

INVESTMENT INSIGHTS

HIGHER FOR LONGER

A new vista could be opening up with inflation and interest rates at higher altitudes than we've been used to for some time now

Economic forecasts

Reasons to remain cautious about the investment outlook

Shaky ground

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Rise of the machines

Will AI bring another industrial revolution?

A fine balance

The shift to clean energy and its impact on our biodiversity



RATHBONES



FOREWORD



Welcome to the latest issue of *Investment Insights*, and we hope it finds you well. As we enter the year's final quarter, we begin on page 4 with a look at what lies ahead for your investments as the inflationary shocks caused by the pandemic and war in Ukraine finally begin to unwind. However, the world has changed profoundly since the late 2010s, and the opportunities available to us as investors along with it.

The next article on page 6 looks at the reasons to remain cautious about the investment outlook, as well as what to be optimistic about. This has been the most aggressive central bank tightening cycle since the early 1980s in most advanced economies, and the effects of rate increases can take one to two years to feed through to the economy.

Does reality match the popular perception of the housing market as a favourable alternative to investing in financial markets? If falling interest rates helped to drive up house prices between the 1990s and 2021, it's hardly surprising that rising interest rates since then have pushed prices lower over the past year. However, mortgage rates have begun to tick down again, so is the housing market out of the woods? On page 8 we give our view on what it means for you as investors.

Will the emergence of artificial intelligence (AI) herald a new industrial revolution? We explore this area in our next feature on page 10. Major new technologies often result in investors over-extrapolating. The average time to widespread adoption of new technologies seems to be getting shorter, but are we getting better at adapting?

The final article on page 12 looks at the shift to clean energy and its impact on our biodiversity given the need to mine vast amounts of critical minerals, for example. Will the benefit of decarbonisation outweigh its adverse impacts? Some studies we look at suggest that the transition to a green economy can allow us to have our cake and eat it.

Please visit rathbones.com to find out more about our views on issues affecting the global economy and investments. We always welcome your questions about what's happening in the world today and how it affects your investments. If you'd like to find out more, please get in touch with your investment manager, or via the contact details on the back cover of this publication.

Liz Savage and Ed Smith

Co-chief investment officers

HIGHER FOR LONGER HAS IMPLICATIONS FOR INVESTORS

The inflationary shocks caused by the pandemic and war in Ukraine are finally unwinding. But the welcome fading of these shocks doesn't mean that we're returning to an environment just like the one before they hit. The world has changed profoundly since the late 2010s, and the opportunities available to us as investors along with it. The strategies that serve us well today will look different to those that worked best in the unusual low-rate, low-volatility environment of the last decade.

The deluge

Just over a century ago, the world was also reeling from war in Europe and a pandemic, along with double-digit inflation. Contemporaries compared those events to a flood of Biblical proportions. Both Winston Churchill and wartime Prime Minister David Lloyd George called the period "the deluge", an image also used by artists and poets of the time. By the early 1920s, the deluge was receding. Inflation had dropped sharply from double-digit rates as the acute turmoil subsided. The floodwaters also appear to be retreating today, with some of the damage done by the pandemic and war starting to heal.

For example, the once-in-a-generation chaos in global supply chains which followed the coronavirus pandemic has now largely abated. Last year's lengthy delays at shipping hubs have disappeared, bottlenecks of critical components have dissipated, and firms have had time to rebuild their inventories. The outcome has been falling goods inflation, with further declines likely. Manufacturers around the world report that growth in their selling prices has slowed sharply.

Although the war in Ukraine continues, a similar pattern is evident when it comes to its global impact. The prices of key commodities, like natural gas and wheat, jolted higher after the invasion. But they've since dropped to even lower levels than just before Russia attacked (figure 1). The world has adapted to the conflict in remarkable ways, reconfiguring trade routes or learning to live without Russian supply.

This too is already feeding through to lower inflation, helping to bring it from more than 11% last year to under 7% in the UK now. Again, there's probably a lot more disinflation to come as the fading of this shock continues to filter through to consumer prices. UK food producers now report that the prior surge in their input prices is over.

We're starting to see the first signs of that on supermarket shelves, and inflation there is likely to slow much further later this year. In the meantime, the statutory price cap on energy bills, which rocketed in 2022, is now declining. This alone should help to pull inflation down markedly later this year. Price pressures in the UK have not been tamed yet, but the outlook has improved considerably.

After the flood

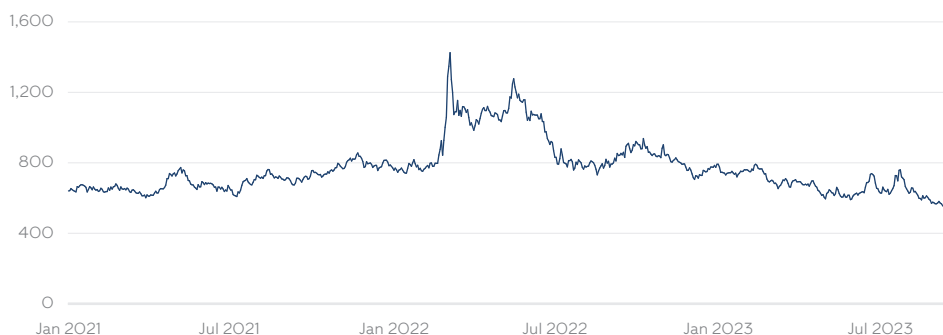
Even as Churchill spoke about the deluge of his day subsiding, he argued that "violent and tremendous changes" had been left in its wake. Lloyd George, too, talked about "unheard-of changes". The illusory stability of the Edwardian era gave way to a new regime of volatility in the interwar years.

