Top-10 themes for 2022

Authors

Luke Templeman
+44 207 541 0130
luke.templeman@db.com

Olga Cotaga
+44 207 541 5910
olga.cotaga@db.com

Marion Laboure
+44 207 545 0679
marion.laboure@db.com

Henry Allen
+44 207 541 1149
henry-f.allen@db.com

Galina Pozdnyakova
+44 207 547 4994
galina.pozdnyakova@db.com

Jim Reid
+44 207 547 2943
jim.reid@db.com

Microsite available at dbResearch.com
Contents

1. An overheating economy..............................................................4
2. Covid optimism..............................................................................5
3. A hypersonic labour market and inflation..................................6
4. Corporate focus on asset efficiency...........................................7
5. Inventory glut.................................................................................8
6. Antitrust (or competition) renaissance.......................................9
7. The end of free money in stock markets.................................10
8. Space: a worrying geopolitical frontier....................................11
9. Central Bank Digital Currencies: Growing into reality.........12
10. ESG bonds go mainstream........................................................13
Top-10 themes of 2022: Summary

Is covid the only theme that matters? That is not the right question. In fact, covid is now not so much a theme as it is the backdrop against which most things are evolving in economics, finance, and corporates.

So what themes matter in 2022? Of course, we address the big macro topics – the risk of the global economy overheating given stimulus measures and the change in attitude of central banks towards employment goals. Then there is how tight labour markets may further boost inflation. A flow on is higher bond yields and the end of free money that has propped up markets since the financial crisis. Stock markets may not crash, but they could witness the return of fundamental investing.

 Corporates, in 2022, will struggle with new issues – in addition to labour shortages. For two decades, returns have been generated by rising profit margins and cheap debt. Now both those things are looking to reverse in 2022. Competition regulators are flexing their muscle and, to compensate, managers will have to rediscover their operational mojo. That means generating more sales from existing assets.

Does any corporate theme matter in a shortage economy? A good question with a contrarian answer. Basically, we see an inventory glut in 2022. Manufacturers are going full tilt, while retailers are beginning to over-order.

ESG has been turbo-charged by covid. The momentum is fully behind ESG bonds, particularly sustainability-linked bonds. Investors love the story, customers love the story, and corporates are piling on board.

Away from the spotlight, several other themes could have serious repercussions in 2022. One is that central bank digital currencies will take a massive step forward with some countries planning to go live in 2022. Meanwhile, we think most people underestimate how the growing militarisation of space will ratchet up geo-political tensions. Between anti-satellite missiles and growing budgets for military space divisions, the worrying thing is that the benefits of space supremacy are now so great that there are reasons why countries may push back against any new treaty.

Luke Templeman
Director, Thematic Research
While some commentators worry about stagflation in 2022, it is far more likely that the US economy will encounter overheating risks. Of course, many economies are still recovering from covid with the current winter wave plus Omicron providing obvious risks. However, unless the new variant completely rewrites the path of the pandemic, next year should be a better year on the pandemic front. Meanwhile, the huge stimulus that remains in the system, alongside easy policy conditions, will continue to ensure both inflation and growth stay high.

The result is likely to be a “growthflationary” environment in 2022. In turn, the Fed will likely become more aggressive in 2022 in order to curb inflation. This will tighten financial conditions for a period while investors become used to the new regime. Growth should survive this in 2022 as policy and financial conditions will likely stabilise at still accommodative levels as the adjustment takes place. However, should the economy overheat, and the pace of tightening outweigh the historically easy level of financial conditions, the cycle’s end could be brought into sharper focus with a recession in 2023 or 2024 increasingly debated.

Indeed the starting point is that the spot real federal funds rate is now more negative than it has been at any time since the 1950s. Money supply has exploded in a way it did not after the financial crisis when the world was deleveraging and thus offsetting extreme monetary policy. A lack of deleveraging in this cycle and helicopter money has left a monetary overhang this time round that will continue to encourage high growth and inflation. Potential political gridlock after the mid-terms will not change the legacy fiscal stimulus still working its way through the system in 2022.

Overheating risks have been amplified by the recent change in the Fed’s attitude towards maximum employment. Maybe history will suggest that the Fed was unfortunate in its timing to move to average inflation targeting just as helicopter money finally arrived that removed the necessity for the policy change. It is arguably fighting the battle of the last cycle. By waiting to see actual gains in employment rather than respond to the clear labour market tightness, albeit exaggerated by the pandemic, it has arguably fallen too far behind the curve.

