ROBECO
The Investment Engineers

DAILY SKETCHES 2023

Riding the waves of structural trends

Sustainable Investing Expertise by
ROBECOSAM

DAILY SKETCHES 2023

Contents

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Robeco's Thematic Investing team monitors markets and global trends closely. Every morning our analysts collect the most relevant and intriguing graph or chart for you and present it with their commentary in the Daily Sketch.

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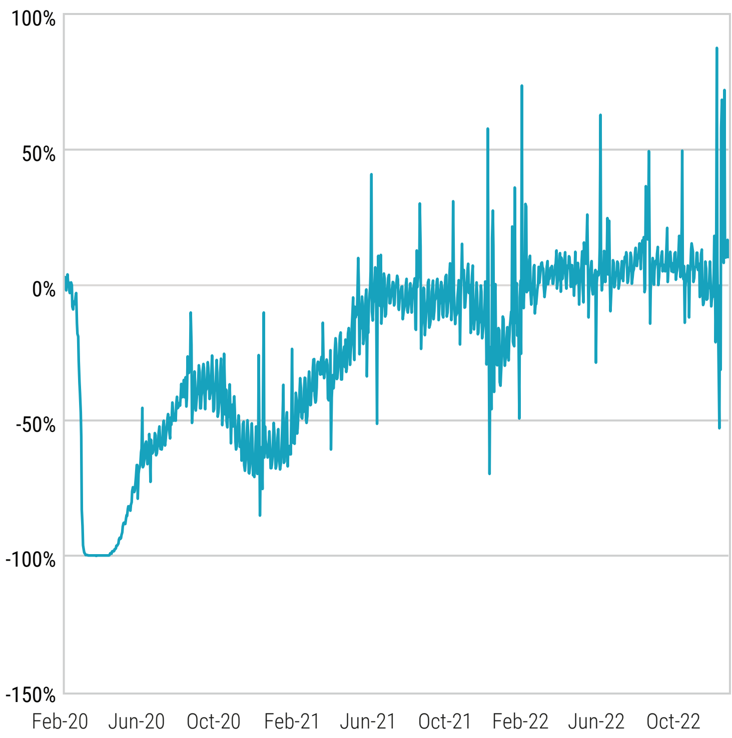
CONSUMER

1. At home

Resilient chefs

Nearly three years on from the pandemic-forced closures, and despite the subsequent impact of food inflation and staff shortages, the restaurant industry has largely recovered. Data from Open Table shows that, on average, the number of seated diners at restaurants that had reopened was 3.4% higher in 2022 than in pre-pandemic 2019. Notably during the fourth quarter of 2022 seated diners were on average 7.2% higher than in the corresponding period of 2019, with several days well above 50%. While a recession would hamper discretionary consumer spending, chefs, waitstaff, and restauranters have demonstrated remarkable resilience over the last few years.

Seated diners relative to 2019

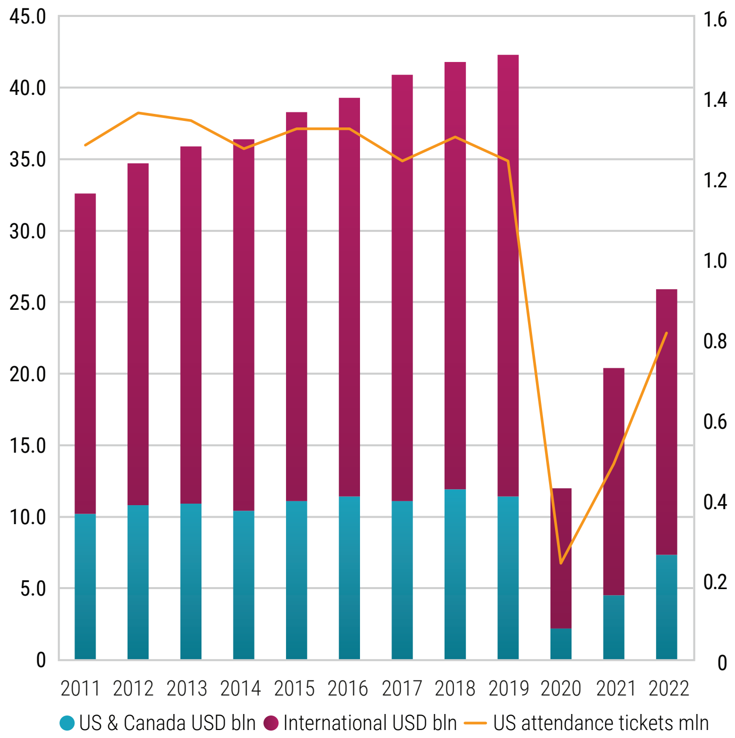


Source: OpenTable, January 2023

Now streaming

Wakanda may be forever, but the future of movie theaters is less certain. With theaters shuttered in 2020, box office revenues naturally plummeted. In 2021, global theatrical revenues jumped 70%. Super heroes like Spiderman drew audiences back to the big screen. In 2022 the recovery continued, rising 27% year on year as studios released further installments of big franchises like Avatar, Top Gun, and Jurassic World. Nevertheless, the global box office in 2022 was still 39% beneath the market in 2019. In the US total attendance in 2022, as measured by the number of tickets sold, was 34% lower than in 2019. The decline in movie theater attendance began well before the pandemic as flat-screen technology improved, streaming services gained ground, and as content producers shifted focus from tentpole releases toward similarly produced television series like Game of Thrones and Stranger Things. Those developments also drove continued declines in cable television, with US subscribers falling from 100 million in 2012 to 70 million in 2022. Big hits are now streaming on a television near you.

Box office revenues and attendance

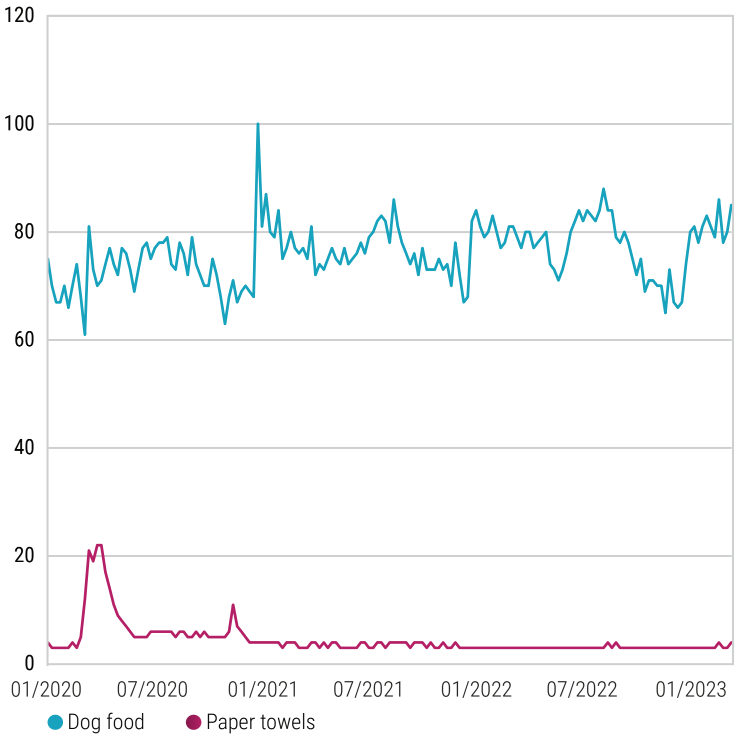


Sources: MPAA, Gower Street Analytics, 2023

Forever home

In the early days of the pandemic, shortages of everything from cleaning supplies to webcams drove consumers online in search for available supply. The team at Google Search assembled a broad collection of trends that the firm classified into three buckets: Normal, trends that did change; Abnormal, those that spiked; and New Normal, trends that rose and remained high. Search interest in paper products like paper towels and toilet tissue rose more than five-fold from January 2020 to April 2020, but has since waned. As the pandemic wore on and families remained at home, interest in hobbies like baking and gardening spiked, but have also since faded. Interest in pets on the other hand has remained strong. As pet ownership has been growing steadily for years, there was a less noticeable jump in pet adoption search interest than news stories at the time suggested. However, interest in pet health and nutrition did rise and for instance Google search interest for dog food remains roughly 13% higher today than pre-pandemic levels.

