



Market Perspectives

May 2022

 **BARCLAYS** | Private Bank



Contents

Can the global economy cruise to a soft landing?	3
Secular trends that can weather stormy markets	5
Aggressive rate hiking: the long and short of it	8
The anatomy of a recession and financial markets	10
NFTs: the dawn of a new era?	16
Has Europe been blown off course in its energy transition?	20
Diving into private assets and the liquidity conundrum	22
Multi-asset portfolio allocation	27

Contributors:

Julien Lafargue, CFA, London UK, Chief Market Strategist
Michel Vernier, CFA, London UK, Head of Fixed Income Strategy
Nikola Vasiljevic, Zurich Switzerland Head of Quantitative Strategy
Lukas Gehrig, Zurich Switzerland Quantitative Strategist
Alexander Joshi, London UK, Behavioural Finance Specialist
Damian Payiatakis, London UK, Head of Sustainable & Impact Investing
Benjamin Hood, London UK, Investment Strategist
Iain Martin, London UK, Investment Writer

Foreword

Welcome to our latest edition of *Market Perspectives*, which aims to provide much-needed context and clarity, at a time when volatility and uncertainty weigh on investors' minds.

Uncertainty is rife in financial markets in the midst of a war in Ukraine, rampant inflation, and recessionary risks. Turning to secular themes may be one way to avoid the short-term noise. For fixed income investors catastrophe bonds offer diversification, short duration, and possibly better returns. For equity investors, infrastructure and technology, or broadly innovative companies, come to mind. They seem likely to provide strong long-term profits, irrespective of whether the economic cycle is headed.

Bonds have been surprisingly volatile this year, as central banks take aggressive rate hiking paths to fight inflation. Volatility looks here to stay for long-duration debt until the outlook for inflation clears. Short- to medium-term bonds appear best positioned as they can still provide positive returns as rates rise, along with the ability to recycle investments into higher rates.

Private assets might be another port of call for those looking to diversify and manage portfolios in uncertain times. The asset class has racked up average gains of 14% in the fourteen year to 2021. Meanwhile, our analysis suggests that adding 10% portfolio exposure to the asset class can lift returns by around 50-60 basis points.

Beyond our usual asset class and financial market analysis, you'll also find our latest sustainability insights.

With soaring fossil fuel prices, the pressure is on European countries to find a short-term fix, while weaning themselves off of reliance on Russian energy supplies. Plans to boost liquefied natural gas sourced from 'friendly' regimes may put added strains on already ambitious goals to transition to a low-carbon world. Ultimately, current events suggest that the journey to net zero carbon emissions will be slower.

As always, we hope you enjoy the report and we thank you for entrusting us with your investments.

**Jean-Damien Marie
and Andre Portelli,
Co-Heads of Investment, Private Bank**

Can the global economy cruise to a soft landing?

As policymakers battle against the impact of the conflict in Ukraine, soaring prices, and a slowing global economy, can they engineer a soft landing, or is a recession coming?



The war in Ukraine compounds renewed COVID-19 restrictions in China, surging price pressures, and tightening financial conditions to create an almost perfect storm. The accumulation of these dark clouds has encouraged economists to downgrade their global growth forecast and raise inflation projections.

We still expect robust growth of 3.3% this year, which would be a significant downgrade from the 4.4% estimate we proffered at the start of the year. We now forecast global inflation to average 5.9% this year, before easing back to 3% in 2023.

THE CONFLICT IN UKRAINE

Russia's invasion of Ukraine has reverberated throughout the global economy and financial markets. Persistently higher commodity prices and the potential rationing of energy have hit inflation forecasts, manufacturing output, and household consumption levels. European officials are considering a phased import ban on Russian oil.

The implementation of an energy embargo would put further downside pressure on our 2.4% European growth forecast for this year, and could even lead the euro area into a recession. The European Central Bank (ECB) estimates that a 10% rationing of gas on the corporate sector would knock 0.7 percentage points (pp) off gross domestic product (GDP) in the bloc.

CHINA'S BATTLE AGAINST OMICRON

The arrival of the highly infectious Omicron variant in China, reduced efficacy of local vaccines, and inferior vaccination rates among its elderly population have reinvigorated the government's determination to enforce its near zero-tolerance approach to coronavirus. Its approach, known as "dynamic clearing", aims to eliminate cases through targeted testing, contact tracing, and enforced quarantine periods. If these measures fail to stop transmission, then the authorities aim to impose rapid and aggressive citywide lockdowns.

Analysts estimate that up to 370 million people are currently affected by partial or total lockdowns. China's financial hub and largest city, Shanghai, has confined its 25 million residents to their homes since 28 March.

While officials appear committed to zero cases, they have begun experiments to mitigate the impact of these restrictions on industrial production by introducing the "closed-loop system". This process results in workers being put into "bubbles" that isolate them from the wider population by keeping them in company-run accommodation when not at the factory.

ECONOMIC IMPACT OF THE LOCKDOWNS

While China's strict lockdowns have saved lives (officially there have only been 5,000 deaths from COVID-19 on the mainland), they have come at an economic cost. Consumer spending has slumped and unemployment in the world's second largest economy is also rising. Retail sales contracted by 3.5% in March, the first decline since July 2020, and their lowest level since the start of the pandemic¹. China's unemployment rate rose to 5.8% last month, up from 5.5% in February and its highest since May 2020².

The disruption to production is expected to further exacerbate global supply-chain pressures. China's quarterly production of semiconductors shrunk for the first time since early 2019, and there have been major production halts at some of the nation's largest car manufacturing plants.

Given containment measures are expected to be in place for a prolonged period of time, we have cut our China GDP growth to 4.3% for this year, which is significantly below the official 5.5% target level.

INFLATION HEADACHES

The upward pressure on inflation has been broader and longer-lasting than envisaged at the start of the year. Food and energy prices have surged, supply-chain disruption has taken longer to resolve than expected at the start of the year, and tighter labour markets have been pushing up wages. Recent data shows that services inflation, particularly in hospitality, has seen a sharper increase as economies reopen.

Europe, the US, and the UK have registered multi-decade highs for year-on-year inflation prints over the past couple of months. While forecasts suggest that price pressures may peak in a few months, headline inflation is still expected to remain above central bank target levels through 2023 in many leading economies.

CENTRAL BANKS EYE MORE AGGRESSIVE RATE HIKES

In order to curb inflationary pressures, central bankers have been forced to embark upon a more aggressive policy tightening path, even if it comes at the cost of activity.

As expected, the US Federal Reserve (Fed) raised rates by 50 basis points (bp) at the May meeting, its biggest increase in more than two decades. The central bank also announced that the balance sheet reduction would start in June. The half point increase pushes the fed funds target range up to 0.75-1%. Fed chair Jerome Powell dismissed speculation that the committee has been considering hikes of 75bp. He also helped market participants who were looking for clues as to the rate to future hikes by saying that 50bp hikes are likely the committees' baseline for the next couple of meetings.

We have adjusted our policy forecasts to reflect this and now anticipate half-of-one-percent increases in June and July, followed by 25bp increments at each meeting through January 2023. This would put the terminal rate for the cycle at 2.75-3%.

The ECB has indicated that its net asset purchases under the Asset Purchase Programme (APP) will be concluded by the third quarter. This could lead to a rate hike in the second half of the year, the timing of which will likely be determined by incoming data. Evidence of a wage-price spiral and/or a dis-anchoring of inflation expectations may force the Governing Council into raising rates as early as September. That said, the risk of this is low and a hike in 2023 still looks more likely, given the vast level of uncertainty.

In the UK, the Bank of England offered a gloomy assessment of economic conditions after forecasting inflation would hit double digits in October and warned that UK economy faces a prolonged period of stagflation. Despite the faltering growth profile, the Monetary Policy Committee (MPC) still felt compelled to hike rates by a further 25bp to 1%, which is the highest since 2009.

Given that the central bank is now far more concerned about the level and persistence of inflation, the second-round effects on wages, and rising inflation expectations, we expect further policy increases in the coming months. We forecast 25bp hikes at both the June and August meetings, putting the bank rate at 1.5% in the summer.

GLOBAL ECONOMY: TARGETING A SOFT LANDING

Despite the reduction in the global growth profile, our projections still suggest trend growth for this year and next. We expect Europe to wean itself off its reliance on Russian energy eventually, and that commodity prices should stabilise in the not too distant future. Supply chains ought to improve as businesses overcome logistical constraints and capacity levels normalise.

While it may feel very disconcerting to be bombarded by a seemingly endless barrage of negative headlines, it's important to remember that policymakers still have plenty of options. If, as expected, inflation moderates into year-end, we can expect some of the intensity over the hiking narrative to ease as officials try to orchestrate a softer economic landing. Meanwhile, growth prospects should continue to be underpinned by solid labour markets, excess consumer saving, and the recovering service sector.

Author: Henk Potts, London UK, Market Strategist EMEA

¹ China's Q1 accommodation, catering sector shrinks for the first time since 2020, Reuters, 19 April 2022 <https://www.reuters.com/world/china/china-q1-accommodation-catering-sector-shrinks-first-time-since-2020-2022-04-19/>

² Shanghai lockdown: China spending and employment hit, BBC, 18 April 2022 <https://www.bbc.co.uk/news/business-61137195>

Secular trends that can weather stormy markets

Looking at companies likely to prosper from long-term, secular, trends can provide an antidote to all the uncertainty facing investors. Catastrophe bonds, infrastructure projects, and innovation are three areas that can help to diversify portfolios, and potentially address climate change challenges along the way.



Whether it's the risk of an upcoming recession, rampant inflationary pressures, or unprecedented geopolitical tensions, investors are struggling to express conviction at this highly uncertain time. While we remain positive on the medium-term outlook for equities and other risk assets, we acknowledge that this may not be seen for some time.

In this context, holding cash can make sense, at least tactically. However, the longer you wait, the more expensive it gets, especially when inflation is eating up your purchasing power. When uncertainty seems to be everywhere and when the noise gets too loud, it can be worth stepping back and focusing on what we know (or is at least seems highly probable).

Whether the US Federal Reserve hikes six or nine times this year, the conflict in Ukraine lasts another month, or even a year, or if global growth hits 3% or 0% in 2022, there are secular trends that won't change. They may accelerate or decelerate occasionally, but their relevance is rarely questioned. Focusing on these "themes" can help investors to overcome their doubts and achieve what we believe remains the best course of action over the long term: to be invested in a diversified portfolios of assets.

In this article we explore three of themes: the market of climate-related adverse events, the global need for more infrastructure spending, and the acceleration in digital innovation. This is not an exhaustive list, but rather a suggestion as to which themes seem relevant and should contribute positively to portfolio returns over time.

CAT BONDS AS A SOURCE OF DIVERSIFICATION

Fixed income investors are facing significant headwinds in the form of higher yields. While the bulk of the move higher seems over, other concerns are surfacing. In credit, default rates remain low, but the risk of an upcoming economic slowdown could change this dynamic. But what if, instead of trying to predict whether companies will be able to repay their debt, investors took exposure to a different sort of risk?

Enter catastrophe bonds (or "CAT" bonds). These fixed income instruments appeared in the aftermath of Hurricane Andrew in 1992 as a tool, largely for insurance and reinsurance companies, to better redistribute risk linked to specific natural catastrophes.

SPECIFICS

No two CAT bonds are the same, each covering one event, or a series of them, over a specific period and with well-determined triggers. However, their general characteristics can be appealing for bond investors.

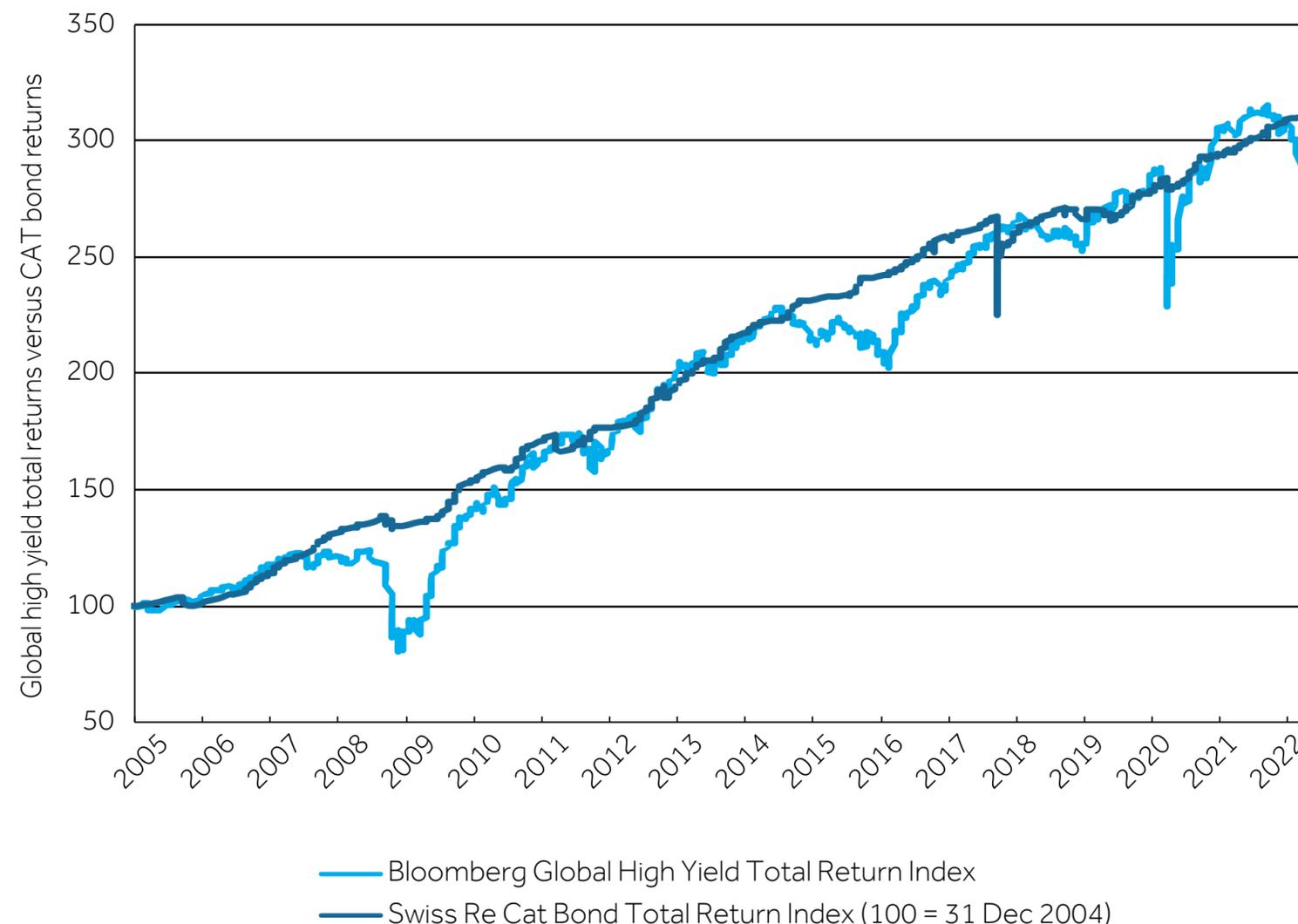
First, the bonds tend to be of relatively short duration (typically less than five years) and often offer some protection against rising yields. In fact, the asset class exhibits low or even negative correlation to other, more traditional, segments of the market. Indeed, although CAT bonds' risk-reward dynamics depends on pricing similar to high yield, the spread cycle is usually independent of the classical credit, or economic, cycle, which can provide considerable diversification benefits over time.

