Julius Bär

VISION

MARKETS

MARKETS

Throughout history, markets have been centres of trade, commerce, and social exchange. They are sources of prosperity that have made the world richer in many more ways than just financially. But markets are not perfect, the financial markets in particular. They can be asymmetrical, unfair, unstable, and even fail completely.

It is for precisely this reason that we should not place markets on a pedestal. While they are vital for our understanding of the world, and indeed for its continued prosperity, they must be kept in perspective, kept in check, and most of all challenged and improved by all their participants and stakeholders when necessary.

One way in which we at Julius Baer, and many of our peers in the industry, are trying to improve the financial markets and create value that goes beyond wealth, is by supporting the shift towards responsible wealth management that is taking place today. We want to help our clients to invest in industries and companies that are supporting a positive sustainable transformation.

Investors have the potential to drive real change – they have the opportunity to make capital available that can have a positive impact on the planet and society. Of course, buying and selling securities in the market like equities or bonds will not directly finance the future, but those flows set important signals for the value of companies and the preferences of investors. These flows can therefore strongly support the transformation of industries. In addition, as entrepreneurs, executives, shareholders, and members of their communities and families, private investors have the unique ability to shape market sentiment by using their votes, their business decisions, and their voices to drive positive change and push for a more sustainable world.

In this issue of Vision magazine we take a broad and unexpected look at markets. From revolutionary new stock exchanges, private markets, and the technological transformation of trading, to dating, collecting, supermarket shopping, and the circular economy, we dive into the multifaceted world of markets and the roles they play in our lives. I hope it proves to be an enjoyable and informative read.

PHILIPP RICKENBACHER
Chief Executive Officer

4

18

32

40

46

56

MARKET

FUTURES

Markets have always played a central role in human societies, not just as centres of exchange, but also as places where people come together and new ideas are formed and tested. What is it that defines and drives them, and how do societies best use their energy and dynamism to serve larger purposes?

By Janet Anderson

The trading floor of the New York Stock Exchange, a throng of people shouting and gesticulating as vast sums of money change hands in the blink of an eye. Intense focus, triumph, and devastation – all are etched on the brokers' faces. What image could better capture the 20th-century idea of 'the market'?

But it's not the only idea of the market – a form of human interaction that has played a central role in societies across the world as far back as recorded history. Looking at how they have evolved, mirroring economic activity, and their diversity can provide clues as to how markets might be developed in future as the world continues to manage the upheavals and challenges of the current times.

BUILT ON RULES AND TRUST

Patrik Aspers is professor of sociology at the University of St Gallen in Switzerland and has focused much of his research on markets. "I grew up in the 1980s, when markets were expanding, and I became interested in their dynamics," he says. "We've had markets of one kind or another for thousands of years, but it isn't until quite recently that we started to think about the market as more than just a specific physical location."

For centuries, markets were organised places that provided security for traders under the rule of some form of authority, whether it be a state or a prince. "Think of the Roman forum or the Greek agora – these are clearly defined physical spaces with clear rules," say Aspers. "Most started on religious sites where people came together and then started to trade. In England, the King gave people the right to organise markets and made money out of this by taxing the traders. Societies that have organised trade in sophisticated ways have profited – trade has driven the creation and distribution of wealth across societies."

The shift to a new way of thinking about markets was driven by new technology in the form of, for example, the telegraph. This allowed people in different locations to know prices and volumes in other markets almost concurrently for the first time. It not only connected places, but also extended competition over place and time – a phenomenon first articulated by the 19th-century British economist William Stanley Jevons.

However, the original notion of the market as a secure place for trade is as relevant today as ever. Think only of Amazon as an example of a highly organised marketplace in a modern digital context. Buyers and sellers go to the digital space, log on, and in so doing agree to abide by the marketplace's rules. It is this that gives people confidence to trade.

"All markets rest on a sense of trust that can be taken for granted – the belief that if you trade with a stranger, it will be a peaceful interaction and that if that person deceives you, they will be sanctioned by the authorities," says Aspers.

On top of this, markets develop their own sets of customs and rules, and ways of monitoring behaviour. Those who misbehave can be expelled. "Trust has to be there first and the institutions built around that. You cannot simply install a market economy without it. We have seen attempts to do this fail over and again."

EXPLODING OUT OF NOWHERE

Few would question the purpose that the traditional market serves, where people gather to buy and sell goods that meet their everyday needs. Yet markets do not always make sense. Sometimes new markets emerge that seem to have no rational basis for their existence – for example, the recent frenzy around meme stock trading (see page 28). What drives a market that seems so divorced from fundamental value?

"Most often these sorts of markets emerge in a space where, intentionally or not, there is a lack of rules, or when existing rules are not enforced, due to, for example, corruption," says Aspers. But sometimes something else kicks in – a kind of frenzy. "This is what we see with speculation bubbles, where speculators trigger each other until stakes are very high. Psychology can answer some of these questions. But in many cases, it is simply a lack of knowledge and insight on the part of the market actors that explains these phenomena."

Yet if people are prepared to engage in even the most outlandish markets with little rational prospect of returns, can anything be traded? "'Market' is a neutral term in relation to its object, but there are, of course, limitations. These are set by a society's beliefs and values about what is right." These shift and vary, not only between places, but also across time. It is not acceptable today to trade slaves, but it is acceptable to sell life insurance – a product that was viewed as morally suspect until the late 19th century in large parts of the Western world, says Aspers.

TECHNOLOGICAL TRANSFORMATION

It is not only society's needs and mores but also technological innovations that have always transformed the way markets are organised, and how we trade goods and exchange information. "The development of the first standardised weights was hugely important for trade," says Aspers. "It enabled traders to compare goods, and only in relation to some standard does price function as an easily transmittable signal of scarcity. Being able to compare and choose between competing offerings is a fundamental feature of all markets. Without choice and competition, it would not be a market, but simply an exchange."

Today, artificial intelligence, big data, and machine learning are transforming financial markets and opening up access (see page 12). Most people can now trade from anywhere at any time. However, there are concerns that reliance on technology could see an increase in 'flash crashes'. There are also complex legal questions around ultimate responsibility. But these worries have not held back the development. This is no surprise to Aspers. "The law tends to run after human behaviours," he says. "Markets are always evolving, always on the move. The use and introduction of new technology is just the continuation of a long tradition."

CAN MARKETS MEET OUR BIGGEST NEEDS?

Markets evolve and adapt fast, but can they meet any challenge? Growing concern over climate change and the impact our activities have on the planet has led many to question whether traditional capitalist economies can continue to operate as usual.

Not long ago, the term 'circular economy' was virtually unknown. Today, there's hardly a business that doesn't refer to it in some form (see page 40). They see collaboration, partnership, and knowledge sharing as the way forward. Do these changes undermine some of the fundamental drivers of markets?

Aspers does not believe so. "Competing companies cannot decide the identities they gain in markets on their own – their identities are decided by customers. In the past, this was based primarily on product quality and price. Now, in addition, customers want companies to behave well and be sustainable."

For business leaders, this means thinking about how your company is perceived in relation to how the competition is perceived. As a CEO, you want your company to be the one that is identified as 'good' in terms of price, quality, and the environment. "This is not just a question of marketing or discourse," says Aspers. "A company's identity in the market is not just what it says it is, it is a function of what it does."

THE RETURN OF THE STATE?

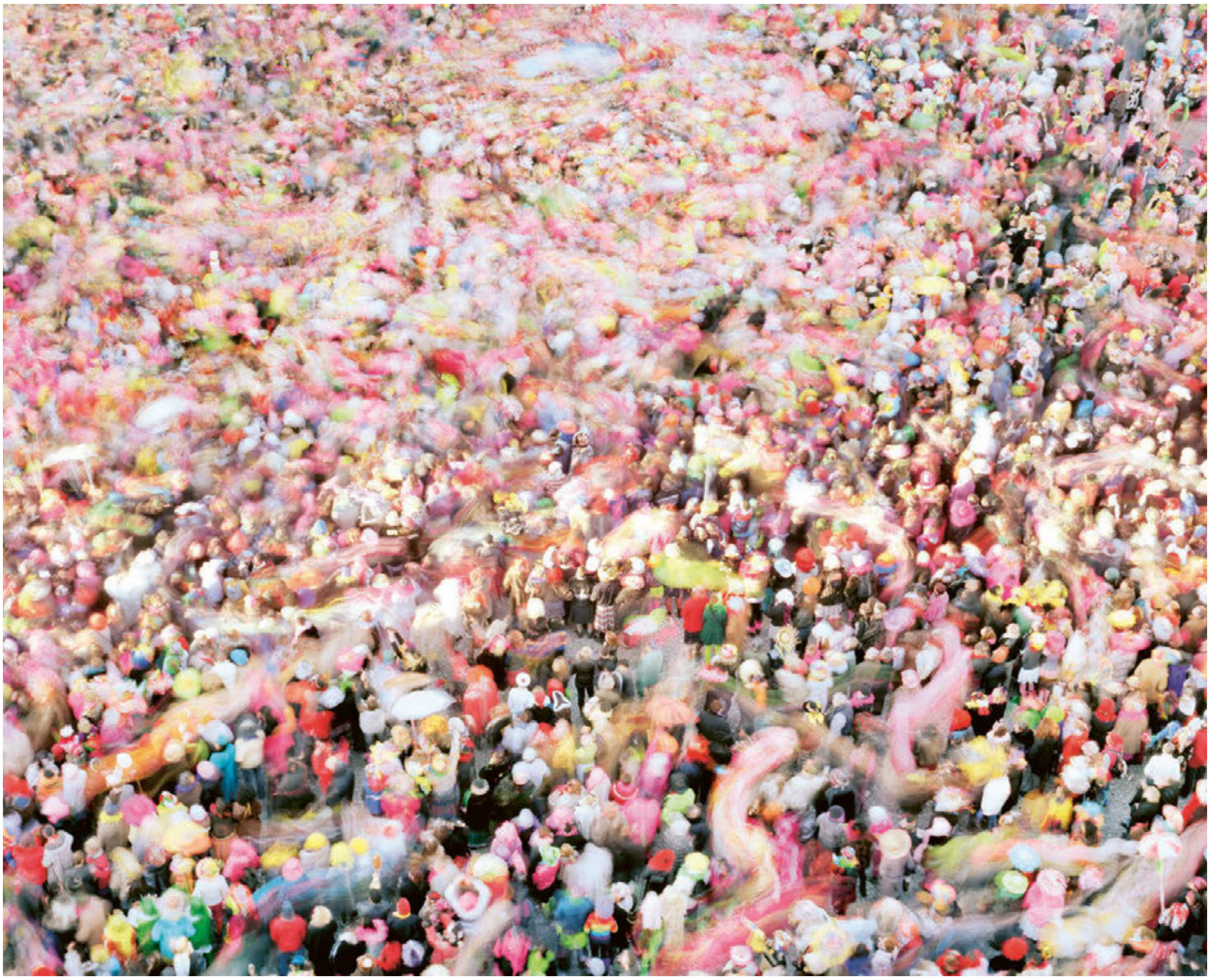
In terms of tackling climate change, however, we are still in the foothills of this new thinking. Thanks to the way our markets work, it is still often cheaper to replace a piece of equipment, rather than buying spares and fixing it. There are also very human factors that inhibit change. Take the fashion industry as an example: "The driving force behind fashion is about replacing things not because they don't work but because they don't look right," says Aspers. "It's a logic that does not fit well with sustainability; it is almost a contradiction in terms."

The pandemic has meant that in most parts of the world, the state has taken on a much bigger role than in previous decades. This has led some to question the role of capitalism. They doubt that it can solve urgent challenges such as climate change and growing inequality. They argue that markets need reform and more regulation if they are to serve society's larger purpose today.

"Since the 1980s we have seen markets expanding. The promises and hopes were fulfilled to some extent, but it is clear there are areas in which they are less successful, so reflection is kicking in," says Aspers. But the marketplace, its rules, and mores are evolving. "Increasingly, companies are seeing themselves as citizens of society. Profit is seen as a consequence of doing well, not the sole aim in itself."

In the end, whether markets serve society's larger purpose or not depends on how we frame them – not just the rules we set to control them, but also how we use them and where we deploy them.

"To have a society that hangs together, it has to be made up of citizens that take an active part – it is not enough just to have traders who buy and sell," says Aspers. "It is the job of government to regulate markets to avoid conflicts in society. But getting the balance right is critical."



TOOLS OF

THE TRADES

Setting up an entirely new stock exchange designed for long-term investors was a lengthy, arduous process – but founder Eric Ries is optimistic that his Long-Term Stock Exchange will reap dividends.

By Kate Bassett

When Silicon Valley entrepreneur Eric Ries (pictured left) floated the idea of a new long-term stock exchange in the epilogue of his 2011 bestseller 'The Lean Startup', critics branded it "repugnant", "anti-capitalist" and "un-American". "It's hard to express just how crazy and controversial the concept seemed to people at the time," says Ries. "But I just couldn't let it go."

Ries's lightbulb moment for a revolutionary new stock exchange, which prioritises long-term thinking instead of short-term gains, came while he was researching his book.

"We all know that companies with a long-term mindset consistently outperform their industry peers across almost every financial measure that matters," he says. "Yet in all my conversations with business leaders, I kept hearing about the immense Wall Street pressure to pursue short-term results. CEOs would complain about innovation hampered by boom-bust cycles, abrupt changes in governance, struggles to maintain constancy of purpose, and the difficulty for public companies in knowing who their long-term shareholders even are.

"It dawned on me that the only way to change the public markets was to create an entirely new one."

Ries never actually expected to build a stock exchange from scratch himself, but no one else stepped forward. "Everyone kept telling me it was impossible. I thought, 'Maybe if I learn a bit more about how the system works, I'll understand why – and then the idea will finally leave me alone.'"

STARTING FROM SCRATCH

He started to do his homework, spending several years trying to figure out how to form a stock market from the ground up, assemble the right expertise and understand all the legal and technical issues. "It was hugely complex," he admits. "There aren't any books on this stuff. As an outsider, you can't just rock up, say you're planning on reforming the entire system, and expect help. It's a very closed world. But that wasn't a good enough reason to stop trying."

Eventually, he discovered the lengthy SEC form 1, the application to establish a national securities exchange. That, says Ries, was the moment he started to turn a vague concept into a concrete proposal: "There's a saying that a journey of a thousand miles begins with one step. I just took one step at a time, until things started to snowball."

In November 2015, Ries formed a company and started fundraising, attracting around USD 90 million in three

> "It dawned on me that the only way to change the public markets was to create an entirely new one."
> Eric Ries

rounds from investors including Founders Fund, Collaborative Fund, Andreessen Horowitz, Obvious Ventures, Uprising, and Initialized Capital. The SEC officially approved the exchange in 2019 and, a year later, the Long-Term Stock Exchange (LTSE) launched as the 14th member of the National Market System, operating alongside the likes of Nasdaq and NYSE.