Google search trends relative interest



Source: Google, March 2023

Bicycle across America

During the long period of Covid lockdowns, cycling and bicycle sales sped ahead as people around the world looked to exercise and get around in the fresh air. While the boom in sales largely abated as economies reopened, this has been less so in the United States, according to a new report from the US Bureau of Transportation Statistics. In 2019, average monthly consumer expenditures on bicycles and accessories in the US totaled USD 6 billion, and jumped to a peak of just under USD 9 billion in March 2021. Average monthly expenditures during 2022 and into 2023 have remained stable at just over USD 8 billion – 33% higher than in 2019. While data on bicycle usage is less available, the report notes that ridership for the six largest docked bicycle rental services in city centers is up 42% since the start of the pandemic.

US bicycle & accessory expenditures by month (USD mln)

Source: US Bureau of Transportation Statistics, May 2023

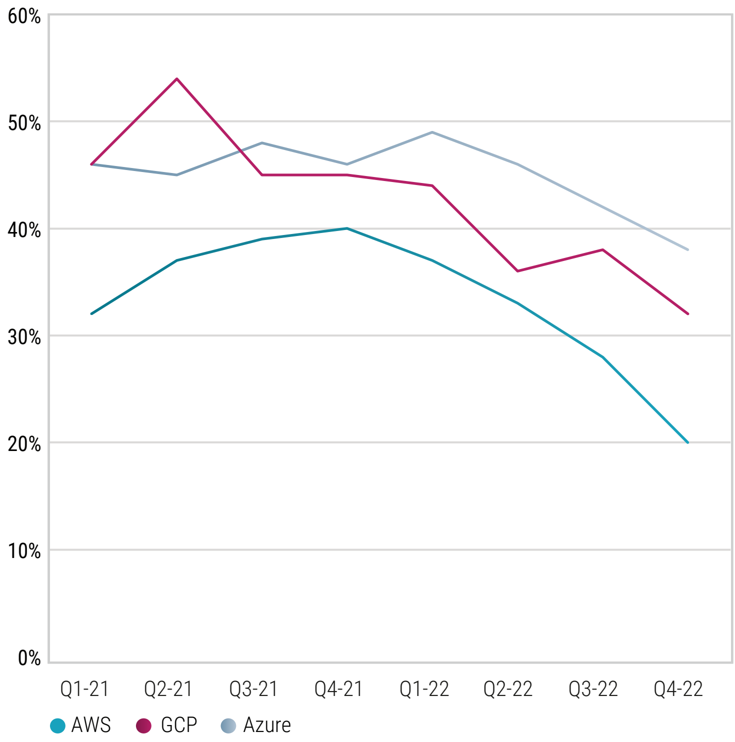
ENTERPRISE, INDUSTRY, OFFICE

2. At work

Low-flying clouds

Gravity appears to be eating cloud computing growth. The results of the three largest global public cloud computing platforms – Amazon's AWS, Microsoft's Azure and Google's GCP – demonstrate decelerating sales growth. Combined, annual sales growth for the leading three fell to 26% during the fourth quarter of 2022 compared to 51% in the year's prior quarter. Citing economic weakness and increased scrutiny on enterprise technology budgets following the acceleration of the last few years, company-issued guidance suggests growth will slow further during 2023. Despite the slowdown, the three combined generated more than USD 160 billion in 2022; USD 40 billion more than in the prior year. Furthermore, the growth rate for cloud remains well above the tech industry as a whole, with Gartner forecasting that IT budgets will rise just 2.4% in 2023, including spending on software rising 9.3%.

Public cloud computing revenue growth rates



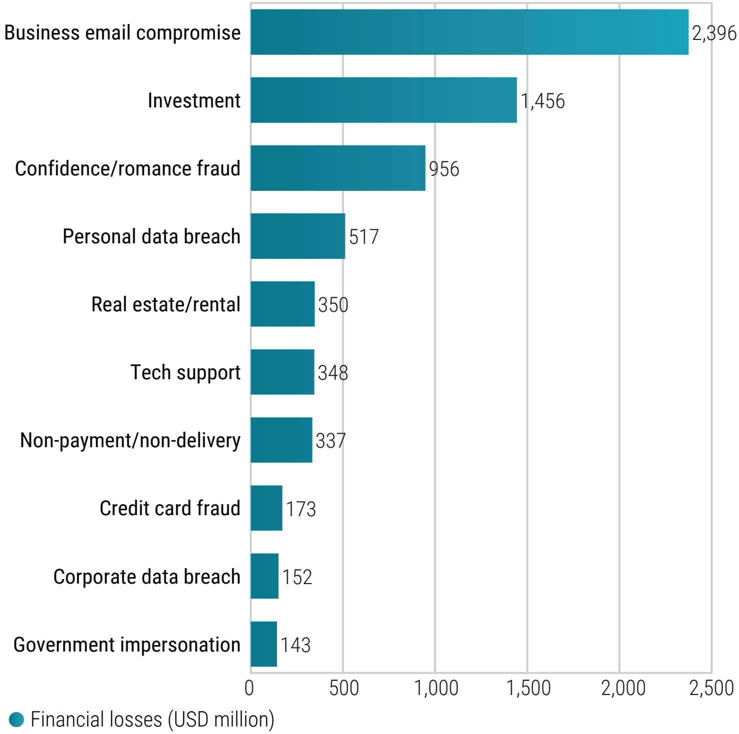
Source: Company filings, 2023

Note: Growth depicted in constant currency, except GCP

Cybercrime complaints

In 2021, the US experienced a large increase in cyberattacks and malicious cyberactivity. The FBI's complaint center received a record number of 847,373 complaints from the American public, which was an increase of 7% from 2021, with potential losses exceeding USD 6.9 billion; up 64% from 2020. Most victims, or at least those who report it, are older Americans with 43% of potential losses incurred by people over 50. To fight cybercrime the FBI established the Recovery Asset Team (RAT) and was able to freeze USD 328 million for victims who made transfers to domestic accounts under fraudulent pretenses. However, this is just 5% of the total potential losses. As economies digitalize further, cyberattacks are likely to increase – which bodes well for companies selling cybersecurity products and services.

The FBI received 850,000 cybercrime complaints with potential losses of USD 6.9 billion in 2021

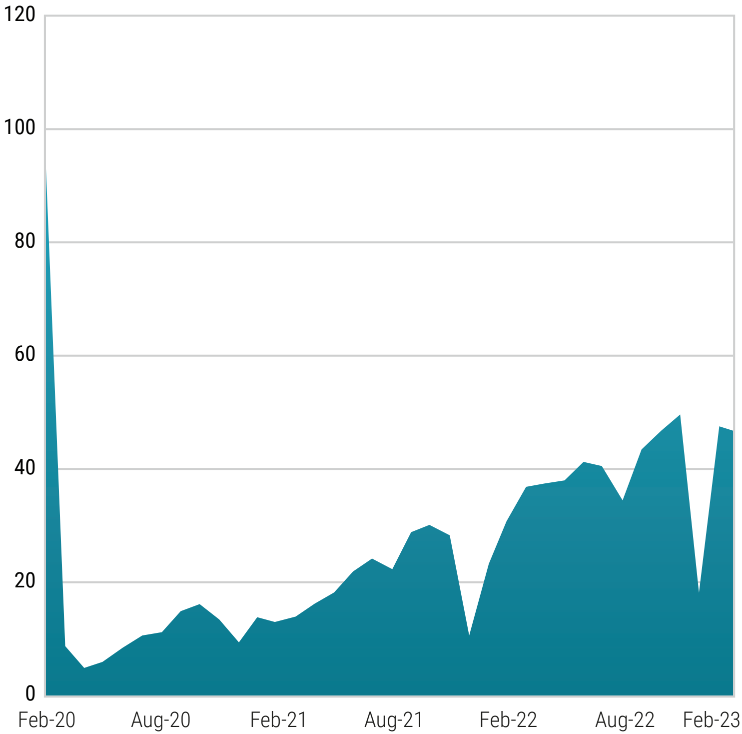


Source: US Federal Bureau of Investigation, 2022

Empty desks

Three years after Corona virus restrictions sent all but essential workers home, restaurants, stores, and schools have largely reopened as before, while offices remain half empty. Data from office security systems provider Kastle Systems shows US office occupancy reached 50.1% last month. Data varies by metro area with office occupancy at 41% in San Jose, 47% in New York, and 66% in Austin. In Europe, real estate services provider Savills' data showed a similar trend with office occupancy in mid-2022 reaching just 32% in London and 54% in Paris. In Asia, Jones Lang Lasalle data shows office occupancy has returned to 75% in cities like Seoul and Tokyo. According to collaboration software Slack's global survey of office workers, 49% of employees maintain a hybrid work schedule, 35% have returned to the office full time, and 17% are fully remote. These varied working arrangements impact not only office culture, but also create a challenge for many related services from local cafes to public transit.

