AllianceBernstein®

MARCH 2025

A Higher Inflation Future and the Need for Real Assets

The risk of higher equilibrium inflation is a key marker of the notion that investors face a new regime. Recent policy announcements have lent more weight to the idea that the path of inflation might be upward. In this note we focus on the disparate forces that imply a higher long-term level of inflation.

Deglobalization is inflationary by fragmenting supply chains and labor markets. Demographic changes are also potentially inflationary, in part by virtue of fewer working age people but also the resulting significant increase in the need for (hard-to-automate) care.

The very elevated levels of public debt and the lack of a realistic way to raise real growth imply that inflating away debt would be a politically expedient option across advanced economies. We also think that the energy transition will take much longer than anticipated in the finance industry, leading to greater inflation volatility.

The call to action for investors is to pivot to a higher weight in real assets (which include public equities), more focus on inflation hedges including Treasury Inflation Protected Securities (TIPS), non-fiat assets and physical assets. It also calls for a change in governance structure that puts more emphasis on preserving purchasing power.

Inigo Fraser Jenkins

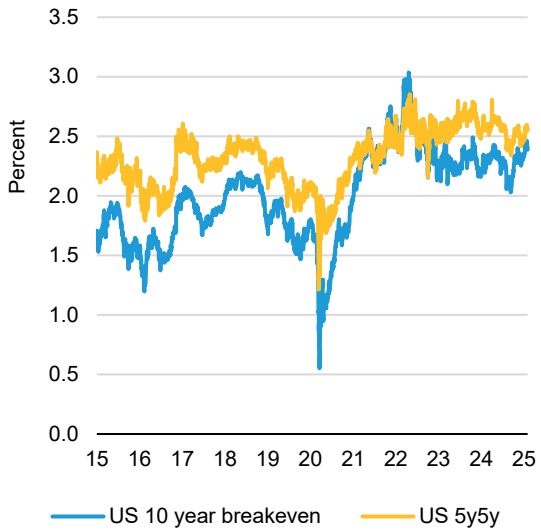
Additional Contributors: Robertas Stancikas, Alla Harmsworth, Harjaspreet Mand and Maureen Hughes

Perhaps the key macroeconomic variable that points to the potential for investors to face a new strategic investment regime is inflation. Certainly, when we have strategic conversations with investors about the medium-to-long term outlook, inflation tends to be a dominant part of that discussion.

There is much debate as to the extent to which the policies of the new US administration might be inflationary and how this might contrast with a more disinflationary trend that had become established in 2024. Yes, these policies have focused more of the debate around inflation risks in the next one to two years, but the message of this note is that there is a risk that the long-term equilibrium level of inflation could be higher than markets assume.

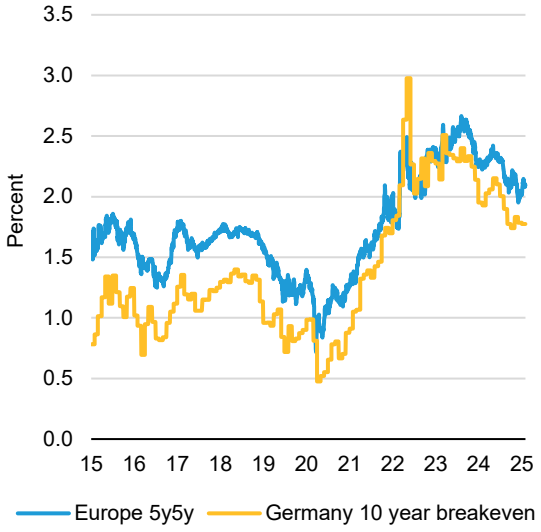
When we meet asset allocators around the world, we find that the majority still agree with us that the level and volatility of equilibrium long-term inflation seems set to remain stubbornly higher than before the pandemic. However, there is disagreement as to how much higher long-run forecasts of inflation should be. Also, after a period of cyclical disinflation in the last two years, the case for higher long-run inflation demands to be revisited. It is these two tasks that we attempt to cover in this note. The level of 10-year-forward breakeven inflation in the US has been relatively stable in a 2.3%–2.4% range for over two years (*Display 1*). In other regions, expected inflation has also risen compared with pre-pandemic levels (*Display 2*). The expectation from the breakeven rate in the US is somewhat above the Fed's target, but we argue that there is a risk that inflation ends up being higher than this. If this is the case, it would prompt a need to change asset allocation.

DISPLAY 1: US 10-YEAR INFLATION BREAKEVEN AND 5Y/5Y INFLATION SWAP



Past performance does not guarantee future results.
As of January 30, 2025
Source: Bloomberg and AllianceBernstein (AB)

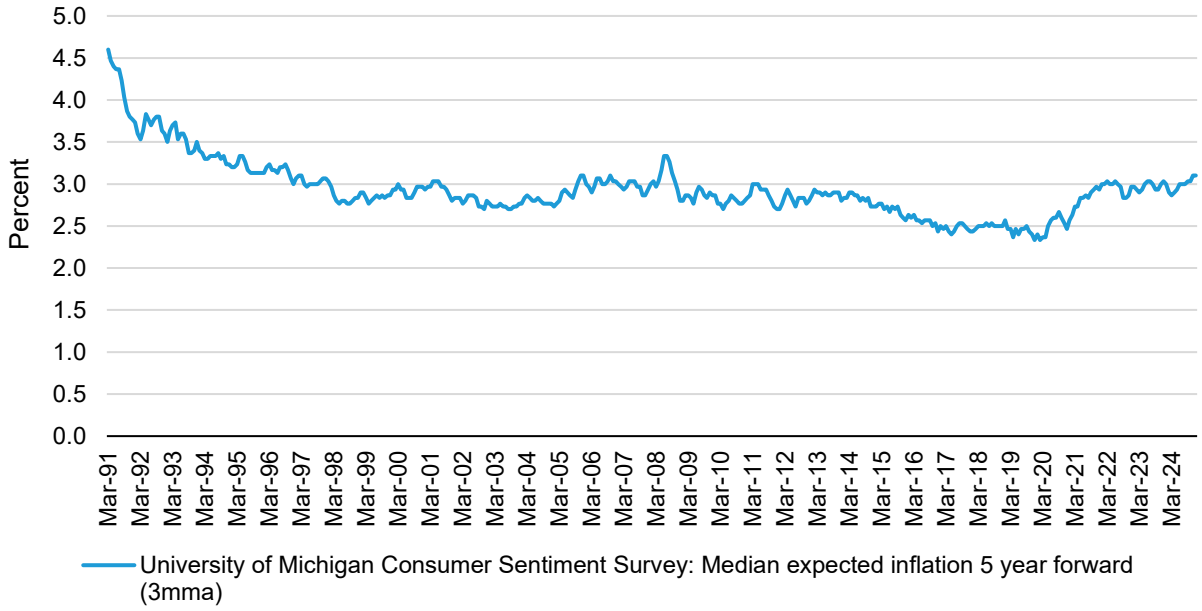
DISPLAY 2: EUROPEAN 10-YEAR INFLATION BREAKEVEN AND 5Y/5Y INFLATION SWAP



Past performance does not guarantee future results.
As of January 30, 2025
Source: Bloomberg and AB

In contrast to the market's assessment of the long-term inflation trajectory, US consumer long-term inflation expectations have remained elevated over the last three years (*Display 3*). In fact, they have actually been edging higher since early 2024. This is important, as it's likely to affect expectations for wage growth, especially if in the longer run it coincides with an increase in labor bargaining power.

DISPLAY 3: CONSUMER EXPECTATIONS OF INFLATION HAVE BEEN EDGING HIGHER



Current analysis does not guarantee future results.

As of December 15, 2024

Source: Bloomberg and AB

We think that a set of very different forces at work are set to drive inflation higher over strategic horizons. It is this confluence that, we think, makes this long term pro-inflationary view more likely. It's also important to note, however, that there are potential deflationary forces present, too. Thus, we do not think that one faces an unanchored inflationary future; elevated rather than high inflation is the more likely future. We lay out these forces in *Display 4*. It would be a brave economist who placed coefficients on each of these forces, because we haven't been here before, but in this note we try to quantify as much as possible the scale of each of these inflationary forces.

DISPLAY 4: DEFLATIONARY AND INFLATIONARY FORCES ARE AT WORK OVER STRATEGIC HORIZONS

Deflationary Forces	Inflationary Forces

• Lower long-term growth expectations imply lower inflation.
• Technology and automation have been deflationary for years. Does AI revolutionize this and undercut the case for inflation?
• Consumers' realization, once pent-up spending ebbs, that nominal savings returns are down and inflation is up, implies the need to save more, which lowers money's long-term velocity.
	• Over strategic horizons inflation driven by:
	  ○ De-globalization (supply/labor cost impact)
	  ○ Demographics (shrinking labor force and care costs)
	  ○ Energy transition and climate: Is the transition inflationary or deflationary? What's the impact of severe weather on inflation volatility?
	  ○ Monetization of debt? The debt/GDP ratio is at its highest level since WWII. Is inflation the only way out?

Current analysis does not guarantee future results.

Source: AB

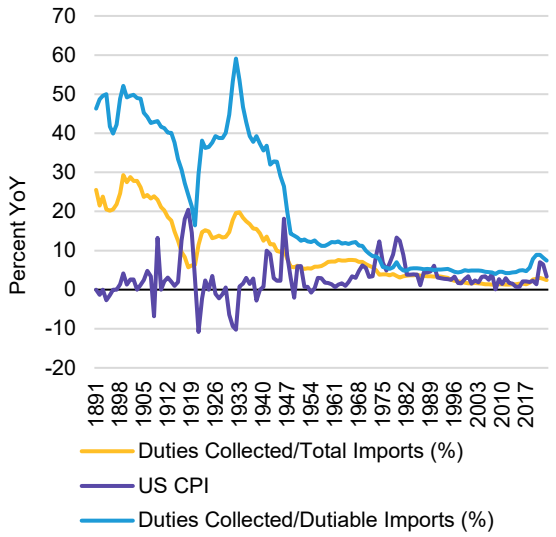
Emerging near-term narrative on tariffs and immigration

Tariffs and immigration were two cornerstone policies of Trump's presidential campaign, and there has already been a flurry of executive actions related to these two areas, While there is still considerable uncertainty around the ultimate size of the tariffs and how the policy on immigrants will evolve, they will have both a short-term impact and potentially long-lasting implications on the level of inflation, most likely pushing it higher.