One of the biggest differences between this cycle and the last is the US output and employment gap. After the financial crisis both took eight years to close. That was the slowest recovery in history so with hindsight it is quite easy to see why we did not see inflation. In this cycle the gaps will close over the next quarter which will be one of the quickest recoveries in history. So the US economy will be bumping against its inflationary speed limit in 2022 with huge stimulus still working through the system.

DB’s 2022 growth and inflation forecasts by country

<table>
<thead>
<tr>
<th>Country</th>
<th>US</th>
<th>Eurozone</th>
<th>Germany</th>
<th>Italy</th>
<th>France</th>
<th>Japan</th>
<th>India</th>
<th>Russia</th>
<th>Brazil</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Inflation YoY</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>-1</td>
<td>-2</td>
<td>-3</td>
<td>-4</td>
<td>-5</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank

US M2 money supply with pre-covid trend line extended

Source: Haver Analytics, Deutsche Bank

Some argue that stagflation is a bigger threat than overheating. The reality is that most economies are still a long way from it. If DB’s growth forecasts prove correct, then most of the G7 economies will still generate economic growth of at least three per cent next year. This is some way above trend and inconsistent with ‘stagflationary’ dynamics.

We can therefore expect robust growth, and elevated inflation. This makes the overheating of the global economy a key risk in 2022. Consider that in 2021, investors went from not pricing in a hike until 2024 to expecting as many as three next year. The risk lies in central banks, led by the US, being forced enact yet more.
The covid outlook for the northern hemisphere winter is deeply concerning. Numerous countries are moving into fresh lockdowns, and the arrival of the Omicron variant has led to new travel restrictions and another bout of financial market turmoil. Nevertheless, there are credible reasons to be optimistic about how the pandemic may evolve in 2022. Critically, improved medicines will hopefully become mainstream. At the same time, an expected increase in the availability of several covid vaccines means that those populations without access should finally receive it. And as the world begins to manage covid, it is likely that benefits will be found in some neglected areas of society upon which the pandemic has thrown a light.

The biggest game-changer of 2022 will likely be antiviral pills. These promise to diminish hospitalisations and fatalities and already there are two encouraging candidates. Trials of the Merck pill suggest it cuts the risk of hospitalisation and death by 30 per cent. Meanwhile, the Pfizer pill appears to reduce hospitalisation and deaths among high-risk adults by 89 per cent. Both have applied to US regulators for authorisation and Merck’s pill has already been approved in the UK.

Apart from pills, treatments are broadening. For example, the US Coronavirus Treatment Acceleration Program is supporting a range of therapies in development, such as antiviral pills, neutralising antibodies, and also immunomodulators that reduce the immune reaction to the virus and prevent it going into harmful overdrive.

Vaccine manufacturing will also accelerate in 2022. The production of the Pfizer vaccine is expected to increase by a third to 4bn doses. Moderna will also increase supply. A chunk of this inventory is likely to be distributed in the developing world where vaccine access has, so far, been poor. Moreover, the extension of the vaccine to younger age groups will push developed countries closer to herd immunity. The US has already authorised the Pfizer vaccine for children aged 5-11. Other countries are following suit.

Taking a step back, the tragedy of covid has forced societies to reckon with difficult issues that have been neglected for too long. As they begin to manage the virus more effectively, this offers hope that areas such as tackling educational inequalities or greater support for mental health are given greater attention.

The pandemic has also helped us become more inventive in how we can prevent such crises in the future. The importance of a quick reaction has been fully accepted. Indeed, leaders at a recent G20 summit pledged to enhance early detection and warning systems, as well as shorten the development cycle for vaccines and therapeutics. At a smaller scale, buildings and schools are starting to plan better ventilation systems.

Of course, new variants still pose a risk, and the arrival of the new Omicron variant has demonstrated this once again. Yet over the medium term, history shows that many viruses can become less dangerous over time, which was what happened with the H1N1 virus that was responsible for the Spanish Flu in 1918. And with the advantages of modern medicine and the array of treatments in the development pipeline, we can be confident that eventually, humanity will move past this virus too.
Just as hypersonic missiles are stirring geopolitical tensions, the hypersonic recovery of the labour market is stirring inflationary concerns. That will likely be exacerbated in 2022 as workers that are upskilling themselves leave their current roles in search of a better job.

