the new focus on returns from 'brown' industries that have been excluded from many environmental, social and governance (ESG) mandates.

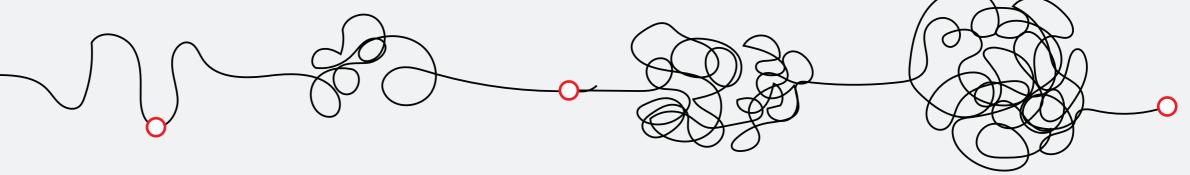
Optimism has been replaced with pessimism, and emerging clarity fudged by new-found uncertainty

Alternatives clearly have a role to play as a portfolio diversifier, given both equity and bond beta is in retreat – our Hedge Funds Solutions team and our Real Estate and Private Markets team explore the potential opportunities and benefits of these allocations if inflation endures.

Please enjoy this mid-year edition of Panorama and as always, please reach out to your trusted UBS Asset Management partner for any advice.

Barry

Interview Interview





Founder and CEO of Talking Heads Macro

The end of the 'NICE' years

With a shrinking workforce, China can no longer have the deflationary impact it once had.

Here, Barry Gill, Head of Investments at UBS AM, chats with Manoj Pradhan, Founder and CEO of Talking Heads Macro, about the themes from his book, The Great Demographic Reversal, co-authored with Charles Goodhart.

Barry: The inflation benefit from China – is this coming to an end?

Manoj: In one word, yes. Over the last 30-35 years, there was a shift in production from advanced economies to emerging market economies, particularly China, and there was a consequential shock to global real wages and global inflation. China effectively set the global equilibrium wage and wages in higherwage economies drifted lower, towards the global equilibrium. This process ended up lowering inflation regardless of what else was going on in the global economy: as Mervyn King – former Governor of the Bank of England – once called them, these were the 'NICE' years: Non-Inflationary, Constant Expansion.

However, now things have changed. With a shrinking workforce, China can no longer have the deflationary impact it once had. In addition, we are now hearing more talk of 're-shoring' for geopolitical reasons – moving production back to home markets, which is inflationary.

As we get more siloed economies, they become subject to their own local demographic constraints. And given workforces globally are shrinking, we are entering a period which will likely be in sharp contrast to the previous 30 years where demographics brought inflation down.

Barry: Why don't investors focus on demographics as much as they should? Manoi: The problem is two-fold. Firstly.

it's a slow-moving, glacial process. Of course investors are aware that demographics are important - noone thinks it's a trivial matter - but it's something that we think of as happening in 15, 20 years' time. But we have been at a structural inflection point for quite some time: China's shrinking population was the beginning, but globally, now the entire manufacturing complex is getting old and the shrinking of the global labor supply has been aggravated by the pandemic.

Secondly, the reason that financial institutions such as central banks don't focus on demographics is, how do you put this in a forecasting model? On a two-year time horizon, the change in population will not be enough to impact models; you'd need a mix of a structural and cyclical models. It's an incredibly hard process to express numerically.

Barry: Is inflation the most palatable solution to the current high debt

Manoj: There are a variety of 'solutions'. We could grow out of it, but a shrinking workforce means relatively modest growth (since growth is equal to the growth rate of the labor force plus productivity) which will not be sufficient. Productivity will improve but we would be lucky to do better than Japan, which again will not be enough to finance debt.

Then there's taxation. But no matter how economically sensible the tax is, taxation is never an easy political solution. Thus, trying to use what would otherwise be considered to be sensible economic strategies – increasing productivity, raising taxes, raising retirement ages – are all politically difficult options. Inflation becomes a more acceptable and politically convenient solution.

While we can't allow 8%, 10% inflation to Japan Inc. used outbound foreign persist, more modest inflation, say in the 3%-4% range, and you can whittle down the real burden of debt over a period of time. There's a reason Milton Friedman called it "taxation without legislation". I think it's the best we can do.

Barry: Why is Japan a poor model to assess demographic changes?

Manoj: We didn't start writing the book until we had answered that guestion. We have an entire chapter dedicated to Japan in our book and it is the first chapter we wrote.

We often hear people say that Japan is the blueprint for the future. However, what we argue is that the change in Japan's demography turned at a time when the world was swimming in labor. Looking at three decades of data from Japan's Ministry of Economy, Trade and Industry, showed that the Japanese corporate sector understood what was going on with global demography much better than we realize. Japan's corporates understood that China's integration into the global economic system was not only a massive new market, but also a massive labor supply shock, which was too big to ignore given the problems Japan had at home.

direct investment (O-FDI) as an 'escape valve'. They produced in China and other emerging market economies to take advantage of cheap and abundant labor there. They kept high-skilled roles at home and exported as many lowerskilled jobs abroad as possible.

People often point to Japan's debt as an unique story, but that isn't true either. Japan's debt dynamics look very much like other countries: interest rates fell persistently; as a result the debt service ratio fell too, which allowed the debt/GDP ratio to rise dramatically. In a nutshell, Japan 'happened' when China was curing all ills. Today, there's nowhere to hide.

The dependency ratio (working vs. non-working population) is going up across the world. What are the implications for productivity?

Manoj: Let's consider workers and nonworkers. Non-workers consume but don't add to supply. On a net basis they tend to be inflationary. The worker, on the other hand, produces a certain amount of supply and out of that supply, the worker is paid a wage that is less than his or her marginal product. Out of that wage, the worker has to

save for the future. The gap between the marginal product of labor and what the worker finally ends up consuming is therefore quite disinflationary as the worker produces far more than he or she is consuming.

In the last 30 years, while you had this huge surge of labor from China, the dependency ratio was also falling as the baby boomers joined the workforce. Worker numbers grew faster than non-workers and the result was a disinflationary impulse.

Today, as the number of workers continues to fall, the number of elderly is expected to rise. Dependency ratios are rising quite dramatically as a result. As the consumption of the elderly moves into ageing-specific services, this is something that will have to be at least partly financed by governments. The resulting debt numbers we are going to see in the future are enormous. The US Congressional Budget Office's projections¹ suggest that debt incurred during the pandemic is only going to be a small proportion of the debt we are going to incur over the next three decades. Financing that debt is going to require a significant amount of inflation to deem it sustainable.

High inflation = lower growth

The persistence of elevated price pressures is a crucial differentiating factor in this economic cycle from what has transpired over prior decades. Here, the UBS Asset Management Macro Asset Allocation Strategy team analyze four scenarios: a growth scare, a soft landing, stagflation, and an inflationary boom



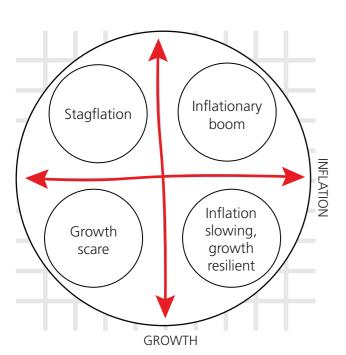
Evan Brown Head of Macro Asset Allocation Strategy



Ryan Primmer Head of Investment Solutions



Louis Finney Research Analyst Investment Solutions



he many forces keeping inflation high around the world are increasing the risks that global economic growth heads lower. Macroeconomic uncertainty is high because investors are constantly reassessing how much and how fast central banks will raise rates to tamp down inflation and economic activity – and if they'll deliver too much tightening and have to reverse course. This persistence of elevated price pressures is a crucial differentiating factor in this economic cycle from what has transpired over prior decades.