LISTING STANDARDS

LTSE takes what it calls a 'principles-based approach'. Companies that wish to list must create policies around: a long-term strategy, with metrics that measure progress towards meeting those goals; a stakeholder engagement plan for the community, employees, and the environment, along with a diversity and inclusion plan; a blueprint for engaging with long-term investors; board oversight responsibility for long-term strategy; and executive and board-level compensation that is tied to that strategy.

Ries hopes this listing criterion, which has a strong focus on corporate governance, will attract companies by acting as a prized stamp of approval for investors.

"We couldn't be too prescriptive: we had to find a system that would work for the smallest-cap company as well as the Googles of this world," he explains. "We want companies to focus on the fundamentals instead of managing to the quarter."

According to Garry Tan, Managing Partner and Founder of Initialized Capital, this approach actively works against the capital-seeking yield mentality that permeates the market today. "LTSE creates a reasonable mechanism for management control, allows start-ups to go public earlier and transparently, empowers retail investors to participate in tech gains, and prevents short-term corporate raiders from strip-mining small-to-mid cap IPOs," he says. "Long-term shareholders get to (rightfully) maintain control, and yield-seeking flippers are neutralised."

THE TECH TRAILBLAZERS

In August 2021, the first two companies listed their shares on LTSE: California-based tech firm Twilio and workplace software company Asana, which is run by Facebook co-founder Dustin Moskovitz. Ries hopes their decision will encourage like-minded businesses to follow suit.

Bentley Hall, CEO of organic food delivery service Good Eggs, which is working to develop exactly the kind of multi-stakeholder, long-term-vision company that LTSE encourages, believes there's a real demand for this kind of market. "History has shown that great companies – especially those that are as committed to doing good as they are to doing well – rarely spring up overnight. They are carefully built piece by piece, goal by goal, year by year. LTSE feels like a great home for companies who believe that," he says.

Hall hopes that Good Eggs, which delivers 'absurdly fresh' groceries to San Francisco's Bay Area in the States, employs 700 people and pulls in revenues of more than USD 100 million, will endure decades from now.

"That's honestly harder than a flash-in-the-pan," he says. "LTSE could help limit unnecessary short-term distractions and amplify the incentive to make high-impact, long-term investments. For stakeholders, that should help create more value, more consistently, over longer time periods."

THE CONCERNS

The 'novelty factor' of LTSE is enough to put other business leaders off, however. "The truth is that for many companies, this is something new so it feels risky," admits Ries. "There are concerns around liquidity, for example, but many people don't realise that securities are traded across markets: there's equal liquidity, regardless of listing venue."

Shaking off short-termism altogether is going to be tough. "The reasons companies act in short-term ways are multiple. It's not just because of quarterly reporting. It's also down to executive compensation structures, CEO tenure, culture, and balance sheet considerations," comments investor and entrepreneur Colette Ballou, who was named one of the 50 most influential women in the start-ups and venture capital space by the web publication 'EU-Startups'. "For investors, less frequent reporting reduces transparency and opportunities for inquiry into the ongoing operations of the business."

While Ballou applauds LTSE's efforts to drive longer-term investments into company growth and create more sustainable governance structures, she says the issues need to be fixed across all capital markets, "not just in a special corner created for that purpose".

Ries hopes that, eventually, every company that lists will consider LTSE. "Employees, customers, investors, and communities are increasingly scrutinising businesses and asking: 'What kind of company are you? What do you stand for? Are you repairing our world or part of the continued degradation of it?' We're putting companies to the test. We're making them live up to their rhetoric. Ultimately, LTSE will act like a global BS detector."

"The reasons companies act in short-term ways are multiple. It's not just because of quarterly reporting. It's also down to executive compensation structures, CEO tenure, culture, and balance sheet considerations."

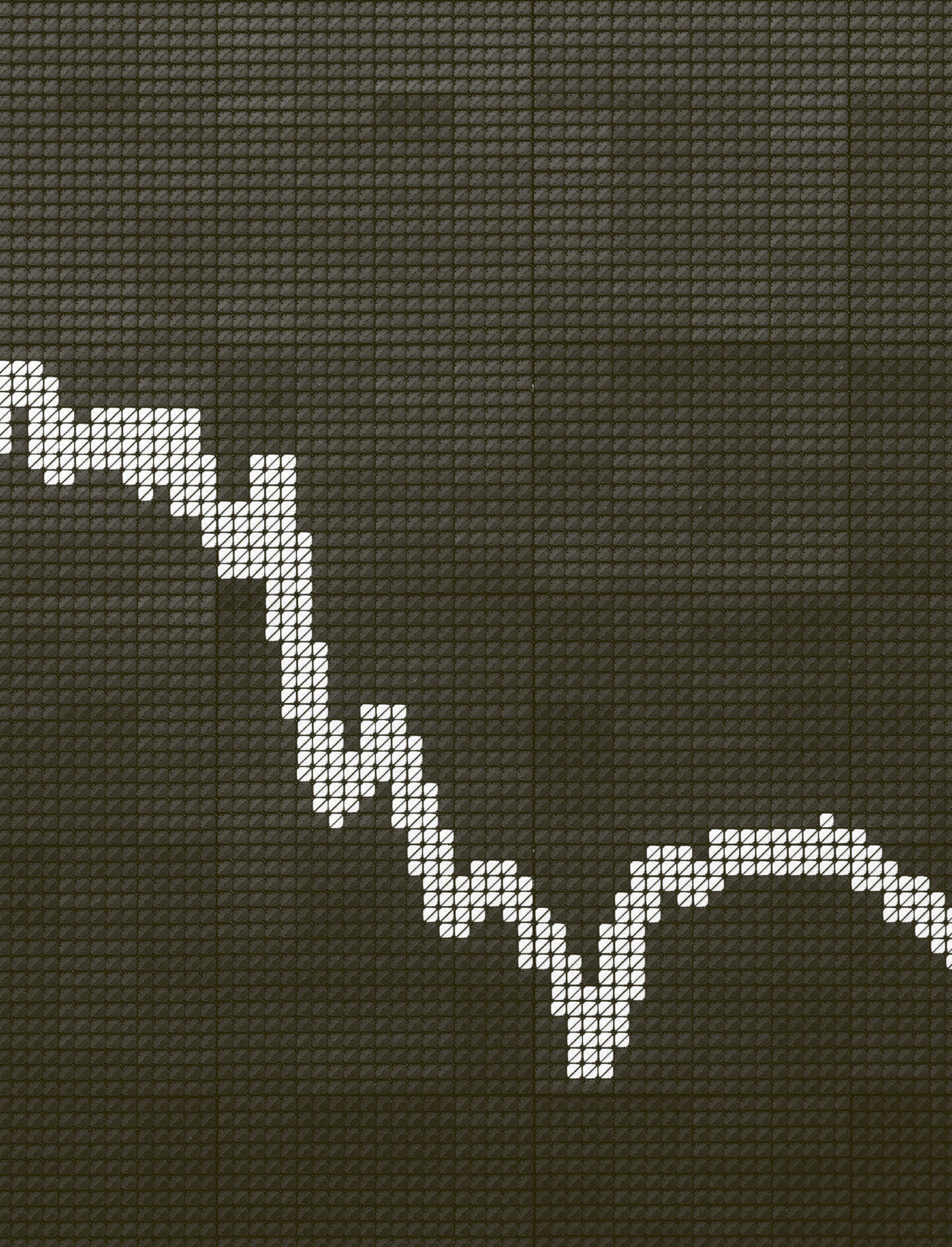
Colette Ballou

TRADING

By Simon Brooke

PLACES

Photo: © Heinrich Holtgreve/@ Ostkreuz



The trading markets have changed beyond all recognition in the past 30 years – and with technology continuing to affect every practice involved in research and trading, the sector's digital revolution looks to be far from over.

Although it has been more than three decades, Christoph Kummli will never forget his first few days working as an apprentice trader. "You're sitting in a big room and phones are ringing constantly. There's a real sense of activity and it's very loud – you hear brokers and messages over loudspeakers and sometimes, let's say, the language would not have been acceptable today," says Christoph, who began his career in the money markets and fiduciary deposits department at Julius Baer in 1988. He later moved on to OTC currency option trading and is currently head of the trading department across all asset classes.

During these early days of Christoph's career, there was little digital support for traders; every element of trading was manual and required considerable focus and skill. "It was stressful, but also fascinating," he remembers. "And, of course, there was a lot of paperwork, so you really had to keep your head together, to make sure that you weren't making mistakes."

Technology has revolutionised the way traders work, with scenes such as Christoph's early days consigned largely to documentary footage. Today, many of the processes are fully digitised and trading floors are largely silent. And, with innovations such as big data, machine learning (ML), and artificial intelligence (AI), technology is likely to change the trading environment even further. According to a survey published in 2020 by Celent, a research and advisory firm focused on technology for global financial institutions, trading technology "is a key competitive differentiator for 82 per cent of those surveyed", while "in three years, ML/AI will be the highest priority at 79 per cent". In 2019 research firm Morningstar reported that the total value of passive equity assets, which are led by technology, exceeded the value of those run by human beings.

KNOWLEDGE IS POWER

The financial markets have always worked best when decisions are made based on the most accurate, timely information. "In the 1990s and 2000s, for instance, you always had the feeling that you were a little bit ahead of the outside world in terms of information," says Christoph. "You were very close to the political and economic news feeds – the information that mattered most for the foreign exchange and precious metals markets. When you got home, you didn't need to listen to the radio or TV news because you already knew so much."

Back then, traders and sales had considerably more information than the outside world about companies and the overall financial markets, which they gained through the firms' research departments, who would pore over financial reports and interview CFOs and other company spokespeople. They would then use this intel to inform the customer about their findings and get the best deals for them, enhancing their own reputations. Much of this continues today, of course, but with 24/7 news coverage, instantaneous information transfer, and the general availability of data online, traders today are no longer so far ahead on the information curve.

The access to, and democratisation of, information has been one of the most significant shifts to the trader's world and, combined with the development of online trading apps and platforms, has enabled anyone to trade from anywhere. "Now so many more people have access to data and the capability to trade over their computer or smartphone. It's very easy to set up an account and start buying and selling," he says. "You can even buy just 0.5 of an Apple share or 0.7 of Bitcoin, if you want to. The market has opened up to customers who haven't been trading before and it's added to the market dynamic."

This increase in market activity, combined with access to technology such as big data, enables markets to draw on a broader pool of information, and this increasingly allows for more accurate pricing, according to Professor Gbenga Ibikunle of the Business School and the Edinburgh Futures Institute at the University of Edinburgh. "There are more opportunities for markets to benefit from the wisdom of crowds," he explains. "You can now draw on data showing how a company is utilising its resources and assets, for instance. Information can be gathered more easily from data platforms such as Bloomberg as well as social media, and then AI can turn this into usable intelligence. Algorithms can note the current price of a stock and compare that with what they believe the true value to be based on the data faster than ever."

NO TIME TO WASTE

It is not just the dissemination of information that has accelerated. Execution is also faster because of technology – and is set to speed up even more. Professor Ibikunle says: "Huge trade volumes can now be executed very quickly in order to correct mispricing and create greater liquidity. We carried out research which showed that, thanks to new technology, this correction to mispricing can take place in less than a second, compared to the hours or even days that it took under older systems."

Christoph is quick to acknowledge the benefits of faster execution. "Being able to react quickly is better for the trader – and the customer," he says. "Back in 1990 I had to call someone to make a trade, and if they didn't pick up then it was a real nuisance and delayed the trade, which was frustrating for me and my customers. Today executing a trade takes less than a second."

However, he also notes that it has changed the nature of the job considerably. "As a trader you need to feel it, you need to feel the heat and the excitement. Back when I started you actually had the paper in your hands and the brokers were screaming around you, and so you really felt that you were making a trade."

The ability to execute transactions at the click of a mouse or tap of a smartphone has removed much of the thrill and emotion from the process. In the days of noisy trading floors, the industry hinged on human interactions and close working relationships. Today, the industry relies more on technology; pricing is automated, booking is automated. The majority of communication with clients is done via an API (application programming interface, ie a software intermediary). If the systems go down, things suddenly become incredibly challenging.

The counterpoint is that there are enough experienced traders who have lived and worked through crises to have a good sense for how things work and can keep working under the most trying circumstances. But it will not be so easy for new traders to gain this valuable market instinct while sitting alone at a terminal. "It is very difficult to become a trader today," says Christoph. "For somebody who doesn't know the business at all coming in, it's extremely difficult to get a feel from just looking at numbers and charts changing on a screen. The heat is missing."

New traders also need to be able to combine the analytical, systematic skills needed to work with the technology with the human touch. "Automation, ML, AI, and efficient processes are all facilitators for traders. Innovation allows us to understand situations faster and in more detail, but that needs to be combined with experience. Traders need the human experience that helps them to actually avoid damages, big damages, because at one point we may find that the computer system fails for whatever reason and we need to rely on the old, manual skills once again."

The increasing reliance on technology over humans is also concerning regulators, leading to increasingly complex and rigorous regulatory requirements. "Legally, the regulators are looking closely at the resiliency risks of relying on technology, both for individual firms and for the financial system as a whole," says Simon Treacy, senior lawyer in law firm Linklaters' global financial regulation group. But regulators are running to keep up with new developments. "There are also complex legal questions about how the use of some new technologies, such as blockchain, fit into legal structures that were not written with them in mind." With new technologies and capabilities being deployed almost daily, this schism is only likely to grow.

Does Christoph see a time in the future when all trading is automated and traders become obsolete? No. "Technology is bound to reduce the number of professional traders in the world," he says. "The number of apprentice traders is already decreasing dramatically and I think that will continue – up to a point. There will of course be some businesses where it doesn't make sense to have human traders because the margins are so tight that machines are more efficient." But for other product areas that are more complex and require risk-taking skills, such as non-linear products, he sees human traders remaining: "In my opinion, the human brain is still needed for these complex trading situations. I don't see that changing."

Photo: © Paolo KOCH/Contributor

Julius Baer has had a seat at the Zurich Stock Exchange since 1901

PRIVATE

FUNCTIONS

Photo: © Marvin Leuvrey

By Emily Rookwood

With investors in the public markets facing obstacles ranging from increased regulatory scrutiny to severe volatility, private markets are continuing to grow in popularity among high-net-worth individuals.

The rise of private markets has been one of the biggest financial trends of the past decade. Once an asset class only available to big institutional investors such as large North American pension funds or endowments, private markets have expanded hugely in recent years and have become increasingly accessible to private investors.

The secular bear market of the 2000s created the perfect environment for private markets – those where assets not traded on public markets change hands – to flourish. Encompassing sub-categories from art and collectibles to real estate, infrastructure, and private equity, private market investments have increased hugely in recent years. Private equity investments alone almost tripled in a decade, from approximately USD 1.6 trillion in December 2009 to nearly USD 4.5 trillion as of December 2019.

