

Deutsche Bank
Chief Investment Office



March 2021

CIO Insights



Signs of light
Economic and investment update



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Letter to Investors



Christian Nolting
Global CIO

Signs of light

There are signs of light in the world economy. By the second half of 2021, many individual economies will probably have opened up much more. But not all may be so fortunate and significant risks will remain.

With vaccine programmes well under way in many economies, lockdown restrictions should continue to be lifted and GDP growth will pick up steam in Q2 and Q3 2021 and beyond. This should be a year of big growth numbers: our forecast for U.S. GDP growth is 5% in 2021 as a whole – the highest since 1984, albeit off the back of a severe recession. We provide summary forecast tables on page 22.

Markets have, of course, long anticipated an economic recovery and accordingly had already started to move up in 2020. Markets are now focused on what the recovery might mean, particularly in terms of inflation – a potential impact we identified in our original 2021 economic outlook – **Tectonic shifts: Looking beyond COVID-19**. Other impacts identified by the outlook (e.g. debt escalation) are already evident and others are likely to come into focus as the year progresses. We summarise the 2021 impacts in Figure 1.

“We are not going back quickly to a pre-pandemic global economy, and the process of normalisation may not be smooth”

So we may be able to move back towards a pre-coronavirus environment, but not that quickly – and at the same time, the pandemic has exacerbated pre-existing trends, meaning that the process of normalisation may not be smooth. As we noted in our original 2021 outlook, the world has changed for individuals, corporates and governments. Investors might also bear in mind the old saying: “red sky at night, shepherd’s delight; red sky in the morning, shepherd’s warning”. Initial brightness around the dawn of resumed economic growth may indeed conceal rather rougher weather coming in behind. So after a period of strong growth, investors will ask two questions: what are the consequences of what has happened, and where do we go from here?

For an investor, this means having a portfolio that is capable of weathering storms ahead – by using strategic allocation and additional risk management where needed. As we have noted, markets always look ahead and while monetary and fiscal policy appears to have set the foundations for economic recovery, it is not clear how well it can maintain its second, unspoken objective of keeping financial markets stable, so that turbulence does not derail the recovery. Market volatility in February and March around changing inflation expectations showed the difficulties of doing this, and the possible limits to central bank power. Other temporary market wobbles may occur as the year progresses, either due to worries about the consequences of the coronavirus crisis (e.g. debt levels) or perhaps, to quite separate innovations (e.g. central bank digital currencies). Over the next few months, concerns may also focus on higher inflation expectations, fuelled by higher year-on-year rates of inflation, particularly given very low oil prices a year ago during the economic downturn. Effective risk management needs to be a part of any portfolio.

But an investor also needs to look beyond immediate market noise and identify longer-term investment themes: this rapidly-changing world will create many. We discuss likely developments in our key investment themes from page 17 onwards. As before, these can be placed in a framework of technology, demographics and sustaining the world we live in – what we call the TEDS triangle. These will remain relevant for investors long beyond 2021.

Christian Nolting

Christian Nolting
Global CIO

Instant Insights

2021 in a nutshell

- Strong economic growth in 2021 will not stop major structural change.
- The process of adjustment to the new reality may not be smooth.
- Portfolios need to address long-term trends as well as immediate challenges.



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Figure 1: 2021 investment impacts and key investment themes

Source: Deutsche Bank AG. Data as of March 2, 2021.



Macroeconomic and asset class update



GDP growth numbers will bounce back in 2021, but structural shifts in output may be more important. Inflation will be more a fear than a reality. Monetary policy tightening will be more talk than action. Continued fiscal generosity will eventually have a cost.

1	Economic growth Making up for lost time	5	Fixed income Still a hostage to policy
2	Inflation Volatility likely but medium-term outlook benign	6	Equities Sector preferences reassessed
3	Monetary policy Staying relatively loose	7	FX Macro drivers stage a comeback
4	Fiscal policy Still big questions to answer	8	Commodity prices Benefiting from rising demand

Eight key points

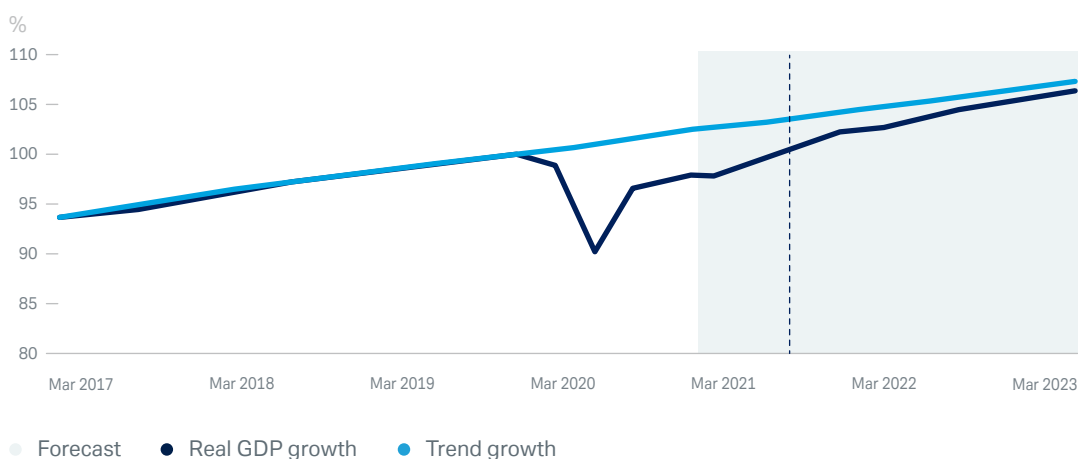
1. Economic growth: making up for lost time

2021 will be a year of big headline GDP growth numbers in the developed economies: we forecast the U.S. economy to expand by 5%, the Eurozone by 3.5% and even Japan to grow by 2.5%. Fiscal stimulus and progress to vaccination has led us to upgrade our U.S. 2021 growth forecast (from a previous 4.0%); but conversely, the Eurozone's prolonged lockdown woes have led to a forecast downgrade (from 5.5%).

Renewed growth will come as a relief to governments and populations – U.S. GDP will be back above pre-pandemic levels later this year, and will catch up with trend level of output (what it would have been in the absence of a pandemic) by 2023. But this will not be a simple return to normal. Labour markets may remain under strain, debt levels have increased (as we discuss below) and government policy priorities will be under scrutiny.

Figure 2: U.S. growth getting back in its stride

Source: Deutsche Bank AG. Data as of March 2, 2021.



In the emerging markets, growth numbers will be even bigger: China is expected to grow by 8.7% in 2021 (previous forecast 8.2%), and India by 11% (after a severe hit to the economy from coronavirus in 2020). Many emerging markets are well placed to benefit from increased U.S. demand and higher commodity prices, with Asia (one of our identified 2021 impacts) a key beneficiary. We discuss Asia further on page 14.