The big difference in this labour market recovery is its breath-taking speed. After a normal recession, it usually takes between four to seven years for the labour market to recover. This time, it is recuperating much faster. The US unemployment rate has now returned to 4.2 per cent, not far from the 3.5 per cent seen just before covid. In France and Spain labour force participation is already higher than prior to covid.

Whilst it is a relief that people are back in work, the speed of the recovery does contain some hidden dangers. This is because history shows the unemployment rate tends to decrease for the length of an economic cycle. Given this economic cycle has only just begun, and cycles in recent decades have been lasting longer, that implies the labour market may continue to tighten for years. Exacerbating this tightness is the fact that not everyone has returned to work. Indeed, in the US, more than 4m people left their job since covid and have not come back. More than half of those have retired early.

An outlook for an unusually tight labour market is a perfect recipe for wage-driven price growth. Our economists have previously commented that excluding the stagflation period of the late-1970s and early-1980s there is a decent correlation (41 per cent) between unemployment and inflation, although the correlation has weakened over time.

Amplifying the issue is that covid has inspired people to upskill and find a better-suited and better-paid job. Indeed, more than two-thirds of workers globally are willing to retrain for new jobs. Meanwhile, a third of people who have ever registered on a ‘Massive Open Online Course’ platform joined in 2020. A global survey of nearly 6,000 people found that 40 per cent are at least somewhat likely to leave their current jobs.

The issue is dominating corporate discussion, as seen in the chart above, and pushing companies to be more proactive. Alphabet, Amazon, IBM, Walmart and many other large companies are introducing training programmes. Some now pay for higher education. Corporates are also spending more on wages and salaries because of labour shortages.

While avoiding mass unemployment was one of the great successes of covid-policy, there is a catch. After all, hypersonic missiles would not be as much of a threat if they travelled at slower speeds (they would just be missiles). If we are at the start of a new economic cycle that lasts as long as the others of the last four decades, wage inflation will likely continue.

1 Boston Consulting Group, “Decoding Global Reskilling and Career Paths”, April 2021
2 Class Central, "By the Numbers: MOOCs in 2020", November 2020
3 McKinsey, “‘Great Attrition’ or ‘Great Attraction’? The choice is yours”, September 2021
Investors have not needed to care about bloated companies until now. After all, for the last decade or so, corporate returns were juiced by rising profit margins and super-cheap debt. Companies grew through acquisitions and ignored their asset efficiency. Indeed the median S&P 500 company earned $1 in sales for every $1 it held in assets in the early 2000s. It now earns just 60 cents.

In 2022, the focus on asset efficiency is set to return as the two other sources of returns on equity – profit margins and leverage – are coming under significant pressure. Profit margins will be squeezed as workers increasingly demand higher wages and benefits. The trend towards this began in earnest in 2021; in 2022 it will likely continue as worker shortages persist (see our theme A hypersonic labour market and inflation). Also pressuring margins will be policies that aim to arrest the decline in corporate competition. Indeed, President Biden, and leaders in other developed countries, have lamented how the decline of corporate competition has helped firms over workers (see our theme Antitrust (or competition) renaissance).

Leverage, too, appears set to drop in 2022. Possible interest rate rises will make debt more expensive and, if some level of higher inflation proves permanent, companies can expect higher debt costs in the medium term. Already, companies have been curtailing their leverage. Since it hit a multi-decade peak in mid-last year, leverage in the median S&P 500 company has dropped eight per cent and now sits at 2016 levels.

There are initial signs that asset efficiency is hitting managers’ radar. Over the last three quarters, the asset turnover ratio of S&P 500 companies has risen quicker than at any time since the financial crisis. This is good news. If asset turnover returns to pre-financial crisis levels, returns on equity would theoretically increase by two-thirds.

Some high-profile companies are already slimming down. Johnson & Johnson, General Electric, and Toshiba have all recently announced plans to split their firms. That comes as our analysis shows that stock market returns of asset-light companies have outperformed asset-heavy companies over the last decade. Private equity will have a field day – they love acquiring unloved spin-offs.

From an investor’s point of view, if companies do not slim down, they will have to make their existing assets work harder. This will not be easy. It requires someone skilled in turnaround management and the type of structural change that not only consumes a lot of management attention, but also creates ructions amongst staff.