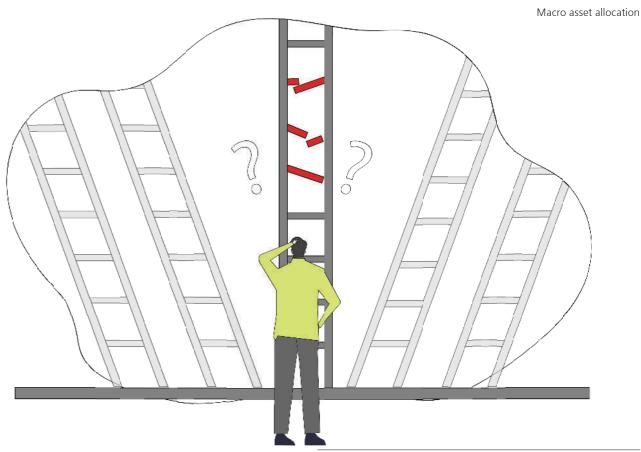
Market participants are likely to entertain a wide range of outcomes based on the trajectories for inflation and growth during the rest of 2022. We are open-minded as to which regime markets will eventually settle into over the next six to twelve months, and believe it is a close call between a growth scare that culminates with a recession or a soft landing. But sequencing is important. A soft landing is certainly achievable, but the path to get there may feature a sharp deceleration in the data that makes it difficult for market participants to distinguish between a benign endgame and a recession.

In other words, we believe that market pricing of recession risk is more likely to increase than decrease in coming months, even if a recession is ultimately avoided. Going forward, we anticipate that our positioning will be guided in large part by incoming inflation data and its implications for policymakers.

Below we assess four potential macro backdrops: a growth scare, a soft landing, stagflation and an inflationary boom.

Growth scar

Global activity is already slowing, and central banks are indicating that a further deceleration in activity is needed to bring inflation sustainably lower. Over the past few months, the increased speed and magnitude of tightening telegraphed



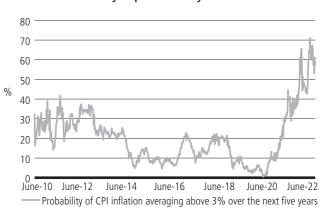
by monetary policymakers to enforce a slower-growth, lower-inflation outcome is raising the odds that an economic downturn ultimately ensues. And a recession may, in the eyes of central bankers, even end up being a result that is preferred if the alternative is letting inflation expectations get out of hand. In our view, this makes a growth scare the most likely economic regime to be priced by market participants during the second half of 2022.

So far, there are more signs that growth is slowing than inflation, which is why central banks continue moving towards a restrictive policy stance. Housing sales and new starts have tumbled, as has the wherewithal for homeowners to take money out of their residences to boost consumption. Real spending, both in the US and Europe, has been fairly soft, and there is little reason to expect an acceleration. Aggregate US labor income growth has been moderating, reducing how much households will be able to increase spending going forward. The buildup of retail inventories (ex-autos) implies the forward outlook for goods production is weakening. With yields and spreads higher and demand for goods slowing, businesses are also more likely to prioritize paying down debt over expansion plans.

Stagflation

Commodity prices – and central banks' desire to protect inflation expectations from becoming unhinged to the upside (Chart 1) – are the primary source of stagflationary risk to the global economy. Energy markets could face further supply-side vulnerabilities before demand cools appreciably. Given that activity is moderating, any move to a stagflationary backdrop would be a relatively temporary shift before markets aggressively priced the risk of growth and inflation falling through a recession, in our view.

Chart 1: Inflation likely to peak but stay elevated



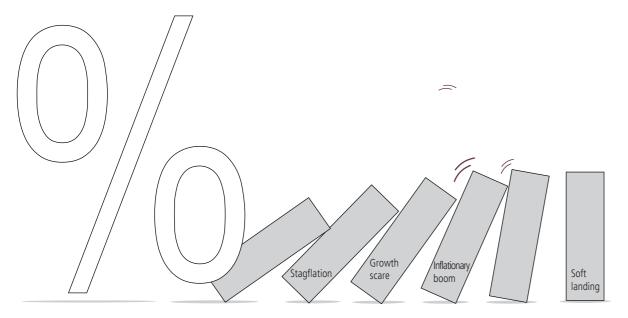
Source: UBS AM, Federal Reserve Bank of Minneapolis as at 15 June 2022

In the US, this stems from how depressed gasoline inventories and curtailed refinery capacity threaten to exacerbate the pain families are feeling at the pump. Federal Reserve Chair Jerome Powell has indicated that an unsettling increase in inflation expectations is contributing to the urgent pace of rate hikes. These expectations are heavily influenced by the price of gasoline. In this way, higher gasoline prices would likely cause the Federal Reserve to increase how much it tightens policy, and in turn, the downside risks to growth.

In Europe, this risk is a function of high natural gas prices and potential shortages should access to Russian supplies be abruptly curtailed, since imports from other countries would be hard-pressed to make up the difference. A harsh rationing of supply for industrial use could be in the offing later this year in the event of natural gas shortages, while the negative supply shock will weigh on real incomes and reduce discretionary consumption.

Macro asset allocation

Macro asset allocation



Hot inflation is a problem with no good solutions in the near term. Market pricing of recession risk is more likely to increase than decrease in coming months

Soft landing

As discussed above, we think the market will price in a higher risk of recession before the potential relief of a soft landing. At first glance, the odds don't favor one. Historically, when inflation has risen this far above target, the amount of central bank tightening delivered to bring down price pressures results in a recession roughly 80% of the time. The good news is that it is almost equally as unlikely for a recession to occur when private sector balance sheets are starting off in such a strong position.¹

The same forces that are presently contributing to slower growth can also, over time, propel inflation lower. The reorientation of spending towards services should help core goods prices normalize, perhaps rapidly. Any resolution of Russia's war on Ukraine would also likely involve a partial, though not complete, reversal of some of the negative supply shocks in commodity markets. The entire US policy apparatus – both fiscal and monetary – appears to be focusing on bringing gasoline prices down, and the former may reach a legislative or geopolitical solution before the latter weighs on the economy so much that demand contracts.

And of course, monetary policymakers can also be flexible and pivot should inflation decelerate more than anticipated. But in our view, central bankers will only turn dovish following considerably more damage to the economic outlook and risk assets rather than through any benign "immaculate disinflation" dynamic playing out.

Inflationary boom

Developed market economies have been surprisingly resilient in 2022 in the face of negative supply shocks. But the more activity holds up while inflation remains high, the more

motivated central bankers will be to tamp down both. In our view, retaining something resembling an inflationary boom is the least likely outcome going forward given the persistence of negative supply shocks and policy-induced tightening of financial conditions. Excess savings in the US and subsidies in Europe to cushion consumers are a helpful but insufficient offset to these headwinds.

However, China stands out as a region that is poised to add to global growth momentum over the next three-to-six months. Improving public health outcomes should allow for the stimulus Beijing is pursuing to more visibly buoy economic activity. But we believe this positive impulse to growth will be overwhelmed by the slowing transpiring elsewhere. Nonetheless, this expected improvement in Chinese macroeconomic performance relative to the rest of the world is an investable opportunity, in our view.

