

WisdomTree Market Outlook

Plus Model Portfolios

March 2022





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Contents

01	Commodity Outlook The commodity renaissance: an update	3
02	Equity Outlook A time to be selective	15
03	Fixed Income Outlook Inflation is leading the way to new opportunities in bond markets in 2022	20
04	Crypto Outlook What are the catalysts for Crypto in 2022?	26
05	Model Portfolios Marrying long-term potential and tactical opportunities	33



Commodity Outlook

The commodity renaissance: an update

01	Inflation	5	04 Supply constraints	12
02	Infrastructure	7	05 A new era for commodity investing	12
_ 03	Energy transition	10	06 Conclusion	14

Commodity markets in 2021 rose 27.1%, marking the best performance since the Bloomberg Commodity Index began publishing live data (1998)¹. It has been a strong start to 2022 for commodity markets, with several commodities trading at multi-decade highs.

Our commodity outlook for the coming year is shaped by three major drivers:

- 1. a higher inflationary environment than we have seen in recent decades
- 2. a structural increase in demand for commodities driven by an infrastructure boom
- 3. a renewed focus on the environment which will increase the demand for certain commodities and at the same time present challenges for supply growth

We discussed these in our October 2021 outlook. We believe all three of these drivers remain in motion. Additionally, the Russian-Ukraine conflict, if prolonged, could disrupt the supply of certain commodities and send their prices higher.

In this piece, we provide some key updates. In addition, we believe the current structure of commodity market futures are presenting some of the best opportunities we have seen in decades.

Firstly, with commodities being a cyclical asset, we note that economic growth in 2022 will likely be slower than in 2021. The International Monetary Fund (IMF) projects 4.4% world gross domestic product (GDP) growth in 2022 (revised lower by 0.5% compared to October 2021 projections). But that s hardly surprising given the strength of the 5.9% world GDP rebound in 2021, after experiencing a -3.1% GDP crash in 2020². In fact, it will be higher than the average growth rate between 2010 and 2019 (3.7%). The IMF has revised lower its projections for China's growth more than other regions³. Given China is the largest consumer of most commodities, that does pose a risk, but we do believe that growth stemming from other themes will compensate.

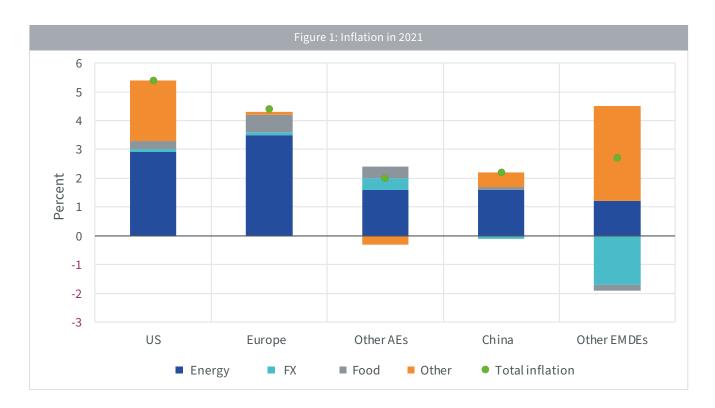
Inflation

Inflation is elevated in the US and Europe (Figure 1). Energy and food prices are two large sources of inflation in these jurisdictions. Pandemic related supply chain disruptions have been a major driver of price pressures. While supply chains are improving, fully escaping this shock will take time, and it is uncertain whether a return to the pre-pandemic normal will ever be achieved.

¹ Based on Bloomberg Commodity Index Total Return. Looking at back-tested Bloomberg Commodity Index data 2021 performance was the best since 1978.

² International Monetary Fund World Economic Outlook, January 2022.

³ IMF January 2022 estimates 8.1% GDP growth in 2021, forecasts 4.8% in 2022 (a -0.8% revision from its October 2021 forecast).

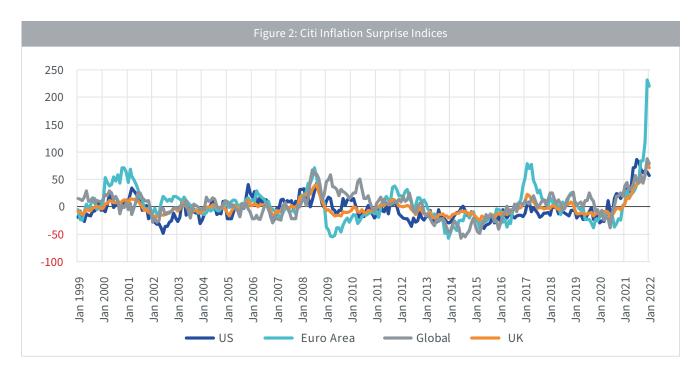


Source: International Monetary Fund World Economic Outlook, January 2022. Represents the year-on-year growth of a consumer price index from December 2020 to the latest available in January 2022. FX refers to short-term currency depreciation-induced inflation using estimates. AEs stands for advanced economies. EMDEs stands for emerging markets and developing economies. Historical performance is not an indication of future performance and any investments may go down in value.

Inflation continues to surprise to the upside (Figure 2). The persistence of inflation surprises indicates that most analysts haven't fully appreciated the sticky nature of the supply-side shocks.

We believe that broad commodities, of the major asset classes, are the best hedge against inflation. As we discuss here, with an inflation beta of 2.40, broad commodities outperform not only US equities (which have an inflation beta of -0.93 but also US Treasury Inflation Protected Securities (which have an inflation beta of 0.38).

Central banks across the world have largely dropped the "inflation is transitory" mantra. In the US and Europe, where inflation has proven to be more stubborn, central banks are either tightening or preparing to tighten monetary policy through a combination of tapering quantitative easing and raising interest rates. The US Federal Reserve (Fed) has taken a markedly hawkish tilt of late and Fed fund futures markets are now pricing in five rate hikes of 25 basis point in 2022. Overnight Index Swaps (OIS) indicate the market is looking for a similar number of hikes in the UK, with the first already having taken place in February 2022. OIS markets point to at least two moves by the European Central Bank in 2022. Emerging market inflation may appear tamer, but that is an outcome of adverse foreign exchange moves rather than the absence of other drivers of inflation.



Source: WisdomTree, Citi Group, Bloomberg, data from January 1999 to January 2022. They are defined as weighted historical standard deviations of inflation data surprises (actual releases vs Bloomberg survey median). A positive reading of the Inflation Surprise Index suggests that inflation releases have on balance been beating consensus. **Historical performance is not an indication of future performance and any investments may go down in value.**

Monetary tightening may cool demand growth, helping to choke off price pressure from certain goods and services. However, it may fail to have a meaningful impact on the root causes of the supply disruptions that are driving the prices of other goods and services. A potential risk arising from the current policy course is slowing demand with elevated prices. Analysis conducted by the World Gold Council indicates that such environments have historically been positive for both gold and broad commodities⁴, with both asset classes outperforming equities and fixed income. In fact, their analysis indicates such 'stagflationary's environments have been more positive for gold than 'reflationary's environments.

Infrastructure

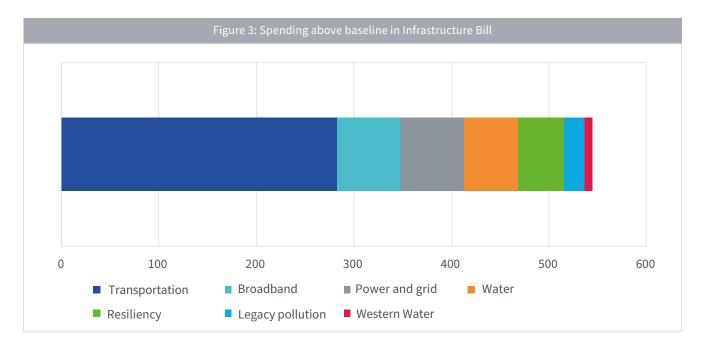
While the Biden Administration may not have been able to push through a US\$2trn infrastructure spend, both chambers of Congress approved a US\$1.2trn Infrastructure Bill, with the House of Representatives passing the Senate version on November 5th 2021^{7.} Federal agencies like the Departments of Transportation and Energy have the enormous responsibility to implement the law and work on this will start in earnest this year. The Bill contains an estimated US\$550bn in new spending above baseline levels (Figure 3). All aspects of the Bill appear to be involved in commodity-heavy physical infrastructure.

 $^{^4\}underline{\text{https://www.gold.org/goldhub/research/investment-update-stagflation-rears-its-ugly-head}$

⁵ An environment of falling US Conference Board Leading Economic Index and rising US core CPI

 $^{^{\}rm 6}$ An environment of rising US Conference Board Leading Economic Index and rising US core CPI

⁷ https://www.reuters.com/world/us/us-senate-poised-pass-1-trillion-infrastructure-bill-debate-35-trillion-budget-2021-08-10/



Source: Bipartisan Infrastructure Investment and Jobs Act Summary. Historical performance is not an indication of future performance and any investments may go down in value.

In December 2021 the European Commission unveiled Global Gateway—a plan to invest 300bn euros globally by 2027 in infrastructure, digital and climate projects as a better alternative to China's Belt and Road Initiative⁸.

In 2020, the European Union provided an unprecedented response to the coronavirus crisis. At its heart is a stimulus package worth 2.018trn eurosat current prices. It consists of the EU's long-term budget for 2021 to 2027 of 1.211trn euros, topped up by 806.9bn euros through NextGenerationEU, a temporary instrument to power the recovery. A greater proportion of the budget (compared to any other budgeting period since the 1980s) has been assigned to "new priorities". In fact, 50% of the budget will go to:

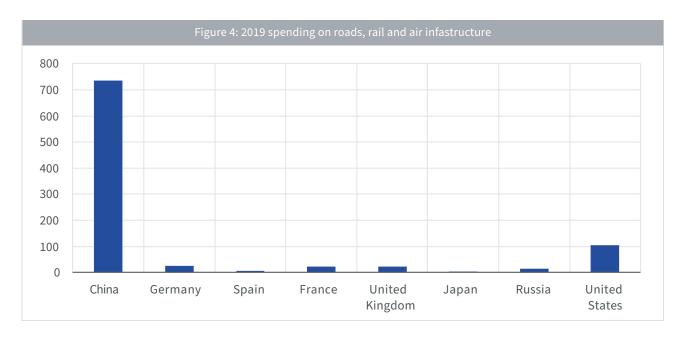
- research and innovation
- + fair climate and digital transitions
- + preparedness, recovery and resilience

Many of these projects are involved in building out new physical infrastructure, including roads and other trans-European transport networks, buildings, a European space programme and climate change mitigation technologies.