Just as 2022 will likely usher in the return of investor focus on asset efficiency, it will separate companies into three groups: those that are already asset efficient, those that ignore the issue, and those that are inefficient but addressing the problem. The latter group may provide investors with the most value. And as they do, they will likely penalise those companies that continue to meander along with a bloated balance sheet.
In 2022, we are going to have a lot of stuff. Everywhere. Supply chain disruptions, coupled with an imperfect market, are likely to lead retailers and manufacturers to being stuck with abundant inventories. A slower than expected release of pent-up demand, as well as a focus on experiences over goods, will likely exacerbate the glut. Marie Kondo would not approve.

An inventory glut will follow the fact that retailers do not want to be caught off guard with a lack of product as they have been last year and this. Although their inventories are currently low (partly due to the auto shortage), there are signs that retailers are over-ordering ahead of the busy holiday period. All the while, manufacturers are already producing and holding far more inventory than they did before covid.

This means 2022 is set for the “bullwhip” effect – where retailers and manufacturers respond to each other by under- and then over-ordering. Shortages are followed by gluts and then shortages until equilibrium is finally established.

Third-quarter earnings results showed the highest number of S&P 500 companies discussing “supply chains” in a decade.4

Exacerbating the problem are concerns that customer demand does not recover as quickly as corporates think. Our latest presentation on pent-up demand, shows that people expect their spending to rise. But each month so far, those expectations have failed to materialise. Specifically, Americans have been spending less but expect to spend more. This is why expectations of a release of pent-up demand may not materialise. That will leave a glut of inventory either in warehouses or on the shop floor.

One important factor behind demand not materialising is people’s appetite for savings. The US still has the highest level of covid savings of large economies, at about $1.2tn, but Europeans have arguably saved more. Savings of about six per cent of 2019 GDP are slightly higher than in the US. On top of that, more Europeans think their savings will increase in the next 12 months, compared with the beginning of last year.

Equally as important for inventories is the fact that, so far, people have shown a preference for experiences over goods. Indeed, the upwards trajectory in spending since the beginning of 2021 has been the sharpest in the out-of-home entertainment, such as restaurant meals, theatre, or cinema. This has little to do with inventories.

The swings in the availability of goods will continue back and forth until an equilibrium is eventually established. In other words, the “bullwhip” effect is likely to continue to dominate the supply chains in 2022 and lead to a surplus of inventories. In that case, Marie Kondo’s organisational techniques may prove useful.

4 Factset
Like it or not, US companies will likely face tougher competition in 2022. The rest of the western world is likely to follow suit. An executive order issued by President Biden in July argued that over the last several decades, “competition has weakened in too many markets”. It blamed this for widening racial, income, and wealth inequalities, as well as suppressing worker power. A “whole-of-government” effort was promised on 72 initiatives. That followed just months after the chair of the Federal Trade Commission was given to Lina Khan who is known for her work on anti-trust and competition issues.

If Biden’s initiatives have teeth, companies may be about to witness a sharp reversal of the trend towards less competition seen over the past few decades. The following charts show just two indicators that life has become more difficult for new companies in the US.

The result of diluted competition is that corporate profit margins have grown. Last quarter’s results showed that profit margins in S&P 500 companies have hit multi-decade highs (despite covid) and have almost doubled to 11.2 per cent (on a four-quarter rolling basis). That has helped corporate earnings comfortably outpace GDP over the last two decades.

Of course, falling costs of labour and capital over the last few decades have helped boost profits. But in a textbook competitive market, these advantages should be competed out and/or passed onto customers.

The tighter competition has been, in part, due to consolidation after rule changes in the 1980s gave corporates the confidence to ramp-up mergers and acquisitions. Hence a lower number of large firms in many markets. For instance, only a handful of mobile carriers and airlines compared with their numbers 20 years ago. Meanwhile, there is an open-ended question of whether some large technology groups stifle or promote competition. Some argue that scale delivers cheap goods to customers; other say it reduces innovation and the incentive to spend on capex and workers.

Regardless of the reason for less competition, Biden appears to have the political will to boost it. And this desire will be undergirded by the will of workers. Post-covid, many workers, particularly low paid staff, have significantly greater bargaining power. As a result, long-standing discontent with wages lagging profits are morphing into action. Large firms, including Amazon, Disney, and McDonald’s, have all given pay rises since covid.

So, with political will at the top supported by worker power at the bottom, the companies stuck in the middle should expect that 2022 will usher in an era of greater competition, an easier time for new entrants, and more hurdles to mega-acquisitions. It could mean that companies come to see high profit margins as an anomaly rather than the norm.
“Will the stock market crash in 2022 as the Fed tapers and likely raises rates?” While many investors fret over this question, the forgotten theme that may accompany the end of free money is not whether stock markets will crash. Rather, it is how investors may be forced, for the first time in a decade, to consider how the end of free money may reorder equity markets on the inside.