Unsurprisingly, private equity is the most popular form of private market investment. From venture capital to investing in long-established family-owned companies, private equity offers a wealth of opportunities. Today, over two-thirds of all institutional investors have private equity in their portfolios, and according to global consultancy Knight Frank it now accounts for 8 per cent of a typical investment portfolio among high-net-worth individuals. Indeed, investment in non-listed entities was the most popular request to wealth managers from ultra-high-net-worth (UHNW) individuals in 2021, according to the Julius Baer Family Barometer.

A PERFECT STORM

There are a number of factors that play in favour of private investments at the moment, as Yves Bonzon, Chief Investment Officer of Julius Baer, explains: "First, increased regulatory scrutiny in the public markets combined with demanding conditions for listing have contributed to a tendency for many companies to remain private, or to stay private for longer, which has enriched the market considerably."

Second, as seen with the 2008 crash and again when the pandemic hit in 2020, liquid markets in particular can be tremendously volatile in the short run. "That market-to-market volatility in a portfolio can make for sleepless nights for wealthy individuals as it is difficult for them to ignore," Bonzon says. "With private markets, on the other hand, you don't see the day-to-day price fluctuations." This has the advantage of making private investments feel more stable and reduces the tendency among investors to change their positions too frequently.

Third, private markets also have an element of exclusivity around them as not everyone can invest in companies pre-IPO, and that exclusivity is driving the appetite for such investments among wealthy investors, and family offices in particular. However, Bonzon notes it is important to remember that overall, private markets might not provide better returns than public markets, so the added complexity of adding private equity to your portfolio only makes sense for larger asset bases: "The additional complexity will not make much of a difference on a USD 2 million portfolio in absolute terms. When it's on a USD 200 million portfolio, however, the enhanced risk return profile may, in dollar terms, be worth that additional complexity."

Finally, increased interest in responsible wealth management – 27 per cent of high-net-worth individuals have expressed interest in sustainable investing options, according to data from Capgemini – means that investors are looking to back companies, corporations, and funds that generate financial returns alongside measurable social and environmental impact. As Bonzon explains, "Private equity is one of the asset classes likely to have the most tangible impact when it comes to fulfilling environmental or social objectives, as invested capital is typically directly used by the company to fund projects with clear environmental, social, and governance (ESG) characteristics."

NO UPSIDE WITHOUT A DOWNSIDE

Of course, as with every investment, there are risks and considerations, and private market investments are no exception. One of the biggest considerations is the lack of transparency inherent to the asset class. In comparison to listed companies, which have extensive regulatory reporting requirements that reveal a great deal about the health and workings of a company, there is relatively little information available to investors about the inner workings of private companies.

Furthermore, in comparison to companies listed on the major stock exchanges, where you can measure the returns in precise detail for any given period down to the last dollar, the lack of transparency on returns in private markets, coupled with the fact that there is a time lag before you even get the figures, makes it very hard to capture exact returns.

As mentioned, this can be an advantage as investors do not see the price fluctuations and are therefore less inclined to rearrange their positions in moments of panic. However, it also has drawbacks – the biggest of which are the additional costs paid by the investor to compensate for the extra work associated with private equity along the value chain. A typical private equity portfolio is likely to charge close to 600 basis points, 10 times more than a standard portfolio of publicly listed companies – a hefty premium to pay not to see the price changes.

Another point worth bearing in mind is the lower liquidity in private markets. Secondary markets for private investments exist, but volumes and market making are subdued – particularly in times when they are needed most. Therefore, compared to the rest of your portfolio, you will need more confidence that you are able sit on private investments for an average of seven years.

The final consideration is that when it comes to private equity in particular, there is a significant difference between the size of the investment and the money you actually put to work. For example, if you are investing over a long time horizon, you will often only have half of the committed money at work at any particular time, so it is not unusual for end-investors to commit twice as much money as they actually intend to invest. And what's more, you pay fees to the investment manager on the committed amount.

LOOKING TO THE FUTURE

Yet, despite these potential concerns, private market investments continue to grow in popularity and investors are increasingly looking for ways to access the markets more directly. There are also early attempts to further democratise access to private markets, with digital newcomers such as Moonfare, OurCrowd, and Verve looking to give private investors, potentially even retail investors, access to the asset class through digital interfaces. Whether this will work is yet to be seen.

Private market investments themselves, though, are here to stay. As with any good investment strategy, it is important to be diversified, and private markets offer excellent diversification opportunities for wealthy investors. However, in all the excitement around private markets, and private equity in particular, it is important not to discount or underestimate public market equities – after all, as Bonzon adds, "They tend to have underappreciated merits."

POPULAR PRIVATE MARKETS

'Private markets' has become an umbrella term to refer to assets that are not liquid, are not traded on organised market exchanges, and are spread across different segments such as private equity, real estate, private credit, and infrastructure.

According to a report from consultancy McKinsey, the most popular sectors for private investment are real estate, energy, professional services, software, and healthcare. Meanwhile, travel, hospitality, and media have become less popular in the past 10 years – and these sectors are likely to continue to face disruption from the Covid-19 pandemic over the next few years.

When it comes to regions that are ripe for private market developments, Asia is leading the pack. The large number of entrepreneurs and the emerging market economy make it fertile ground for private market investments. That said, there is an expectation that investors will become more selective among sectors and private equity firms given recent events in the region.

Photo: © REUTERS / Andreas Gebert

Clock enthusiast Werner Stechbarth poses with his collection
of more than 500 clocks at his apartment in Munich

TREASURE

Sometimes the most obscure and unlikely items can prove to be immensely valuable – provided that the suitable market conditions are in place.

HUNT

Günter 'Pindigi' Freinberger started collecting pinball machines in 1997 and now has 570 in his museum in Ruprechtshofen, Austria, making him one of the world's biggest collectors of vintage pinball machines

Photo: © REUTERS/Heinz-Peter Bader

By Simon Brooke

It's clunky, not particularly appealing to the eye, and, compared to what modern gaming technology can offer, positively ancient. And yet what is described as a 'Nintendo PlayStation' sold in March 2020 for USD 360,000. The previous owners revealed that they had originally bought the console (a rare prototype produced while Nintendo was working with Sony) for just USD 75 at a bankruptcy auction.

Asking why anyone would want to pay such a huge amount of money for something that most people wouldn't give house room to lies at the heart of the mystery of collecting, markets, and valuations. A cursory online search reveals that there are collectors of aeroplane sick bags, Coca-Cola cans, Daleks, banana stickers, traffic cones and... well, let's leave it at that, shall we?

Although few of these quirky collectors appear to be in it for the money, it is more about following a personal passion, occasionally, as with the Nintendo PlayStation, a market develops around the objects in question. As a teenager in the UK, for instance, Robert Opie started to amass a collection of consumer-goods packaging. He now has a treasure trove of more than a half million objects that he offers as an image bank for those interested in the history of consumer society.

People have collected works of art for centuries – King Nebuchadnezzar II of Babylon had a collection of statues from the era of the kings of Ur that were already ancient by his time. However, in recent years objects previously considered to be mainly utilitarian have also attracted the eyes (and wallets) of collectors, creating markets for them.

Handbags, cars, jewellery, whisky, and furniture have developed from being simply used to being collected and have now become important as alternative investments over recent years. Many, such as wines and whiskies, now have their own indexes, while the extremely rare Hermès Diamond Himalaya Birkin 25 handbag, made of the skin of the Niloticus crocodile and covered in 18k white gold and diamond hardware, sold at Christie's in 2020 for a record-breaking USD 300,000.

If you'd bought a pair of Jordan 1 Retro Fragment trainers for the standard ticket price of USD 185 in 2014, today you could sell them for USD 2,000, while a pair of Michael Jordan's Air Jordan 1s from 1985 fetched USD 560,000 at Sotheby's in New York in 2020.

Markets are based on three little words: supply, demand, and price. To achieve what economists call 'perfect competition', there needs to be a large number of identical suppliers complementing those who are looking for the same product. As well as this, ideally, buyers and sellers need be able to connect with one another at no cost and there need to be no barriers to prevent new suppliers from entering the market. Bizarre collectibles, it seems, tick so many of these boxes.

Photo: © REUTERS / Steve Marcus

Jordan Michael Geller with his collection
of the Nike Air Jordan Retro line

Barbie collector Jian Yang arranges part of his vast collection at his home in Singapore

Photo: © REUTERS / Edgar Su

SOCIAL CLIMBERS

By Rhymer Rigby

One of the latest ways in which social media has infiltrated our lives is through the growth of meme stocks, where companies' share prices can fluctuate hugely and with no connection to their operational performance. Should we be worried?

In January 2021, the share price of GameStop, a video game and electronics retailer, shot up by a factor of almost 30, from about USD 17 to more than USD 480. Previously little-known share GameStop was suddenly the biggest story in the financial media.

What had happened? A short squeeze had taken place. Shorting is when investors make money by betting that a stock will go down in price. They do this by borrowing shares (from someone like a broker), which they sell. When the price has fallen, they buy shares back at the new, lower price and return them, pocketing the difference. This is known as covering their position.

A short squeeze happens when a lot of people have shorted a stock. They start buying to cover their positions, the market notices, and this drives the price up. Obviously, if you short a stock at USD 17, expecting its price to fall to USD 12, and then have to buy it back at USD 27 – or even USD 170 – to cover your position, you're going to lose a lot of money. Far more than you would ever have made. This is what happened with GameStop.

SUB-PLOTS

But there's a further twist. It was mostly major hedge funds that had shorted GameStop – and it was activist small investors who instigated the short squeeze. Most prominent among the short squeezers were members of the WallStreetBets subReddit using Robinhood, a commission-free trading and investment app.

Reddit is a social networking site made up of forums called subReddits, where people discuss everything from politics to films that were cool in the 1980s. There are thousands of subReddits for every topic. WallStreetBets is one of these, and until early this year it was a forum where retail investors discussed businesses that were good bets and swapped tips and gossip. But more recently it has become a place where people discuss taking down hedge funds for LOLZ.

Since then, other companies such as cinema chain AMC and BlackBerry have experienced similar social-media-driven frenzies. These have been driven by a mixture of hype, a desire to hurt the big guys such as hedge funds, fun, and a general love of chaos. WallStreetBets currently describes itself as "Like 4chan found a Bloomberg terminal". But what does it all mean?

Carsten Menke, Head of Next Generation Research at Julius Baer, says: "The sophistication of the participants of WallStreetBets varies drastically. While there are certainly some with full-time positions in banks or hedge funds, others have very little financial know-how. Much of the activity around meme stocks is from people who are prepared to take a gamble and hold them for short-term gain."

CRYPTO PARALLELS

If all this speculation and risk sounds a bit like crypto, well, it is. The idea of 'meme stocks' has similarities to crypto assets, the dot.com boom, and day trading. Meme stocks are businesses whose value has become divorced from the fundamentals (such as revenue and profit) and is now dependent on social sentiment – that is what sites like Twitter, Reddit, and TikTok are saying.

Although this doesn't mean the underlying companies are worth nothing, the hype created on social media will have inflated their apparent worth. As Menke notes, "Sentiment is always a factor in financial markets, pushing prices away from their fair values, both on the upside and the downside. WallStreetBets seems to have amplified these price swings."

Indeed, what we may be seeing is social media disrupting finance in the way it has disrupted other industries ranging from traditional media to advertising to entertainment. For this reason, everyone from hedge funds themselves to the United States Securities and Exchange Commission, the US government agency responsible for regulating the


SO THESE...
...ARE MEME STOCKS?

securities market and protecting investors, has taken an interest in meme stocks. The reasons for this interest range from making money and their potential to cause volatility in markets to protecting unsophisticated investors from their own (potential) irrationality.

The Advertising Standards Authority, the UK's independent advertising regulator, is also keeping an eye on them, as are social media companies themselves. TikTok recently banned the promotion of financial services on its platform, although, as many have noted, there are still plenty of influencers on the platform offering a stream of terrible financial advice that may well include crypto assets and meme stocks.

YOUTHFUL APPEAL

This is the other side of meme stocks – like crypto, they have a strong attraction for younger generations and also retail investors who are not very sophisticated. Kyla Scanlon, a financial content creator, says: "I wrote a paper about memes being a short-form narrative – and I think that's what's happening with finances. People look at [the stock market] and they think, 'I don't understand it.' But if you can gamify it and make it fun, it makes it a lot more accessible. And so I think that's happening."

This is interesting – crypto assets have already shown a notable ability to pique the interest of people who wouldn't go anywhere near the traditional stock market. So this could be a positive thing, assuming they don't buy a meme stock just before its boosters lose interest and it loses 75 per cent of its value. Scanlon says of WallStreetBets: "It's gotten kind of weird and you're seeing a lot of almost cultish behaviour. Until January it was mostly people sharing due diligence."

Of course, we have been here before. Along with the dot-com boom, there have been dozens of speculative bubbles over hundreds of years. The best known of these are the South Sea Bubble of the early 18th century and the Dutch tulip mania bubble. The latter is thought to be the first recorded financial bubble and at its height, bulbs were selling for 10 times what a skilled craftsman earned in a year. It collapsed in 1637 and was popularised in the 1841 book 'Extraordinary Popular Delusions and the Madness of Crowds' by Scottish journalist Charles Mackay.

AMPLIFIER BOOM

So, plus ça change? Well, not quite. Like everything from politics to celebrity outrage, social media amplifies the effect of bubbles and removes checks and balances. One piece of bogus information or hype can be shared thousands of times before any correction is issued. Or people simply may not care. They may continue to buy the stock as a joke because it's hilarious, or to make mischief.

Scanlon says this may just be the natural continuation of the way we're already going. "It's funny because stocks have been divorced from fundamentals for a long time in some instances. And I think this is just the next stage of this." Perhaps, she adds, instead of running a DCF (discounted cash flow) valuation against a company, you'll go and look at what social media is saying about it – even if social media is saying you should buy it for a laugh.

Of course, meme stocks may be forgotten in a year's time. Financial fashions have come and gone – and Robinhood's recent IPO was not the triumph it was expected to be. But some fashions do stay with us and, just like crypto, the influence of social media – whether or not it is through meme stocks – will continue to be felt in the financial industry and on the stock market for the foreseeable future.

WHAT IS A MEME STOCK?

A meme is a piece of content such as text, video, or image that is rapidly spread online, usually by social media users. In the past year, this has spread to company shares – thus a meme stock is a stock whose movements are driven by retail investors responding to the buzz on social media platforms such as Reddit and Twitter. Usually this will have nothing to do with the underlying value of the shares in question. Indeed, it is often down to a desire to hurt hedge funds that are shorting the stock in question and can result in wild swings in price.

CHANGES

By Rhymer Rigby

OF PAGE

Photo: © Qiu Yang

The past 20 years have seen technology reshape some markets completely – but which industries and which parts of our lives will see the deepest overhauls in the years to come?