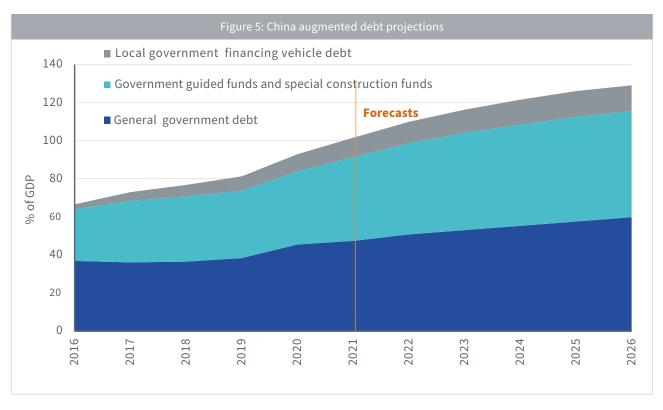
China has historically been one of the biggest spenders on infrastructure. In 2019, its spending on road, rail and air infrastructure dwarfed any other major country (Figure 4). Over the past four decades, China's rapid urbanisation and development have been fuelled by debt. But this strategy is coming to a head. The Evergrande⁹ debacle has put debt sustainability in focus. Although China's central government debts do not look alarming, when combined with local government debts and debts from government-directed projects (together as augmented debts), China's indebtedness does look high (Figure 5). With this background, we believe that China may not stimulate as much through the 'fixed-investment' or infrastructure channel as it has done in past economic slowdowns.

^{*} The Belt and Road Initiative (BRI) is an effort to develop an expanded, interdependent market for China, grow China's economic and political power, and create the right conditions for China to build a high technology economy.

⁹ Evergrande is one of China's largest property developers and has begun restructuring talks with offshore creditors to alleviate rising financial stress following a tightening of regulations to rein in the highly-leveraged real estate sector. Funding pressures have since spread to other property developers, posing concerns of negative spillovers to the broader economy. While a private debt, the risk of local or central governments having to internalise the debt remains of concern. Although the Government has the policy space to internalise the debt, it risks creating moral hazards and deteriorating its already elevated debts.



Source: OECD database, downloaded February 2022. Historical performance is not an indication of future performance and any investments may go down in value.



Source: IMF 2021 Article IV Consultation on People's Republic of China, January 2022. Forecasts are not an indicator of future performance and any investments are subject to risks and uncertainties.

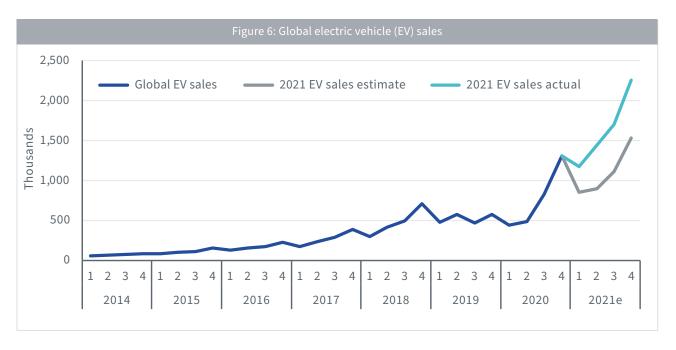
We have no doubt that China will continue to ease monetary policy to soften the ongoing economic slowdown, but with a zero-COVID policy also being enforced, the country's economic levers are somewhat hamstrung. As the largest consumer of all commodities, China remains an important part of the demand growth story. However, we believe that the unprecedented growth in infrastructure demand from the US, Europe and elsewhere, will more than offset the softening from China.

Energy transition

Most countries around the world have signed up to the Paris Agreement to limit temperature increases to well below 2°C (and preferably to 1.5°C) above pre-industrialised levels. Moreover, 80% of global GDP is covered by a national net-zero target, up from 68% in 2020¹⁰. We noted in our October 2021 outlook that despite the ambitious pledges, the gap between climate goals and policy currently in place is wide. The 2021 United Nations Climate Change Conference (COP26) made several steps towards closing the gap, but a gap remains. Speaking of the conference, António Guterres, UN Secretary-General said, "It is an important step but is not enough. We must accelerate climate action to keep alive the goal of limiting global temperature rise to 1.5 degrees". That sets the tone for future climate discussions.

Several achievements were made, including a global agreement on the phase-down of coal¹¹; broad agreements on the necessary accounting mechanisms to share carbon abatement among countries, which could pave the way to inject credibility to voluntary carbon markets; close to 500 global financial services companies agreeing to align US\$130trn (40% of global financial assets) with the Paris Agreement.

One of the key components of the energy transition will be a migration from internal combustion engine (ICE) vehicles to electric vehicles (EV), which have a lower greenhouse gas footprint. Electric vehicle sales are strong and surpassing many market forecasts (Figure 6). In fact, Bloomberg New Energy Finance estimates that in Q4 2021, 25% of passenger vehicle sales in Europe were EVs and close to 20% in China. In Q4 2017, these numbers were as low as 2% and 3% respectively.

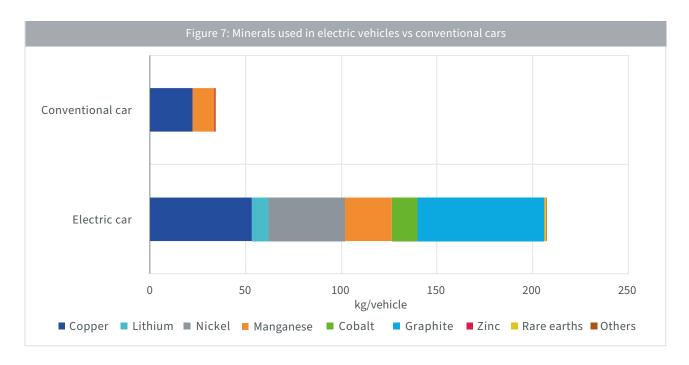


Source: Bloomberg New Energy Finance. January 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

A broader range of metals are used in EVs relative to ICE vehicles. The copper and manganese content of an EV is more than double that of an ICE vehicle. Other easily investable metals like nickel are negligible in ICE vehicles but essential in EVs.

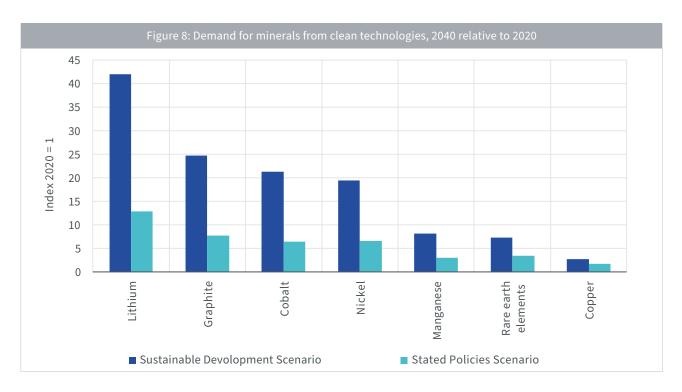
¹⁰ November 2021, Net Zero Tracker: global initiative led by the Energy & Climate Intelligence Unit, Data-Driven EnviroLab, NewClimate Institute and Oxford University's Net Zero Climate Initiative

¹¹We note that it wasn't a "phase-out" of coal as the original draft was phrased. But with the endorsement of large coal users such as Poland, Vietnam and Chile, this was seen as an important move.



Source: International Energy Agency, The Role of Critical Minerals in Clean Energy Transitions, 202. **Historical performance is not an indication of future performance and any investments may go down in value.**

The mineral intensity of EVs and other clean energy technologies will likely be transformational for the demand profile of many commodities. In a scenario consistent with the Paris Agreement (Sustainable Development Scenario), copper demand from clean energy technologies could be three times larger in 2040 than 2020 (Figure 8). Nickel demand could be 19 times higher in the same scenario. Lithium, and cobalt offer great growth potential, but the liquidity of these futures markets are a constraining factor in terms of investor access at the moment.



Source: International Energy Agency, The Role of Critical Minerals in Clean Energy Transitions, 2021 Sustainable Development Scenario: a scenario that meets the Paris Agreement. Stated Policies Scenario provides a more conservative benchmark for the future and does not take it foe granted that all governments will reach their policy goals. **Historical performance is not an indication of future performance and any investments may go down in value.**

Supply constraints

Meeting the demands for metals under a Paris-Aligned scenario will be difficult. McKinsey estimates that for copper and nickel alone, meeting a 1.5°C pathway could require \$250bn to \$350bn cumulative capital expenditures by 2030. That will allow for replacing depleting capacity as well as expansion. The risk herein is that if supply fails to keep up with demand, the technological solutions may have to shift once again. Rising costs are already motivating some EV manufacturers to utilise lower-range and technically inferior batteries (which don't use nickel) for cars in some markets.

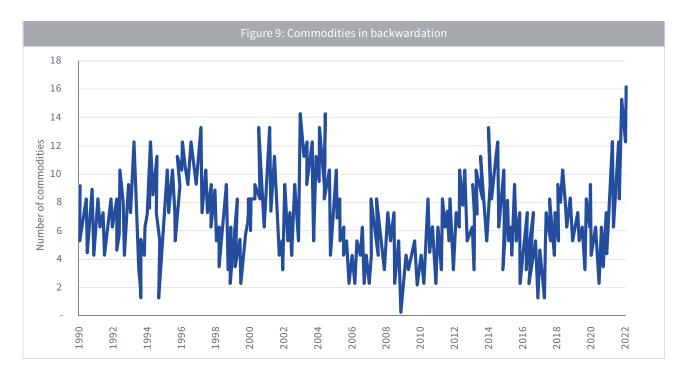
While the energy transition presents longer-term supply constraints for metals, traditional energy supplies (oil and natural gas) are currently very tight. Demand has recovered quickly from pandemic lows in 2020 while the Organization of Petroleum Exporting Countries (OPEC) and its partners (together OPEC+) maintain production constraints. Although, in theory, OPEC+ is on course to unwind the production constraints by the summer of 2022, doubts are being cast on the capacity of certain members who are failing to keep up with their current quota. Unless the distribution of production across the members is changed (which is politically a difficult move), oil supply could remain tight for the remainder of 2022. Oil production is expanding outside of OPEC+, but the scale of investment is low relative to current oil prices.