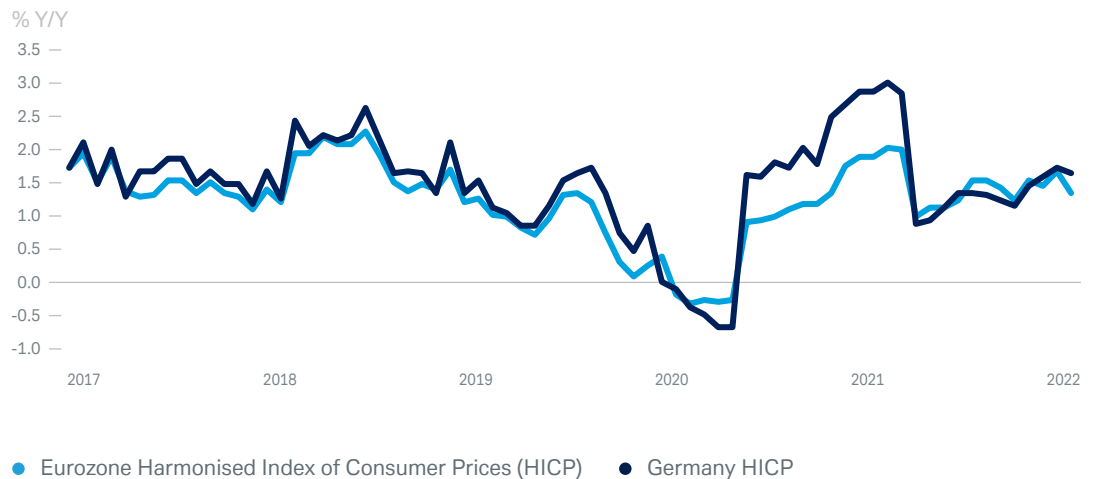
“Emerging markets growth will push ahead as developed markets get back on their feet”

2. Inflation: volatility likely but medium-term outlook benign

One fear is that economic recovery will be accompanied by much higher levels of inflation. U.S. inflation expectations are already running at over 2%, which is in marked contrast to much lower levels of inflation as measured by most indices. Central bankers have tried to play down the inflation threat, arguing that, with economies operating under capacity, the threat of inflation driven by aggregate demand is minimal. Our annual inflation forecasts for 2021 and 2022 reflect this generally benign view. But what we may continue to see are spikes in prices of certain commodities and goods as demand outstrips supply in the economic recovery during the reopening phase this year. Base effects may also push up headline rates of inflation temporarily during 2021 (due to very low oil prices a year ago). But the FOMC will continue to argue that any increase in inflation will be transitory, and markets will (just about) believe it. Inflationary pressure in the Eurozone will likely stay subdued even though temporary spikes because of base effects (e.g. via higher energy prices or the reversal of German VAT reduction) will likely occur this year. The ECB's low inflation projections reflect these considerations.

Figure 3: European inflation: expect more volatility

Source: DWS, Deutsche Bank AG. Data as of March 2, 2021.



Inflation does not look likely to be a major problem in most emerging markets, but with some exceptions. Central bank and macroeconomic policies will remain prudent and temporary spikes (as in India) will be managed down.

“Spikes in some inflation measures are unlikely to be long-lasting”

3. Monetary policy: staying relatively loose

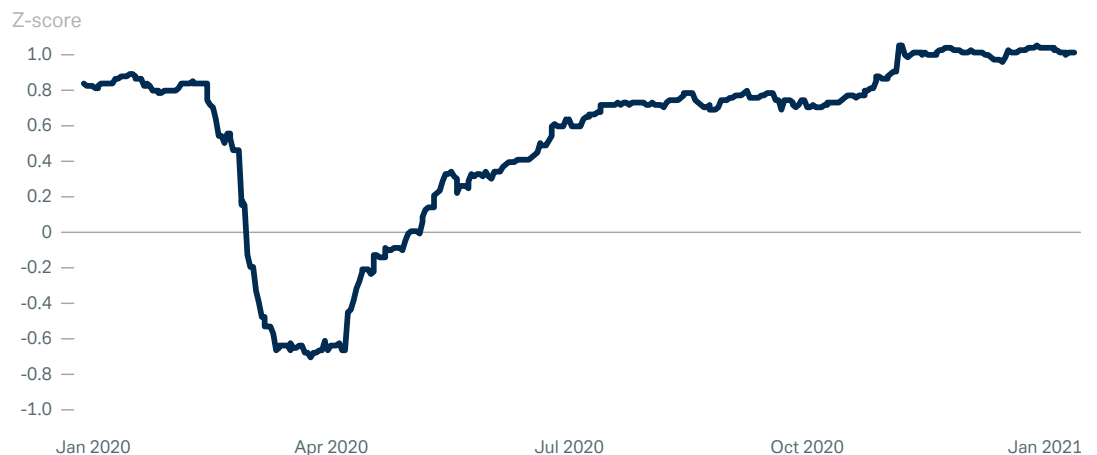
Temporary inflation spikes will not stop central banks from keeping monetary policy very accommodative. The Fed's policy regime is now more forgiving of temporary upward blips in inflation and the FOMC has multiple other incentives to keep rates low, at least until the labour market is fully back to health. Policy tapering in the U.S. might start (at the earliest, and very gently) in Q1 2022, with rate rises unlikely until at least 2023.

In the case of the Eurozone, the path back to normality will take even longer. The emphasis will be on maintaining favourable financial conditions. Formal tapering looks unlikely, but the ECB may seek to recalibrate the various asset class purchasing programmes in 2021. Given the heterogeneous bond market of 19 economies, the ECB's approach is focused on ensuring appropriate financial conditions rather than explicit yield curve control. This includes monitoring various indicators from risk-free rates to credit spreads. The ECB is likely to pursue an expansionary monetary path for longer than the Fed.

Emerging market monetary policy will be pragmatic, with limited further loosening in some economies (e.g. Indonesia, India), but policy stabilisation in others (e.g. China, South Korea). A limited number of emerging market economies (e.g. Brazil, Turkey) may have to lift rates to deal with exchange rate movements, inflation or other issues.

Figure 4: Eurozone financial conditions recover

Source: DWS, Deutsche Bank AG. Data as of March 2, 2021.