The end of stimulus is certain to slow the money flow into equity markets. And if rising interest rates push bond yields higher, investors will have options elsewhere in bond markets and other rate-sensitive investments that have been ignored in recent years. As investments aside from equities become more appealing, frustrated active asset managers may finally witness the return of fundamental investing.

Equity markets will be shocked by the return of fundamentals. After all, in the era of free money, many frustrated ‘value’ managers have given up. The following charts show that as markets recovered from the financial crisis, traditional ‘value’ investing became very difficult.

The reason for the underperformance of ‘value’ is not simply explained by the outperformance of technology ‘growth’ stocks. It is also because the financial crisis catalysed the era of super-cheap money. A significant proportion of this poured into equity markets, much through passive funds which bought the index. As a result, all stocks began to move in similar ways regardless of the profitability of the underlying companies. The following chart shows that between the 2008 financial crisis and covid, the dispersion (or spread) of stock returns disconnected from the dispersion of returns on equity. In other words, even though corporate profits were more different, their stock prices remained similar.

Since covid, stock markets have flirted with the idea of once again discriminating between companies with strong and weak profitability. But the stimulus-fuelled rally has largely ended that. Investors are, once again, simply throwing their money at the entire stock market, particularly in passive funds.

In 2022, as equity markets lose the flood of money that has propped up all stocks over the last decade, investors may be forced to become more discerning. There are signs this is beginning to happen. Post-covid, the dispersion of returns is higher than it has been in almost a decade.

Accelerating the return of fundamentalism could be a tightening in business conditions. Wage pressure, exposure to ESG issues, and the Biden administration’s desire to increase competition, will likely have a disproportionate effect on poor quality companies that investors have hitherto propped up. That will further highlight the gap to market values and widen the differences between companies.

None of this means overall equity markets will crash. Rather, it may lead to a reordering within equity markets as we witness the return of fundamental value investing. Finally, active managers may be back in vogue.
8. Space: a worrying geopolitical frontier

– Galina Pozdnyakova

Against the backdrop of rising geo-political tensions between several countries, 2022 is shaping up to be the year when tensions over the potential for the militarisation of space become a top geo-political negotiation topic.

The problem is that most parties have an incentive to avoid agreeing on new rules. Many would rather keep space as a ‘wild west’. Of course, several countries have national space laws, and international treaties such as the Outer Space Treaty of 1967 are in place. Yet they do not adequately govern modern weaponisation of space technologies. And with no consensus over boundaries and control over space objects, and blurred lines between defence and weapons systems, the risk of conflict is rising.

The reality of the military threat in space will be amplified in 2022 as politicians digest recent high-profile events. The Russian ASAT test in November showed that the country can take down satellites – an ability also demonstrated by the US (2008), China (2007) and India (2019). Meanwhile, France recently became the fourth country to launch electromagnetic-monitoring military satellites, following the US, China, and Russia. The importance of space has surged in the past few years as falling launch costs have led to an increased number of satellites in orbit and, thus, and increased dependence upon them. Aside from military uses, future conflicts will certainly target communications, GPS, and finance applications that all rely on satellites.

Countries have quickly taken the military risks of space more seriously. Over autumn, QUAD leaders agreed to finalise “Space Situational Awareness Memorandum of Understanding” this year. Separately, the UK pushed a resolution on “threatening and irresponsible space behaviours” which passed the first stage at the UN and will be reviewed in December.

Responding to the threats, new military space divisions have popped up over the last two years. Japan’s Space Operations Squadron and the UK’s Space Command were both created since 2020. They follow the creation of China’s Strategic Support Force in 2015, and the US Space Force in 2019. The latter will receive a 13 per cent budget increase in 2022.

The 2022 completion of the Chinese space station, Tiangong, will also mark a shift in soft space power. It will increase China’s scientific research capabilities and its collaboration with other countries. The station’s advanced technologies and equipment, as well as modular design, will allow for multiple use cases. Meanwhile, the International Space Station is only approved to operate until 2024.