At the time of writing¹², geopolitical tensions are high following the February 24th Russian invasion of Ukraine. Although commodity prices have been volatile in this period (with much of the gains on the first day of invasion given back the following day), we believe the price of several commodities will ultimately rise if the conflict is not resolved quickly (see Do commodities offer an avenue to hedge against Russia-NATO tensions?) While it is uncertain how long the conflict will last, there is a risk of serious disruption to supply chains for oil, natural gas, wheat, palladium, nickel and aluminium. At the same time, an invasion could temper global economic growth, depending on the strategies chosen to retaliate against the acts of aggression We will monitor these developments closely.

A new era for commodity investing

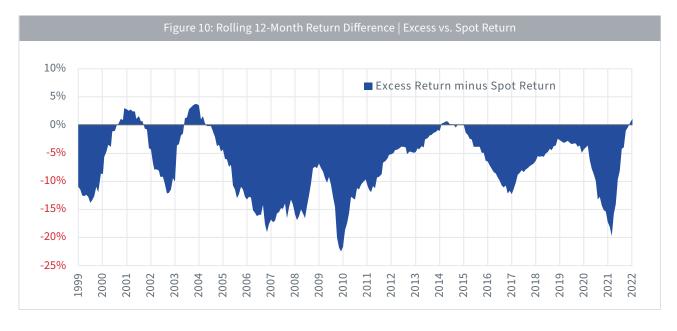
Most investors in commodities access the asset class through futures or strategies that replicate futures performance. Accessing spot market prices is usually very difficult for most commodities as they present challenges for storing and transport. In a futures investment, in addition to the theoretical 'spot return', there is also a 'roll yield' to consider and a 'collateral yield'. The roll yield is generated by the futures price converging to the spot as the contract matures. Therefore, the shape of the futures curve is important. An upwards sloping curve, where the futures price is above the spot (contango) presents a roll drag. A downward sloping curve, where the futures price is below the spot (backwardation) presents a roll return. Today, we are seeing the most commodities in backwardation since 1990 (Figure 9).

¹² February 8th 2022



Source: International Energy Agency, The Role of Critical Minerals in Clean Energy Transitions, 2021 Sustainable Development Scenario: a scenario that meets the Paris Agreement. Stated Policies Scenario provides a more conservative benchmark for the future and does not take it foe granted that all governments will reach their policy goals. Historical performance is not an indication of future performance and any investments may go down in value.

Usually, there are more commodities in contango. But with so many commodities in backwardation, there is a possibility that the return after incorporating roll yield could be higher than the spot return. Indeed, looking at 12-month rolling differences between 'excess return' (which incorporate the roll) and spot market returns, we are seeing a positive number (Figure 10). This has historically been rare i.e. most of the time an investable strategy produces a lower return than an uninvestable spot market return. Usually tightness in supply drives backwardation. Given the strength in demand and the constraints on supply, we think this era of backwardation could be here to stay in 2022.



Source: Bloomberg, January 1998 to January 2022. Bloomberg Commodity Index (Excess Return) and Bloomberg Commodity Spot Index. Historical performance is not an indication of future performance and any investments may go down in value.

Collateral yield is the interest rate that compensates investors for the collateral that they set aside in opening a futures position. As interest rates go up, so should collateral yield. So total returns in commodity futures markets may be further enhanced.

Conclusion

Beating 2021 commodity market performance will be difficult but we believe the commodity markets are in a position of strength. Commodities have historically been a robust hedge for inflation and some geopolitical risks.

The energy transition and growth in infrastructure spending should mitigate a moderation in economic growth. However, barring any economic shocks, GDP projections are still very supportive for the commodity complex.

With commodity markets geared to backwardation, we believe that we are in one of the best environments for commodity investing we have seen in a long time.



Equity Outlook

A time to be selective

U⊥ As the masks come off, inflation goes up	16	U5 Growth opportunities best captured with a targeted approach
The Fed is walking a tight rope in 2022	16	06 A strong core can weather more market tantrums ahead

03 Europe's cyclical tilt 17 07 Conclusion 19

18

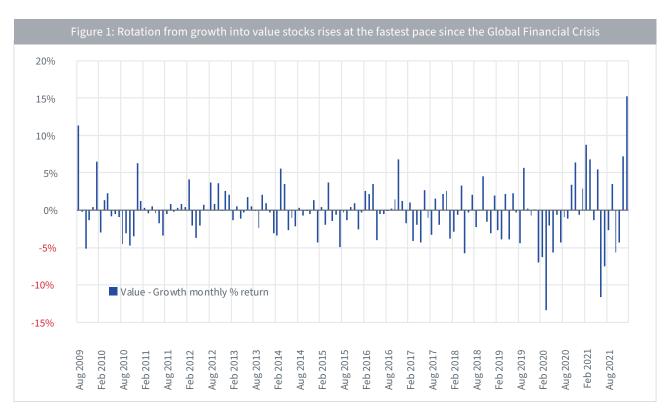
19

O4 China offers a regional shelter from a potential inflation storm

As the masks come off, inflation goes up

Volatility is to be expected in 2022 as markets transition from a period of unprecedented fiscal and monetary stimulus to a normalisation of market conditions. The COVID pandemic continued to wreak havoc on populations worldwide in 2021, but we remain optimistic that the worst is behind us as global vaccination rates gather momentum in 2022. The hawkish pivot by the three developed market central banks – Federal Reserve (Fed), European Central Bank (ECB) and Bank of England (BOE) is telling of a regime change in markets.

The subsequent sharp drop in the amount of negative yielding debt available globally, the rise in 2-year yields coupled with the more persistent rise in commodity prices at the start of 2022 provide ample evidence of a regime change in global equity markets. Higher inflation evident in the form of higher input costs, higher wages and higher rates are squeezing companies' operating margins. In this scenario, value stocks are better positioned than expensive growth stocks as their larger size and prevalence in old economy sectors allow them to pass on these rising costs more easily to consumers whilst maintaining their operating margins amidst this challenging environment.

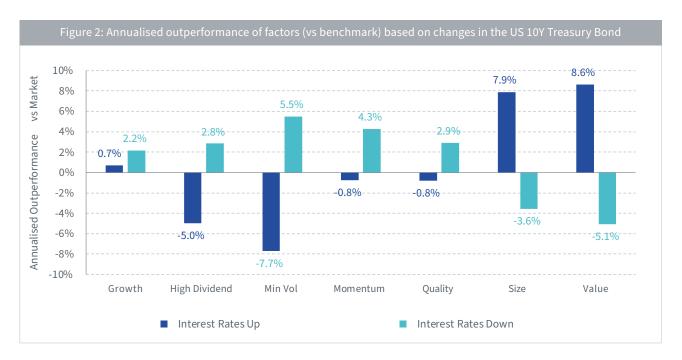


Source: Bloomberg, WisdomTree as of 18 January 2022. Please note: Value is represented by the S&P 500 Pure Value Index; Growth is represented by the S&P 500 Pure Growth Index. **Historical performance is not an indication of future performance and any investments may go down in value.**

The Fed is walking a tight rope in 2022

The US economy has largely recovered from the COVID shutdown induced recession. Price increases have been sharper than expected, which is precisely why the Fed is signalling a more aggressive tightening cycle. Consumer spending has been shifting from goods back into services, although services spending has been slowing in recent months. The supply chain disruptions, which are partly responsible for higher commodity prices, are expected to dissipate over the course of 2022. However, in the US, the stickier inflation caused by wage growth and labour shortages looks to be a more permanent feature. In turn, this could be a catalyst for a bigger policy response from the Fed which raises the risk of dampening US growth. Looking back over the past 10 years, factors such as size and value have staged the highest out-performance versus the market (the S&P 500) in a rate tightening environment.

One notable change in factor performance in the early weeks of 2022 is the high dividend factor which has been the strongest performing factor, contrary to its under-performance in historical rate tightening cycles. High dividend strategies currently have sector exposures that align with a rising rate view—from being overweight cyclical sectors like energy and financials. The high dividend factor not only captures the value factor, but in a manner that has greater exposure to companies with higher profitability levels. Currently, 50% of the companies on the S&P 500 have a dividend yield above the level of the US 10-year Treasury and high dividend strategies would notably all be above the US 10-year Treasury. In a time when profitability matters and unprofitable technology stocks are being squeezed by rising rates, high dividend stocks are performing like shorter-duration assets.



Source: WisdomTree, Bloomberg. Period 31 May 2002 to 31 January 2022. Calculations are based on monthly returns in USD. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Europe's cyclical tilt offers opportunity amidst the paradigm shift

After a banner year in 2021, the outlook for European equities remains positive in 2022 supported by consensus earnings revisions re-accelerating for 2022, above trend GDP growth, continued fiscal support and good macro momentum emerging after the Omicron variant. The slew of upside inflation surprises in Europe has been a rude awakening for the ECB. Owing to which the ECB will likely follow a faster tightening cycle. On the back of more policy convergence between ECB and the Fed, we would expect the euro to strengthen. As bond yields continue to rise, the ongoing rotation into value stocks should garner momentum led by the energy and materials sector. Considering the repercussions of the Russia/Ukraine crisis, our assessment of European growth is more complex given the added pressure on inflation from rising energy costs (Russia accounts for nearly 46%² of Europe's gas imports) and the subsequent strain on consumer demand. We would expect government offset schemes to cushion some of the rising costs facing the consumer but its impact to be modest. Geopolitics have rarely led to a full-blown recession. While equity market corrections around wars can be sharp, they tend to be short-lived. Given the fluidity of the situation, there is significant uncertainty in terms of how the conflict evolves. Any further escalation has the potential to have a sizeable impact on the European economy. European economies would need to ration energy supplies to ensure household energy security which could curtail production in energy intensive industries. However, should there be a resolution between Russia and Ukraine crisis, we could see economic momentum in the European equities resuming to the levels at the start of 2022.

² Gazprom, Eurostat

China offers a regional shelter from a potential inflation storm

As the global economy transitions, monetary policies adjust from being accommodative to tighter in the developed markets (DM), China (the world's second largest economy) has embarked on looser monetary policy and more active fiscal support in 2022, unlike in 2021. The stark divergence in inflationary trends in DM versus China, evident from the reduced gap between Producer Price Inflation (PPI) and Consumer Price Inflation (CPI) gives the People's Bank of China (PBOC) more firepower to onboard a range of easing measures unlike in DM. The experience of 2021 shows us that Chinese policymakers appeared intent on reducing the economy's dependence on investment in the real estate sector and gearing the economy towards consumption of more domestic goods and services. The economic restructuring of resources away from real estate and towards agriculture, new-energy and technology will be a more long-term project for China than originally planned.