Second, while climate change is causing more weather-related events, most CAT bonds cover extreme disasters and are therefore rarely triggered. In fact, expected losses often hover between 2.5% and 4.5%, not too dissimilar to the expected default rates in the high yield segment of the fixed income market. But just like any insurance policy, premiums to protect against disaster usually increase quickly after an adverse event. This tends to support recovery rates while keeping spreads relatively wider for a while, which can allow investors to achieve better returns in the future.

Finally, while the average yield on US high yield debt is around 7%, CAT bonds typically pay coupons in the mid-to-high single digits. As such, we believe this market of at least \$30 billion¹ represents a clear opportunity for improved diversification and returns (see chart), especially when macroeconomic uncertainty is elevated.

CAT BONDS HAVE BEEN LESS VOLATILE THAN GLOBAL HIGH YIELD

Performance of CAT bonds against global high yield debt since 2005



Source: DataStream, Barclays Private Bank, April 2022

¹ Catastrophe bonds storm into mainstream as climate threat grows, Financial Times, 29 October 2021 <https://www.ft.com/content/6becd6bb-8c25-4d62-8648-c3fae904f18e>

BUILD IT AND THEY WILL COME

According to the G20's Global Infrastructure Hub, infrastructure investments need to reach \$94 trillion by 2040 to support global economic growth and to start to close infrastructure gaps. The total bill would approach \$100 trillion to meet the UN Sustainable Development Goals (SDGs) for universal household access to drinking water and electricity by 2030.

Unlike CAT bonds, whose fate is uncorrelated to global gross domestic product (GDP) growth in any given year, infrastructure spending is a determinant of GDP. As such, and maybe counterintuitively to Keynesian economists, investments can slow when growth decelerates. As such, this theme does not provide as much diversification. Yet, to be ready to accommodate an additional two billion people in the next 30 years, we will need to spend more on infrastructure.

In addition, it is not just about additional water pipes, roads, and sewage systems anymore. In fact, the next generation of infrastructure is more digital and sustainable. This expands considerably the investable universe and offers investors numerous opportunities to benefit from future growth, while gaining exposure to assets that typically offer predictable returns over the medium- to long-term.

INNOVATION, INNOVATION, INNOVATION

It is widely accepted that the COVID-19 pandemic has advanced technology adoption by a few years. This applies not only to how we work and consume, but to how companies manage their supply chains, increase reliance on automation, and find innovative solutions to meet demand. While some of the pandemic winners are likely to suffer a growth hangover in the coming months, as lives hopefully keep returning to some sense of normality, the move towards a more digital world appears inexorable.

Of course, high-growth and innovative businesses are not immune to macroeconomic trends. In particular, higher yields have put pressure on valuations recently and this adjustment is expected to persist in the short term. However, in the longer term, the main driver of stocks' returns remains companies' ability to boost earnings.

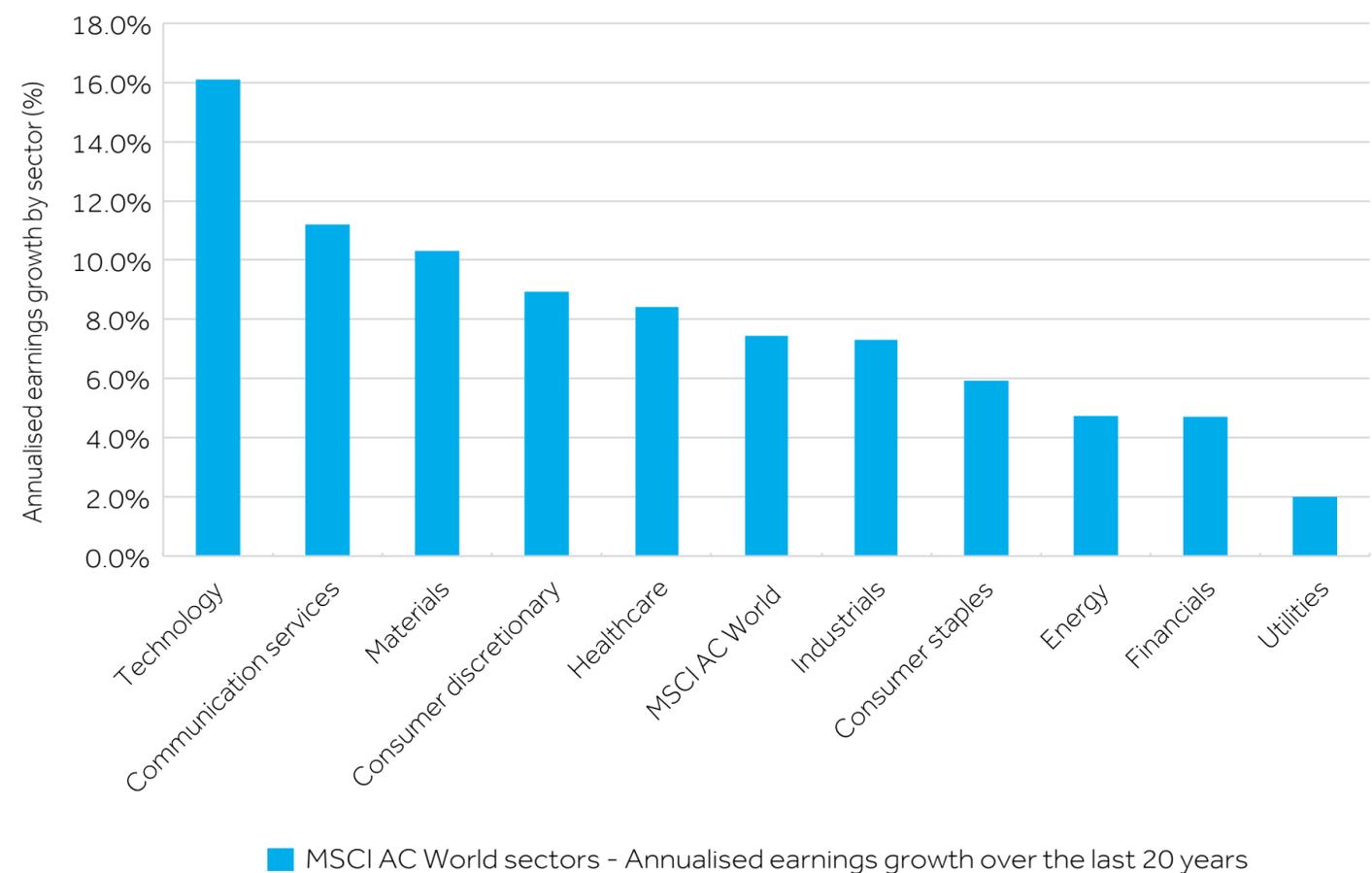
Technology companies (in the broadest definition) tend to deliver much stronger long-term growth (see chart). For example, and despite drawbacks such as its changing constituent make-up, the MSCI AC World software sub index has seen its earnings per share jump eightfold in the last 20 years, more than twice the rate of the broader market. This is despite the 2008 financial crisis, last decade's European sovereign debt crisis, and the pandemic (along with several other market shocks), and is simply a function of their inherent innovation, scalability, and asset-light tech firms.

While the winners and the losers will change (hence requiring an active approach to investing), there is no reason to believe that technology companies - and more innovative ones - will grow at a slower pace in the coming years.

Julien Lafargue, London UK, Chief Market Strategist

INNOVATIVE COMPANIES TEND TO DELIVER BETTER EARNINGS GROWTH

Annualised earnings growth for innovative sectors have outperformed other sectors over the last 20 years



Sources: Bloomberg, Barclays Private Bank, April 2022

Aggressive rate hiking: the long and short of it

Bond performance throughout most segments has been negative this year, while volatility is likely to remain high. Short-dated bonds have historically been relatively stable during phases of higher trending yields, and could also help investors to find positive returns this time.



As mentioned in our [Outlook 2022](#) in November, the rate market will, to a very large extent, be driven by central bank action this year. The recent 50 basis point hike in the US Federal Reserve's (Fed) policy was widely expected and well telegraphed by the central bank.

Still, what may follow seemed more of an outlier probability only a few months ago, and has not been witnessed for four decades, back in the mighty 1980s. A move of the order of back-to-back 50bp hikes was last seen in 1984 (125bp over two meetings). If the Fed follows through with 50bp hikes in three consecutive meetings, that would be the biggest step seen since Paul Volcker's Fed lifted rates by 800bp within three months, in 1980.

THE INFLATION FIGHT IS ON

The Fed has acknowledged that its focus is now on taming inflation, and the central bank seems (at least for now) less concerned about any repercussions for growth in the wake of a barrage of hikes.

Only after the Fed is successful in dousing the flames of inflation, will it focus on the period thereafter. This suggests there is a reasonable likelihood that the Fed may follow through with three consecutive hikes.

GOING BEYOND NEUTRAL

Current market pricing indicates an upper target rate of more than 3.2% by mid-2023, compared to the Fed's own "dot plot" projection of 3%. The central bank seemingly finds itself more in a position to dampen inflation by putting the brakes on demand. This stands in contrast to six months ago, when policymakers believed it had only limited leverage to tackle supply driven inflation.

Fed chair Jerome Powell has described the job market as "too hot" and stated that "it is our job to get it into a better place where supply and demand are closer together". In this mindset, and with rising inflation expectations in focus, the Fed may well be willing to hike beyond a "neutral" level.

FED NEEDS TO TREAD CAREFULLY

But the US central bank may have to tread carefully. March inflation data show that the components that have largely caused higher inflation of late, and were triggered by the pandemic, seem to have consolidated; potentially a sign that inflation may moderate towards the end of this year, and a warning that the Fed may want to avoid hiking into the next recession.

VOLATILITY AT LONG END TO STAY

Going further along the curve, rates are likely to stay volatile. Uncertainty over the number and size of rate hikes, the inflation outlook, and the fact that the Fed will retire some of its Treasury bond portfolio on the balance sheet, may be enough to spark further volatility on the long end. While higher rates, possibly going beyond 3%, look more possible, focussing on short- to medium-term bonds looks most appropriate for now.

THE CASE FOR SHORT-TERM BONDS

Several reasons point to the appeal of short- to medium-term bonds in this environment. Higher yields (absolute and relative), positive yield to maturity, pull to par effect, and price behaviour all come to mind.

1. Higher yields

This is the first and most obvious reason. While prospects for inflation and the impact of real yields should be taken into account, this is true for all other asset classes and longer bonds or cash. At least for this current comparison nominal yields can be considered.

The 2-year yield is well over 2.7%, compared to 0.15% only a year ago and only 25bp lower than the 10-year counterpart. As we have mentioned before, the difference between the 2-year market yield and the Fed target rate of 150bp is high, in historical terms. Forward rates, which are shaped by the 2-year yields, for example, imply short rates of 3.2% in 15 months (deposits and fixes of up to three months). This means that hikes of this magnitude are already in the price, even though it is not set in stone that the Fed will eventually reach this point.

2. Yield to maturity

Certainly, if the rate curve started to price in hikes beyond 3.2%, investors may face mark-to-mark losses during the holding period. However, any bond bought with a positive yield at the outset will provide a positive return if held to maturity (unless any of the respective bonds default, of course). As long as losses are not crystallised, the positive purchase yield will still be achieved.

3. Pull-to-par effect

Portfolios or mandates with shorter bonds in particular should profit from higher market yields, as bonds mature relatively quickly and as proceeds can be reinvested at higher levels. Reinvestments at higher market rates usually lead to superior performance after phases of yield rises.

2-year rate low (date)	2-year rate peak (date)	2-year rate low	Rise in 2-year yield (% points)	Rise in 10-year yield (% points)	Performance short-term credit 1-3%
03/09/1993	23/12/1994	3.70	4.01	2.53	2.07%
03/02/1996	24/04/1997	4.87	1.66	1.28	5.45%
16/10/1998	12/05/2000	3.87	3.03	2.07	5.69%
13/06/2003	23/06/2006	1.08	4.18	2.11	5.49%
01/07/2016	09/11/2018	0.59	2.33	1.74	2.38%
12/02/2021	22/04/2022	0.11	2.56	1.69	-3.42%
Today		2.70			

PRICE BEHAVIOUR

While markets are very much focussed on the US 10-year yield, shorter-dated bonds are less exposed to the benchmark rate, compared to longer-duration bonds, for a few reasons. First, because the short-end yield can react differently compared to at the long end (though this time it has been short-end yields that have surged the most). Second, shorter-term bonds are less price sensitive compared to longer-dated bonds applying modified duration and convexity. For example, the US Treasury 10-year benchmark bond is exposed to more than an 8% price loss, should the market rate increase by 100bp. This compares to a 1.85% price loss for a 2-year Treasury bond.

More importantly, shorter-term bonds have shown positive performance during rate-hiking phases. For instance, Bloomberg's US 1-3-year credit index has always been positive when the respective 2-year market rate (and 10-year rate) rose as a result of past hikes. The latest rise seems to be an exception, mainly due to the very low yield seen at the outset (see table). It appears that the entry yield provides a large performance cushion, while investing at higher rates adds to the benefit. As such, investing at a rate well over 2.5% seems more beneficial.

While investing in short-term bonds may not be appropriate in all circumstances, holding them can still produce positive returns during periods of higher trending rates. This also applies to corporate bonds, with the credit index showing a yield of around 3.3% compared to 1% for short-term rates.

Author: Michel Vernier, CFA, London UK, Head of Fixed Income Strategy

The anatomy of a recession and financial markets

Right after the shortest recession on record, many market participants are already eyeing inflation rates and economic activity for signs of another recession – one of a very different kind. We provide a typology of recessions, study their effects on financial markets, and assess what this means for the next one.