Asset allocation implications

From a market perspective, hot inflation is a problem with no good solutions in the near term. Headline inflationary pressures will likely constrain central banks from turning in a dovish direction. And economic data would likely need to get materially worse – raising risks to earnings – before monetary policymakers would consider pivoting in light of the deterioration in the growth outlook.

Global stocks remain unattractive given this macro backdrop. Inflation, and the central bank response to quell it, are the key reasons why stocks are still expensive on a cross-asset basis despite declining by 20%. The equity risk premium – the difference between the expected earnings yields for global stocks less bond yields – is near its tightest level of the past decade, implying stocks are pricey compared to government debt.

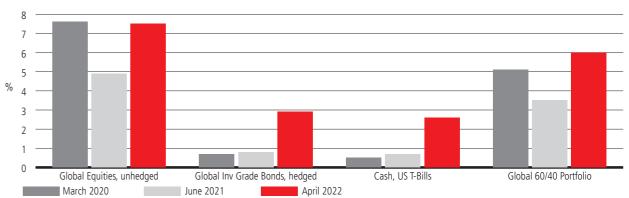
In addition, earnings expectations in 12 months' time continue to be revised higher, albeit modestly, despite the rising risks to the expansion. Historically, bottom-up analysts' estimates have come under some pressure before equity markets bottomed.

Chinese equities, however, stand out to us as attractive because the country is not that afflicted by many of the headwinds weighing on other regions. Inflation is not very high, so policy is easing rather than tightening. Even with zero-COVID-19 policies in effect, we believe there should be fewer, not more, disruptions to economic activity going forward after the large-scale lockdowns earlier this year. And the peak in the tech regulatory crackdown is in the rear-view mirror, in our view.

We place non-trivial odds on a stagflationary scenario in the near term where spiking energy prices prompt central banks to act to curb inflation expectations. This informs our relative preference for energy stocks, which we think remain very inexpensive despite their strong outperformance year to date. The trade-off between slowing growth and elevated inflation also leaves us neutral on global government bonds for the time being.

The silver lining of the year-to-date weakness across financial markets is that medium-term forward returns for investors have improved considerably relative to one year ago, according to our capital market expectations (Chart 2). On a tactical basis, we expect that patient investors will be able to enjoy an even more attractive entry point for global equities, which may come if a cyclical moderation in inflation allows central banks to shift in a more dovish direction allowing global economic activity to inflect higher.

Chart 2: Projected returns for the next five years are improving



Source: UBS AM, five-year geometric projected returns, USD terms. Our baseline process incorporates current valuations, market conditions and key forward-looking inputs to generate our five-year expected returns by asset class and region. Note: March 2020 cash estimate made in April 2020

¹ Goldman Sachs, The Odds of a Soft Landing: Lessons from G10 Economies, April 17, 2022

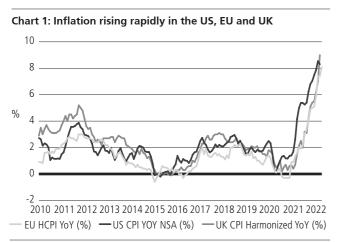
The end of the 'Fed Put'

The era of extraordinary monetary policy accommodation, known as "the Fed put", is likely to be over. With inflation at multi-decade highs and central banks raising rates, what does this mean for fixed income investors?



Kevin Zhao Head of Global Sovereign & Currency

nflation in developed markets has recently skyrocketed (Chart 1), forcing central banks to abandon the narrative of high inflation being transitory, as they scramble to raise interest rates rapidly. As a result we believe we are likely to be in a new regime of higher interest rates and greater market volatility, signaling an end of the Federal Reserve's era of extraordinary monetary policy accommodation, commonly known as the 'Fed put'.



Source: Bloomberg, Barclays Global Aggregate Index, data as at May 2022

This policy U-turn has caused bond market panic, with government bond yields rising to the highest levels since 2010 and the US stock market has fallen into a bear market.

This is in sharp contrast to the years between the 2008 Global Financial Crisis (GFC) and the COVID-19 outbreak when central banks in most developed countries were still battling against persistent low inflation caused by an aging population, globalization and advances in information technology. Initially, most economists dismissed the high inflation figures as temporary, largely due to the outsized Biden fiscal stimulus and supply chain disruption caused by COVID-19 lockdowns. Under the traditional Keynesian macro framework, this combination of economic slack and record high inflation is mutually exclusive and should NOT have existed.

Today's high inflation versus 1970s stagflation

Over the past 40 years, most economic models assume that when growth is weak, inflation is unlikely to be a problem. The recent high inflation has shocked major central banks out of their long-term complacency as inflation has evidently far surpassed their 2% target, making it foolish to continue calling it transitory or temporary. But are we seeing a repeat of the 1970s stagflation environment?



Previous economic eras may shed some light. How did the world 'suddenly' move from a golden era of strong growth and low inflation of the 1950s and 1960s to the stagflation era of the 1970s? According to the authoritative research from economist Barry Eichengreen, the hyperinflation of the 1970s started well before the collapse of Bretton Woods in 1971 – the system of pegging the US dollar to gold – and the OPEC oil embargo in 1973. Inflation was already approaching 6% in 1970.

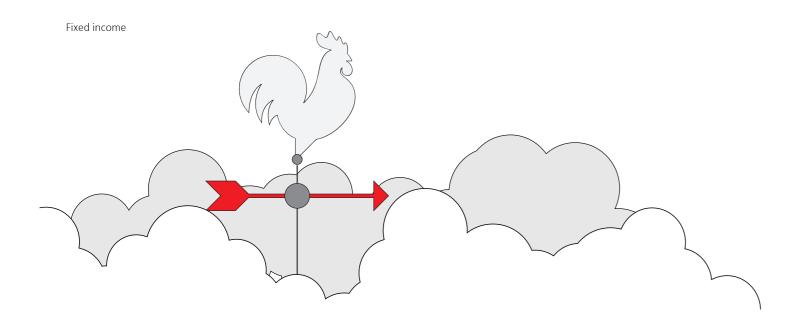
The causes of rising inflation from 1965 to 1970 were driven by President Lyndon Johnson's "Great Society", the fiscal expansion to finance the Vietnam War and, most critically, a lax monetary policy under Arthur Burns, the then-chair of the Fed. At that time, the Fed did not have a coherent theory connecting monetary policy with inflation as Burns famously said "monetary policy does not matter, inflation was caused by unions' excessive wage demand, price increases by firms, poor harvest, high oil prices and excessive government spending" —anything but monetary policy.

Coming back to today's world, the US pumped USD 5.2 trillion into the economy as fiscal relief to combat the impact of the COVID-19 pandemic. The world has also experienced a sharp rise in commodity prices caused by the Russian invasion

of Ukraine — though still overshadowed by the price rise during the 1973 OPEC oil embargo. In addition, we are also experiencing the effects of policy shifts away from maximizing economic output towards anti-trade policies such as Trump's tariff on China, anti-immigration policies (Brexit and Trump's border wall), sanctions on Russia and deglobalization in general.

The most crucial difference between today and the 1970s is that major central banks have adopted a target for low and stable inflation and so far inflation expectations remain well anchored. Milton Friedman famously declared "Inflation is always and everywhere a monetary phenomenon". Central banks now understand the clear link between monetary policy and inflation and have adopted a coherent policy framework that aims to achieve stable inflation over the medium term, which has been well understood and believed by financial markets, consumers and corporations.

To avoid the 1970s type stagflation, therefore, we believe that central banks must press ahead with monetary tightening to combat this 40-year high inflation, in order to not repeat the same mistakes as the late 1960s and 1970s – accepting that it may mean higher unemployment and weaker growth or even recession in the years ahead.