2022 has given way to renewed policy easing in China and the PBOC has sent a clear signal of a more supportive monetary stance to cushion the economy. Historically, the increase in money supply at a cheaper cost has been an important catalyst for higher performance in Chinese equity markets, albeit with a six-month lag, which we expect to be reflected in 2022. While it's difficult to rule out the possibility of further regulatory hurdles, we expect them to ease with the culmination of the Chinese Communist Party's 20th National Congress, as it has in past political cycles.

Growth opportunities best captured with a targeted approach

The hawkish pivot from the Fed at the turn of the year didn't go down particularly well with growth stocks. Growth stocks, by definition, rely on the future growth of cash flows. With weightier cash flows expected in the distant future, there is a greater sensitivity of such stocks to interest rates (which are used to discount their cash flows). Ok, that's the technical explanation. Ultimately, risk sentiment moves faster than discounted cashflow models. Sentiment can also cause overshoots. And what happened in January 2022 may indeed be an example of that.

Now, predicting market movements is hard. Especially the downturns. What is (relatively) easier is observing the direction of major currents and aligning one's bearings accordingly. Megatrends may offer investors an opportunity to do exactly that.

For example, we know that an energy transition towards greener technologies is underway and accelerating. We also know that the world is increasingly going digital and comprehensive cyber security is critical in ensuring the success, or survival, of businesses even remotely connected to the internet. There are many such trends. Regardless of what the Fed does, these megatrends will carry on. We therefore favour the following principles for accessing growth.

First, we prefer exposures that are differentiated from pure beta growth. Not that beta growth, such as traditional market cap growth indices, will not do well this year. Rather, we think thematic investing offers effective diversification against value, given the dissimilar time horizons.

Second, we advocate patience. Thematic investing is not just growth, but often high growth. It, therefore, is certainly not immune to the market gyrations in growth stocks. This means that when the going gets tough, the urge to sell is hard to resist. An investment in green innovations like battery storage solutions, or advancements in biotechnology, is unlikely to yield its full potential anytime soon. Market pullbacks due to actions of the Fed, or anything else, can often present attractive entry points.

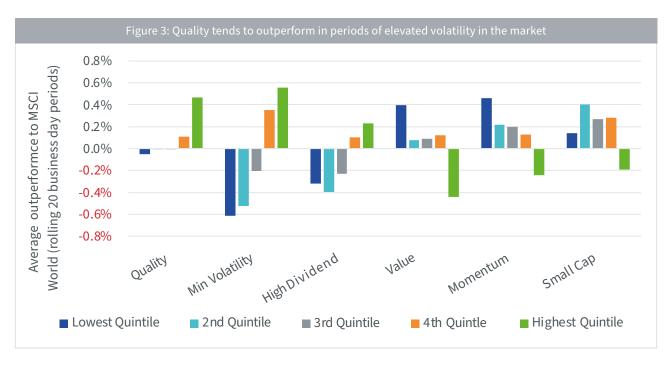
Access to unique and differentiated exposures that bring expert insights into systematic strategies is on the rise. The key, therefore, is to find a theme one has conviction in, and then be prepared to withstand volatility in the short term.

A strong core can weather more market tantrums ahead

In our <u>equity outlook from October 2021</u>, we highlighted the risk of market tantrums when the Fed eventually moved to tighten its monetary policy. We suggested markets had become too comfortable with ultra-loose monetary policy. With inflation on the rise and the Fed offering little in the way of forward guidance, an inevitable hawkish pivot down the road would not go down well with equities, particularly growth stocks. We got exactly that in January.

Now, we don't believe the sharp correction in equities experience in January suggests that markets are predicting an impending recession. Instead, markets were just not prepared for the change in tone from the Fed. What lies ahead is potentially a year of policy tightening. The Fed will react to economic data and markets will react to the Fed. There are no certainties when it comes to the future, not least when it comes to policy actions.

Amid such uncertainty, we continue to favour an allocation to the quality factor. We define quality as an all-weather core exposure in equity portfolios. At WisdomTree, we include stable, profitable businesses in our definition of quality. These businesses offer defensiveness in drawdowns but also possess the ability to capture market rebounds—a pattern we may see in the year ahead.



Source: Bloomberg, WisdomTree. Data as of 30th September 2002 to 31st December 2021. Using Days data in US dollars. Calculations are in USD. You cannot invest in an index. Above numbers include back tested data. **Historical performance is not an indication of future performance, and any investments may go down in value.** Factors here are using MSCI World based factors.

Typically, businesses that get characterised as 'quality' also tend to have lower levels of leverage. Thus, in periods of rising short-term rates, their risk of default is also low compared to companies with more speculative prospects (see figure 3 above). Often, such businesses also have strong pricing power, which helps defend margins from inflation.

When rates are on the rise and investors are turning towards bonds in search of yield, quality companies that offer dividends garner even more interest. They combine elements of 'value' with the balance of quality.

Conclusion

Tightening monetary policy doesn't necessarily preclude equities from having a good year. If 2022 is the year when COVID restrictions around the world come to an end, this would give a much-needed boost to risk assets. With growth stocks having priced in a very hawkish Fed at the start of the year, any signs of dovishness would prove to be a bonus. A diversified exposure across quality, value, and growth can help investors add resilience to their portfolios in the year ahead.



Fixed Income Outlook

Inflation is leading the way to new opportunities in bond markets in 2022

21

23

- 1 Theme one: Pivot towards more hawkish central bank policy as labour markets remain strong and data supports the shift
- Theme two: Persistent high inflation coupled with less accommodative policy is leading to rising bond yields
- Theme three: Relative value opportunities between bond asset classes will become increasingly more important

24

Fixed income markets have been monitoring inflation and central bank policy very closely since the onset of the COVID pandemic. While fixed income closed 2021 with high quality bonds generally underperforming risk assets, the start of 2022 has been marked by risk-off sentiment and less accommodative monetary policy. This has led to bond markets correcting from historically low yield levels. Higher levels of yield across the credit spectrum could create new opportunities in bond markets for asset classes that are more resilient to rising yields.

Our fixed income outlook for the coming year is shaped by three major drivers:

- 1. the pivot towards a more hawkish central bank policy is suggesting a tilt towards shorter duration exposures
- 2. persistent high inflation coupled with less accommodative policy is leading to rising bond yields
- 3. fundamentals will drive outperformance as bond markets correct from lower yield levels

We discussed these in our October 2021 outlook and noted that high inflation has led to central banks acting sooner than initially anticipated. In this piece we provide some key updates to the three major themes expected to drive bond markets in 2022.

Theme one: Pivot towards more hawkish central bank policy as labour markets remain strong and data supports the shift

We are seeing a repricing in bond markets led by central banks shifting to a more hawkish stance. Inflationary pressures have dealt a heavy hand to central banks globally with the Bank of England (BOE) leading the way with two rate hikes and the Federal Reserve (Fed) likely to hike in the March monetary policy meeting. Asset Purchase programmes, which have historically supported depressed bond yields, are being tapered and the bond world will continue to see some moves in bond yields throughout 2022.

We forecast US economic growth to continue¹, meanwhile tighter monetary policy is likely to lead to some pull back in growth, particularly in the residential real estate sector which has experienced strong price increases since the onset of the COVID pandemic.

Central banks are at different stages in the process of tackling persistent inflationary pressures. There continues to be a balancing act between reining in inflation and supporting the post-pandemic economic recovery, with added tensions around the Ukraine and Russia conflict driving further market jitters. While the start of the winter season led to a resurgence in COVID cases, hospitalisations appear to be at more manageable levels, which has helped support growth.

However, we see a persistent disparity in the mitigation approach across countries which has continued to put pressure on global supply chains.

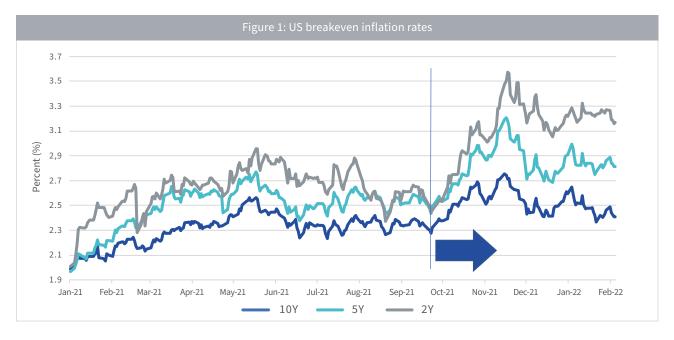
In Europe, we expect to continue seeing a divergence in growth between European Union (EU) member states given the structural differences between each of their respective economies. While the European Central Bank (ECB) continues to maintain a more accommodative monetary policy stance compared to the US and the UK, sustained inflationary pressures have led market participants to expect the ECB to shift towards hiking rates in the second half of 2022. We believe this will be dependent on economic and inflationary pressures in the months ahead.

Compared to past crises, a notable difference in the strength of the European recovery will be driven by the expansionary impact that the NextGenerationEU programme and the 2021-2027 long term budget, (one of the largest packages ever financed through the EU budget) will have in supporting longer-term growth prospects for the euro-area. It is aimed at reducing gaps between countries. We expect growth to continue unless exogenous factors driven by the turmoil in Russia and Ukraine exerts further strain on energy prices which in turn leads to a short-term slowdown in consumer demand.

¹ Source: Bloomberg, economic consensus indicates Gross Domestic Product of +3.8% for 2022, data as of 8 February 2020 using ECGDUS 22.

In the UK, we continue to expect supply chains bottlenecks to combine with complex business activity challenges due to new post Brexit cross-border rules, this is likely to place further upward pressure on inflation. Exacerbated by elevated energy inflation and the start of the rate hike cycle, household disposable income is likely to fall and put downward pressure on growth.

Bond markets can shed light on investors expectation for growth and inflation over the long-term and can serve as a barometer for economic recovery. If we focus on inflation expectations embedded in 10-year breakeven inflation rates for three key bond markets (US, Germany, and the UK), inflation expectations have moved higher since the fourth quarter of 2021. The most significant development since the publication of our outlook last year has been the shift in short-dated bond yields rising faster than anticipated. The breakeven inflation rate curve is usually relatively flat between different tenors across the maturity spectrum. Since the start of 2022, we have noticed a repricing of inflation expectations for the next two to five years. In figure 1, US breakeven inflation rates point to investor expectations for inflation remaining elevated over the period, with the highest levels expected over the next two years.