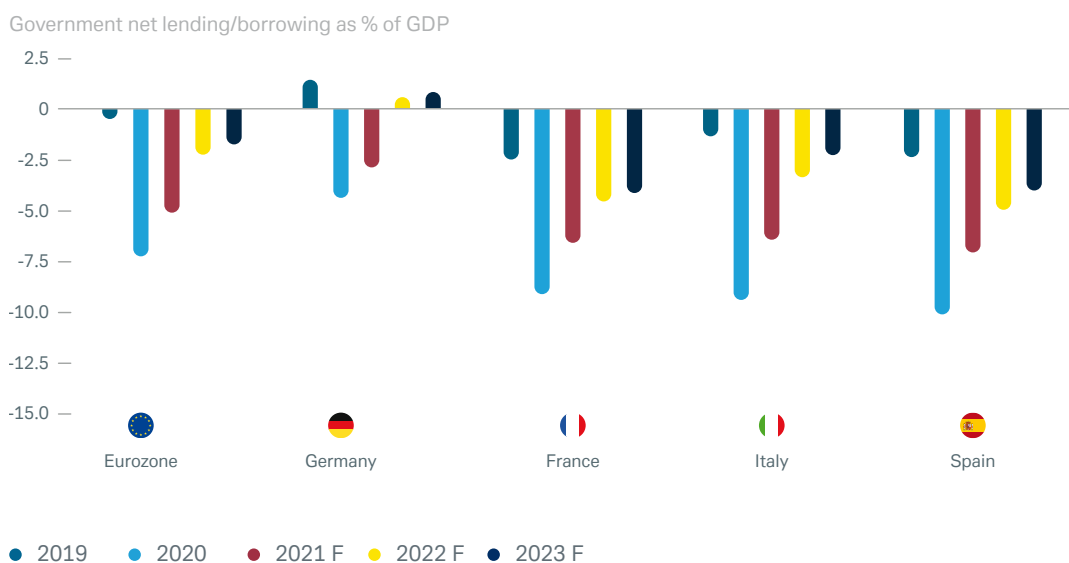
“Significant monetary policy tightening is some way off: pragmatism will prevail”

4. Fiscal policy: still big questions to answer

2020 was a year of big fiscal initiatives to offset the impact of the coronavirus crisis; these will continue into 2021 and beyond. The U.S. has agreed on another major stimulus package and the European Recovery Fund will commence operations at some point later this year, adding around 0.5 percentage points to Eurozone GDP this year. But what is important is the fiscal impulse – the change in, rather than the absolute level of, government budget deficits (i.e. net lending or borrowing). In many countries, the fiscal impulse will decrease this year as government finances come under strain – or turn negative (perhaps due to national legal requirements, as in Germany).

Figure 5: European fiscal impulse is likely to be scaled back

Source: IMF, Deutsche Bank AG. Data as of March 2, 2021 F = forecast.



Looking elsewhere in the world, the picture is also mixed. Some Asian economies increased their fiscal deficits in 2020 (e.g. South Korea) but renewed growth should start to reduce these deficits in 2021. China is planning for smaller budget deficit in 2021 than in 2020.

Debt level, however, will take longer to wind back. In the U.S., the absolute level of federal debt relative to GDP is forecast to increase; in the Eurozone, IMF forecasts suggest that consolidation could take many years.

“Changes in budget deficit levels may be as important as actual levels”

5. Fixed income: still a hostage to policy

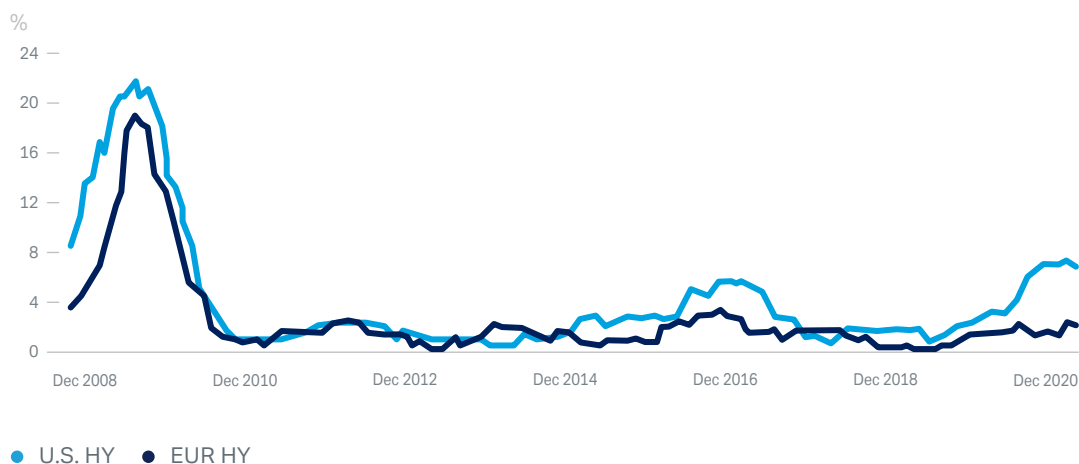
U.S. government bond yields started to move up in January this year – our 12-month forecast for 10-year U.S. Treasury yields is 1.50%, and temporary overshoots of this figure are possible. The rise in yields has been driven largely by fears around inflation, although real yields increased recently. But there will be a limit to how much yield can outstrip determinedly loose official monetary policy and low underlying core inflation rates. Financial repression is not over yet: real yields are likely to remain negative.

For investors in corporate credit, the issue remains how far you need to travel out on the risk/return curve to get adequate levels of return without taking on too much risk. We could see a further tightening of spreads on U.S. and European investment grade debt, but high yield debt will carry risks, although default rates remain low in historical terms. A sweet spot could be some emerging markets debt, where relatively attractive returns may be combined with a secular growth story.

Forecast summaries for individual fixed income and other asset classes are on page 23.

Figure 6: High yield default rates in a historical context

Source: Bloomberg Finance L.P., Deutsche Bank AG. Data as of March 2, 2021.



“Acceptable fixed income returns will still involve a degree of risk”