Office occupancy percentage, NY Metro area

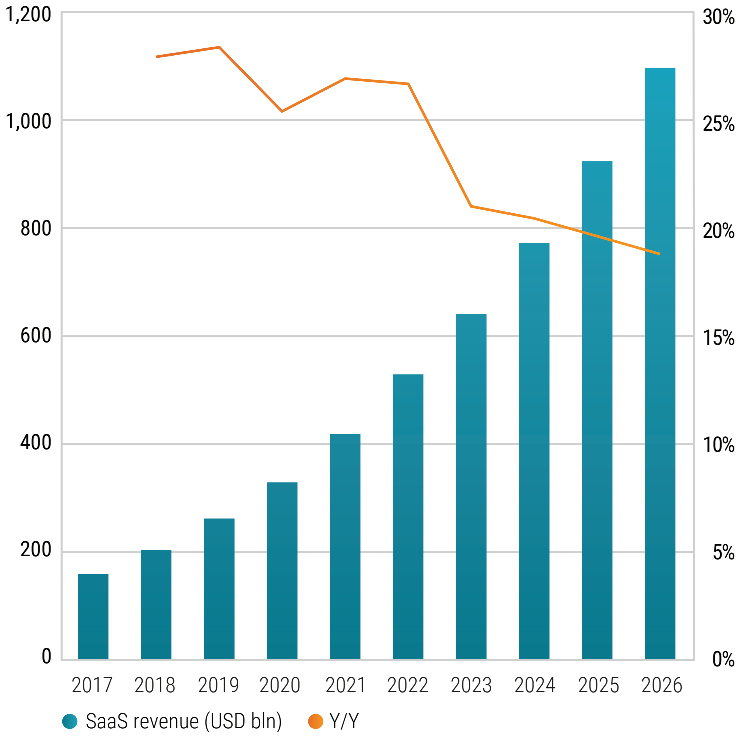


Source: Kastle Systems, March 2023

Transform

In April 2020, Microsoft CEO Satya Nadella said on a company earnings call, "We have seen two years' worth of digital transformation in two months." Indeed, as the world went into lockdown, companies quickly facilitated remote working systems, stores raced to facilitate online orders and curbside pickup, and Michelin-starred chefs joined fast-food restaurants on food delivery apps. In 2020, video meeting minutes on Zoom rose 31-fold to an annualized 3.2 trillion minutes and the gross value of sales on Shopify's ecommerce platform rose 96% year on year to USD 120 billion. Three years on from the start of the pandemic, as economies around the world have reopened, and as companies take stock of varied digital initiatives, software growth has slowed. According to technology market analysis firm IDC, Software as a Service (SaaS) revenues expanded at a compound annual growth rate of 27% over the last five years. IDC expects this growth to decelerate to 20% over the next four years.

Software as a service revenue & growth



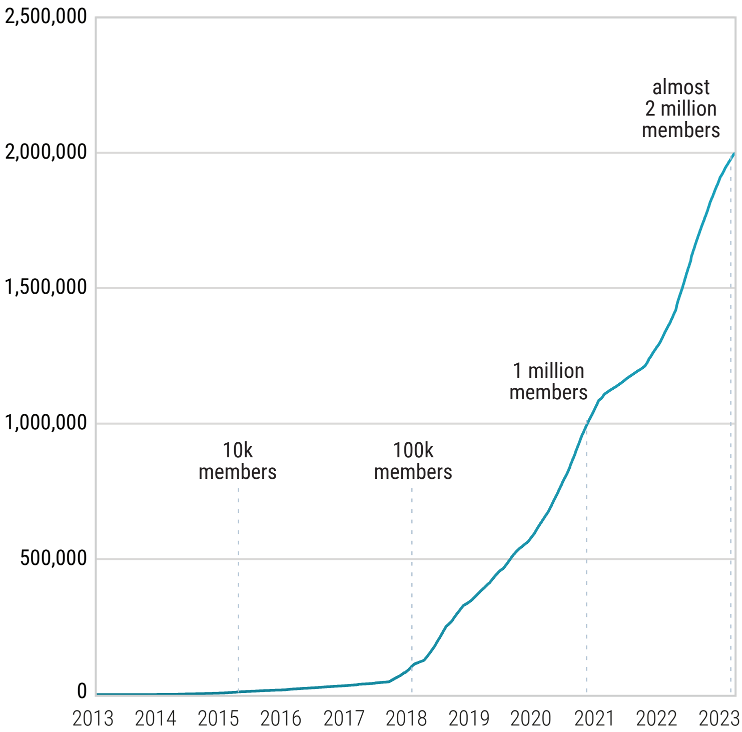
Sources: IDC, Bloomberg, 2023

Digital nomads still going strong

In 2021, during the pandemic, we wrote that a growing group of people was taking working away from the office a step further: they were working from anywhere. Thanks to the internet, digital nomads can work fully remotely, and they regularly move around between places like Bali, Tulum and Costa Rica. Despite the pandemic being behind us, the number of digital nomads seemingly continues to grow.

Subreddit r/digitalnomad is a popular social media meeting place for digital nomads and has doubled its number of members from one million in 2021 to almost two million now. Thousands of years ago, before the agricultural revolution, leading a nomadic lifestyle around in search of food was the norm. Nowadays technologies such as video conferencing and collaboration software enable all of us to revisit the nomadic lifestyle again, also in a search for freedom instead of just out of necessity or tradition.

Members of Reddit subforum 'digitalnomad'



Source: subredditstats, 2023

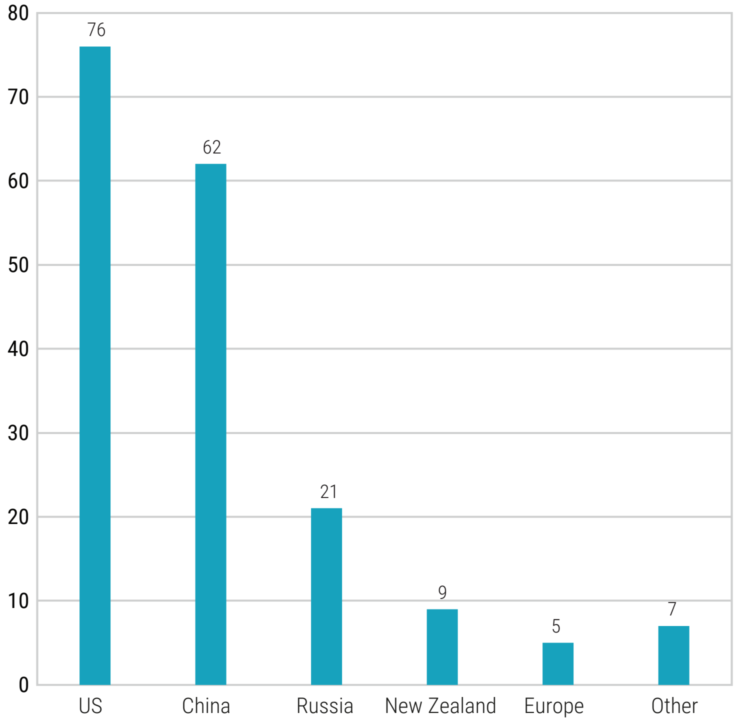
TECHNOLOGY & SCIENCE

3. In the lab

Space race

The space age is having a comeback. After more than sixty years of rocket launches, there are now over 11,000 satellites in Earth's orbit. While 30% of these are inactive, the pace of new deployments is accelerating the base of active units. After a record year of successful launches, nearly 2,500 satellites were deployed in 2022 alone. Where the early space race was contested by nations, today's space age is led by commercial interests. To facilitate reduced latency of data transmissions, the majority of launch activity centers on Low Earth Orbiting (LEO) satellites that have an altitude of 2,000 kilometers or less. Notably, of the roughly 4,500 operational LEO satellites weighing at least 100 kilograms, 3,300 of those are owned by a single private entity, the communications company Starlink.