The term recession is widely used but lacks a clear definition. In this article we employ the definition by the economists at the [National Bureau of Economic Research \(NBER\)](#). According to their definition, a recession or economic contraction describes the period between a peak and a trough in economic activity. To define these turning points for the US economy, a committee looks at a range of monthly activity indicators albeit without following a rigid rule. The longest recession since 1900 for the US spanned several years, starting in 1929, while the shortest one was the most recent, pandemic-induced recession that only lasted two months.

Recessions come in different shapes and with differing geographical reach. In the following, we offer a typology of recessions and study the performance of assets under these regimes. We then analyse the current situation from an investor's perspective.

THE TYPOLOGY OF RECESSIONS

Recessions are classified by the shapes (whether a V-, U-, W-, L- or K-shaped one) they imprint on activity indicators as well as the context in which, or trigger upon which, they occur. Neither typology is generally accepted or particularly well-defined. While classifying recessions by a letter, makes their course easily visualised, the most fitting letter only becomes apparent in hindsight. A V-shaped one may, for example, lead into a W-shaped downturn.

For a forward-looking approach we find it more instructive to classify past events by their context. Very generally, we would sort them into the following four types:

- Business cycle, boom/bust recession
- Balance sheet recession
- Supply-side shock recession
- Demand-side shock recession

The business cycle variant is often brought about by central banks tightening the reins of monetary policy as a reaction to signs of overheating in an economy.

A balance sheet recession starts more subtly, when firms and banks see their assets lose value and then cut investment and lending to improve their balance sheets. This further hurts growth and asset valuations, potentially leading to a downward spiral. In contrast to the business cycle alternative, cutting rates does not alleviate the issue as cheaper financing will at most be used to fund existing debt at a lower price. Japan's "lost decade" recession of the nineties or the global financial crisis in 2008 have been attributed to this type of recession.

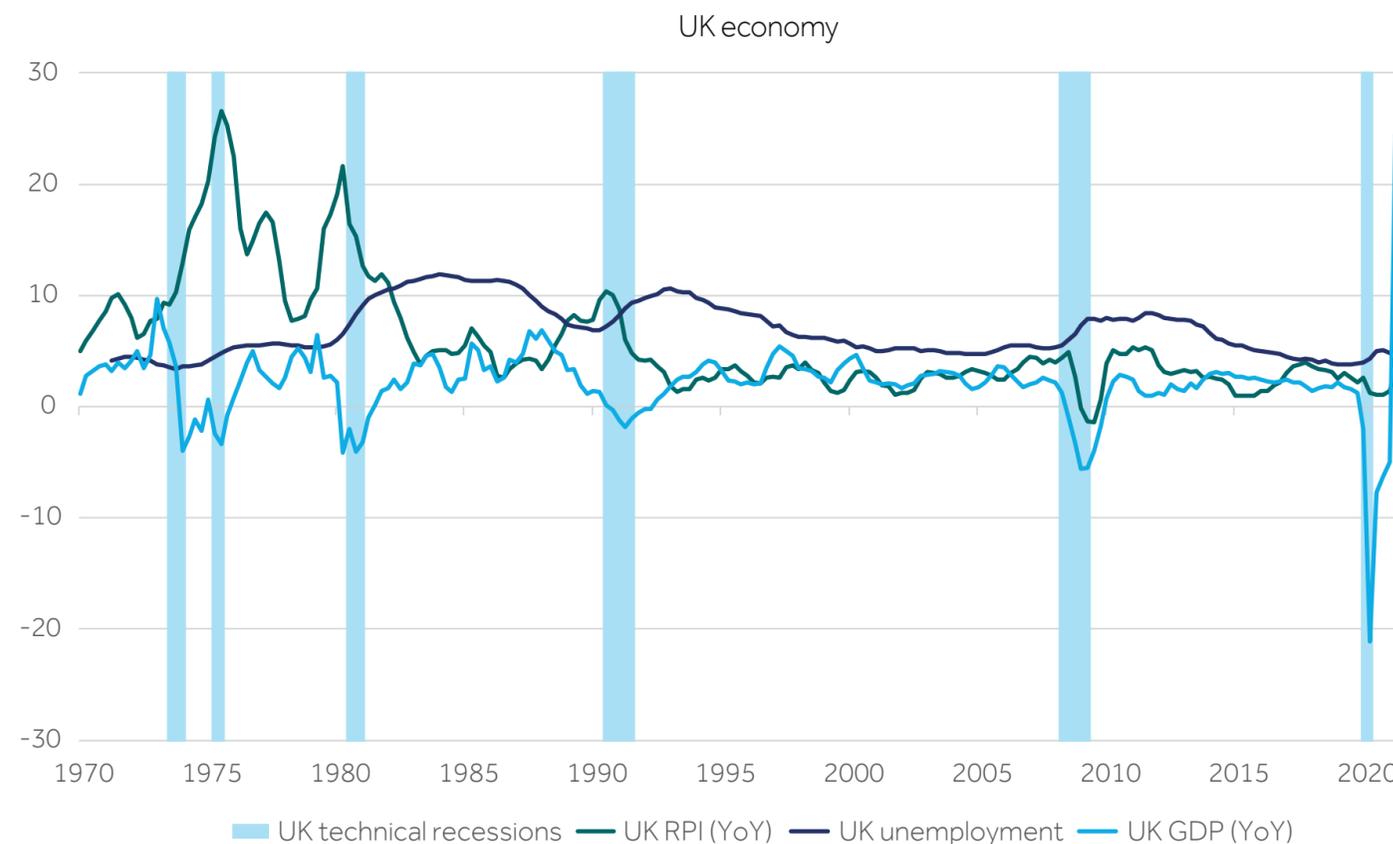
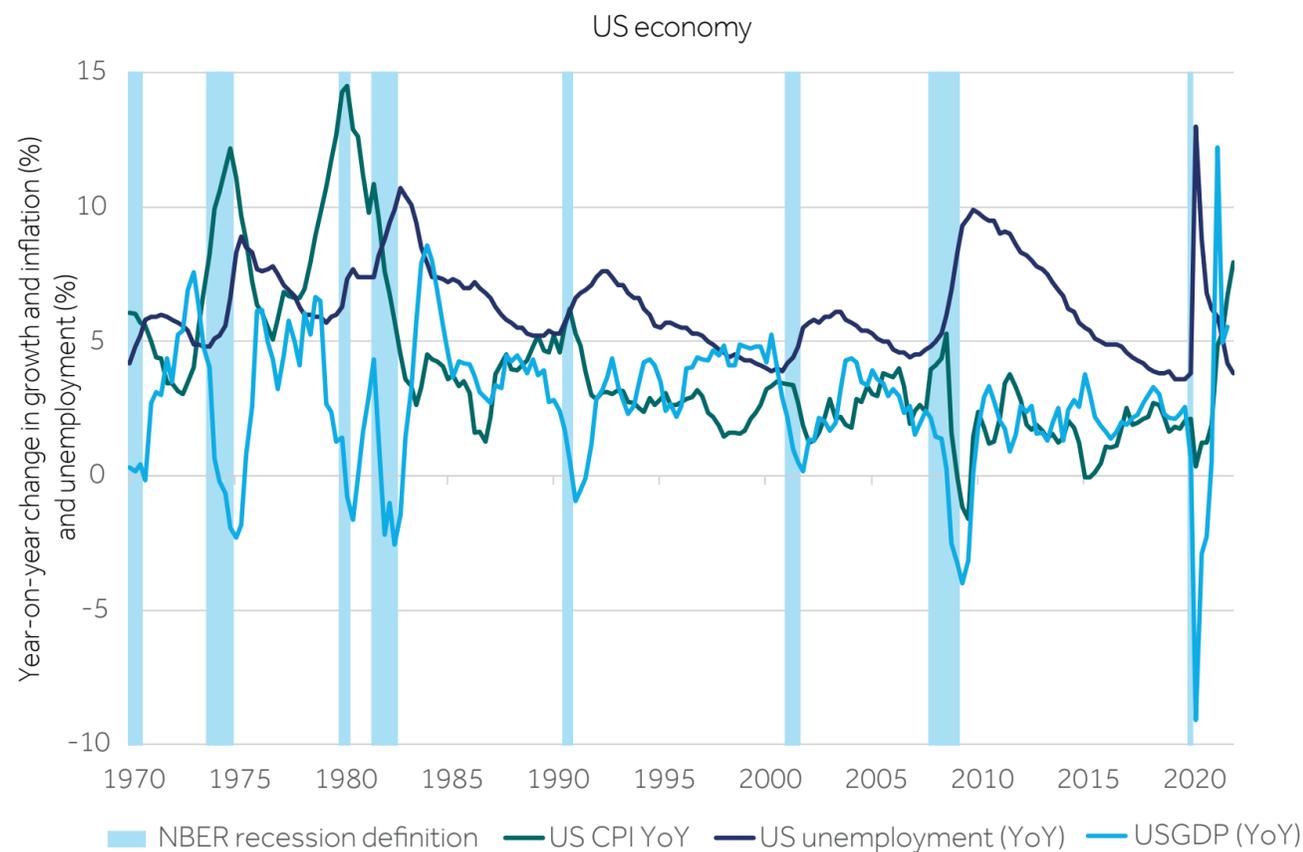
In shock-induced recessions, their origination comes from outside of the economic or financial realm. The tripling of the oil price in 1973, following geopolitical events, led to an immediate fall in disposable income, as well as output losses, that crashed most advanced economies into a recession. The COVID-19 shock, on the other hand, pulled the rug from under the service sector (and initially the manufacturing sector too), leading to a synchronous, global demand-side shock.

RECESSIONS FROM A BIRD'S EYE VIEW

One distinction often made is the behaviour of inflation. The following two charts display inflation, real gross domestic product (GDP) growth, and unemployment rates for the US and UK from 1970. In a typical business cycle recession, like seen by the UK in 1991, inflation is reined in by aggressive monetary policy tightening. If the inflationary hit, however, is outside of the central bank's control and inflation expectations are not well-anchored, prices can soar throughout the recession, as was the case in the 1970s supply-side shock recessions.

RECESSIONS IN MACRO CONTEXT

US NBER-defined recessions and UK technical recessions (two consecutive quarters of negative quarter-on-quarter growth in gross domestic product) and effects on growth, inflation and unemployment



Sources: Refinitiv, NBER, Barclays Private Bank, April 2022

RECESSIONS AT THE MICRO LEVEL

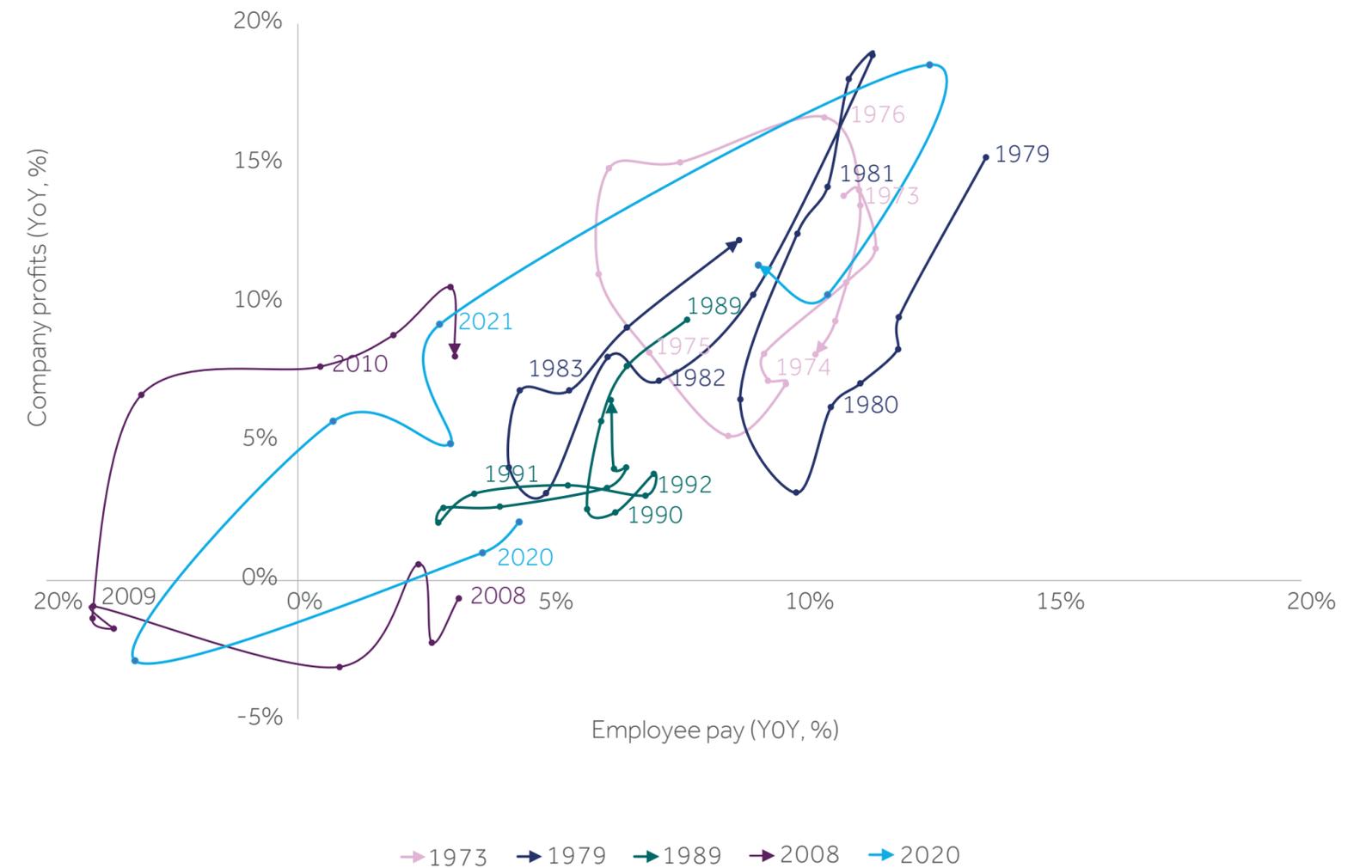
Analysing recessions from a micro perspective, and looking at GDP from the income perspective, the data are a lot messier. However, one obvious observation in the last five decades is that first company profits suffer, then employee pay declines for most of the contraction and the beginning of the expansion, before profits and finally total wages start to recover again (see chart). This lag in the reaction and subsequent drawn-out recovery of employee compensation are caused by the nominal stickiness of wages.