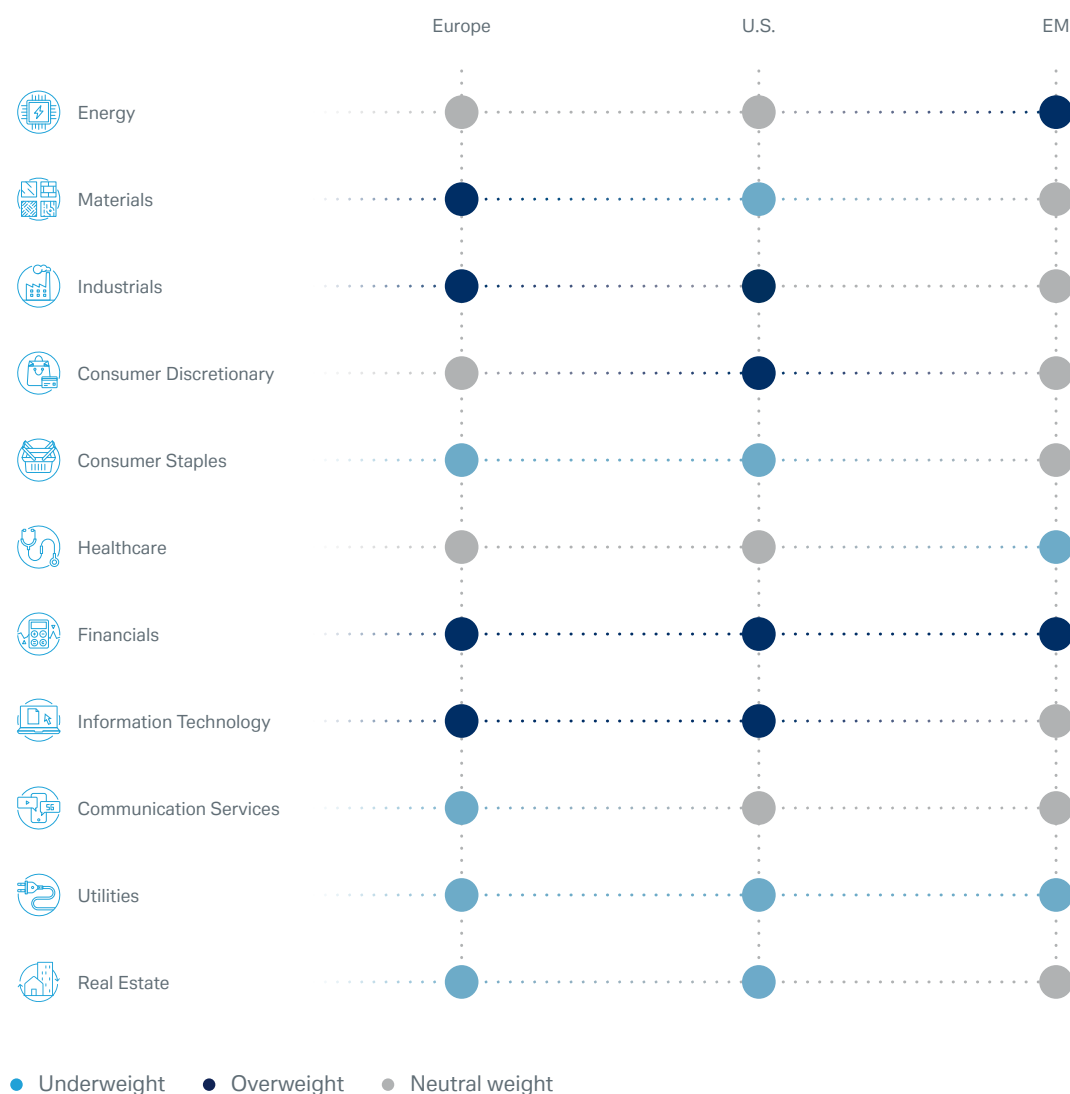
6. Equities: sector preferences reassessed

Increases in equity prices have been underpinned by high levels of liquidity (thanks to central banks). But more detailed trends are now becoming apparent. Small and medium cap stocks have fared well in early 2021, with a more predictable turn to cyclical companies too. Emerging market equities have remained attractive, as we foresaw in our annual outlook. Technology stocks also remain in demand, despite some recent worries about the implications of higher interest rates.

Equities are likely to make further gains over the next 12 months, with rises in bond yields being insufficient to undermine the appeal of equities. Rising rates mean, however, that we now have an overweight position on financials in the U.S., Europe and Emerging Markets – a change since the start of the year. Our other current sectoral preferences are given in Figure 7. Rising yields are also likely to curtail multiple expansion, meaning that this will increasingly become an earnings-driven market.

Figure 7: Equity sector preferences, March 2021

Source: Deutsche Bank AG. Data as of March 12, 2021.



7. FX: macro drivers stage a comeback

Trends always come to an end – and after an extended period of weakness in 2020, the U.S. dollar stabilised towards the end of the year with an upward move looking likely in 2021: our 12-month forecast for EUR/USD remains at 1.15, compared to recent lows of around 1.23 at the turn of this year.

Recently many currencies appeared to be driven by changing attitudes to risk: the U.S. dollar, for example, depreciated during most of 2020 because improving market sentiment started to reduce safe-haven demand for the currency. But now economic fundamentals appear to be returning to investors' calculations, and with the U.S. offering both stronger growth and higher interest rates than the Eurozone, its attractions may increase. Traditional worries (e.g. around the U.S. twin budget and current account deficits) also appear parked for now.

Later in the year, another FX market feature that may attract more attention is the efforts by some emerging market central banks to hold down the value of their currencies.

12-month forecasts for a selection of currencies are given on page 23.

Figure 8: EUR/USD performance in 2021

Source: Bloomberg Finance L.P., Deutsche Bank AG. Data as of March 2, 2021.



“Changing FX drivers mean that the USD could strengthen further in 2021”

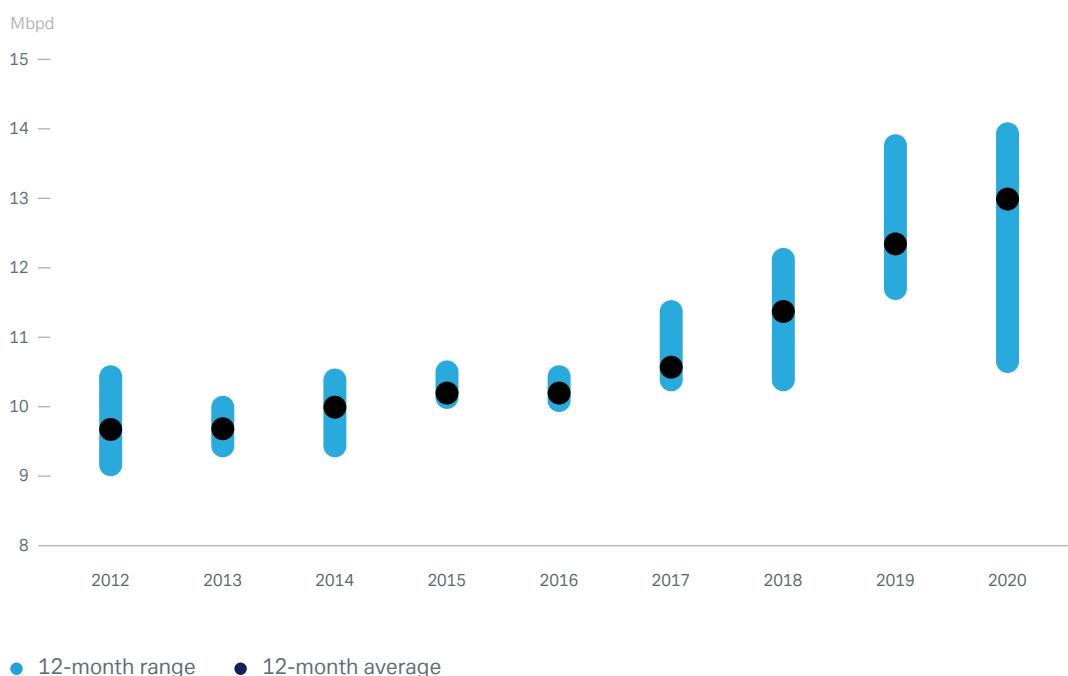
8. Commodity prices: benefiting from rising demand

Stronger global demand should, everything else being equal, translate into higher commodity prices. As Figure 9 shows, Chinese oil demand has recovered sharply from the dip; Indian and Brazilian demand has also been increasing. Strong discipline, at least so far, from OPEC+ has pushed prices up. Other commodities, for example copper, have also benefited from rising demand.