Succesful rocket launches, 2022

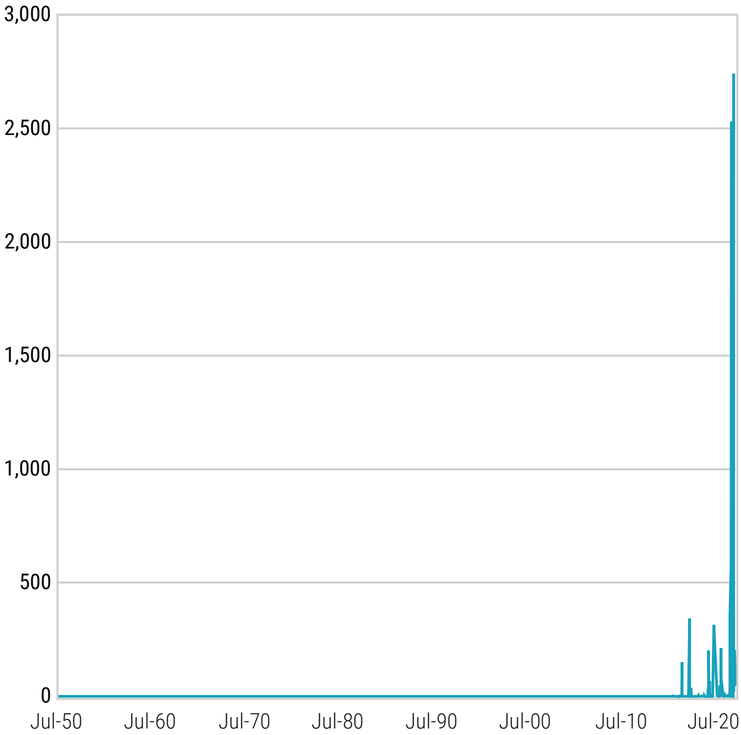


Source: Journal of Nature, Jonathan McDowell, January 2023

Large models

The speed of recent advances in AI and company announcements has been difficult to keep up with this year. As AI software models have improved, the technology has also required increasing training and computational capacity to power the systems. Before 2010, according to a 2022 paper by the University of Aberdeen's Jaime Sevilla et al., AI training computer requirements increased in a similar pattern to Moore's law, doubling every 20 months. Since 2015 and the development of large-scale models, there has been a 10 to 100-fold increase in the computational requirements of AI systems. For instance, in 2016, Google's AlphaGo model, known for beating the world champion at the game Go, required 1.8 million petaFLOPs (one quadrillion floating point operations per second). Released in 2020, OpenAI's GPT-3 required 314 million petaFLOPs to be trained.

AI training computational requirements in petaFLOPs
(1,000,000)

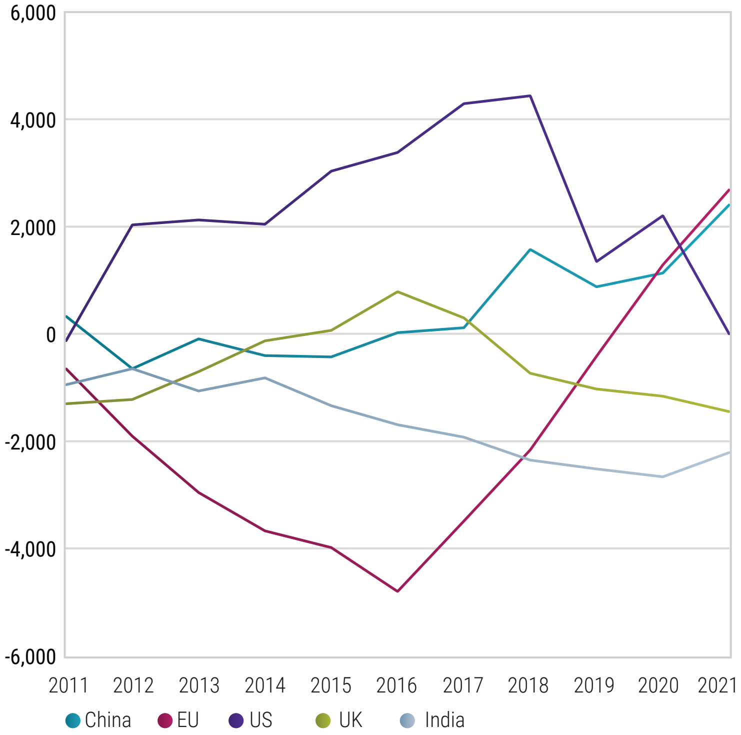


Source: 'Compute trends across three eras of machine learning', Sevilla et al., March 2022

Brain gain

In the last decade, international net flows of scientific authors have changed substantially. The US initially saw net inflows of scientific authors, but this has reversed course now to a small negative outflow. Meanwhile, China and the European Union are experiencing net inflows of scientific authors. In general, there has been a significant increase in the number of scientific authors from one country to another. This trend has been driven by factors such as the availability of funding, career opportunities, and the desire for collaboration with other researchers. However, this movement of scientific authors can also create challenges for both the source and destination countries, including brain drain, the loss of valuable expertise, and the need for policy responses to manage the flow of talent.

International net flows of scientific authors

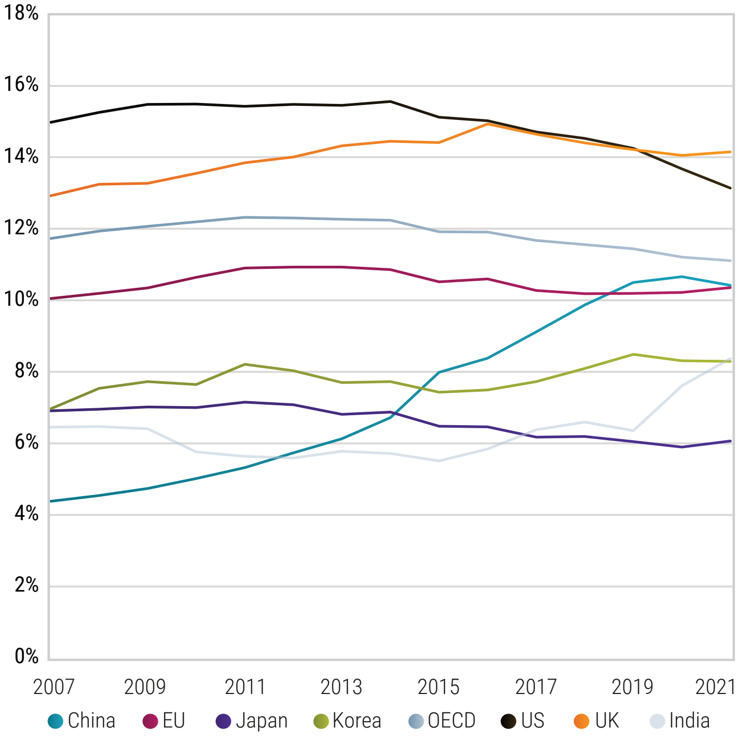


Source: OECD calculations based on Elsevier Scopus Custom Data, 2023

Scientific excellence

Yesterday we wrote about how international flows of scientific authors have changed from going to the US to going to China and the European Union. Today we look at an indicator of 'excellence': the percentage of scientific publications produced in a country that make it to the top 10% most cited papers in their respective scientific fields. The US long reigned at the top with about 15% of its scientific publications ending up in the top 10% most cited ones. However, the US has been overtaken by the UK. China and India have been making gains as well. Developing countries are improving the quality of their scientific publications either way, as the share of scientific publications from the OECD, a group of developed countries, is slowly dropping.