Once again, there are parallels to the present day. Inflation may be abating – in the US it is already back in the low single digits – but other changes induced by pandemic and war will be with us for much longer. Both the challenges policymakers face and the tools they're willing to deploy appear to have changed since the 2010s, suggesting that the economic backdrop in the coming decade will also look quite different.

Geopolitical rivalries have intensified, while awareness of the dangers that human interaction with the natural world can cause has increased. Governments are placing more emphasis on building resilience in supply chains, rather than maintaining efficiency (and minimising cost) as previously. And they're increasingly willing to use long-neglected industrial policy to support this goal. Both the US and EU have passed major acts supporting domestic chip production and the green transition.

Figure 1: Wheat price (US cents per bushel)

After spiking during the first few months of the Ukraine War, wheat prices have fallen back to below the costs before Russia's invasion. Source: Refinitiv, Rathbones.



Through their experience in the pandemic, Western governments have also rediscovered their lost appetite for activist fiscal policy, in contrast to the budgetary consolidation of the 2010s. Consumers' balance sheets have been strengthened by the huge fiscal interventions of the pandemic too. That's another contrast to the years immediately after the global financial crisis, when households were trying to repair their damaged finances. In the round, the economic conditions which underpinned the demand-deficient regime of the last decade – when the monetary policy tools of central banks were compelled to do much of the heavy lifting – have fundamentally altered.

The new old normal

The full implications of these changes will take years to become clear. But we are confident about a couple of points. First, interest rates will stay higher on average than their rock-bottom rates in the 2010s, even as the recent burst of inflation continues to fade. The conditions that kept monetary policy ultra-loose for a decade have changed. Rates should fall from current levels at some stage, but not get mired near zero again. Second, volatility – in inflation, interest rates and economic performance generally – will be greater than it was during that decade. That reflects a combination of things, including the new policy environment plus the risk of greater geopolitical and climate-related shocks.

In some ways, these changes shouldn't be at all surprising. The 2010s were unusual with the lowest interest rates in centuries of recorded history (from the 1600s in the UK), and the second-lowest volatility in inflation (going back to the 1200s). The 'new normal' after the pandemic and war in Ukraine might look more like the 'old normal' which preceded the financial crisis, with historians instead remembering the 2010s as the anomaly.

Adapting to a new regime

From an investor's perspective, this regime change creates a need to adapt, but also presents opportunities. This is particularly evident in fixed income, where markets have moved in anticipation of this new environment. Higher rates mean

higher yields available from fixed income assets with little or no risk of default (since those yields tend to be highly sensitive to expectations for interest rates). For example, UK government bonds (gilts) with a maturity of two years offered a yield well below 0.5% just two years ago, and 0.6% on average through the 2010s. Today, the yield is nearly 5% (figure 2). When we work out our long-term projections for returns from various asset classes, fixed income shows up more favourably than just a couple of years ago. It's likely to comprise a larger part of our portfolios over the next few years, given the more attractive entry point.

Higher volatility arguably also creates opportunities for careful active management in fixed income over the ups and downs of the economic cycle. From that point of view, gilts have recently become more attractive than they have been for a long time.

The Bank of England appears to be at the end of its cycle of raising rates. While a return to near-zero isn't on the cards, we think it will cut rates in 2024. The previous surge is starting to affect the economy, with inflation falling and the latest business surveys pointing to activity contracting. Although wages have been growing strongly recently, the broader evidence of loosening in the labour market suggests that will not last. Meanwhile, house prices are already falling, as we discuss in the article on page 8, and consumers tend to turn cautious when that happens. In the past, interest rates have nearly always fallen in the year after house prices began to decline too. This all adds to the tactical appeal of gilts, which in past cycles have performed strongly ahead of the start of rate cuts.

Figure 2: UK 2-year gilt yields (%)

Government bond yields have soared higher over the past year as interest rates have risen.
Source: Refinitiv, Rathbones.



REASONS TO REMAIN CAUTIOUS ABOUT THE INVESTMENT OUTLOOK

For over a year we have been saying that a US and global recession were likely to start within the next 12 months. Our views warranted a cautious investment approach focused on areas of the market that would be likely to produce steadier returns in an economic downturn.

We acknowledged we might be wrong, and inflation might fall without growth also tumbling in the wake of aggressive interest rate increases. But it wasn't our base case. We believed inflation would return to the normal range by the end of 2023 – which does seem to be happening outside of the UK – but that a mild recession was a likely corollary. Yet no recession has arrived. An explanation is in order, and we want to address head on why we haven't changed our outlook.

The signals we look at to help us forecast whether we are likely to enter recession or not operate with long and variable lags. While it may seem like we've been talking about this recession for a long time, there are no recession signals that are yet past their "sell-by" dates, past which we could say for sure that "it's different this time". Instead, we are well within the past windows between a warning signal and the start of a recession, whether those signals are coming from bond yields, money supply, bank lending standards, home affordability and other housing related indicators or the strength of company profits.

Strengths and weaknesses

To help explain what's kept the global economy relatively resilient for longer than we expected and to summarise where we might go from here, it's helpful to identify the economic strengths and weaknesses and the opportunities and threats stemming from that (a 'SWOT' analysis).

The first strength is the excess savings accumulated during the pandemic, which are still supporting consumption as real income growth (growth minus inflation) turned negative with high inflation. There are still some excess savings left to spend, but in real terms – what people can buy with them – excess savings are largely gone in the UK, Europe and the US. So those excess savings (or lack of them) could now be seen as a weakness and a threat.