Gold, as always, is a special case. Inflation fears have not translated into a rise in demand, with investors reacting negatively instead to increasing yields. Investor demand for gold appears to have eased, with the gold price down around 15% from its mid-2020 high, and we do not expect a major rebound. The rate of change in real yields has gone from sharply declining to relatively flat (or even rising) as nominal rates have begun to rise – providing less support for gold.

Figure 9: China's apparent oil demand has recovered

Source: Bloomberg Finance L.P., Deutsche Bank AG. Data as of March 2, 2021.



“Oil prices benefit from recovering demand and OPEC+ output discipline”

Box

2021 impacts in focus: Asia moves ahead

Asian growth will pick up in 2021, and policy institutions have come through the pandemic well. Risks remain around the U.S./China relationship, but Asian emerging market bonds and equities still appeal.

The Chinese economy is forecast to expand by 8.7% in 2021 and 5.5% in 2022. But this will not be the only big growth number in Asia. India is forecast to grow by 11% in 2021 and 6.5% in 2022 after a rough 2020.

The pandemic has affected countries in the region in different ways. But it has also underlined some regional strengths – sectoral, corporate or policy-related. Strength in tech has aided a rapid recovery in exports in some economies, to the benefit of both overall economic growth and the outlook for individual corporates.

The pandemic has also shown the strength of policy institutions in the region. Central banks have been able to take their time in reacting to the unique demands of 2020 and, with the exceptions of China and India, are unlikely to tighten rates significantly this year. The looming threat of another 2013-style “taper tantrum” – due to tightening U.S. policy – may also have been reduced by better Asian external account positions.

In the immediate future, attention may be focused on the aftermath of the Chinese National Party Congress, which ratified government growth and budget targets for 2021, as well as the 14th national plan. This includes more environmental targets, another area where Asia is now moving faster.

We continue to like Asian emerging equities and bonds, due to the secular growth story, often strong fundamentals, and specific factors (e.g. relatively short duration of EM credit).

Risks include the U.S./China relationship. A more formal U.S. approach may focus pressure on some specific issues (e.g. currency appreciation). China’s growing integration in the global financial system may also cause issues (Figure 10, for example, shows the rise in foreign holdings of onshore Chinese bonds). Finally, it should be noted that, despite the region’s overall success in handling the coronavirus pandemic, this problem is far from over.

Figure 10: Foreign holdings of onshore Chinese bonds

Source: RBC Capital Markets and Bond Connect, Deutsche Bank AG. Data as of March 2, 2021.



Asset classes in summary



Core government bonds: Yield concerns. Accommodative U.S. monetary policy will keep a lid on long-term U.S. rates, but temporary spikes possible on inflation fears. Very low or negative core bond yields elsewhere (e.g. Germany, Japan) restrict scope for gains, and their role as a portfolio diversifier is at the mercy of markets' inflation expectations. **End-March 2022 forecasts: 10-year U.S. Treasuries 1.50%; 10-year JGBs 0.15%; 10-year Bunds -0.30%.**



Investment grade: Some appeal. Only limited spread tightening likely, but underlying trends supportive. Growth in demand likely to moderate after record 2020 but supply may fall faster. In the U.S. improving fundamentals and greater issuer discipline may offset specific concerns around higher BBB composition and the cyclical peak in gross leverage. In Europe, the negative rating cycle may bottom out in mid-2021. **End-March 2022 forecast spreads: U.S. IG (BarCap U.S. Credit) 80bp, EUR IG (iBoxx EUR Corp) 80bp.**



High yield: Risks remain. Fundamentals mixed, with new issue volume increasing in the U.S. in early 2021, but selective opportunities in some areas, e.g. some European higher yielding cyclical credits. Investors reassured for now by declining default rates in the U.S. and low default rates in Europe (helped by government guarantees and favourable refinancing conditions) but sentiment could change. **End-March 2022 forecast spreads. U.S. HY (Barclays U.S. HY) 330bp, EUR HY (ML EUR Non-Financials) 300bp.**



Emerging markets hard currency debt: Still attractive. Sovereigns appeal due to higher demand, fundamentals and catch-up potential in some areas. Credit maintains the benefit of relatively low duration, reducing risks in some scenarios, and default rates are historically low. Asia's rapid recovery from the pandemic and external factors (e.g. lower geopolitical tensions, negative real interest rates in developed markets) should also help. **End-March 2022 forecast spreads. EM Sovereign (EMBIG Div) 320bp, EM (Credit CEMBI Broad) 300bp.**



U.S. equities: Earnings estimates will be revised up as the economy picks up pace and the region continues to benefit from the importance of relatively resilient technology, healthcare and communication stocks. Earnings per share may be back to pre-pandemic levels by Q4 2021. Valuations are still very high but fair vs. bonds, with earnings likely to be the driver in future rather than multiples. Small and mid-caps could benefit particularly in the short term from the recovery, with indices having a higher exposure to growth stocks. **End-March 2022 S&P 500 forecast 4,100.**



European equities: Earnings recovery still challenged by continuing extended local lockdowns and worries over European recovery prospects. Quality and growth stocks remain attractive but value is starting to appeal too with yield curves still depressed. Small and mid-cap stocks are interesting too, due to valuation, structural and technical factors. Political risks may overshadow continued ECB support. Continued discount to U.S. valuation multiples likely. **End-March 2022 Euro Stoxx 50 forecast: 3,700; Stoxx Europe 600 forecast: 415.**



Japanese equities: Back in favour. Market helped by exposure to some attractive cyclical stocks. Export-oriented firms also benefiting from Chinese and regional recovery from the pandemic. Corporates in addition still have long-term support from strong balance sheets, low leverage and accommodative BoJ monetary policy (including equity purchases). Valuation discount to S&P 500 now seems established at around -20%. **End-March 2022 MSCI Japan forecast: 1,250.**

Asset classes in summary



Emerging market equities: The expected earnings recovery profile is good as China and regional trade partners continue to benefit from “first in, first out” coronavirus recovery. Structural advantages include high technology content of some markets (e.g. South Korea and Taiwan). Regional advantage likely to be maintained as part of the secular shift to Asia. Valuation discount to S&P 500 close to historical average. **End-March 2022 MSCI Emerging Markets forecast: 1,500.**