Percentage of scientific publications among the world's top 10% top-cited publications

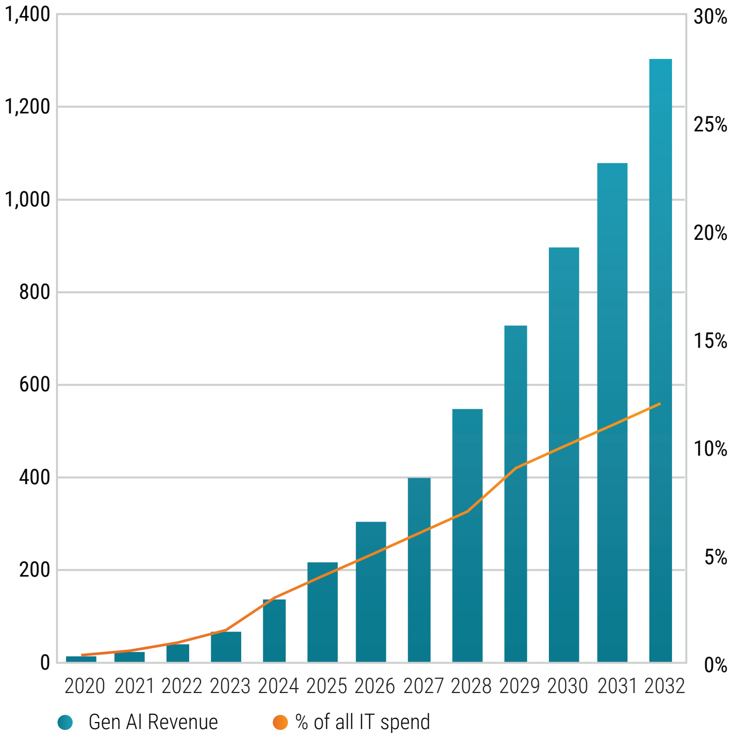


Source: OECD calculations based on Elsevier Scopus Custom Data, 2023

Artificial ingredients

In the 1960s, Stanford University professor Roy Amara noted that 'we overestimate the impact of technology in the short term and underestimate the effect in the long run.' It is also possible that sometimes the reverse is true. This week Bloomberg released a report forecasting that by 2032, revenues from generative artificial intelligence (AI) will reach USD 1.3 trillion, and account for 12% of all information technology spending. Given generative AI is a subset of the field, the forecast implies that total AI revenues will be even higher. Indeed, the high cost of training and operating computer-intensive AI software has materially lifted recent technology company results, particularly for providers of high-speed processors. Notably, mentions of AI during recent technology sector earnings conference calls rose more than five-fold year on year. As with statements like 'organic' and 'all natural' found on food packaging, it is worth taking the time to read the ingredients to better understand the claim.

Bloomberg forecast for generative AI revenues (USD bln)



Sources: Bloomberg, IDC, June 2023

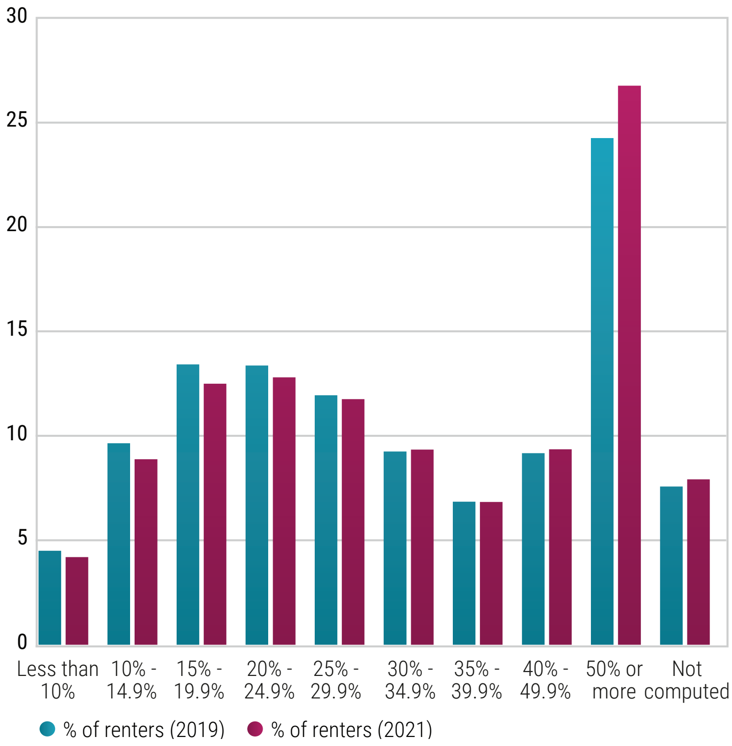
ECONOMY AND MARKETS

4. In the economy

Strained renters

Many renters in the US are facing affordability problems. When the Joint Center for Housing Studies of Harvard University estimates the extent of housing affordability problems, they typically start by measuring the number and share of households paying more than 30% of their income for shelter. This widely used metric is based on the notion that, when spending on housing exceeds the 30% threshold, people don't have enough money left over to pay for life's other necessities. In 2021, 47% of US households that were renters paid 30% or more of their income on rent. That is up from 45% in 2019. In other words, rents have increased more than household incomes for those who rent. A sizeable portion of US households spend 50% or more of their income on rent: 24% in 2021, an increase from 2019's 22%. While some receive rent support from state or local government, resulting in lower net rents as a percentage of household income, the US Census Bureau unfortunately has not provided that data.

Gross rent as a percentage of household income in the US

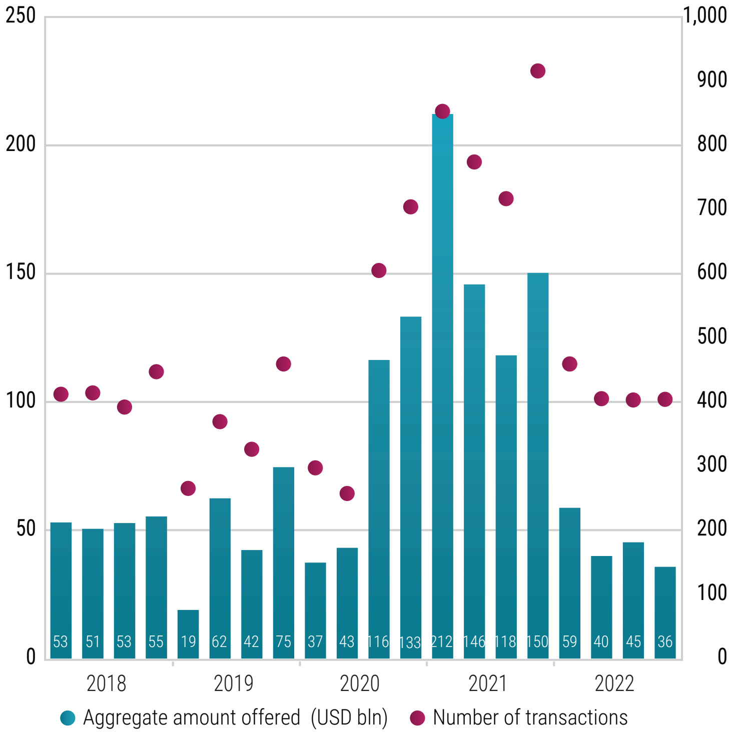


Source: US Census Bureau, 2022

No IPO

Rising interest rates, lower valuations and more risk awareness have decreased the demand from initial public offerings (IPOs) among investors. This is why the global number of initial public offerings halved from about 800 per quarter in 2021 to 400 in 2022. The aggregate amount offered in IPOs decreased even more, from about USD 150 billion per quarter in 2021 to USD 50 billion in 2022. The three largest IPOs in terms of amount offered in 2022 were Porsche at USD 9.1 billion, Dubai Electricity & Water Authority at USD 6.1 billion and Life Insurance Corporation of India at USD 2.7 billion. Asia led the market with USD 50 billion being offered in IPOs in 2022. In terms of sectors, companies categorized as consumer discretionary offered the most with USD 22 billion.

Global initial public offering (IPO) activity

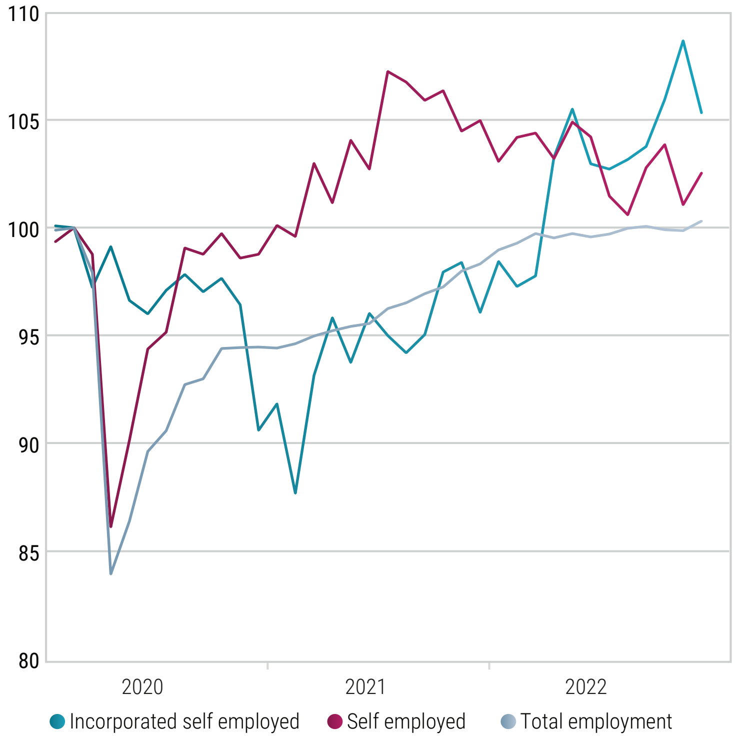


Source: S&P Global, January 2023

Self starter

During the pandemic, driven by layoffs and on-the-job stress, there was a jump in business formation and in self-employment. Nearly three years on, the self-employment, either through incorporation or without, has continued to outpace the total employment index. As of December 2022, benchmarked against employment levels in February 2020, the total employment index in the US has just fully recovered to 100.3. Meanwhile the index of self-employment through incorporation reached 105.3 in December 2022 while those directly self-employed reached 102.5. With layoffs in the technology sector accelerating this year, it is likely self-employment models will see a further increase for those knowledge workers. With a potential recession on the horizon, the question for these self-starters is, will they find clients for their new ventures?