High inflation will likely force central banks to run tighter monetary policy for longer regardless of recession risks

Changing political winds

We argued earlier that a sudden jump in inflation may coincide with a major war or an external shock like the COVID-19 pandemic. But the underlying causes may be traced to the changes in political preference and economic policies in the preceding years, similar to what had happened before the 1970s' hyperinflation, according to Eichengreen.

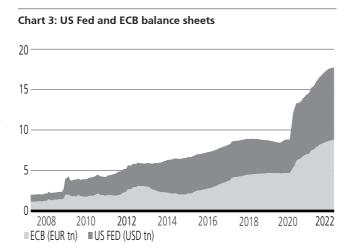
Generally, inflation is caused by too much money chasing too few goods or services. In recent years, governments across the developed world typically handed citizens more money, as seen in the US through the Trump and Biden stimulus checks or the furlough scheme in the UK. Meanwhile, supplies were limited by lockdowns, factory closures, long shipping delays, and people dropping out of the labor force. High inflation followed.

Because those in charge of governments in all major countries now show little appetite to tighten fiscal policy through higher taxes or reduced government spending, the job of bringing inflation down is squarely resting on the shoulders of central banks alone. Now, inflation is obviously too high and no longer appears transitory, giving central banks no other choice but to tighten monetary policy.

After winning their battle with inflation over the past 40 years, major central banks like the Fed and European Central Bank are unlikely to tolerate high inflation for too long (Chart 2). In addition, central banks cannot stop the war in Ukraine nor can they solve the supply chain problems. Their major tool is to reduce demand by tightening monetary policy, which means higher real rates and less liquidity by shrinking their bloated balance sheets (Chart 3). Individuals, companies and governments who had borrowed a lot on low rates may feel the squeeze, with major pain likely in the years ahead.

Source: Bloomberg Barclays Global Aggregate. Data as at May 2022

— Fed Funds as of: 31/12/2021 — Fed Funds as of: 31/05/2022



Source: Bloomberg, data as at March 2022

Therefore, we believe that a repeat of the 1970s stagflation is highly unlikely as central banks, having learned their lessons, now have a coherent monetary policy framework and determination to fight inflation. Unfortunately, there is no free lunch from this monetary tightening cycle. The Bank of England has already sounded the alarm bell that further rate increases may tip the UK into recession by the end of this year while the Fed still optimistically wants people to believe its tightening will not cause a recession. Given the change in politics towards 'levelling up' for low to middle income earners, we should expect a shift away from free trade, further restrictions on immigration and a more restrained version of globalization or even deglobalization that we expect to force inflation higher than the decade following the 2008 Global Financial Crisis. At the same time, growth and productivity are likely to fall.

Implications for fixed income investors

This apparent end of low inflation has probably spelled the end of the 40-year bull market in bonds. High inflation will likely force central banks to run tighter monetary policy for longer and become more reluctant to cut rates early regardless of recession risks.

Although high inflation is not good for consumers, central banks or existing bond holders, it still has a silver lining. Bond investors may now obtain a good level of income from holding bonds purchased at this time, and we believe the uncertainties in policy and inflation outlook may create good opportunities for active bond managers to add value by anticipating regime change and relative values across countries and different asset classes. When central banks have to balance weak growth against controlling high inflation, they are more likely to make policy mistakes.

For bond markets in the near term, there is a risk that some investors will buy now as they believe weaker growth and falling stock markets will soon force major central banks to make a U-turn as the Fed did from the end of 2018. In contrast, our focus will be on inflation developments in the next six-to-12 months rather than growth weakening or stock market weakness before we turn strategically bullish on duration in this tightening cycle. Higher real yields, weak growth and a reduction in liquidity all call for a cautious, nimble and selective stance in credit.

In the past we always stated that real yields needed to stay low when central banks had struggled to achieve their inflation target on the upside. Now policymakers have the opposite problem, and as a result we believe we have left the era of extraordinary monetary policy accommodation, commonly known as the 'Fed put', and entered a new regime of higher interest rates and greater market volatility.

¹ Goldman Sachs Research

Climate transition: opening the door to sustainable value investing

Rising inflation has driven a sharp shift in investor preferences. Tangible cashflows are taking priority over future growth prospects – traditional value appears to be back in fashion. We believe the world of sustainable investing, in particular climate focused, must adjust to the new reality.



Adam Gustafsson Portfolio Manager Portfolio Manager Climate Action



Ellis Eckland Climate Action

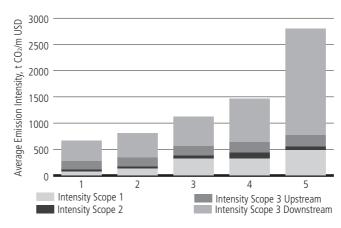


Is there an intersect between climate and value investing?

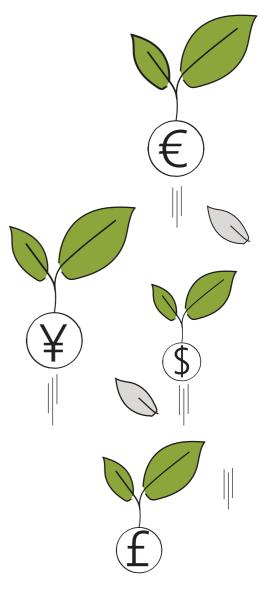
e believe the answer lies somewhere between yes and it depends. 'It depends' because even if investors broadly agree on how to define value, there are multiple approaches to climate investing, each with their own merits. In systematic investing, tilts allow for the popular low-carbon approach to be combined with value if one is willing to overweight the financial sector. In active investing, low carbon alone is no longer seen as enough to define a meaningful climate strategy. Instead, many active investors focus on climate leaders and pure play solution providers. These companies are often referred to as 'green darlings' and while being popular investments, they rarely represent value.

Chart 1 shows the positive relationship between value and emission intensity. In aggregate, higher value exposure comes at the cost of higher emission intensity. This is hardly surprising, the most pollutive sectors are all deep value, partially driven by years of sell-off due to climate concerns.

Figure 1: Emission Intensity vs. Fundamental Value



Source: UBS Asset Management 2022, Credit Suisse HOLT 2022, S&P Trucost Limited® Trucost 2022. Based on over 10,000 companies globally across all sectors ex. financials. Credit Suisse HOLT's valuation score is constructed as a composite of common value factors. Greenhouse gas emissions are categorised into three 'scopes' by the most widely-used international accounting tool, the Greenhouse Gas (GHG) Protocol. Scope 1 covers direct emissions from owned or controlled sources. Scope 2 covers indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company. Scope 3 includes all other indirect emissions that occur in a company's value chair



The rise of climate transition investing

The efforts of climate solution providers, such as renewable energy companies, are critical to meet climate targets. But they are only one piece of the puzzle. To achieve net zero, highly pollutive legacy sectors must decarbonize, or transition. Today, transition investing is by no means mainstream, but it is quickly gaining momentum. Here the focus is on the rate of change in emissions rather than the current level. Given that transitions are only relevant for companies with material emissions. transition investing is by construct inherently value investing.

Another related approach is to look for 'hidden assets' in legacy businesses. Many companies have significant businesses in areas critical to combatting climate change but are not widely perceived as climate solution providers. These businesses with 'hidden solutions' can often be purchased at far lower implied prices than what one sees for the pure play solution and low carbon businesses that are the core of many sustainable investment strategies. These companies are often growing their climate solutions business and using their legacy business cash flows as a cash cow to fund this transition journey.