From this point of view, the coronavirus shock in America was violent, followed by a mini-cycle that looks to have already completed. For Europe and many emerging economies, where the policy response relied more on automatic stabilisers such as unemployment insurance or short-time work, the cycle is not as advanced. This has implications for the risks stemming from a temporary period of extreme inflation. These risks are lower due to the earlier position in the cycle.

“Analysing recessions from a micro perspective, and looking at GDP from the income perspective, the data are a lot messier”

RECESSIONS FROM AN INCOME PERSPECTIVE

Selected US recession and recovery cycles for the American economy. Quarterly data: marked year numbers indicate the first quarters, respectively. Arrows show the direction of time



Sources: OECD National Accounts, Barclays Private Bank, April 2022

HOW MARKETS PERFORMED

Recessions typically spill over from the real economy to financial markets (or the other way around), and therefore it comes as no surprise that historically they are the worst periods to hold risky assets. For our analysis, we computed cumulative losses since 1973 based on monthly total returns. Starting from a peak we measure cumulative returns to the point when the peak-level is restored.

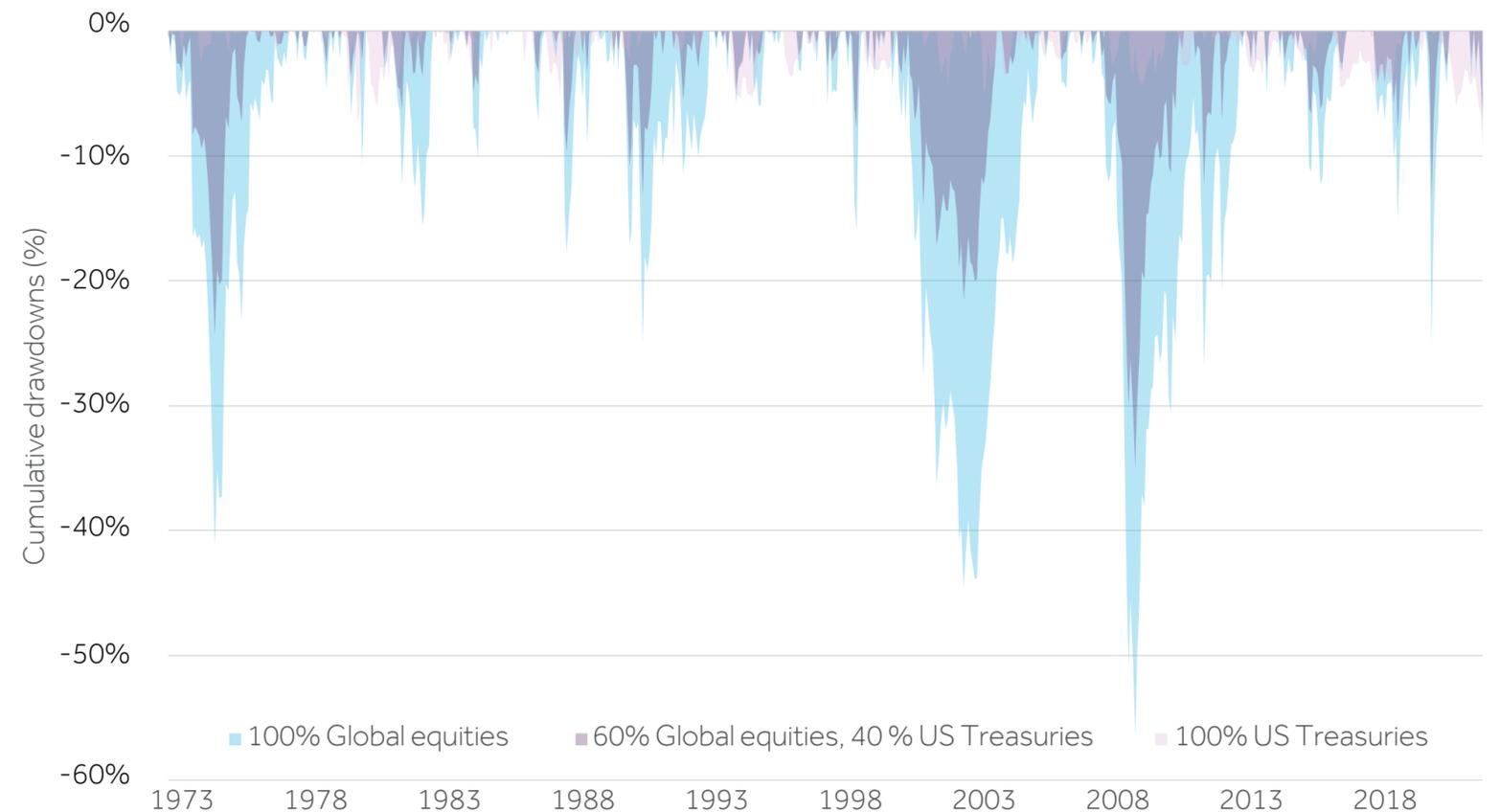
A pure global equity portfolio sustained its heaviest losses during the global financial crisis (see chart). By mixing in 40% of US government bonds – a very crude diversification strategy – the maximum drawdowns were roughly halved in most recessions. A more sophisticated diversification strategy could provide even more protection, but the data is not sufficiently long enough to allow legitimate comparison across recessions.

From this perspective, the oil shocks seen in 1973 and 1979 were not the most frightening market event for a long-term investor. However, local equity markets had less international exposure then and valuations were much lower than seen more recently.

“A pure global equity portfolio sustained its heaviest losses during the global financial crisis”

MAXIMUM DRAWDOWNS OF EQUITIES, BONDS AND A MIXED PORTFOLIO

Maximum drawdowns reflect the worst possible realised returns achieved by investing at market highs. Monthly total returns data in US dollars



Sources: Bloomberg, Refinitiv, Barclays Private Bank, April 2022

CURRENT WORRIES: STAGFLATION

Market participants have been increasingly worried about stagflation risk this year. Stagflation describes a period of low growth and high inflation, traditionally seen as strange bedfellows, and was last experienced in the 1970s. The key to assessing whether stagflation is coming or much-desired relief on the inflation is round the corner lies in inflation expectations.

After a worrying surge in long-term inflation expectations last year, survey measures from both consumers and professional forecasters improved in the first quarter, re-strengthening inflation expectation anchors. This reflects the general trust in the ability of central banks to bring inflation back under control eventually.

However, surveys for one-year ahead inflation expectations have climbed again this year. Worryingly, they will be the basis for many wage negotiations this year in a tightening labour market. Similar increases for short-term inflation expectations were measured for the UK and the eurozone. However, as pointed out earlier, the cycle is less advanced than the US one, which should dampen the inflationary effect of rising short-term expectations.

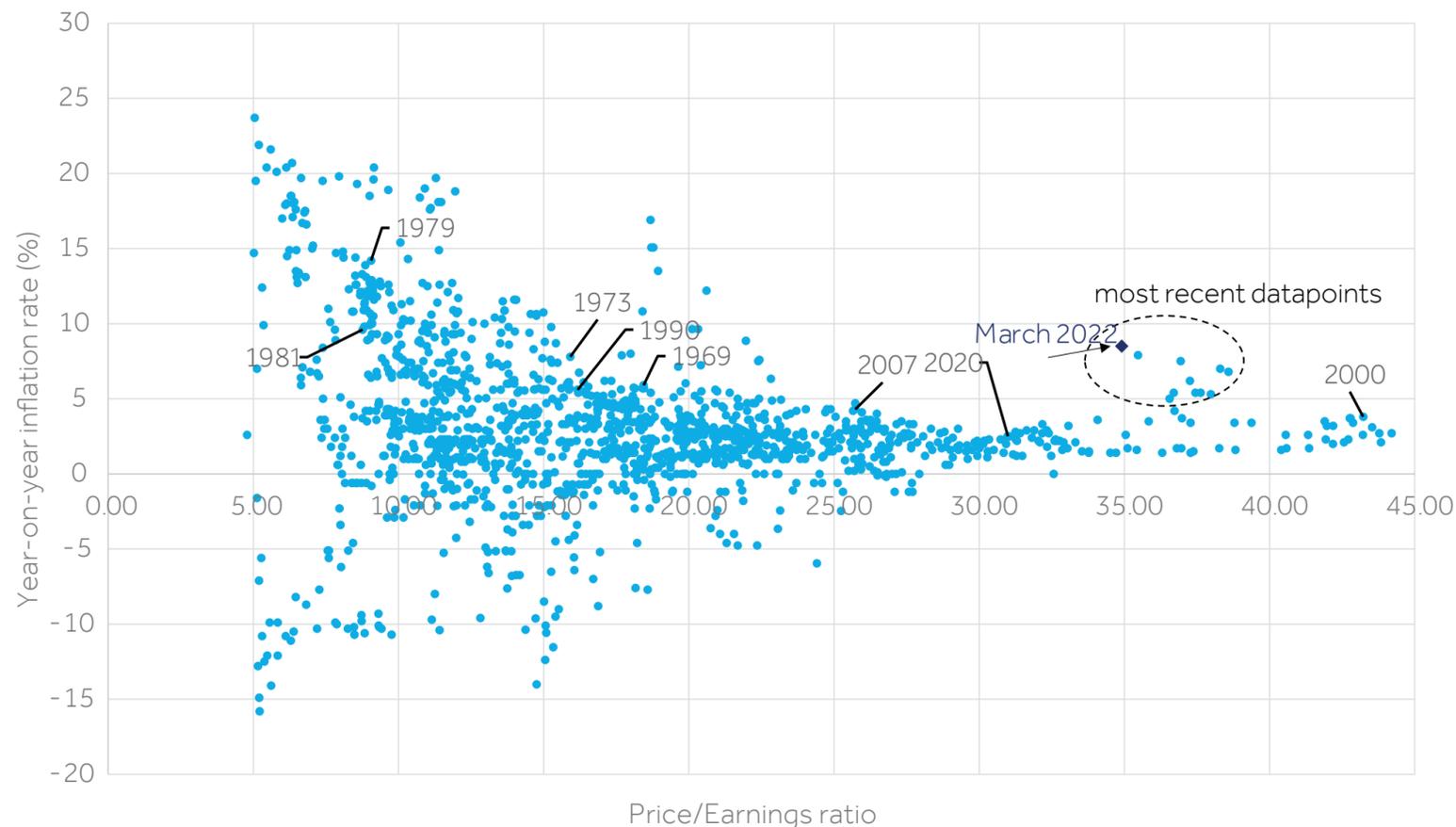
IN EQUITIES, THE STAKES ARE HIGH

What is clear at the moment is that valuations in equity markets are elevated in absolute terms. Using the approach to estimate cyclically adjusted price-earnings (CAPE) ratios for S&P 500 first described by Professor Shiller in his book *Irrational Exuberance*, we find valuation multiples of 35 (see chart). Based on the recessions seen in the past 50 years, only the popping of the dotcom bubble started at a higher CAPE ratio.

The next chart, plotting CAPE ratios against headline inflation in the US, again highlights the role of inflation. In the past, Shiller CAPE ratios could even go beyond 40, but never with inflation rates outside of the zero to five percent range – a band in which US Federal Reserve banks typically feel more comfortable with an additional buffer added on top.

VALUATIONS ARE MORE AT RISK TODAY THAN AT THE START OF PAST RECESSIONS

The US headline consumer price index and Shiller cyclically adjusted price-earnings ratio. Marked points reflect when past recessions began. Monthly data from 1900



Sources: Robert J. Shiller ("Irrational Exuberance", Princeton University Press), Bloomberg, Barclays Private Bank, April 2022

The motivation to include inflation in this chart is that high inflation rates tend to encourage timely and strong interest rate hikes that lead to corrections in equity prices. Because the current situation is somewhat unique, as exemplified by the outlier dots in our analysis, historical patterns (such as a significant drop in equity prices) may not repeat themselves, and salvation could come from a timely dip in inflationary pressure. Yet, investors, should be aware of the risks.

DIVERSIFICATION CALLED FOR

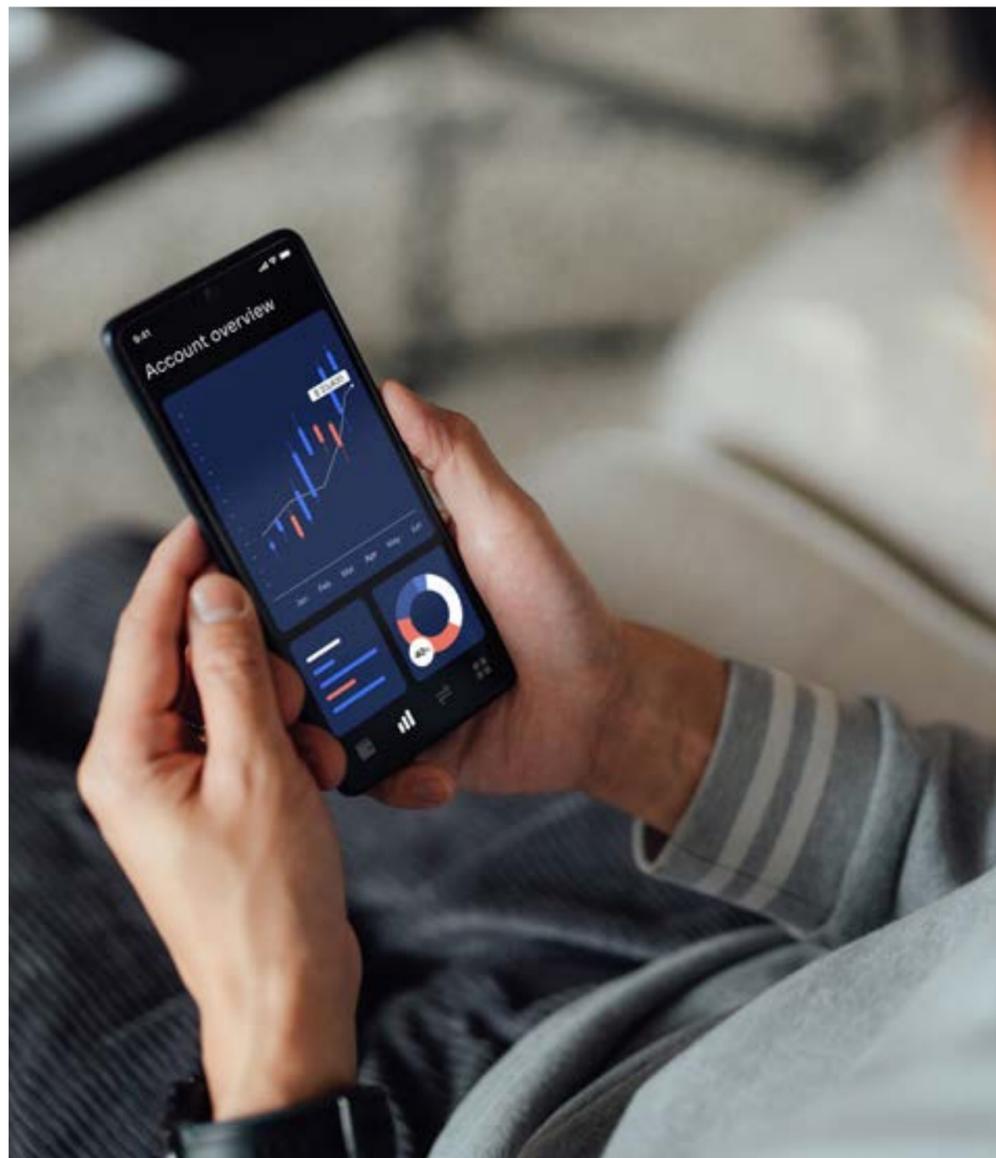
With mounting wage pressures and high stakes in equity valuations in mind, we prefer defensive sectors in equities and repeat the appeal of diversification in portfolios.