Another strength has been the resilient service sector and a resilient jobs market. These are always the final shoe to drop. If the recession is expected to be mild, it is possible firms may not lay off staff if they perceive a possible future shortage of skills, and this may in turn avert that very recession. But this would be novel – and perhaps unlikely given job openings have fallen back a long way as figure 3 shows.

The greatest reason for optimism is fading inflation, which could boost household spending as wages rise in real terms. But most of the real wage gains are likely to get eaten up by higher debt servicing and reduced government transfers, and could be needed to rebuild savings levels in real terms. We think consumer spending is only going one way from here.

In our view, the key source of weakness is the huge central bank and government belt tightening we've seen (increases in interest rates and decreases in government spending), which is still to be felt. This has been the most aggressive central bank tightening cycle since the early 1980s in most advanced economies. The effects of rate increases can take one to two years to feed through to the economy – it takes time for households and businesses to roll onto higher rates.

Up and down

Yet equity markets are up even as expectations for the next 12 months' profits have been revised down continuously. While markets can look beyond the next 12 months' earnings, they are also sensitive to the discount rate at which you turn tomorrow's earnings into today's prices (i.e. prevailing interest rates).

Investors also seem very complacent about the risks. The VIX – a measure of volatility known as the 'fear gauge' – is near an all-time low. In 30 years, it has never been this low when leading economic indicators have deteriorated. So we are continuing to invest defensively, favouring quality companies less sensitive to the business cycle. There are some great companies we still think will generate great long-term returns.

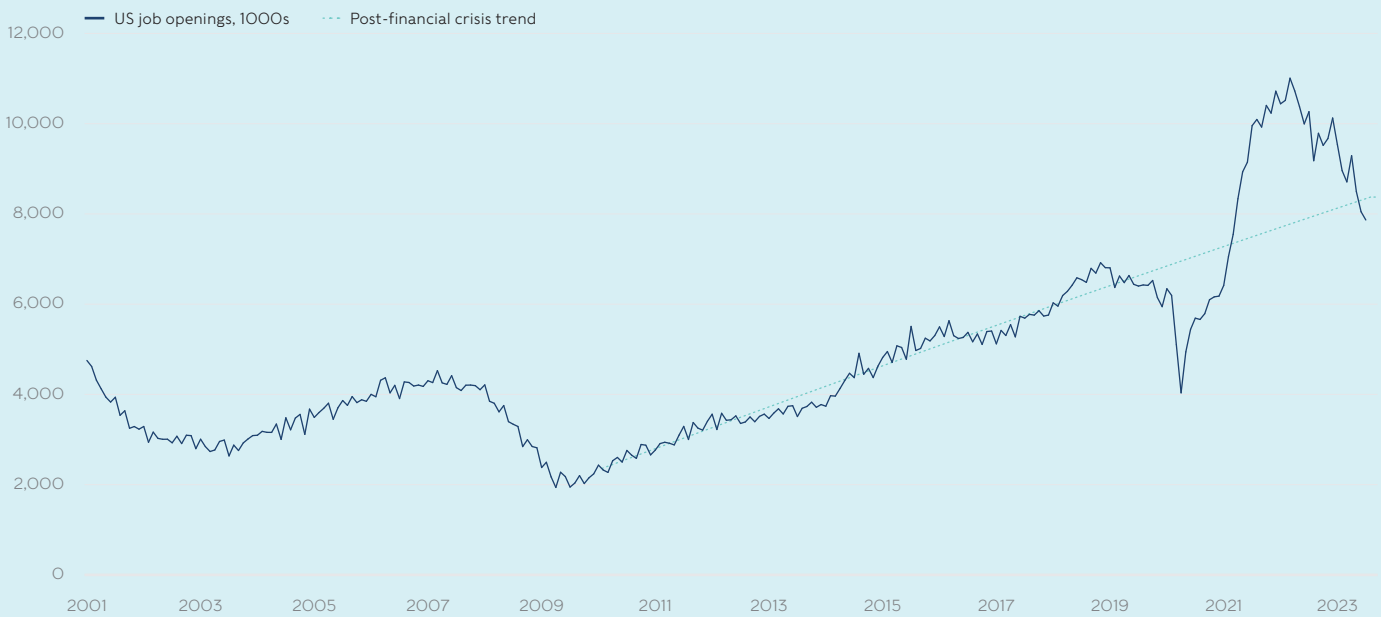
You can read more about our views on the economic and investment outlook over the coming months in our latest *Quarterly Investment Update*. If you'd like to find out more about why we believe a balanced and actively managed portfolio can deliver better outcomes over the longer term, please get in touch with your investment manager or contact us through the details at the end of this publication.



Figure 3: Job openings

The number of vacancies has fallen back a long way over the past year.

Source: Refinitiv, Rathbones.



WHY INVESTING IN PROPERTY IS NOT ALWAYS AS SAFE AS HOUSES

The idea that bricks and mortar make for a great investment is so ingrained in the culture of the English-speaking world, it has even permeated our language. Take the phrase 'as safe as houses'. The Victorian publisher John Hotten claimed (in his Dictionary of Modern Slang, Cant and Vulgar Words) that it entered the lexicon directly in response to the perceived safety of residential property after the 1840s railway stock mania – the original tech bubble – ended in tears. But does reality really match the popular perception of the housing market as a favourable alternative to investing in financial markets?

A golden age for property investing?

At first glance, the experience of recent decades seems to validate that view. UK house prices rose by an average of 7.7% a year between 1964 and the start of 2023, while the FTSE All-Share Index of UK equities rose by just 6.3% on average. UK equities haven't had an easy ride since the Global Financial Crisis. But an equity investor with half of their portfolio in the US S&P 500 Index and half in UK equities would have only seen the value of their holdings rise at the same rate as house prices.