Sustainable investing Sustainable investing

> Investing in 'hybrid' companies can potentially provide exposure to sustainable assets at a steep discount

Is it a paper company or a renewable power producer?

Many pulp and paper companies produce biomass power with the residue and/or by-products from their pulp operations. Some of these companies have even added wind and solar power generation to take advantage of the stable, dispatchable nature of biomass power to create an integrated renewable power offering. These companies are generally more focused on their new energy operations than on the legacy pulp business which is generally low/no growth. We believe investing in these companies provides exposure to sustainable assets at a steep discount.

Furthermore, this type of investment is likely to offer a better financial return than buying an established renewables company. Hybrid companies are likely to:

- 1- Grow their renewables business to the point where it is perceived as a mainly renewables company which may potentially lead to a higher valuation
- **2-** Spin out their legacy business resulting in a higher valuation
- **3-** Do some sort of creative M&A to arbitrage the valuation differential

In all these cases, the investor may be in for attractive financial return. We see similar 'hidden asset' opportunities in other sectors.

Engagement is key to a meaningful transition strategy

Transitions can be divided into two categories:

- **1-** Decarbonization of existing business model
- 2- Shift in business mix, from pollutive legacy to sustainable.

In both cases, effective investor engagement can drive an acceleration of companies' climate efforts. For pollutive businesses, when we believe there is a potential net zero end-state, we consider the company a transition target. But engagement should focus on driving tangible actions now. Real business decisions could include allocating resources to abatement technologies and sustainable businesses.

When we think climate investing, let us stop neglecting the pollutive legacy industries that are key to reaching our shared climate goals. We believe effective engagement can turn transition investing into a deep green climate impact strategy.



evolve, we believe they will be recategorized as green and earn higher valuations.

We believe that a credible transitions strategy must include effective engagement. That is what makes it not only a value strategy, but an investment approach tackling climate change in a meaningful way. We expect the net zero race to accelerate and become the key performance differentiator in emission-intense sectors. Engagement accelerating decarbonisation is doing good for the climate but is also likely to drive investment returns. A winning double bottom line approach.

ESG ESG

ESG asset allocation: performing under pressure

How might ESG investment portfolios perform in times of market stress and elevated inflation? Here, our Strategic Asset Allocation Modeling and Sustainable Investing teams take a look at what factors we believe be taken into consideration and how a higher adherence to sustainability principles may help create a more robust economy.





Michele Gambera Lucy Thomas Co-Head of Strategic Head of Sustainable Investing

Asset Allocation Modeling Investment Solutions

question facing investors who seek to invest sustainably or are looking to align their capital allocation with their sustainable preferences and considerations is how their portfolios will perform in times of market stress. Recent events including the war in Ukraine have stressed markets and driven up energy prices, putting environmental, social and governance (ESG) factors under pressure.

Supply chain and geopolitical issues have driven US inflation to its highest level since the 1980s, propelling macroeconomic uncertainty higher as well. And the evolution of price pressures is likely to cause investors to consider a wide range of possible regimes in the near term.

Climate change and economic inequality

In our view, two 'E' and 'S' topics overshadow the current outlook and an inflationary environment further challenges the potential for investors to achieve sustainable returns over the long term. These are climate change and economic inequality, both systemic in nature and hence cannot be hedged or diversified away. Climate change has prompted mass action to transition to a net zero economy which requires structural

changes to rewire the whole economy. Social inequality has been emphasized through the pandemic as the vulnerable were disproportionately affected. Recent times have shown that where we have social division we tend to have geopolitical difficulty. Higher inflation, in addition to climate and social instability, complicates the task ahead for investors.

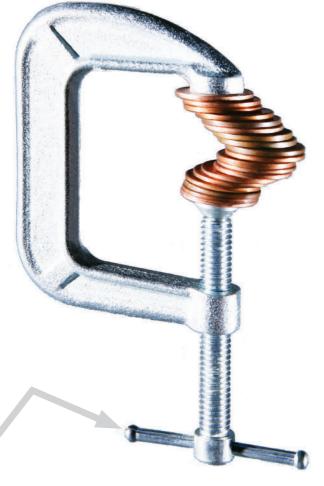
That said, during recent periods of market stress, ESG indexes performed in line with traditional market benchmarks, despite great volatility in the energy sector. The main reason is that many ESG benchmarks are geared to perform as closely as possible to traditional benchmarks, while still overweighting assets that have high ESG ratings. While coal producers may be excluded from ESG indexes, the exposure to energy stocks is the same as that of traditional indexes because renewable energy firms are overweighted. As a consequence, the discrepancy between ESG and traditional indexes is low in terms of overall sector and regional exposures.

Time and preference

Our recent study on asset allocation for an ESG world provides guidance in terms of how different ESG and traditional indexes can be. Investors are accustomed to considering risk and return as the two dimensions that guide asset allocation. In our study, we find that two additional elements – time and preference – are needed to augment this process in the world of sustainable investing.

The time element refers to the duration of the ESG transition underway as governments and companies enact regulations, new technologies, and investments to reduce pollution in line with the principles of the Paris Agreement and fulfill sustainable development goals relating to social responsibility and governance.

The preference element refers to the weight an investor places on prioritizing sustainability in an investment portfolio, either due to regulatory requirements or the objectives of the investor or organization and its board. For these investors, the issue is how to optimize portfolios to address risk and return in concert with ESG. The impact depends heavily on the magnitude of ESG constraints.



If the constraints are very restrictive, shrinking the investable universe materially, then investors must accept portfolios that are less diversified and hence may have less favorable risk-adjusted returns. If the constraints are less binding and allow factor exposure in line with the main ESG benchmarks, we believe the long-term impact on investment performance is minimal and may be positive in the short to medium term.

Specifically, the main ESG benchmarks are designed to match factor exposures with traditional benchmarks, so that the tracking error between ESG and traditional benchmarks is very small.

But what about inflation?

For decades, some countries have managed to sidestep the inflationary impulse of the bargaining power of labor by outsourcing labor and production to other regions, but that trend may have run its course: supply chains had been optimized for businesses prioritizing low costs and low inventories.

Now, reshoring and rebuilding inventories given multiple supply chain shocks are likely to be multiyear processes that contribute to rising prices. The probability of labor weakening relative to capital here is low, a dynamic which might weigh on profit margins somewhat over time.

On a similar note, fiscal policy is playing a much more robust role in stabilizing economic activity, after having been swept under the rug by austerity policies since the 1980s. The stimulus passed globally to mitigate the economic damage from the COVID-19induced recession was two times larger than what transpired after the Global Financial Crisis. This may provide a playbook for more muscular government action in the future.

Geopolitics add another facet to this higher inflation thesis, particularly in the near term, as Russia's invasion has resulted in (temporarily) higher commodity prices, particularly for energy and agricultural products. Going forward, (costly) stockpiling of essential inputs is likely to become the norm.

In this higher inflation environment, the stock-bond correlation is likely to be positive even in developed markets, thus reducing the benefits of diversification, and we will need to provide more innovative solutions to help clients reach their investment goals.

ESG and resilient firms

One of the major inflation components during the COVID-19 crisis was given by the cost of new and used cars. Well beyond the effect of the initial factory lockdowns, the production of new vehicles was delayed because automakers canceled all orders for components in early 2020 as they expected car sales to plunge during lockdown. According to a study released by the US Department of Commerce¹, the median inventory of computer chips held by consumers — like automakers and medical device manufacturers — fell from 40 days in 2019 to less than five in 2021.

In short order, chipmakers converted their production lines to make components for products used in home offices and home gyms, as people were more and more working from home. As a consequence, there was little production capacity for automobile components. This all but stopped car production around the world, triggering inflation as people in many parts of the world wanted to buy more cars to avoid using public transportation.

