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MARKETING MATERIAL

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Overview

It gives me great pleasure to present the findings of our 11th Secular Outlook.

In reflecting on both the market dynamics of the recent past and what investors may experience over the next five years, I found myself inexorably drawn towards one figure in particular: 1 per cent.

For that, implausible as it seems, is the annualised inflation-adjusted return a traditional balanced portfolio has delivered since 2018.[1] It's a weak performance by any yardstick. But compared to a historical average of 4-5 per cent, it is positively paltry.

There were plenty of mitigating factors of course.

With the world having had to contend with a global pandemic, a war in Europe and a steep rise in inflation and interest rates, stock and bond markets were bound to lose their bearings.

The problem for investors now, however, is that the task of bettering a 1 per cent real return from a diversified portfolio is unlikely to get any easier in the next five years.

Investment strategies will inevitably need an overhaul. And for several reasons.

To begin with, economic growth over the rest of this decade will remain stubbornly below average as inflation – while in retreat – is likely to be unusually volatile. Greater state intervention in the economy, meanwhile, in industries such as cleantech, semiconductors and defence, will not only add to the public debt burden but will also increase the risk of policy mistakes and capital misallocation.

The headwinds become more powerful still when the effects of weak productivity, labour shortages and tighter financial conditions begin to manifest themselves with greater intensity.

1 This is the annualised return, in dollars of a portfolio whose assets are split evenly between stocks in the MSCI World index and US government bonds in the JPMorgan US government bond index. Returns covering period 30.04.2018-30.04-2023

In such an environment, we expect the MSCI Index of world stocks to deliver annualised real returns that are around half the historical norm – some 3-4 per cent per year over the next five years, reflecting a squeeze in corporate profit margins and a compression in stocks' price-earnings multiples.

Our analysis also shows that the dispersion of returns across national stock markets in the developed world will decline, which means allocating capital across countries and regions may not prove a fruitful strategy – at least on a local currency basis.

Nevertheless, for nimble investors and those prepared to move beyond the mainstream, investment opportunities remain within equities.

One bright spot is emerging Asia. Thanks partly to improving productivity, we expect the region's stocks to deliver solid annualised returns over our forecast horizon.

Allocating capital across industry sectors, equity styles and themes – and doing so in a more tactical manner – also offers potentially greater rewards for investors. Attractive opportunities should emerge in industries that are part of the green transition and among 'quality' companies – prudently-managed businesses that deliver steady rates of profit and revenue growth.

Beyond equities, alternative assets also offer the possibility of high single-digit annual returns for investors prepared to lock up some of their capital. Private debt in particular. With banks set to scale back on corporate loan-making, the opportunities for investors to lend directly to private businesses are set to multiply, especially in Europe.

Another welcome development is that many of the assets that investors traditionally use to secure income and offset the risks of shares are looking much more attractive.

The sharp rise in bond yields of the past 12 months has transformed developed market government bonds from return-free, risky assets into reasonably priced defensive investments.

Still, inflation – or rather its volatility – may well prove to be a thorn in the side for fixed income markets while increased public borrowing could also compromise the creditworthiness of some sovereign borrowers.

Against this backdrop, US Treasuries and high-quality investment grade corporate bonds should deliver better returns than other developed market government bonds over our time horizon.

The prospects for emerging market debt are brightening too, in part because of a likely depreciation in the US dollar over the next five years. Local currency emerging market bonds should deliver a return of approximately 8 per cent per year in US dollar terms through to 2028.

The conclusions to draw from our analysis, then, are clear. Investors hoping for the next five years to be less taxing than the previous five are likely to be disappointed. But that doesn't mean they have to resign themselves to returns that only marginally beat inflation. Attractive investment opportunities will present themselves to anyone bold enough to venture a little beyond the mainstream.

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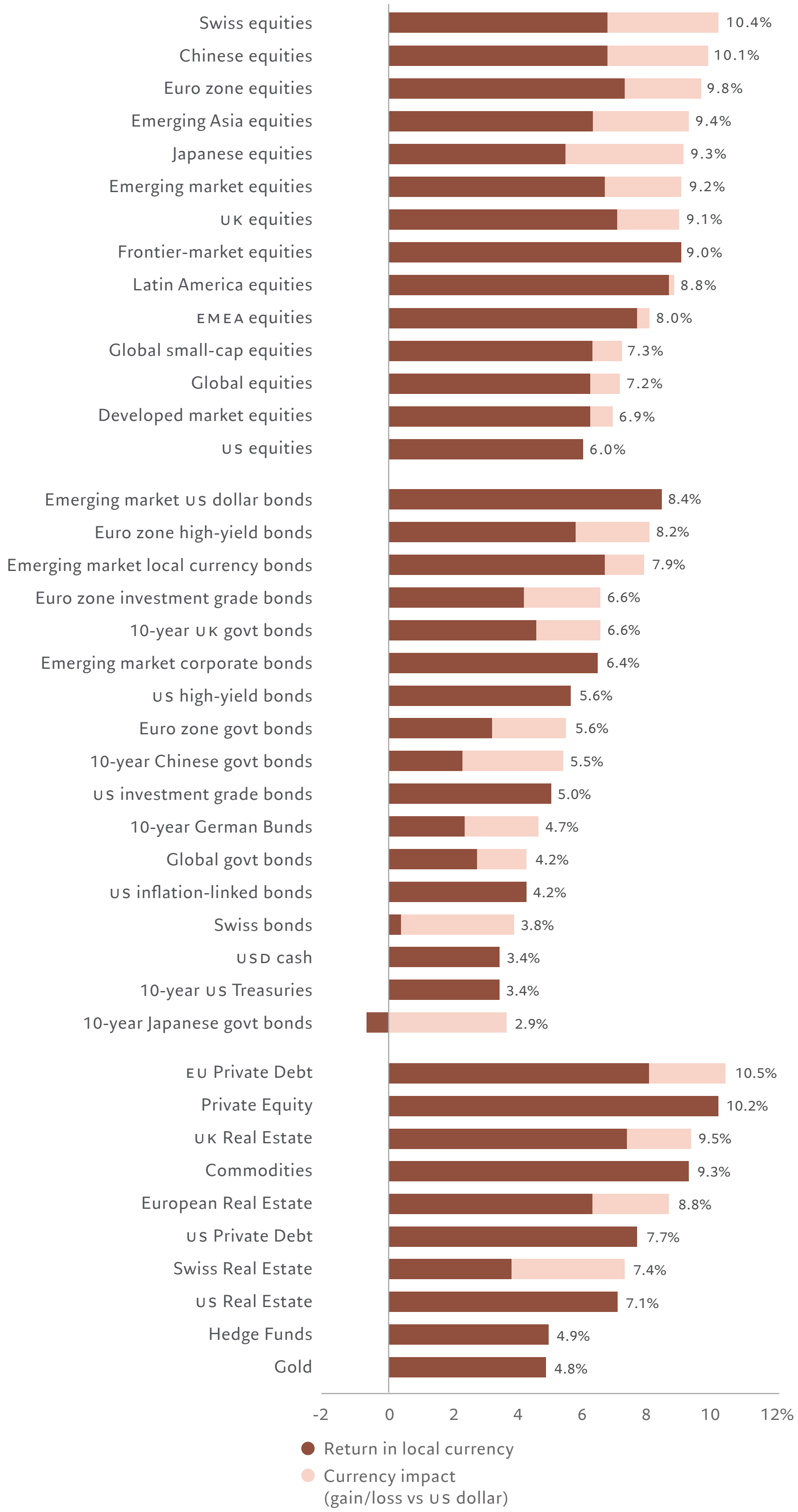
FIGURE 1

Asset class returns, 5-year forecast, %, annualised



Source: Pictet Asset Management, forecast period 30.04.2023-30.04.2028

Contents

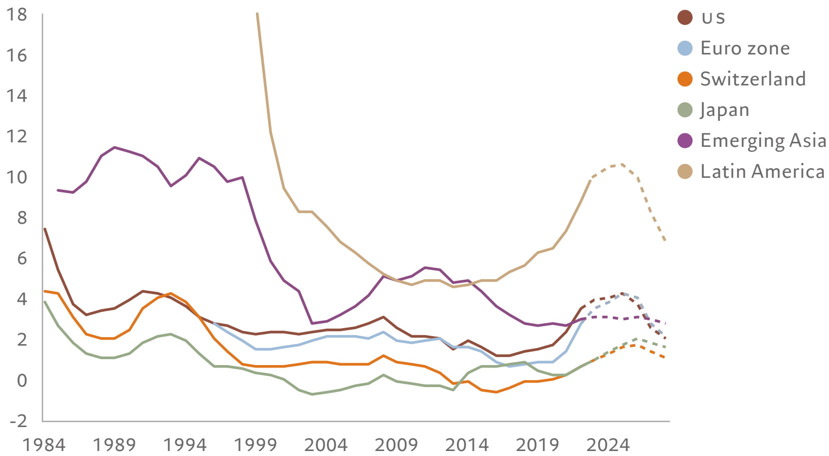
What is the inflation "new normal"?

Inflation has been running hot for the past few years – in many countries, hotter than it has done for decades. The repercussions have been felt across all financial assets. Rising price pressures have increased risk premia and the cost of capital, reminding investors that inflation isn't just a tax on consumers.

Over the past five years, inflation has, on average, significantly exceeded central banks' targets. In some countries, it has reached highs not seen since the Second World War. In Germany, for instance, it has peaked at 9 per cent. Even Switzerland and Japan, where inflation has either been zero or negative during the past two decades, have seen a return to positive rates of inflation. The only region in which it has failed to rise above historical norms has been emerging Asia, largely thanks to strong underlying productivity growth and moderate public stimulus during the pandemic.

FIGURE 2
Inflation rates, rolling 5-year average for major regions, %

A bump in the road



Source: Refinitiv, IMF, Pictet Asset Management.
Forecasts through to 2027 from IMF WEO published April 2023.
Data covering period 01.01.1983-01.01.2023.

STICKY OR WOBBLY PRICES?

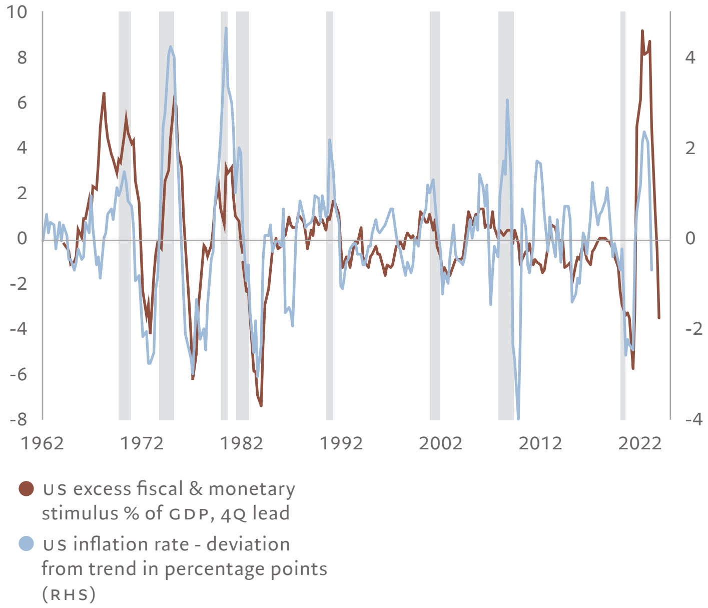
The pressing question for investors is whether the recent jump in inflation is a coincidence of temporary factors that, as they fade naturally, will result in a return to prior rates of inflation. Or whether high rates of inflation have become self-sustaining due to structural forces, not least demographic effects that are leading to a shrinkage of workforces worldwide.

We take a more nuanced view. Inflation is set to drop back towards central bank targets, but the journey won't be smooth – the rate of inflation will be volatile during that transition.

FIGURE 3

US 'excess' monetary and fiscal stimulus* (as % of GDP) and US consumer price inflation (%), deviation from trend**

Too much too soon



Source: Refinitiv Datastream, CBO, Pictet Asset Management,
* "Excess" fiscal stimulus is a measure of how much the government budget deficit exceeds the level consistent with the stage of the business cycle (i.e. the output gap - the difference between real GDP and real potential GDP); "excess" monetary stimulus is the deviation from trend of US M2 to potential nominal GDP; ** trend inflation rate is calculated using an H-P filter. Data covering period 01.01.1962-01.01.2023.

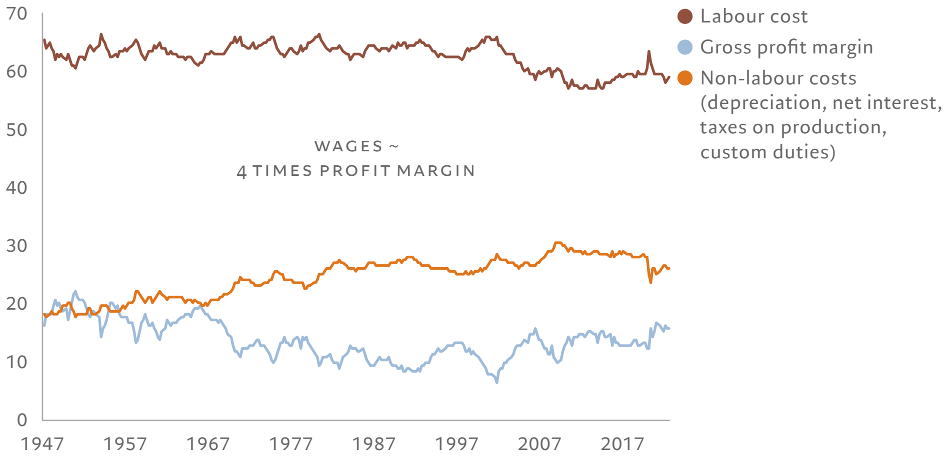
WHY INFLATION WILL DECLINE

Price pressures have resulted from two developments in particular: supply bottlenecks in manufacturing and a sharp increase in final demand caused by Covid-related welfare payments and higher wage growth.

There are, however, other forces at play. The US price deflator of GDP – the broadest measure of inflation – shows that wages as expressed in unit wage costs (i.e. adjusted for productivity gains) account for nearly 60 per cent of final inflation. But a second important component is corporate profit margins, which account for another 15 per cent. The relationship between wages and margins suggests that the inflationary effect of a 1 per cent rise in wages would be fully offset by a 4 per cent decline in margins. So even if labour markets remain tight, the inflationary effects of higher wages will be offset – if not eclipsed – by what we expect will be significant declines in profit margins.

FIGURE 4
US corporate price deflator, % of total unit cost

Profits up, wages down



Source: Refinitiv DataStream, BEA, Pictet Asset Management.
Data covering period 01.01.1947-01.01.2023.

Also ensuring a decline in price pressures is tighter monetary policy.

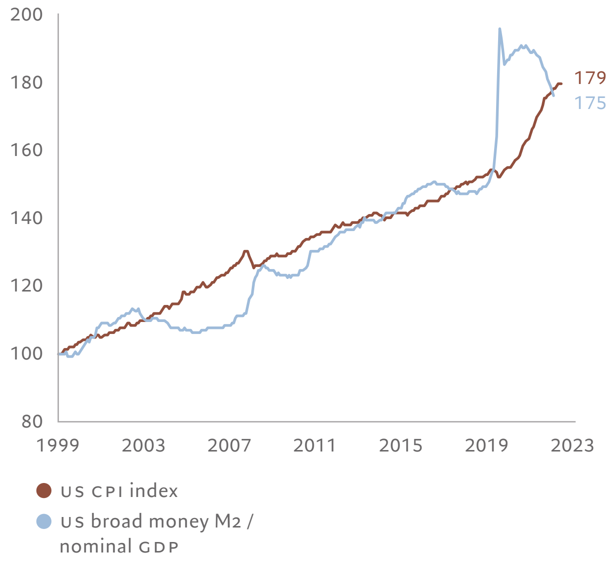
The idea that the US Federal Reserve or its peers might increase or broaden their inflation targets – to, say, a range of 1-3 per cent from 2 per cent – and thus risk structurally higher bond yields, looks difficult to justify. Central bankers are likely to understand that moving the goalposts while still in breach of their primary monetary targets would sacrifice the credibility of inflation targets, maybe irremediably, whatever the economic logic behind such a move. Policymakers may be treading a narrow path, but a return to target inflation is not beyond their reach. We can test that assumption for the US using some simple calculations based on the quantity theory of money.

First, we factor in the expectation that money velocity settles between its cycle low and pre-Covid average. We then assume that money supply grows in line with trend nominal GDP and that real GDP expands by 1.3 per cent, which is our five-year forecast. Under these assumptions, the average inflation rate over the next five years would settle in the 2.5-3 per cent range – an acceptable outcome for the Fed.