Source: Bloomberg, WisdomTree from 1 January 2021 to 4 February 2022. Breakeven inflation shows the embedded average inflation expectation over the course the next years as stated by the curve maturity e.g. 2 year, 5 years, or 10 years. Breakeven inflation is calculated by subtracting real yields from nominal yields. For example, Nominal 10-year bond yields minus real 10-year bond yields gives 10-year breakeven inflation. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Conclusion

The economic recovery in 2022 will be slower compared to 2021 (base effect matters) and choppy due to high inflation and a more hawkish stance from central banks. Last year's The risk-on attitude seen last year could dissipate with heightened market uncertainty due to the downward pressure on corporate margins coming from higher production and debt servicing costs, combined with weakened household spending capabilities.

We would consider portfolio segmentation by positioning short duration in rate-sensitive assets, particularly in US-denominated bonds whilst tactically adding high-quality mid to long duration bond exposures for volatility mitigation in multi-asset portfolios.

Navigating complex bond markets with a tactical barbell approach can help balance the duration risk profiles of portfolios. Consider credit and duration barbell strategies in selective cases.

Theme two: Persistent high inflation coupled with less accommodative policy is leading to rising bond yields

Bond markets were heavily swayed by the inflation fear tantrum in 2021 and persistent inflation has led to a continued rise in bond yields since the start of 2022. The high correlation between the shifts noted across government bond yield curves is accelerating in the first few months of this year. Tapering of asset purchase programmes is a rhetoric noted in the US, UK and Eurozone and will likely continue to drive bond yields higher compared to 2021 levels.

The potential for higher inflation globally remains in place with a persistent upward trend in the prices of oil and other commodities. Some easing can be envisaged in supply chain and shipping rates, but this is unlikely to be enough to invert the inflationary trend anytime soon.

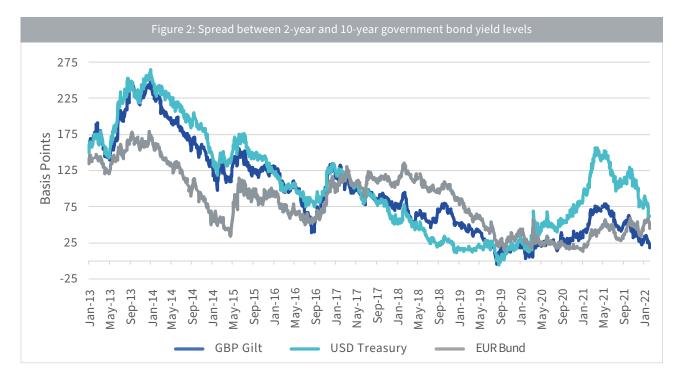
Bond investors remain very sensitive to inflation prints and any central bank monetary policy action. The outlook for central bank monetary policy action has become more and more hawkish as they try to tame the rampant production and consumer price inflation.

Historically, the market pricing of the term risk between the 2-year to 10-year part of the yield curve in periods of persistent rising inflation expectations would reflect a steepening of the yield curve. That expectation has not materialised as the inflation prints since Q4 2021 have been at higher than anticipated levels (as seen in figure 2). The market adjusted their expectations in term risk as a sign of anticipation of a more imminent change of monetary policy than previously expected. The chart shows the most drastic adjustment in the term spread of the US yield curve from the end of 2021 as the Fed made a hawkish turn in December 2021 with markets now pricing in a March² rate hike.

In 2021, we noted that the 10-year part of the sovereign debt yield curve looked vulnerable to inflationary pressures. That view remains true with 10-year yields rising significantly since the end of the year. We believe rising bond yields remain a key concern which leads us to prefer a more cautious approach to interest rate risk by reducing the overall portfolio duration exposures using dynamic duration management strategies. Investors should focus on surging prices in energy and broader commodities as they are among the main causes of the persistent upward inflationary pressures.

Unlike in the summer and fall of 2021, when European inflation was less of a threat due to structural differences in labour market and consumer spending behaviour, the European recovery has accelerated. In the months ahead, we expect the ECB to adjust their stance on monetary policy potentially moving towards a more hawkish tilt near the end of 2022.

² Source: Bloomberg, Fed funds futures as of 4 February 2022.



Source: Bloomberg, WisdomTree, from 1 January 2013 to 4 February 2022. Term Spreads is defined as the difference in yield between 10-year bonds and 2-year bonds for a given yield curve. EUR Bund refers to German government bonds, GBP Gilt refers to UK government bonds and USD Treasury refers to US government bonds. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Conclusion

Bond markets will remain laser focused on upward inflationary pressures in the near-term. Consider a more defensive duration exposure of five years and below using dynamic duration management strategies. Exposure to high quality bonds have historically produced some mitigation effects during periods of severe equity market corrections and this type of exposure could serve as part of a dynamic duration management approach.

In Europe, the tapering of the pandemic emergency purchase programme (PEPP) at the end of March 2022 could negatively impact peripheral government bonds which have benefitted from the support of the ECB. The market will be looking for temporary assistance beyond PEPP during this transitionary period.

Theme three: Relative value opportunities between bond asset classes will become increasingly more important

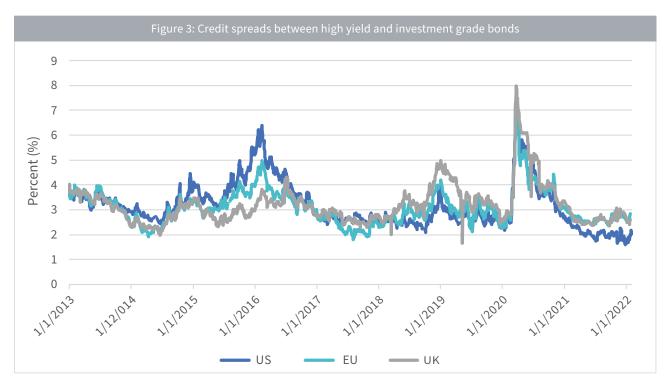
As the path to economic recovery remains choppy, bond investors will need to find a balance between the fundamental strength and yield potential of different bond asset classes when making asset allocation decisions in 2022. Credit spreads between high yield and investment grade bonds, in most major bond markets, remain tight relative to long term historical levels (as seen in Figure 3). We believe fundamental strength will play a role into which bond asset classes will outperform in 2022, as investors are increasingly seeking exposure to pockets of the bond market that are more resilient to rising bond yields and economic uncertainty.

Banks remain a centrepiece of the economic recovery as central banks and governments continue to rely on the banking system to maintain a smooth transfer of capital and support for both households and businesses amid the pandemic. Considering the resilience of different sectors, a higher bond yield environment may support bank profitability. The banking system has exhibited flexibility during the pandemic. Meanwhile the yield enhancement available by investing in the subordinated instruments of banks', like AT1 CoCos, is an example of a pocket of the market that has shown resilience to rising bond yields and economic uncertainty.

This can be evidenced by AT1 CoCos³ providing an annual total return of +4.26% since the onset of the COVID pandemic, outperforming European high yield which exhibited +2.23% annualised total return and European investment grade bonds which had an annualised total return of -1.26% over the same period^[4].

In a rising yield environment, we are likely to see investors shift towards holdings where issuers have stronger credit fundamentals. Given the stronger credit quality of bank issuers within the AT1 CoCo market compared to profile of European high yield issuers, we could see continued support for AT1 CoCos in 2022 as investors adjust the credit profiles within their portfolios. The asset class may also find demand from investors interested in the comparatively shorter duration exposure and yield enhancement relative to other segments of the bond market.

Elsewhere in the portfolio, high quality bond exposures, combined with a shorter duration than recent past, can help balance the equity risk exposure and will continue to find a place in diversified portfolios.



Source: Bloomberg, WisdomTree from 1 January 2013 to 4 February 2022. *Credit spread is represented using the option adjusted spread for high yield cash bonds minus investment grade cash bonds for each respective region. **Historical performance is not an indication of future performance, and any investments may go down in value.**

Conclusion

While the current economic environment remains generally accommodative, we believe that we are reaching a turning point in central bank policy which may lead to rising borrowing costs. Companies with stronger fundamentals will be better positioned to handle higher borrowing costs over time. Fundamentals will become increasingly important in 2022 and beyond..

Consider relative value positioning to gain yield enhancement in pockets of the markets demonstrating fundamental strength. We could also continue to see a rotation into assets that are more resilient to rising bond yields. Consider a credit barbell strategy to balance the risk profile of portfolios allocating to risk assets in the short end and high-quality exposures in the medium-long end of the yield curve.

³AT1 CoCos universe represented by the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index (EUR) (ticker: IBXXCCL7).

⁴ Period includes 28 February 2020 to 4 February 2022, AT1 CoCos universe represented by the iBoxx Contingent Convertible Liquid Developed Europe AT1 Index (ticker: IBXXCLT), European high yield represented by the iBoxx EUR liquid high yield index (ticker: IBOXXMJA) and European Investment Grade Bond represented by the iBoxx EUR liquid Corporates Large Cap index (ticker: IBXXELAT)



Crypto Outlook

layer-1 platforms continue?

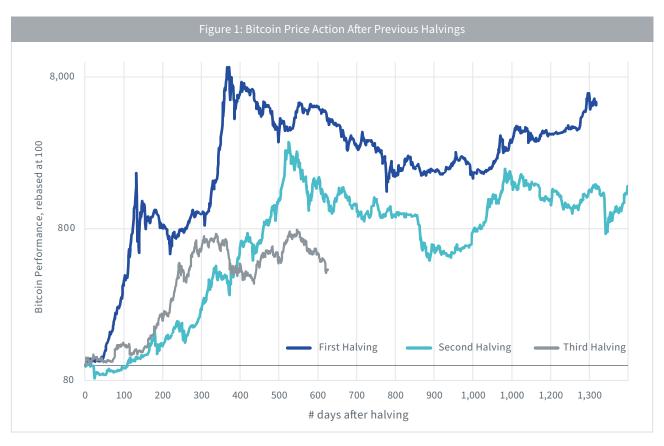
What are the catalysts for Crypto in 2022?