Even if a UK investor had gone all-in on US stocks for the past six decades, their portfolio would still have lagged London property. The S&P 500 has risen at an average rate of 8.4% a year in sterling terms, while London house prices increased by 8.5%. This comparison is simplistic. It doesn't consider rents or dividend payments, or the impact of taxes, mortgage borrowing, transaction costs and maintenance. But even so, those capital gains from property are clearly not to be sniffed at.

However, there are a couple of important caveats. First, average performance has masked lots of ups and downs. Property has underperformed for long periods since the 1960s. For example, between 1974 and 1991, and since 2002, an investor with a ten-year horizon would have seen more capital appreciation from the 50/50 equity portfolio of US and UK stocks than from housing.

Second, peering further back into history shows that such strong house price growth has not always been the norm. The long-run

data in figure 4 shows that once inflation is accounted for (what economists call "real" terms), UK house prices rose more than sevenfold since the early 1960s. But before that, real prices were flat on net since 1900. In fact, some (albeit patchier) data suggest real prices could have been flat all the way back to the 1840s.

What might explain this sudden rise in house prices? Most of the increase until the 1990s appears to be down to higher incomes. House prices generally remained between four and six times the average person's earnings until then. Since the 1990s though, other factors must have been involved – it's a well-known fact that house prices have outpaced earnings. The decline in interest rates is a prime suspect. The average interest rate on a tracker mortgage was close to 15% in 1990, whereas rates below 2% were common after the pandemic. All else being equal, lower interest rates allow buyers to borrow more money for the same monthly repayments. Slower housebuilding may also have played a role, but we'll return to that later.

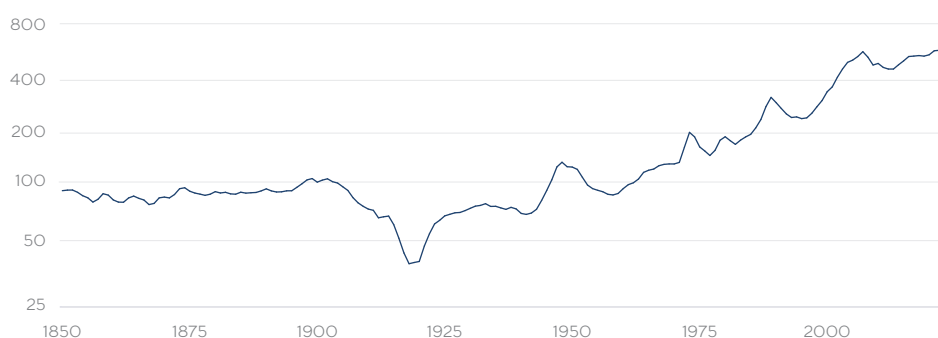
The impact of higher rates

If falling interest rates helped to drive up house prices between the 1990s and 2021, it's hardly surprising that rising interest rates since then have pushed prices lower over the past year. The average UK house price was just over 5% below its 2022 peak by August this year. However, mortgage rates have begun to tick down again. So perhaps the housing market is out of the woods?

We're sceptical that's the case, mainly because houses still appear extremely unaffordable. A typical mortgage payment for a first-time buyer, for example, still equates to almost 40% of average take-home pay. Figure 5 shows how that's very high by historical standards, and on past form, unsustainable. It's notable that when houses have looked this expensive in the past, in the late-1980s and mid-2000s, prices suffered a substantial correction. With current mortgage rates, buyers will either continue to reduce the amount they borrow (and therefore offer) or remain out of the market altogether. Indeed, estate agent surveys confirm that the number of enquiries from prospective buyers is still falling markedly. Additionally, with almost 30%

Figure 4: Real UK house prices (1900 = 100)

This chart shows UK house prices, after accounting for the level of inflation in the economy as a whole. To make it easier to view, it uses a logarithmic scale, where each interval on the vertical axis represents a doubling in prices. Source: Bank of England, Refinitiv, Rathbones.



of fixed rate mortgage deals expiring between the second half of 2023 and end of 2024, many borrowers will see a significant increase in repayments, which could prompt some sales from households downsizing or switching to the rental sector.

To be clear, we don't anticipate a 2008-style crash. Banks and building societies are much stricter with their mortgage lending than they were back then. Whereas over 20% of new mortgages didn't verify the borrower's income in 2007, that figure has been below 0.5% since 2015. The share of homeowners without a mortgage has increased from 44% to 54% too, reducing the number of households that might be forced to sell up if their mortgage payments become unaffordable. But it's clear that unless the Bank of England cuts rates sharply and suddenly, which we don't expect, a further leg down in house prices will be necessary to restore affordability to a sustainable level. If we're correct, we think house prices would struggle to perform better than equities over the next few years.

Structural tailwinds set to fade

So house prices will probably continue to struggle for a while yet, but what about further ahead? The UK housing market has overcome bigger bumps in the road than this before. However, we think the golden era for investors in UK housing could be over. There are two key reasons why we find it difficult to build a convincing case that house prices will continue posting the strong gains we've become used to.

First, the tailwind from the long-term decline in interest rates has faded. Our working assumption is that interest rates will eventually fall back a bit from where they are today, but we don't foresee them returning to the ultra-low levels seen during the 2010s beyond that. We think the risks are, if anything, skewed towards higher interest rates. And even if we're proven wrong and we do return to a 2010s-style world, there just isn't as much room for interest rates to fall as there was in the 1990s.