Lending further credence to our forecast is the fact that the price level has already fully adjusted to the stock of money. In other words, prices are where they should be based on their historical correlation with "excess" money creation – which is the ratio of money supply to nominal GDP. If we assume the US output gap is now broadly neutral and will turn negative in the next quarters, this also points to a declining rate of inflation.

FIGURE 5
US CPI index and ratio of money supply to nominal GDP

Stimulating



Source: Refinitiv Datastream, US Federal Reserve, Pictet Asset Management. Data covering period 01.12.1999-31.03.2023.

However, this doesn't hold if inflation expectations become embedded and/or the output gap estimates are proved to be too optimistic – which is to say trend growth and productivity are much lower than is assumed. In that case, central banks would be forced into a persistently tight policy to achieve their inflation targets.

It is worth pointing out that our inflation forecasts don't assume any rise in the neutral level of interest rates. Also known as R*, this is the interest rate level that neither pushes the economy ahead nor pulls it back. Some economists have argued that bringing inflation back down to central bank targets can only be achieved by central banks keeping interest rates higher for longer or, in other words, moving to a higher R*. We disagree. There is scant evidence of a secular and sustained rise in real interest rates.

Two conditions are required for there to be a sustained rise in equilibrium rates. First, there needs to be a secular rise in productivity growth, which is the ultimate source of economic growth. And second, there needs to be a long-term decline in the demand for savings. Both are absent. Productivity is trending down while, as IMF estimates show, savings continue to be exceptionally high – the global gross savings ratio is fluctuating around 28 per cent - the all-time high.

One development that raises the risk of an upward move in R* is higher government debt. Public borrowing looks set to increase in order to finance social/infrastructure/clean energy projects and to pay for upgrading defence in the face of rising security risks. But even if this were the case, we don't expect the R* to move much beyond our base forecasts of 0.5 per cent for the US and 0-0.25 per cent for the euro zone.

FIGURE 6

Key factors affecting the evolution of R-star (natural real interest rate)

KEY FACTORS DRIVING R*	SECULAR TREND	SECULAR OUTLOOK	NET IMPACT ON R*
Productivity	Declining total factor productivity (TFP) growth	Pandemic-driven technological advances, but state interventionism and de-globalisation are big negatives	Neutral/Lower
Market power	Increase in monopoly power	Persistent market power depresses production and demand for savings	Lower
Demographics	Population ageing	No trend change with mixed impact	Neutral
	Increased life expectancy	Increased demand for savings to fund longer retirement	Lower
	Declining labour force / population growth	Fewer workers imply lower growth, investment and demand for savings	Lower
Inequality	Increasing inequality	Income inequality to peak (larger GDP share to low-savings households) but very high wealth inequality	Neutral/Higher
Public debt	Rise in public debt	Expansion of public debt/government spending directly increases savings demand	Higher
Savings and safe assets demand	Higher savings rates, shift to safe assets	Higher uncertainty may increase precautionary savings and demand for safe assets	Neutral/Lower
Net international capital flows	Weaponisation of finance	Reduced capital flows to reduce available savings in domestic economies	Higher
Climate ("green") transition	Carbon taxes	Carbon taxes depress investment via higher cost of capital	Lower
	Increase in green infrastructure/subsidies	Higher investment rates raise savings demand	Higher
	Reduction of climate-related damages	Higher productivity growth relative to business-as-usual baseline	Higher
Emerging markets	Stable R-star	Slowing productivity growth and accelerated ageing	Lower

Source: IMF World Economic Outlook, 2023, Pictet Asset Management

And in a recently published paper,[2] the Fed came to the conclusion that there is no "evidence from our estimates that the era of historically low estimated natural rates of interest has come to an end" and that – for the US – the "resulting estimate of R* is about 0.5 per cent in the first quarter of 2023, and subsequently falls to slightly below zero."

As a result of all these factors, our outlook is for inflation to drop slowly from recent multi-decade highs and thereafter to remain relatively benign. We forecast average inflation rates of 2.5-3 per cent for the US and Europe over the next 5 years, with trend inflation rates unchanged and in line with current central banks' mandates, which are 2 per cent for all major economies.

...AND WHY INFLATION WILL BE MORE VOLATILE

While we think inflation will drop back to central banks' target ranges over the medium term, it won't be a smooth journey. Inflation data are bound to bounce around over the next five years. And investors should remember that it is volatility rather than the level of inflation that matters more for asset valuations.

There are many factors that could slow the pace at which inflation declines: an accumulation of excess savings; de-globalisation; activist economic policies; the end of tech-driven deflation; corporate pricing power; shrinking labour forces; and costs associated with the green transition.

Also likely to make inflation volatile is a rigid supply curve and a shift to backward-looking monetary policy.

Supply is being constrained by labour shortages, with the size of workforces squeezed by ageing populations and premature retirement. That's compounded by insufficient investment in productive capacity, particularly in commodities, and increasingly fragmented and duplicated supply chains. Given a more rigid supply curve, any swing in demand will have a disproportionate impact on price levels.

Central bank mis-steps could also contribute to inflation instability.

Prolonged quantitative easing ended up over-heating the economy. It also ushered in financial repression, asset bubbles, the misallocation of capital, the zombification of large swathes of the corporate world and market instability. That central banks could do this without apparent compunction was because inflation remained dormant during that whole while.

2 https://www.newyorkfed.org/medialibrary/media/research/economists/williams/HLW_2023

Now that inflation has surged, in part as a consequence of monetary stimulus, policymakers face a dilemma: return inflation to target at risk of triggering recession and/or financial crisis; or take a flexible view of their inflation remit to preserve growth, but at the risk of losing credibility on their commitment to price stability.

The strain between the need to preserve financial stability and to return inflation to mandated targets raises the risk that both monetary policy and inflation will become increasingly unpredictable. Emergency intervention to avoid or limit fallout from financial accidents may become routine, in much the same way that macro-prudential measures were introduced in the aftermath of global financial crisis. The Fed's surprise decision in March this year to abandon a plan to reduce its balance sheet and the Bank of England's emergency intervention in the gilt market in September 2022 testify to a weakening of the links between central banks' monetary policy and liquidity provision.

Meanwhile, the Fed's revised monetary policy framework – and the adoption of average inflation targeting in the summer of 2020 – is inevitably causing the central bank to be slower to react to economic data. This, in turn, lengthens the already long lags that are a feature of monetary policy. In practice, this will result in the Fed being either too slow to cut rates, causing inflation to undershoot, or too slow to raise them, causing inflation to overshoot. This sets up the risk of a pattern of overshooting/undershooting and thus higher inflation volatility.

WHAT THAT MEANS FOR INVESTORS

More volatile inflation points to higher inflation risk premia than in the years before Covid. Higher risk premia imply lower valuation of financial assets relative to real assets. In other words, Main Street will fare better than Wall Street.

Because inflation risk drives up the cost of capital and is thus negative for most asset classes, portfolio diversification becomes more difficult. Uncorrelated asset classes will become more correlated. In particular, inflation volatility will make the correlation between equity and bonds much less predictable than investors have grown used to – varying between the very long-term average, where it has been moderately positive, and the average of the past decade, where it was strongly negative. That will make traditional portfolios – those balanced between equity and bond holdings – much riskier, which, in turn, will necessitate additional diversification and sources of alpha, or excess returns.

Balancing demographics, inflation and bond yields

Ballooning government deficits and debt levels make the question of debt sustainability a serious concern over the medium to long run, threatening to make high rates of inflation the norm. Net debt as a share of GDP has risen by 10 percentage points from pre-Covid levels in some developed countries. But inflating that debt away – as some have suggested – isn't a viable option in our view.

Inflation only improves debt sustainability if it is unexpected and unanticipated. This has been the experience of the past two years. Debt ratios have fallen significantly in that time, yet the decline is down to a one-off transfer of wealth from lenders to borrowers – ie. from households to government, from the old to the young and from holders of financial assets to holders of real assets.

Had inflation been fully anticipated, interest rates would have risen earlier to offset it, as would indexed government liabilities, like public wages, pensions and spending programmes. In this case, the relative debt burden would not have fallen. As it was households and other creditors were slow to catch up with the inflationary surge and, to a degree, real debt burdens were eroded away. But that's unlikely to happen again: investors are demanding to be compensated for higher inflation with higher interest rates.

With financial conditions tightening fast – that's to say bond yields have risen close to the trend GDP growth rate – governments can only stabilise debt levels by tightening fiscal policy. They need to close their cyclically adjusted deficits. For the US to stabilise its public debt, its cyclical primary balance needs, in effect, to turn neutral, at a slight deficit of some 0.2 per cent of GDP. That would entail a massive debt consolidation of some 3.6 percentage points from 2022 and 5.3 percentage points from the average of the past five years. By contrast, the consolidation would have only been 0.9 percentage points five years ago. Were government spending to instead grow in line with IMF estimates over the next five years, financial repression would be the only solution to the debt problem: bond yields would need to be 4 percentage points below trend GDP growth rates compared to the current gap of 1 percentage point.

Put simply, the maths suggests debt sustainability is deteriorating fast. For now, the fact that outstanding government debt is of relatively long maturity, higher bond yields will only very slowly pass through to government financing burdens – old debt was issued at significantly lower interest rates. That's particularly true in Europe. As long as the cost of debt remains at or below the trend GDP growth rate, the deterioration of the government's fiscal position will be slow enough for the secular debt super-cycle to remain in place. In other words, it kicks the can down the road, a palatable option now, but also more dangerous over the long term.

Our guess is that real crunch time for investors will be when debt servicing costs reach 10 per cent of GDP, where Italy was in the 1990s. For now that might not seem too worrying. After all it will take more than 70 years for US carrying costs to reach that threshold on current yields and fiscal trends. But yields only need to rise to mid-1990s levels, of some 7 per cent on a sustained basis, before that 10 per cent debt carrying cost becomes a likelihood over next decade. And that doesn't take into account accidents. Indeed, S&P Global Ratings estimated that just a one percentage point increase in bond yields would cause the debt to GDP ratios for Japan, Italy, the US and the UK to jump by between 40 and 60 percentage points by 2060.[3]

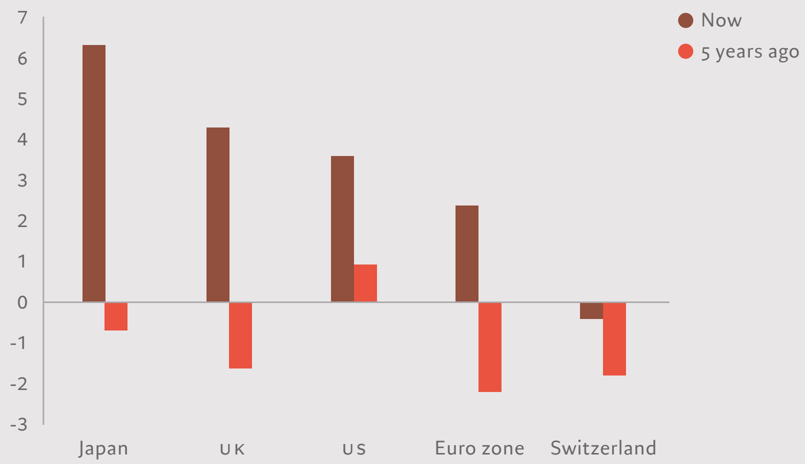
As the UK pension crisis last year showed, a spiralling debt level makes debt sustainability more vulnerable to fiscal missteps – even more so when lax fiscal policy runs up against monetary tightening in response to inflationary pressures. Then, the risk of a violent liquidity event increases substantially, especially for countries with large share of foreign creditors. It is also worth pointing out that, for the first time since 1977, US and UK debt servicing costs – at 4 per cent and 4.5 per cent respectively – are expected to be higher than Italy's, according to OECD estimates.

3 https://www.ft.com/content/f434c586-db1f-4d81-8b29-989db5c78f72

The key to debt sustainability remains central bank's independence and credibility on fighting inflation. Inflation expectations that become unanchored threaten to lead to surging inflation risk premia and real yields above an economy's potential growth rate over sustained period. Then, higher debt carrying cost and weaker aggregate demand make high level of debt unmanageable. At some point, some form of austerity or higher taxation become inevitable. On the other hand, if central banks can keep the real interest rate persistently lower than real growth rate, or if industrial policy can push productivity higher, government can grow out of debt even when they're running primary deficits.

FIGURE 7
Change in adjusted primary balance needed to stabilise debt, % of GDP

Unbalanced



Source: Bloomberg, IMF, Pictet Asset Management;
* Calculations based on end of 2022 net debt
% of GDP level (IMF measure), PAM trend nominal growth forecast
and average 5-year forward government bond yield
of tenor closest to average debt maturity; data as of 31.03.2023.

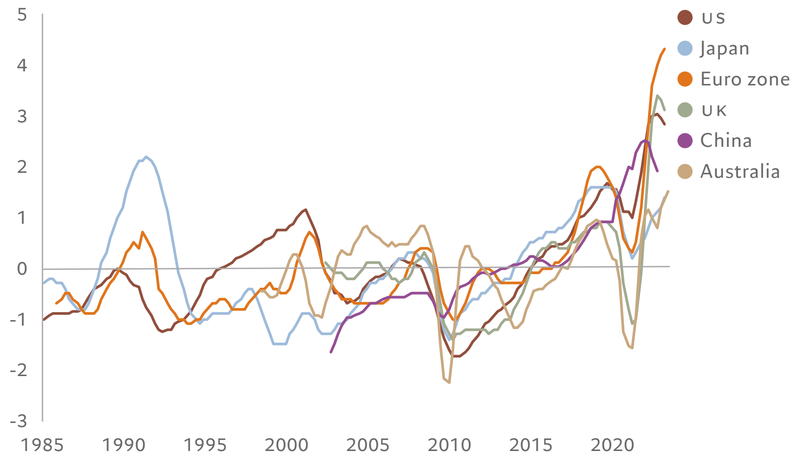
The world’s shrinking labour force

From nurses to construction workers, software programmers to industrial engineers, the world is in the grip of a severe labour shortage. It is now clear that this is not just a cyclical blip, nor a short-term consequence of the Covid-19 pandemic. Thanks to an ageing population and a shift in attitudes towards immigration, labour shortages are here to stay, with profound implications for the global economy and for financial markets.

Our analysis, using national data sources, shows that labour shortages are widespread across all major economies, running at around two to three standard deviations above the long-term average.

FIGURE 8
Labour shortage indicators in selected economies

In short supply



Source: Refinitiv Datastream, NFIB, Eurostat, Bank of Japan, ONS, China's Ministry of Human Resources and Social Security, NAB, Pictet Asset Management. Based on standard deviations from long-term average, 4-quarter rolling average. Data covering period 01.01.1985-31.12.2022.

This trend pre-dates Covid, but has undoubtedly been given added momentum by the pandemic. In the US, economists and the Fed talk of a "Great Retirement Boom", pointing to an estimated 2 million excess retirees. The country's workforce participation ratio, meanwhile, is still 1 percentage point below pre-Covid levels, suggesting that large numbers of older workers have chosen to opt out of paid work, perhaps having enjoyed a slower pace of life during the pandemic.

Similar trends are at play elsewhere in the world, given added momentum in some cases by deteriorating health. In the UK, for example, the number of 'long-term sick' has risen by over a third of a million (353,000) since the start of the pandemic; this accounts for more than half of the growth in inactivity over that period.

All that adds up to a severe labour shortage.

The US construction industry, for example, will need to attract half a million additional workers on top of the normal pace of hiring in 2023 to meet the demand for labour, according to Associated Builders and Contractors. US demand for labour (employed + job vacancies) is some 2 per cent higher than supply (labour force), according to our calculations.

In Germany, more than half of all companies are struggling to fill vacancies due to a lack of skilled workers, the German Chambers of Commerce and Industry (DIHK) estimates. The expansion of the solar and wind energy sectors alone requires 216,000 skilled workers according to a study by KOFA, an employer lobby group.

China's shrinking population is set to make the world's labour shortage even more acute. In 2022, and for the first time in 60 years, its population declined, with its birth rate falling to a record low of 0.67, despite having abandoned its one child policy in 2016.

We expect this trend to continue, dampening prospects for economic growth both in China and, at the margin, the rest of the world (recall that China has accounted for more than a third of global GDP growth over the past 10 years, three times more than US's contribution). Our analysis suggests that the adverse demographic changes will cost China 0.2 percentage points in GDP growth per year.

That's not to say there aren't positive factors in China's favour.