On tariffs, the key proposals announced so far include: a 10% tariff on all imports from China and an end to the de minimis treatment of all imports from the country; a 25% tariff on all imports from Mexico and Canada; and expanded tariffs on steel and aluminum. The president also signed a memorandum to develop a plan for reciprocal tariffs in response to other countries' tariffs and tax policies. The tariffs themselves are not really inflation, rather a one-off price-level increase. However, it is the re-stitching of supply chains that has the potential to add costs in a more persistent way. As *Display 5* shows, the structural decline in the US Consumer Price Index (CPI) in the last half century has been closely linked to the structural decline in tariff duties. This suggests that there is at least a possibility that if duties will be on a structurally higher trajectory going forward, they could result in a higher inflation level as well.

The structural decline in tariff duties has also been a key factor in the ever-rising levels of global trade intensity since the 1950s (*Display 6*). A sharp decline in trade intensity would be a significant drag on global growth, which ultimately would likely also hurt US growth as well and offset some inflationary pressures.

DISPLAY 5: US TARIFF DUTIES VS. CPI

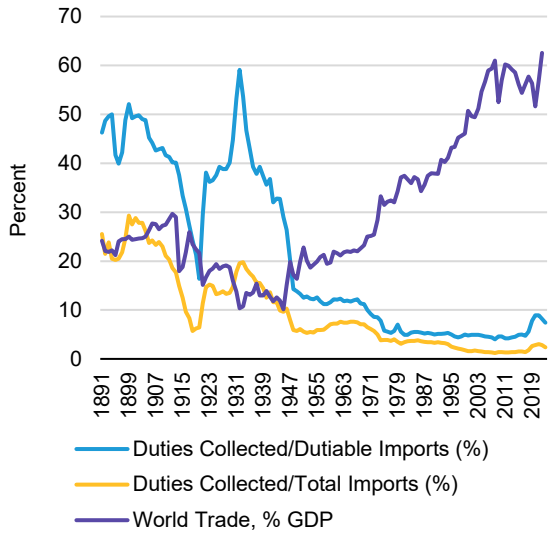


Past performance does not guarantee future results.

As of December 31, 2023

Source: LSEG Datastream, US International Trade Commission, World Bank and AB

DISPLAY 6: US TARIFF DUTIES VS. WORLD TRADE INTENSITY



Past performance does not guarantee future results.

As of December 31, 2023

Source: LSEG Datastream, US International Trade Commission, World Bank and AB

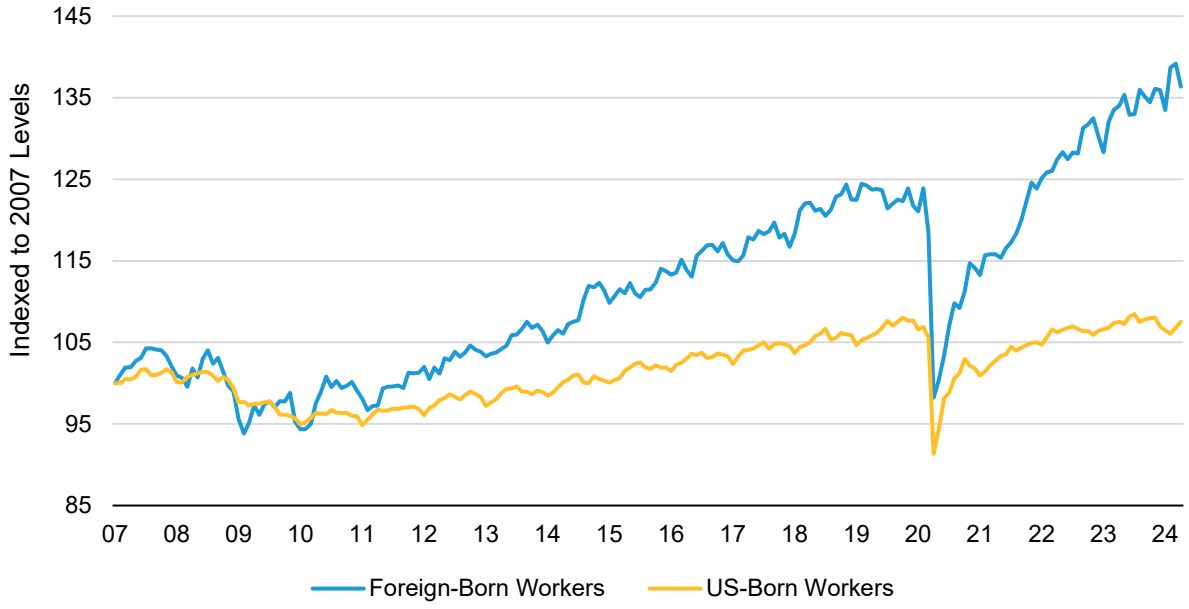
A crackdown on immigration is another policy priority of the Trump administration for which significant actions have been taken immediately. These include:

- The shutdown of the federal government's CBP One phone app that was used by immigrants and asylum seekers to schedule appointments to enter the US with legal permission
- Banning asylum at US borders
- Suspending resettlement programs that provided highly vetted refugees a legal pathway to resettlement

In addition, highly publicized immigration raids across the country have already led to arrests of thousands of undocumented migrants. While it is extremely hard to estimate the aggregate scale of any deportation program, even a slowdown in the rate of immigration from recent years will likely have far-reaching consequences for wage growth and, ultimately, inflation. As we show in *Display 7*, foreign-born workers accounted for all job growth in the US during the post-Covid economic rebound and helped to fill the record amount of new job openings. Meanwhile, as *Display 8* shows, the rapid increase in new immigrants since 2021 coincided with significant and persistent moderation in wage growth. It was arguably one of the most important factors that created the "Goldilocks" scenario of rapid economic growth and continued disinflation that we have witnessed over the last few years.

The US labor market remains very tight, with unemployment levels near historic lows at 4%. Given continued robust economic growth, if companies are forced to compete for a shrinking pool of available labor, it will shift bargaining power to the remaining workers.

DISPLAY 7: WHAT HAVE NEWLY ARRIVED MIGRANTS MEANT TO THE LABOR MARKET?
FOREIGN-BORN WORKERS ACCOUNT FOR ALL POST-COVID JOB GROWTH

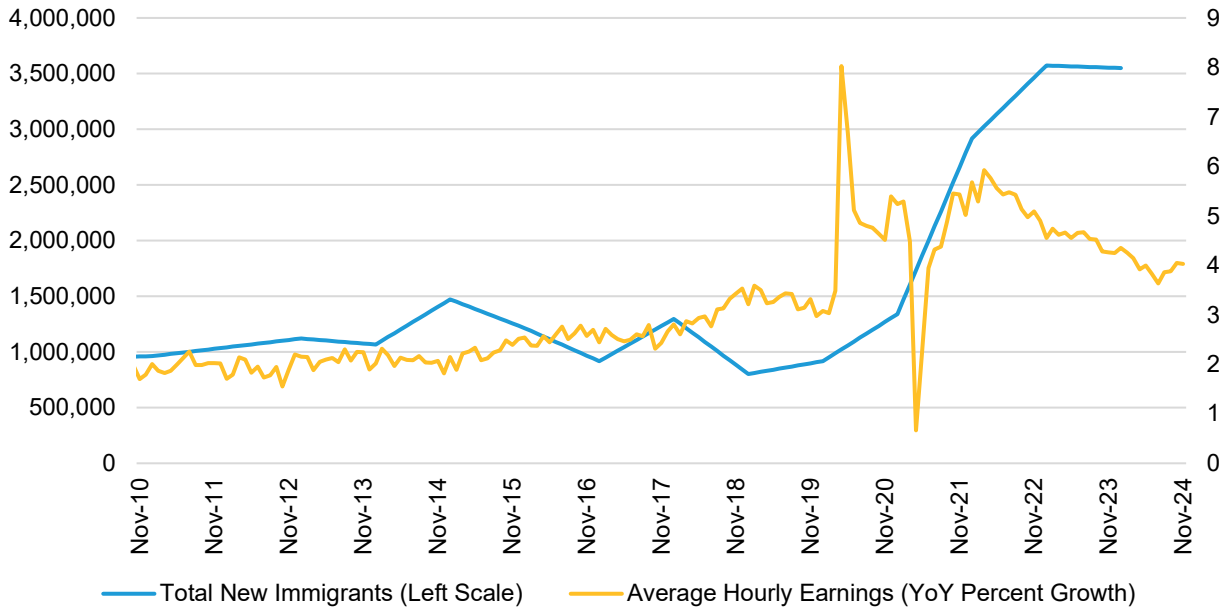


Current analysis does not guarantee future results.

As of April 15, 2024

Source: AB Economics team, Bloomberg, LSEG Datastream and AB

DISPLAY 8: RISE IN IMMIGRATION COINCIDED WITH SIGNIFICANT MODERATION IN WAGE GROWTH



Current analysis does not guarantee future results.

As of November 15, 2024

Source: AB Economics team, Bloomberg, LSEG Datastream and AB

Demographics

We think that changing demographics, particularly a shrinking working-age population in developed markets and China, will put upward pressure on inflation over the long run. There are several distinct aspects to this topic that relate to the supply of labor and the potential for a significant increase in the cost of care:

- A shrinking supply of labor leading to wage pressures in certain segments of the workforce
- An increase in the dependency ratio and fewer disinflationary working-age people
- Higher cost of care (which is hard to automate)

One may ask: "Hang on! Wasn't Japan's experience deflationary? If that was the first country to experience significant demographic aging, how is Inigo wheeling out demographics as an inflationary force?

We see significant differences between Japan's experience in the 1990s and today's. Most significantly, in that earlier period, there had been a bubble in asset prices that far exceeded valuations reached today. As just one example, the forward price/earnings (PE) ratio for Japanese equities reached 80x in the early 1990s vs 20x for global equities today. Moreover, Japan's aging was happening in isolation, while there were deflationary forces in place elsewhere. Today that is not the case.