Not only have economies become much less dependent on oil since the 1970s, but the trilogy of globalisation, the internationalisation of asset markets, and innovative monetary policy have warped the financial landscape. In turn, making it far more difficult, if possible, to compare the economy now with the past. What we can say with certainty is that when the next recession hits, a multi-asset diversified portfolio will be better equipped to withstand the brunt of it, and guard wealth.

Authors: Lukas Gehrig, Zurich Switzerland, Quantitative Strategist; Nikola Vasiljevic, Zurich, Switzerland, Head of Quantitative Strategy

NFTs: the dawn of a new era?

Non-fungible tokens have burst in popularity recently with many different well-known brands and celebrities getting in on the action. But what exactly are NFTs, why do they matter for investors, and might they offer portfolio diversification opportunities?



Cast your mind back to 2017, with the euphoric surge in popularity of cryptocurrencies. Bitcoin soared 1,318% by year-end, with XRP (known as Ripple) eclipsing that by zooming up 36,018% over 12 months¹.

Arguably, the last 18 months have seen even more of a frenzy over blockchain-based non-fungible tokens (NFTs), with household names, such as Nike, and celebrities wading into the action.

In one instance, someone paid almost \$3 million for an NFT of the first tweet. Before anyone can understand why such a deal makes sense, it is worth understanding the basics of digital assets and the broader NFT market.

THE ESSENTIALS

A blockchain is a decentralised and immutable ledger that records transactions and tracks assets through peer-to-peer verification. Many cryptocurrencies are based on blockchain technology because of the security it offers – it is difficult, if not impossible, to counterfeit or double spend digital currency, while the networks can be free from any central authority.

Blockchain allows for the “tokenisation” of tangible and intangible assets to occur. This is the conversion of something of value into a digital token which can then be used on a blockchain application. They are designed to be fungible or non-fungible depending on the purpose. Cryptocurrencies, for example, are fungible tokens that can be traded on a like-for-like basis. For example, one Bitcoin is considered to be worth the same as any other.

Non-fungible tokens represent unique digital assets that have their ownership secured on a blockchain. NFTs can be in the form of photos, digital artworks, GIFs, and audio clips to give just a few examples. However, by nature of being secured on a blockchain, NFTs can be traded using cryptocurrencies – with the blockchain holding irrefutable proof of an asset’s ownership through peer-to-peer verification of transactions.

As suggested, different blockchains can hold different NFTs with sources claiming 76%² of the market operates on the Ethereum blockchain. However, our analysis suggests this could be over 95% with the majority of collections covered in this article being traded on the Ethereum blockchain.

WHY DO NFTS MATTER?

The implications of this technology being applied are potentially significant. Firstly, NFTs can embed “smart” contracts – a self-executing predetermined contract between buyer and seller – within their code. For instance, token creators can programme themselves a royalty each time their works are resold.

NFTs could also be tied to physical assets, such as real estate, which could revolutionise property transactions by mitigating trust-related market failures, and even reducing the costs of conveyancing. This is just one example of how the technology could modernise traditional markets.

A SNAPSHOT OF THE MARKET

However, more recent transactions relate to “blue-chip” NFTs – or collections of NFTs that are particularly desirable – such as CryptoPunks and the Bored Ape Yacht Club, which are essentially collections of 10,000 unique and algorithmically generated images. Collectible NFTs are thought to be worth over \$16 billion. These two blue-chip collections make up over a third of this value (see pie chart on p17).

Since their creation, the values of these collections have increased, despite the market’s volatility. CryptoPunks were free to claim when initially created in 2017. At the time of writing, the cheapest Punk available trades at 62ETH (\$188,000) with Punk #5822 having sold for \$23.7 million in February 2022³.

Similarly, Bored Apes, which initially cost the equivalent of around \$190 when released, now consistently have average prices of 120ETH (\$366,000)⁴.

In fact, 90% of the total market value is made up by just 5% of collectible NFTs.

¹ 2017’s biggest cryptocurrencies ranked by performance, Joon Ian Wong, April 2022 <https://theatlant.com/charts/SyGsrqwXG>

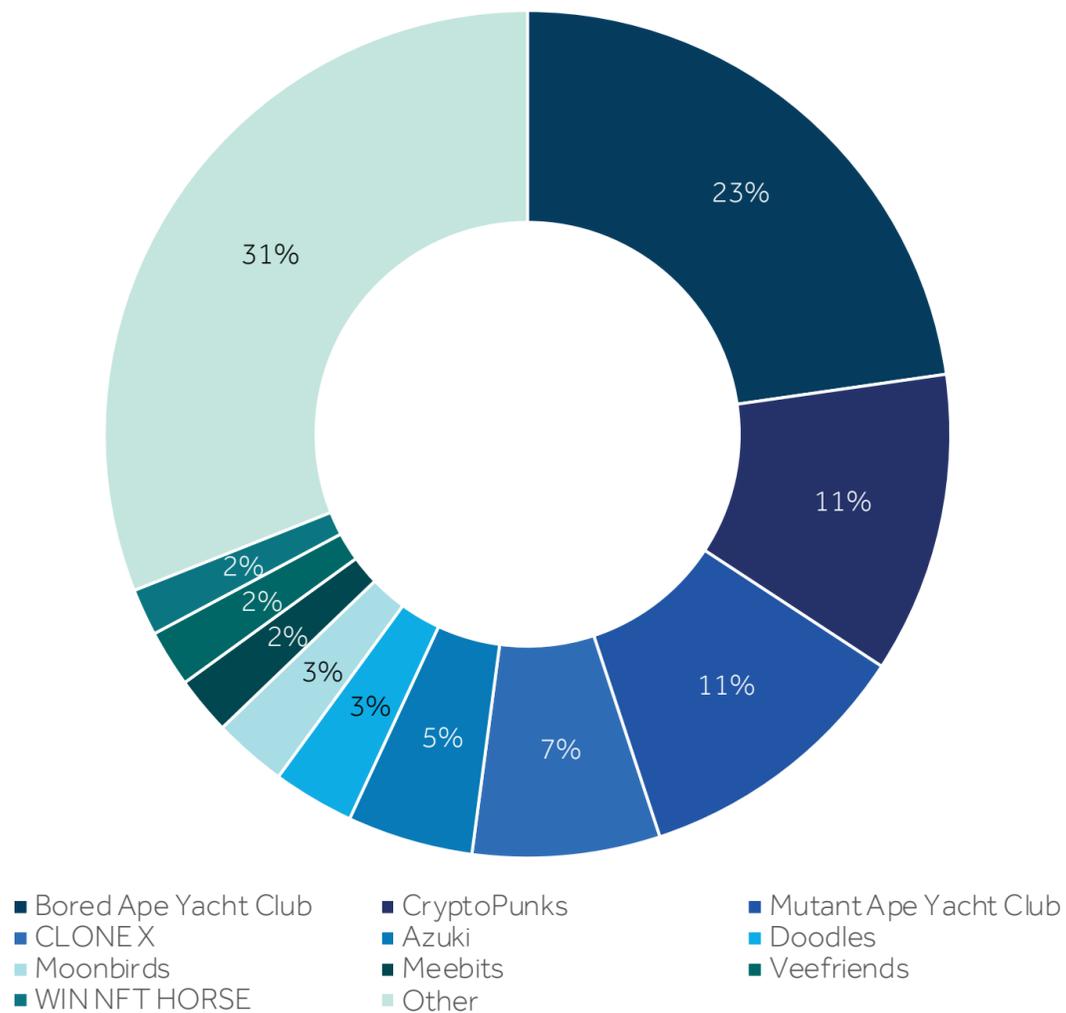
² Yearly NFT Market Report 2021: How NFTs Affect the World, Nonfungible.com, 2021 <https://nonfungible.com/reports/2021/en/yearly-nft-market-report>

³ CryptoPunks, Larva Labs, 12 April 2022 www.larvalabs.com/cryptopunks

⁴ Bored Ape Yacht Club, OpenSea, 12 April 2022 <https://opensea.io/collection/boredapeyachtclub?tab=activity>

NFT COLLECTIBLES MARKET SHARE

The market share of the ten most valuable NFT collectible collections, as of 22 April 2022



Sources: CoinMarketCap, Barclays Private Bank, April 2022

⁵ Total sales involving non-fungible token in gaming, art, sports and other segments from 2018 to 2021, Statista, 12 April 2022 <https://www.statista.com/statistics/1221400/nft-sales-revenue-by-segment/>

⁶ Cambridge Center for Alternative Finance <https://ccaf.io/cbeci/index/comparisons>

⁷ Bitcoin Electricity Consumption Index, Cambridge Centre for Alternative Finance, 12 April 2022 <https://ethereum.org/en/energy-consumption/>

VENTURING INTO THE NFT WORLD

At present, NFTs broadly fall into five categories: collectibles, gaming, art, utilities, and the metaverse. Of these, collectibles make up the largest part of the market, and will be the focus of the rest of this article⁵.

Due to the clear desirability of these collections – as demonstrated by the 2021 NFT craze – many have compared blue-chip NFTs to alternative asset classes, such as classic cars, fine wine, and fine art. This suggests that the tokens are perceived as a viable alternative investment opportunity or as a store of value. Consequently, the question arises whether NFTs should form a part of a digital asset portfolio or ultimately be part of investor portfolios.

However, before being blinded by the sheer size and potential of the market, some points are worth looking at. In particular, potential investors should be mindful of a number of risk factors that could create strong headwinds for broader implementation and wide adoption of NFTs.

FIGHTING THE CARBON FOOTPRINT

The environmental impact of cryptocurrency is well known. Bitcoin is estimated to use around the same amount of energy annually as Egypt⁶ and Ethereum uses roughly the same as Finland⁷. This is due to the computational power required in 'proof of work' networks to mine blocks – odds of success increase as more powerful equipment is used. With most NFT transactions occurring on energy-intensive blockchains, the related carbon emissions are directly attributable to the tokens.

However, Ethereum is soon due to transition its entire network to a 'proof of stake' model which will allow the network to scale while using 99% less energy and reaching 100,000 transactions per second. It remains to be seen when exactly this will happen and the effects for decentralised finance more broadly.

BRINGING CYBERSECURITY TO THE FORE

Other issues worth considering with NFTs relate to security, crime and the nature of decentralised networks. There have been many reported instances of scam releases and cyberattacks which have led to people either losing money or having their digital assets stolen.

In a sense this is similar to the risks associated with alternative investments such as art, wine, and classic cars. However, the decentralised nature of blockchain complicates this somewhat as there is no central authority to handle transactions and thus police the system. But rather, it is all based on peer-to-peer networks spanning multiple jurisdictions.

In banking, if a fraudulent payment is made on an account, or even human error is made on a trading floor, it is common practice for banks to recompense fraud victims and for beneficiaries to acknowledge such errors.

In the cryptoworld there is no bank or code of ethics on which to rely and so counterparty risk can be high. There have been many cases of people pricing NFTs for much less than they intended, for them to be snapped up by purchasing bots before they have chance to realise their mistake.

EXORBITANT RISK AND RETURN

The cryptocurrency boom in 2017, followed by the bust the following year, is still fresh in the minds of many investors. Interestingly, the fifteenfold increase in the price of Bitcoin during 2017 is nothing compared to its mindboggling return of 8,400% from 1 January until 30 November 2013.

Following the footsteps of the early-stage Bitcoin market, NFTs repeated a similar pattern last year. Our quantitative analysis shows that the 20 largest crypto coins and tokens used for NFTs – for which data has been available since the start of 2021 – have seen an average maximum year-to-date return of 10,000% (in some cases reaching even 50,000%) in 2021.

Although the market has retracted about 60-90% in the last six months, depending on the crypto coin or token, the performance remains exceptional compared to more mature and established cryptocurrencies (such as Bitcoin, Ethereum, XRP, Litecoin, and Monero) and especially traditional asset classes like equities and bonds.