Gold: Market dynamics change. A firmer U.S. dollar and stabilising real yields (after rapid declines in 2020) have removed some tailwinds for gold. This has reduced investor appetite for gold as evidenced by falling retail and speculative investor positions. As a result, we have revised down our 12-month price forecast although unexpected events or a sharp one-off increase in inflation expectations could provide some temporary support. **End-March 2022 gold price forecast: USD1,850/oz.**



Oil: Demand expectations pull prices up. Oil prices have risen in early 2021, and inventories have edged down, encouraged in particular by a recovery in demand in major emerging markets. Markets are anticipating continued demand growth (if at different rates for different sectors). The assumption is that OPEC+ production discipline will hold, with the organisation able to manage controlled output increases as the global economy picks up pace. **End-March 2022 WTI forecast (12-month forward): USD57/b.**

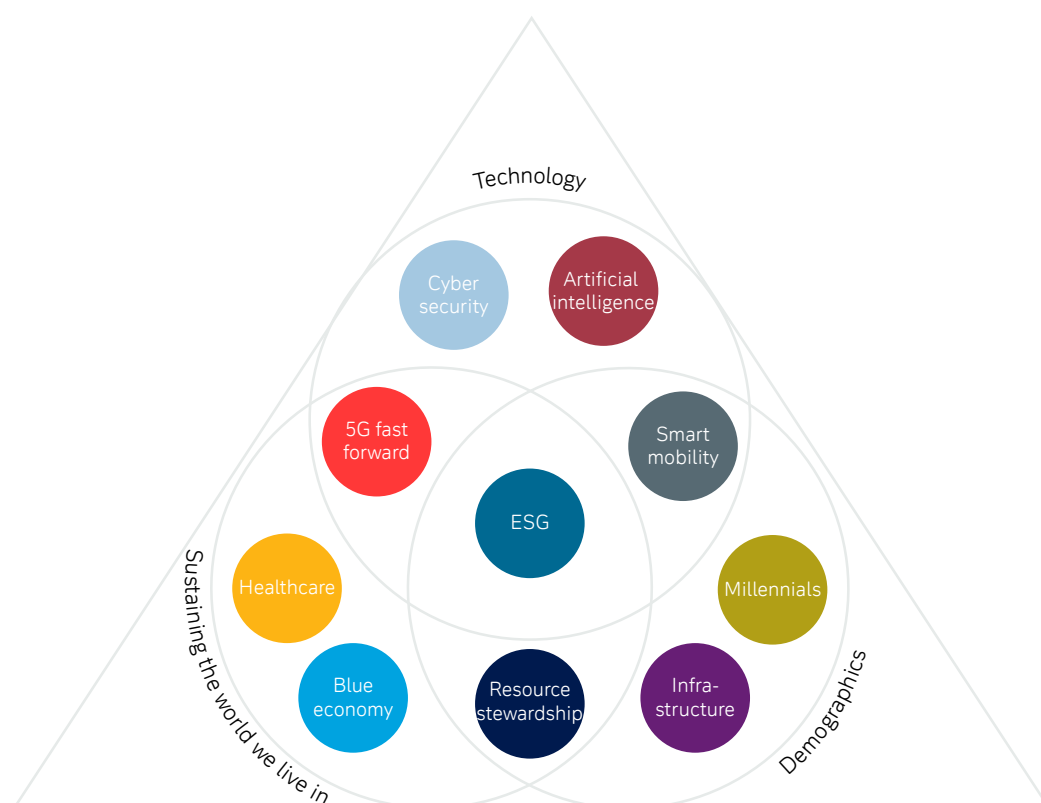


Our key investment themes

Our key investment themes sit within the three dimensions of technology, demographics and sustaining the world we live in – in short, the TEDS triangle. All have both immediate and long-term relevance and should continue to provide interesting investment opportunities.

Figure 11: The TEDS triangle

Source: Deutsche Bank AG. Data as of March 2, 2021.



Cyber security

- Rationale:** The world is more and more digitally interconnected – by 2026 almost 26% of the world's GDP could depend on internet-based and digitally connected industries¹. Cyber attacks are estimated to cost over USD1tn with a possible increase of 50% in the next two years². Not only companies but societies and governments are affected. Healthcare is an exposed sector.
- Key trends:** The diffusion of mobile communication and implementation of 5G technology have increased the focus on data security in various forms, including interdependencies between 5G networks and other critical systems as well as risks related to end user devices. A stricter regulatory framework and standardisation may have to be considered. The growing importance of artificial intelligence (AI) has relevance for cybersecurity, for example through improving metrics and system resilience. Our increasing interactions with physical devices around us provides another challenge for cybersecurity if we are to achieve end-to-end security.

¹ Based on World Economic Forum data, as of March 2021

² McAfee, The Hidden Costs of Cybercrime, 2020

- **Risks:** General risks around tech stocks, including inflation and geopolitical tensions.



Smart mobility

- **Rationale:** Changing technologies and shifting consumer habits are challenging the automotive sector, as well as regulatory measures targeting zero net emissions. The costs of manufacturing electric vehicles (EV) are dropping faster than initially expected. The simplicity of EV design versus traditional car models will also bring down manufacturing costs. The concept of smart mobility extends beyond individual vehicles into transport infrastructure in general.
- **Key trends:** The following measures are likely to be important in the next 12 months. First, electricity provision will use EV batteries to power households, leading to more efficient management of power grids. Second, advanced safety technologies like pedestrian detection and emergency braking will be implemented before a fully autonomous car is available. Third, smart connectivity and automation will make it easier for ride-sharing services to increase vehicle capacity, reduce congestion, and minimise both local and global pollution even further. Fourth, smart mobility will help develop unmanned package delivery, a sector given impetus by the pandemic.
- **Risks:** Regulatory issues create a range of risks. Any deferral or moratorium of emission reduction agreements could impact development. Attention may also focus on the human and environmental costs of metals such as lithium and cobalt.



Artificial intelligence (AI)

- **Rationale:** We may now be at a pivotal point for the adoption of AI given massive strides in computation power and data generation/storage in recent years. AI and the related domains of machine learning (ML) and deep learning will help make sense of that data, with a scaling-up of venture capital funding for AI start-ups led by China and the U.S.
- **Key trends:** The coronavirus pandemic has accelerated use of AI in the healthcare sector to diagnose patients, monitor epidemics and reduce the drug and vaccine development cycles. "Remote working" and digitalisation has encouraged AI-powered chatbots and virtual customer support assistants, often provided in the form of AI-as-a-service (AlaaS) model, rather than developed in-house. AI is increasingly important in the financial sector, in the search for market outperformance and driving operational efficiencies (e.g. in risk management). Machine learning (ML), which appears to be taking around half the total amount going into AI funding.
- **Risks:** Political risk exists at many different levels e.g. through AI displacing human labour. The importance of China in the sector may also create geopolitical risks.