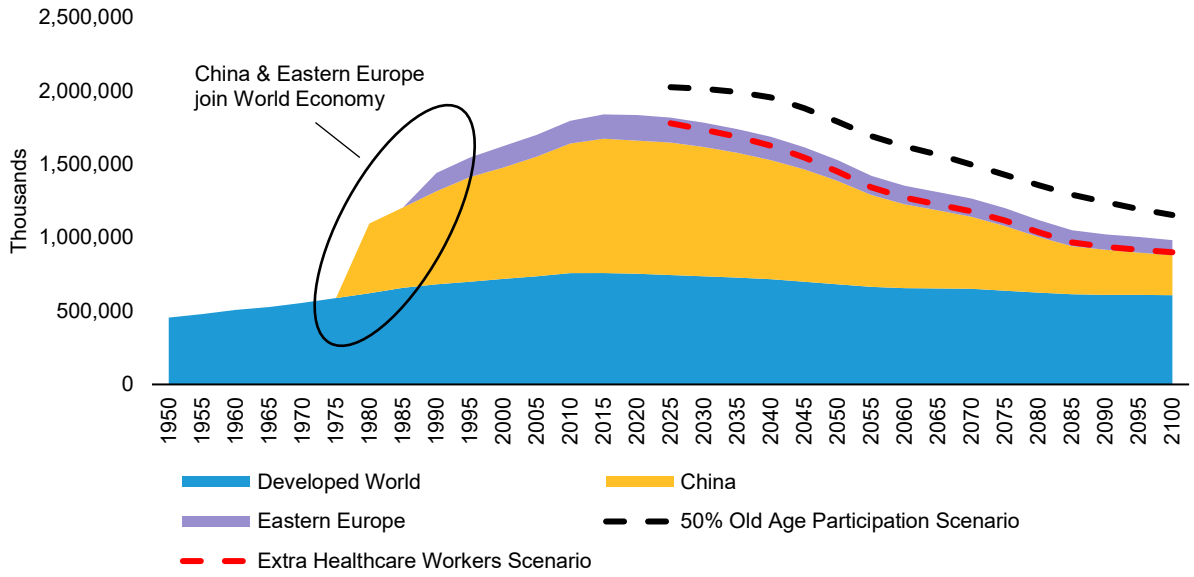
Several of the forces at work on inflation overlap. Demographics and globalization overlap when it comes to the subject of the effective size of the working-age population. In *Display 9*, we show the size of the working-age population for the developed world, China and the Soviet bloc—adding in the latter two as they joined the global economy over the course of the 1980s and 1990s. We show that demographics alone undo a significant part of the growth in the effective number of global workers that occurred throughout the period of globalization since 1980. That is before one layers on the effect of deglobalization, a topic we return to later in this note.

When it comes to the effective working-age population, demographics is, not entirely at least, destiny. Policy can change this, too. The starting point for this analysis assumes that people retire at 65. No one, surely, believes that this is a realistic aim for the vast majority of people in the future.[1] Based on this assumption and using United Nations (UN) demographic projections, we can expect an accelerating decline in the labor force in the coming decades. In *Display 9*, we also consider two additional scenarios denoted by the dotted lines. The black line illustrates a scenario where 50% of those aged 65 to 79 continue to participate in the labor force. This would delay the date of the peak in the labor force, but from around 2050, the labor force would still start to drop off sharply. One other important consideration: even if 50% of older workers were willing to work way past the current retirement age, it is not certain that they would have the necessary skills or stamina to do so—the labor shortage is likely to be most acute in service-sector jobs that cannot be automated.

The other scenario considers the expected increased demand for healthcare workers and residential care staff, because the share of people aged 75 and above is also projected to increase substantially in the coming years. We discuss this issue in more detail later in the note; here, we just want to highlight that there is a potential drag on the effective number of workers driven by the rising need for care.

This analysis also excludes India and Africa. UN population forecasts expect India to see growth in its population for some decades, with Africa seeing growth through to the end of the century. However, we exclude them here because we do not think there is a plausible policy path that would see either region effectively join the global economy and repeat what China has done since the 1980s.

DISPLAY 9: A SHRINKING LABOR FORCE... EVEN BEFORE DEGLOBALIZATION IS TAKEN INTO ACCOUNT
THE DECLINE IN WORKING POPULATION FROM DEMOGRAPHIC CHANGES OVER THE NEXT 30 YEARS WILL REMOVE 30% OF THE EXTRA WORKERS WHO JOINED THE GLOBAL ECONOMY SINCE THE 1980S



Current analysis does not guarantee future results.

Shaded areas represent population in regions shown aged 20–65. The black dotted line represents a scenario where 50% of those aged 65 to 79 continue to participate in the labor force. The red dotted line represents a scenario where 0.17 extra nursing and residential care workers are needed for each person aged 75 and older.

As of December 2, 2024

Source: LSEG Datastream, UN Population Division and AB

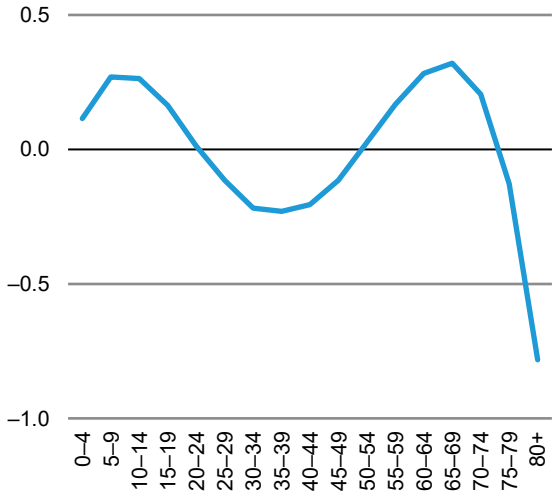
[1] Pensions and Bonds: The End of the Affair?

This declining number of workers seems set to be a significant force. If the increasing number of workers was at least part of the reason for an erosion of wage bargaining power since the 1980s, it is possible that a decline in the number of workers could create a force in the opposite direction, which we discuss in more detail in a later section.

The ratio of the number of workers to the number of dependents can affect low-frequency inflation, i.e. inflation over time frames longer than a business cycle. The rationale here is that workers produce more than they consume, but the opposite is true for non-working dependents. A Bank for International Settlements paper by Juselius and Takáts (2018) has shown this effect empirically: the age structure leads to slow-moving changes in the natural rate, and monetary policy does not fully internalize such changes. *Display 10* shows the impact of age cohorts on inflation—the young and retired are inflationary while people of working age are disinflationary.

One can then apply the expected size of the change in these cohorts and deduce their impact on inflation. In the work of Juselius and Takáts (2018), the authors conclude that the deflationary effects of age structure on inflation that have been in place for the last 40 years are set to reverse and become inflationary forces. Specifically, they conclude that between now and 2050, the age-cohort effect will put upward pressure on developed-economy inflation of an average of three percentage points (*Display 11*). Over the past half century, by contrast, the increasing share of working-age population has lowered average inflationary pressures by around three percentage points. The authors stress that this does not constate an inflation forecast in its own right, but instead is an attempt to quantify the age-structure impact on inflation.

DISPLAY 10: AGE-COHORT EFFECT ON INFLATION (1870–2016)



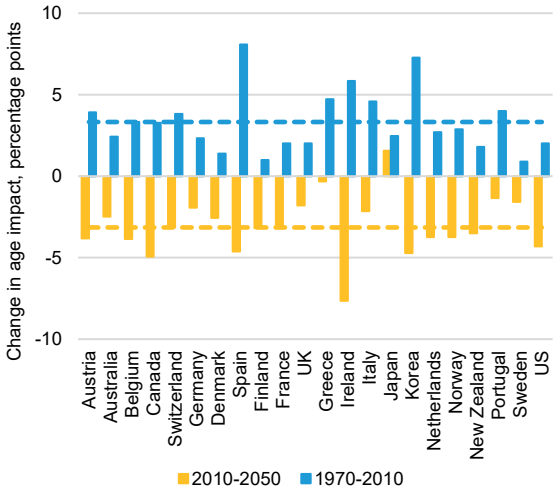
Past performance does not guarantee future results.

As of May 2018

Source: Mikael Juselius and Előd Takáts (2018): The enduring link between demography and inflation, (BIS working paper no 722) https://www.bis.org/publ/work722.pdf and AB

DISPLAY 11: CHANGING AGE STRUCTURE IMPLIES LOW-FREQUENCY COMPONENT OF INFLATION TO RISE BY 3 PERCENTAGE POINTS OVER NEXT 50 YEARS

AGE STRUCTURE EFFECT: A TURN FROM DISINFLATIONARY TO INFLATIONARY PRESSURE



Past performance does not guarantee future results.

The dashed lines show averages.

As of May 2018

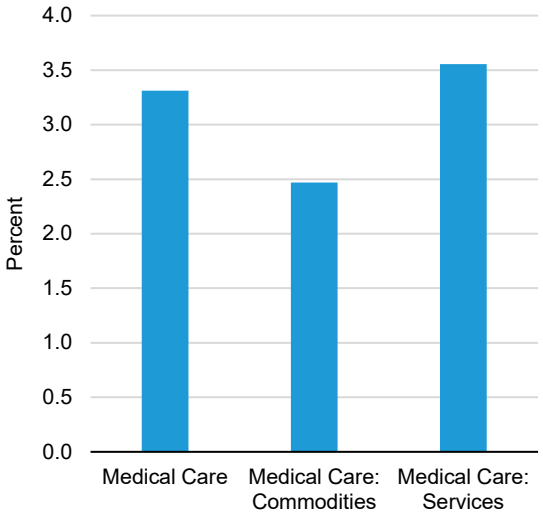
Source: Mikael Juselius and Előd Takáts (2018): The enduring link between demography and inflation, (BIS working paper no 722) https://www.bis.org/publ/work722.pdf and AB

This work implies that historically, there has been a distinction between the old and the very old. While the former are inflationary, the latter have been disinflationary, as they have tended not to spend. Is this set to change? We think that there is a case that the cost of care is likely to form a larger part of consumption. There is a general point here about the cost of healthcare: it has tended to be faster than broader inflation, and the basket of goods that the elderly buy has a higher weight on healthcare than the population at large. But this also raises a specific point about dementia. *Display 12* shows the average rate of inflation for medical care overall and its subcomponents of "medical care: commodities" (e.g. drugs) and "medical care: services" (e.g. care). In the US, inflation of the overall medical-care category has averaged 3.3% annualized since 1998. This has

been steadily above the run rate of broader inflation (*Display 13*). The only times when this has not been the case is when there is a cyclical inflation shock, e.g. in the 1970s and during the pandemic.