Its economy will continue to see a boost from ongoing urbanisation and improving education levels. At the same time, the simple maths of economic catch-up – China's GDP per capita in PPP is some four times lower than the US. We forecast China to grow around 5 per cent per year over the next five years – above our trend growth estimate of 4.6 per cent, and faster than all other major economies. China still has the potential to overtake the US as the biggest economy in the world in the next decade (in current US dollars) – well ahead of IMF's forecast for that to happen only in 2038.

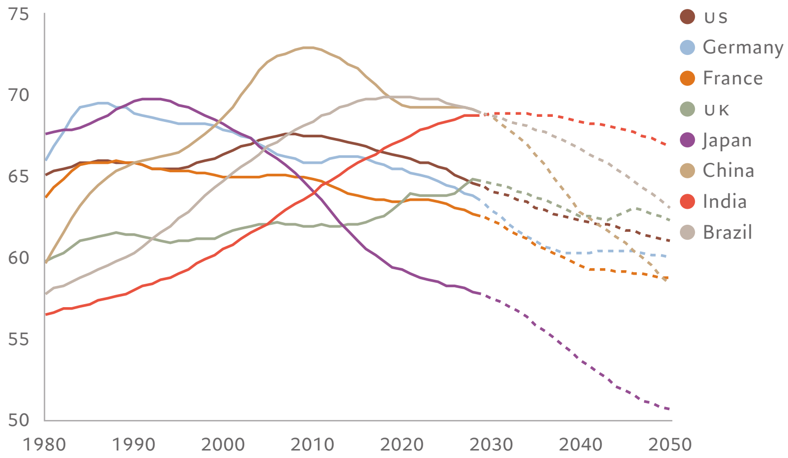
INDIA'S ADVANTAGE

If China's demographics have turned negative for global growth, India's trajectory is different.

India's population has overtaken China's this year – a remarkable outcome given that it was 200 million below just 20 years ago – and, more importantly, its share of working age to total population will continue to rise till the mid 2030s on UN estimates (see Figure 9).

Getting older

FIGURE 9
Share of working-age (% of total population)



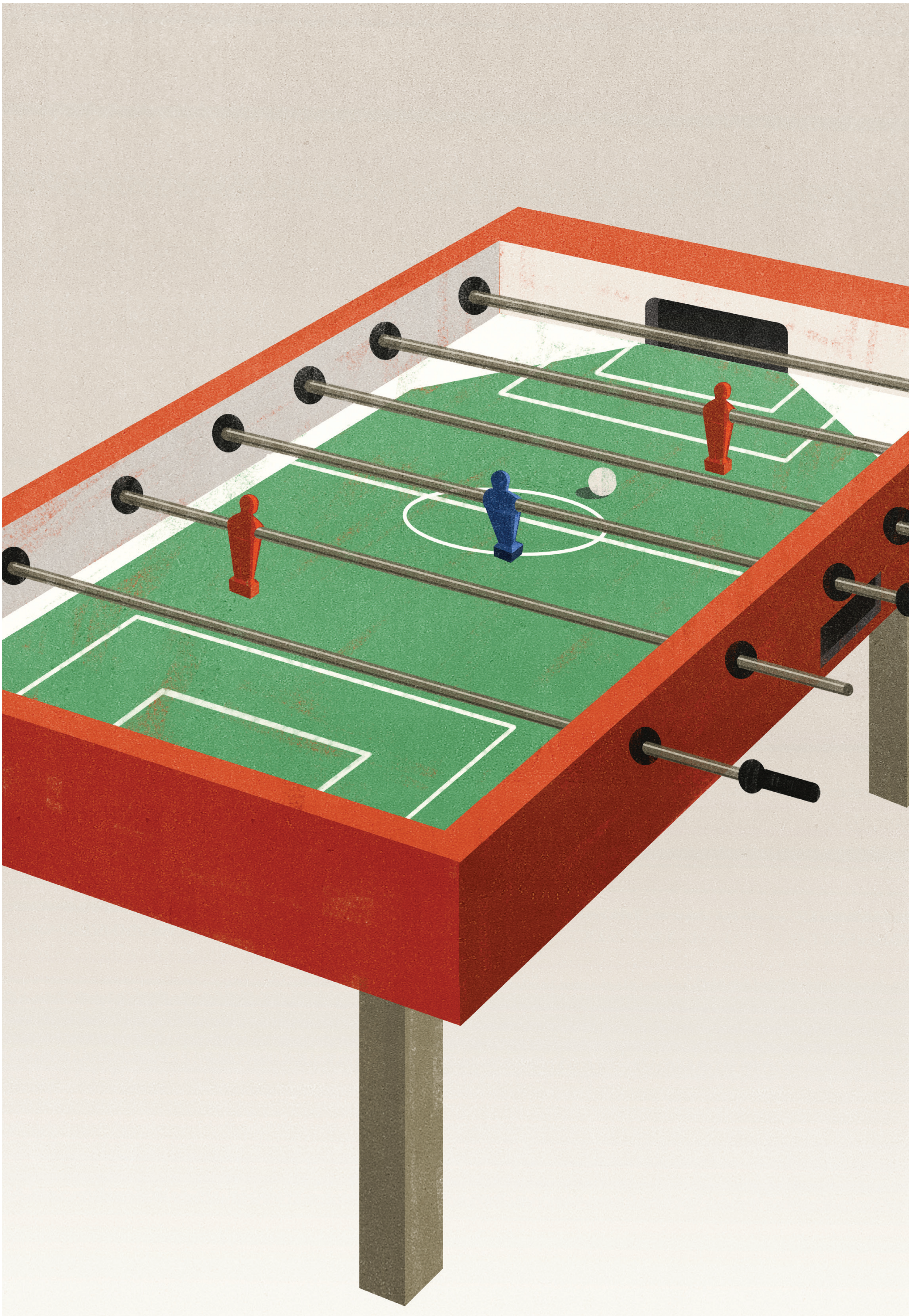
Source: Refinitiv Datastream, United Nations, Pictet Asset Management. Data covering period 01.01.1980-01.01.2050.

Supportive demographics, economic reform agenda and low leverage will make India the fastest growing big country, with real GDP growth of 6.3 per cent over the next five years and make India's equity market one of the most attractive, albeit admittedly not cheap.

BELOW POTENTIAL

Globally, the key question is whether this shortage of labour will affect global economic growth and inflation over the next decade or will result only in a redistribution of wealth from one sector or region to another. We believe both trends will play out.

We expect economic growth to fall short of potential over the next five years (averaging 1.2 per cent vs a potential growth rate of 1.5 per cent in developed economies), while inflation will decline only slowly.

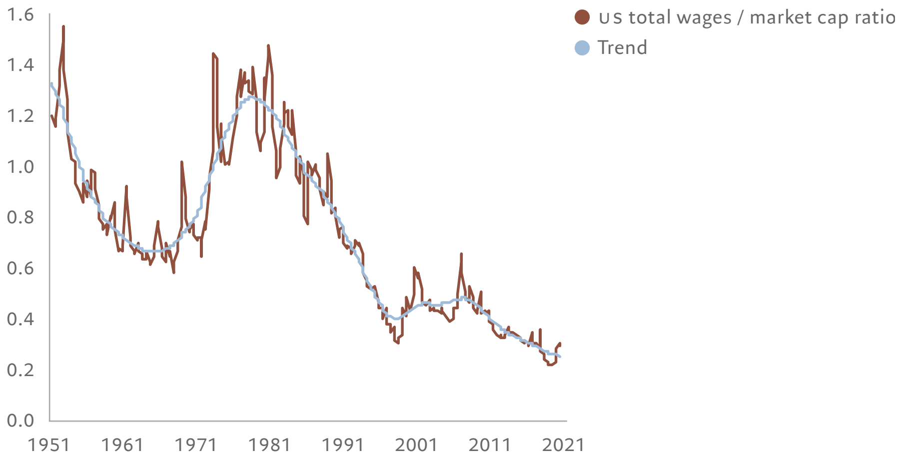


Labour shortages mean we also expect wage growth to outstrip overall price inflation over the next five years, resulting in a redistribution of wealth from business to workers as corporate margins fall to accommodate higher wage bills.

In fact we are already seeing tentative signs of a reversal in the secular trend of income inequality. In the US, wages for the lowest quartile of workers have risen by more than 10 per cent since 2015 relative to the top quartile. And the overall wage level has stabilised relative to the stock market – i.e. Main Street is finally catching up with Wall Street. This implies a decline in profit margins and lower shareholder returns. A more interventionist state, the expansion of subsidies and social benefits, as well as a likely shift to wealth taxes will continue to "level up" all major developed economies.

FIGURE 10
US aggregate wage income versus US total equity market cap

Closing the gap



Source: Refinitiv Datastream, BEA, Pictet Asset Management. Data covering period 01.10.1951-31.12.2022.

ROBOTS TO THE RESCUE?

Increased productivity is the ultimate, growth-friendly solution to labour shortages. But those hoping for a productivity boom are likely to be disappointed. US labour productivity actually fell at a record rate of nearly 2 per cent last year. And the broadest measure of productivity and improvement of living standards – total factor productivity – is on a sustained secular downtrend in all major economies – with values ranging between 0 and 0.5 per cent.

Automation is often heralded as the route to improved productivity. The good news is that the world is increasingly embracing machines. Supply of industrial robots has already almost doubled since 2015 and World Robotics forecast a CAGR of 7.5 per cent over the next five years. Investment in artificial intelligence (AI) is also growing rapidly. For businesses, automation is obviously even more attractive in a world of wage inflation and long-term sickness.

But while AI has the potential to boost technological diffusion, the evidence on productivity is still patchy. A study by the Massachusetts Institute of Technology, for example, showed a 40 per cent rise in productivity (and 20 per cent in quality) thanks to the use of ChatGPT, but this focused only on occupation-specific writing tasks with a sample size of just 444 college-educated professionals.[4]

Challenges and concerns also remain over AI's potential to make jobs obsolete and over ethics. AI is the first technological innovation that can undercut/outsmart white-collar skilled human labour and the extraordinary power of its algorithms can facilitate growth but also enable potentially harmful and criminal acts – which makes AI the inevitable target of regulators.

That said, we believe AI remains the world's best chance to boost productivity over the coming decades. Particularly as there are signs that tech innovation more broadly is losing momentum. Jensen Huang, CEO of Nvidia, has announced the death of Moore's law – the rule of thumb that the number of transistors on a chip doubles every year. And the price of IT equipment in the US – an inverse proxy of tech "productivity" – is rising on a year-on-year basis, for the first time ever.

FOUR-DAY WEEK

Not only has the quantity and availability of labour changed, but so too has its quality. Working from home (WFH) is perhaps the ultimate and most enduring legacy of Covid, with studies estimating that between 30 to 45 per cent of US employees work from home regularly, compared with just 5 per cent before the pandemic.

While some of the effects of WFH won't be reversed - its positive effect on local retail and recreation, for instance will endure - this change in working patterns won't have a major economic impact.

A recent study by the New York Fed shows that the time workers save by not commuting is spent on more sleep and leisure time, rather than on work.[5] But other research suggests that flexible workers do achieve more,

4 https://economics.mit.edu/sites/default/files/inline-files/Noy_Zhang_1.pdf

5 https://libertystreeteconomics.newyorkfed.org/2022/10/what-have-workers-done-with-the-time-freed-up-by-commuting-less/

even if they don't necessarily work more hours – perhaps because they are generally happier with their work/life balance.[6]

There is also some evidence that working from home has the potential to reduce wage growth pressures,[7] although we believe it won't be enough to offset the overall rise in wages that will result from tighter labour markets.

The next step in the flexible working revolution is likely to be a four-day working week, with a number of trials already underway across the developed world. Of the 61 companies that took part in such a pilot in the UK, 56 have continued beyond the original six months, with 18 of those pledging to make the change permanent.[8] Elsewhere, consumer goods giant Unilever was so pleased with an 18-month trial of the four-day week in New Zealand that it has now expanded the scheme to its employees in Australia.

We believe there is a fair chance that a statutory four-day workweek will be introduced in some developed economies in the next decade – with more to follow in the subsequent years. And as it is unlikely that this will be offset by a 20 per cent jump in productivity, the result will be a higher real cost of labour, which in turn means more automation, less overall production and an increase in the share of labour relative to profits.

ASSET IMPLICATIONS

The investment repercussions of labour shortages could be profound. We believe the demographic backdrop translated into weaker prospects for equities and other risk assets – for two main reasons.

Firstly, if the labour shortages do lead to lower levels of production, then we would expect to see weaker prospects for equities and other risk assets because of slower economic growth – although this will likely play out over a much longer time horizon than covered by our five-year forecasts.

Secondly, even if growth is more resilient than expected and productivity improves, we still expect lower demand for risk assets due to the ageing population. There will be fewer workers and they will be older; there will also be more retirees. History tells us that as people get older – approaching and then entering retirement – they tend to become more risk averse.

The older demographic is statistically more likely to sell stocks than buy them. Research by the Fed, for example, shows that the ratio of people who are at the

6 https://news.stanford.edu/report/2023/03/13/7-things-know-working-home/
7 https://www.nber.org/papers/w30197
8 https://www.theguardian.com/money/2023/feb/21/four-day-week-uk-trial-success-pattern

prime age to invest in stocks (40-49 years) to those who are at the prime age to sell (60-69) has a strong positive correlation to the price/earnings (P/E) ratio of US stocks.[9] As the proportion of older people grows we would thus expect to see a drag on price-to-earnings ratios and on equity valuations more generally. We see the long-term equilibrium P/E for the US at around 16 times or some 2 points below current levels.[10]

As we have pointed out in the past, an investor saving for a longer and later retirement should, logic dictates, focus on maximising returns, including by increasing equity allocations. In reality, however, we believe a more cautious and conservative approach will prevail in these uncertain economic times, especially if the yields on safer assets remain attractive. Low-risk assets in turn will deliver lower returns, forcing people to save more and consume less – which would have a dampening effect on growth.

There is always the risk, though, that some retirees underestimate how long they might live, spend too much in early retirement and then run out of money at just the moment when they need to pay for care in later life. This would force governments to step in – with the costs of "pension bailouts" weighing on future growth.

In all, the shrinking of the global workforce points to lower returns from mainstream asset classes over the medium term. It is one reason why we expect global equities to deliver annualised returns that are just half the long-term average over the next five years, or some 3-4 per cent per year in real terms.

9 https://www.frbsf.org/economic-research/publications/economic-letter/2014/december/baby-boomers-retirement-stocks-aging/

10 The demographic drag on equities may be exacerbated by the shift towards defined contribution pension schemes from defined benefit ones. According to the OECD, less than 30 per cent of US pension assets are now in DB schemes, down from 43 per cent in 2012, and a similar trend is at play in all major economies. That means that financial risks now sit squarely on the shoulders of workers/savers rather than corporations.

The promise and peril of re-industrialisation

Wherever investors look, the world is taking a protectionist turn.

The Ukraine war, a worsening climate crisis and deteriorating US-China relations have, for better or worse, set national governments on a path towards greater economic self-sufficiency.

State investment in industry is consequently about to boom, with most of that new capital channelled to sectors policymakers consider strategically important – decarbonisation, defence security and technology.

With the government on their side, companies operating in these areas will have a wealth of new profitable avenues to explore.

But state largesse can also have a destabilising effect on financial markets. It can lead to higher levels of debt and tax and might also give rise to asset bubbles. In other words, investors must be mindful of the risks of re-industrialisation as well as its benefits.

GREEN OPPORTUNITY OF OUR GENERATION

As the world economy enters a period characterised by more muscular state intervention, some sectors stand to reap greater rewards than others.

Among the winners is the environmental tech industry.

With national security, economic growth and public health increasingly threatened by global warming – the IMF calculates climate shocks could cost USD1.8 trillion, equivalent to 2 per cent of 2019 global GDP – governments are mobilising their financial resources to support the green transition.[11]

Some would argue such funds cannot come quickly enough.