So 2022 will likely be the year where space becomes the next frontier of an arms race between key global powers. Layering these issues on top of existing geopolitical tensions will create an unusual situation for world leaders. Everyone wants everyone else to play by the rules. Yet the rules of space are antiquated and there is a heavy incentive for most powers to avoid cementing new ones. The tensions above the Earth appear set to amplify tensions on it. Space threats are already becoming a topic of geo-political negotiation and, in 2022, they will likely become front-and-centre.
9. Central Bank Digital Currencies: Growing into reality

– Marion Laboure

We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten. Don’t let yourself be lulled into inaction.


There is a clear move towards a cashless society (as a mean of payment) and CBDCs is set to progressively replace cash. The question is no longer « if » but « when » and « how ». Today, 86 per cent of central banks are developing a CBDC; 60 per cent are experimenting at the proof-of-concept stage. Central banks representing about a fifth of the world’s population are likely to issue a general purpose CBDC in the next two years. We believe that a large majority of countries will have a CBDC live in the next five to six years.

Emerging economies will lead the race. They will move quicker and with higher adoption than advanced economies. The Bahamas and the Eastern Caribbean are live; China will be live in February 2022. In five years, many emerging economies will have moved; including many Asian countries. The ECB/Fed will soon start piloting projects and, if successful, are expected to be live around 2025-26. The main barriers for advanced economies are: cultural/privacy; low interest rates; older demography; heavily reliance on cards.

A CBDC itself is not going to rebalance the international order between the US and China. But this is the Chinese global, 360 strategy with very advanced payments technologies which is creating an advantage to pay in their currencies and will continue to gain market share. China benefits from advanced payments systems (especially settlement technologies) that could change the deal and attract merchants and vendors to use this new, more efficient currency. The Chinese government has made tremendous efforts to internationalise the renminbi, like the US intervention in the early twentieth century. China aims to become a world leader in science and innovation by 2050. China is also massively investing in advanced technologies and is currently the second largest investor in artificial intelligence enterprises after the US. Indeed, China appears on track to have an “AI ecosystem” built by 2030.

PBoC’s development of digital yuan vs. RoW: a timeline

Source: Deutsche Bank Research.
Amongst the many themes turbocharged by the covid catalyst, ESG bond issuance is one of the most prominent. In 2022, ESG bond issuance is set to go mainstream. Investors have taken notice. In fact, the holdings of ESG bond exchange-traded funds have tripled to over $45bn since the covid outbreak. As the chart below shows, that surge of interest follows years of very little growth.

The growth of ESG bonds appears to have breached a tipping point. Not just because investors are keen to hold ESG debt, but also because corporates see that ESG issues now affect their business and investment risk. Indeed, in our recent survey, 19 per cent of corporate debt issuers say that over the last 12 months, environmental factors have impacted their rating. A smaller, but still material proportion, report that social and governance factors have had an impact.

Now that there is a firm nexus between ESG issues and business risk, ESG instruments (primarily bonds) have become a gateway through which corporates begin to address their impact on problems like climate change. Since early last year, over half of corporates have either offered their first ESG instrument or are currently preparing to do so.

Some of the strongest issuance in 2022 will likely be of sustainability-linked bonds. These bonds, which have quickly become very popular, generally offer corporates an interest rate discount if they hit certain ESG targets. From a base of close to zero two years ago, sustainability-linked bonds have comprised up to half the ESG bond issuance in the second half of 2021.

Investors have quickly fallen in love with sustainability-linked bonds. Just over half of investors say these types of bonds are the most promising instrument out of a pool of ESG assets. That is over double the next highest response, which is European green bonds, with 21 per cent.

Driving sustainability-linked bonds is the sudden growth in the number of businesses that publish quantifiable ESG performance targets. Indeed, a third of corporate debt issuers have already started to do so since 2020. A further 21 per cent will begin publishing in the next 12 months and that will leave only 6 per cent without any plans to do so.

Aside from investor demand and published corporate targets that have laid the platform for the growth of sustainability-linked bonds in 2022, corporates have discovered the ‘signalling’ benefits. Just over 60 per cent of companies in our survey said the main benefit of their company’s ESG instrument was that it “enables us to convey our sustainability strategy”. A further 22 per cent say these instruments expand their investor base. Meanwhile, half say there are pricing benefits.

Definitions on how to do ESG investing ‘well’ differ given the breath-taking pace at which it is evolving. Regardless, corporates and investors have now created the market for ESG bonds. With companies starting to publish specific ESG targets, it seems inevitable that in 2022 there will be a surge in issuance from corporates and strong appetite from investors.
Additional Information

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively ‘Deutsche Bank’). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, Deutsche Bank makes no representation as to the completeness, accuracy or correctness thereof. Hyperlinks or third-party web addresses are provided for reader convenience only. Deutsche Bank neither endorses the content nor is responsible for the accuracy or security controls of those websites.