5G

- **Rationale:** As it is implemented, 5G will support rapid growth in many technology and communication services companies and subsectors. 5G investments can include those in semiconductors, telecom and carrier services, and in infrastructure required for the technology. They will be intertwined with other tech themes, such as AI and machine learning, digitalisation, and the growth of the Internet of Things, encompassing a wide range of technologies.

Past investment has focused on the development of 5G technology, but we are now at the stage of building and expanding the 5G network. This focuses on demand for semiconductors and raw materials, and the search for infrastructure, such as land for cell towers and data centres.

- **Key trends:** Asian countries may be more attractive in the development of 5G technologies, while in the U.S. and Europe economies, the focus is on building cell towers and network dominance. Two areas of particular current interest may be the Internet of Things (IoT), and the carrier companies for 5G. IoT devices relating to 5G include semiconductors and sensors, smart homes, and everyday utilities and tools such as watches and speakers. The telecom and carrier space remains another major area for investment. 5G rollout may further worsen semiconductor shortages.
- **Risks:** 5G mobile networks will continue to create political stress. China's first-mover status in many emerging markets may limit developed market firms' ability to expand, leading to pressure to limit Chinese influence. The U.S. and other markets have already restricted the use of Chinese hardware in the 5G space for security reasons.



Infrastructure

- **Rationale:** There remains a great need for infrastructure investment – for example, according to the World Bank, 1 billion people lack electricity, and 4 billion people lack internet access. Infrastructure also needs to be seen in the context of the target for net-zero greenhouse gas emissions in many economies. This is a sector that thinks long-term – but where innovation (e.g. via data, interconnection and automation) is forcing rapid change.
- **Key trends:** Alongside innovative technologies, traditional infrastructure assets (bridges, toll roads, ports, airports, railways) could be attractive to investors, given reopening, fiscal stimulus, linking of fees to inflation, barriers to entry, stable cash flows (with the obvious exception of the coronavirus pandemic) and a usually inelastic demand pattern for utilities and energy. Possible accelerated action on transport decarbonisation, renewable energies and digitalisation. The nature of private/public interaction may also change.
- **Risks:** Policy stimulus has created macroeconomic risks (with relevance for infrastructure priorities). A lifecycle assessment of infrastructure projects in terms of potential costs and returns is vulnerable to climate change and offsetting measures.



Healthcare

- **Rationale:** We expect the growth in global healthcare spending to continue to outpace the expansion in GDP, partly due to ageing populations and increasing affluence in many emerging markets. Multiple forces are driving a transformation of the entire healthcare value chain, across the four domains of care service provision, medical devices, pharmaceuticals and healthcare finance. The medical device market, for example, is expected to almost double in size (to USD800bn) over the next decade.
- **Key trends:** Healthcare faces a period of readjustment as the pandemic is brought under control. Longer-term trends may be heavily influenced by technology, e.g. wearables, to diagnose, treat and monitor patients without human contact, with implications for artificial intelligence (AI) in the care of people, wearable medical equipment, remote patient monitoring devices, electronic health records (EHR) and so on.

Another trend may be for patients to take more responsibility for their health in the future, transforming healthcare from an episodic service to a lifelong process of managing and maintaining individuals' health.

- **Risks:** Rapid change may make it difficult for companies to justify their valuations in the future and to defend their market positions against new entrants, especially from the technology space. Regulation (particularly in terms of data) could represent a major threat for the industry.



Millennials

- **Rationale:** Millennials (individuals born in the 1980s and 1990s) are associated with a more purpose-oriented way of thinking. Prestige and earning money may be less relevant for them. They have lived through several financial crises, and are the first generation to face in full the consequences of climate change. Following the millennials these might therefore mean addressing ESG concerns through investment choice or, alternatively, looking at areas of high millennials' consumption such as social media, entertainment or popular brands.
- **Key trends:** Four issues could be particularly important. First, inequality: asset prices, decreased labour share and job outsourcing have reduced opportunities for millennials to build wealth (apart from inheriting). Second, politics: the growing proportion of millennials in the population has left them more able to influence the political agenda (e.g. around the redistribution of wealth). Third, population ageing: this makes it likely that millennials' taxation will rise, and they may have to work longer. Fourth, shrinking labour force: this may give millennials greater bargaining power and the chance to shape their working conditions (work-from-home, work-life balance, purpose thinking).
- **Risks:** Many millennials-relevant companies are "growth" stocks, making them potentially vulnerable to a reversal of the current low yields environment. (If yields increase, they could suffer from a higher cost of capital, as future earnings would be more heavily discounted). Companies with large market shares could also face a higher degree of regulation in future.



ESG

- **Rationale:** The coronavirus pandemic has important social and environmental implications, with many investors taking a closer look at ESG (environmental, social or governance-focused) investments – sustainable funds have received record inflows. In future, ESG integration will become more important for risk management purposes, due to its perceived resilience in times of crisis. Regulators increasingly see the need to quantify environmental, social and governance risks alongside financial risks: note, for example, Europe's Sustainable Finance Disclosure Regulation (SFDR).
- **Key trends:** According to some estimates, ESG assets could account for around a third of total assets under management in the next five years, but this form of measurement does not capture the growing impact of ESG on corporate investment overall. We expect the Biden administration to drive change in the climate and green space, with growing ambition around limiting climate change evident at the COP26 summit of Paris signatories in Glasgow in November. Net-zero carbon emissions, finding ways to finance the transition, providing financial assistance to countries most affected by climate change, and ensuring a just transition for those affected by the clean energy transition are likely to be key topics.
- **Risks:** It is estimated that around 20% of the MSCI World investment universe is directly exposed to transition risks (policy, liability and technology), including "asset stranding".



Resource stewardship

- **Rationale:** Economics, urbanisation, technology and regulation argue for better resource stewardship. The emphasis on “greening” the waste sector through the five Rs (“recover, recycle, reuse, restore and reduce”) is leading to new markets, changes in supply chains and greater capital expenditures. The total global waste management market (e.g. industrial waste, wastewater and sewage, sustainable packaging, and e-waste) is estimated to be worth around USD1tn. Investable sub-themes in this space include alternative energy and fuel, technology, products and services in the water value chain, decarbonisation, digitalisation and decentralisation of the global energy system.
- **Key trends:** Greater interest in sustainability in general due to the pandemic, and increasing regulations. E-waste is a particular problem: only one-fifth was collected or recycled in 2019 and, according to a United Nations University study, the volume of e-waste is predicted to grow by nearly 40% by 2030. Meanwhile, recycling industries here and in other areas are growing strongly: some estimates point, for example, to a near 45% rise in the global plastic recycling market over the next five years.
- **Risks:** Waste management is closely interlinked with economic cycles, and governments and companies may want to defer change on this large-budget item. Secondary raw material recovery (e.g. in the form of waste-to-energy processes) is exposed to commodity price volatility.