A HYPOTHETICAL NFT PORTFOLIO

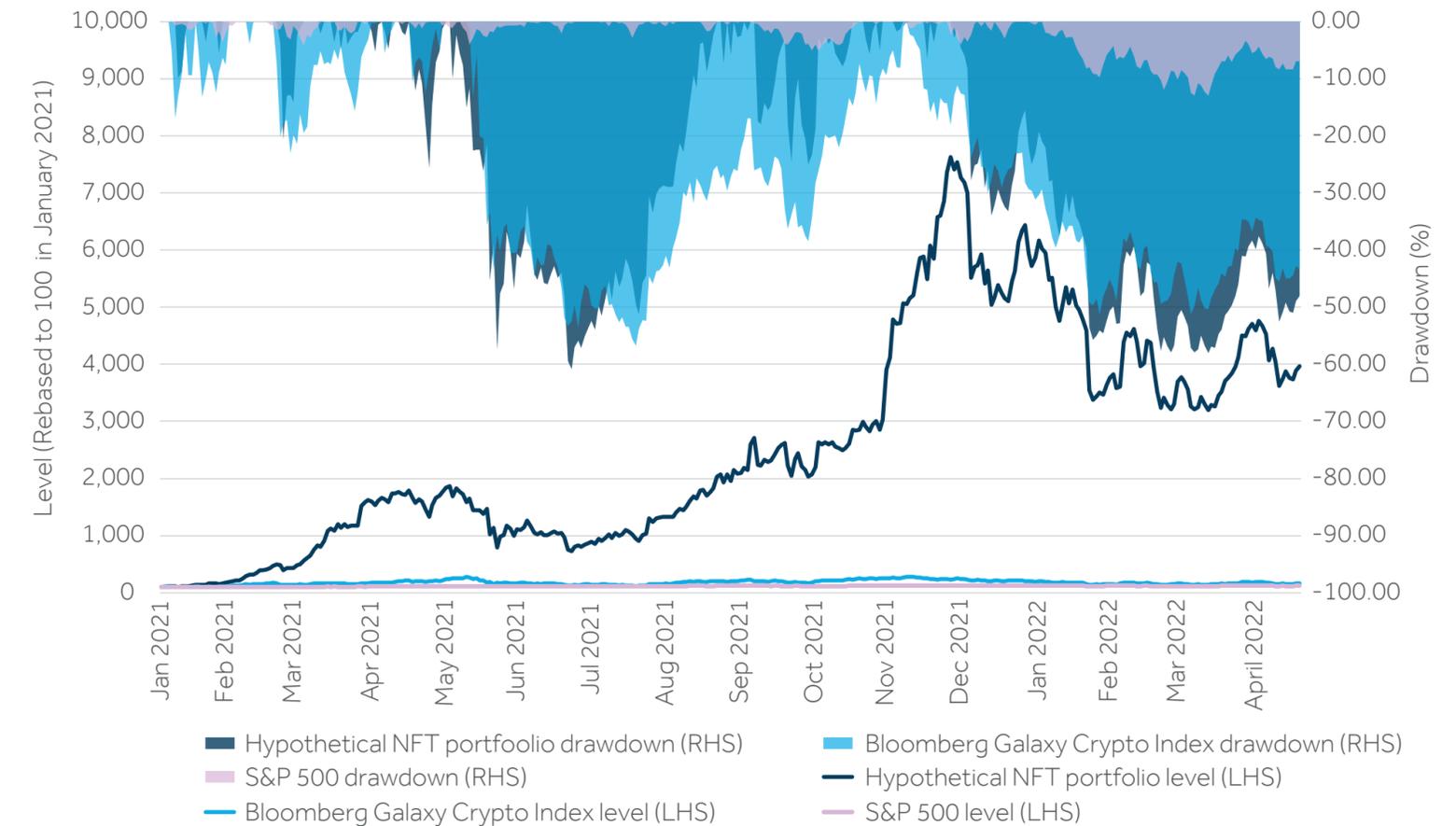
To make an impartial comparison between US equities, cryptocurrencies, and NFTs, we constructed a hypothetical equally-weighted portfolio that comprises the 20 crypto coins and tokens mentioned earlier. The following chart compares the performance and historical drawdowns for the S&P 500 index, Bloomberg Galaxy Crypto index, and our synthetic NFT portfolio (referred to as equities, crypto, and NFTs respectively).

The results are stunning. In terms of performance, equities and crypto pale into insignificance compared to NFTs. The historical drawdowns of crypto and NFTs are rather correlated and of similar magnitude, reaching -60% during the worst episodes. However, the annualised volatility of NFTs is 120%, while crypto volatility was “only” 76%. Furthermore, some of the constituents in our synthetic NFT portfolio exhibited volatility of 350%. This threefold reduction in volatility shows the power of diversification across the NFT domain. The cherry on the top is that equities witnessed volatility of 14% and the maximum drawdown of -13% between January 2021 and this April.

It is important to note that the total market capitalisation of our selected NFT universe was around \$26 billion as of 22 April 2022, compared with the S&P 500’s capitalisation of \$36 trillion and Bloomberg Galaxy Crypto’s \$1.2 trillion. Consequently, one has to account for the investment capacity of NFT strategies and scale their investment quota accordingly, if they are to be considered in institutional portfolios.

A CROSS-ASSET VIEW: EQUITIES, CRYPTOCURRENCIES, AND NFTS

A comparison of the historical performance and drawdowns of the S&P 500 index, Bloomberg Galaxy Crypto index, and a hypothetical equally-weighted portfolio of the top 20 crypto coins and tokens used for NFTs. Daily data from 5 January 2021 to 22 April 2022.



Sources: Bloomberg, CoinMarketCap, CoinGecko, Barclays Private Bank, April 2022

THE MARKET IS LEARNING FAST

So, what are the key drivers of NFT returns? Based on our regression analysis, the Bloomberg Galaxy Crypto index explains about 30% of the return variation of our hypothetical NFT portfolio. However, beside the exposure to major cryptocurrencies, any other potential drivers are difficult to spot.

Furthermore, we have investigated if the changes in trading volume for our selected NFT universe are related to worldwide Google search trends for key terms such as NFT, blockchain, Bitcoin, and Ethereum (see chart), and to what extent they might have changed over the last 16 months.

The correlation between the changes in trading volume and the changes in Google Trends' score is highest for the terms NFT and blockchain. This is not surprising, as both are fundamentally related to NFTs. However, it provides empirical evidence of the intuition behind this exercise.

A more interesting, and thought-provoking, finding is that the correlation between the changes in trading volume and those in the Google Trends score for Bitcoin and Ethereum started in very different positions in January 2021, and has moved steadily in an opposite direction since. The former (latter) was positive (negative) at the outset of our observation period, and has trended down (up) over the next 16 months, finishing with the opposite sign at the end of the sample.

This could mean that crypto enthusiasts and investors have searched for the term Bitcoin when trading activity in NFTs took off initially. Being a benchmark or reference cryptocurrency, Bitcoin could have been of interest to those who were seeking more information about NFTs (a version of the behavioural familiarity bias).

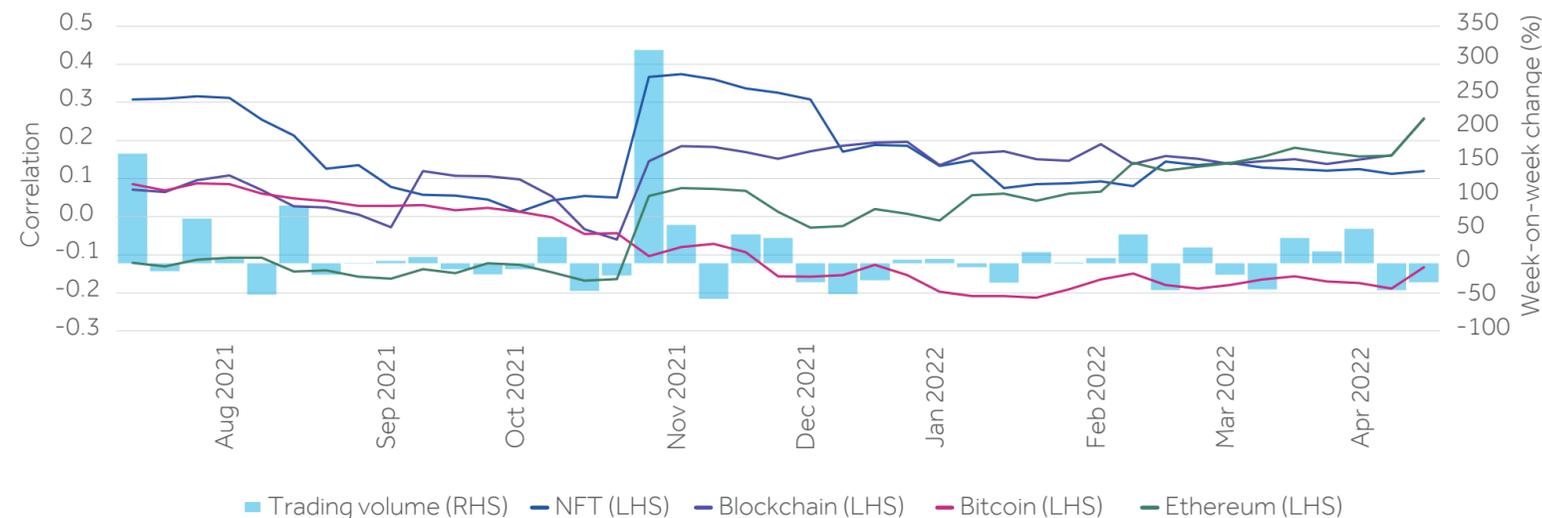
However, as mentioned above, a vast majority of NFTs operate on Etehreum blockchain. This is where the learning effect might have kicked in. It seems feasible that market participants have learned that Ethereum is more relevant than Bitcoin for NFTs. Ultimately, the correlation between the changes in trading volume have become positively correlated with Ethereum, and negatively correlated with Bitcoin.

NFT INVESTING

We now take our likening of NFTs and other alternative investments such as wine, art, and classic cars one step further. Art and classic cars each offer investors more use than more traditional investments, like equities and bonds. Ultimately, an investor can appreciate a beautiful Picasso painting or a scintillating ride in an Aston Martin DB5 car, with negligible effects on the assets' value. Indeed, many owners of these assets regard appreciating value merely as a bonus to the joy of owning them.

NFT TRADING VOLUME AND ITS CORRELATIONS WITH KEY CRYPTO-RELATED GOOGLE SEARCH TRENDS

Week-on-week changes in the trading volume and weekly correlations (rolling six-month window) with the changes in Google Trends scores for worldwide search of terms 'NFT', 'blockchain', 'Bitcoin' and 'Ethereum', for a hypothetical equally-weighted portfolio of the top 20 crypto coins and tokens used for NFTs. Weekly data from 10 January 2021 to 17 April 2022.



Sources: Bloomberg, CoinMarketCap, CoinGecko, Google Trends, Barclays Private Bank, April 2022

We believe collectible NFTs should be regarded in a similar light to the alternative investments mentioned, and that investors should primarily focus on NFTs from which they could gain additional utility – such as enjoying them as artworks.

Over time, NFTs could become a valuable diversifier in a digital assets portfolio. However, as far as NFTs forming part of a strategic asset allocation policy, we believe that the market is too novel and volatile to be considered for now.

Authors: Benjamin Hood, London UK, Investment Strategist; Nikola Vasiljevic, Zurich, Switzerland, Head of Quantitative Strategy; Julien Lafargue, London UK, Chief Market Strategist

Has Europe been blown off course in its energy transition?

With European energy markets in upheaval, what are the implications for the transition to clean energy and how can investors position their portfolios in respect of climate change?



Only a few months ago, global attention was again focussed on tackling climate change accelerating the transition to lower carbon energy following the United Nation's COP26 gathering. However, with a backdrop of more challenging macro headwinds, further exacerbated by the war in Ukraine, the dynamics have rapidly shifted.

Energy security and affordability are now key items in global and governmental discussions. Spot market prices for fossil fuels have rocketed to long-term highs, while companies with low-carbon solutions have fallen out of favour, in parallel with a rotation out of growth sectors in equity markets.

Investors may now be questioning their positions, and potential opportunities, in energy transition. In this first of a two-part article, we review, with a focus on Europe, the drivers of the current situation and the responses of the UK and EU. In the second, we will consider the effects for lower carbon energy sectors and the potential approaches for investors.

PATH FOR AN ENERGY TRANSITION

A low carbon world is impossible without a fundamental reorientation of energy production and consumption. Three key sectors drive a majority of demand - transportation, buildings, and industry. While the energy mix will vary by sector, as well as by geography, over 80% of global energy supply is now provided by coal, oil and natural gas¹. To reduce emissions, the carbon intensity of this energy mix needs to reduce even as expected demand for energy increases.

In Europe, this transition has been underway for considerable time. The EU has more than doubled its share of energy provided by renewables, from 6.4% in 2000 to 15.8% in 2019². To further accelerate its transition, the European Green Deal in 2019 set the goal of making Europe the first climate neutral continent by 2050.

Additionally, the EU's "Fit for 55" plan last summer laid out a legislative agenda to cut emissions by 55% by 2030, as an interim stage. Notably with this plan, it aimed to boost clean energy by setting a binding target of renewable sources in the EU's energy mix to 40% by 2030.

Similarly, the UK first enshrined its climate commitments in law in 2008. With the country committed to a net zero target by 2050, its 2021 sixth carbon budget pledges to cut 78% of greenhouse gas emissions by 2035³. Progress, while mixed, has nonetheless resulted in renewables generating for the first time marginally more of the UK's electricity (42%) compared to fossil fuels (41%) in 2020⁴.

¹ Global Energy Outlook 2022: Turning Points and Tensions in the Energy Transition, Resources for the Future, 7 April 2022 <https://www.rff.org/publications/reports/global-energy-outlook-2022/>

² EU energy in figures : statistical pocketbook 2021, European Commission, 28 September 2021 <https://data.europa.eu/doi/10.2833/975418>

³ UK enshrines new target in law to slash emissions by 78% by 2035, HM Government, 20 April 2021 <https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

⁴ UK electricity from renewables outpaces gas and coal power, The Guardian, 28 January 2021 <https://www.theguardian.com/environment/2021/jan/28/uk-electricity-from-renewables-outpaces-gas-and-coal-power>

A BUMPY ROAD

Few long-haul journeys are without turbulence, especially one as challenging as energy transition. Even prior to the Russian attack on Ukraine, market forces were driving energy prices upwards and pushing interest in fossil fuel back on the agenda.

As post-lockdown economic growth rebounded, demand for fossil fuels has followed, and even exceeded, pre-pandemic levels. Supply, however, has not correspondingly risen as fossil fuel producers have limited their capacity investment in recent years, given concerns about returns and momentum around countries' net zero targets.

However, even with the growth in renewables, the result, in part, is that switching to cleaner energy has not been fast enough to shield Europe from its exposure to fossil fuels. With Russian aggression adding pressure and uncertainty to the markets, as well as a moral imperative, the EU and UK are contemplating how to tackle the overlapping energy dilemmas of economic, environmental, security, and social issues.

EU'S COURSE CORRECTION

European governments have acted quickly in response, though tactics have been driven by their relative strategic positions, existing plans, and local politics.

For the EU, with about 60% of energy from imported fossil fuels⁵, it is particularly sensitive to geopolitics and market forces. In fact, 90% of its natural gas is imported. Of this, 45% comes from Russia⁶. In response to Russian attacks, at the beginning of March the bloc set out a plan called REPowerEU to provide "more affordable, secure and sustainable energy."⁷

Overall, this plan is an acceleration of the Fit for 55 goal, with a focus on dependence on Russian imports and reducing costs to consumers. However, measures to reduce dependence on Russian gas are varied. The most straightforward involve diversifying gas suppliers through more liquefied natural gas and non-Russian pipeline delivery. Linked to this is increased gas storage facilities and the building up of reserves to higher threshold levels to minimise the risk of shortfalls in winter months.