Second, we aren't persuaded by the common argument that the UK's housing supply will always remain tight relative to

demand. For starters, the relationship between housing supply and prices is complex, and studies often run into problems with data collection and quality. There is evidence that it affects local prices, and that tighter supply can exacerbate the impacts of interest rates and incomes on house prices. That seems to have been the case in Southeast England in particular.¹ But there is not much consensus on the impact of supply nationally. While some Bank of England staff attribute pretty much all of the rise in house prices relative to incomes or inflation to interest rates, others aren't as convinced.

For what it's worth though, there are reasons to expect supply to loosen slightly going forward. An often-overlooked fact is that the net supply of new homes, accounting for demolitions, has picked up since 2015 to a rate comparable with the infamous post-war building spree in the 1950s and 1960s.

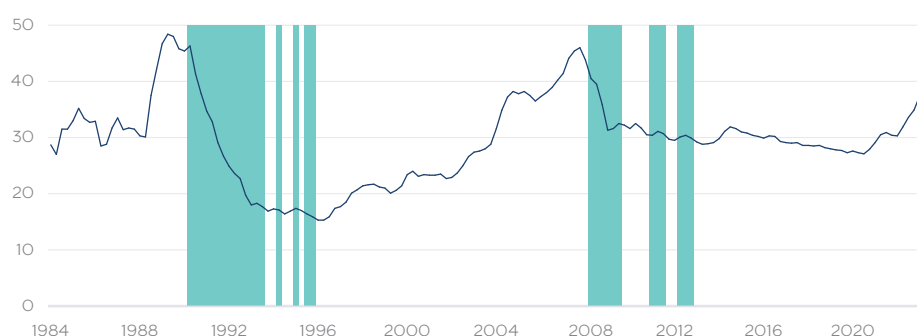
With generations that have experienced declining rates of homeownership set to make up a larger share of the electorate, it's hard to see a political motive to reduce that supply. On top of that, total population growth is projected to slow over the coming decades. For typical first-time buyer age groups (those in their 20s and 30s), the population is even projected to contract later this decade after a boom during the 2010s.

In summary, there's plenty to challenge the idea that property investment will be "safe as houses" going forward. We believe that investing in a diversified portfolio of financial assets offers a more attractive balance between prospective risk and reward.

Figure 5: Typical first-time buyer mortgage payments as a share of take-home pay

Shaded areas show periods when house prices are falling year-on-year.

Source: Refinitiv, Rathbones.



WILL AI BRING ANOTHER INDUSTRIAL REVOLUTION?

Major new technologies often result in investors over-extrapolating: think of radio stocks in the 1920s, or internet stocks in the late 90s. Or even the dominance of miners and oil producers in 2010 as globalisation – which is technological in a sense – was touted as never-ending. The history of artificial intelligence (AI) is filled with predictions that now seem absurd: pioneering computer scientist Herbert Simon said that by 1985 a computer would be as capable as the human brain.

Comparing AI with biological brains isn't a bad way to think about it – after all both AI and brains are based on neural networks. Ajeya Cotra of Open Philanthropy wrote a well-respected paper in 2020 that found ChatGPT-2, the state-of-the-art generative AI at the time, was equivalent to a honey bee's brain and it would take until 2050 before AI is as likely as not to be as powerful as a human's. But progress has been rapid and GPT-4, which is part-owned by Microsoft, is now approximately as powerful as a squirrel's brain and her estimate of likely human-brain equivalence has been updated to the late-2030s.

That may seem scary or it may seem tremendously exciting. Our advice: get to know it now. Play about with ChatGPT or Bard or Claude. Ask them to write an essay on a topic you know something about: you'll probably give it a B – better than what most people could achieve, but many could do a lot better. Although not in just a few seconds, of course.

Productivity gains

Some scientists think the large language models on which these AIs are based are never going to threaten the capacity humans have for abstract reasoning – they're essentially predictive text engines, after all. But perhaps that's not necessary to unleash tremendous productivity gains. B-grade work delivered in a few seconds is good enough for many of the tasks many occupations require, freeing valuable labour time for higher valued-added activities. Some studies have found significant productivity gains from generative AI in certain professions already (such as customer support centres and software coders), especially among less experienced staff. But to revolutionise economic growth wholesale it needs to be adopted and more universally adapted to. This is where there is considerable uncertainty.

The 'great invention' interpretation of economic history has lost academic currency since the millennium. Rather than single inventions, we should think of productivity cycles as being driven by clusters of complementary technologies and their ability to diffuse via many people across many industries, learning from each other and making incremental improvements. Because of the lags involved in adopting and adapting to new processes, it takes time before output growth accelerates (figure 6).

The steam engine is a good example of how these things can take time. Newcomen's Dudley Castle Machine of 1712 did nothing for industry. It took until James Watt's 1774 invention of the separate condenser for that to change, but it's take-up was slow outside of mining. The development of high-pressure steam engines in the first two decades of the 19th century did not expand steam use by much. Steam's peak contribution to economic growth arrived with the further advances in high-pressure technology and with the arrival of compounding (extracting steam energy in multiple stages rather than just one) in the 1840s and 50s. Even then it needed to be combined with other important technological breakthroughs, such as the steel-hulled ship, to truly transform the world.

It took four decades from the opening of the first power station for electricity to have a significant effect on productivity. Its peak contribution to growth came when Dupont and other industrial innovators found ways to deliver electrical power to each workbench rather than the whole factory at once, enabling incredible efficiencies. The benefits came from the adaptation not the adoption. Computers did little to raise productivity growth for a decade until the internet came along, and even then the spike in productivity growth was disappointingly short lived. It was over by the time most internet companies had figured out a way to really monetise the thing.