US total and self employment index

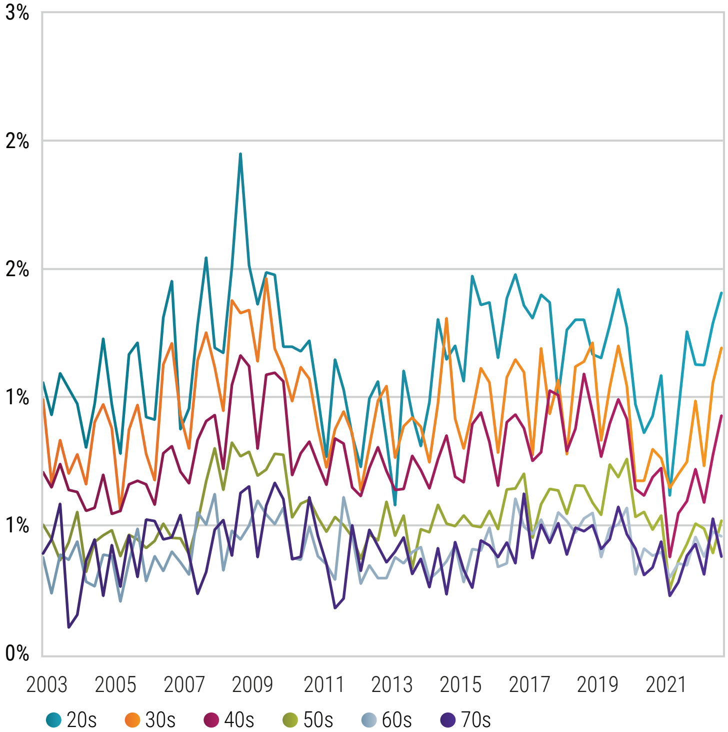


Source: US Bureau of Labor Statistics, Federal Reserve Bank of St. Louis

Auto strain

As if young people didn't have enough to worry about, making payments on their automotive loans is increasingly a concern. Over the last two and half years, the balance of outstanding auto loans has accelerated in the US, particularly for younger consumers. Between 2Q20 and 4Q22, auto loans among those aged 18 to 29 grew 31% versus those aged 40 to 49 at 23%. Although most of these loans were extended before interest rates began to rise, inflationary pressure on budgets has contributed to rising delinquency rates. While these have consistently been higher among younger consumers anyway, that trend accelerated over the last year. With student loan payment deferment programs scheduled to expire later this year, many younger consumers feel added pressure to realign budget priorities.

Flow into 90+ day past due auto loan by age group

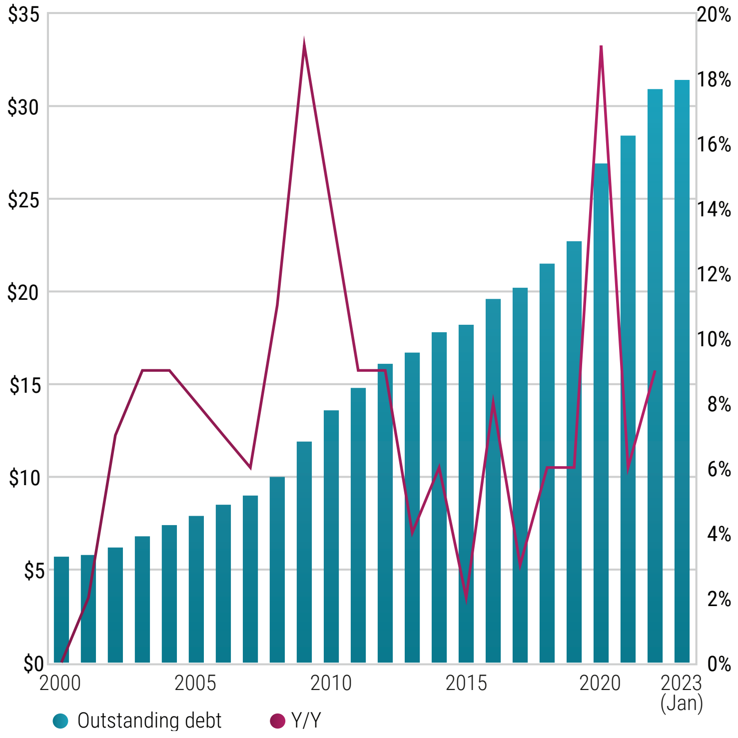


Source: US Federal Reserve Bank of New York, February 2023

Raise the roof

According to the US Department of the Treasury, the US has carried debt since its founding, ending the revolutionary war with USD 75 million in debt outstanding. Today, the US national debt exceeds USD 31.4 trillion. As a recent Visual Capitalist post depicts, the US debt would be equivalent to almost eight of Chicago's 110-story Willis Towers constructed of stacked one-dollar bills. While it is difficult to predict the outcome of the current debate on the statutory debt ceiling, which the US may soon reach, it is worth noting that the country has not generated a budget surplus since 2001. Further, even if the US could balance its budget, interest expenses on existing debt, estimated at USD 395.5 billion this fiscal year, represents one of the government's largest expense items, accounting for 6.8% of all federal spending.

US National Debt



Source: US Department of the Treasury, April 2023

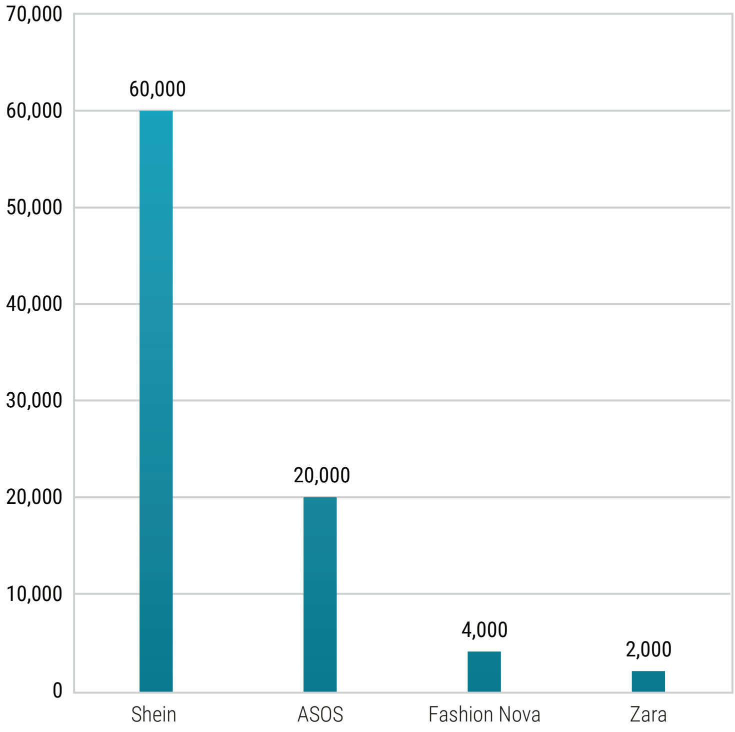
SUSTAINABILITY & SOLUTIONS

5. On the planet

Fast fashion

Over the past two decades, shopping has become easier, faster and more digital. Many people are no longer shopping for clothes – they are shopping for content to share with the world. Companies like Shein and ASOS have built their business model around the seemingly insatiable demand from a certain group of consumers. By digitalizing large parts of their business and working directly with many manufacturers, these companies have been able to reduce prices and production times. Producing small batches of clothes (just 50-100 each time) and often cutting corners to manufacture affordable items quickly, these fast fashion companies have adopted the 'test and repeat' model made famous by Inditex and H&M, but now at a much higher pace. However, they face a trade-off between offering ever-lower prices and becoming more sustainable. The large quantities produced, and clothes' potentially short lifetimes negatively impact the environment. We have written about which improvements can be made in our white paper 'The future of fashion'.