It is estimated the world needs some USD125 trillion of climate investment by 2050 to meet net zero targets, and that green spending through to 2025 needs to triple compared with the last five years.[12]

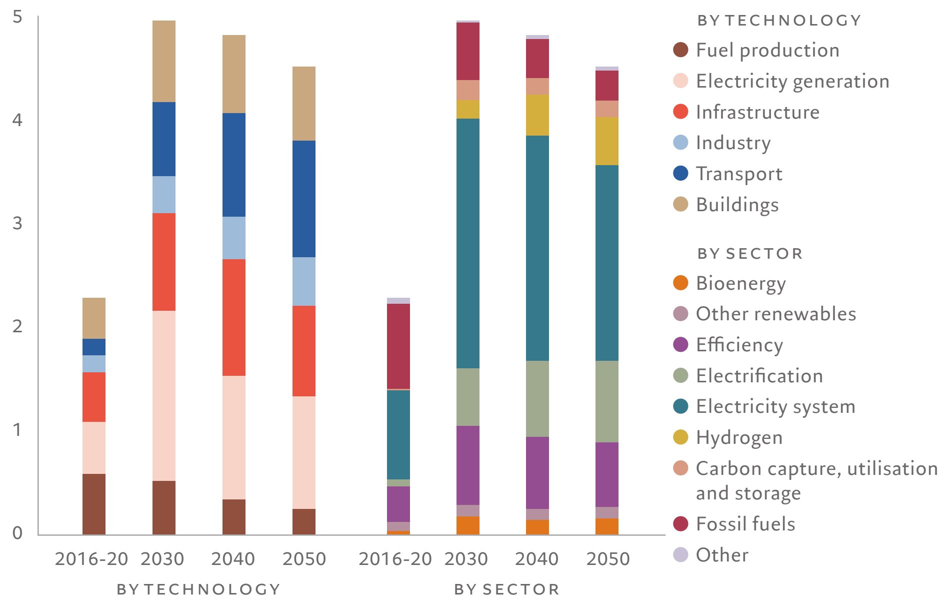
So far, China has dominated cleantech. Its companies have been able to count on generous decade-long fiscal support and a growing talent pool of specialised technicians. This has allowed China's environmental technology businesses to establish competitive export hubs right across the country. The world's second-largest economy has spent USD550 billion on the energy transition in the last year alone, accounting for around half of the global total.[13]

11 See: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4234378

12 UN

13 Bloomberg NEF

FIGURE 11
Investment needed to achieve net zero (USD trillion)



Source: IEA
Data as of 11.05.2021

Mindful of China's progress, the US and Europe are now going on the offensive. Both have recently committed to spending hundreds of billions of dollars in public funds to develop net zero technologies at home.

In the space of less than two years, Washington has enacted three sweeping bills that each contain numerous measures to revitalise the US clean energy industry.

Embedded within the Infrastructure Investment and Jobs Act, the Inflation Reduction Act (IRA) and the CHIPS and Science Act are a host of environmental grants and tax credits designed to build domestic capacity in green energy infrastructure, ranging from renewable energy, transmission and distribution grids to batteries, hydrogen and energy efficiency.

The IRA alone contains some USD370 billion in new government spending, support that in turn is expected to 'crowd in' an additional USD4 trillion of cumulative capital investment from the private sector over the next decade.[14]

The bill is designed to achieve several other strategic goals beyond decarbonisation, such as safeguarding supply chains and protecting national security. For example, a company must divest away from "unfriendly" nations to qualify for state support, while the minimum level of

14 The REPEAT Project at Princeton University

critical minerals in electric vehicle (EV) battery production that must be processed by "friendly" countries will double to 80 per cent by 2027.[15]

For its part, the European Union is committing billions of public funds to be the first climate-neutral continent. Under its European Green Deal, the bloc is redirecting some EUR250 billion from existing funds to develop onshore clean tech production.

The transition plan is built on four pillars – simplified regulation, faster access to funding, workforce development and promotion of open trade – and is expected to generate new investments of around EUR4 trillion by 2032, encompassing capital from both government and private sectors.

The effects of these huge capital projects will be felt far and wide, providing a wealth of commercial opportunities across several industries.

- Industrial and utility firms, as well as their equipment providers, should benefit the most. Given the volume of investment deployed, earnings prospects for industrial companies and utilities could see a marked improvement. Aided by a more supportive state machine, such firms should also be able to invest more for the long term, making them – as a group – less sensitive to the ups and downs of the economic cycle.
- Japan is an unlikely beneficiary of Europe's green deal. Nearly three-quarters of companies listed in Tokyo derive revenues that are eligible for what the EU defines as sustainable activities, the highest proportion of any country in the world.[16]
- Certain areas of the real estate sector will also reap some rewards. From EV battery plants to semiconductor production facilities, a boom in factory-building is creating shortages of megasites, large plots of land around 1,000 acres in size.[17]
- In the fixed income market, green bonds are fast becoming an investment staple. Sustainable bond funds have accounted for more than half of all passive fixed income flows in the first quarter of 2023 despite comprising only a tenth of total market capitalisation.[18]

But government investment in green industries will have grave repercussions for other sectors, not least the fossil fuel sector. The IRA, for instance, is being partially funded by a 1 per cent levy on share buybacks, which mostly impacts the bumper windfall profits distributed by oil and gas firms. The government is also imposing a penalty of USD900 for every metric ton of methane emissions that exceed federal limits in 2024, rising to USD1,500 in 2026.

15 https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-inflation-reduction-act-heres-whats-in-it

16 Exposure % of MSCI ACWI companies by region with at least 5 per cent of revenue potentially eligible or aligned, source: FactSet, Bloomberg, Goldman Sachs Investment Research

17 Reuters, fDi Markets/Global Location Strategies, data as of 28.02.2023

18 Refinitiv Lipper, data as of 02.05.2023

The pharmaceutical industry will also pay a heavy price – as it is effectively being treated as a source of IRA financing. Washington is reforming prices for certain expensive prescription drugs with the aim of cutting federal medical costs – which could reduce revenues for pharma companies.

SECURITY: IN SEARCH FOR NEXT-GENERATION TECH

Security has also become a magnet for public investment. And for good reason.

The Ukraine conflict and the resulting energy crisis forced many Western governments to rethink their defence strategies and to increase spending on security – both physical and cyber.

Globally, military spending rose 3.7 per cent in real terms last year to USD2.2 trillion, the steepest rise since the end of the cold war, led by Europe.[19]

Next-generation tech such as artificial intelligence, advanced aircraft engines, robotics, satellites and space launch systems have become priorities for Western nations in particular. This is in part a response to the technological advances China has made in areas such as defence, space exploration, robotics and transportation.[20]

While states aren't always successful in picking winners in such industries, the potential commercial rewards are high. A recent study found that across OECD countries, a 10 per cent increase in defence R&D results in a 4 per cent increase in private R&D.[21]

TECH SOVEREIGNTY

Government's ambitions for self-sufficiency – in clean energy and other spheres– will count for nothing without secure and reliable access to one piece of technology in particular: the semiconductor.

Semiconductors have become a key geopolitical battleground. Not least because they form the backbone of every electronic device from smart phones to EVs and factory robots. In the US alone, the industry employs more than 200,000 people and contributes over USD100 billion to the country's R&D and capital spending. Semiconductors are now considered by the US government as vital to America's economy, national security and critical infrastructure.[22]

19 Stockholm International Peace Research Institute
20 Australian Strategic Policy Institute
21 The Intellectual Spoils of War? Defense R&D, Productivity and International Spillovers, NBER Working Paper No. 26483
22 https://www.economist.com/special-report/2023/03/06/taiwans-dominance-of-the-chip-industry-makes-it-more-important

Yet securing sufficient supplies of semiconductors has become more complicated in recent years. About three-quarters of global semiconductor manufacturing capacity is concentrated in China and East Asia, and over 90 per cent of the world's advanced semiconductors are made in Taiwan.

It is to address such challenges – and to bring chip-making back to US shores – that the Biden administration introduced the CHIPS and Science act in 2022, a USD52 billion package designed to boost semiconductor research, development, manufacturing, and workforce development.

In a similar fashion to the IRA, companies wanting to secure CHIPS funds must meet strict rules on manufacturing locations or research partnerships. They must also refrain from engaging with China or foreign adversaries. So far, the policy has met with a great deal of success. US chip companies – including the likes of Micron and Qualcomm – have committed to investing nearly USD150 billion to boost domestic output.[23]

Europe is moving in the same direction. With the European Chips Act, the bloc is investing EUR43 billion to double its market share of the global semiconductor industry 20 per cent by 2030. That amounts to at least a quadrupling of Europe's current output.

Designed to work in tandem with the Chips Act is the Critical Raw Minerals Act, which aims to boost domestic mining of metals vital to the green transition. The EU wants to be able to produce 10 per cent of what it requires in lithium, copper and nickel and to process at least 40 per cent of those metals within the region by 2030.

Such state aid could create a virtuous circle of sustained investment in Europe's tech industry. If, for example, it ends up increasing the representation of tech companies in Europe's main stock indices, it could reduce the cost of capital for such firms and spur additional investment.

Currently, the share of semiconductor producers in the broader European benchmark equity index stands at a paltry 2.9 per cent, compared with 12.7 per cent in the US.[24]

Taken together, US and Europe's investment in domestic semiconductor production is likely to lift capital spending in the mining industry, currently at a 20-year low. Likely to be among the biggest beneficiaries of this investment boom are capital goods producers.

23 https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/

24 Source: Refinitiv, Pictet Asset Management, data as of 15.05.2023

EMERGING MARKET WINNERS

Some emerging economies also stand to gain from US and European state largesse - particularly those with established assembly hubs such as Mexico, Vietnam and Thailand.

These nations also benefit from being part of the "non-aligned" group of countries that are neither allied to – nor in confrontation with – major powers.

In Mexico, for example, car manufacturers Tesla and BMW have announced plans to build new plants in the country. The occupancy rate of the country's industrial parks grew 30 per cent in 2022 to a record high of 97 per cent. Tellingly, the Mexican peso is among the strongest-performing currencies against the dollar this year, thanks in part to associated FDI inflows.[25]

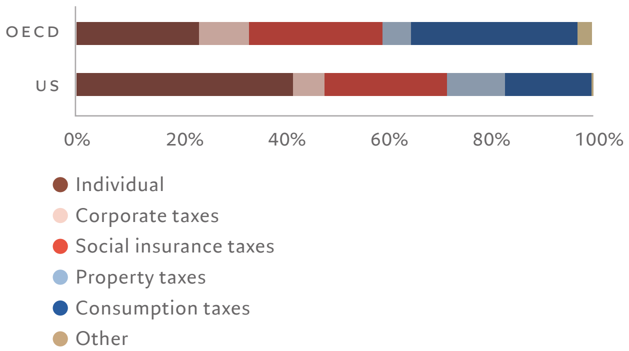
THE PRICE OF RE-INDUSTRIALISATION

For all the economic benefits state investment will bring, there will be sizeable costs attached. Not least higher levels of corporate taxation.

In order to finance their capital spending programmes, governments are likely to reconfigure the tax system in ways that could hamper productivity within sectors that aren't strategic priorities.

FIGURE 12
Tax type as % of total tax revenue

Heavy fiscal weightlifting from individuals



Source: The Tax Foundation, OECD
Data as of 27.02.2023

Corporation taxes will likely rise most in the US given that effective corporate tax rates are low by world standards and compared to those levied on households. We expect the US corporate tax burden to converge to-

25 Source: Refinitiv, Mexican Association of Private Industry Parks, Pictet Asset Management, date as of 21.04.2023

wards the OECD average. The Biden administration is proposing raising the corporate tax rate to 28 per cent, from 21 per cent currently, still below the 35 per cent seen before 2017.[26]

Other measures to shield wage earners from the cost of re-industrialisation are also likely to materialise.

President Biden has proposed quadrupling the current 1 per cent tax on share buybacks introduced in January, reducing incentives for companies to book profits in low-tax jurisdictions and more than doubling the tax rate on US multinationals' foreign earnings.

Another cost of reindustrialisation efforts is that production of goods and services could become more inefficient, forcing many developed economies to pay more to fund self-sufficiency.

MISSION: SECURITY AND RESILIENCE

For investors, greater state intervention in the economy presents both a daunting challenge and a unique opportunity.

Just as the moon landings in the 1960s spurred innovation in aeronautics, robotics, textiles and nutrition, the re-industrialisation taking shape today could also reconfigure the global economy and commerce in positive ways.

Many studies have found that government-directed capital investment – what academics call mission-oriented policies – tend to have a more positive effect on both GDP growth and private R&D than more generic public expenditures.[27]

But large capital projects aren't an unalloyed good.

The more governments and regulators become involved in the management of their economies, the greater the chances of capital misallocation and policy mistakes. Such threats come on top of a likely rise in public debt and corporate taxes.

So for investors to make the most of the opportunities on offer, they will need to tread carefully.

26 https://www.whitehouse.gov/omb/briefing-room/2023/03/09/fact-sheet-the-presidents-budget-for-fiscal-year-2024/

27 Matteo Deleidi, Mariana Mazzucato, Directed innovation policies and the supermultiplier: An empirical assessment of mission-oriented policies in the US economy, Research Policy, Volume 50, Issue 2, 2021, 104151, ISSN 0048-7333, https://doi.org/10.1016/j.respol.2020.104151.

The Chinese equity conundrum

Investors are routinely reminded of China's uniqueness. Mostly it is by way of the instability of its business climate and financial markets. It is the world's second-largest economy but not a mature one. Which means the ebbs and flows of its economic cycle do not track those of the developed world. By the same token, it is not a typical emerging economy either. Movements in the US dollar, commodity prices, and inflation – all of which have an exceptionally strong bearing on the performance of emerging market bonds and stocks – have at best a negligible influence on China's financial markets.

There are other conundrums for investors to solve. China's equity markets can sometimes become completely detached from the country's own economic performance. The correlation between a country's domestic economic growth and the performance of its stocks is lower for China than for any country in the emerging world, and by some distance.

The thorniest problem, though, is the outsized role of the government in the economy. Regulatory clampdowns – such as those targeting the country's tech behemoths, education companies and online financial institutions – occur without warning, sending its markets into a tailspin. All these complexities suggest the China's equity markets should embed a higher risk premium over the long run.

Yet what is also clear is that China – a fast-growing consumer goods market, a global leader in several leading technologies and one day, perhaps, the world's biggest economy – is too big to ignore.

For foreign investors, new opportunities will continuously emerge. Not least in sectors the government considers strategic priorities.

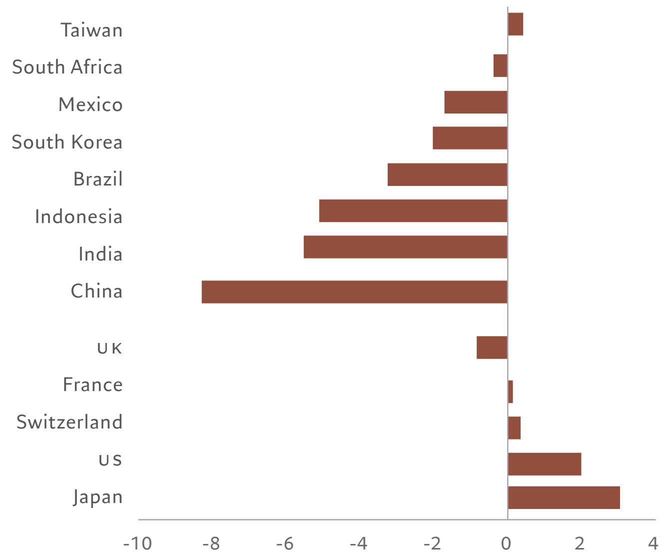
All of which means Chinese equities should remain a key feature of any global investment portfolio even if the risks of those investments demand ever closer scrutiny.

THE CORPORATE PROFIT CONUNDRUM

For all its economic heft – China has for some time sustained levels of growth greatly in excess of the US and other developed nations – its equity markets have failed to deliver on their promise. Businesses have struggled to translate GDP growth into higher profits and healthy shareholder returns for more than a decade. Over the past 15 years, the compounded annual growth rate of Chinese listed companies' earnings per share has undershot the country's economic growth by a hefty 8 percentage points, double the average shortfall for emerging markets. Corporate China's failure is all the more egregious when the US is its benchmark. There, profits have grown faster than the economy by 2 percentage points over the same period.

FIGURE 13
Gap between corporate earnings growth and GDP growth, annualised, percentage points (15-year), by market

China an earnings outlier



Source: Refinitiv, MSCI, Pictet Asset Management; data covering period 31.04.2008-31.04.2023

Looking ahead, we would argue that many of the factors that have hindered profitability over the past decade will remain a feature of the investment landscape for much of the next five years, even if some of them lose their potency.

PROFIT MAXIMISATION CONFLICTS WITH OTHER GOALS

For one thing, the pursuit of profit and maximising shareholder returns will, to a greater or lesser extent, continue to compete with the government's broader economic, political and social objectives. And given that many of China's listed companies aren't attuned to the needs of minority shareholders, it is reasonable to assume that non-financial goals will often hold sway. Among the industries in which political objectives are likely to dominate is technology.

Many of China's big technology companies owe their rapid expansion to years of light-touch regulation and government backing. But as these firms' influence on the economy and society has grown, Beijing has seen fit to orchestrate a regulatory crackdown. Building on the measures introduced in late 2020 – which included fines for monopolistic practices – government authorities will, in our view, embark on a programme requiring the tech industry to direct investment to activities that fall under its 'dual circulation' policy.