The average time to widespread adoption of new technologies seems to be getting shorter. But are we getting better at adapting? This is less clear. Are ideas able to diffuse well? There's good evidence they are not, which is a concern because there's also evidence that if innovation is concentrated in too few firms or industries the economy is trapped in a low-growth scenario. Productivity booms tend to follow periods of supernormal investment spending. MIT scholars found that for each dollar of capital invested in computers, firms tend to make \$10 of complementary investments to change business processes, repurpose roles, train staff and so on. But will today's higher interest rates, high levels of indebtedness, and high uncertainty around inflation constrain the necessary investment spend? We're optimistic, but there are arguments both ways.

In short, generative AI could conceivably boost GDP growth by 1–2% a year, but no one knows if that will begin next year, in 10 years, or further out. Economic history cautions us against assuming we can adopt and adapt immediately. Mark our words, this technology has got a better chance than anything we've seen in a long while, but investors need to keep a level head and diversify across the suppliers, adopters and adapters of generative AI at this relatively early stage.

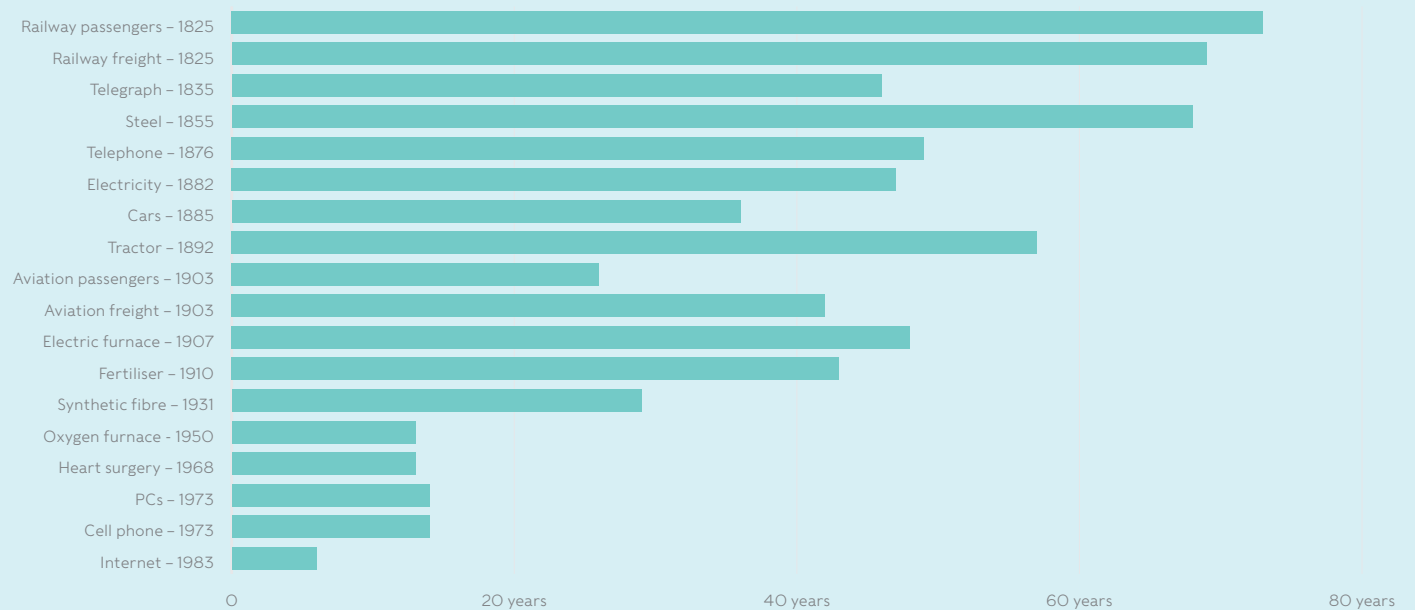
Find out more about our views on the future of AI in our previous *Insights* publication or by speaking to your investment manager.



Figure 6: New technology timescales

The adoption timescales for new technologies are getting shorter — but not necessarily the adaption times.

Source: Diego Comin and Martí Mestieri (2018) "If Technology Has Arrived Everywhere, Why Has Income Diverged?" American Economic Journal.



THE SHIFT TO CLEAN ENERGY AND ITS IMPACT ON OUR BIODIVERSITY

At the start of September 2023, dozens of British scientists signed a letter to Prime Minister Rishi Sunak, urging the UK government to support a moratorium on deep-sea mining over concerns about its impact on the environment. It's estimated that the oceans absorb around 25% of man-made carbon emissions each year, while also supporting the livelihoods of more than three billion people around the world.

It's not surprising that the prospect of even more damage to marine ecosystems than has already been done by humankind through the practice of deep-sea mining has been met with apprehension. However, given the global shortage of critical minerals that are essential to the net zero transition, others argue that the exploration of the deep seabed, more than 2,000 metres below the ocean's surface, is a risk worth taking to address this shortfall.

In our first *Investment Insights* publication of 2023, we addressed the issue of battery material supply shortages. This quarter, we explore another complex question that we expect many of our clients may be grappling with: will the benefit of decarbonisation outweigh its adverse impacts on biodiversity?

The green transition

A recent report published by the Energy Transition Commission (ETC), an international think-tank focused on economic growth and climate change mitigation, explains why, to a certain extent, the transition to a green economy allows us to both have our cake and eat it.