Think back to the year 2000. Only two decades ago, there were plenty of markets we now take for granted that barely existed, because the products traded there were still to be invented. Smartphones, for example, have spawned an entire in-your-pocket digital ecosystem. Social media platforms such as Instagram could not exist as they do without smartphones, nor could ride-hailing services; video chat would be far more limited, as would user-generated content.

It's not just phones either. Digital streaming has transformed the film market and music market. Crypto assets didn't exist.

This phenomenon was not unique to digitalisation. The idea that a strange agglomeration of things that range from diet to meditation might become known as the wellness market and might be worth more than USD 1 trillion would have seemed inconceivable 20 or even 10 years ago.

With this in mind, what are some emerging or fast-changing markets that will shape the next 10 years, what drives them, and what can we expect of them?

DIGITAL EDUCATION

Unsurprisingly, the pandemic has seen huge leaps in the digital delivery of education. But prior to the pandemic, education was one of the least disrupted sectors in the world. According to a Credit Suisse report, in 2019 the education market was worth USD 5 trillion globally but only 2 per cent of it was digital. Indeed, high-tech teaching tools aside, most classrooms would be recognisable to somebody from 150 years ago.

The pandemic has shown us a number of things. One is that the parts of education that involve learning new information are very amenable to digital delivery. Furthermore, by using data analytics and technologies such as AI, these parts can be delivered in a highly bespoke, individual way that adapts to children's needs in real time. All this represents an enormous opportunity for both existing providers of education and so-called EdTech companies.

Digital curriculums will be able to offer more subjects. This will be a particular boost for children in poorer and more remote areas. Meanwhile, very academic children will be able to take their studies far further. Many universities (such as MIT in the US) have already made their syllabuses available online. There is no reason a very capable student should not extend into university courses while still at school – or, for that matter, study less common languages such as Persian (Farsi).

Some basic interactions such as language practice may be taken over by chatbots. But none of this is to say the classroom is finished. Rather, classroom time will be spent learning social and collaborative skills and teachers will be able to give students more individual time.

AUTONOMOUS AND ELECTRIC VEHICLES

It is sometimes easy to forget how over the 20th century, cars fundamentally shaped the physical world we live in. They are responsible for everything from the growth of sprawling suburbs to much of the oil industry. So any change in our autopia will fundamentally change the world.

The two big changes that will shape the car market in the coming decades are electric cars and self-driving cars. The former are already fairly commonplace and offer a fairly straight swap for petrol-powered cars. The latter could result in a total reshaping of the car market.

Many major manufacturers are betting electric cars will take over soon. Jaguar says it plans to sell only EVs from 2025, Volvo has said the same from 2030, and GM from 2035. "We are past the tipping point. Electric cars likely follow an S-type adoption curve as the choice expands and the technology evolves, in short, their convenience prevails," says Norbert Rücker, Head of Economics and Next Generation Research at Julius Baer.

This will have a huge impact. Road transportation is currently the largest single consumer of oil (just over a third, according to the OECD). Cities will become far less

polluted and noisy, potentially reshaping real estate markets. Battery technology and associated industries, already a huge growth area, will boom – as will battery recycling further down the line. Power grids will be reshaped around both the need to use cars and, potentially, stationary cars being used as batteries to store power.

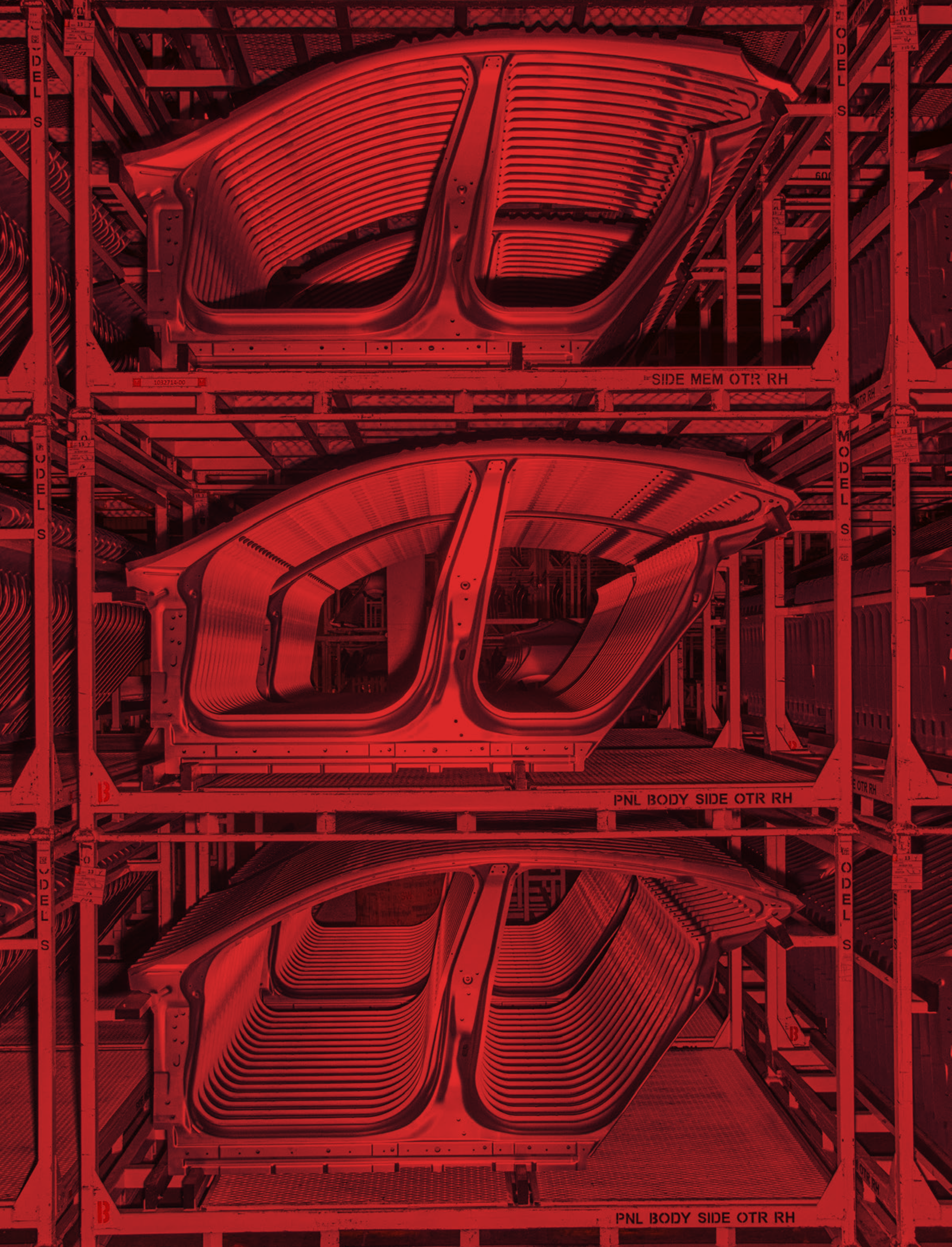
Autonomous vehicles are likely to be a little further off, but the effects could be even more dramatic. Cars will become places of entertainment and meetings and journeys will be more akin to private train journeys. In the medium to long term, and with high penetration, according to a report by the open location platform Here, car autonomy could have a significant positive effect on congestion, particularly when combined with smart city infrastructure (though in the shorter term it may worsen it).

Most interesting is the effect it could have on car ownership. No longer driving yourself could change the idea of the car as your second biggest possession, after your home. Ride-hailing services such as Uber have already paved the way for viewing mobility as an on-demand service, and numerous surveys show the young are not as interested in driving as previous generations were. If a car is not something you drive yourself, perhaps it's not something you need to own. You just call one when you need it.

This would reshape the car market entirely – manufacturers might effectively become fleet owners. It would also reshape insurance markets and boost entertainment markets – not having to control a car frees up hours for watching films or working. What is more, cars spend about 95 per cent of their time parked – in cities this space could be repurposed, perhaps for much needed housing. In the long term, the car in the driveway could become as much a thing of the past as a horse in a stable.

There are, of course, impacts on the labour market too. Taxi-driving has long been a job that is a first rung on the economic ladder, particularly for groups such as

Photo: © Studio Johannes Bauer


SIDE MEM OTR RH
PNL BODY SIDE OTR RH
PNL BODY SIDE OTR RH

immigrants. It is likely to disappear (with a few exceptions such as London's nostalgia-based black cabs). Similarly, long-haul trucking is a reasonably well-paid job that doesn't require a degree. It too will go.

THE INTERNET OF THINGS

On one hand, the Internet of Things (IoT) is already with us. There are billions of connected devices and, according to McKinsey, by 2023 there will be 43 billion – over five things for every human on the planet. Yet there is a potential bottleneck, particularly from an industrial perspective. This is 5G, or rather the lack of widespread 5G. The rollout of low-latency 5G networks will enable much faster speeds, vastly more connected devices and greater data transfer. It will turbocharge the Internet of Things. Like many technologies, the Internet of Things will both affect existing markets and create new ones.

McKinsey notes: "IoT technologies have already given rise to a number of... applications in sectors as diverse as Industry 4.0, smart cities, smart homes, connected cars, and e-health."

Looking ahead, the IoT will enable everything from large-scale adoption of totally connected supply chains to widespread monitoring of buildings and power networks. What is more, growing computing power and, crucially, edge computing will enable real-time processing of the data from these things. This will deliver benefits ranging from efficiencies and cost savings to faster manufacturing on demand, much smarter cities, and improved safety. It will allow predictive maintenance and more distributed computing power.

Over the past 10 years, via smartphones, we've gone from a computer on every desk to a computer in every pocket. Soon, we can expect computing in everything.

DIGITAL HEALTH

If you want an example of how tech is already changing health, you only have to look at imaging and MRI scans. Algorithms can already read these better than radiologists, at a fraction of the cost. In a different vein, telephone and online consultations were starting to replace some face-to-face consultations even before the pandemic. Now they are mainstream.

The efficiencies these will drive are crucial – healthcare is enormously expensive and staff costs are very high. Also, in countries with ageing populations ranging from the US to Western Europe to China, the costs are likely only to go up and be borne by a smaller number of workers.

According to the US Centers for Medicare and Medicaid Services (CMS), expenditure in healthcare in the US is expected to cost USD 4.2 trillion in 2021 and USD 5 trillion by 2025. This is almost 20 per cent of GDP. Facebook, Amazon, Apple, and Google invested USD 3.7 billion in healthcare in 2020.

Digital health ties into many other areas too. The Internet of Things means the number of wearable devices will proliferate, allowing more real-time monitoring. AI and machine learning mean ever-growing volumes of patient data will be mined for insights and patterns, ranging from how diseases spread to potential new applications for existing drugs.

Treatment will be far more bespoke and based on individual health records. Indeed, the cost of sequencing an individual's genome, which 20 years ago was around USD 100 million, will soon fall below USD 100. This could lead to predictive and personalised healthcare, facilitating a shift from a volume-based to a value-based system. At birth it could be known, based on your genome, whether you are likely to suffer heart problems in your fifties. When you age into the risk zone, you could be put on drugs such as statins just in case – and here, prevention would be far cheaper than cure.

We will also see changes in how drugs are manufactured. AI can, for example, sift through existing trial data to suggest new uses for existing drugs. It can also massively speed up trials.

The cost of healthcare for many countries has long been a budgetary headache that was expected to get far worse. Technology can help make the healthcare system more efficient and more resilient at the same time, curbing rapidly rising costs and opening up new markets in areas ranging from wearable tech to AI. Indeed, many digital health companies are betting that the savings made by MedTech will be so great that they will effectively defuse this demographic time bomb.

Photo: © Spencer Lowell

INSIDE THE MARKETS

Interview by Emily Rookwood

Christian Gattiker, Head of Research, Julius Baer, has spent years studying the financial markets. Here he shares his insights on three questions frequently asked by investors and observers alike.

IS IT STILL POSSIBLE TO BEAT THE MARKETS?

There are situations where you can 'beat the market' and there are also talents who, despite the fact that the odds are against them, have been consistently beating the market. Those rare people do exist, but in an efficient market – which means markets that are broad and deep with lots of liquidity and lots of know-how – there is not much asymmetrical information available there for people to exploit.

In general, it is incredibly hard to beat the market, to beat the aggregate. Take the USD stock markets, the big names: here it is almost impossible to consistently beat those markets. Very few people have been able to, and for those who have, it isn't certain that they will be able to do so again.

However, when it comes to other markets – developing, new industries, unicorns – there are still opportunities to do well. In new markets, the information and knowledge still have to be built, and this asymmetry of information means that there are opportunities to beat these markets.

In short, yes, it is possible to beat the market, but I think it is highly improbable for the individual private investor to do it on a global scale. There are, however, pockets where it absolutely makes sense to make, or have somebody else make, an active stance on your behalf because there is asymmetrical information around that can be exploited to the benefit of the asset owner.

HOW SHOULD INVESTORS APPROACH THE MARKETS?

Rule number one is that your biggest enemy is the person in the mirror. You need to understand yourself and your behaviours and preferences before you turn to markets or think about investing. You need to consider, for example, how much risk you can objectively take, or are willing to take.

There are people who don't sleep well if they face large financial losses. If you also fall into this camp you need to take that into account before you start investing in equities, for example, where you can have an immediate drop of 20 per cent because of an unforecastable event.

You have to establish your risk tolerance and your risk willingness, and identify your end goal. Do you need wealth preservation, or would you simply like to protect purchasing power and be very conservative, or do you need income from your financial assets, or don't you need the financial assets for now and actually would like to grow them over a longer-term horizon?

If you are an entrepreneur and already have an equity stake in your own company and your value is going up and down with the stock market, it doesn't make sense to replicate the same risks with your financial assets. There are hundreds of considerations like this that you need to think through and discuss with an experienced advisor in order to help you identify what kind of investor you want to be.

My take on markets is not to follow them religiously. The biggest risk for investors is to try to be smarter than the market, because it's not an 'it', it is a million or sometimes more actors, perhaps also including AI, that are interacting. They hold incredibly valuable information and we should try to learn from that.

WHY DO MARKETS FAIL?

History is full of market failures and we need to remember that the markets are not a resolution to everything. There are situations where markets have real limits and they are well documented and acknowledged. For example, if one actor within the market game has superior information to everyone else, this leads to suboptimal outcomes.

It also depends on the cost structure: for instance, if you face a monopoly, the price will be less than ideal and the clearing mechanism doesn't work because on the other side is somebody who can actually set the price. Markets can also become self-defeating – we see that in financial markets where machines take over some trading, leading to high-frequency trading and flash crashes.