The governance component of ESG includes the need to have firms that are resilient and can adapt to natural and geopolitical shocks, rather than being leaner and leaner but inflexible. We believe this is required not only to secure sustainable returns over the long term for shareholders but also to create sustainable conditions for all stakeholders including employees, customers and local communities. In our view, the events of 2020-2022 have shown that there is not enough slack in the structure of firms to allow them to absorb shocks from nature (for example rising ocean levels or pandemics) and from human action (for example wars).

A higher adherence to sustainability principles, in our opinion, is likely to create a more robust economy.

Source: Semiconductor Supply Chain Request for Information, January 25, 2022

Hedge funds as a diversifier

Hedge funds have an important role to play in the diversification of portfolios, none more so than during challenging market environments. However, picking the right strategies and approaches is key. Here, we discuss where we see the best opportunities.



Bruce Amlicke Chief Investment Officer UBS Hedge Fund Solutions



Claire Tucker Head of Trading and Fixed Income Relative Value Investments, UBS Hedge Fund

uch of the first half of 2022 has been characterized by events that have shaken global risk markets. During these turbulent months, hedge funds generally weathered this period better than equity or bond beta (Chart 1), a pertinent reminder that adding a diversified hedge fund allocation to traditional portfolios may serve as a good diversifier, particularly in difficult market environments.

We believe that we are in a paradigm shift in investment markets: a new regime that has not been seen in financial markets for decades: that of real and persistent inflation. Investing in these conditions requires a different roadmap compared to the one used in previous years, what can best be described as a disinflationary 'lower for longer' environment of ample central bank liquidity.

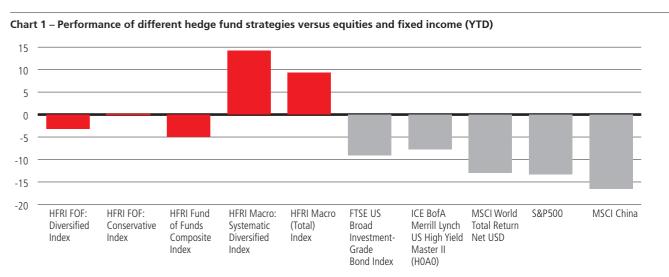
Inflationary environments are much harder to navigate. When there is growth (or 'reflation'), risk assets such as equities may still provide decent returns, but when growth slows or declines ('stagflation'), it becomes trickier since the traditional fixed income "safe haven" is no longer a reliable diversification tool, and equities also tend to come under pressure. This is an environment of tighter financial conditions, less liquidity, higher volatility and widening risk premia – all factors that may contribute to alpha opportunities for hedge funds.

While the market has now priced in high near-term inflation, there is an assumption that quantitative tightening and higher policy rates will reduce economic growth and hence, help to moderate price pressures. If inflation is stickier, and baseline inflation is higher than expected in 2023, we are likely to have some issues, including further capitulation of crowded secular growth trades and private positions, and even worse liquidity.

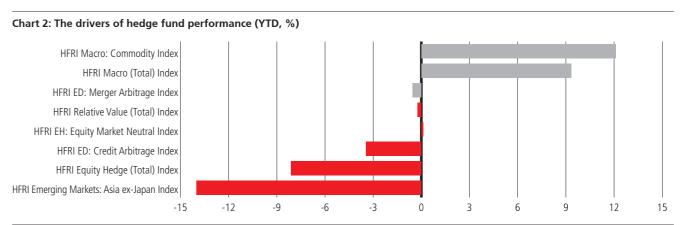
Which hedge fund strategies are best placed to succeed?

A look at year-to-date performance of different hedge fund strategy styles reinforces our view that certain approaches are better-placed to take advantage of the current market volatility than others (Chart 2). With this in mind, the following are examples of where we have been focused and continue to tilt our allocations towards.



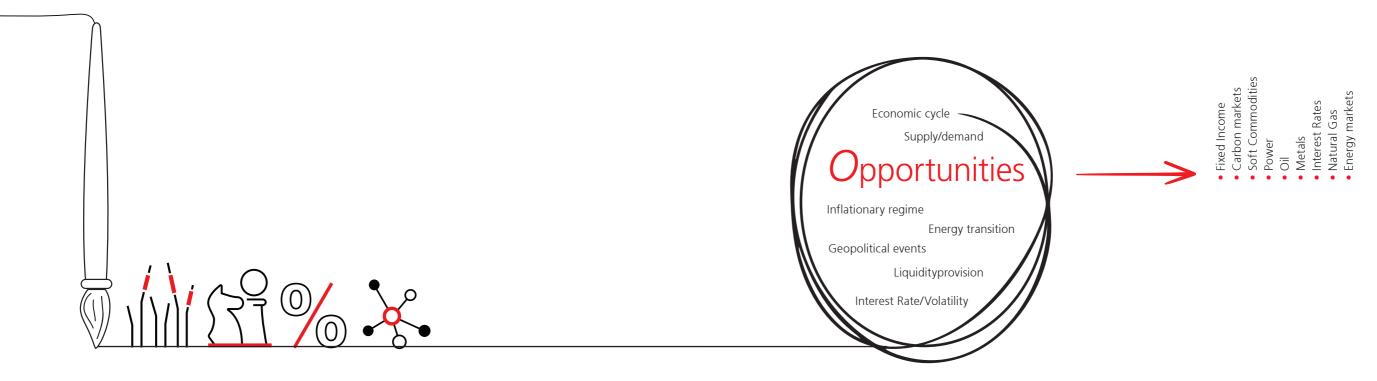


Source: HFRI, Bloomberg, as at 31 May 2022



Source: HFRi, as of 31st May 2022

Hedge funds
Hedge funds



Commodities: alpha, not beta, gives hedge fund strategies an edge

We believe there is a multiyear supercycle ahead in commodity trading. Fundamental market drivers continue to be "in play" due to massive supply/demand imbalances, which have become further exacerbated by Russia's invasion of Ukraine. Commodity markets are suffering from a decade of underinvestment in supply, and we're now seeing critical shortages of inventory across the energy, metals and agriculture complexes.

Meanwhile, the growing impetus to invest along environmental, social and governance (ESG) lines and the push toward energy transition are also important drivers. With sustainable investment constraints restricting supply (by cutting off capital to fund fossil fuel production, for example) before we are ready with renewable sources, and the energy transition driving demand (it is, in particular, hugely metals intensive) this phenomenon is an inflationary accelerant, and we believe it is likely to take a decade to play out.

However, this is not just a one-way trade. We are seeing huge volatility in these markets, many of which are extremely inefficient and have arguably fewer participants than 10 years ago, since many hedge funds exited the space. Those that remain have less competition, and more volatility to exploit.

Producer hedging flows are also changing in their utility function as prices have increased to multiyear highs.

Against this backdrop, active portfolio management is critical. This can take the form of directional long/short trading, relative value strategies such as calendar or locational spreads, volatility trading, or liquidity provision strategies. In particular, as the growth outlook has become more uncertain, we believe these hedge fund strategies are likely to continue to deliver in a stagflationary regime, and will be better placed to deliver strong risk-adjusted returns over time, compared to taking high beta commodities exposure via passive strategies or long-only instruments, for example.

Global Macro: arguably the broadest opportunity set in years

With this regime change, market characteristics seem to be transitioning from mean reverting to trending, which is typically supportive for Macro and CTA (commodity trading advisor) hedge fund returns. We are seeing a wide range of potential economic outcomes - i.e. increased uncertainty - as central banks try to balance their response to inflation with the risks to growth. With that comes elevated cross-asset volatility and changing interest rate differentials, creating excellent opportunities for macro hedge funds to potentially monetise.