According to the ETC, producing all the materials needed to build a low-carbon energy system would emit 15–35 gigatonnes of CO₂ equivalent over the next 30 years. This figure is not insignificant, especially amid the backdrop of an ever-shrinking global carbon budget (the limit of total carbon emissions to stay within agreed targets). However, these emissions pale in comparison to the estimated 41 gigatonnes that a fossil fuel-based energy system would emit each year on average over the same period.

These decarbonisation-related emissions would be a one-off, assuming improvements in recycling and other developments in the circular economy over that time period.

What's more, assuming projects are managed responsibly, the way in which new renewable energy infrastructure interacts with the natural environment that surrounds it would be considerably different to that of an oil rig or refinery. Clean Action – a partnership aimed at protecting nature during the energy transition – concluded that, from sourcing raw materials to final operation, all forms of renewable power are better for nature than fossil fuels.

A utopian solution?

We are not suggesting, though, that the transition to a clean energy economy presents a utopian solution free of challenges and difficulties. As the controversy surrounding deep-sea mining exemplifies, trade-offs will invariably need to be weighed up along the way.

It is within this context that our engagement with companies we invest in on behalf of our clients is crucial. Shareholders have an important role to play in challenging companies to manage the tensions inherent in the energy transition with respect for the natural environment.

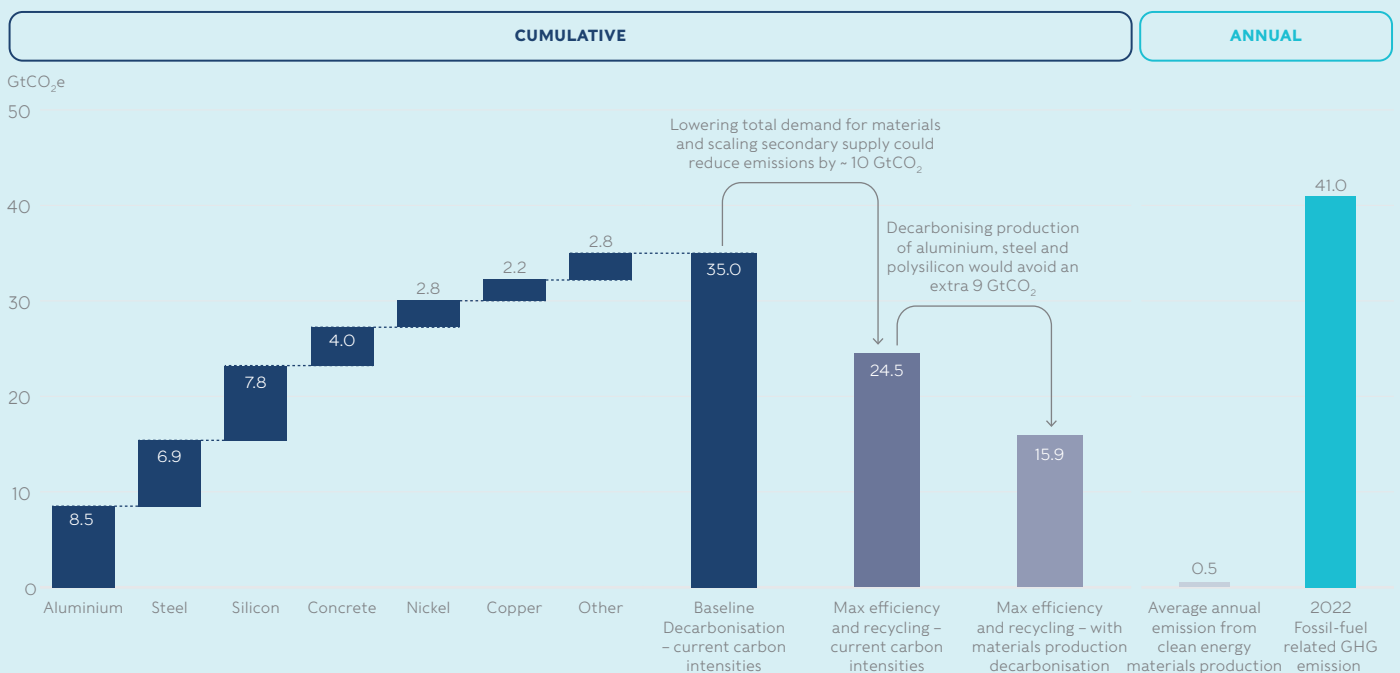
This is why, at the start of 2023, we launched an engagement campaign aimed at pressing 52 companies within our portfolios to demonstrate that they are effectively measuring and disclosing their impacts on nature and assessing the risks that nature and biodiversity loss poses to their businesses. This is also why, through a combination of individual and collaborative engagement efforts, we continue to challenge the companies we invest in to do what's in their power to support climate action.



Figure 7: The impact of deep-sea mining

Although mining the materials needed to build a low-carbon energy system will generate large amounts of harmful greenhouse gases, these emissions would be a one-off. The dark blue bars on the right show the reduction in emissions in a 'green economy' from the production and mining of crucial materials.

Source: Clean Action, Rathbones.



FINANCIAL MARKETS

Europe is facing a stickier inflation problem than the US, with analysts increasingly warning of a possible divergence in the economic fortunes between the two regions. After reaching multi-decade highs last year, US inflation has fallen far faster. Meanwhile, annual pay rises for UK workers and those in many eurozone countries have also overtaken wage growth in the US.

While growth in Europe is weakening, the US recorded an annual expansion of 2.1% in the second quarter. Together with signs of a weakening labour market, this has raised hopes of a US soft landing – where inflation falls without a recession or big job losses. Many economists believe lower inflation will allow the US Federal Reserve (Fed) to start cutting rates before the Bank of England and the European Central Bank.