New designs offered each month by fast fashion companies

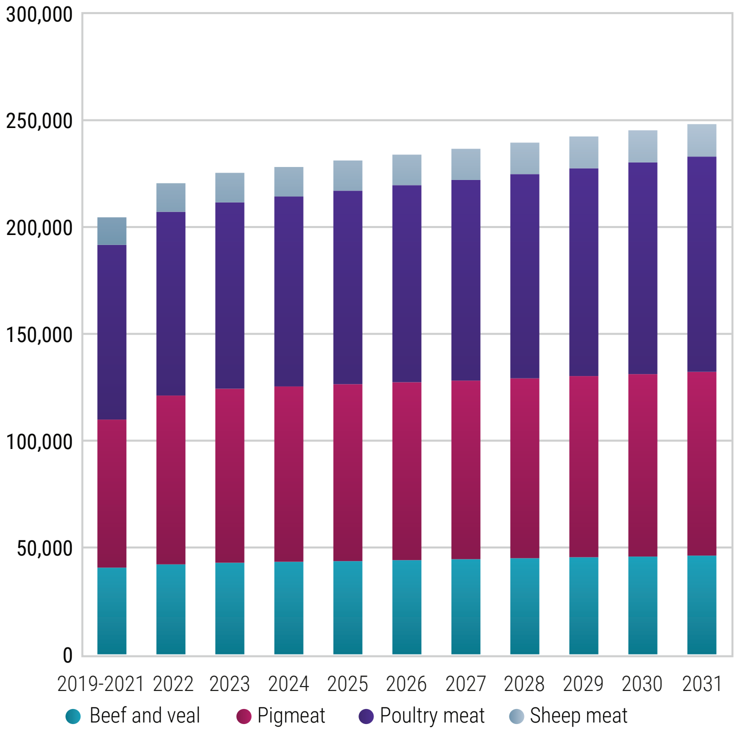


Sources: Gittemary, ASOS, Indigo 9 Digital, 2022

Meat eaters

Meat consumption is expected to increase in both developed and developing countries in the next decade, according to the UN's Food and Agricultural Organization. Growth is slow though. Currently, per capita meat consumption in developed countries is 69.5 kilograms compared to 27.6 kilograms in developing countries. Per capita consumption is expected to increase by just 0.3% per annum in developed countries and 0.8% in developing countries. Despite relatively low per capita consumption, developing countries are already the largest meat eaters on an absolute basis. They consume just over 200,000 kilotons per annum compared to 130,000 kilotons in developed countries. Pig and poultry are the highest growth categories in developing countries, at about 2% per annum.

Meat consumption in developing countries (kiloton)

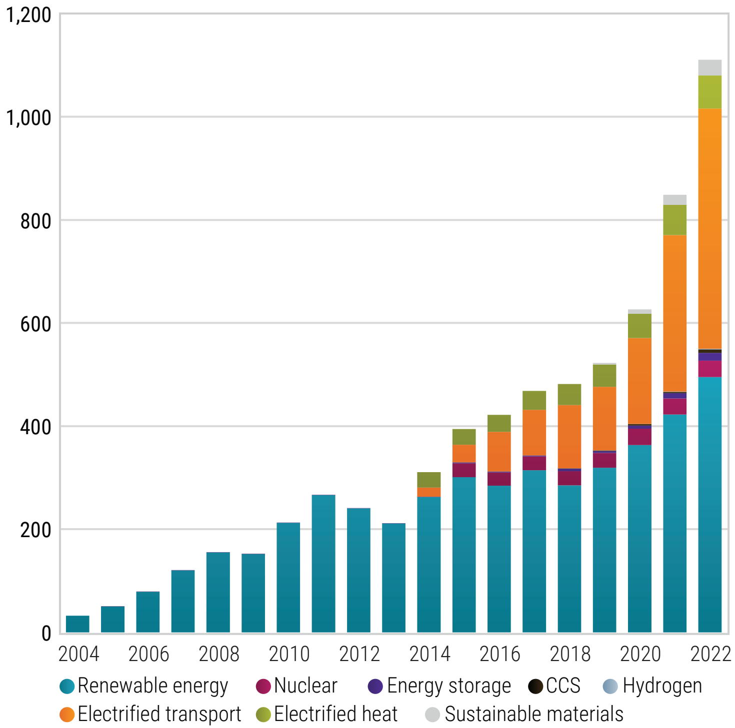


Source: Food and Agriculture Organization of the UN, 2022

In transition

Despite a tough year in the markets, investment spending on the energy transition jumped 31% year on year in 2022, to USD 1.1 trillion according to Bloomberg New Energy Finance (BNEF). Notably, that strong progress came before initiatives like the US Inflation Reduction Act came into effect. Renewable energy, including wind and solar, remained the leading sector within the transition, rising 17% year on year to USD 495 billion. Coming up fast, rising 54% to USD 466 billion, were investments in electrified transport including passenger and commercial vehicles as well as charging infrastructure. These investments come at a time when the world is not only seeking to address climate change, but also to bolster energy independence and security.

Global investment spending in the energy transition (USD bln)

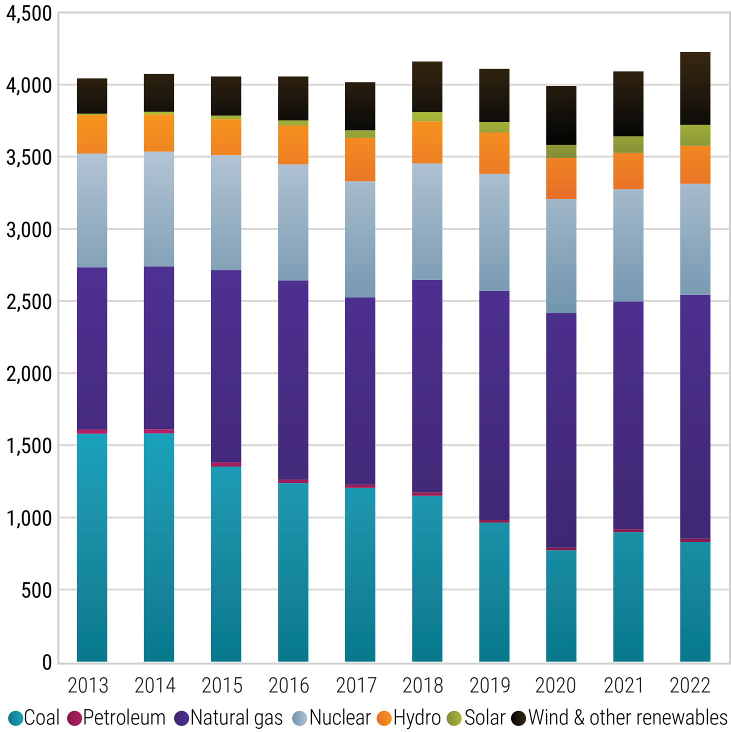


Source: Bloomberg New Energy Finance, February 2023

Electrified

In recent years, the United States has seen significant changes in its electricity generation mix. The use of coal has declined, with natural gas becoming the primary source of electricity generation. Additionally, renewable energy sources such as wind and solar have become increasingly popular, with their share of the electricity mix growing steadily. The development of new technologies, such as battery storage, has also helped to integrate intermittent renewable sources into the grid. The transition to a cleaner, more diversified energy mix is expected to continue as states and utilities set aggressive carbon reduction targets and invest in new infrastructure to support renewable energy deployment. Interestingly, the total amount of electricity generated has not increased significantly despite a growing economy implying the US consumes less electric energy per dollar of GDP.