01	A well funded industry which will continue to diversify, solidify and mature	27	05	The growing popularity of the Metaverse and NFTs	31
02	Macro backdrop and institutional adoption	28		Regulation could lead to a shift in the wind	32
03	Where is Ethereum 2.0?	29	07	Conclusion	32
04	Will the battle between alternative	30			

A well-funded industry, which will continue to diversify, solidify and mature

After a strong year in 2021, the crypto market has been caught up by the macro backdrop and most crypto assets now sit quite a below their highest valuations¹ in 2021. With high levels of inflation in most developed economies, central banks appear likely to tighten monetary policies quite significantly. The US Federal Reserve (the Fed) has hinted at multiple rate hikes in 2022, and market expectations for the number of such hikes in 2022 keep rising. In these circumstances, stocks have been suffering since the beginning of the year, with some indices entering correction territory. The COVID crash of March 2020 proved that the crypto market can be very sensitive to macro developments, and the market downturn we have been experiencing seems to prove it once more.

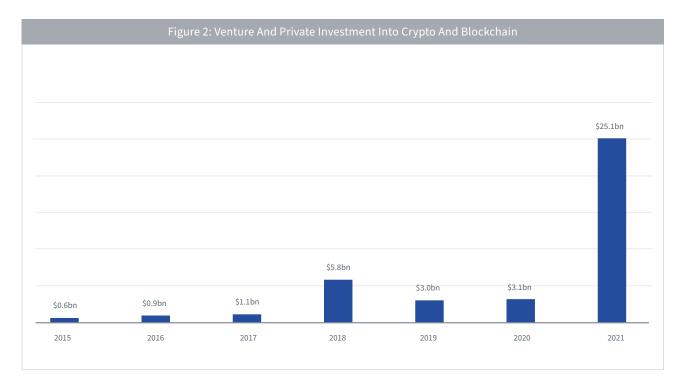
This sensitivity might have been exacerbated by the narrative around Bitcoin's halving cycles. Roughly every four years, Bitcoin's block subsidy, the number of bitcoins created with each new validated block, is cut in half. Each of the three occurrences of such an event have been followed by a strong bull market of roughly a year and a half, followed by a deep correction. The dynamics of such price cycles, if they do exist, are not known. However, as this narrative has been around for years in the crypto space, this may have become a self-fulfilling prophecy.



Source: WisdomTree, Bloomberg. Historical performance is not an indication of future performance and any investments may go down in value.

 $^{^{\}rm 1}$ Bitcoin previous all-time high: \$69,087 on the 10th of November 2021

But this should not obscure the good position in which the crypto space sits today. The industry is now more diverse than ever, with well-funding companies entering later stages of their development. In 2021, the amount of venture capital (VC) investment into crypto firms exceeded the previous six years combined, totalling \$25bn².



Source: The Block

This trend is likely to continue in 2022. Large blockchain VC funds like Paradigm or Andreessen Horowitz (a16z) have both recently launched new funds at over \$2 billion each³. There are increasing amounts of capital supporting VCs like Dragonfly Capital, Coinbase Ventures, Solana Ventures, Jump Capital, Alameda Research, Binance Labs, Pantera Capital, and so on.

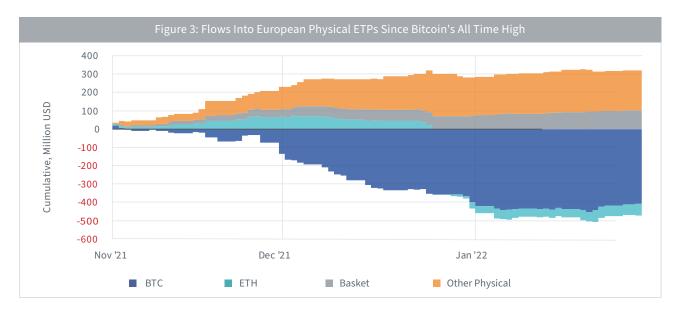
Macro backdrop and institutional adoption

The shifts we are seeing in the macro backdrop, with levels of inflation not seen in decades, and monetary tightening likely to be faster and stronger than previously expected, will probably prompt most institutional investors to undergo a deep review of their allocation. We are already seeing this with significant inflows of money into commodity exchange-traded funds (ETFs) over the past year for example.

In the face of a grimmer outlook for equities, crypto might look like a good alternative to generate returns in portfolios, especially at current price levels. Interestingly, bitcoin has been the only asset to see significant outflows in European physical exchange-traded products (ETPs) since the price peak on the 9th November 2021. Flows to basket ETPs and altcoins (excl. ether) have continued to grow, showing that some investors have been taking this downturn as an opportunity to build or grow their crypto allocation.

² Source: The Block

 $^{^3\,}https://blockworks.co/2021-crypto-vc-funding-tops-30b-market-is-superheated/\#:\sim:text=8\%20by\%20PitchBook., to\%20research\%20by\%20Crypto\%20Head$



Source: Bloomberg. 09 November 2021 to 02 February 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

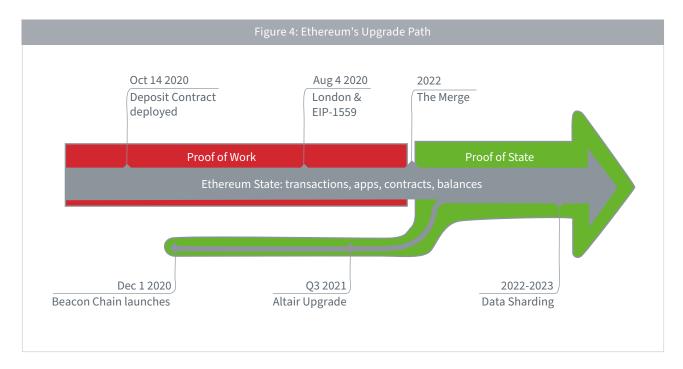
In that context, we still expect institutional interest to continue growing, a trend that we have been witnessing for more than two years, and which has been accelerating. Furthermore, we think interest will continue to grow beyond bitcoin, as more and more investors realise that crypto is much more than bitcoin. The space is highly heterogeneous, with very different assets across the board, offering a vast array of diverse investment opportunities.

Where is Ethereum 2.0?

In our <u>October 2021 outlook</u>, we outlined the expected changes to the Ethereum protocol, and why the implementation of things such as Proof-of-Stake (PoS) or sharding would matter. So where are we six months later?

It happens there will never be an Ethereum 2.0. Not because the roadmap has been abandoned, but rather because Ethereum 2.0 has undergone a rebranding⁴, with the term 'Ethereum 2.0' replaced by 'consensus layer'. Effectively, this doesn't change the prospects for the network in a meaningful way. The roadmap hasn't drastically changed. Sharding and PoS are still in the pipeline, with PoS planned for 2022, and sharding at a later stage, maybe by the end of 2022 or next year.

⁴ https://blog.ethereum.org/2022/01/24/the-great-eth2-renaming/

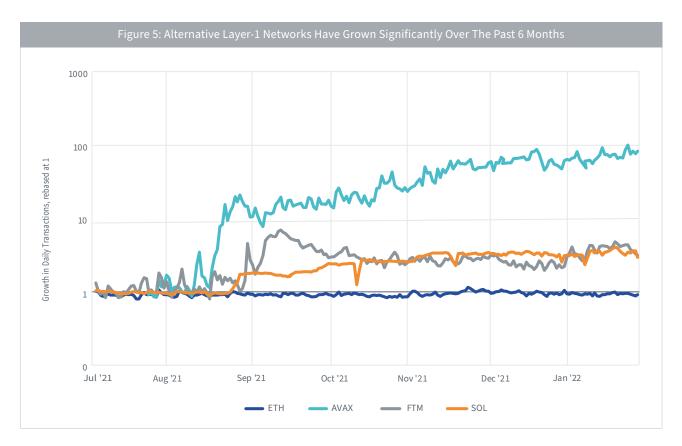


Source: Ethereum.org

So 2022 should still see interesting developments for Ethereum, which will be key to assessing the future of the platform. Ethereum has been a victim of its own success, which exposed scalability issues and rose the cost of using the platform. Overcoming these limitations will be crucial in keeping the lead, while other layer-1 platforms have experienced significant successes in 2021 and are increasingly looking like viable alternatives.

Will the battle between alternative layer-1 platforms continue?

Persistently high transaction fees on Ethereum pushed users to find alternatives during 2021. These alternative 'layer-1' networks included Solana, Avalanche, Fantom and others. This increased demand can be seen in terms of increasing transaction counts and active addresses on these networks. The open questions for 2022 are whether these networks will be able to continue this growth in user activity, whether Ethereum will be able to reclaim some of its market share, and whether these alternative layer-1 networks will act as complements or substitutes for one another?



Source: ftmscan.com, snowtrace.io, bitquery.io. As of 31 January 2022. **Historical performance is not an indication of future performance and any investments may go down in value.**

The first few months of 2022 have seen slight declines in user activity, which may be more a reflection of overall market conditions than the continued trajectory for the rest of the year. The Ethereum network is meant to shift to the 'consensus layer' later in 2022. If the technical implementations are made correctly, the transaction throughput of the network should increase, which would have an impact on the transaction fee amounts. Greater interoperability between networks should decrease the barrier to users transitioning to other networks. By contrast, unique use cases that are exclusive to a network should attract and retain users. Changes in demand as a consequence of these dynamics could have an impact on price.

The growing popularity of the Metaverse and NFTs

Non-fungible tokens (NFTs) grew in popularity in 2021, unlocking new ways for content creators to monetise their work through social tokens, digital art pieces, collectibles, or in-game items. This can bring disruptive evolution to monetisation in areas like ticketing, music, domain names, fashion, luxury goods and so on. In 2021 alone, the NFTs/gaming sector received ~\$5 billion in VC funding across 406 deals, the third highest amongst crypto sectors⁵.

We expect NFTs and the metaverse to continue to generate interest in 2022. The play-to-earn model is likely to continue to grow in popularity this year, albeit the business model needs to find a way to self-sustain and generate revenue rather than funding players' rewards with raised capital. The metaverse is coming, but slowly. With Facebook repositioned to enter the metaverse, some existing development such as Augmented Reality (AR), Virtual Reality (VR) and social media platforms will act as the foundation for the metaverse to be built upon. This will not be a quick process, both from the technological side and the social adoption/acceptance side, but 2022 might be a key year for the development of the metaverse infrastructure.