In addition, nobody can honestly explain what's going on during an average day in the stock markets. Even less so during days of frenzy, such as one of the biggest flash crashes in May 2015, when the Dow dropped by 1,000 within milliseconds. There were several dozen academic researchers trying to figure out for months what happened that day; they could give a sequence of events but couldn't give causality of what happened. That's the price we pay for such deep, complex markets: it's hard to really have transparency.

What is clear, though, is that there are plenty of things that can and do go wrong. Markets are by no means perfect, but they work better in allocating capital than any of the alternatives the world has come up with to date.

THE NEW CIRCLE OF LIFE

By Rebecca Burn-Callander

The circular economy is a key part of the battle to save the planet from disaster, but finding a way for consumers and businesses to embrace it by cutting down on waste is a huge challenge for us all.

A decade ago, the term 'circular economy' was completely unknown, according to data from Google Trends. Months passed without a single search. Today, the phrase is ubiquitous. The world has woken up to one of the greatest challenges of our times: waste. Waste generation reached more than 2 billion tonnes in 2018, more than the weight of all the passenger cars in the world, according to a recent report from Julius Baer, and is set to rise 75 per cent from that 2018 figure by 2050.

The circular economy could be the antidote to the traditional 'take, make, waste' approach to global resources. In a circular model, the emphasis is on reduce, reuse, recycle. The aim of a circular economy is to tackle climate change, biodiversity loss, waste, and pollution. The premise is simple: if you keep reusing the raw materials already in the global supply chain, you don't need to extract more.

But is the circular economy just a marketing ploy? Or can we actually incentivise people and businesses to focus on creating more sustainable markets for consumer goods?

FOLLOW THE MONEY

Across the world, governments, charities, financiers, and private sector organisations are investing heavily into circular economy projects and innovations. Activity has intensified in recent years, suggesting the circular economy is no longer merely something nice to imagine, but a global imperative.

In addition to private projects and investment, public sector players are actively seeking to boost circular economy projects. In 2020, the European Commission unveiled its new Circular Economy Action Plan, which aims to ensure that the European Union achieves its target of being climate neutral by 2050. Another example is the European Institute of Innovation & Technology (EIT), an independent body set up by the European Union in 2008 to help solve some of the world's most pressing problems. Ignacio Calleja is Senior Advisor of Circular Economy and Recycling at EIT RawMaterials. He helps support companies and projects that are preserving the world's resources – primarily metals and minerals – through the circular economy. His organisation gave out nearly EUR 10 million in start-up grant funding in 2020 alone.

No accurate data exists to measure the current global investment in circular economy activities, but according to the Ellen MacArthur Foundation, which funds and lobbies for the circular economy, momentum is building. Its recent report – Financing the Circular Economy – found: "The circular economy has started transforming entire industries: in fashion, clothing resale is expected to be bigger than fast fashion by 2029; and in plastics and consumer packaged goods, profit pools along the value chain are being transformed by increasing regulation, public pressure, and innovation."

The foundation's CEO, Andrew Morlet, says: "The circular economy is fast emerging globally as companies and governments increasingly recognise its potential to tackle the root causes of climate change and other global challenges, while generating new and better growth opportunities. As a solution that can scale fast, its relevance has only become more apparent in recent discussions about economic renewal."

CIRCULAR ECONOMY DISRUPTORS

The money pouring into this space is funding widespread disruption of old-fashioned, so-called 'dirty' industries. For example, at EIT RawMaterials, one of Calleja's priorities is the creation of a network of businesses that operate in symbiosis: one company's waste will be the next company's raw materials. "We have one company producing concrete and cement based on the waste coming from the steel sector," he explains. In February 2021 the EU launched CircLean to enable a European network of symbiosis and reporting to help more and more companies turn trash into treasure.

Fast fashion is one of the world's biggest polluters. The Intergovernmental Panel on Climate Change (IPCC) has calculated that the fashion industry produces 10 per cent of global carbon dioxide emissions every year. Every year 100 billion new items of clothing are produced, and a truck full of clothing is burned or buried in a landfill every second. New legislation is gradually being introduced worldwide to combat this issue, but change is likely to be slow.

Teemill, based on the Isle of Wight in the UK, is a fashion disruptor that is way ahead of the industry, creating its own circular economy for T-shirts, called Remill. At the end of its life, each T-shirt can be sent back to the company to be turned into a new one. A QR code on the T-shirt makes it free and easy to return the shirt, and consumers get a GBP 5 voucher every time they send something back. Teemill has built an open-source platform, enabling other brands to create, produce, and distribute their own circularly designed T-shirts for a share of their revenues.

Teemill's factory is powered by solar energy, and T-shirts are only created to order, printed real-time so there is zero waste. Its entire supply chain runs on renewable energy.

"We give away access to our technology for free to help anyone create a circular economy brand," says co-founder Martin Drake-Knight. Customers include the BBC and Google. "Organic cotton is more expensive but we use it again and again, which brings down the price. No one can compete with reusability once it's established." Thanks to its high efficiency, the former start-up says it self-funds its growth and has tens of thousands of other businesses connected to its factory over the cloud.

ADAPT TO SURVIVE

Even legacy 'take, make, waste' players are capable of making a positive impact. Belgian manufacturer Cedo is a global supplier of plastics, producing 2.1 billion metres of clingfilm a year and 4 billion rubbish bags. "We are seen as part of the problem," admits Rik De Vos, its CEO. In 2013 Cedo embarked on an ambitious change programme to minimise its impact on the planet.

"That year we made the world's first bin bag from recycled flexible plastic packaging from households," says De Vos. "Today we use more than 80,000 tonnes of recycled plastic to make over 4 billion refuse sacks and bin liners and we operate one of the largest flexible plastic film recycling centres in Europe."

Cedo now has a climate-neutral manufacturing base in the UK, has made the switch to renewable energy, and is working with the Ellen MacArthur Foundation to ensure that every Cedo product will be fully recycled and recyclable in the near future.

BARRIERS TO CHANGE

Significant issues stand in the way of the transition to a circular economy, though. In order for this model to work, some experts believe that innovation must slow down dramatically: in a world of conscious consumption, there is no need for smartphone makers to release several models each year, for example. Instead, we must hold on to our electronics for as long as they function well.

Governments also need to take major steps to tackle waste. The good news is that this is now happening. Take the EU's ban on single-use plastics, which was introduced in July 2021. This measure is forcing companies across the bloc to switch to sustainable or recyclable alternatives. But this law is a drop in the ocean, according to Julius Baer research, which found: "A ban of single-use plastics, such as bags, cutlery, and straws, would not alter the [plastics issue], since they account for less than 5 per cent of worldwide demand." Thus, much more legislation of this ilk is required.

Transportation is another issue: if you have to move materials 1,000 miles to recycle them, that significantly reduces the positive impact of their second life. It will take considerable investment to bring the global supply chain into the circular economy. In some countries, barely any recycling capability exists. Take Chile, where less than 1 per cent of waste is recycled. This means governments must commit significant funds towards building this system out globally.

The Ellen MacArthur Foundation estimates it will take an additional EUR 320 billion of investment to truly unlock the potential of the circular economy – and that's just in Europe.

The savings, however – in carbon emissions, money, and resources – once this transition is complete are extraordinary. In addition, according to Closed Loop Partners, in the US, circular manufacturing will generate USD 2 trillion in annual revenue for the economy (which is roughly the GDP of Italy); USD 7 billion in new revenue opportunities from recycling for cities and recyclers; and 250–350 million metric tonnes less carbon dioxide in the air.

WHAT CAN WE DO?

How can we, as individuals, contribute to the creation of a circular economy? According to the International Energy Agency, over half of the cumulative emissions reductions required to reach net zero by 2050 are linked to consumer choices. However, a recent Mintel survey found that just 12 per cent of us believe our choices can make a difference.

Circular economists argue that everyone has a part to play. We can all consume more consciously: lower consumption leads to lower waste. And if we make ethical choices when buying products, we can use our consumer power to force businesses to adopt circular economy practices. Consumers must also do their bit to lobby governments for reform on circular economy issues.

But first and foremost we need to effect a mindset change. "This is why we must invest heavily in education, and it needs to start in primary school," says Calleja of EIT RawMaterials. "We are educating children about the circular economy in schools across 23 countries now."

Incentives are also crucial if we are to see a significant shift in waste reduction, explains Carsten Menke, Head of Next Generation Research at Julius Baer: "We need better incentives, not only for consumers but also for the producers of consumer goods. If they are not incentivised to reduce the amount of packaging and develop better packaging solutions, then the whole burden will be placed on consumers. The producers need to be on board, and they need to make it easier for us to properly recycle."

Climate change scientists believe we have less than a decade to avert a major crisis. Is it possible for consumers and businesses to make radical changes in that time? Calleja says: "We have to make clear decisions today and every day from now on to prioritise the circular economy. I'm an optimist and I believe we can change. But we have to all work together to solve the complex problems that stand in our way."

FIVE CIRCULAR ECONOMY PROJECTS THAT COULD HELP SAVE THE WORLD

CIRCULARISE: This Netherlands-based company is using blockchain to bring transparency to global supply chains. It is working with Porsche on a pilot project to ensure that these luxury cars can be built more sustainably, tracing the passage of materials throughout the carmaker's supply chain. This impartial and incorruptible ledger will be vital in the fight to track all precious resources and ensure as many as possible get recycled.

AQUAPAK: A British start-up has developed a biodegradable plastic that dissolves in water, leaving no trace. The plastic is made from Hydropol, a polymer that is water-soluble, non-toxic and marine-safe. Unlike normal plastic, which can take thousands of years to fully biodegrade, Hydropol melts in one minute when exposed to hot water. According to Aquapak founder Mark Lapping, this innovation has the potential to revolutionise packaging: "Two-thirds of the products on supermarket shelves are in packaging that cannot be recycled. I believe our product could change that. There is no limit to the impact we could make."

A2C: E-waste is a massive global problem; a record 53.6 million tonnes of electronic waste was generated worldwide in 2019, up 21 per cent in just five years, according to the UN's Global E-waste Monitor 2020. Corporations are a major contributor, leasing new laptops for three years before swapping to newer models. A2C is a pioneer in IT recycling, taking old laptops and re-manufacturing them into an entirely new line of computer hardware. Its one-of-a-kind factory can process 50,000 laptops a month, resulting in models that are like new, but better.

ANYWASTE.COM: "People throw perfectly good electronics away because the fuse is blown," says Damian Lambkin, founder of AnyWaste.com. He has created a global platform that allows consumers and businesses to take a picture of the waste they wish to recycle – from e-waste to plastics – and allow local companies to bid for it. AnyWaste.com vets all the suppliers on the platform and tracks the entire lifecycle of that rubbish to ensure transparency. "We are bringing manufacturers on board who will be able to buy materials direct from the refiners and recyclers too, creating our own circular economy," he adds.

B-STOCK: When the world's brands find themselves with excess stock, what do they do with it? Many balk at the idea of giving it away in case it devalues their brand. Californian start-up B-Stock helps retailers sustainably sell excess inventory through a private online B2B marketplace. This helps to protect brand equity while minimising financial loss and environmental impact. In 2020 B-Stock sold around 120 million items for its clients into the secondary market – keeping these items in use. This volume of inventory represents 180,000 tonnes of merchandise sold – the weight of 18 Eiffel Towers.

REMADE IN ITALY
Photography by Luca Locatelli

Second to oil, the clothing and textile industry is the largest polluter in the world. It accounts for 10 per cent of greenhouse gas emissions and nearly 20 per cent of the world's waste water, yet only 1 per cent is recycled into new garments, with wool the most recycled fabric. In Prato, Italy, recycling wool is a historical tradition, and companies there today sort and recycle over 15 per cent of all the world's textiles. Often circularity can be found in some of the oldest artisan traditions.

Since 2013, photographer Luca Locatelli's main focus has been to discover and document the most promising ways to live on earth, while confronting today's critical environmental issues. The aim of his work is to contribute to an open discussion about our future on the planet.


SILK

ROAD

Photography by Taiyo Onorato & Nico Krebs

THE SILK ROAD

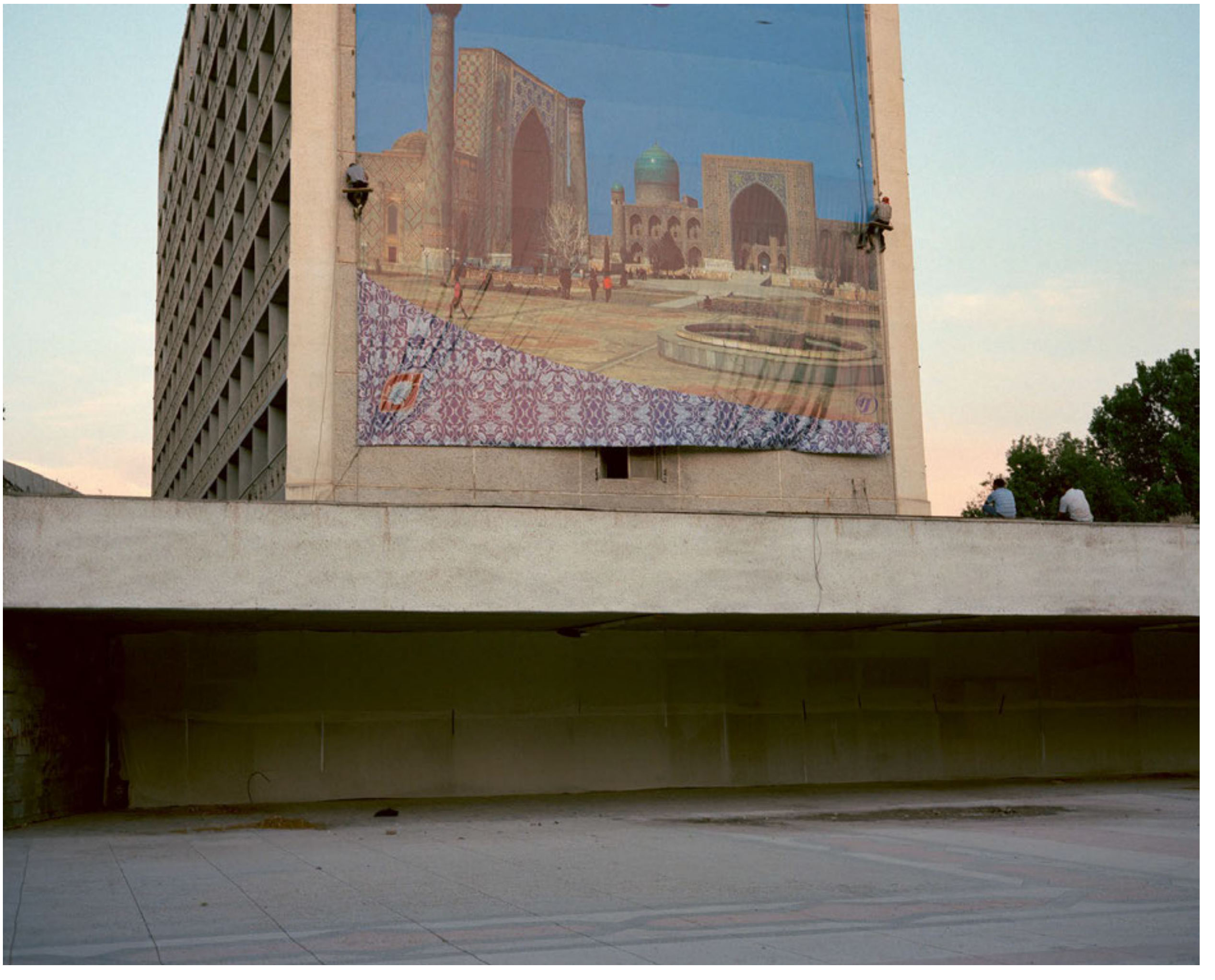
The Silk Road was the evocative name for the historical trade routes connecting China and the Far East with the Middle East and Europe that developed during the second and first centuries BC. While silk was an important export from East to West at the time, it was not the only thing to be transported along the trade route's vast length. Many goods including spices, paper, precious metals, and stones were conveyed, along with broader cultural influences such as language, philosophy, and science.