If you use the services of Deutsche Bank in connection with a purchase or sale of a security that is discussed in this report, or is included or discussed in another communication (oral or written) from a Deutsche Bank analyst, Deutsche Bank may act as principal for its own account or as agent for another person.

Deutsche Bank may consider this report in deciding to trade as principal. It may also engage in transactions, for its own account or with customers, in a manner inconsistent with the views taken in this research report. Others within Deutsche Bank, including strategists, sales staff and other analysts, may take views that are inconsistent with those taken in this research report. Deutsche Bank issues a variety of research products, including fundamental analysis, equity-linked analysis, quantitative analysis and trade ideas. Recommendations contained in one type of communication may differ from recommendations contained in others, whether as a result of differing time horizons, methodologies, perspectives or otherwise. Deutsche Bank and its affiliates may also be holding debt or equity securities of the issuers it writes on. Analysts are paid in part based on the profitability of Deutsche Bank AG and its affiliates, which includes investment banking, trading and principal trading revenues.

Opinions, estimates and projections constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank provides liquidity for buyers and sellers of securities issued by the company it covers. Deutsche Bank research analysts sometimes have shorter-term trade ideas that may be inconsistent with Deutsche Bank’s existing longer-term ratings. Some trade ideas for equities are listed as Catalyst Calls on the Research Website (https://research.db.com/Research/), and can be found on the general coverage list and also on the covered company’s page. A Catalyst Call represents a high-conviction belief by an analyst that a stock will outperform or underperform the market and/or a specified sector over a time frame of no less than two weeks and no more than three months. In addition to Catalyst Calls, analysts may occasionally discuss with our clients, and with Deutsche Bank salespersons and traders, trading strategies or ideas that reference catalysts or events that may have a near- term or medium-term impact on the market price of the securities discussed in this report, which impact may be directly related to the analysts’ current market positions and/or investment return as defined in the report. Deutsche Bank makes no representation to update, modify or amend this report or to otherwise notify a recipient thereof if an opinion, forecast or estimate changes or becomes inaccurate. Coverage and the frequency of changes in market conditions and in both general and company-specific economic prospects make it difficult to update research at definable intervals. The reports are at the sole discretion of the coverage Manager, and the majority of reports are published at irregular intervals. This report is provided for informational purposes only and does not take into account the particular investment objectives, financial situations, or needs of individual clients. It could not be an offer or a solicitation to offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst’s judgment. The financial instruments discussed in this report may not be suitable for all investors, and investors must make their own informed investment decisions. Prices and availability of financial instruments are subject to change without notice, and investment transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor’s currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Performance calculations exclude transaction costs, unless otherwise indicated. Unless otherwise indicated, prices are current as of the end of the previous trading session and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is also sourced from Deutsche Bank, subject companies, and other parties.

The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding our organizational arrangements and information barriers we have to prevent and avoid conflicts of interest with respect to our research are available on our website (https://research.db.com/Research/) under Disclaimer.

Macroeconomic fluctuations can account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The closer the proper fixing is to the target rate (i.e., floating coupon rates (c.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness of these products for use by investors depends on the investors’ own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited – up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the ‘Characteristics and Risks of Standardized Options’, at http://www.optionsclearing.com/aboutpublications/character-risks.jsp. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

Participants in foreign exchange transactions may incur risks arising from several factors, including the following: (i) exchange rates can be volatile and are subject to large fluctuations; (ii) the value of currencies may be affected by numerous market factors, including world and national economic, political and regulatory events, events in equity and debt markets and changes in interest rates; and (iii) currencies may be subject to devaluations or government-imposed exchange controls, which could affect the value of the currency. Investors in securities such as ADRs, whose values are affected by the currency of an underlying security, effectively assume currency risk.