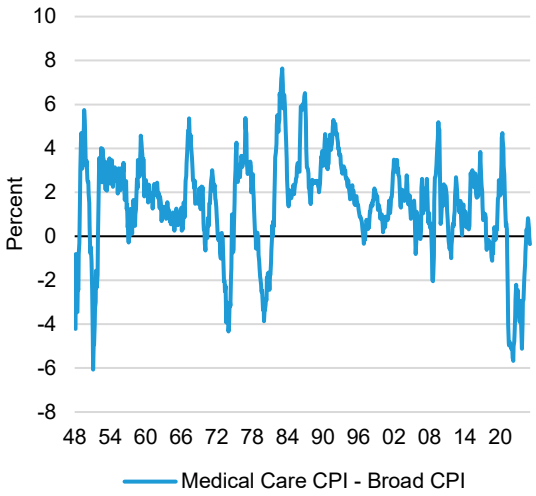
A rapidly aging population will create more demand for medical care and medical services, in particular. Over time, this will increase the weight of healthcare expenses in the CPI and exert upward pressure on the overall inflation level.

DISPLAY 12: MEDICAL CARE INFLATION AVERAGES



Past performance does not guarantee future results.
As of January 31, 2025
Source: LSEG Datastream and AB

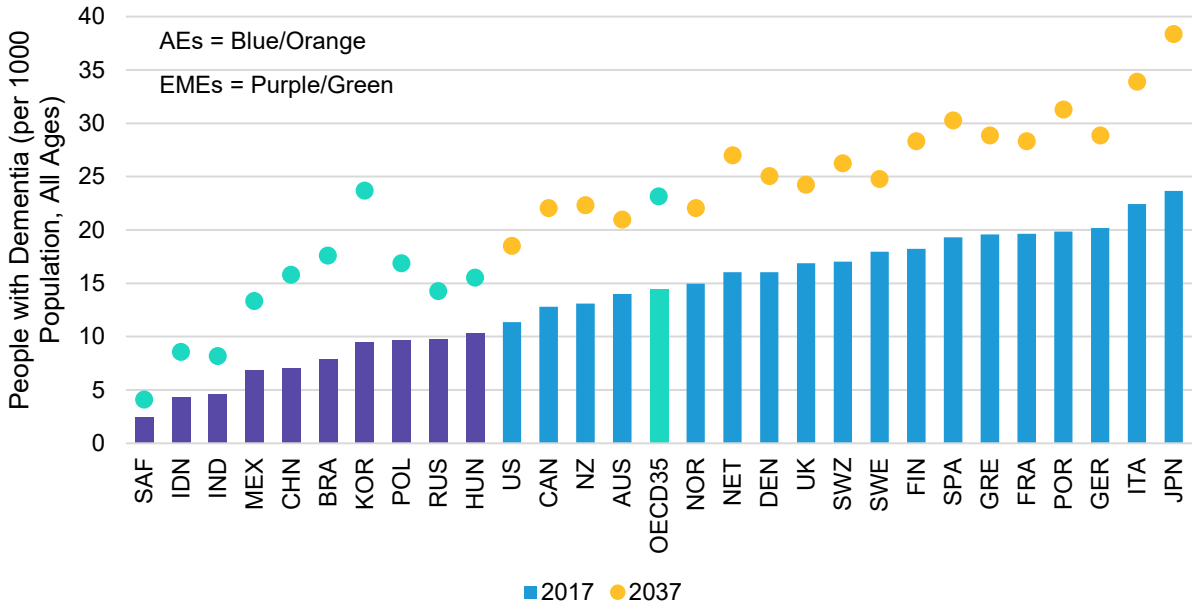
DISPLAY 13: MEDICAL CARE INFLATION IS ALWAYS > BROAD CPI APART FROM DURING CYCLICAL HIGH INFLATION SHOCKS (1970S OIL SHOCK, POST-COVID, ETC.)



Past performance does not guarantee future results.
As of January 31, 2025
Source: LSEG Datastream and AB

Aside from an aging population spending more on higher-inflation care services, it would also be expected to see a greater incidence of dementia, for which age is a critical risk factor (*Display 14*). Taking the UK as an example, Kingston et al (2018) assert that this contributes to a particularly large increase in the number of people classified as being in "high dependency," requiring a significant amount of care. Overall, absolute numbers of people in the UK aged 65 years or older with high dependency is projected to increase by 36% over the next 20 years (*Display 15*).

DISPLAY 14: INCIDENCE OF DEMENTIA IS EXPECTED TO RISE MATERIALLY...
PEOPLE WITH DEMENTIA (PER 1,000 POPULATION)



Current analysis does not guarantee future results.

Source: Charles Goodhart and Manoj Pranam. "The Great Demographic Reversal". Palgrave Macmillan Cham, 2020, Charles Goodhart (London School of Economics), OECD Health Statistics 2017, 7 and AB

DISPLAY 15: ... WHICH WILL INCREASE NEED FOR CARE, WITH HIGH-DEPENDENCY RATES SOARING
DEPENDENCY IN THE UK EXPECTED IN 2035, AND CHANGE FROM 2015

(000s)

	Total Population		Dependency					
		% Δ	Low	% Δ	Medium	% Δ	High	% Δ
65-75	6,908	+31	967	-15	98	-49	241	-15
75-84	2,778	+51	1,400	+29	171	+5.7	378	+42
85+	2,815	+114	1,537	+148	293	+73	446	+92

Current analysis does not guarantee future results.

Source: Charles Goodhart and Manoj Pranam. "The Great Demographic Reversal". Palgrave Macmillan Cham, 2020, Charles Goodhart (London School of Economics), Kingston et al (2018): Projections of Multi-Morbidity in the Older Population in England to 2035: Estimates from the Population Ageing and Care Simulation (PACSim) Model. Age and Ageing 47 3, 1-7 and AB

In *Display 16*, we use a variety of sources to try and estimate the expected increase in direct and indirect costs (the latter being care, foregone work by those giving care, etc.) for dementia and cardiovascular conditions. The conclusion is that the total cost of this care is expected to grow at a faster rate than broader inflation.

DISPLAY 16: COST OF CARE FOR SELECT CONDITIONS

		USD Billions						
		Direct Costs		Indirect Costs		Total, Direct and Indirect		
		Today	2050	Today	2050	Today	2050	Inflation in Total Cost (% pa)
Cardiovascular Conditions and Stroke[1]	Conditions (Coronary Heart Disease, Stroke, Heart Failure	393	1,490	234	361	627	1,851	4.3
Alzheimer and Related Dementias[2]	US	196	1,400	254	1,900	450	3,300	5.7
	Global[3]	*488*		*330*		*818*		

Current analysis does not guarantee future results.

1 Drivers: a) greater risk factors e.g. obesity, b) ageing, c) ethnic mix risk factors

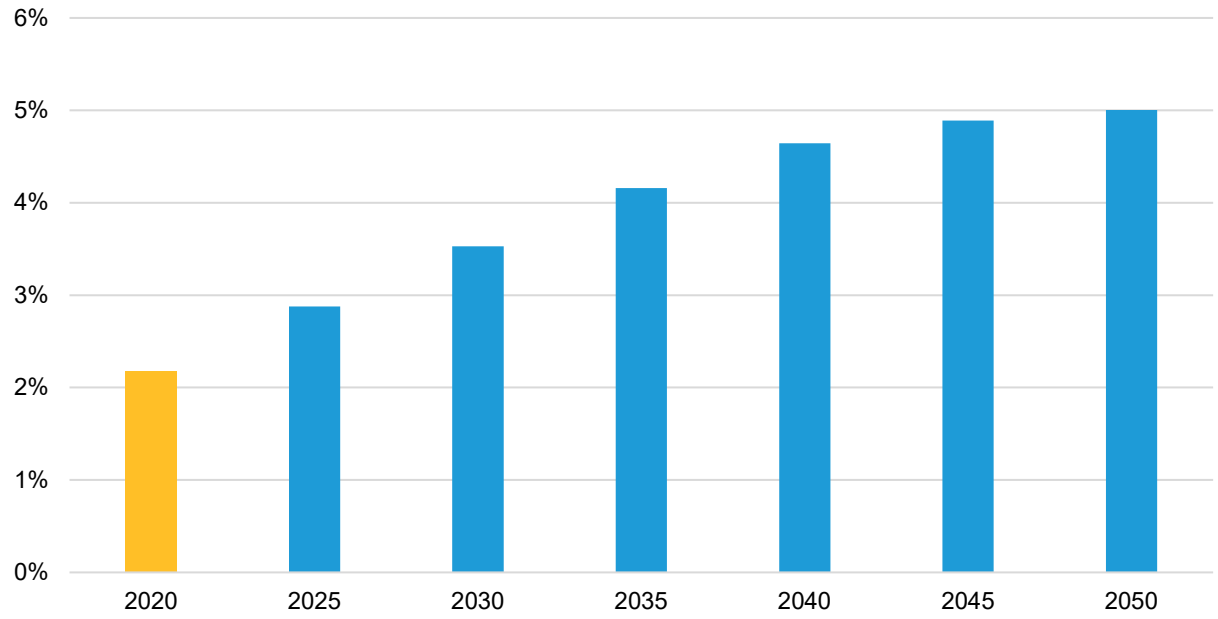
Source: D Kazi, et al. "Forecasting the Economic Burden of Cardiovascular Disease and Stroke in the United States Through 2050", AHA Scientific Journals . They project out each age/ethnicity cohort.