Because of the number of countries the trade route passed through, the Silk Road played a significant role in the development of many civilisations along its path as cities grew as hubs of trade and exchange, establishing many of the world's great marketplaces at the same time. In this photo reportage we look at the balance of natural and urban landscapes, and ancient and modern architecture, that exists along the Silk Road today.

CONTINENTAL DRIFT

Photography by Taiyo Onorato & Nico Krebs

The journey began in Zurich and led through Ukraine, Georgia, Azerbaijan, Turkmenistan, Uzbekistan, Kazakhstan, Russia, and Mongolia. Using analogue documentary media, such as 16mm film and large-format plate cameras, Onorato & Krebs playfully draw on the myth of the road trip and the exoticism of the East. Searching for the contemporary central Asian fairytale, they broaden the terrain of the documentary. In their work they understand travel as an experimental process, in which the creative impetus of chance is welcome. More images can be found in the book 'Continental Drift' published by Edition Patrick Frey.



SUPERMARKET SWEEP

Photo: © Roy Arden, Wal-Mart Store (Royale) Burnaby B.C., 1996

Having shaped the shopping habits of the 20th century, supermarkets are now evolving to meet the demands of 21st-century consumers, from online services to environmental priorities.

By John Franklin

When supermarkets first appeared on the retail landscape, they marked the beginning of a fundamental shift in how people purchased food. The decades following World War II saw significant societal changes as well as rapid growth in both prosperity and consumption. This resulted in early retailers such as Delhaize, Carrefour, Tesco, and their peers becoming giant multinational corporations with the power to influence not only consumer taste and spending habits, but also agricultural and food production cycles around the world.

Supermarkets quickly became an essential part of daily life. When the sector expanded and technology advanced towards the end of the 20th century, competition between retailers increased dramatically as they fought to keep up with changing consumer preferences, such as the growing demand for organic food, and adapt their business models to embrace new distribution methods and technologies, predominantly the internet. Today, while convenience is still king for shoppers, the nutritional and environmental impacts of their weekly food shop are increasingly important factors as consumers become more conscious of what they buy.

A RETAIL REVOLUTION

Founded in 1930, King Kullen on Long Island, New York, is officially recorded by the Smithsonian Institute as America's first supermarket. With its rows of shopping trolleys, self-service approach, and differentiated aisles and departments, it had many characteristics we would recognise today. At the time, however, these changes marked a dramatic shift from traditional food retailing at greengrocers and similar stores.

By the 1960s most supermarket chains in the developed world had reached the level of market dominance that they still hold today. The rise of the middle classes in many countries saw increases in car ownership, disposable income, and relocation to suburban towns where supermarkets had located their large stores, driving profitability. The supermarket industry started generating billions of dollars in revenue and shoppers were spoilt for choice. However, neither the businesses nor the consumers had stopped to consider the impact of this growth.

In the near century that supermarkets have existed, shoppers lost the connection to their food and the people who produce it. Seasonality and environmental impact were no longer considered or understood in a world where the novelty of pineapples or avocados available all year was priceless. However, as awareness of the impact on the environment grew towards the end of the 20th century, consumers began to consider the significance of everyday choices such as food shopping more carefully.

ORGANIC GROWTH

In the early 2000s, when people began to link health, the environment, and their diet, consumer consciousness surged, and so too did sales of organic food: from a very small portion of overall food sales, the sector grew more than 200 per cent in the decade to 2010. After that, according to the Research Institute of Organic Agriculture, "In the decade 2010-2019 the European and European Union organic food markets' value has more than doubled to EUR 45 billion, with Danish and Swiss consumers spending the most per capita on organic produce."

However, a more sustainable approach to consuming goes far beyond organic food. In recent years there has been a marked push towards plant-based products, with sales in the UK rising 11.4 per cent in 2020, according to the Co-op's Ethical Consumerism Report, which has monitored ethical spending habits for more than 20 years. Alongside a growing interest in vegetarian and vegan options, there has been growing demand from consumers for better livestock rearing practices, especially since the pandemic began. Indeed, a September 2020 paper from the Humane Society called for the world to phase out intensive farming in order to cut the risk of future pandemics.

Despite these increases, while organic and more ethical produce remains more expensive there will still be large swathes of consumers who are simply priced out of making these choices. What's more, successive lockdowns as a result of Covid-19 have also driven economic polarisation, with many people out of work or earning less. A recent McKinsey report found that 19 per cent of consumers had traded down their food purchases because of price sensitivity in 2020.

AISLES OF CHANGE

Many grocery CEOs see sustainability concerns and price sensitivity as the two opposing trends that will shape the future of their industry. The effects of climate change are likely to make food production more difficult and expensive, while demand for instant and online delivery at ever more competitive prices will continue to grow. The supermarket giants will have a lot of work to do to retain consumer loyalty and spending in the coming years, but many are already taking decisive steps to future-proof their businesses.

Improving online grocery shopping is one example. While the pandemic caused a spike in demand for online services, the sector still remains a small portion of overall grocery sales, and many retailers initially struggled to make sufficient profit from their offerings.

However, there is significant room for growth here, especially now that people have become used to having everything arrive on their doorsteps after more than a year of lockdowns. According to Technovio, an online market research firm, the online grocery sector is predicted to grow to an estimated USD 662 billion globally by 2024, at a compound annual growth rate of almost 29 per cent.

Alongside this, the rise of the e-grocer model – online-only entreprises such as Ocado in the UK, Picnic in the Netherlands, or Flink in Germany – are likely to push the sector to consider more agile, demand-driven businesses with smaller, if any, retail footprints. Many of these new entrants into the market, including France's Cajoo and Turkey's Getir, do not have the rental overheads of more established competitors and will look to capitalise on being the fastest to meet consumer demand, despite the lower margins from smaller than average purchase quantities.

This does not make physical retail space redundant, though. According to research by property company Savills, a strong omni-channel approach has assisted in meeting the rapid rise in online demand, particularly during the pandemic, as many orders were fulfilled by the stores themselves. This is a significant point as, according to Savills, it highlights the "continued importance and true value of the store network".

CONVENIENCE IS KING

Retail sales of food and drink still dwarf online sales, so it is likely that the retail footprint of many supermarkets will continue to grow. Some newcomers are even putting all of their hopes for success into bricks and mortar. Amazon Fresh, which currently operates 18 stores in the United States, is planning to open dozens more locations across the country, adding to its 500-plus existing Whole Foods Market stores. Being Amazon, these stores will be laden with technology designed to make the shopping experience 'frictionless' – as easy as possible – for the customer. Their 'Just Walk Out' concept uses technology to track what shoppers add to their baskets and charges them as they leave without having to wait at a cash register.

Technology is also being used by supermarkets to address consumer demands for greater information on nutrition, sustainability, and traceability of goods. In Belgium, shoppers at supermarket chain Delhaize can scan goods with an application that proposes healthier alternatives and then offers a discount to switch to one of those products, addressing both wellbeing and price concerns. In China, all Seven Fresh stores are equipped with blockchain technology allowing customers to scan a product and see all the traceability information, from breeding and production to transportation. And in the UK, Asda is trialling electronic shelf labels with QR codes that display allergen information for shoppers.

Although the increasing use of technology will undoubtedly give consumers more choice, more sway with their loyalty, and more convenience, the appeal of choosing your own produce by sight, touch, and smell will remain. In recent years there has been a resurgence in farmers' markets, farm shops, and stalls as shoppers re-establish their link to nature and its produce. Shopping locally offers a different kind of convenience from a large superstore, and there is charm in the personal connection with producers that it brings.

While the supermarkets will not be out of business any time soon, their models will continue to adapt in order to retain their grip on increasingly fickle customer loyalty, and the opposing trends of conscious consumption and price sensitivity will continue to shape the future of food retail.


BETTER EVERY DAY LOW PRICES!
73¢
BETTER EVERY DAY LOW PRICES!
$2.77
EVERY DAY
UNBOOOOLIEVABLE SAVINGS
Hallowee
RICE KRISPIES SQUARES
Kellogg's
APPLE JACKS

Photo: © Roy Arden, Wal-Mart Store (Apple Jacks) Burnaby B.C., 1996

A HEALTHY NEW CROP – EXAMPLES OF RECENT DISRUPTORS IN THE GROCERY SECTOR AROUND THE WORLD

FARMY, SWITZERLAND: Founded in 2014, Farmy is a Zurich-based online supermarket for sustainable weekly shopping. It works directly with more than 1,000 producers to deliver groceries in the Zurich and Geneva metropolitan areas in a fleet of environmentally friendly electric vehicles. With a strong sales increase in 2020 it cemented its position as Switzerland's largest online food shop. Farmy has recently introduced robots to its central distribution hub to assist in preparing orders, and has built advanced IT infrastructure that helps producers digitise their offerings and enter this growing online market.

JÜSTO, MEXICO: Founded by Ricardo Weder, the former president of Cabify, in 2019 with the mission to "disrupt the Latin American grocery industry", Jüsto claims to be the first Mexican supermarket with no physical stores. Shoppers use an app or the website to make purchases. The company, whose name is Spanish for 'fair', works directly with local produce suppliers using fair-trade agreements to offer the freshest goods. It also employs AI to forecast demand and reduce food waste at micro-fulfilment centres in cities where it operates. Boosted by the pandemic, Jüsto says sales grew 16-fold in 2020, and the company has recently received extensive funding to continue its intended growth across the continent.

TALABAT-MART, UAE: The grocery division of online food delivery company talabat, this quick-commerce platform that operates across the UAE is the first under-30-minutes delivery concept for the region, fulfilling orders from a series of 'dark' (delivery-only) stores. Year on year to January 2021, talabat-mart saw orders grow 90 per cent, and it is aiming to process 100 per cent cashless payments in the coming years. It has also launched a sustainable packaging programme to reduce carbon emissions and plastic waste, as well as partnering with many small and medium-sized Emirati companies to support local businesses.

MATCHING EXPECTATIONS

By Rebecca Burn-Callander

Photo: © Hitoshi Nishimura

AND THE BIGGEST DATING APP IS...

Instagram. Not the answer you were expecting? That's because, although Instagram is a social network, it is believed that more dates and relationships are formed on the platform than anywhere else. Facebook recently launched its own dating feature because of the staggering volume of relationships formed through the platform. Many of today's singles – especially Gen Z consumers – are increasingly turning to the likes of TikTok to make new connections, spurning more 'traditional' dating sites all together. Data from Mintel shows that while 23 per cent of Gen Z singles say they meet potential dates on a dating app, 36 per cent do it on social media.

Photo: © Noam Cohen/EyeEm

Our dating habits have changed hugely since the growth of the web, but while the pandemic has boosted the popularity of online dating apps, many people – particularly the wealthy – are now seeking other ways to find their true love.

Finding love is one of the most important and life-changing things that can happen in a person's life. It's unsurprising, then, that so many companies, matchmakers, venture capitalists, and data scientists have made it their mission to fulfil this basic human need. However, dating, as a concept, is relatively young – only a couple of centuries old.

Once women had some agency over whom they wished to marry in the 1800s, the idea of dating was born. But it only became a true phenomenon during the Roaring Twenties, when the old-fashioned 'gentleman caller' was replaced by dinners out and trips to the pictures. Fast-forward to 2021, though, and the dating industry is a global juggernaut. The global online dating market alone will be worth USD 3.6 billion by the end of 2025.

TINDER MOMENTS

Industry commentators are united in the belief that 'swipe right' app Tinder is the ultimate disruptor in dating. Before its launch in 2012, sites such as Match.com and Plenty of Fish had been on the scene for almost a decade, but online dating was far from mainstream.

"Online dating was highly stigmatised in the early days," says Rachel MacLynn, who founded elite dating agency The Vida Consultancy in 2011. "The creation of Tinder was a pivotal moment for the industry. That was when the stigma started to disappear completely." The success of Tinder also prompted many other entrepreneurs to get into the sector, starting a boom in online dating sites and apps.

With so many dating apps available, it can be hard to stand out, particularly for apps targeting specific segments. If done correctly though, apps can quickly reach scale. When Shahzad Younas founded Muzmatch in 2011, none of the incumbent dating sites were catering to the Muslim market. "The mainstream dating apps just weren't cutting it," he says. "They were very casual and quite seedy – although some have thrown off that reputation now. But Muslims are looking for a life partner, so Muzmatch is catered to that."

Over the past decade, Younas has grown the company to 5 million members worldwide; 100,000 people have met their partner on Muzmatch. What makes this app so perfect for a Muslim audience?

"There are different cultural considerations," Younas explains. "These have an impact on the kinds of social interactions that take place. There's also a much bigger family involvement from the outset. Things will often begin with the parents meeting. Most importantly, people want to know that you are both equally religious, and there are many flavours of Muslim, so they need to be compatible." Muzmatch has created the ability to have chaperones sit in on conversations between potential partners, and the company asks all users to abide by a strict code of conduct.

According to Younas, Muzmatch's growth has been fuelled by the proliferation of the internet around the globe, and the gradual reduction of the taboo around internet dating in the Muslim world. It has been hugely successful, with some members even moving to different countries to be with their matches.

HOME SHOPPING

Although online dating is no longer seen as an unusual way to meet a partner, its popularity had been decreasing in recent years – until the Covid-19 pandemic hit. Then dating was affected significantly: we could no longer go out and socialise or meet new people. You could, however, still meet people online. According to global market research giant Mintel, lockdown was a shot in the arm for online dating worldwide.

"Before the pandemic, interest in dating apps like Tinder, Bumble, and Hinge was beginning to wane," says Kristen Boesel, Senior Lifestyles and Leisure Analyst at Mintel. "Lockdown drove thousands of singles online to find love and combat social isolation." It also prompted a major technological revolution within the dating scene. Suddenly all the mainstream players had to scramble to launch video-calling capabilities and update their messaging functionality to provide a richer experience. Some even began experimenting with virtual and augmented reality.