EU SUPPLY DYNAMICS

On the supply side, the plan seeks to double the annual production of biomethane by 2030. Also, it proposes the creation of a Hydrogen Accelerator to support an additional 15 million tonnes (mt) of hydrogen beyond the initial 5mt planned for by 2030. Additionally, the plan wants to accelerate the development of existing solar, wind, and heat pump projects by addressing bottlenecks in infrastructure and planning.

Notably, energy efficiency is put forth as a "first principle" to be applied across all sectors and policies, to reduce demand. Also notable is that actions to reduce the financial impact on vulnerable and household customers are the first ideas to be highlighted. This includes providing support for temporary state and price regulation and a windfall tax on energy company profits.

In sum, the plan broadly aligns with existing EU decarbonisation efforts seeking to move them faster and earlier. Ambitiously, it seeks to implement the majority of the actions within a year to achieve a two-thirds reduction of gas imported from Russia.

UK'S COURSE CORRECTION

For the UK, given it imports of around one-third of its fossil fuel energy⁸, it has faced less pressure to transition than the EU of late. Nonetheless, increased global prices for these fuels impact consumers and industry, and have helped cause 31 challenger energy suppliers in the country to go out of business since the start of 2021⁹.

After delays, due to negotiations with the Treasury and given the potential implications of the Russia-Ukraine war, the "British energy security strategy" was released at the start of April. Its aim was to set out a "secure, clean and affordable British energy for the long term."

Overall, the plan aims for incremental levels of ambition around traditional renewables. Additionally, it adds support for other low-carbon fuels (nuclear, hydrogen) and potential return to fossil fuels through offshore drilling and fracking. Contrastingly, there is little focus on immediate support to help consumers or address reliance on Russian fossil fuels. However, the UK has a wide diversity of providers, of which Russia only accounts for 4% of imports in 2021¹⁰.

⁵ Germany and the EU remain heavily dependent on imported fossil fuel, Clean Energy Wire, 14 May 2022 <https://www.cleanenergywire.org/factsheets/germanys-dependence-imported-fossil-fuels>

⁶ REPowerEU: Joint European action for more affordable, secure and sustainable energy, European Commission, 8 March 2022 https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

⁷ REPowerEU: Joint European action for more affordable, secure and sustainable energy, European Commission, 8 March 2022 https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

⁸ UK Energy in brief 2021, Department for Business, Energy & Industrial Strategy, 29 July 2021 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1032260/UK_Energy_in_Brief_2021.pdf

⁹ Failed UK Energy Suppliers Update, Forbes, 18 February 2022, <https://www.forbes.com/uk/advisor/energy/failed-uk-energy-suppliers-update/>

¹⁰ Russia-Ukraine and UK energy: factsheet, HM Government, 21 February 2022 <https://www.gov.uk/government/news/russia-ukraine-and-uk-energy-factsheet>

UK'S FOCUS ON LOW-CARBON ELECTRICITY

The main goal of the strategy is to increase low-carbon electricity production to 95% by 2030, ahead of the existing aim to decarbonise the energy sector by 2035. Offshore wind is a focus, with the target of reaching 50 gigawatt (GW) of energy produced by 2030, an increase of 10GW from prior aims. However, onshore wind does not feature in quantitative terms, but it includes plans to create a taskforce to facilitate planning permissions.

In other areas, the actions are more striking. Nuclear is set an ambition to produce up to 24GW by 2050, compared to an existing target of 10GW. The plan sets out ambition to double the UK's target for hydrogen production to up to 10GW by 2030. Finally, the North Sea is offered "a new lease of life" with another round of licenses planned to be auctioned later in 2022.

Together the initiative, while light on detailed targets or plans, sets out a primary aim to accelerate UK-generated power and increase energy independence.

IMPLICATIONS

Rising fuel prices, exacerbated by the Russian invasion, have forced governments to enact measures to make energy both more affordable and more secure.

On paper, the environmental outcomes will likely be mixed with some proposals accelerating the decarbonisation and others delaying or damaging it. In the follow-up article, we will consider the implications of these changes for various energy types and potential strategies for investors.

For the moment, there is a clear conclusion. Current dynamics will not stop governmental efforts to drive a transition to decarbonised energy system. So while the journey may look different to the path we would have expected at the end of 2021, the objective remains the same.

Author: Damian Payiatakis, London UK, Head of Sustainable & Impact Investing

Diving into private assets and the liquidity conundrum

With traditional allocations to equities and bonds struggling to produce desired returns and uncertainty abounding, investing in private assets may be one solution for long-term investors. Furthermore, committing to tying up money for several years can help investors to get through tough markets.



THE IMPORTANCE OF DIVERSIFICATION

Global stocks and bonds have fallen together this year, reflecting rising inflation and interest rate expectations, and the economic effects of the war in Ukraine.

We have said before that the typical [60/40 equity-bond portfolio](#) is unlikely to provide the same returns as it has in the past. It worked well over recent decades as equities surged and interest rates fell to all-time lows, but correlation between equities and fixed income becomes positive in high inflation periods.

We believe alternative asset classes such as private assets will be important in portfolios to boost returns and improve diversification.

BOOSTING RETURNS AND IMPROVING DIVERSIFICATION

From December 2008 until September 2021, private equity (PE) posted average returns of 14.0% per annum (see table). This was the highest return of all considered asset classes. It was ranked among the three best performing asset classes in 11 out of 14 years in the sample. A negative return was recorded only in 2008. In other years, the return on PE varied between 8.0% and 47.5%.

“From December 2008 until September 2021, private equity (PE) posted average returns of 14.0% per annum. This was the highest return of all considered asset classes”

PRIVATE ASSETS CAN BOOST RETURNS

Asset class return rankings (2008 to 2021*)

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021*	Average
Infrastructure 21.4%	High Yield Bonds 57.7%	Private Equity 18.1%	Real Estate 10.4%	High Yield Bonds 19.2%	Listed Global Equities 22.8%	Real Estate 13.5%	Real Estate 11.2%	High Yield Bonds 15.6%	Listed Global Equities 24.0%	Private Equity 10.9%	Listed Global Equities 26.6%	Private Equity 25.6%	Private Equity 47.5%	Private Equity 14.0%
Government Bonds 9.1%	Listed Global Equities 34.6%	High Yield Bonds 15.1%	Private Equity 8.5%	Listed Global Equities 16.1%	Private Equity 19.6%	Private Equity 12.1%	Private Equity 10.6%	Natural Resources 11.5%	Private Debt 19.2%	Infrastructure 10.1%	Private Equity 15.2%	Listed Global Equities 16.3%	Listed Global Equities 27.4%	Listed Global Equities 9.4%
Cash 3.4%	Private Debt 24.5%	Private Debt 14.4%	Infrastructure 8.2%	Private Debt 13.6%	Private Debt 15.1%	Infrastructure 10.6%	Infrastructure 10.5%	Private Equity 10.6%	Real Estate 14.2%	Real Estate 6.3%	High Yield Bonds 13.3%	Investment Grade Bonds 8.3%	Real Estate 23.3%	High Yield Bonds 9.9%
Investment Grade Bonds -5.1%	Investment Grade Bonds 16.6%	Listed Global Equities 12.7%	Natural Resources 8.0%	Private Equity 13.0%	Real Estate 14.3%	Private Debt 9.8%	Private Debt 4.0%	Real Estate 8.8%	Private Debt 12.2%	Private Debt 2.9%	Investment Grade Bonds 12.5%	Private Debt 2.9%	Private Debt 22.3%	Infrastructure 9.1%
Natural Resources -11.9%	Private Equity 8.0%	Infrastructure 11.0%	Government Bonds 5.5%	Investment Grade Bonds 10.9%	Infrastructure 12.7%	Government Bonds 8.1%	Government Bonds 1.4%	Infrastructure 8.5%	Infrastructure 10.1%	Government Bonds 2.8%	Infrastructure 10.6%	High Yield Bonds 5.7%	Natural Resources 21.7%	Private Debt 8.4%
Private Equity -23.3%	Government Bonds 1.8%	Natural Resources 9.8%	Investment Grade Bonds 4.8%	Infrastructure 8.7%	Natural Resources 8.2%	Investment Grade Bonds 7.6%	Cash 0.4%	Listed Global Equities 7.9%	High Yield Bonds 8.4%	Cash 2.2%	Real Estate 8.7%	Government Bonds 5.1%	Infrastructure 16.4%	Real Estate 5.4%
Private Debt -24.6%	Natural Resources 1.0%	Investment Grade Bonds 7.2%	Private Debt 3.9%	Real Estate 8.5%	High Yield Bonds 6.5%	Listed Global Equities 4.2%	Investment Grade Bonds 4.3%	Private Debt 6.6%	Natural Resources 8.1%	Natural Resources 2.1%	Private Debt 7.3%	Infrastructure 4.7%	High Yield Bonds 9.9%	Investment Grade Bonds 5.4%
High Yield Bonds -25.2%	Cash 0.9%	Real Estate 6.6%	High Yield Bonds 3.6%	Natural Resources 5.3%	Cash 0.3%	Natural Resources 2.6%	High Yield Bonds -0.7%	Investment Grade Bonds 6.2%	Investment Grade Bonds 5.7%	Investment Grade Bonds -1.0%	Government Bonds 7.2%	Real Estate 2.0%	Investment Grade Bonds 1.9%	Natural Resources 4.1%
Real Estate -29.9%	Infrastructure -16.3%	Government Bonds 3.6%	Cash 0.3%	Government Bonds 4.5%	Government Bonds 0.1%	High Yield Bonds 2.6%	Listed Global Equities -2.4%	Government Bonds 3.9%	Government Bonds 2.1%	High Yield Bonds -2.7%	Natural Resources 3.5%	Cash 0.7%	Cash 0.1%	Government Bonds 3.8%
Listed Global Equities -42.2%	Real Estate -22.5%	Cash 0.3%	Listed Global Equities -7.3%	Cash 0.4%	Investment Grade Bonds 0.1%	Cash 0.2%	Natural Resources -8.8%	Cash 0.8%	Cash 1.2%	Listed Global Equities -9.4%	Cash 2.4%	Natural Resources -4.8%	Government Bonds -1.7%	Cash 1.0%

Sources: Bloomberg, Preqin, Barclays Private Bank. Last observation point September 2021

* Data as of September 2021.

Our analysis indicates that adding private equity to a traditional equity-bond asset mix substantially improves the risk-adjusted returns of an optimal portfolio¹. For a given risk level, adding 10% PE enhances portfolio returns by around 50-60 basis points (see chart).

Companies are staying private for longer (now on average of over 10 years) and going public at much higher valuations. Significant value generation happens at the stage when companies are still private, so accessing these deals represents a tremendous value creation opportunity for investors.

THE PSYCHOLOGICAL NEED FOR LIQUIDITY

Some investors have reservations about private assets due to capital being locked away for a long period, typically 10 years. This can seem risky because liquidity cannot be drawn on if required.

Our desire for liquidity comes from a basic psychological need for safety. Having access to cash gives us a sense of comfort that if things don't go according to plan, we still have a safety net. This becomes particularly important in the face of heightened uncertainty and volatility. Cash also gives an investor control over how wealth is deployed (or not deployed), which can be important psychologically.

BUT YOU MAY HAVE CAPACITY

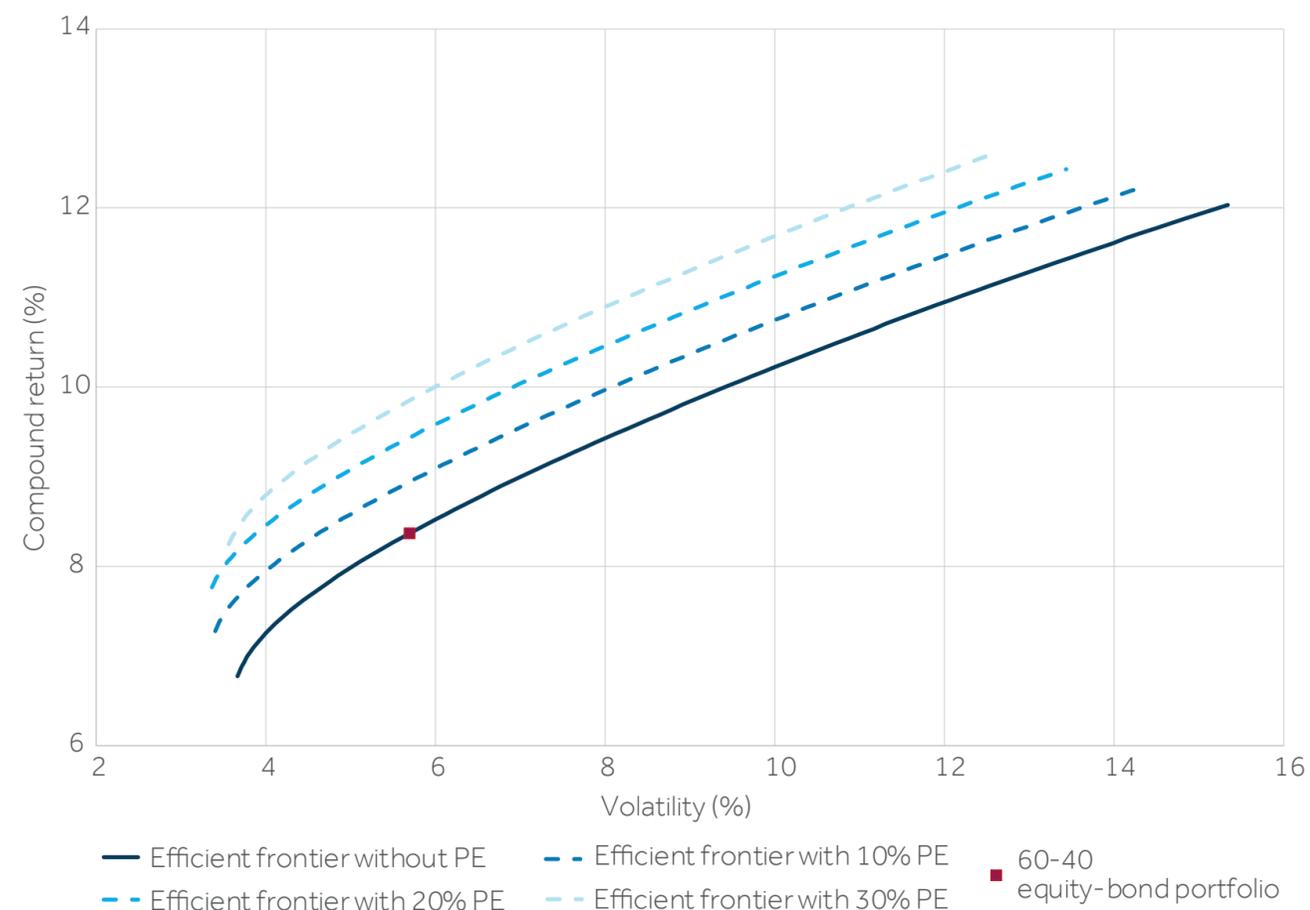
While many investors diversify portfolios across different asset classes that they are comfortable with, the reality is that this want for comfort can underweight exposure to assets given an investor's:

- risk tolerance - the risk in a portfolio that an investor can tolerate, based on their attitude to risk
- risk capacity - the degree of portfolio loss that an investor can comfortably manage

Many require less liquidity than they think. Due to reservations about the lock-up period for private assets, investors can end up being underweight illiquid investments. This reduces the diversification and return benefits from including private assets in a portfolio.