Electricity generation by power source in the US
(Million megawatthours)

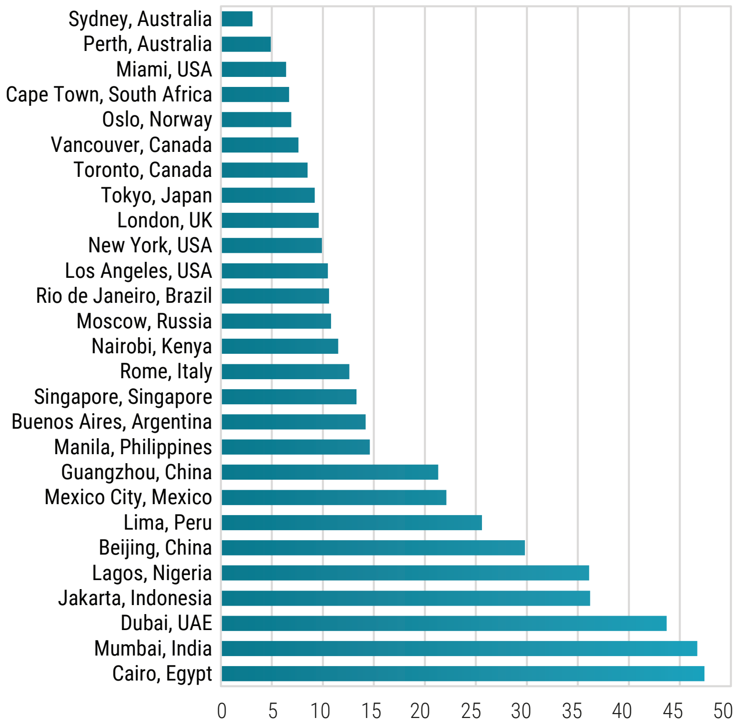


Source: US Energy Information Administration, 2023

Breathe

The World Health Organization (WHO) estimates seven million premature deaths per year can be attributed to air pollution. Further, the World Bank estimates illness and death from air pollution reduces global GDP by 6.1%. Although just under 10% of the countries with sufficient data to assess have succeeded in reducing harmful air pollution levels below WHO guidelines, many cities are making strides. For instance, in Beijing, the concentration of harmful particulate matter measuring 2.5 microns (PM2.5) or smaller, fell 41% between 2018 and 2022. In Tokyo, PM2.5 concentrations fell by 30% over that period. Notably, in Sydney, which ranks among the best major cities in terms of air quality, PM2.5 concentrations still improved the most, falling 59% over the last four years.

Average PM2.5 Concentration (µg/m³), 2022



Sources: World Health Organization, IQAir, March 2023

Team

For nearly a quarter century, Robeco has been at the forefront of thematic investing – sensing early on the building under-currents of trends and their powerful potential for re-shaping business and society.

Our first thematic product was launched already in 1998 and over the next two decades, effective collaboration between Robeco's in-house investment teams has enabled the development of a diverse range of cutting-edge thematic investment strategies, from disruptive digitalization in finance and retail sectors to confronting environmental destruction and resource scarcity.

Strategy

We believe in the power of disruption from evolving demographics, technological advances and regulatory developments. Even as the human brain vastly underestimates the exponential growth of trends and their long-term impact, constant change defines our socioeconomic environment. By recognizing high-return industries that are positively affected by these changes and that offer attractive possibilities for new capital, we can identify and invest in those companies that are likely to be long-term, structural winners.

Important information

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Additional information for US Offshore investors – Reg S
The Robeco Capital Growth Funds have not been registered under the United States Investment Company Act of 1940, as amended, nor the United States Securities Act of 1933, as amended. None of the shares may be offered or sold, directly or indirectly in the United States or to any US Person. A US Person is defined as (a) any individual who is a citizen or resident of the United States for federal income tax purposes; (b) a corporation, partnership or other entity created or organized under the laws of or existing in the United States; (c) an estate or trust the income of which is subject to United States federal income tax regardless of whether such income is effectively connected with a United States trade or business. In the United States, this material may be distributed only to a person who is a “distributor”, or who is not a “US person”, as defined by Regulation S under the U.S. Securities Act of 1933 (as amended).

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The Fund may not be offered or sold to the public in Brazil. Accordingly, the Fund has not been nor will be registered with the Brazilian Securities Commission (CVM), nor has it been submitted to the foregoing agency for approval. Documents relating to the Fund, as well as the information contained therein, may not be supplied to the public in Brazil, as the offering of the Fund is not a public offering of securities in Brazil, nor may they be used in connection with any offer for subscription or sale of securities to the public in Brazil.

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The Prospectus relates to a private collective investment scheme which is not subject to any form of domestic regulations by the Autoriti Monetari Brunei Darussalam (“Authority”). The Prospectus is intended for distribution only to specific classes of investors as specified in section 20 of the Securities Market Order, 2013, and must not, therefore, be delivered to, or relied on by, a retail client. The Authority is not responsible for reviewing or verifying any prospectus or other documents in connection with this collective investment scheme. The Authority has not approved the Prospectus or any other associated documents nor taken any steps to verify the information set out in the Prospectus and has no responsibility for it. The units to which the Prospectus relates may be illiquid or subject to restrictions on their resale. Prospective purchasers of the units offered should conduct their own due diligence on the units.

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No securities commission or similar authority in Canada has reviewed or in any way passed upon this document or the merits of the securities described herein, and any representation to the contrary is an offence. Robeco Institutional Asset Management B.V. relies on the international dealer and international adviser exemption in Quebec and has appointed McCarthy Tétrault LLP as its agent for service in Quebec.

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Additional information for investors with residence or seat in Malaysia
Generally, no offer or sale of the Shares is permitted in Malaysia unless where a Recognition Exemption or the Prospectus Exemption applies: NO ACTION HAS BEEN, OR WILL BE, TAKEN TO COMPLY WITH MALAYSIAN LAWS FOR MAKING AVAILABLE, OFFERING FOR SUBSCRIPTION OR PURCHASE, OR ISSUING ANY INVITATION TO SUBSCRIBE FOR OR PURCHASE OR SALE OF THE SHARES IN MALAYSIA OR TO PERSONS IN MALAYSIA AS THE SHARES ARE NOT INTENDED BY THE ISSUER TO BE MADE AVAILABLE, OR MADE THE SUBJECT OF ANY OFFER OR INVITATION TO SUBSCRIBE OR PURCHASE, IN MALAYSIA. NEITHER THIS DOCUMENT NOR ANY DOCUMENT OR OTHER MATERIAL IN CONNECTION WITH THE SHARES SHOULD BE DISTRIBUTED, CAUSED TO BE DISTRIBUTED OR CIRCULATED IN MALAYSIA. NO PERSON SHOULD MAKE AVAILABLE OR MAKE ANY INVITATION OR OFFER OR INVITATION TO SELL OR PURCHASE THE SHARES IN MALAYSIA UNLESS SUCH PERSON TAKES THE NECESSARY ACTION TO COMPLY WITH MALAYSIAN LAWS.

Additional information for investors with residence or seat in Mexico
The funds have not been and will not be registered with the National Registry of Securities or maintained by the Mexican National Banking and Securities Commission and, as a result, may not be offered or sold publicly in Mexico. Robeco and any underwriter or purchaser may offer and sell the funds in Mexico on a private placement basis to Institutional and Accredited Investors, pursuant to Article 8 of the Mexican Securities Market Law.

Additional information for investors with residence or seat in Peru
The Superintendencia del Mercado de Valores (SMV) does not exercise any supervision over this Fund and therefore the management of it. The information the Fund provides to its investors and the other services it provides to them are the sole responsibility of the Administrator. This Prospectus is not for public distribution.

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Additional information relating to RobecoSAM-branded funds/services
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Some Funds referred to in this marketing material have been registered with the UAE Securities and Commodities Authority ("the Authority"). Details of all Registered Funds can be found on the Authority's website. The Authority assumes no liability for the accuracy of the information set out in this material/document, nor for the failure of any persons engaged in the investment Fund in performing their duties and responsibilities.

Additional information for investors with residence or seat in the United Kingdom
Robeco is deemed authorized and regulated by the Financial Conduct Authority.

Additional information for investors with residence or seat in Uruguay
The sale of the Fund qualifies as a private placement pursuant to section 2 of Uruguayan law 18,627. The Fund must not be offered or sold to the public in Uruguay, except under circumstances which do not constitute a public offering or distribution under Uruguayan laws and regulations. The Fund is not and will not be registered with the Financial Services Superintendency of the Central Bank of Uruguay. The Fund corresponds to investment funds that are not investment funds regulated by Uruguayan law 16,774 dated 27 September 1996, as amended.

Please visit the Robeco website for more information