GAME OF HEARTS

Yet in spite of all of the technological improvements, the business of dating online can often feel impersonal – more like a game than a genuine search for love. It has also created a divide in the dating world, between those looking for casual interactions and those looking for a life partner. Existing apps are now increasingly trying to separate the two in a bid to spare heartache, steering the casual daters towards one another and connecting those seeking marriage and children to other serious daters.

"As in any industry that is disrupted by technology, we'll also see a reaction against digitisation," says futurist Tom Cheesewright. "Just look at music: most consumption is now digital, but we have also seen an explosion in vinyl sales as people rejected algorithm-generated playlists in favour of albums, which are real, tactile and visceral."

That backlash may have already begun, with matchmakers reporting a stampede towards traditional dating agencies, which promise to do all the legwork for you. "A few years ago, we began getting a lot of enquiries coming in from people who had become frustrated with online dating," says the Vida Consultancy's MacLynn. In particular, wealthier individuals are shifting from online to offline in their search for companionship.

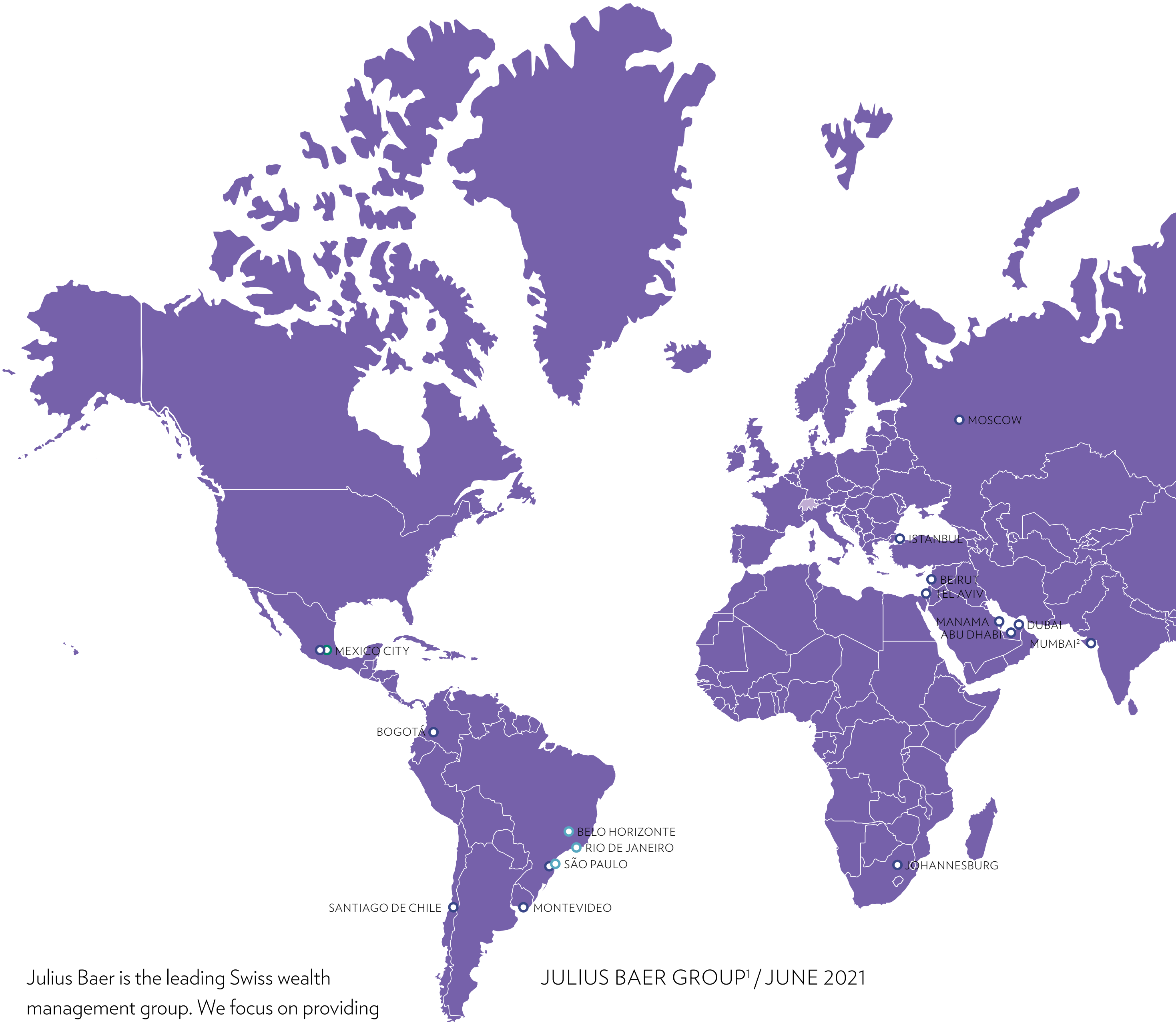
"Many high-net-worths will start out on a mainstream app and then realise that the lack of privacy and the exposure are not for them," explains MacLynn. "Plus, when you're earning hundreds of thousands – or millions – a year, spending two hours swiping each day is not the best use of your time. Typically, these people will then ask their concierge or friends for advice, and they will find out about matchmaking agencies like mine."

According to Mairead Molloy, founder of elite dating agency Berkeley International, which charges singles from all over the world up to GBP 50,000 to find a partner, recent events have also made people more open-minded. "Our success rate increased by 80 per cent during the pandemic," she says.

GOING SOLO

However, there is another trend that is surely unnerving many matchmakers and dating entrepreneurs: people are becoming happier to stay single. Over the past few decades, the age at which people hit milestones such as buying a house, settling down and having children has moved later and later, and staying single has lost its stigma. Mintel's research in the US has found that 59 per cent of US adults who are not in a serious relationship are not actively looking for a partner. And this is not simply an impact of the pandemic: a similar number (57 per cent) say they were also single and not looking to date for most or all of 2019.

For those in the market for companionship, the dating industry has opened up a number of new avenues. More open attitudes, new trends, and ever-improving technology have helped online dating to flourish, while a desire for a more efficient, private approach has boosted the popularity of more traditional agencies. Regardless of how we find someone we want to spend our time with – or whether we decide that we are perfectly happy on our own – one thing is clear. Our views on what happy relationships and families look like have changed for the better. And that can only be a positive development.



Julius Baer is the leading Swiss wealth management group. We focus on providing personal advice to private clients around the world, powered by high-end services and expertise. As pioneers, we actively embrace change to remain at the forefront of our industry – as we have done since 1890.

With over 6,700 employees, we stand for:

SOLID FOUNDATIONS

PURE WEALTH MANAGEMENT

PERSONAL CONNECTIONS

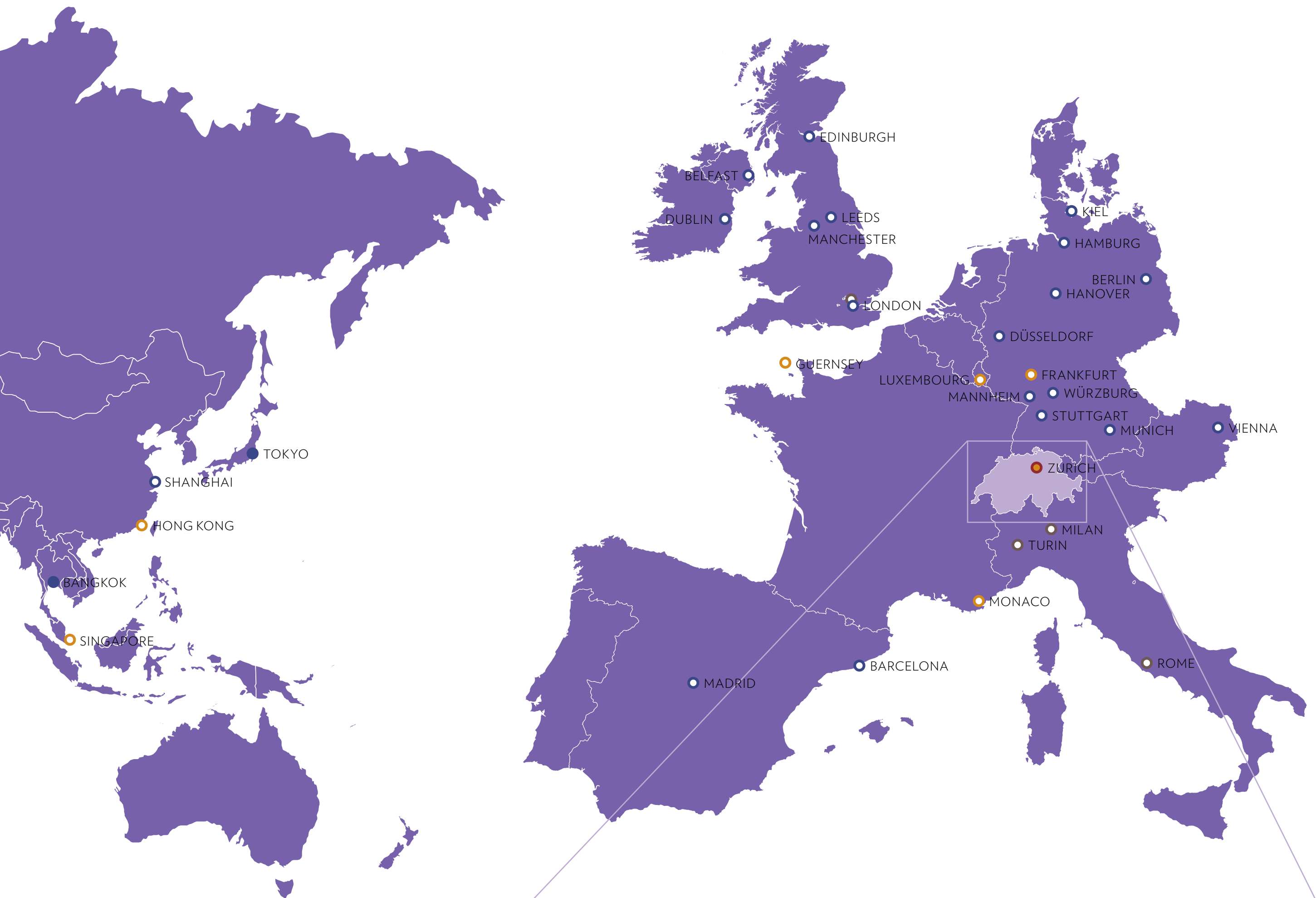
INTERNATIONAL NETWORK

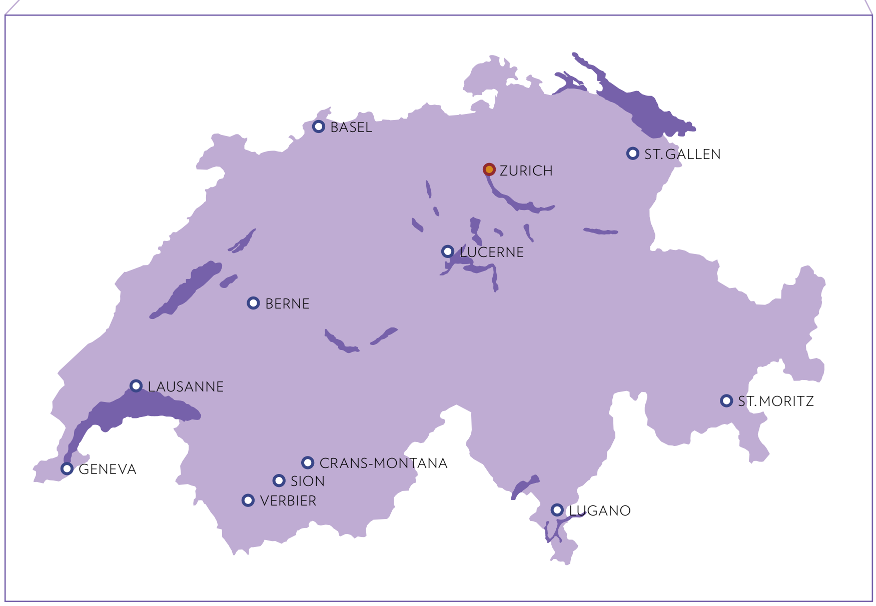
JULIUS BAER GROUP[1] / JUNE 2021

ASSETS UNDER MANAGEMENT (CHF BN)	485.9
NUMBER OF EMPLOYEES (FTE)	6,667
Number of relationship managers	1,341
BIS TOTAL CAPITAL RATIO	22.8%
MOODY'S LONG-TERM DEPOSIT RATING	
Bank Julius Baer & Co. Ltd.	Aa3

[1] Listed on the SIX Swiss Exchange (BAER.VX)
[2] Additional advisory locations in Bangalore, Chennai, Kolkata, and New Delhi

Please refer to important legal information on pages 70–71.





- Head Office
- Location
- Booking centre
- Julius Baer Family Office Brasil (integrated operations of GPS and Reliance Group), a fully owned subsidiary
- NSC Asesores, majority participation of 70%

  Julius Baer is present in Mexico City with a representative office
- Kairos Investment Management S.p.A., a fully owned subsidiary

  Julius Baer is present in Milan with Julius Baer Fiduciaria S.p.A
- Strategic partnerships in Bangkok, Thailand, with The Siam Commercial Bank and in Tokyo, Japan, with Nomura Holdings Inc.