IMPACT OF PRIVATE EQUITY ON THE EFFICIENT FRONTIER

Efficient frontier shifts (dashed lines) as a function of incremental changes in allocation into private equity



Sources: Bloomberg, Preqin, Barclays Private Bank. Last observation point September 2021

Note - The benchmark asset mix comprises US equities and government bonds (solid dark blue line), represented by the MSCI USA Net Total Return Index and the Bloomberg Barclays US Treasury Index, respectively. Our private equity index is the PrEQIn Private Equity Quarterly Index, available on Preqin. Optimisation inputs are based on historical estimates from September 2010 until September 2020. The risk model for private equity includes a de-smoothing algorithm to transform appraised into economic returns.

¹ We consider an investment opportunity set comprising core asset classes (US equities and government bonds) and a PE index. We compute the efficient frontier with and without PE to gauge the incremental impact of PE on portfolio return and risk. The optimisation inputs are based on historical estimates of returns, volatilities, and correlations from September 2010 until September 2020.

MISCONCEPTIONS

The primary perception of investing in private assets is that money is locked up for ten or more years. In reality, the returns for investors will typically follow a “J-Curve”, where capital is committed up to approximately year six, from which point distributions will be received.

The early years of a traditional primary fund exhibit low or negative returns because the capital is employed to make investments and pay expenses. Then, as the fund’s investments mature, they generate cash flows that can offset costs, including fees and expenses. As the “harvest” phase is entered, increased cash flows from investments offset reducing capital requirements and costs, exhibiting a J-Curve.

FUND ALLOCATIONS

In a typical private assets programme, where frequent investment opportunities are available, those that invest into each one will find that the portfolio becomes self-funding and has a constant net asset value. The distributions received from earlier funds go into later ones.

Continuous allocation to fund commitments can maximise working capital, with target exposure being consistently achieved. A multi-vintage allocation can help weather macro events, as well as a higher degree of cash flow visibility due to the self-funding nature of the portfolio.

Additionally, the diversification benefits will be greater in the early stages of the fund’s lifecycle where there will be low beta. The correlation with public markets generally increases the closer you get to an initial public offering, and so the correlation benefits fall. As such, illiquidity also aids diversification, and investors receive higher returns as well as greater diversification.

YOU ARE COMPENSATED FOR HOLDING ASSETS

Investors also receive additional compensation for holding illiquid assets – the ‘liquidity premium’. This enhanced return that is expected for investing in illiquid assets has historically been approximately 2% on average. Over longer periods of time, the compounding effect of this premium on top of annual returns can substantially boost the wealth preservation and accumulation process.

Why do investors receive this compensation? Liquidity risk is an umbrella term that straddles two distinct, but mutually reinforcing, types of risk. The funding liquidity risk is associated with the costs of generating cash in order to meet capital commitment calls. The market liquidity risk is related to transactional costs; in other words, the ability to liquidate assets relatively quickly at minimum cost.

Funding illiquidity can pose problems for investors, especially in times of market stress. Fund managers have full discretion regarding the timing and size of capital calls. And the ability of PE investors to sell their holdings in a secondary market is severely limited due to market illiquidity.

Market liquidity risk is a consequence of various market frictions, most notably asymmetric information and complexity. In the absence of a centralised marketplace, quality data is not readily available. Significant resources and expertise are needed to collect, process, and analyse the information. Search and discovery of investment opportunities, as well as private deal negotiations, are time consuming and costly. Therefore, many investors opt to get access to PE via funds, effectively delegating the analysis and management of companies to skilled fund managers. Highly complex PE investments incentivise fund managers to engage in relentless alpha hunting.

The end result is that investors – being liquidity suppliers – are compensated with a liquidity premium.

SOME ILLIQUIDITY CAN HELP

Having some illiquidity in a portfolio can be beneficial from a behavioural perspective. It helps an investor to maintain a longer-term outlook and prevent some unhelpful short-term behaviours – in particular during periods of market turbulence – in pursuit of long-term goals to protect and grow wealth.

Investors usually receive updates on the value of their private asset holdings less often than when investing in public markets, and thus may experience less portfolio volatility and smoother returns. Assets may be valued on a quarterly basis, and so during tough markets, for example, updates might be received once the period has passed, and the fund is already recovering.

An investor benefits from being shielded to some extent from short-term movements, and to some extent is locked in and prevented from panic selling. We have spoken in the past about having specific plans in place to help investors to get through difficult times; allocating to private assets can be seen as a true commitment mechanism to investing in the markets for the long term.

Over the long term, private assets have been shown to provide higher returns, experience lower volatility, and offer more exposure to companies than public markets do. Investors with long-term aspirations and liabilities, who are able to hold illiquid assets in portfolios, and can make significant capital commitments are best positioned to harvest the liquidity premium. From a behavioural perspective, the illiquidity associated with the asset class can help investors to stay the course in the face of much uncertainty and volatility, supporting one’s long-term goals.

Author: Alexander Joshi, London UK, Behavioural Finance Specialist

Multi-asset portfolio allocation

Barclays Private Bank discusses asset allocation views within the context of a multi-asset class portfolio. Our views elsewhere in the publication are absolute and within the context of each asset class.



	-		=		+
Cash and short duration bonds					■
Fixed income		■			
Developed market government bonds				■	
Investment grade bonds			■		
High yield bonds		■			
Emerging market bonds		■			
Equities					■
Developed market equities					■
Emerging market equities				■	
Other assets		■			
Alternative trading strategies			■		
Commodities			■		
Real estate	■	■	■	■	■

"-" Denotes a cautious view
 "=" Denotes a neutral view
 "+" Denotes a positive view

CASH AND SHORT DURATION BONDS

- Given the ongoing uncertainty, and to manage portfolio risks, we still prefer higher-quality and liquid opportunities.

FIXED INCOME

- We see only limited opportunities in fixed income
- We maintain a small preference for developed market government bonds as a hedge against any macroeconomic volatility
- In credit, we prefer the higher quality segment, although, as spreads have recovered remarkably from their highs, our risk budget is directed towards equities
- In high yield, selection is key, and our exposure is low, given the tightness of spreads. We prefer high yield and emerging market (EM) hard currency debt over EM local currency debt, considering the risk that faces their economies and currencies.

EQUITIES

- We believe that equities remain relatively more appealing than bonds for now
- Yet, we are highly selective in our allocation
- In line with our long-term investment philosophy, portfolios remain geared towards high-quality, cash-generative, and conservatively-capitalised businesses
- As a function of our bottom-up selection, we currently see more opportunities in developed market equities compared to their emerging peers.

ALTERNATIVE TRADING STRATEGIES (ATS)

- There are a limited number of opportunities in the ATS space, as the cost/benefit trade-off can be challenging
- Our focus is on strategies offering diversification benefits due to their low-correlation to equity markets.

COMMODITIES

- As a risk-mitigating asset, gold remains the only direct commodity exposure we hold in portfolios
- From a portfolio management perspective, we believe that our risk budget is better spent outside of the asset class.

Author: Julien Lafargue, London UK, Chief Market Strategist

privatebank.barclays.com

Investments can fall as well as rise in value. Your capital or the income generated from your investment may be at risk.

This document is for information purposes only. It is general in nature and does not take into account specific investment objectives, financial situation, knowledge, experience or particular needs of any particular person. It should not be relied upon in considering the merits of any particular transaction. It does not constitute a prospectus, offer to buy or sell, invitation or solicitation to buy or sell or invest in or refrain from investing in securities or other investment products. It may provide an introductory summary of products or services that we may potentially provide, and you should consider whether any of those may apply to your own circumstances and needs.

It is not intended to provide the sole basis for any evaluation of securities or any other instrument, which may be discussed in it. The information in this document is not investment, tax, legal, accounting, regulatory or other advice, and you should consider seeking advice tailored for your own circumstances, including any impact an investment may have on your personal tax position from your own tax adviser. You have sole responsibility for the management of your tax, accounting, legal and regulatory affairs including making any applicable filings and payments and complying with any applicable laws and regulations. We have not and will not provide you with, and you should obtain your own, independent, tax, accounting, legal and regulatory advice.

Any offer or entry into any transaction with Barclays as a party, requires Barclays' subsequent formal agreement which will be subject inter alia to internal approvals and execution of binding transaction documents. Terms and conditions if any herein are indicative and subject to change and/or negotiation between us. Full details of final terms and conditions will be contained in a prospectus or offering or other document.

Investment products may be subject to investment risks, including, but not limited to, market and currency exchange risks, fluctuations in value and possible loss of principal invested. Where investments are concerned, past performance does not predict or guarantee future performance. Investments can fall as well as rise in value. Your capital or the income generated from your investment may be at risk. The value of any investment may also fluctuate as a result of market changes.

Although any content in this document from other sources is believed to have been obtained from sources which are reliable, we neither represent nor warrant its accuracy or completeness, nor the timeliness or reliability of such information set out herein. Where information in this document has been obtained from third party sources, we believe those sources to be reliable but we do not guarantee the information's accuracy. Information set out herein may be incomplete or condensed. Barclays is not responsible for information stated to be obtained or derived from third party sources or statistical services. Any past or simulated past performance including back-testing, modelling or scenario analysis contained herein is no indication as to future performance. No representation is made as to the accuracy of the assumptions made within, or completeness of, any modelling, scenario analysis or back-testing. You should carry out your own due diligence and verification of such information accordingly. This document may become outdated and/or its contents subject to changes at any time and without prior notice to you, and in that regard, we are under no obligation to update or correct this document or inform you in relation to any such changes to the contents herein. Any estimates and opinions from Barclays as may be included in this document constitute our judgement as of the date of the document and may be subject to change without notice, and we have no obligation to provide revised estimates or opinions.

Unless expressly stated, products are not guaranteed by Barclays Bank PLC or its affiliates or any government entity.

This document is not a product of the Barclays Research department. Any views expressed may differ from those of Barclays Research.

This document is strictly confidential and may be being made available to selected recipients only. It may not be reproduced or disclosed (in whole or in part) to any person without our prior written permission. Barclays or its affiliates may act upon or use material in this publication prior to publication. The manner of distribution of this document and the availability of the products and services may be restricted by law or regulation in certain countries and persons who come into possession of this publication are required to inform themselves of and observe such restrictions.

Barclays Bank PLC ("Barclays"), its affiliates, and their respective directors, employees, and agents ("Barclays Group") make no representation or warranty as to the accuracy, completeness, timeliness or reliability of the contents of this document. To the maximum extent permitted by law, no member of the Barclays Group accepts any liability whatsoever for any direct, indirect or consequential losses (in contract, tort or otherwise) (including, without limitation, any liability arising from fault or negligence on the part of any of them) for any loss whatsoever arising from the use of or reliance on this document or its contents or otherwise arising in connection with it.

The contents of this document have not been reviewed or approved by any regulatory authority.

Barclays offers wealth and investment products and services to its clients through Barclays Bank PLC registered in England and operates in India through its subsidiaries, including Barclays Securities (India) Private Limited (BSIPL), Barclays Wealth Trustees (India) Private Limited (BWTIPL) and Barclays Investments & Loans (India) Private Limited (BILIPL). BSIPL is a company incorporated under the Companies Act, 1956 having CIN U67120MH2006PTC161063. BSIPL is registered and regulated by the Securities and Exchange Board of India (SEBI) as a Portfolio Manager INP000002585, Stock Broker INZ000269539 (member of NSE and BSE), Research Analyst:INH000001519; Depository Participant with the National Securities & Depositories Limited (NSDL); DP ID: IN-DPNSDL- 299-2008, Investment Adviser: INA000000391. BSIPL is also registered as a Mutual Fund Advisor having AMFI ARN No. 53308. The registered office of BSIPL is at 208, Ceejay House, Shivsagar Estate, Dr. A. Besant Road, Worli, Mumbai – 400 018, India. Telephone No: +91 22 67 196363. Fax number: +91 22 67 196399 Compliance Officer contact details: Name: Mr. Anupam Mohaney, Contact number: +91 22 61754000, E-mail:bsiplcompliance@barcap.com. Investor Grievance E-mail:bsipl.concerns@barcap.com. Website: www.barclays.in/bsipl. BWTIPL is a company incorporated under the Companies Act, 1956 having CIN U93000MH2008PTC188438. BWTIPL is a Corporate Agent (Composite) of (i) HDFC Standard Life Insurance Company Limited and (ii) ICICI Lombard General Insurance Company Limited, under IRDA Registration Code CA0078. The registered office of BWTIPL is at 208, Ceejay House, Shivsagar Estate, Dr. A. Beasant Road, Worli, Mumbai – 400 018, India. Telephone No: +91 22 67 196363. Fax number: +91 22 67 196399. Email Address for corporate agency (insurance) matters: xwealthindiainsura@barclayscapital.com, Email Address for other matters: wealthindiastrust@barclays.com. Grievance Officer contact details: Name: Ms. Poonam Mirchandani, Contact number: +91 022 6719 6359, E-mail: bwtipl.concerns@barclays.com Website: www.barclays.in/bwtipl. BILIPL is a company incorporated under the Companies Act, 1913 having CIN U93090MH1937FTC291521. BILIPL is registered and regulated by the Reserve Bank of India (RBI) as a Non Banking Finance Company (NBFC); Registration no.B-13.02176. The registered office of BILIPL is at. Nirlon Knowledge Park, Level 10, Block B-6, Off Western Express Highway, Goregaon (East), Mumbai - 400063, India. Telephone No: +91 22 61754000. Fax number: +91 22 61754099. Grievance Redressal Officer contact details: Name: Mr. Ruzbeh Sutaria, Contact number: +91 22 61754244, Grievance E-mail: bililcompliance@barclayscapital.com. Website: www.barclays.in/bilil.