2 Drivers: Age key factor, also the rise in the cost of care. Source: A Nandi et al., "Cost of care for Alzheimer's disease and related dementias in the United States: 2016 to 2060", NPJ 2024. They assume 4% care cost inflation. They estimate cost of informal care (foregone wages or replacement with professional care giver).

3 Source: M Prince et al., "World, Alzheimer Report 2015", Alzheimer's Disease International 2015

Another consequence of an increasing number of very old people is the greater need for nursing and residential-care workers, which has knock-on effects on the broader labor force. We attempt to quantify the extra demand in *Display 17*. In the US since 1990, nursing and residential-care workers (excluding broader health sector workers) as a proportion of the number of people older than 75 has averaged 17%. Assuming this proportion stays constant, and using the UN projections for demographic composition, we should expect the need for social-assistance workers to rise from below 3% of the labor force today to over 5% by 2050. This will impact the labor force in two ways. First, it will divert existing workers from other sectors of the economy, reducing labor supply across those sectors at the margin. Second, some of the extra demand for care will likely be met by family members who would have to reduce their working hours or exit the labor force entirely. Both these mechanisms put extra pressure on the labor supply, already constrained by the declining working-age population and, *ceteris paribus*, should further increase the potential bargaining power of labor.

DISPLAY 17: PROJECTED US NURSING AND RESIDENTIAL CARE WORKERS, % OF TOTAL



Current analysis does not guarantee future results.

Note the analysis uses UN demographic projections and assumes that 0.17 nursing and residential care workers will be needed for each person aged over 75.

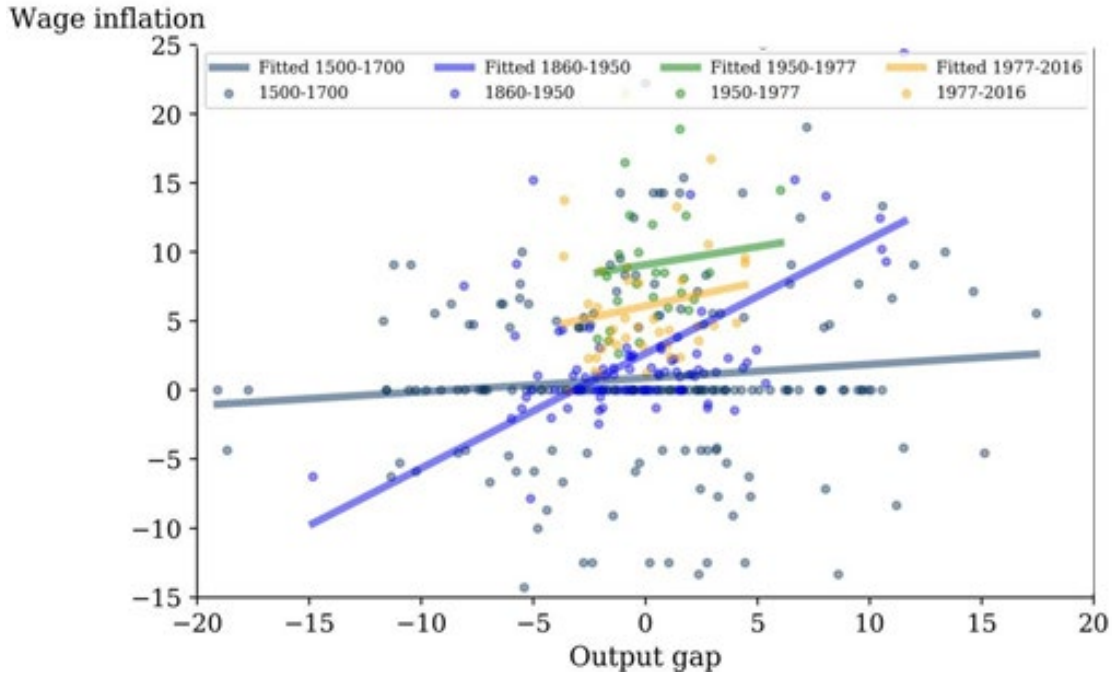
As of December 2, 2024

Source: BLS, LSEG Datastream and AB

The combination of less immigration, a decline in the working-age population across advanced economies plus China, and the extra demand for care workers begs questions about the bargaining power of labor versus capital. If a Phillips curve relationship holds, then this structural increase in the tightness of labor markets implies that wage bargaining power increases, and that this will become a powerful mechanism for structural inflation. Wage inflation has historically been one of the stickiest of inflation's forms. One could argue that the decline in the bargaining power of labor since the 1980s along with the combination of globalization, the post Reagan-Thatcher tilt in economic policy, and the fall in unionization all contributed very significantly to benign inflation for decades. If those forces have now run their course, is this a key path for higher inflation?

This outcome depends on the extent to which AI, and in particular a form of AI that is very much corporate-led in the West at least, leads to a level of automation that undercuts labor bargaining power. It is simply too early to scale the relative size of these effects. We would note, though, that long-run data from the Bank of England shows that the existence of a Phillips curve relationship very much depends on the long-run economic regime and the structure of working life. We reproduce this chart here in *Display 18*. The usual Phillips curve relationship, whereby a tighter economy implies wage bargaining power, only really applied from the late nineteenth century to the mid twentieth. Since then, the relationship has been gradually weakening (in line with a decline in unionization). Interestingly, this data shows that there was also no relationship for the 200 years prior to the industrial revolution, so it's possible that the period 1860–1950 was really the outlier.

DISPLAY 18: THE LOSS OF LABOR BARGAINING POWER
500 YEARS OF THE PHILLIPS CURVE



Current analysis does not guarantee future results.

As of June 2017

Source: Bank of England and AB

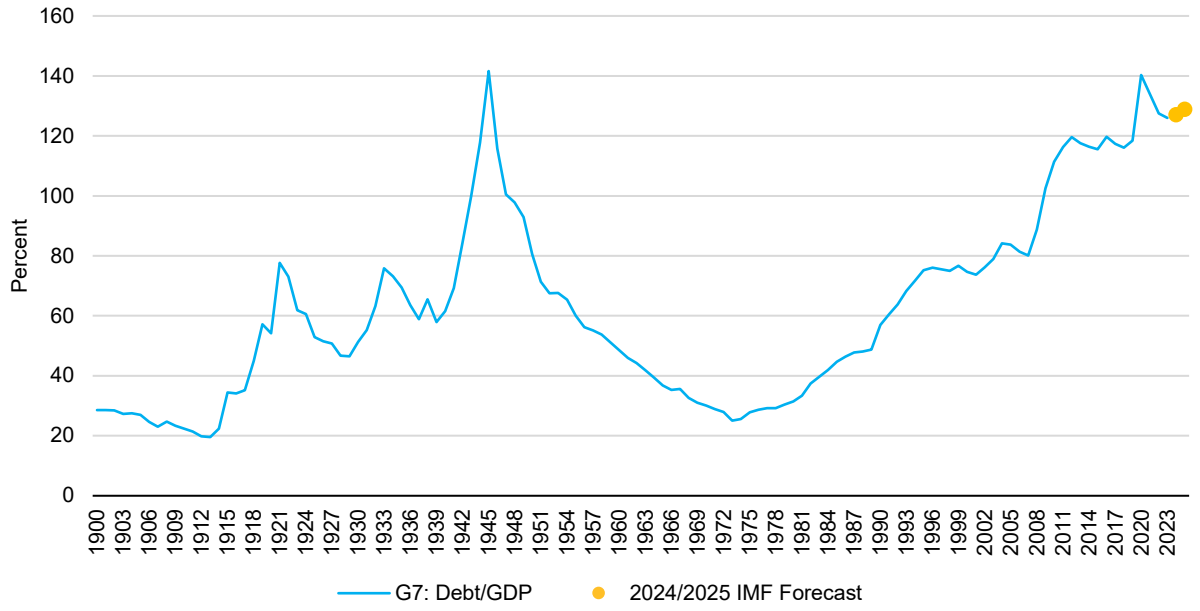
Debt monetization

Public levels of debt to gross domestic product (GDP) in the G7 counties are close to the historic highs reached after WWII (*Display 19*). Arguably, the current level understates the true magnitude of the problem, because rapidly aging populations imply significant increases in demand for pension and healthcare spending by governments across the world in the coming decades.

Rising levels of debt coupled with a turn in the long-run decline of interest rates imply that debt service as a share of government expenditure is going to rise significantly in the future. In the US, the Congressional Budget Office projects that net interest payments will become the largest share of government expense after 2050 (*Display 20*).

The focus of recent investor discussions on this topic has been the US. Neither candidate for the last presidential election proposed fiscal discipline, so presumably this trajectory would be unlikely to change come even the next election. But this is not just a US problem. Other G7 countries have top-of-range public debt, as well. In other countries, the debt burden might not be increasing at the same pace as it is in the US, but these nations also have inferior growth outlooks and lack a reserve currency. Thus, rising debt burdens are a global problem.