Such measures would have parallels with a policy introduced for the telecom sector some 20 years ago, under which service providers were required to keep consumer prices low and build an extensive 4G network, which caused the industry's return on equity to fall from 20 per cent to just 7 per cent.

Other industries could suffer the same fate. In recent months, the government has taken 'golden shares' in major media companies to influence business decisions. The stakes may amount to just 1 to 2 per cent of the firm but they allow board representation and a right of veto on key decisions.

Firms operating in the consumer services, retail and pharmaceuticals sectors, meanwhile, could also come under increasing pressure to keep prices for essential goods steady, to the detriment of their profit margins. The signs are they may also be required to fund several capital-intensive projects such as localising tech supply chains to promote innovation and productivity growth for particular regions.

Margins might also have to be sacrificed to help Beijing fulfil its aim of boosting the living standards and career prospects of its younger workers. The costs of enhancing young peoples' job security, in-work benefits and career development – which the government sees as critical in a country experiencing a worrying rise in youth unemployment – will, in our view, fall to private employers.

EQUITY DILUTION

Another source of frustration for investors in Chinese stocks is the continual dilution of company profits. While a feature of many emerging stock markets, share issuance in China has been growing at a particularly brisk pace, acting as a drag on earnings per share. We estimate that the sale of secondary shares from companies represented in China's main equity benchmark has reduced earnings per share by some 2 per cent per year.

Looking ahead, we expect the same trends to remain in place. Chinese firms will continue to issue new shares at the expense of existing shareholders. That said, the dilution of earnings per share will, to some extent, be offset by an easing of regulations governing share buybacks and the growing proportion of China A shares in the international benchmarks, companies that are typically more cash generative but trade at lower price-earnings multiples than H-shares.

SOME BETTER NEWS ON PROFITS

Although the forces bearing down on corporate profitability will remain strong over the next five years, earnings will not be as lacklustre as they have been over the past decade. One reason is reform of China's state-owned enterprises (SOEs), which still account for 30 per cent of all listed companies in the main China benchmark. The upheaval taking shape – much of which under the government's 'valuation system with Chinese characteristics' initiative – will see SOEs given new mandates that prioritise return on equity and the improvement of operating cashflow.

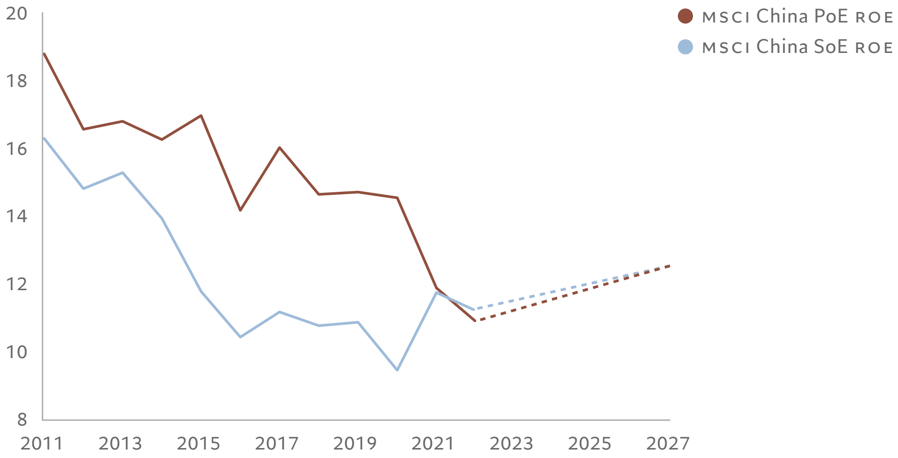
These measures hold out the possibility of an increase in both earnings growth and shareholder returns – even if local governments will be among the main beneficiaries.

Also likely to provide a small lift to China's overall profit growth is the fact that business leaders have, in our view, become much more attuned to the demands of regulators and the government. This means that severe regulatory clampdowns of the type seen in the previous five years or so will be rarer.

An improvement in corporate governance could also boost profitability. Here the signs are encouraging. In April 2023, for example, a directive from China's top governing authority called on companies to strengthen the role of Independent Directors in decision making – the latest in a series of initiatives aimed at improving the quality of governance among China's listed businesses. While our proprietary governance indicator ranks China as the lowest among the largest economies across both emerging and developed markets, the average Chinese company score has been gradually improving over the last five years. Overall, then, investors in Chinese companies should expect only a mild improvement in corporate profitability. Most of the forces responsible for squeezing profit margins will remain in place, offsetting the benefits flowing from improved management of SOEs.

FIGURE 14
Return on equity, China state-owned enterprises vs private companies, historic and forecast

Private company and SOE return on equity to converge



Source: Refinitiv, Bloomberg, MSCI, Pictet Asset Management.
RoE value aggregated based on point-in-time constituents.
Data and forecasts covering period 31.12.2010-31.12.2027

We expect corporate earnings to grow at a modest pace of 4.5 per cent per year over the next five years, a marked improvement on recent figures but sharply below the market consensus. This takes into account the negative effect of share dilution, which we estimate will shave 2 percentage points from profit growth per year. At the same time, ROE among private companies and SOEs to converge (see Figure. 14).

DECOUPLING FROM THE WEST

Even if profit growth can be expected to provide only a modest uplift to Chinese equities over the next five years, investors hoping to see a bigger boost from stocks' earnings multiples are likely to be disappointed.

That is primarily because adverse geopolitical developments will continue to weigh on stocks' valuations.

What began as national security-related trade dispute under the presidency of Donald Trump has morphed into a deeper Sino-US conflagration that has penalised the entire Chinese equity market.

China accounted for some 22 per cent of US imports in 2016. It now accounts for 18 per cent. More than 60 of Chinese technology companies are subject to a US embargo. The situation is unlikely to improve over the next five years. This will put global trade, international investment and co-operation on urgent issues such as climate change at risk.

The most probable trajectory for US-Sino relations in our view is a steady but managed disentangling of the economies' trading and investment relationships.

Yet such geopolitical risks suggest Chinese stocks should trade at a deep discount to their global peers.

In determining the discount rate, very recent experience is a useful starting point – not least because the past five years have seen several systemic shocks, including trade wars, the Covid pandemic, and the beginning of technological decoupling between China and the West.

We have therefore chosen to take the average equity risk premium of the past five years and then incorporate our estimate for risk-free rates over the next five years (which is 3.5 per cent, our estimate of fair value for the yield on the 10-year Chinese government bond).

This calculation indicates that the fair value of Chinese companies' cost of equity is 11 per cent, 300 basis points higher than the estimate we arrive at for US and European firms.

If we then factor in our forecast for Chinese corporate earnings growth, we determine that China's stocks should trade at 30 per cent discount to global equities, wider than the historic level of 25 per cent. This equates to a price-earnings multiple for Chinese stocks of 10.5, compared to a 20-year average of 12.

POSITIONING IN CHINA

Taking all this into account, and stripping out the effect of a decline in the US dollar versus the renminbi, we expect Chinese equities to deliver what can only be described as a modest return of some 7 per cent per year.

Such a return, and the prospect of Chinese stocks continuing to trade at a sizeable discount to developed world equities, suggests that the market's 'beta' could prove an unreliable source of return. A wiser course for investors, we suggest, is to align their portfolio holdings with the government's strategic priorities, and to allocate to sectors that exhibit secular earnings growth. They should also consider insurance against tail risks while also being prepared to adopt a more tactical approach. Although we acknowledge that this is a significant undertaking, even for those investors that can draw on local expertise and considerable resources on the ground, it offers the most effective route to capitalise on the next phase of China's formidable development.

Asset class return projections

Equities:
a less forgiving investment landscape

Investors hoping for blockbuster gains from global equities over the next five years are likely to be disappointed.

Lacklustre economic growth will dampen corporate earnings prospects while stocks' valuations aren't especially attractive.

Making matters more complicated is that allocating capital across national stock markets and regions is unlikely to prove particularly fruitful. Our forecasts show that the dispersion of returns across most major national and regional equity markets will narrow – nominal annualised returns will hover around 6-7 per cent in most cases in local currency terms.

For these reasons, we believe investors should adopt a more discerning approach and allocate capital to specific sectors in both developed and emerging markets and companies that enjoy strong pricing power.

THE PROMISE OF THE EMERGING WORLD

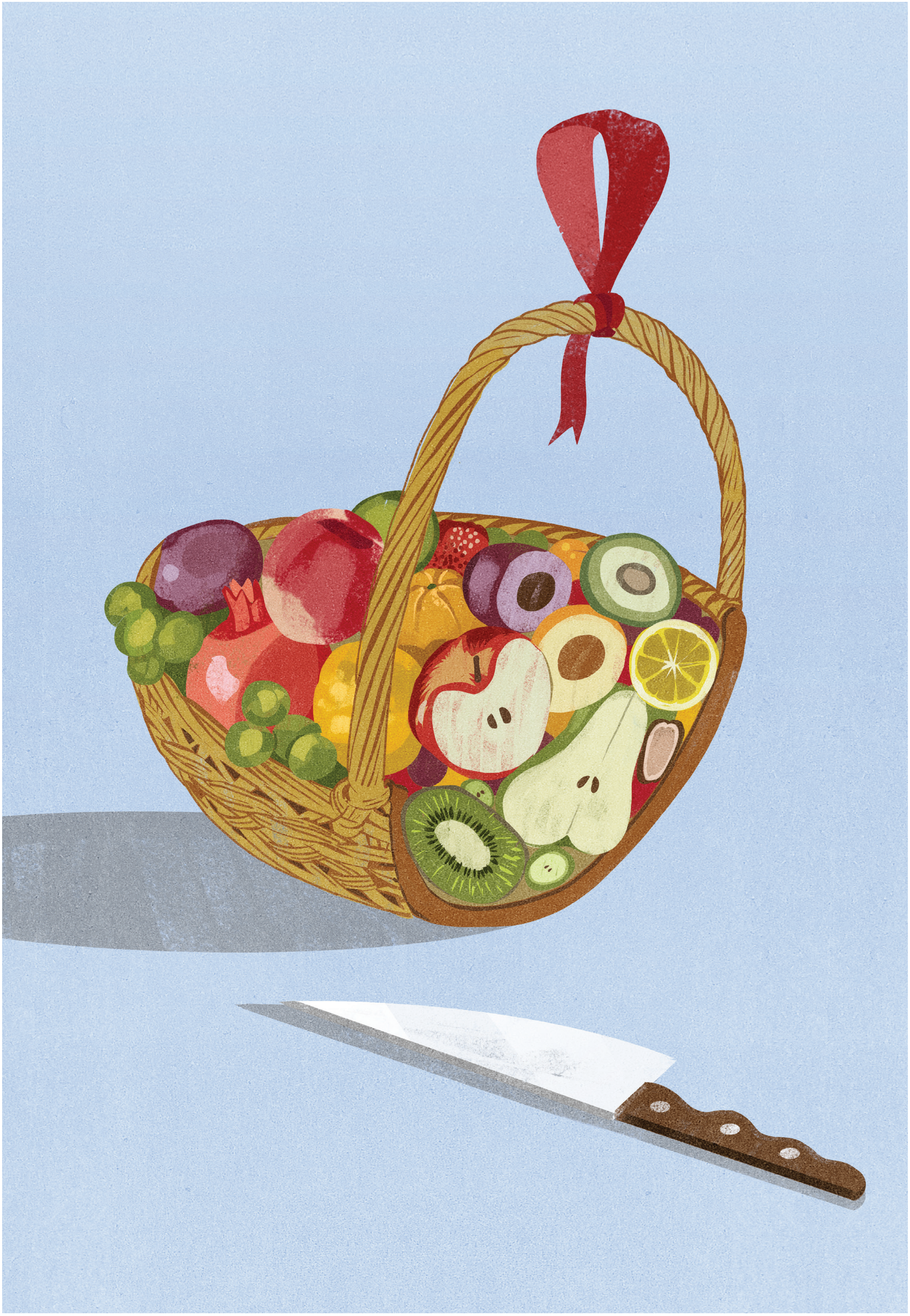
Before assessing the prospects for equities, it is important to reflect on why what we historically considered the most promising investments – emerging market stocks – have largely failed to deliver for investors in recent years.

Even if economic conditions have been favourable, corporate earnings growth in the developing world has been weak.

There are a few reasons for this. From Asia to Latin America, governments have introduced structural reforms to rebalance their economies but with overly tight regulatory measures. These have impaired companies' ability to deliver strong earnings growth.

What is more, a change in priorities of large emerging market economies such as China to gain a foothold in strategically important industries is being pursued at the expense of broader corporate profitability and shareholder returns; it also disadvantages non-strategic sectors.

Finally, there is equity dilution. For emerging markets, equity dilution has, on average, been much greater than in developed markets. As companies in the developing world have raised more equity capital to fuel their



growth, they have left their existing shareholders short-changed, spreading their profits across a broader investor base.

Looking ahead, however, the case for investing in certain areas of the emerging world is strengthening.

Emerging Asia could be a rich hunting ground for equity investors.

Take Southeast Asia in particular. A region with the fastest-growing economy, the ASEAN bloc will benefit from rising US-China tensions. As the world's two largest economies reduce trade and investment between one another, we expect them both to redirect economic activity towards countries such as Vietnam, Indonesia and Thailand.

Some Latin American economies could benefit from the same trends. Mexican companies, for example, should gain from US efforts to bring manufacturing in auto and other value-added industries back to friendly shores.

Another potential boost to returns from emerging market stocks is shifts in the currency markets, where a marked depreciation in the dollar should enhance the appeal of riskier assets.

DEVELOPED MARKETS: MORE CHALLENGING CLIMATE

When it comes to developed market equities, the outlook is less inspiring.

The operating environment for corporations based in advanced economies will become gradually more challenging in the coming years. Economic and financial conditions won't be particularly favourable. Productivity will remain low while businesses can no longer count on ultra-low borrowing costs.

Making matters worse for developed market firms will be the introduction of new taxes and minimum wage laws as part of a broader redistribution of economic power from corporations to workers.

We believe effective corporate tax rates will rise by about 1 per cent every year in the US and UK and 0.5 per cent in the euro zone to help fund ambitious investment programmes such as the green transition.

This increase in taxation is likely to be accompanied by the introduction of new levies on distributions to shareholders. The Biden administration in the US plans to quadruple the 1 per cent levy introduced earlier this year on the value of corporate share repurchases, net of issuance.

Together, these changes could reduce the investment appeal of developed market stocks in several ways. To begin with, increases in corporate tax rates will squeeze corporate earnings. We believe profit margins peaked in 2022, and forecast that margins in Europe and the UK will compress by a cumulative 10-15 per cent over the next five years.

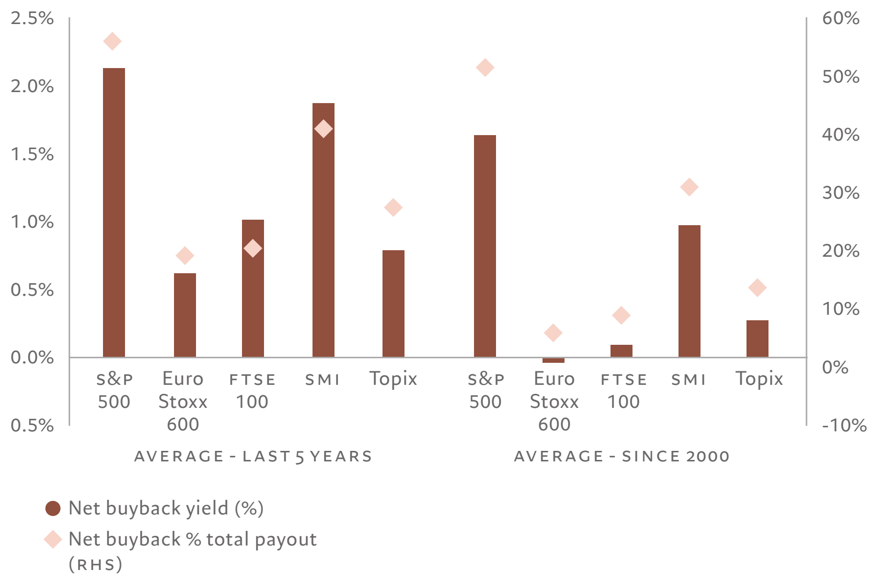
Then there's the prospect of a marked decline in buyback activity.

Share buybacks have been a key source of shareholder returns in recent years.

Total buybacks in the US have exceeded cash dividends since 1997, and have represented as much as 55 per cent of total payout in the last five years, even adjusting for dilution from issuance.