Macro managers have already benefited from two key trends in 2022 so far - namely, the move higher in yields and a stronger US dollar - but have been tactically locking in gains and will likely be able to be opportunistic from here. While the entire global economy is wrestling with the inflation problem, there is still a large degree of cross-market divergence, with the Bank of Japan continuing with its yield curve control (YCC) strategy , (still) negative policy rates in Europe alongside 8-9% inflation in the region, and the US already on an aggressive hiking path. Two-way trading in emerging market local currency markets may also provide decent opportunities; for example, via commodity related currencies, or relative value government rates strategies as countries are at different stages of their monetary policy cycle.

Fixed Income Relative Value: higher rates volatility boosts expected returns

Fixed income relative value strategies are also benefiting from the uncertainty around inflation and policy rates driving volatility higher - which creates wider dislocations to potentially monetize. The transition from quantitative easing to quantitative tightening means that central banks are no longer dampening volatility with their bond purchases. This should increase opportunities in bread-and-butter trades such as cash vs. futures basis going forward. That said, managers are generally still running with low balance sheet leverage (i.e.

high cash levels) at the time of writing, so have dry powder to deploy as these spreads become more interesting. In addition, inflation relative value and short-term fixings trading have made a comeback, adding another string to managers' bows.

Tactical, low net credit and equity strategies offer plenty of alpha opportunities

The volatility we are seeing in the equity space, with back to back +/-3% days at the index level and the dominance of exchange-traded fund (ETF) volumes in secondary markets dragging constituent holdings along for the ride, may open up alpha opportunities for long/short hedge fund trades. But the approach needs to be hedged and tactical to monetize that alpha over time. These strategies should benefit as margin pressures, supply chain issues, and elevated funding costs start to erode earnings per share (EPS) and create further dispersion and stock selection opportunities. In terms of sectors, we have a bias toward energy and materials (with trillions of dollars no longer investing in fossil fuels and directed toward renewables) and away from the technology, media and telecom (TMT) sector. Over the last few years there has been a deluge of company creation in the technology, biotech and consumer sectors and many of these new companies are not cash flow positive. We are now entering a period of tightening financial conditions with increasing cost of capital which historically has proven to be an optimal set up for shorting.

Real estate

Real estate: aim for broad diversification

How might global real estate fare in the face of rising inflation? UBS Asset Management's Real Estate team give their outlook for real estate in the US and Europe.



Fergus Hicks Kurt Edwards Real Estate Strategist Head of Real



Kurt Edwards Head of Real Estate Research & Strategy US



Brice Hoffer Head of Real Estate Research DACH



Zachary Gauge Head Research Europe ex DACH

eal estate offers generally stable income returns and has provided low risk in portfolios due to low volatility and low correlations of returns with traditional asset classes. However, the challenging times we're in pose threats to all asset classes and require some words of caution.

Taking a look at the past, periods of higher inflation have been followed by typically higher real estate returns. This was supported by an analysis we did in 2020 which compared nominal real estate returns and inflation across 26 countries globally. Our model showed that real estate offered a 78% inflation protection¹ and up to 80% when further conditions such as real interest rates and variable property risk premium were applied.

However, we are now seeing rising risk of stagflation (which occurs when inflation is above-average and GDP growth is below-average), due to rising interest rates from central banks as they attempt to curb inflation. Our views for the US and Europe:

us

Limited evidence from the US, dating back to the latest period of stagflation in the 1970s, shows that real estate outperformed equities and bonds, though performed below expectations compared to times of better economic growth (Chart 1). Since 1978, annual real – after inflation – total returns were of 6%-7% during times of balanced economy, with a median of 6.9%. However, during periods of stagflation, real estate returned 5.5% in real terms while equities returned 2.5% and government bonds -7.3%.

In our view, the biggest threats to real estate markets are periods of recession combined with inflation at average or below average levels. To mitigate such risks, we believe broad diversification across countries is the most prudent strategy.

However, the US real estate market is in better condition than during the global financial crisis (2007+), with loan-to-value ratios being less stretched and spreads between real estate yields and bond yields less compressed.

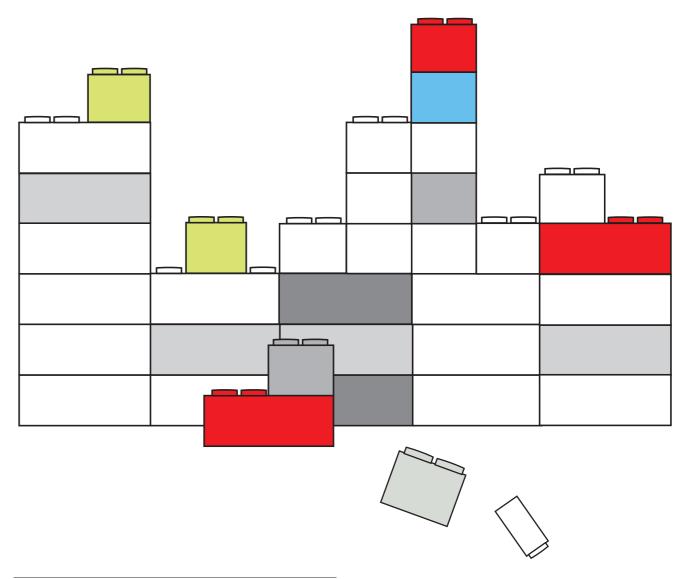
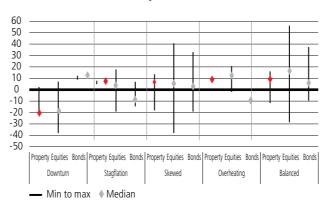


Chart 1: US real total returns by asset class (% YoY, Q4 1978 - Q1 2022



Note: Equities = S&P 500; government bonds = ICE Bank of America Merrill Lynch 7-10 Year US Treasury Index; average defined as within one standard deviation of mean; inflation = 3.5% average and 2.7% standard deviation; annual GDP growth = 2.6% average and 2.3% standard deviation. Source: Thomson Refinitiv Datastream; NCREIF; UBS Asset Management, Real Estate & Private Markets (REPM), May 2022

Europe

In Europe, the relationship between high inflation and strong real estate returns has historically been tenuous at best. In some instances, inflation has been propelled by strong demand which has been positive for rental growth.

However, when high inflation is a symptom of late cycle economic growth, additional risks are attached. Currently, inflation is cost-push rather than demand-driven, leading to a downgrade of economic growth forecasts. For example, the Bank of England expects the UK economy to stagnate in 2023/24. Also, interest rates are rising, with considerable hikes which have narrowed the spreads between real estate and fixed income. For real estate, this may translate into some upward pressure on yields, as the sector should price-in the new interest rate environment, and a downgrade in rental growth expectations as the economy weakens.

Some segments of the European market still offer robust rental growth prospects and are showing a positive outlook in this challenging macroeconomic environment. This is especially the case for logistics assets located in strategic distribution hubs, where demand potential still significantly exceeds construction activity. Another sector continuing to benefit from structural trends is the European rental housing sector. In fact, the steady growth in household numbers and the rising attractiveness of the rental segment from a flexibility and affordability point of view continue to fuel a sizeable pent-up demand for the sector in most urban areas of the continent.