DISPLAY 19: G7 DEBT-TO-GDP RATIO HIGHLIGHTS A GROWING PROBLEM

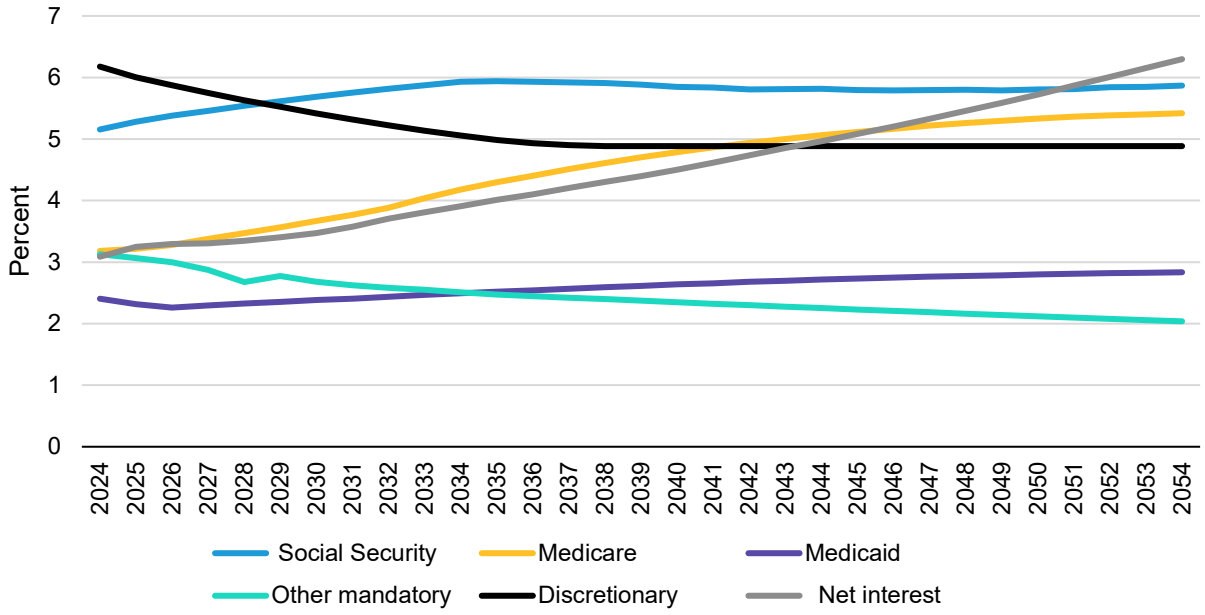


Current analysis does not guarantee future results.

Chart shows Government Debt/GDP for G7 countries weighted by nominal GDP denominated in USD. Data from 1900–2023 is from Global Financial Data. 2024/2025 forecast is from the International Monetary Fund. .

Source: Global Financial Data, International Monetary Fund and AB

DISPLAY 20: CONGRESSIONAL BUDGET OFFICE (CBO) SPENDING PROJECTION BY CATEGORY



Current analysis does not guarantee future results.

Note: The CBO projection presents data that supplement CBO's March 2024 report The Long-Term Budget Outlook: 2024 to 2054.

As of November 18, 2024

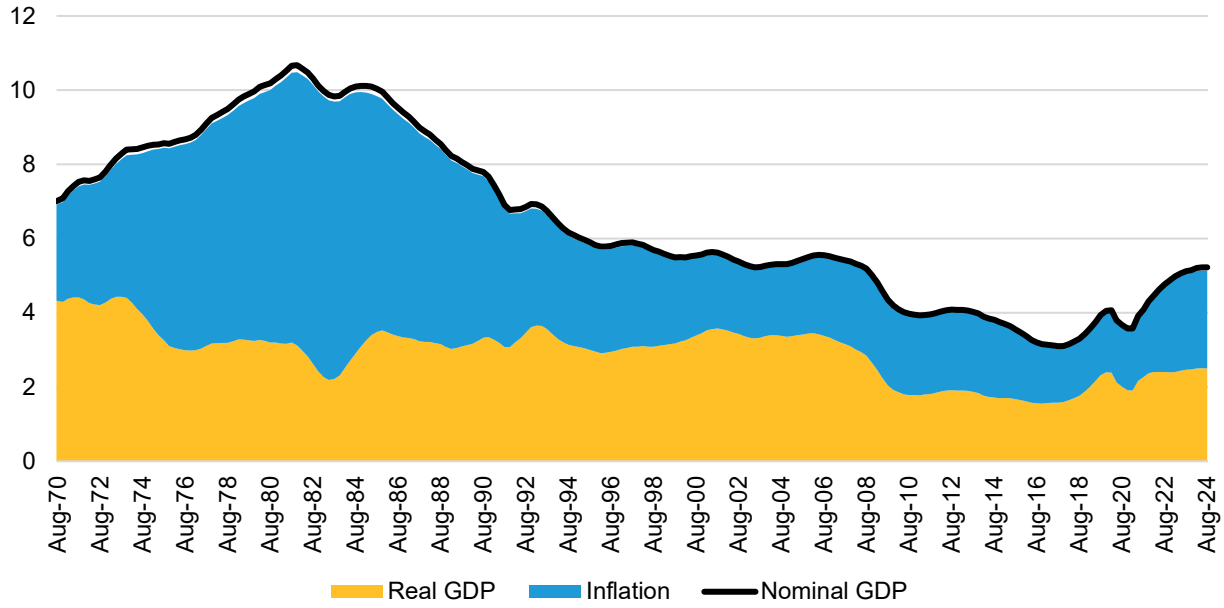
Source: Congressional Budget Office (CBO) and AB

What are the possible ways to bring debt levels under control?

The best possible scenario would be a sustained period of significantly higher GDP growth. However, we believe this will be very hard to achieve in a sustained way. As we show in *Display 21*, over the last 50 years US real GDP growth has stayed within a tight range. And given the outlook, which calls for demographics to severely limit the growth of available workers, supply chain pressures, slower immigration and reduced knowledge sharing among countries implied by deglobalization, we expect significant structural headwinds to growth going forward.

We admit that there is a possibility that advances in AI might drive big gains in productivity that would usher in a growth boom, but at this stage the outlook for AI is too uncertain to make it our base case. Historical experience suggests that large and sustained increases in productivity over a number of years are rare and very hard to achieve. Furthermore, we estimate that the increase in productivity from current levels required to offset the headwinds of demographics, deglobalization and energy transition would have to be on the same order of magnitude as the largest trough-to-peak productivity jump in any decade since the 1940s.

DISPLAY 21: US NOMINAL GDP COMPOSITION OVER TIME



Current analysis does not guarantee future results.

As of August 15, 2024

Source: LSEG Datastream and AB

The other possible route for addressing the debt burden is austerity. We are generally skeptical of the idea that a sufficient level of austerity is politically possible in democratic countries with aging populations. The new US administration is experimenting with a more radical form of austerity: Is this a route that could provide an alternative way out?

Display 22 shows the breakdown of federal government spending by category, illustrating the challenge of finding significant savings by cutting government spending. The largest expenditure categories are non-discretionary and related to social and income security, as well as Medicare & Medicaid, which Trump promised not to cut. Breaking that promise would be very politically contentious. And while there might be some savings in optimizing defense equipment procurement, large cuts to defense spending are unlikely given the current climate of heightened geopolitical risks. Thus, this leaves a very small proportion of overall spending that's discretionary and not defense related.

DISPLAY 22: US FEDERAL GOVERNMENT SPENDING BY CATEGORY

Expenditure	% of Total
Medicare	17%
Social Security	16%
National Defense	16%
Net Interest	12%
Health	12%
Income Security	8%
General Government	5%
Veterans Benefits and Services	4%
Education, Training, Employment, and Social Services	3%
Commerce and Housing Credit	2%
Transportation	2%
Natural Resources and Environment	1%
Community and Regional Development	1%
Administration of Justice	1%
International Affairs	1%
Agriculture	1%
General Science, Space, and Technology	0%
Energy	0%

Current analysis does not guarantee future results.

As of January 15, 2025

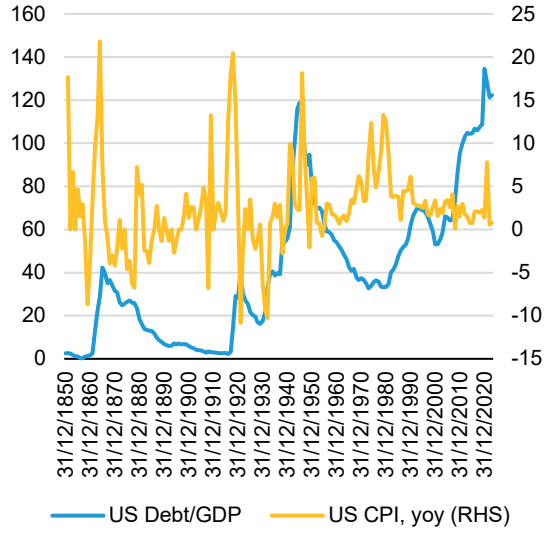
Source: Committee for a Responsible Federal Budget and AB

Is inflation the most expedient path politically to reduce the real value of debt?

We think that letting inflation run structurally higher will increasingly look like the easiest and most politically expedient option. Looking back to *Display 21* on page 16 (which shows US nominal GDP composition over time), periods of high nominal growth over the past 50 years were associated with significantly higher inflation. While we don't expect higher inflation to be an official strategy of any government or central bank in the developed world, if inflation settled above the recent average in the range of 2.5% to 3%, it leaves the possibility that monetary policy would not be tightened significantly to force it back to the 2% target. After all, US inflation has already been above the central bank target of 2% for four years.

Looking back over a much longer period, there is evidence that periods of high debt have been associated with periods of higher inflation. All the previous periods of a significant increase in debt levels have been associated with existential national conflict, such as the Napoleonic wars in the case of the UK, the US Civil War and then the WWI–WWII periods.

DISPLAY 23: US DEBT/GDP AND US INFLATION

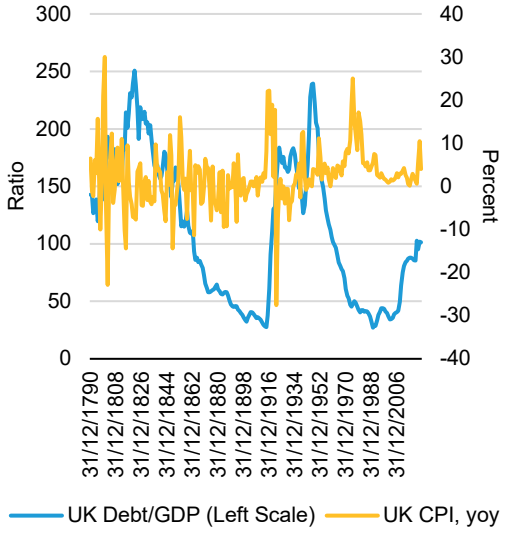


Past performance does not guarantee future results.