IMPORTANT LEGAL INFORMATION

This document constitutes marketing material and is not the result of independent financial/investment research. It has therefore not been prepared in accordance with the legal requirements regarding the independence of financial/investment research and is not subject to any prohibition on dealing ahead of the dissemination of financial/investment research.
The information and opinions expressed in this document were produced by Bank Julius Baer & Co. Ltd., Zurich, which is supervised by the Swiss Financial Market Supervisory Authority FINMA, as of the date of writing and are subject to change without notice. This document is intended for information purposes only and does not constitute advice, an offer or an invitation by, or on behalf of, Bank Julius Baer & Co. Ltd., Zurich, or of its subsidiaries or affiliated companies (Julius Baer) to make any investments. Opinions and comments of the authors reflect their current views, but not necessarily those of other Julius Baer entities or any other third party.
Services and/or products mentioned in this document may not be suitable for all recipients and may not be available in all countries. Clients of Julius Baer are kindly requested to get in touch with the local Julius Baer entity in order to be informed about the services and/or products available in such country.
This document has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Before entering into any transaction, investors should consider the suitability of the transaction to individual circumstances and objectives. Any investment or trading or other decision should only be made by the client after a thorough reading of the relevant product term sheet, subscription agreement, information memorandum, prospectus or other offering document relating to the issue of the securities or other financial instruments. Nothing in this document constitutes investment, legal, accounting or tax advice, or a representation that any investment or strategy is suitable or appropriate for individual circumstances, or otherwise constitutes a personal recommendation for any specific investor. Julius Baer recommends that investors independently assess, with a professional advisor, the specific financial risks as well as legal, regulatory, credit, tax and accounting consequences. The value of investments may fall as well as rise, and returns may be affected by exchange rates. The investor may not get back the amount invested. This document may include figures relating to simulated past performance. Past performance, simulations and performance forecasts are not reliable indicators of future results. Entities within the Julius Baer Group, except Julius Baer Wealth Advisors (India), provide advice which is not considered “independent” in the sense given to that term by the EU Directive 2014/65/EU on markets in financial instruments (known as MiFID II).
Although the information and data herein are obtained from sources believed to be reliable, no representation is made that the information is accurate or complete. Julius Baer does not accept liability for any loss arising from the use of this document.
This document and any market data contained therein shall only be for the personal use of the intended recipient and shall not be redistributed to any third party, unless Julius Baer or the source of the relevant market data gives their approval. This document is not directed to any person in any jurisdiction where (on the grounds of that person’s nationality, residence or otherwise) such documents are prohibited.
External Asset Managers (EAM) / External Financial Advisors (EFA): In case this document is provided to EAM/EFA, Julius Baer expressly prohibits its redistribution or any other way of making it available to clients and/or third parties. The document is of a purely abstract and general nature and is not intended for, nor directed at, client portfolios in general or clients domiciled in the European Economic Area in particular. By receiving any document, the EAM/EFA confirms that they will make their own independent analysis and investment decisions, where applicable.
Austria: Julius Baer Investment Advisory GesmbH (JBIA), authorised and regulated by the Austrian Financial Market Authority (FMA), distributes this document to its clients.
Brazil: The products mentioned in this document may not be offered or sold to the public in Brazil. Accordingly, the products mentioned in this document have not been and will not be registered with the Brazilian securities commission.
Chile: This document is for the intended recipient only.
Dubai International Financial Centre: This document is distributed by Julius Baer (Middle East) Ltd. It may not be relied upon by or distributed to retail clients. Please note that Julius Baer (Middle East) Ltd. offers financial products or services only to professional clients who have sufficient financial experience and understanding of financial markets, products or transactions and any associated risks. The products or services mentioned will be available only to professional clients in line with the definition of the Dubai Financial Services Authority (DFSA) Conduct of Business Module. Julius Baer (Middle East) Ltd. is duly licensed and regulated by the DFSA.
Germany: Bank Julius Bär Deutschland AG, authorised and regulated by the German Federal Financial Supervisory Authority (BaFin), distributes this document to its clients. If you have any queries concerning this document, please contact your relationship manager.
Guernsey: This document is distributed by Bank Julius Baer & Co. Ltd., Guernsey Branch, which is licensed in Guernsey to provide banking and investment services and is regulated by the Guernsey Financial Services Commission.
Hong Kong Special Administrative Region of the People’s Republic of China (Hong Kong SAR): This document has been distributed in Hong Kong by and on behalf of, and is attributable to Bank Julius Baer & Co. Ltd., Hong Kong Branch, which holds a full banking licence issued by the Hong Kong Monetary Authority under the Banking Ordinance (Chapter 155 of the Laws of Hong Kong SAR). Bank Julius Baer & Co. Ltd., Hong Kong Branch is also a registered institution under the Securities and Futures Ordinance (SFO) (Chapter 571 of the Laws of Hong Kong SAR) licensed to carry on Type 1 (dealing in securities), Type 4 (advising on securities) and Type 9 (asset management) regulated activities with Central Entity number AUR302. This document must not be issued, circulated or distributed in Hong Kong other than to ‘professional investors’ as defined in the SFO. The contents of this document have not been reviewed by the Securities and Futures Commission nor by any other regulatory authority. Any references to Hong Kong in this document shall mean the Hong Kong SAR.
If you have any queries concerning this document, please contact your Hong Kong relationship manager. Bank Julius Baer & Co. Ltd. is incorporated in Switzerland with limited liability.
India: This is not a document of Julius Baer Wealth Advisors (India) Private Limited (JBWA) or any of its Indian subsidiaries under the Securities and Exchange Board of India (SEBI) Research Analyst Regulations, 2014. This document has been produced by Bank Julius Baer & Co. Ltd. (Julius Baer), a company incorporated in Switzerland with limited liability that does not have a banking license in India. This document should not be construed in any manner as an offer, solicitation or recommendation by JBWA or any Julius Baer entity globally.
Israel: This document is distributed by Julius Baer Financial Services (Israel) Ltd. (JBFS), licensed by the Israel Securities Authority to provide investment marketing and portfolio management services. Pursuant to Israeli law, «investment marketing» is the provision of advice to clients concerning the merit of an investment, holding, purchase or sale of securities or financial instruments, when the provider of such advice has an affiliation to the security or financial instrument. Due to its affiliation to Bank Julius Baer & Co. Ltd., JBFS is considered to be affiliated to certain securities and financial instruments that may be connected to the services JBFS provides, and therefore any use of the term «investment advice» or any variation thereof in this document should be understood as investment marketing, as explained above.
Japan: This document shall only be distributed with appropriate disclaimers and formalities by a Julius Baer entity authorised to distribute such a document in Japan.
Kingdom of Bahrain: Julius Baer (Bahrain) B.S.C.(c), an investment business firm which is licensed and regulated by the Central Bank of Bahrain (CBB), distributes this document to its expert and accredited investor clients. This document may not be relied upon by or distributed to retail clients. The CBB does not take any responsibility for the accuracy of the statements and information contained in this document nor shall it have any liability to any person for any damage or loss resulting from reliance on any statement or information contained herein.
Luxembourg: This document is distributed by Bank Julius Baer Europe S.A., a société anonyme incorporated and existing under the laws of the Grand Duchy of Luxembourg, with registered office at 25, rue Edward Steichen, L-2540 Luxembourg and registered with the Luxembourg Register of Commerce and Companies (RCSL) under number B 8495, authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF), 283, route d’Arlon, L-1150 Luxembourg. This document has not been authorised or reviewed by the

CSSF and it is not intended to be filed with the CSSF.
Monaco: Bank Julius Baer (Monaco) S.A.M., an institution approved by the Minister of State for Monaco and the Bank of France, and Julius Baer Wealth Management (Monaco) S.A.M., an asset management company authorised in Monaco, distribute this document to their clients.
Republic of Ireland: Bank Julius Baer Europe S.A. Ireland Branch is authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF), 283, route d'Arlon, L-1150 Luxembourg, and is regulated by the Central Bank of Ireland (CBI) for conduct of business rules. Bank Julius Baer Europe S.A. is a société anonyme incorporated and existing under the laws of the Grand Duchy of Luxembourg, with registered office at 25, rue Edward Steichen, L-2540 Luxembourg, registered with the Luxembourg Register of Commerce and Companies (RCSL) under number B 8495. Bank Julius Baer Europe S.A. Ireland Branch distributes this document to its clients. Some of the services mentioned in this document, which are available to clients of the Ireland branch, may be provided by members of the Julius Baer Group based outside of the Grand Duchy of Luxembourg or the Republic of Ireland. In these cases, rules made by the CSSF and the CBI for the protection of retail clients do not apply to such services, and the CSSF and the Irish Financial Services and Pensions Ombudsman will not be able to resolve complaints in respect of such services.
Russia: This is not a document of Julius Baer CIS Ltd., which is authorised and regulated by the Central Bank of Russia. This document has been produced by Bank Julius Baer & Co. Ltd. (Julius Baer) and should not be construed in any manner as an offer, solicitation or recommendation, including the advertising of foreign financial services in Russia, by Julius Baer CIS Ltd. or any Julius Baer entity globally.
Singapore: This document is distributed in Singapore by Bank Julius Baer & Co. Ltd., Singapore branch, and is available for accredited investors or institutional investors only. This document does not constitute an 'advertisement' as defined under Section 275 or 305 respectively of the Securities and Futures Act, Cap. 289 of Singapore (the 'SFA'). This document has not been reviewed by and is not endorsed by the Monetary Authority of Singapore ('MAS'). Any document or material relating to the offer or sale, or invitation for subscription or purchase, of securities or investment funds (i.e. collective investment schemes) may not be circulated or distributed, nor may such securities or investment funds be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 or 304 respectively of the SFA, (ii) to a relevant person (which includes an accredited investor), or any person pursuant to Section 275(1A) or 305(2) respectively, and in accordance with the conditions specified in Section 275 or 305 respectively of the SFA, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. In particular, for investment funds that are not authorised or recognised by the MAS, units in such funds are not allowed to be offered to the retail public; any written material issued to persons as aforementioned in connection with an offer is not a prospectus as defined in the SFA and, accordingly, statutory liability under the SFA in relation to the content of prospectuses does not apply, and investors should consider carefully whether the investment is suitable for them. Please contact a representative of Bank Julius Baer & Co. Ltd., Singapore branch, with respect to any inquiries concerning this document. Bank Julius Baer & Co. Ltd. (UEN – T07FC7005G) is incorporated in Switzerland with limited liability.
Spain: Bank Julius Baer Europe S.A., Sucursal en España, is a branch of Bank Julius Baer Europe S.A. with registered branch office in Paseo de la Castellana 7, 2nd floor, E-28046 Madrid. It is authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF), 283, route d'Arlon, L-1150 Luxembourg, and is regulated for conduct of business rules by the Bank of Spain (Banco de España), c/Alcalá, 48, E-28014 Madrid, under the registration number 1574. Bank Julius Baer Europe S.A., Sucursal en España is also authorised to provide investment services subject to the supervision of the Comisión Nacional del Mercado de Valores (CNMV), c/Edison, 4, E-28006 Madrid. Bank Julius Baer Europe S.A. is a société anonyme incorporated and existing under the laws of the Grand Duchy of Luxembourg, with registered office at 25, rue Edward Steichen, L-2540 Luxembourg, registered with the Luxembourg Register of Commerce and Companies (RCSL) under number B 8495. Bank Julius Baer Europe S.A., Sucursal en España distributes this document to its clients.
South Africa: This document is distributed by Julius Baer South Africa (Pty) Ltd., which is an authorised financial services provider (FSP No. 49273) approved by the Financial Sector Conduct Authority. Julius Baer is also licensed in South Africa as a representative office of a foreign bank.
Switzerland: This document is distributed by Bank Julius Baer & Co. Ltd., Zurich, authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA).
United Arab Emirates (UAE): This document has not been approved or licensed by the UAE Central Bank, the UAE Securities and Commodities Authority or any other relevant authority in the UAE. It is strictly private and confidential and is being issued to a limited number of sophisticated individual and institutional investors upon their request and must not be provided to or relied upon by any other person.
United Kingdom (UK): Julius Baer International Limited, which is authorised and regulated by the Financial Conduct Authority (FCA), distributes this document to its clients and potential clients. Where communicated in the UK, this document is a financial promotion that has been approved by Julius Baer International Limited for distribution in the UK. Some of the services mentioned in this document may be provided by members of the Julius Baer Group outside the UK. Rules made by the FCA for the protection of retail clients do not apply to services provided by members of the Julius Baer Group outside the UK, and the Financial Services Compensation Scheme will not apply. Julius Baer International Limited does not provide legal or tax advice. If information on a particular tax treatment is provided, this does not mean that it applies to the client's individual circumstances, and it may be subject to change in the future. Clients should obtain independent tax advice in relation to their individual circumstances from a tax advisor before deciding whether to invest. Julius Baer International Limited provides advice on a limited range of investment products (restricted advice).
Uruguay: In case this document is construed as an offer, recommendation or solicitation for the sale or purchase of any securities or other financial instruments, the said offer, recommendation or solicitation is being placed relying on a private placement exemption (oferta privada) pursuant to Section 2 of Law No. 18,627 and is not and will not be registered with the Superintendency of Financial Services of the Central Bank of Uruguay to be publicly offered in Uruguay. In case of any closed-ended or private equity funds, the relevant securities are not investment funds regulated by Uruguayan Law No. 16,774 dated 27 September 1996, as amended. If you are located in Uruguay, you confirm that you fully understand the language in which this document and all documents referred to herein are written, and you have no need for any document whatsoever to be provided in Spanish or any other language.
UNITED STATES: NEITHER THIS DOCUMENT NOR ANY COPY THEREOF MAY BE SENT, TAKEN INTO OR DISTRIBUTED IN THE UNITED STATES OR TO ANY US PERSON.

This document may contain information obtained from third parties, including ratings from rating agencies such as Standard & Poor's, Moody's, Fitch and other similar rating agencies, and research from research providers such as MSCI ESG Research LLC or its affiliates. Issuers mentioned or included in any MSCI ESG Research LLC materials may be a client of, or affiliated with, a client of MSCI Inc. (MSCI) or another MSCI subsidiary. Reproduction and distribution of third-party content in any form is prohibited except with the prior written permission of the related third party. Third-party content providers do not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings or research, and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such content. Third-party content providers give no express or implied warranties, including, but not limited to, any warranties of merchantability or fitness for a particular purpose or use. Third-party content providers shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees or losses (including lost income or profits and opportunity costs) in connection with any use of their content, including ratings or research. Credit and/or research ratings are statements of opinions and are not statements of fact or recommendations to purchase, hold or sell securities. They do not address the market value of securities or the suitability of securities for investment purposes and should not be relied on as investment advice.

PUBLISHER
Julius Baer Group Ltd.

EDITOR-IN-CHIEF
Emily Rookwood, Julius Baer

EDITOR
John Franklin, Julius Baer

MANAGING EDITOR
Melanie Kienzle, Julius Baer

CONTRIBUTORS
Janet Anderson, journalist
Kate Bassett, journalist
Simon Brooke, journalist
Rebecca Burn-Callander, journalist
Rhymer Rigby, journalist

ART DIRECTION AND
EDITORIAL DESIGN
Charles Blunier & Co.,
Creative Direction

PROOFREADING
Simon Edmond, subeditor

PREPRESS AND PRINT
medienwerkstatt ag, Sulgen

For more information about
Julius Baer please visit:
www.juliusbaer.com

Julius Baer Group, 2021

The Forest Stewardship Council (FSC) is an independent, not-for-profit organisation that promotes responsible forest management throughout the world. Julius Baer cares for the environment and therefore this publication was printed on FSC-certified paper.

medienwerkstatt ag is an FSC- and Climate-Partner-certified, climate-neutral printer.

MIX
Paper from
responsible sources
FSC® C020419
www.fsc.org

Climate neutral
Print product
ClimatePartner.com/11052-2111-1005

JULIUS BAER GROUP

Head Office
Bahnhofstrasse 36
P.O. Box
8010 Zurich
Switzerland
Telephone +41 (0) 58 888 1111
Fax +41 (0) 58 888 1122
www.juliusbaer.com