Real Estate Outlook – Edition 1, February 2020

Private markets: a welcome alternative

As public markets become more uncertain due to geopolitical risks and economic policy, investors are looking to alternative investments for uncorrelated returns and lower volatility. What options are available for investors in private markets? How might they fair in the current market environment? Hear the views of our experts within our REPM group in infrastructure and food and agriculture:



Analyst, Research & Strategy



Manisha Bicchieri. Sustainability and Research Analyst



Aleiandro Tapia. Research Analyst

Infrastructure

Author: Alex Leung

The infrastructure sector is typically resilient by nature. Given it provides services deemed essential in today's society (such as electricity, heating, high speed internet, mobility), demand is generally steady and reliable, as we saw during the Global Financial Crisis or the recent COVID-19 pandemic. Historically, governments have implemented infrastructurefriendly policies during periods of economic weakness, which has also made the asset class less tied to the economic cycle.

A Preqin survey from November 2021 showed that 47% of global institutional investors planned to increase their long-term allocation to infrastructure, as opposed to 7% intending to reduce their exposure. We believe there are many reasons why investors are interested in increasing their allocation. For example, infrastructure's resiliency and low correlation to other asset classes helps investors further diversify their portfolios, which is a particularly important

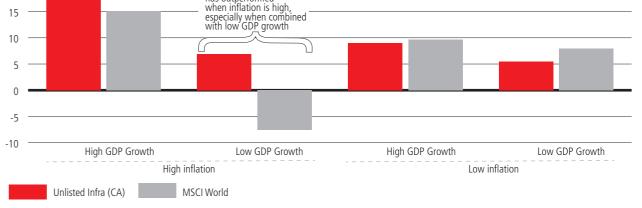
attribute in the current market volatility. In addition, infrastructure investments offer a relatively strong cash yield, which makes it well suited for certain investors such as pension funds that are looking for cash flows that can match their liabilities. Also, the asset class generally offers attractive risk-adjusted returns; for example, both infrastructure equity and debt have historically experienced relatively low volatility, while infrastructure debt historically had lower levels of default risk and higher premiums compared to corporate debt.

One important characteristic of private infrastructure is its performance during periods of high inflation (Chart 1). Based on historical data, perhaps it is not surprising that private infrastructure equity and public equities both perform well when GDP growth is strong. However, where infrastructure has really shone is when there is above average inflation, a time in which infrastructure equity has outperformed public markets. This outperformance is even more apparent when high inflation is combined with low GDP growth.





Chart 1: Infrastructure investment performance in different GDP/CPI environments



Sources: Cambridge Associates, Bloomberg, MSCI, OECD, from Q1 2005 to Q3 2021. Note: Data based on quarterly Y/Y data, unlisted infrastructure based on Cambridge Associates data; GDP and CPI data based on OECD countries; threshold for high vs. low GDP and CPI are both ~2% (based on quarterly data of observation period). Past performance is not a reliable indicator of future results



Food and Agriculture

Authors: Manisha Bicchieri, Alejandro Tapia

Investing in food and agriculture through farmland provides a balance of current income and long-term capital appreciation while also providing diversification as it typically has a low correlation to other asset classes. As a natural inflation hedge, many investors are considering farmland now in times of high inflation and rising interest rates. How does inflation impact this sector and how does the future of this asset class look given the current global situation?

In 2021, the Consumer Price Index (CPI) for all food, a component of the all-items CPI, increased an average of 3.9%. Comparably, the United States Department of Agriculture (USDA) predicts food prices to increase between 5.0%-6.5% in 2022.

However, retail food prices only partially reflect crop prices, with the latter being more volatile.

In general, higher crop prices bolster farm incomes which result in greater farm revenues and, ultimately, increased land

values. As such, farmland assets generally provide an inflation hedge for those investors looking to protect their investment returns, offering capital preservation in addition to current income.

Historically, there has been a strong correlation between rising inflation and farmland performance.

An analysis conducted by the US Department of Agriculture shows that during the period 2017-2021, food inflation has been hotter than all segments outside of housing and transportation, due to the pandemic situation and imbalances in the supply chain.

When annualized from 1991 to 2021, the NCREIF Core Farmland Index (CFI) has generally shown positive returns, 9.8% nominal or 7.4% real. With the exception of some periods (such as the post Global Financial Crisis period from 2008), the association between farmland returns and inflation has been positive, and is further represented by a correlation coefficient of 0.24 between CFI returns and CPI inflation rates during the same period (1991-2021) (Chart 2).

Chart 2: US farmland in a real estate portfolio, annual returns 1991-2020

	Mean Sta dev		tandard leviation		Correlation					
	Nominal (%)	Real (%)	Nominal (%)	Sharpe Ratio	CPI	Apartment	Office	Industrial	Retail	Farmland (CFI)
CPI	2.4	-	1.2	n/a	1.00					
Apartment	8.8	6.5	7.7	0.83	0.31	1.00				
Office	6.9	4.4	9.4	0.47	0.06	0.83	1.00			
Industrial	10.2	7.7	10.1	0.77	0.44	0.81	0.73	1.00		
Retail	7.5	5.1	7.8	0.65	0.02	0.76	0.76	0.48	1.00	
Farmland (CFI)	9.8	7.4	4.8	1.55	0.24	0.33	0.37	0.18	0.5	1.00

Source: UBS Asset Management, Real Estate & Private Markets, Research & Strategy research based on data obtained from the Bureau of Labor Statistics, Morningstar, the Bar-Cap Aggregate Bond Index, EAFE International Stock Index, S&P 500 Stock Index, IA SBBI US Small Stock Index, NAREIT, NCREIF Property Index and Core Farmland Index as of December 31, 2021. Source of CPI: Bureau of Labor Statistics. CPI is the Consumer Price Index, an inflationary indicator of the standard of living in the US. It is also referred to as the "cost of living" index. Means are annualized returns consistent with methodology used by NCREIF and are as of December 2021. Standard Deviation and Correlations are based on quarterly returns. Past performance is not an indication of future results, and the possibility of loss does exist. The Core Farmland Index does not include fund-level management or other fees or fund-level expenses, is not available for investment and is for illustrative purposes only.

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UBS Asset Management is a global large-scale and diversified asset manager, with a presence in 23 markets. We offer investment capabilities and styles across all major traditional and alternative asset classes – from active to passive including a comprehensive sustainable investing offering – as well as advisory support to institutions, wholesale intermediaries and Global Wealth Management clients.

Our goal is to bring our clients the ideas,

understanding and clarity to help them deliver on their investment priorities and values, without compromise. Our global capabilities include equity, fixed income, currency, real estate, infrastructure, private equity and hedge fund investment capabilities that can be combined into customized solutions and multiasset strategies.

Complementing our investment offering,

we provide professional white labelling services including fund set-up, accounting, asset valuation, NAV calculation and reporting elements for traditional and alternative funds. We also offer our innovative modular platform, UBS Partner, which provides banks with powerful tools and analytics to support their advisory offering and enable them to significantly enhance their end clients' experience.

To meet investors' financial and

sustainability goals, we offer sustainable and impact investing strategies across a range of asset classes, from environmental, social and corporate governance integration to impact investing including investment themes including renewable energy, environmental stewardship, social integration, health care, resource efficiency and demographics. We also offer tailored solutions that span the sustainability spectrum, including ESG integration, tilt toward a specific E, S or G factor, thematic, positive screening, impact or exclusions. Sustainability is also an intrinsic part of the investment decisionmaking process across many of our active strategies. ESG factors are considered using our proprietary ESG Risk Dashboard. This information also feeds into our stewardship process where we actively monitor and engage with any flagged companies to help them make progress towards transitioning to a lower carbon future.

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