⁵https://www.theblockcrypto.com/post/127723/the-block-research-2021-digital-asset-outlook-report

Regulation could lead to a shift in the wind

A major point of focus for regulation in 2021 was stablecoins issuance. Stablecoins, crypto currencies that are pegged to another asset, such as the US dollar, have grown exponentially to over \$175bn and now represent 9.0% of the entire crypto market valuation. There is less debate about stablecoins being a type of security, and the regulators started to identify the potential systemic risk this could cause, in and outside crypto, on global markets. Regulators have moved to clarify their stance and issue recommendations concerning stablecoins. In November 2021, the President's Working Group on Financial Markets, along with the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation, outlined regulatory recommendations, in a milestone report on regulating stablecoins, and set the stage for further rulemaking in 2022.

Another major direction is on decentralised finance (DeFi), where financial services and products are provided on blockchainenabled platforms. Several industry proposals⁷ have been put forward on how to best identify financial instruments, mitigate counterparty risk and credit risk, capital requirements, etc. One example, from Coinbase⁸, laid out the broad strokes.

Regulation for other asset classes usually takes on a top-down approach, meaning regulators set out a framework and a detailed legislation for the industry to follow. Crypto and its decentralised nature seems to take on a more bottom-up approach, where crypto projects, firms and influential individuals team up to put forward their proposals on how crypto should be regulated. Between the five major crypto policy coalitions today, there have been several high-quality self-initiated proposals put forward, and this trend is likely to continue in 2022.

On environmental, social and governance (ESG), several countries and governing bodies have cited the high energy consumption associated with crypto mining. Countries like China, Russia, and Kazakhstan have all taken measures to prohibit or regulate bitcoin mining, ranging from a blanket ban on all crypto-related activities to specifying the requirements related to bitcoin mining. With the high energy price environment globally, ESG will continue to be a central discussion point for crypto among regulators in 2022. In January 2022, the House Energy and Commerce Oversight Subcommittee in the US began hearings on the energy impact of blockchains. This could lead to further scrutiny from other regulatory bodies on this topic.both are themes that have been going on for months and have progressed significantly, but for which much of the progress still lies ahead.

Conclusion

We expect 2022 to be an exciting year for the crypto space. Strong funding in 2021 should pave the way to an ever more diverse, but also importantly more mature eco-system. Trendy areas such as NFTs, the metaverse and gaming will probably focus a lot of the attention. In the meantime, we expect to see a key battle between layer-1 platforms in the race to scalability. We believe that the elements that could make or break the year for the crypto market still include regulation and institutional adoption, both are themes that have been going on for months and have progressed significantly, but for which much of the progress still lies ahead.

 $\underline{\text{https://blog.coinbase.com/digital-asset-policy-proposal-safeguarding-americas-financial-leadership-ce} \\ \underline{\text{https://blog.coinbase.com/digital-asset-policy-proposal-safeguarding-americas-financial-leadership-ce} \\ \underline{\text{https://blog.coinbase.coinbase.com/digital-asset-policy-proposal-safeguarding-americas-financial-leadership-ce} \\ \underline{\text{https://blog.coinbase.coinbase.com/digital-asset-policy-proposal-safeguarding-americas-financial-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-proposal-asset-policy-p$

⁶ https://coinmarketcap.com/view/stablecoin//

 $^{^{7} \}underline{\text{https://cointelegraph.com/news/how-should-defi-be-regulated-a-european-approach-to-decentralization}}$

⁸ https://github.com/coinbase/digital-asset-policy-proposal

⁹Coin Centre; Blockchain Association; The Crypto Council for Innovation; a16z Policy Team, The Chamber of Digital Commerce



Model Portfolios

Marrying long-term potential and tactical opportunities

O1 A time to be selective in equities 35 O3 The commodity renaissance 38
O2 Inflation is leading the way to 37 new opportunities

Our illustrative model portfolios aim to combine the performance potential of active approaches with the discipline of passive strategies. These portfolios seek to offer the potential for competitive risk-adjusted performance versus appropriate passive benchmarks without the higher costs associated with traditional active management. These portfolios capture our long-term asset allocation philosophy, i.e. academically driven and focused on diversification, but allow for dynamic tilts as the market conditions change. The key is to find the right balance between a portfolio that fits the current market environment and a portfolio that can handle and benefit from changes in circumstances and unexpected events.

Our outlook for 2022 is driven across asset classes by three overarching themes. The model portfolios in this section are, therefore, positioned in line with those themes:

- + protect against elevated inflation
- + protect against and benefit from the Federal Reserve's (Fed) tightening cycle
- + invest in the future and the energy transition in particular

This section introduces three model portfolios with three increasing levels of risk:

- + the Illustrative Conservative Portfolio invests most of its assets in low volatility assets and aims to deliver some growth with controlled risks to investors
- + the Illustrative Balanced Portfolio invests about half of its assets in fixed income and half in riskier assets. It aims to deliver a balanced risk-return profile to investors
- + the Illustrative Growth Portfolio invests most of its assets into higher-growth/higher-risk assets. However, the portfolio aims to improve diversification to limit those risks

While the illustrative model portfolios are built with EUR-based investors in mind, the equity and alternative sleeve would not change significantly for other base currencies.

Figure 1: Three WisdomTree Illustrative Model Portfolios							
ETF Name	Category	ISIN	TER	Illustrative Conservative Portfolio	Illustrative Balanced Portfolio	Illustrative Aggressive Portfolio	
WisdomTree Global Quality Dividend Growth UCITS ETF	Global Equity	IE00BZ56SW52	38	13.0%	16.0%	19.0%	
WisdomTree Europe Equity Income UCITS ETF	Europe Equity	IE00BQZJBX31	29	3.0%	5.25%	7.5%	
WisdomTree Japan Equity UCITS ETF	Japan Equity	IE00BVXC4854	48	1.5%	3.0%	4.0%	
WisdomTree US Equity Income UCITS ETF	US Equity	IE00BQZJBQ63	29	2.5%	3.5%	4.5%	
WisdomTree EM ex-State-Owned Enterprises ESG Screened UCITS ETF	Emerging Equity	IE00BM9TSP27	32		2.0%	3.0%	
ICBCCS WisdomTree S&P China 500 ETF	Emerging Equity	LU1440654330	55		2.0%	3.0%	
WisdomTree Emerging Markets Equity Income UCITS ETF	Emerging Equity	IE00BQQ3Q067	46		2.0%	3.0%	
WisdomTree EM Small Cap Dividend UCITS ETF	Emerging Equity	IE00BQZJBM26	54			3.0%	

Figure 1: Three WisdomTree Illustrative Model Portfolios							
ETF Name	Category	ISIN	TER	Illustrative Conservative Portfolio	Illustrative Balanced Portfolio	Illustrative Aggressive Portfolio	
WisdomTree Battery Solutions UCITS ETF	Thematic	IE00BKLF1R75	40		1.3%	2.5%	
WisdomTree Artificial Intelligence UCITS ETF	Thematic	IE00BDVPNG13	40		1.3%	2.5%	
WisdomTree Cybersecurity UCITS ETF	Thematic	IE00BLPK3577	45		1.3%	2.5%	
WisdomTree Cloud Computing UCITS ETF	Thematic	IE00BJGWQN72	40		1.3%	2.5%	
WisdomTree BioRevolution UCITS ETF	Thematic	IE00008KMPM1	45		1.3%	2.5%	
WisdomTree US Floating Rate Bond UCITS ETF	USD Fixed Income	IE00BJFN5P63	15	3.0%	3.0%	1.0%	
WisdomTree European Union Bond UCITS ETF	EUR Fixed Income	IE00BMXWRM76	16	15.0%	8.0%	4.0%	
WisdomTree EUR Aggregate Bond ESG Enhanced Yield UCITS ETF	EUR Fixed Income	IE00BD49R912	18	15.0%	8.0%	2.0%	
iShares EUR Corp Bond 0-3yr ESG UCITS ETF	EUR Fixed Income	IE00BYZTVV78	15	20.0%	10.0%	2.0%	
iShares US Aggregate Bond UCITS ETF	USD Fixed Income	IE00B44CGS96	25	5.0%	3.0%		
Vanguard USD Corporate 1-3 Year bond UCITS ETF	USD Fixed Income	IE00BGYWSV06	9	13.0%	6.0%	2.0%	
WisdomTree AT1 CoCo Bonds UCITS ETF	Global Fixed Income	IE00BZ0XVF52	39	5.0%	7.0%	9.0%	
WisdomTree Core Physical Gold	Gold	JE00BN2CJ301	12	4.0%	4.0%	3.0%	
WisdomTree Enhanced Commodity UCITS ETF	Commodity	IE00BYMLZY74	35		6.5%	9.5%	
WisdomTree Industrial Metals Enhanced	Commodity	IE00BF4TWC33	40		2.0%	4.0%	
WisdomTree Carbon	Commodity	JE00BP2PWW32	35		1.0%	1.0%	
WisdomTree Crypto Market	Digital Assets	GB00BMTP1626	145		1.5%	3.0%	
	Aggregated MER			20.8	30.2	38.7	

Source: WisdomTree. As of 31st January 2022.

A time to be selective in equities

As discussed in our equity outlook, the illustrative equity sub-portfolio is built around three main directions.

First, a significant portion of the assets is geared towards value equities. High inflation and increasing interest rates can be a tricky period for equities. However, in that environment, cheap dividend-paying companies tend to do well. Their implied duration is shorter, since future cash flows tend to sit mostly in the near future, limiting the effect of the rate increases on the discount factor. Value stocks also tend to exhibit high pricing power, allowing them to transfer increasing production costs to their customer. The portfolio invests in:

- + European value stocks through the WisdomTree Europe Equity Income UCTIS ETF
- + US value stocks through the WisdomTree US Equity Income UCTIS ETF
- + Emerging Markets value stocks through the WisdomTree Emerging Markets Equity Income UCTIS ETF and Wisdom Tree Emerging Markets Small Cap Dividend UCTIS ETF

Second, a large proportion of the assets are invested into a core, strategic equity exposure, the WisdomTree Global Quality Dividend Growth UCITS ETF. This strategy leverages the all-weather behaviour of highly profitable dividend growing companies. The objective is to offer a geographically diversified core exposure that can still benefit from the remaining growth available to investors and withstand the increased market volatility expected this year. This ETF (exchange-traded fund) is exposed to quality and value stocks simultaneously through dividend growing companies, balancing short-term opportunities and long-term growth potential.