FIGURE 15
Buyback has represented a large part of total payout in recent years

End of bumper buyback benefits



Source: Bloomberg.
Data covering period 01.01.2000-31.12.2022

But with governments and regulators keen to limit share repurchases, we expect the relative size of buybacks versus dividend payments to fall below the average of the past two decades across all developed markets. The decline in buyback activity should be particularly acute in the US, where we estimate the net buyback yield to fall to 1.5 per cent in the next five years from 2.1 per cent in the preceding five-year period.

The combination of weak growth and less accommodating fiscal and monetary conditions will also act as a brake on stocks' earnings multiples.

Developed stocks' price-earnings ratios are more likely to fall than rise, especially in the US.

In the US, we believe the price earnings multiple – currently at around 18.5 – is unjustifiably high given that we cannot envision either a strong pick-up in productivity or an immediate return to ultra-easy monetary policy.

Since 1900, the US equity market's median P/E ratio was 14. It has exceeded 20 only very rarely and usually under exceptional circumstances, such as the mid-20th century productivity boom that effectively doubled the country's potential GDP growth.

In contrast, US productivity growth today is poor. Even though a growing number of economists see artificial intelligence triggering a productivity surge, there is no evidence to suggest this is unfolding. In any case, the range of outcomes when it comes to the impact of artificial intelligence is too wide and the outlook too uncertain to accept such a scenario.

We therefore expect the US equity multiple on forward earnings to moderate towards 16 on a cycle-adjusted basis.

For all this, there are some grounds for optimism. In the US, we expect companies to grow sales by a reasonable 5 per cent as the country benefits from its world-leading positions in technology, a sector that continues to grab a bigger share of total gross value add of the global economy. Higher-than-average inflation and the fact that many large US companies enjoy strong pricing power – as is the case in chipmaking – are another plus (for more details, see the industrial policy section).

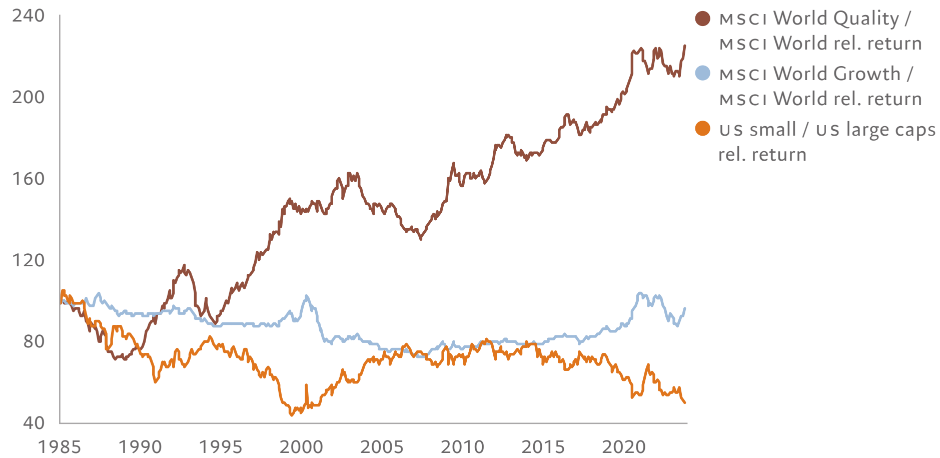
There are also bright spots outside the US. Europe's efforts to establish a firm foothold in green technology and semiconductors should see revenue growth improve there too.

Overall, though, for dollar-based investors, Switzerland, the euro zone and China are likely to be the best-performing equity markets over our forecast horizon, with an average annual return of around 10 per cent in dollar terms. Switzerland has a high concentration of quality companies, such as manufacturers of consumer products, which have exhibited superior secular outperformance and should do particularly well in an uncertain low growth environment.

European equities, meanwhile, should benefit from attractive initial valuations and robust sales growth, although returns will be limited by a likely return of corporate margins to more sustainable levels.

FIGURE 16
Quality stocks have outperformed the market since 1985

Quality pays in the long run



Source: Refinitiv.
Data covering period 01.01.1985-01.06.2023

Fixed income:
back to equilibrium

We think that bond yields are very close to their equilibrium levels. This means that the current coupon rate is a good proxy for expected returns from the market over the medium term, albeit with cyclical fluctuations caused by shifts in the macroeconomic backdrop.

At its heart, our view is that yields won't be going back to levels that prevailed before the global financial crisis (GFC) but will fluctuate around current levels. That's not to say the journey will be smooth – we anticipate inflation will be considerably more volatile than it was in the decade between the GFC and the pandemic. This volatility, in turn, will increase the inflation risk premium investors demand for fixed income investments, which means net yields will sit between the ultra-lows of the post-GFC world and the levels that prevailed before it.

Theory[28] implies that equilibrium bond yields should roughly track nominal GDP growth – which had been the case for much of the period before the GFC of 2008/09. That relationship broke down in the years following the GFC, however, as financial repression took hold in response to structural disinflation, whether unleashed by the sub-prime mortgage crisis or a product of longer-term trends like slow investment demand.

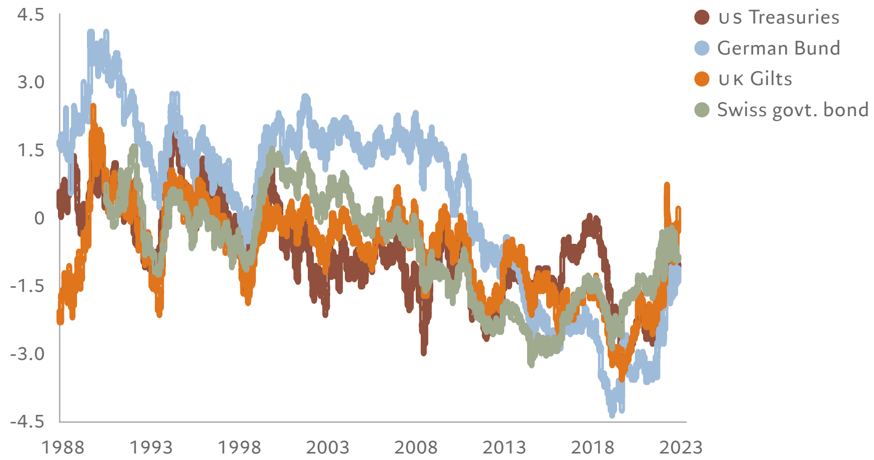
We believe that many of the structural forces that took hold in the wake of the GFC of 2008-2009 remain intact, not least central banks' desire to maintain credibility by maintaining their inflation target. Although other forces, such as ageing populations and trends towards deglobalisation threaten to introduce supply constraints and therefore push up inflationary pressures, we believe those will be relatively minor.

Our overall view is reinforced by the US Federal Reserve Bank of New York, which argued that there is "no evidence from our estimates that the era of historically low estimated natural rates of interest has come to an end."[29]

28 See Edmund Phelps' neoclassical growth model, which argues the marginal product of capital should equal the economy's growth rate
29 https://www.newyorkfed.org/medialibrary/media/research/economists/williams/HLW_2023

FIGURE 17
10-year government bond yields minus trend nominal GDP growth*, %

Turning positive



Source: Refinitiv DataStream, Pictet Asset Management. Data covering period 13.05.1988-25.05.2023.
*We use a moving average of nominal GDP growth over 10 years as a proxy for trend growth.

As a result, we expect US 10-year bond yields to be around 3.5 per cent by the end of our five-year forecast horizon and German bund yields at 2.5 per cent. This reflects our expectations that the terminal Fed funds rate will be 2.5 per cent while the European Central Bank's key policy rate will be 2 per cent. We forecast developed market government bonds to deliver a return of some 3 per cent per year over the next 5 years against an inflation rate of 2.6 per cent.

VALUATIONS SUPPORT US BONDS, EMERGING MARKET DEBT ATTRACTIVE

Within developed sovereign bond markets, US Treasuries appear set to deliver the highest returns.

US bond yields are already roughly in line with trend growth, the Fed is about to embark on policy easing and we expect US real growth to be below potential over the next five years. US inflation-protected Treasury bonds (TIPS) should, in particular, outperform as investors reprice their long-term inflation premiums in the face of more volatile inflation.

Low-yielding government bond markets will be the biggest losers. We forecast Japanese bonds to lose 0.7 per cent a year as the Bank of Japan starts to normalise monetary policy by abandoning its signature yield curve control regime in the face of a healthy domestic economy and inflation hitting 40-year highs.

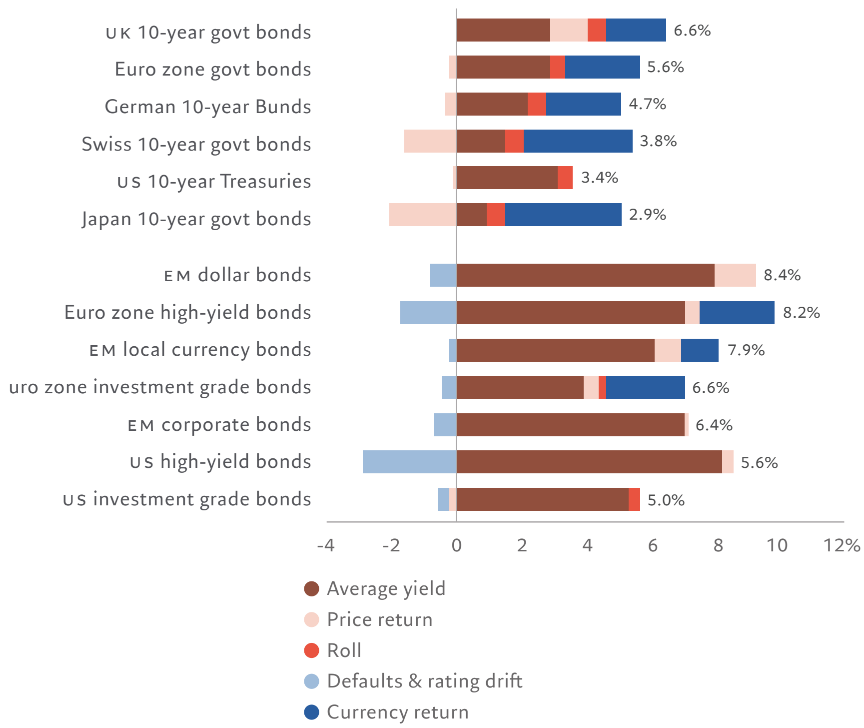
Credit markets, meanwhile, will deliver an unusually narrow spread of returns ranging between 4 per cent and 6 per cent. We think that default rates for speculative-grade bonds will creep higher from abnormally low levels. Given that spreads are already below historic norms, this will drag down performance. However, we see value in US investment grade bonds – the balance sheets of high quality issuers are solid and an initial yield well above 5 per cent is attractive at the peak of a monetary policy tightening cycle.

Emerging market (EM) bonds will be boosted by the end of global monetary tightening, by positive trade developments as commodity prices trend higher, and by central banks regaining credibility on combating inflation. We expect spreads on dollar denominated EM debt to tighten by some 100 basis points to 400 basis points, resulting in a total return of slightly more than 8 per cent for EM sovereign debt denominated in US dollars. The main boost to EM debt priced in local currencies will come from foreign exchange appreciation. Our models show that EM currencies trade at a discount to fair value close to 20 per cent. We expect currency appreciation to boost returns of EM local debt by more than 1 per cent a year, resulting in a total return of just under 8 per cent.

FIGURE 18

Decomposition of our expected US dollar returns for the fixed-income market

Where the returns are



Source: Refinitiv, Bloomberg, Pictet Asset Management. Forecast returns as of 25.05.2023.

For investors in need of higher income, their best option is private debt. The asset class offers superior spreads. Given variable rates and with banks turning increasingly cautious about the loans they make, investors will have access to significant pocket of values. In this market, we are forecasting total returns of around 8 per cent in both Europe and US.

TWO MAJOR RISKS

The risks to our view come from two sources: persistent price pressures and a lack of financial discipline on the part of governments.

Inflation has already proved to be stickier than many policymakers expected. They hadn't anticipated there to be second round effects from the energy shock caused by Russia's invasion of Ukraine, or the supply constraints caused by Covid. As it is, inflation hasn't fallen as fast as hoped, while core measures, wages and services prices have all – to varying degrees – engendered a certain amount of price stickiness. But even if inflation falls in line with our expectations, it will be more volatile from month to month than it was before the pandemic. As a result, investors will demand higher inflation premiums, which is to say higher nominal yields. While it's still unlikely now, central banks could, under these circumstances, be forced to raise their inflation targets above 2 per cent or materially widen their accepted bands.

Meanwhile, loose fiscal policies and rising public debt loads will result in a significant increase in supply of government bonds – at a time when central banks already own an uncomfortable share of the total outstanding market. There is a material risk that investors will rebel and demand a higher discount for owning bonds against the likelihood that governments will default via inflation or currency depreciation if not actual non-payment.

FIXED INCOME'S RENAISSANCE

Notwithstanding the risks, investors now have access to defensive and income-generating assets at inexpensive valuations not seen for many years. The investment case is underpinned by our expectations that inflation will return to central bank target rates – although the bumpy nature of this journey will ensure that investors demand somewhat higher inflation risk premia than prevailed in the years between the GFC and the pandemic.

Alternatives: no longer optional

Alternative assets are essential. Our analysis shows that, in an era of lacklustre economic growth, they should feature in any diversified global portfolio. They can provide attractive returns, diversification and, in many cases, a hedge against inflation. Among the alternatives available to investors, our models suggest that allocations to private debt, commodities and market-neutral hedge funds should prove particularly effective in improving risk-adjusted portfolio returns over the next five years.

Both private equity and debt should outperform their public counterparts over a five-year time horizon. But the magnitude of that excess return will vary. For private equities we expect the premium to be 3 per cent annualised, which is below the long-term average. The sub-par return reflects an excess of capital, the rising cost of financing and already high leverage in many areas of private equity. For private debt, we forecast returns of about 8 per cent per year on average in both Europe and US in local currency terms; we believe this represents an attractive premium compared to returns of below 6 per cent on high-yield bonds.

The private debt market should prove an especially rich hunting ground for investors prepared to lock up some capital. As traditional banks are scaling back corporate lending, a growing number of businesses are turning to private institutions to secure funding. This trend will probably gather strength given the turmoil afflicting regional banks in the US, which is likely to result in tighter regulation of smaller lenders.

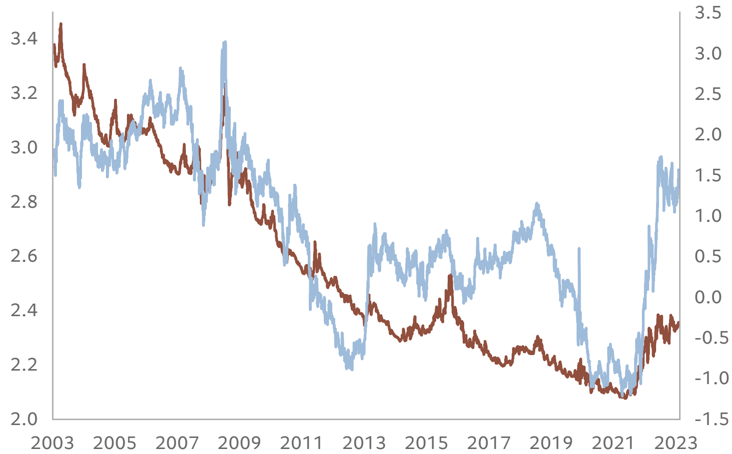
But private debt enjoys other advantages over bonds. Because private loans are variable rate, the asset class offers investors protection from rising interest rates and volatile inflation.

Commodities should also perform well in the next five years – we forecast an annualised return of circa 9 per cent. Weaker economic growth is normally not good news for commodities, of course, the green transition and the re-industrialisation of developed economies will boost capital spending which is, by nature, commodity-intensive. This will come after a decade of severe underinvestment in raw materials extraction and refining,

FIGURE 19

Return of US leveraged loans relative to high yield bonds, compared to US real yields

Inflation benefit



Source: Refinitiv Datastream, Morningstar, Pictet Asset Management. Data covering period 30.05.2003-31.05.2023.

which has left most commodity markets with limited and less flexible supply, as well as historically low inventories.

Industrial metals should benefit the most – we forecast annual price increases to be in the low double-digit percentage range per year over the next five years. According to International Energy Agency (IEA) estimates, to hit net-zero by 2050 would require six times more mineral inputs in 2040 than today. Lithium is expected to experience the fastest growth, followed by graphite, cobalt and nickel. The expansion of electricity networks means that copper demand for power lines more than doubles over the same period. We estimate that this will result in the industrial (i.e. green) metals' share of the Bloomberg commodity index rising from 16 per cent currently to 25 per cent or more in 2028.