As of December 31, 2023

Source: Global Financial Data and AB

DISPLAY 24: UK DEBT/GDP AND UK INFLATION



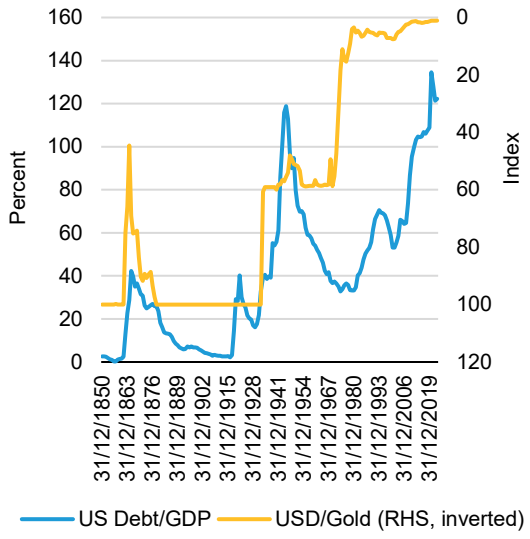
Past performance does not guarantee future results.

As of December 31, 2023

Source: Global Financial Data and AB

This amounts to a depreciation against gold. As this is not just a US problem, the implication, if this pattern is repeated, is to expect a long-term depreciation of all major fiat currencies against gold (*Displays 25* and *26*).

DISPLAY 25: US DEBT/GDP AND USD/GOLD

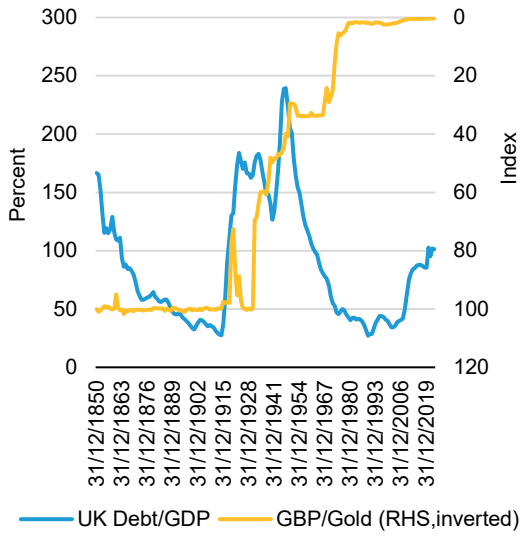


Past performance does not guarantee future results.

As of December 31, 2023

Source: Global Financial Data and AB

DISPLAY 26: UK DEBT/GDP AND GBP/GOLD



Past performance does not guarantee future results.

As of December 31, 2023

Source: Global Financial Data and AB

Some discission about this high level of public debt raise it as a national security issue. This goes beyond the scope of this discussion of inflation, but we think it is a valid point. The levering up of the economy over four decades makes the system more

fragile than it would otherwise have been. The large foreign holding of debt likewise introduces vulnerabilities, under the assumption that default is not an option.

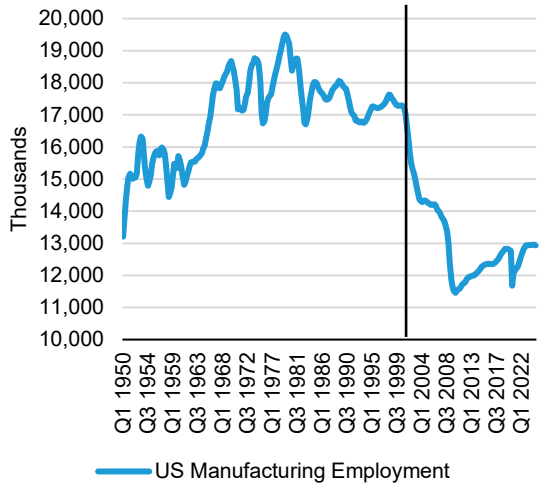
Deglobalization

Deglobalization is set to persist as a theme. Yes, it has been given a near-term acceleration by the announcement of trade tariffs. But beyond that, the forces driving deglobalization are a continued escalation in the US-China rivalry and a rejection of globalization within advanced economies, most clearly illustrated by the rising popularity of far-right anti-immigrant and protectionist parties around the world.

One of the key areas of US-China antagonism is the strong assertion by the incoming US administration that China has been stealing manufacturing jobs from the US. As *Display 27* shows, there had indeed been a sharp drop in US manufacturing jobs following China's accession to the World Trade Organization in 2001. But looking at a longer perspective, it is also evident that the manufacturing *share* of total jobs (as opposed to the absolute number) has been declining for a long time before that. While outsourcing of manufacturing production to China has contributed to the decline, it would have arguably happened anyway as the US economy shifted towards services.

The result of outsourcing and the potential threat of outsourcing manufacturing jobs to lower-cost areas as well as a structural decline in unionization rates (more on this later) was a significant decline in manufacturing worker bargaining power resulting in structural decline in real manufacturing wage growth (*Display 28*). Outside of recessions, growth has shifted from 1.8% per year pre-1980 to close to 0% after.

DISPLAY 27: PRIMA FACIE EVIDENCE THAT CHINA JOINING WTO IN 2001 WAS DEVASTATING FOR US MANUFACTURING JOBS

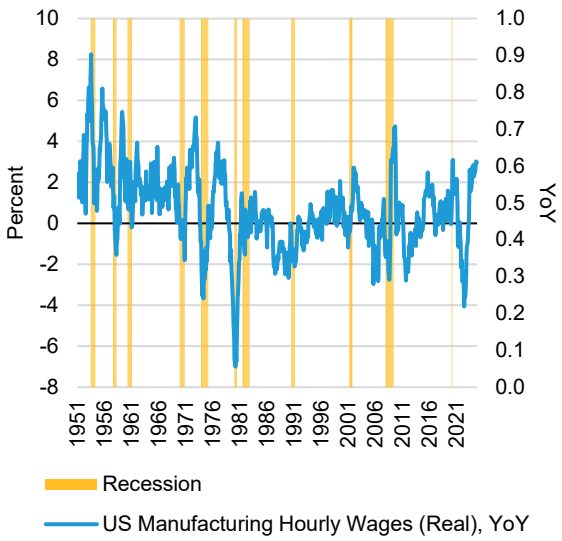


Past performance does not guarantee future results.

As of October 31, 2024

Source: LSEG Datastream and AB

DISPLAY 28: US MANUFACTURING REAL WAGE GROWTH: OUTSIDE RECESSIONS, GROWTH HAS DECLINED FROM AN AVERAGE OF 1.8% PA TO 0% PRE/POST 1980



Past performance does not guarantee future results.

As of November 15, 2024

Source: LSEG Datastream and AB

With much lower production costs, China was able to export disinflation primarily through much lower prices in consumer goods. This had acted as a deflationary impetus since Deng Xiaoping's reforms of the early 1980s—and especially since China gained WTO access. That process is now over, and is now a potential route for inflation in developed markets via both wages and goods. For example, Jaravel and Sager (2019) find that a one percentage point increase in import penetration from China caused a 1.9% decline in consumer prices.

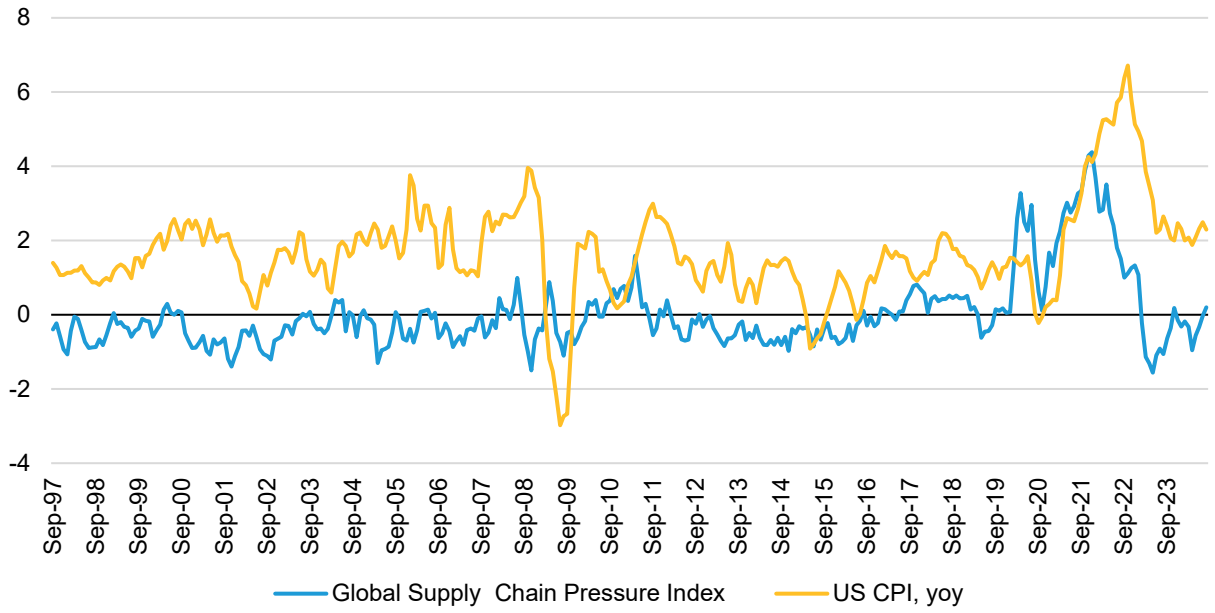
It is unlikely that any other country or even region will be able to fill the gap left by China. The two most obvious candidates would be India and Africa, as these are the areas where the working population is projected to continue to grow in the coming decades. However, India's economy is heavily services-oriented and does not have the required manufacturing capacity. Meanwhile, Africa, in addition to lacking manufacturing capacity, is hindered by a lack of necessary infrastructure, and many countries in the region have severe political instability and uncertainty. In both cases, we think it is simply implausible to sketch out a policy path by which those regions become connected to the global economy in a way that China did in the 1980–1990s.

The result is the continued re-shoring of supply chains as well as structurally higher spending on automation. Even assuming higher levels of productivity, the cost of domestically produced goods will be significantly higher than those made in China. Adding the extra capex required to build new factories and other necessary infrastructure on top of that will exert significant upward pressure on the price of consumer goods over time.