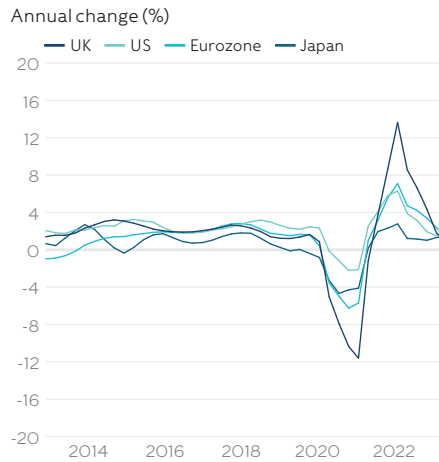
Winning streak falters

US stocks recorded their longest monthly winning streak in two years in July, as optimism about falling inflation and robust growth encouraged market gains. However, against a backdrop of surprising resilience in some economic indicators and rising oil prices, market jitters over the possibility that the Fed might have to keep interest rates high led to the market's pullback into the end of the quarter.

Global equities and bonds had a brief reprieve after fresh data showed the number of US job openings was lower than analysts expected, falling in July. This was seen as easing pressure on the Fed to raise interest rates further, as high interest rates start to crimp hiring.

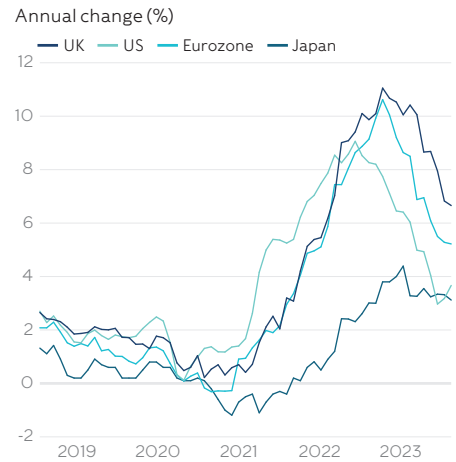
European shares rallied in September, echoing an upbeat mood in Asia, following a series of stimulus measures from China to support its slowing economy. Oil prices also dipped over worries about China's faltering economy, but OPEC+ output cuts pushed prices back up towards the end of September, once again raising the spectre of inflation.

GDP growth



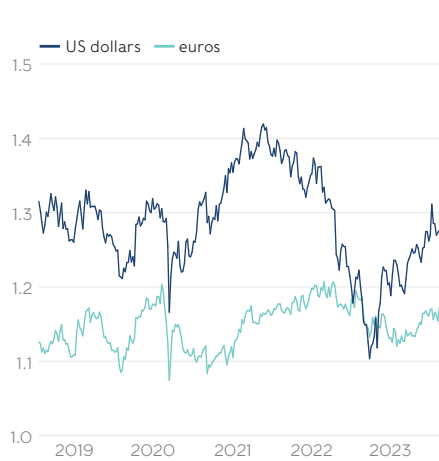
Source: Factset and Rathbones.

Inflation



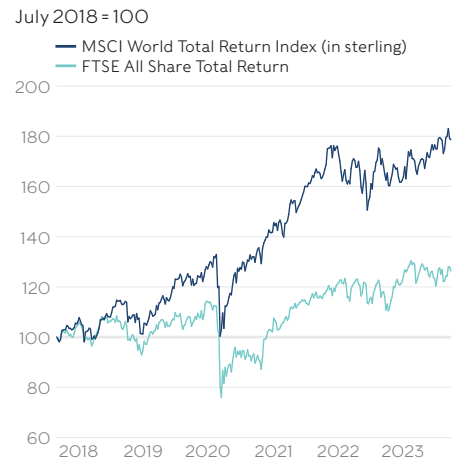
Source: Factset and Rathbones.

Sterling



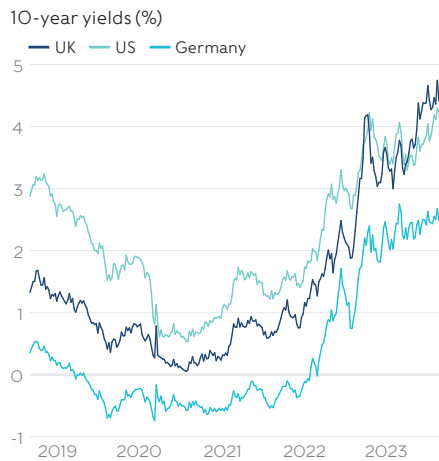
Source: Factset and Rathbones.

Equities



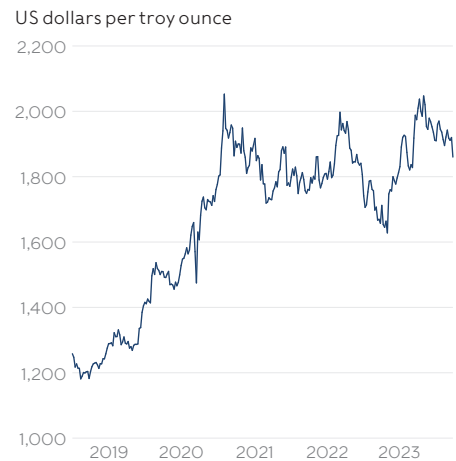
Source: Factset and Rathbones.

Government bonds



Source: Factset and Rathbones.

Gold



Source: Factset and Rathbones.

Past performance is not a reliable indicator of future performance.

ADDITIONAL INFORMATION

Information valid at 30 September 2023, unless otherwise indicated. This document and the information within it does not constitute investment research or a research recommendation. The value of investments and the income generated by them can go down as well as up.

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