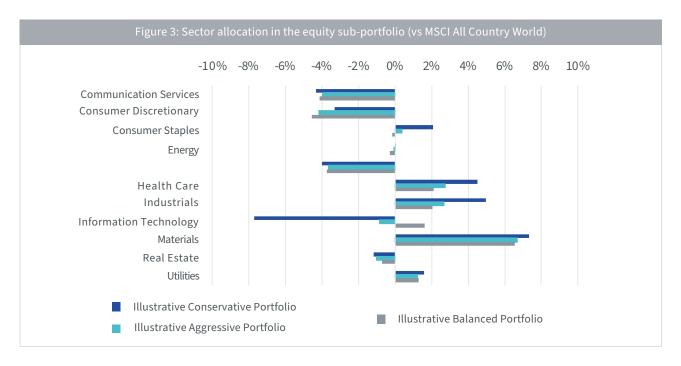
Finally, the portfolios are exposed to long-term structural growth through a diversified basket of thematic ETFs. The objective is to tap into long-term investment opportunities arising from structural changes in societies and our way of life, such as the energy transition, using concentrated, expert-driven strategies. Each thematic ETF in the portfolio is backed by an expert in that particular field who can select the companies with the most to gain from the theme's wider adoption. In line with our recent research on thematic investments1, this is a conviction-based part of the portfolio with long-term growth potential, however, short-term volatility can create attractive entry points.

Figure 2: Fundamental characteristics of the equity sub-portfolio								
	Illustrative Conservative Portfolio	Illustrative Balanced Portfolio	Illustrative Growth Portfolio	MSCI AC World				
Weight	20.0%	40.0%	59.5%					
Return on Equity	23.0	16.9	14.9	13.5				
Return on Asset	7.2	4.7	3.9	2.1				
Price to Earnings	15.6	16.4	16.5	20.2				
Price to Book	3.0	2.6	2.5	3.1				
Forward Dividend Yield	3.2%	3.0%	3.0%	2.0%				
Country Allocation								
Developed Markets	100.0%	83.3%	77.5%	87.8%				
Emerging Markets	0.0%	16.7%	22.5%	12.2%				
US	46.2%	39.7%	37.9%	58.9%				
Europe	37.7%	29.0%	26.3%	17.4%				
Japan	10.8%	10.3%	9.4%	5.5%				
Market Cap Split								
Large Cap	88.4%	78.9%	72.3%	94.2%				
Mid Cap	10.2%	16.8%	19.3%	5.7%				
Small Cap	1.4%	4.3%	8.4%	0.1%				

Source: WisdomTree, Factset, Bloomberg. As of 31st January 2022.

Overall, our equity sub-portfolio tends to be underweight US and overweight Europe, Japan and e merging markets when compared to a benchmark like the MSCI AC World. Our objective is to overweight economies that are less advanced in the business cycle and that can therefore benefit from higher growth.

The portfolio's fundamentals are clearly pointing to a value bias with forward price to earnings ratios almost 4 points below the benchmark. However, the fundamentals remain strong, with increased return on equity and return on assets compared to the same benchmark. Sector-wise, the portfolios are overweight materials, industrials, healthcare and utilities, in line with our quality value positioning.



Source: WisdomTree, Factset, Bloomberg. As of 31st August 2021.

It is worth noting that in the equity sleeve, every ETF has an ESG (Environmental, Social, Governance)-screen, following WisdomTree's principle-based and activity-based exclusions screens.

Inflation is leading the way to new opportunities

The fixed income story is driven by the inflation renaissance and the narrative imposed by the Fed. The increasingly hawkish tone from the Fed and many central bank's worldwide, while easing somewhat the yield drought, has created many issues for fixed income investors. Looking at our model portfolios, we address these issues using multiple techniques:

- + duration barbell, i.e. mixing low and high duration exposures, to improve risk-return profiles and, most importantly, lowering the duration of the portfolio
- + credit barbell, i.e. mixing extremes within the credit spectrum such as sovereign bonds and highly diversifying, higher yielding assets like Additional Tier-1 contingent convertible (AT1 CoCo) bonds
- + enhanced yield strategies, i.e. sophisticated, smart-beta type strategies that aim to improve the yield of the benchmark while controlling for other variables such as duration or country/sector weights

The fixed income bucket is structured differently in the Illustrative Growth Portfolio than in the other portfolios. The Illustrative Growth Portfolio, owing to its low allocation to fixed income assets, leans into the credit barbell approach. It invests in:

- + highly rated supranational bonds with the WisdomTree European Union Bond UCITS ETF to offer some risk mitigation, due to medium to high duration AAA bonds
- + low duration, higher-yielding exposure with the AT1 CoCo asset class using the WisdomTree AT1 CoCo Bonds UCITS ETF and short-duration corporate bonds in EUR and USD

This combination delivers an example portfolio with a yield to worst of 2.21% and a duration of 5.2. This compares quite favourably to the Bloomberg EUR Aggregate index that yields -0.37% with a duration of 7.6.

The Illustrative Conservative and Balanced portfolios combine those same exposures with low duration EUR and USD exposure:

- + the low duration EUR exposure is built around the iShares EUR Corp Bond 0-3yr ESG UCITS ETF combined with an enhanced EUR aggregate exposure creating a duration barbell strategy
- + the low duration USD exposure is built around the iShares US Aggregate Bond UCITS ETF combined with two low duration exposures, the Vanguard USD Corporate 1-3 year bond UCITS ETF and the WisdomTree US Floating Rate Bond UCITS ETF

This approach delivers a lower duration of around 5 with increased yields of 0.96% and 1.25%, respectively, in both portfolios. This is compared to 7.6 duration and 0.37% yield for the Bloomberg EUR Aggregate Index.

Figure 3: Fundamental characteristics of the fixed income sub-portfolio									
	Bloomberg EUR Aggregate Index								
Weight	76.0%	45.0%	20.0%						
Return on Equity	0.96%	1.25%	2.21%	0.37%					
Return on Asset	5.5	5.3	5.2	7.6					

Source: WisdomTree, Factset, Bloomberg. As of 31st January 2022.

It is worth noting that in the fixed income sleeve, many ETFs are ESG-screened. The WisdomTree EUR Aggregate Bond ESG Enhanced Yield UCITS ETF and WisdomTree AT1 CoCo Bonds UCITS ETF follow the WisdomTree principle-based and activity-based exclusion screens. The WisdomTree European Union Bond UCITS ETF gains exposure to social-linked bonds with green bond issuance expected to rise under the NextGenerationEU programme¹.

The commodity renaissance

The persistence of the inflation surprise indicates that most analysts haven't fully appreciated the sticky nature of the supply-side shocks. In such an environment, broad commodities are at the top of the list of assets to be considered. Broad commodities are a natural inflation hedge and a supply chain distruption hedge. Over the last year, WisdomTree has conducted in-depth research on the potential advantages of investin The persistence of the inflation surprise indicates that most analysts haven't fully appreciated the sticky nature of the supply-side shocks. In such an environment, broad commodities are at the top of the list of assets to be considered. Broad commodities are a natural inflation hedge and a supply chain distruption hedge. Over the last year, WisdomTree has conducted in-depth research on the potential advantages of investing in broad commodities in a multi-asset portfolio². Their historical inflation hedging properties are unmatched by other assets.

All three portfolios use gold as an inflation hedge and diversifier. In our Illustrative Balanced and Growth portfolios, we increased the weight of the WisdomTree Enhanced Commodity UCITS ETF to provide inflation hedging and increase the diversification in the portfolios. Instead of using a commodity benchmark like the Bloomberg Commodity Index, we use a second-generation index that uses a systematic strategy to reduce the roll drag in the strategy and improve the performance. Historically, the index tracked by the ETF would have outperformed the benchmark by 5.3% per year since May 2001². For some investors, an investment into broad commodities ex-agriculture might be preferable. For those, this ETF can be replaced by the WisdomTree Enhanced Commodity ex-Agriculture UCITS ETF. It is also tracking a second-generation commodity index with roll yield optimisation.

¹ The Next Generation EU (NGEU) fund is a European Union economic recovery package to support member states adversely impacted by the COVID-19 pandemic.

² as of 31st January 2022

The portfolios also aim to benefit from the infrastructure demand boom and the green energy transition. While the Biden administration may not have been able to push through a US\$2trn infrastructure spend, both chambers of Congress approved a US\$1.2trn Infrastructure Bill. In December 2021, the European Commission unveiled Global Gateway—a plan to invest 300bn euros globally by 2027 in infrastructure, digital and climate projects. Those initiatives are driving the demand for commodities like industrial metals.

The green transition will also require large quantities of materials, many of them industrial metals. To tap into both those themes, we add WisdomTree Industrial Metals Enhanced an exchange-traded product (ETP) that tracks a second-generation commodity index (i.e. with roll yield optimisation) investing in copper, nickel, zinc and aluminium.

One last addition to the commodity sleeve is WisdomTree Carbon. The ETP allows investors to gain exposure to the performance of carbon emission allowances through a fully-collateralised exchange-traded commodity. Overall, greater environmental ambitions in Europe are likely to drive the price of Carbon higher. Furthermore, the performance of Carbon is quite decorrelated from the rest of the market. tracks a second-generation commodity index (i.e. with roll yield optimisation) investing in copper, nickel, zinc and aluminium.

The catalysts for Crypto in 2022

After a strong year in 2021, the crypto market has been caught up by the macro backdrop, and most crypto assets now sit more than 50% below their highest point in 2021. However, we expect institutional interest to continue growing and supporting the space. Furthermore, substantial funding in 2021 should pave the way to an ever more diverse but also importantly, more mature eco-system. Trendy areas such as non-fungible tokens (NFTs), the metaverse, and gaming will probably focus a lot of the attention. Overall, the space is highly heterogeneous, with a vast array of diverse investment opportunities that investors should capitalise on. To do so, the Illustrative Balanced and Growth Portfolios invest in WisdomTree Crypto Market, which provides a diversified approach to digital assets through seven coins: Bitcoin, Ethereum, Solana, Cardano, Polkadot, Litecoin, Bitcoin Cash. This gives the portfolio exposure to the crypto asset mega-capsbut also the up and coming layer-1 protocols that could drive growth coming forward.

- 1. Debru P. and Kuramshina E. "Thematic Universe: How to harness the power of megatrends in your portfolio?" 2021.
- 2. Debru P. and Shah N. "The Case for Investing in Broad Commodities" 2021.

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