Blue economy

- **Rationale:** The blue economy is becoming increasingly important in discussions about resource management and economic growth. Oceans are the world’s eighth largest economy, generating USD2.5tn of goods and services and with a combined global ocean assets valued at USD24tn, according to the WWF. In some East Asian countries, the ocean economy can account for 15-20% of total GDP. But this economic resource is coming under great pressure from overfishing and environmental destruction – about half the world’s coral reef system has been destroyed.
- **Key trends:** The introduction of the International Maritime Organisation’s ambitious carbon emissions goals for 2030 and 2050 has already had a direct impact on the sustainability of the maritime environment as ships have shifted to new fuels. The shipping industry is pursuing efficiency gains in others areas (e.g. routing, turnaround time, digitalisation of data). The marine biotechnology industry is another area experiencing rapid development. Marine organisms may prove helpful for developing new drugs for various diseases.
- **Risks:** Investments would be subject to immediate onset risks (e.g. tropical cyclones, flooding and inundation); slow onset risks (e.g. sea levels, acidification, food security issues, declines in biodiversity) and risk multipliers (e.g. pollution, resource exploitation, land-use changes).

Appendix 1

Macroeconomic forecasts

	2021 Forecast	2022 Forecast
GDP growth rate (%)		
U.S.*	5.0	3.8
Eurozone (of which)	3.5	4.5
Germany	3.0	4.0
France	4.5	5.0
Italy	3.0	5.0
Spain	4.5	6.5
UK	4.5	6.0
Japan	2.5	3.0
China	8.7	5.5
India	11.0	6.5
Russia	3.0	2.5
Brazil	3.0	2.4
World	5.3	4.4
Consumer price inflation (%)		
U.S.*	2.0	2.2
Eurozone	1.3	1.4
Germany	1.8	1.6
Japan	-0.3	0.5
China	1.4	2.5

*For the U.S., GDP growth Q4/Q4 % is 4.7 % in 2021 and 3.2% in 2022.

*For CPI, measure is core PCE Dec to Dec – average is 1.7% in 2021 and 2.0% in 2022; headline PCE (Dec/Dec) is 2.1% in 2021 and 2.3% in 2022 – average is 1.8% in 2021 and 2.1% in 2022. Forecasts as of February 18, 2021.

Appendix 2

Asset class forecasts

Bond yield and spread forecasts for end-March 2022

United States (2-year Treasuries)	0.35%
United States (10-year Treasuries)	1.50%
United States (30-year Treasuries)	2.20%
USD IG Corp (BarCap U.S. Credit)	80bp
USD HY (Barclays U.S. HY)	330bp
Germany (2-year Schatz)	-0.70%
Germany (10-year Bunds)	-0.30%
Germany (30-year Bunds)	0.20%
United Kingdom (10-year Gilts)	0.60%
EUR IG Corp (iBox Eur Corp all)	80bp
EUR HY (ML Eur Non-Fin HY Constr.)	300bp
Japan (2-year JGB)	0.00%
Japan (10-year JGB)	0.15%
Asia Credit (JACI)	250bp
EM Sovereign (EMBIG Div.)	320bp
EM Credit (CEMBI Broad)	300bp

FX forecasts for end-March 2022

EUR vs. USD	1.15
USD vs. JPY	105
EUR vs. JPY	120
EUR vs. GBP	0.87
GBP vs. USD	1.32
USD vs. CNY	6.65

Equity index forecasts for end-March 2022

United States (S&P 500)	4,100
Germany (DAX)	14,800
Eurozone (Euro Stoxx 50)	3,700
Europe (Stoxx 600)	415
Japan (MSCI Japan)	1,250
Switzerland (SMI)	10,950
United Kingdom (FTSE 100)	6,750
Emerging Markets (MSCI EM)	1,500
Asia ex Japan (MSCI Asia ex Japan)	1,000
Australia (MSCI Australia)	1,350

Commodity forecasts for end-March 2022

Gold (USD/oz)	1,850
Oil (WTI 12-month Forward, USD/b)	57

Forecasts as of February 18, 2021.

Glossary

The [Bloomberg Barclays U.S. Aggregate Index](#) includes investment grade bonds traded in the U.S.

[Budget balances](#) refer to the excess of government revenues over spending for a given time period.

[Core](#) or [underlying inflation](#) refers to a measure of inflation which excludes some volatile components (e.g. energy). These excluded components can vary between countries.

The [Corporate Emerging Markets Bond Index \(CEMBI\)](#) is a JPMorgan index that includes U.S. dollar-denominated bonds issued by emerging markets.

The [DAX](#) is a blue-chip stock-market index consisting of the 30 major German companies trading on the Frankfurt Stock Exchange; other DAX indices include a wider range of firms.

[Duration](#) measures show the sensitivity of the price of a bond to a change in interest rates, expressed in the number of years that a bond takes to be repaid through its internal cash flows.

[ESG investing](#) pursues environmental, social and corporate governance goals.

The [Euro Stoxx 50](#) Index tracks the performance of blue-chip stocks in the Eurozone and includes the super-sector leaders in terms of market capitalisation.

The [Stoxx 600](#) includes 600 companies across 18 European Union countries.

The [Federal Reserve \(Fed\)](#) is the central bank of the United States. Its [Federal Open Market Committee \(FOMC\)](#) meets to determine interest rate policy.

The [FTSE 100 Index](#) tracks the performance of the 100 major companies trading on the London Stock Exchange.

[Growth stocks](#) are those of companies seen as likely to have above-average earnings or revenue growth.

The [Internet of Things \(IOT\)](#) is comprised of computers and other devices with embedded electronics that allow them to collect and share data.

[Large cap](#), [mid cap](#) and [small cap](#) are terms used to differentiate shares on the basis of the size of a firm's total market capitalisation - exact definitions vary.

[Millennials](#) is a term used to refer to people born in the 1980s and 1990s, although this definition can vary.

[NTM](#) stands for next twelve months in the context of earnings and thus price/earnings ratios.

[Price/earnings \(P/E\)](#) ratios measure a company's current share price relative to its per-share earnings.

[Private equity](#) refers to funds or individuals investing directly in private, non-listed companies.

The [S&P 500 Index](#) includes 500 leading U.S. companies capturing approximately 80% coverage of available U.S. market capitalisation.

A [spread](#) is the difference in the quoted return on two investments, most commonly used in comparing bond yields.

[Tapering](#), in a financial markets context, refers to the gradual reduction of asset purchases by central banks.

[Valuation](#) attempts to quantify the attractiveness of an asset, for example through looking at a firm's stock price in relation to its earnings.

[West Texas Intermediate \(WTI\)](#) is a grade of crude oil used as a benchmark in oil pricing.

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