Unless governing law provides otherwise, all derivative transactions should be executed through the Deutsche Bank entity in the investor’s home jurisdiction. Aside from within this report, important conflict disclosures can also be found at https://research.db.com/Research/ on each company’s research page. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you or any of your agents (collectively, “You” or “Your”) with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, Deutsche Bank is not acting as your impartial adviser, and does not express any opinion or recommendation whatsoever as to the nature or merits of any investment or product or any other matter presented in the materials. Information contained herein is being provided solely on the basis that the recipient will make an independent assessment of the merits of any investment decision, and it does not constitute a recommendation of, or express an opinion on, any product or service or any trading strategy.
The information presented is general in nature and is not directed to retirement accounts or any specific person or account type, and is therefore provided to You on the express basis that it is not advice, and You may not rely upon it in making Your decision. The information we provide is being directed only to persons we believe to be financially sophisticated, who are capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, and who understand that Deutsche Bank has financial interests in the offering of its products and services. If this is not the case, or if You are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

In July 2018, Deutsche Bank revised its rating system for short term ideas whereby the branding has been changed to Catalyst Calls ("CC") from SOLAR ideas; the rating categories for Catalyst Calls originated in the Americas region have been made consistent with the categories used by Analysts globally; and the effective time period for CCs has been reduced from a maximum of 180 days to 90 days.

United States: Approved and/or distributed by Deutsche Bank Securities Incorporated, a member of FINRA, NFA and SIPC. Analysts located outside of the United States are employed by non-US affiliates that are not subject to FINRA regulations.

European Economic Area (exc. United Kingdom): Approved and/or distributed by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorized under German Banking Law and is subject to supervision by the European Central Bank and by BaFin, Germany’s Federal Financial Supervisory Authority.

United Kingdom: Approved and/or distributed by Deutsche Bank AG acting through its London Branch at Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation are available on request.

Hong Kong: Distributed by Deutsche Bank AG, Hong Kong Branch, except for any research content relating to futures contracts within the meaning of the Futures Ordinance that is distributed as a recommendation to trade as Cap. 571. Research reports on such futures contracts are not intended for access by persons who are located, incorporated, constituted or resident in Hong Kong. The author(s) of a research report may not be licensed to carry on regulated activities in Hong Kong, and if not licensed, do not hold themselves out as being able to do so. The provisions set out above in the "Additional Information" section should be taken to the fullest extent permissible by local laws and regulations, including without limitation the Code of Conduct for Persons Licensed or Registered with the Securities and Futures Commission. This report is intended for distribution only to 'professional investors' as defined in Part 1 of Schedule of the SFO. This document must not be acted or relied on by persons who are not professional investors. Any investment or investment activity to which this document relates is only available to professional investors and will be engaged only with professional investors.

India: Prepared by Deutsche Equities India Private Limited (DEIPL) having CIN: U65990MH2002PTC137431 and registered office at 14th Floor, The Capital, C-70, G Block, Bandra Kurla Complex Mumbai (India) 400051. Tel: + 91 22 7180 4444. It is registered by the Securities and Exchange Board of India (SEBI) as a Stock broker bearing registration no.: INZ0000232437; Merchant Banker bearing SEBI Registration no.: INM0000010833 and Research Analyst bearing SEBI Registration no.: NH000001741. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations. Deutsche bank and/or its affiliates may have debt holdings in the subject company. With regard to information on associates, please refer to the "Shareholdings" section in the Annual Report at: https://www.db.com/in/en-annual-reports.htm.

Japan: Approved and/or distributed by Deutsche Securities Inc.(DSI), Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association and The Financial Futures Association of Japan. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. We may also charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. 'Moody’s', 'Standard Poor’s', and 'Fitch' mentioned in this report are not registered credit rating agencies in Japan unless Japan or 'Nippon' is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of DSI are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Target prices set by Deutsche Bank's equity analysts are based on a 12-month forecast period.

Korea: Distributed by Deutsche Securities Korea Co.


Singapore: This report is issued by Deutsche Bank AG, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, 65 6423 8001), which may be contacted in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated by Deutsche Bank in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), they accept legal responsibility to such person for its contents.

Taiwan: Information on securities/investments that trade in Taiwan is for your reference only. Readers should independently evaluate investment risks and are solely responsible for their investment decisions. Deutsche Bank research may not be distributed to the Taiwan public media or quoted or used by the Taiwan public media without written consent. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation to trade in such securities/instruments. Deutsche Securities Asia Limited, Taipei Branch may not execute transactions for clients in these securities/instruments.

Qatar: Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may undertake only the financial services activities that fall within the scope of its existing QFCRA license. Its principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available only to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Russia: The information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Kingdom of Saudi Arabia: Deutsche Securities Saudi Arabia LLC Company (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may undertake only the financial services activities that fall within the scope of its existing CMA license. Its principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

United Arab Emirates: Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information