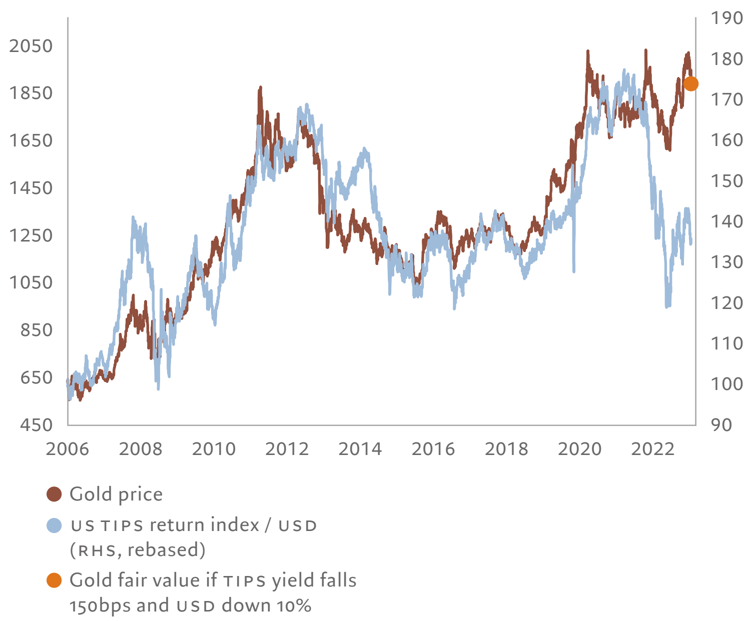
Other arguments in favour of commodities include their stable negative correlation with the US dollar – which we expect to depreciate – the degree of inflation protection offered by what is, after all, a zero-duration real asset, and the fact that the Bloomberg commodity index is currently sitting some 15 per cent below trend in real terms. Such attractive valuations were also seen in 1999, 2001, 2009, 2015 and 2020 – each of which proved a good time to buy commodities.

However, while we are keen on commodities in general, we see limited upside for oil. The green transition will inevitably hasten improvements in energy efficiency and reduce demand for oil. The IEA expects oil demand to peak at 103mbd in mid 2030s, only 3 per cent above current levels. We forecast the price of Brent crude to be in the USD65-70 range in 2028, compared to around USD75 currently.

Gold continues to be a key strategic asset in our secular portfolios, but according to our models it has overshot fundamentals. At USD2000, gold is pricing in a 10 per cent depreciation of the dollar and a 150 basis point decline in real bond yields, the latter a much sharper move than our own forecast. As a consequence, we have reduced our forecast for gold's return to 4.8 per cent per annum from 6 per cent two years ago. However, the metal continues to be an effective hedge against economic and geopolitical shocks.

FIGURE 20
Gold price and total return of US TIPS divided by DXY USD index

Going for gold



Source: Refinitiv Datastream, Pictet Asset Management. Data covering period 31.05.2006-31.05.2023.

In a period during which listed equities will deliver sub-par returns, market-neutral hedge funds should perform well compared to other asset classes, in risk-adjusted terms. As always, the selection of investment managers is key but on aggregate we forecast annualised returns of 4.9 per cent – which make the asset class among the 5 best on a risk-adjusted and dollar basis.

We expect good returns from property too, of some 6-8 per cent per year in local currency in major economies. But we must acknowledge that the current pricing in both Europe and US may not fully reflect the risk of significant writedowns in the commercial real estate, especially for offices and second-tier retail property, where demand for loans has fallen to record lows. This means that the risk to our forecasts is clearly skewed to the downside. The residential market looks more resilient as vacancy rates are generally lower, supply more constrained and because mortgage rates are likely to come down over the next five years. The enduring popularity of working from home should also favour residential real estate over commercial space.

Currencies:
dollar's doldrums

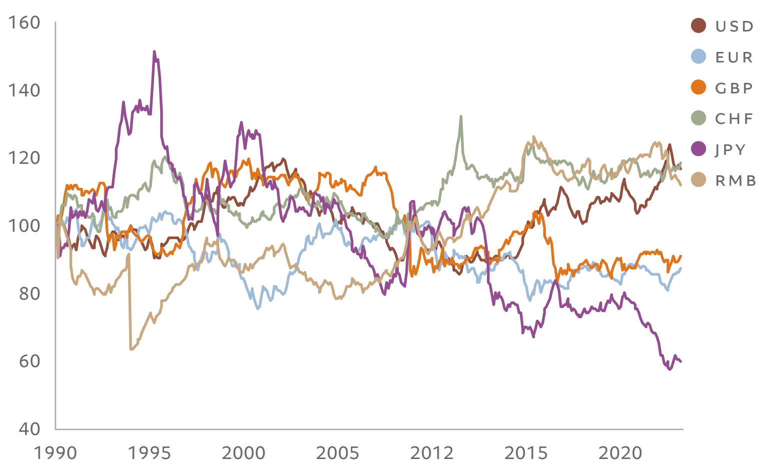
Global currency markets are at a major inflection point.

We believe that the US dollar – which has been the undisputed leader over the past five years – will decline over the next five as the US economy lags behind many of its peers, interest rate differentials converge (particularly versus Japan) and the slow but steady trend of de-dollarisation continues around the globe. Add to this the significant overvaluation of the dollar – and its tendency to mean-revert over a period of five to seven years – and the stars are aligned for the start of a protracted bear market in the greenback.

The main beneficiaries of the dollar's depreciation will be low-yielding currencies (the Japanese yen and the Swiss franc), cheap commodity currencies (the Norwegian krone) and currencies in countries that are experiencing superior with (like India).

FIGURE 21
Major currencies' real effective exchange rates (Jan 1990=100)

Peak dollar



Source: Refinitiv Datastream, IMF, Pictet Asset Management.
Data covering period 01.01.1990–01.04.2023.

We believe that the dollar has peaked, both in the short term and in secular terms. Its overvaluation is significant (some 10 per cent on our models relative to other major currencies, or 20 per cent when measured in terms of its deviation from the long-term trend).

Crucially, economic fundamentals offer no support. US productivity is weak in both absolute and relative terms, fiscal policy far too expansionary and the US external account is in a secular downtrend (with net foreign assets at -65 per cent of GDP, twice as much as 10 years ago).

That's not to say the dollar's status as a reserve currency will be threatened. The US's deep, open and free markets, which are also supported by strong economic governance, have no real competitors.

This will put a floor under the expected depreciation, allowing the greenback to trade a bit above fair value.

However, we are seeing signs of its dominance very slowly receding. De-dollarisation is not a new trend. The dollar's share of global foreign exchange reserves had fallen to 58 per cent at the end of 2022 from 72 per cent just 20 years ago. Yet the Ukraine war may act to further contain the dollar's influence.

The weaponisation of the US dollar and the US economic clout for geopolitical ends (subsidies, export bans, targeted sanctions) has accelerated as a consequence of the conflict, encouraging non-aligned nations to reduce their exposure to the greenback.

Brazil's president Luiz Inácio Lula da Silva, for instance, has proposed a common trading currency for BRIC countries. This is for sure a long shot both politically and economically, but an unmistakeable sign that many countries feel unease with the dominance of the USD and are not worried to make this public.

The dollar's loss will likely be the renminbi's gain. The decoupling of China from the West has many negatives for the former, but will also allow China to build a dominant position in Asia (and possibly with other emerging markets). This could mark a significant shift of political and economic power to the East.

China's recent efforts to play a more active role in the Middle East and the deepening economic ties with Russia are testament to that. Russia could be an extreme case, but after the war in Ukraine and the related crippling economic and financial sanctions imposed on it by the West, the renminbi has become the most traded currency in Russia, now accounting for 11 per cent of total Russian deposits and also 15 per cent of Russian export payments according to Bloomberg and Bank of Russia.

We forecast the Chinese currency to strengthen to RMB6 per dollar over the next five years – a 3 per cent appreciation per annum, taking it to 2014 highs. However, that will still leave the currency at cheap levels compared with its PPP exchange rate of RMB4 per dollar on IMF estimates.

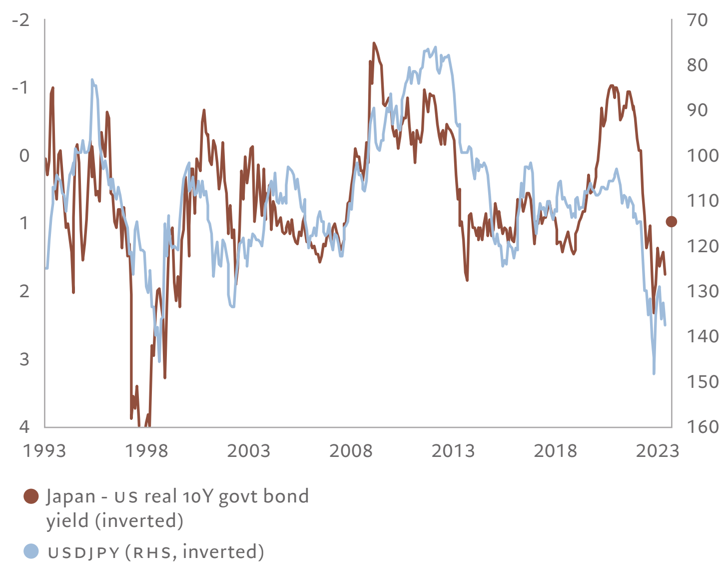
YEN REDEEMED

Another winner will be the yen. This would mark a turning point in the currency markets as the Japanese unit has lagged behind for nearly three decades.

Valuation aside (the yen trades at a near-record 35 per cent discount on PPP), the Japanese currency will be supported by a significant narrowing of growth and interest rate differentials versus the US (see Figure 22), the end of yield curve control policy, the repatriation of foreign assets by Japanese investors, and the return to a more normal inflation regime after decades of deflation. And Japan will reap the benefit of being exposed to the most dynamic economic region of the world, emerging Asia. We expect the yen to strengthen to 115 per dollar by 2028, implying a 3.5 per cent appreciation per annum.

FIGURE 22
Dollar/yen exchange rate and interest rate differentials

Closing the gap



Source: Refinitiv Datastream, Pictet Asset Management.
Includes our forecast for 1ppt spread in 2028.
Data covering period 01.01.1986-01.05.2023.

We also see strong upside for the Norwegian krone. The currency is extremely cheap (trading at a record low of 11 per dollar) and should benefit from a rise in commodity prices. Furthermore, Norway is one of the few countries still enjoying triple-A ratings from all major credit agencies thanks to huge foreign assets.

Emerging market currencies have several factors in their favour. Not only are they attractively valued but emerging economies also have better growth prospects and higher interest rates than the developed world. On our fair value model – based on inflation, productivity and external accounts – EM currencies are in aggregate 18 per cent undervalued (equivalent to 2 standard deviations). The Indian rupee, Korean won, Thai baht and Colombian peso look the most attractive.

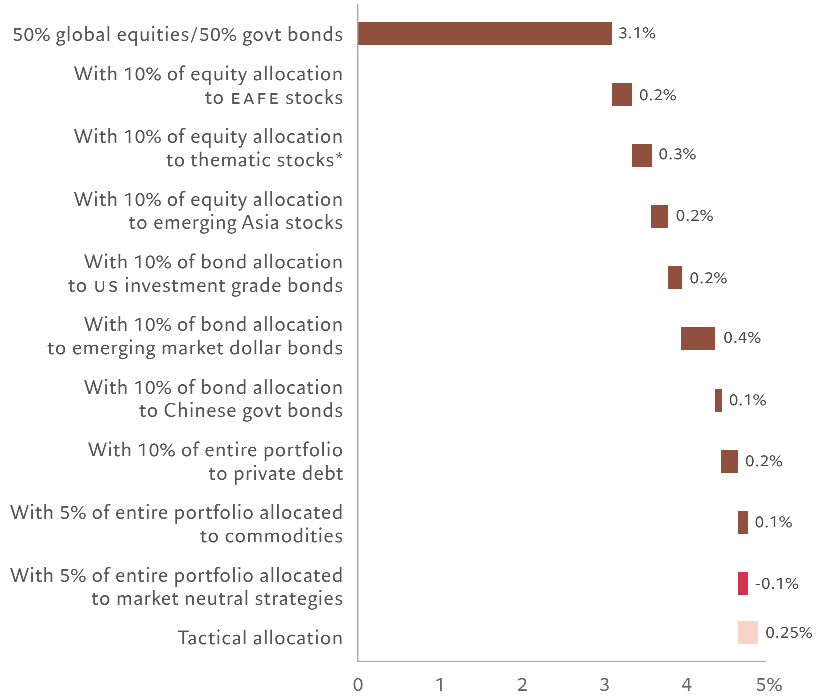
Overall, the dollar's recent surge is temporary and mainly of a cyclical nature – and more due to a lack of competition in the last decade. The euro zone has been afflicted by low growth and debt concerns, sterling was hit by Brexit, Latin America was in a decade-long stagnation, China's growth has experienced a dramatic downshift and the yen was hammered by an extremely loose monetary policy. We believe most – if not all – of those drags are about to dissipate, to the detriment of the dollar and the benefit of its rivals.

Concluding remarks

It's been a tough five years for investors. A traditional portfolio evenly divided between equities and bonds has made a paltry 1 per cent annual return, adjusted for inflation. Nor are the next five going to be much easier. Our analysis suggests a 3.1 per cent annual return for that balanced portfolio. But some judicious asset selection should allow investors to generate a more respectable long-term average return of 5 per cent.

FIGURE 23
Diversified portfolios: estimated real return, %, annualised, over 5 years

Investors will need to move away from traditional balanced portfolios



Source: Pictet Asset Management
*Thematic stocks are companies we believe offer a potential excess return of 3% per year over the MSCI World A/C Index. These companies operate in industries we expect to expand at a faster rate than the world economy (such as clean energy, robotics and digital technology)

To get there, investors will have to contend with muted economic growth and volatile – if ultimately moderating – inflation. They face risks associated with greater state intervention in the workings of the market and ballooning fiscal deficits. Central banks' struggles to return inflation to target compound the possibility of policy error.

Then there are the longer-term drags on investment performance caused by weak productivity, labour shortages and the need to mitigate climate change.

Meanwhile, there will be fewer sources of stand-out equity performance than investors have grown used to. The dispersion of stock market returns between developed economies is likely to be as poor as it's ever been.

But for those willing to move beyond the mainstream, there are some attractive opportunities. We see prospects for excessive returns from emerging markets, both in equities and fixed income – particularly in Asia. Currencies will offer a boost as we expect the dollar to undergo a secular decline from its 20 per cent overvaluation.

The green transition will afford interesting opportunities, too. The bonds and stocks of green-leaning companies are likely to outperform, while we expect governments issuing green bonds to be rewarded by the market for moving in a more sustainable direction.

Above all, private assets – be they debt, equity or real estate – will generate attractive returns, although investors will have to sacrifice liquidity to capture this surplus.

To be sure, investors face challenges in their efforts to lock in over the next five years the sorts of returns that have prevailed over the long term. But shrewd selection and patience – as investing in private assets necessitates – ought to get them there.

Pictet Asset Management's Strategy Unit (PSU)

The PSU is composed of Pictet Asset Management's most experienced multi asset and fixed income portfolio managers, economists, strategists and research analysts located in various offices. This investment group is responsible for providing asset allocation guidance over the short-term and long-term horizons across stocks, bonds, commodities and alternatives.

Every year, the PSU produces the Secular Outlook: a publication providing asset class return forecasts for the next five years. The research embeds, and is a reflection of, the PSU's investment philosophy.

> "We believe understanding how the economic landscape changes over time is both a fundamental component of strategic asset allocation and crucial for investment success over the long run."

OLIVIER GINGUENÉ
Chairman of Strategy Unit, CIO, Multi Asset & Quantitative Investment

We believe…

Macroeconomic forces have a bigger influence on asset class returns over the medium and long term than any other factor; understanding how the economic landscape changes over time is both a fundamental componentof strategic asset allocation and crucial for investment success over the long run.

Over the short run, markets are more volatile than is warranted by underlying economic conditions. Moreover, the relationship between asset classes is not stable through time. This leads to a mispricing of assets, which presents opportunities for tactical asset allocation.

Every asset class carries a risk premium, which rises and falls as the business cycle progresses from one phase to another. The focus of our research is to identify how the macroeconomic environment is changing and how this is likely to affect the risk premium attached to each asset class.

The skilled deployment of both strategic and tactical asset allocation can deliver superior investment returns over the long term.

Appendix

Asset class return forecasts

Our Secular Return forecasts (5-year) are based on models combining our expected evolution of key macroeconomic variables (growth, inflation), our assumptions on interest rates and our assessment of initial valuation, adjusted for factors related to fiscal policy, trend factors and index composition.

Our forecast of for developed market government bond returns is derived from our forecast of the annual roll yield and the terminal bond yield in every major market, which is in turn determined by our estimated trend growth of nominal GDP, to which we apply a discount dependent the prevailing monetary policy stance and the historical norm. (0.9X for the US and UK, 0.8X in the Euro zone). For EM and corporate bonds, the return forecasts are based on fair value models of the corresponding spreads and expected recovery rates in the 40/50% range depending on the index.

Currency forecasts assume that currencies will revert to their fair value over the next 10 years, where the fair value is an estimate by our Economics team based on relative productivity, inflation and the evolution of current account balances.

The following benchmarks are used: JP Morgan indices for developed/emerging government bonds and emerging corporate bonds; SBI Index for Swiss bonds; BofA indices for Euro zone/US corporate and high-yield bonds, US 10-year TIPS.

Equity returns are calculated by adding the average dividend yield, expected sales growth (derived from nominal GDP considering regional sales exposure) and margin change (adjusted for anticipated changes in taxation), a dilution effect and the expected change in P/E multiples. We use MSCI indices for all markets and IBES consensus on 12-month forward earnings for P/E.

We first estimate the 12-month P/E of the US market in five years' time with a model based on trend growth, inflation and bond yields.

Then we forecast the P/E for the remaining markets assuming a return to trend relative multiple versus the US, adjusted for a change in trend driven by our relative growth forecast.

For alternatives, the forecasts are based on models using the expected returns from traditional asset classes, initial relative valuation and some specific factors as inputs.

Economic and currency forecasts

Our GDP forecasts are based on estimating countries' current potential growth and adjusting that by current production factors – which determine how effectively economic inputs are being translated into outputs.

Potential output is defined as the highest real GDP level that can be sustained over the long run. First, we decompose raw GDP data into cyclical and trend components. Then we apply the Phillips curve approach to determine the natural level of output, which is consistent with stable inflation (NAILO) and/or with a stable unemployment rate (NAIRU).

Production factors such as the state of the labour market, the availability of private capital and the degree of technological advancement are then applied to the potential output figure to determine the pace of potential – or trend – economic growth in five years' time. We then use linear interpolation to determine growth estimates for the preceding four years. To forecast inflation, we combine three approaches. The first is based on the current inflation trends, using the Hodrick-Prescott filtering method. The second calculates optimal inflation based on the assumption that neutrality of money prevails over the long run. The third considers the variations in the transmission dynamics between money supply and inflation depending on the state of the economy (expansion, financial crisis). Our final inflation forecast is an average of the three calculations.

Equity forecast

			12M P/E RATIO			12M P/E RATIO			TOTAL RETURN P.A.		
	YIELD, P.A. %	SALES GROWTH, P.A. *	MARGIN CHANGE, P.A. % **	NET BUY-BACKS	EPS GROWTH, P.A. % ***	CURRENT P/E	FORECAST IN 5YRS ****	% PE CHANGE P.A.	TOTAL LOCAL CURRENCY %	LOCAL CURRENCY %	IN USD %
United States	1.7	5.1	0.1	1.5	6.7	17.9	16.0	(2.3)	6.0	0.0	6.0
Euro Zone	3.3	4.9	(2.4)	0.4	2.7	12.6	13.4	1.2	7.3	2.3	9.8
Switzerland	2.9	4.7	0.3	1.2	6.3	18.0	16.0	(2.4)	6.7	3.3	10.3
UK	4.1	5.0	(3.4)	0.6	2.0	10.7	11.1	0.8	7.0	1.9	9.1
Japan	2.7	3.7	(0.3)	0.5	3.9	13.3	12.5	(1.1)	5.5	3.5	9.1
Developed Markets	2.1	4.9	(0.5)	1.2	5.7	16.7	15.4	(1.7)	6.2	0.7	6.9
China	2.5	6.1	0.4	(2.0)	4.3	10.2	10.1	(0.1)	6.8	3.0	10.0
Emerging Asia	2.6	6.4	1.0	(1.0)	6.3	12.8	11.2	(2.5)	6.3	3.0	9.4
Latin America	5.7	5.3	(3.3)	0.0	1.8	8.1	8.6	1.2	8.7	0.1	8.8
EMEA	4.2	5.8	(1.5)	0.0	4.2	10.0	9.7	(0.6)	7.7	0.3	8.0
Emerging Markets	3.1	6.2	0.5	(0.8)	5.8	11.7	10.6	(2.1)	6.7	2.4	9.2
Frontier Markets	4.5	8.1	0.5	(2.0)	6.5	9.5	8.7	(1.8)	9.0	0.0	9.0
Global (MSCI ACWI)	2.2	5.1	(0.4)	1.0	5.7	16.1	14.7	(1.7)	6.2	0.9	7.2
Global Small CAP	2.4	4.2	(0.4)	0.5	4.3	18.9	18.6	(0.4)	6.3	0.9	7.3

Source: Refinitiv Datastream, MSCI, IBES, Pictet Asset Management (forecast horizon 30.04.2022-30.04.2028)

* Proxied by our forecast of nominal GDP growth (average 2023-3027), adjusted for regional revenue exposure; Reflecting historical trend and structural tech leadership of US and regulatory environment in China, we assume sales growth = GDP +0.5% in US, -1% for China.

** IBES net profit margin, based on reversion to trend over medium-term, and to mean over long-term. Adjusted for expected change in corporate income tax (-1% impact p.a. in US and -0.5% in Europe).

*** expected buybacks net of dilution from secondary issuance (forecast net buyback yield moderates to 25% below 20 year average in DM, -2% in China and frontier markets and -1% for EM Asia).

**** US PE based on our forecasts of 10Y bond yield, inflation, trend growth. DM regions to return to trend multiple relative to US, adjusted for forecasted sales growth differential. EM regions to return to average of current, mean and trend relative multiple to EM.

Fixed income forecast: Government, Corporate and EM bonds

	DURATION (YRS)	CURRENT YIELD (%)	FORECAST YIELD IN 5YRS TIME*	ANNUALISED ROLL**	OUR RETURN FORECAST %	CURRENCY GAIN P.A. (%)	USD RETURN P.A. (%)
10-Year US Treasuries	8.3	3.4	3.5	0.5	3.4	0.0	3.4
10-Year German Bunds	8.8	2.3	2.5	0.6	2.3	2.3	4.7
Euro zone govt bonds	7.2	3.1	3.3	0.5	3.1	2.3	5.6
10-year Swiss govt bonds	8.9	1.1	2.0	0.6	0.4	3.4	3.8
10-year Japan govt bonds	9.4	0.4	1.5	0.5	(0.7)	3.6	2.9
10-year UK gilts	8.3	3.7	3.0	0.5	4.5	1.9	6.6
10-year China govt bonds	8.3	2.8	3.5	0.1	2.3	3.1	5.5
US inflation-linked bonds	4.5	1.2	1.0	0.3	4.2	0.0	4.2
US investment grade bonds	6.9	5.2	5.3	0.4	5.0	0.0	5.0
US high-yield bonds	4.1	8.4	7.9	0.0	5.6	0.0	5.6
Euro zone investment grade bonds	4.5	4.1	3.6	0.3	4.2	2.3	6.6
Euro zone high yield	3.1	7.4	6.7	0.0	5.7	2.3	8.2
Emerging market dollar bonds	6.9	8.5	7.6	0.0	8.4	0.0	8.4
Emerging market local currency bonds	5.0	6.5	5.7	0.0	6.7	1.2	7.9
Emerging market corporate bonds	4.3	7.1	7.0	0.0	6.4	0.0	6.4
Global govt bonds	7.5	3.1	3.4	0.5	2.7	1.5	4.2
US dollar cash	0.0	5.3	2.5	0.0	3.4	0.0	3.4

Source: Refinitiv, JP Morgan, BofA Merrill Lynch, Pictet Asset Management. Data as of 28.04.2023

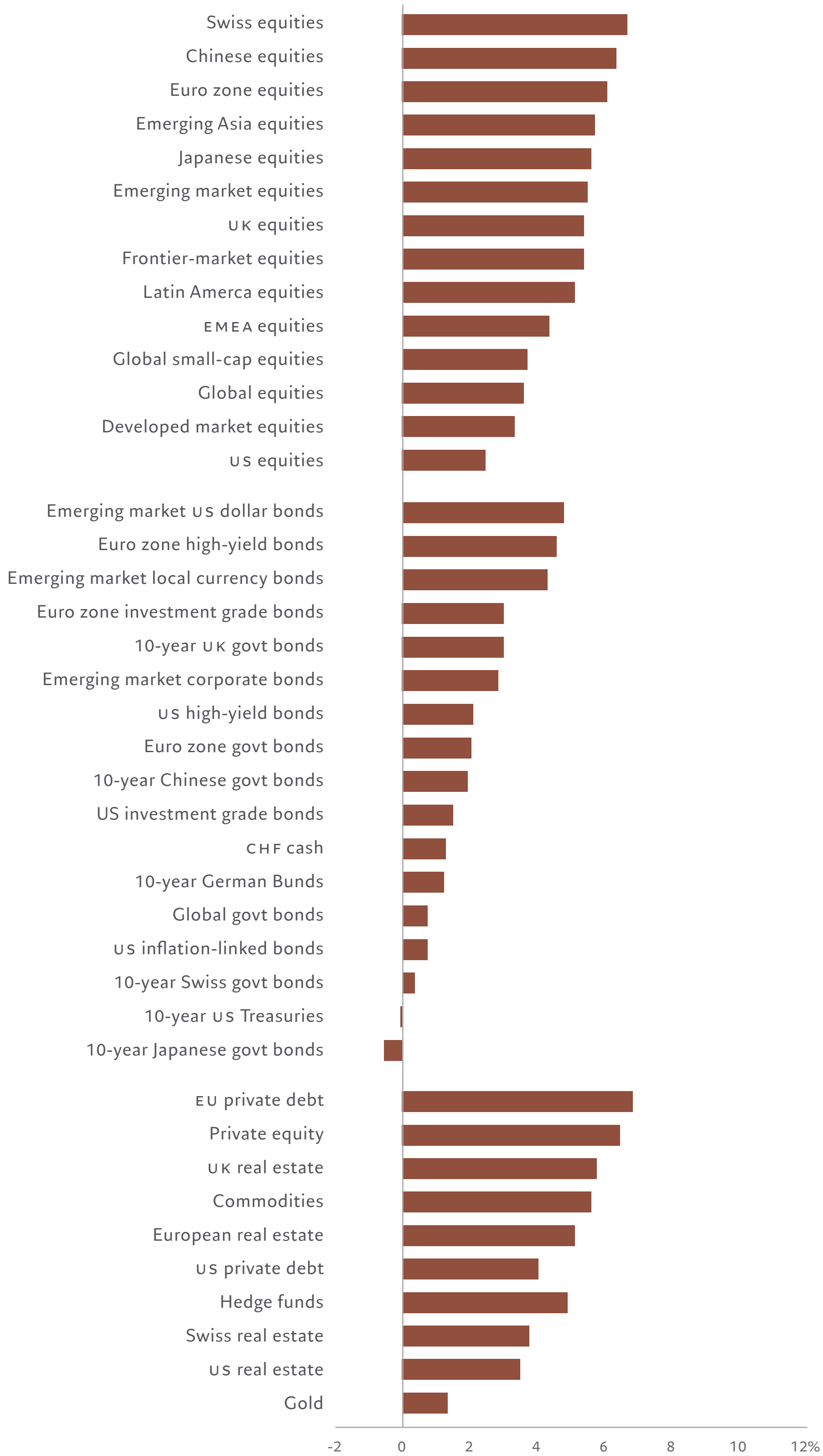
* Policy rate assumption: US and UK at 2.5%, euro zone 1.5%, Switzerland at 1.25% & Japan at 1%. Terminal bond yield assumes yield to trend nominal GDP ratio normalise to long-term average of 0.9x in US & UK and 0.8x in Germany (vs. Euro-zone GDP). Assume Swiss govt bond 50bps spread below Germany, JPM EMU govt 75bps spread above JPM Germany (assuming 165bps BTP spread, 110bps ODE spread). YCC lifted in Japan and BoJ target 0% real rate. WGBI weighted average used on roll, yield change and return calculation for global bonds.

Credit spreads and EM bond yield based on our respective fair value models & default estimates. Recovery rate assumed to be 40% for DM HY and EMD HC, 50% for EMD LC.

** Adjust roll yield according to pace of central bank normalisation and our expectation of curve steepness in year 5. IG corp roll assumes curve steepens proportionally with government bond.

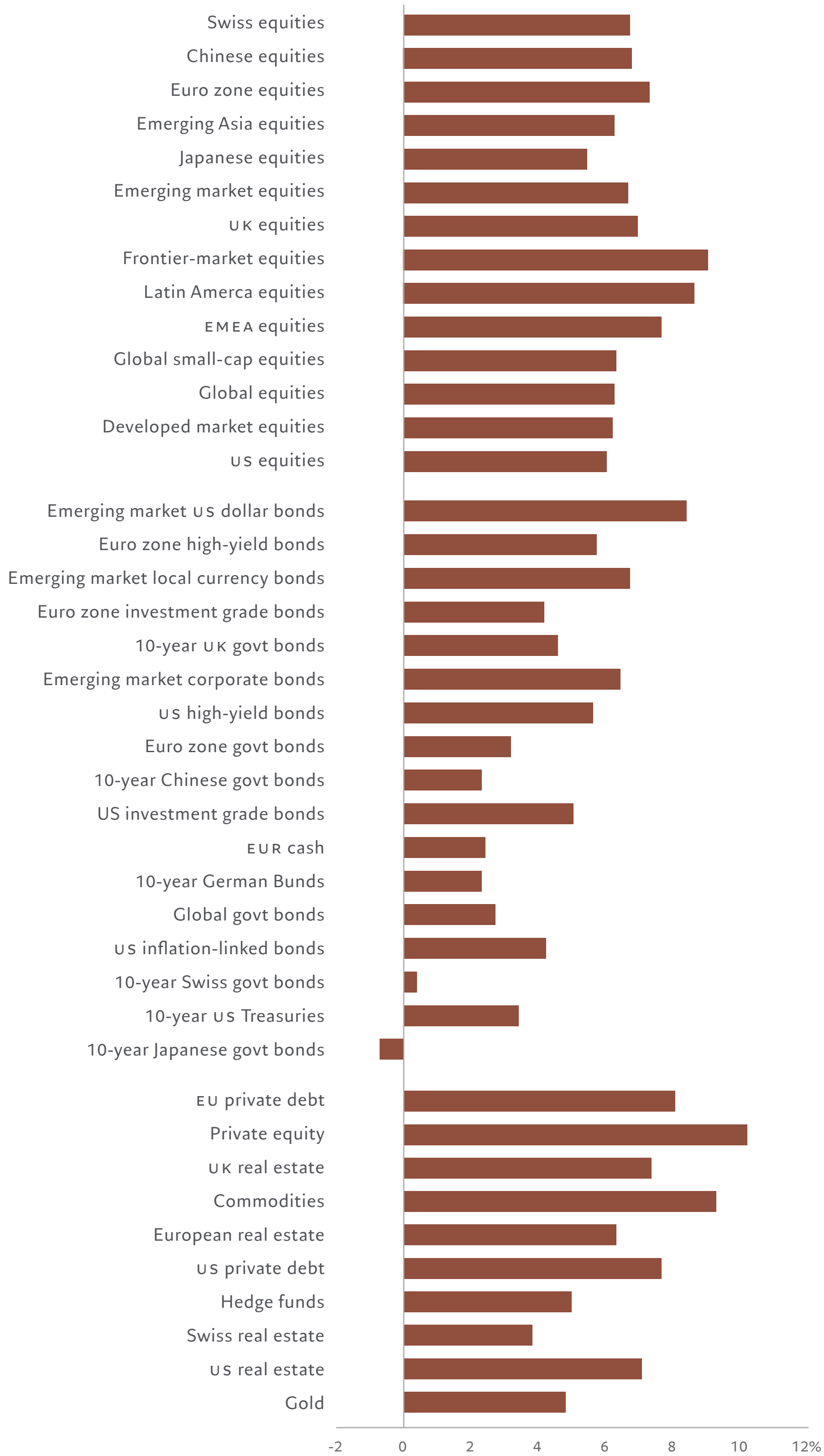
Benchmarks: JP Morgan indices for government bonds and EM USD bonds, FTSE WGBI for global bonds, ICE BoFA indices for DM corporate bonds, US 10Y TIPS for US inflation-linked bonds.

Asset class returns, 5-year forecast, %, annualised, in CHF



Source: Pictet Asset Management, forecast period 30.04.23-30.04.2028

Asset class returns, 5-year forecast, %, annualised, in EUR



Source: Pictet Asset Management, forecast period 30.04.23-30.04.2028

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