Moreover, the acute goods shortages during the COVID pandemic exposed the flaws of the "just in time" supply-chain operating principles favored over the past couple of decades. As the world moves away from this mode of operation and more toward "just in case" precautions, future supply chains will have more redundancies built in, so we expect inventory levels to be permanently higher than pre-pandemic levels. All this is going to come at a cost.

As shown in *Display 29*, supply chain pressures have been a significant driver of inflation volatility over the past five years. As deglobalization leads to trade barriers and more fragmented supply networks, it diminishes the ability of the global economy to absorb any price shocks. Thus, it should lead not only to higher structural inflation but also higher inflation volatility.

DISPLAY 29: SUPPLY CHAINS AND INFLATION:
CONCERN IS 1) NEED TO REBUILD SUPPLY CHAINS THAT DON'T ASSUME OPEN GLOBALIZATION AND 2) MORE-FRAGMENTED SUPPLY CHAINS AND LESS ABILITY TO CUSHION PRICE SHOCKS



Current analysis does not guarantee future results.

As of August 31, 2024

Source: Bloomberg and AB

Energy transition and climate change

We discussed the potential impact of a slower energy transition and, hence, worst climate outcomes on equilibrium inflation in more detail in our recent note. Whether the level of inflation is higher or not as a result depends very much on exactly how an energy transition comes about. But we think the clearer conclusion to draw is around the volatility of inflation.

Our view is that the energy transition will take much longer than the time frame generally assumed in the industry. Despite the very rapid price declines for renewable generation, the political and social costs of a transition appear very high. Moreover, while it has long been accepted that power demand in emerging economies had to rise to allow the poorest people to be lifted out of poverty, the surprise in recent years has been the significant increase in projected power demand for developed economies linked to AI. The relevance of this for our discussion here is that a significantly slower energy transition implies a worse climate outcome, with a high likelihood of breaching a two-degree temperature increase and greater incidence of extreme weather. It is the impact of extreme weather on the volatility of inflation that is key. Possible mechanisms are the fragility of supply chains, such as food and energy. A number of academic papers have tried to quantify this effect.

A European Central Bank (ECB) working paper by Faccia et al shows that temperature plays a non-negligible role in driving medium-term price developments, concluding that climate change matters for price stability. In another ECB working paper, Kotz et al suggest that future warming will cause global increases in annual food and headline inflation of between 0.92 and 3.23 percentage points per year and 0.32 to1.18 percentage points per year, respectively. These results suggest that climate change poses risks to price stability through an upward impact on inflation. Looking at the impact of extreme weather in particular, Mukherjee and Ouattara suggest that temperature shocks lead to inflationary pressures and find that these effects persist several years after the initial shock.

Bringing it all together

A diverse number of forces imply a higher equilibrium level of inflation. Some of these can be quantified to some extent, others are much harder to quantify.

- Demographic change brings an age cohort effect of inflation. The BIS paper on this estimates this effect to be on the order of three percentage points over the next 50 years.

- There is an extra demographic effect of an increased cost of care for people expected to live longer, and where care-heavy conditions like dementia have age as an explicit risk factor. It is simple to observe that the CPI basket for the elderly has a higher weight applied to healthcare than the basket for the overall population (a weight of 11% vs 8% in the US). We have pointed out that overall healthcare inflation has persistently run at a higher rate than general CPI, at an extra 150bp per annum since 1950. Simply adjusting overall inflation for a larger weight of healthcare-heavy elderly spending implies that, by the year 2050, broad CPI would be 30bp higher. However, we think this is an underestimate: it assumes the current pattern of spending for the elderly stays the same, when in fact there is a good case that it increases, given longevity and the incidence of care-heavy conditions.

- The risk of debt monetization is too uncertain a concept to assign an explicit inflation forecast; we prefer to characterize it as simply putting “upside risk” on inflation.

- Deglobalization is probably the most unambiguously inflationary force of all those discussed here, but again we would step back from putting a number on it. Tariffs are not, by themselves, really inflation; instead. They are more of a one-off step change in prices. However, the subsequent re-stitching of supply chains and broader policy changes that undo the globalization process of the last 30 years will likely be inflationary.

- As discussed in this note, whether an energy transition (albeit one that we think will be very delayed versus industry expectations) is net inflationary or not is a complex point. However, we do think that the very high likelihood that we pass the two-degree warming point implies more extreme weather as a norm and hence greater inflation uncertainty.

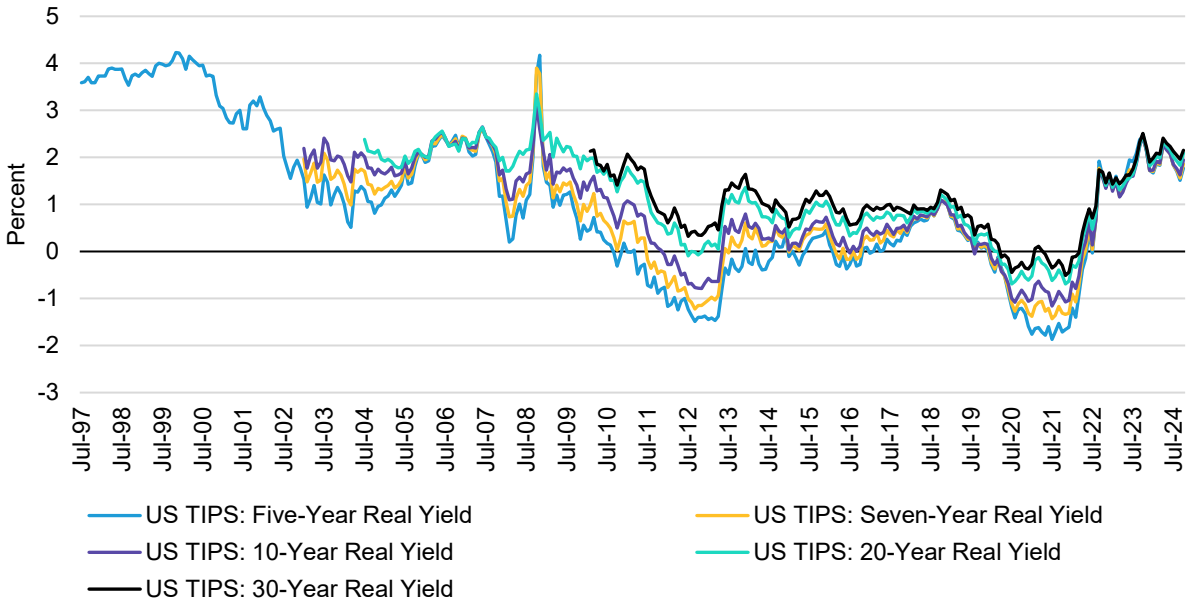
All things considered, our view is that the equilibrium level of US inflation 10 years forward will be in the region of 3%.

What does this mean for asset class returns?

A 3% medium-term inflation target warrants a structurally higher allocation to TIPS, in our view. As we show in *Display 30*, real yields across all maturities in the US have risen significantly over the last couple of years and are currently at the top of their range since 2010. This creates an attractive entry point for adding a standalone TIPS allocation or for switching the allocation from nominal to inflation-linked debt.

One of the likeliest potential risks to a TIPS allocation is that the term premium or sovereign risk is repriced significantly higher. We would favor an allocation to shorter-duration TIPS.

DISPLAY 30: TIPS YIELD BY MATURITY



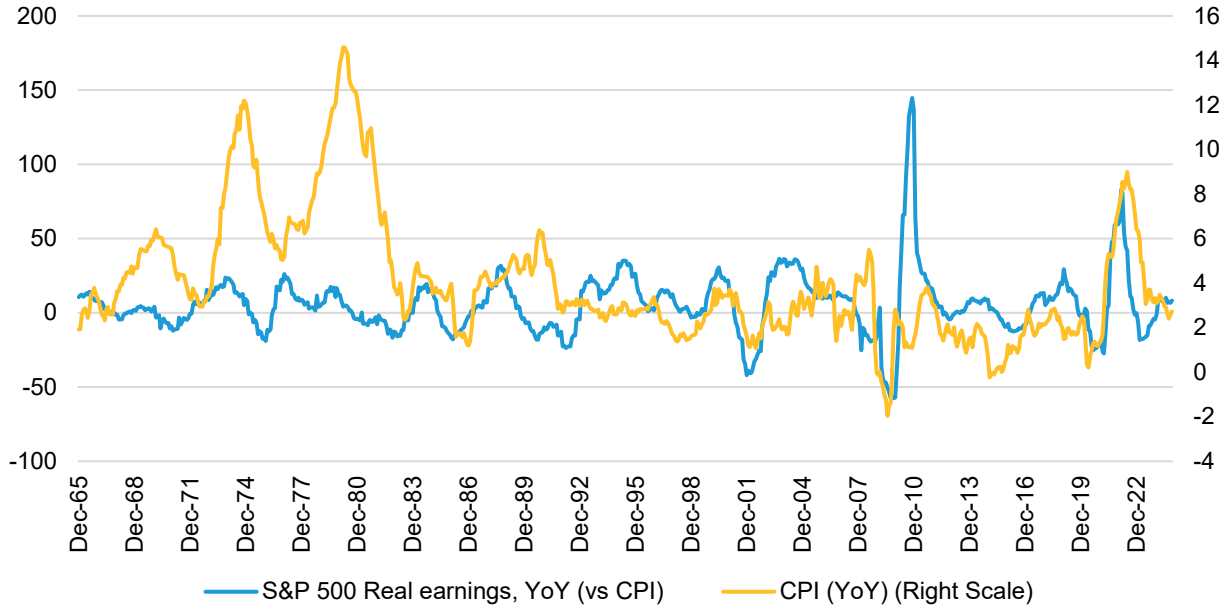
Current analysis does not guarantee future results.

As of October 31, 2024

Source: LSEG Datastream and AB

In an environment of moderately higher but not unanchored inflation, we think equities will remain a core building block of long-term asset allocation. When inflation is below 4%, equities have been an effective real asset, because companies are able to pass on higher costs to consumers and grow their earnings in real terms (*Display 31*).

DISPLAY 31: INFLATION AND REAL EARNINGS GROWTH



Current analysis does not guarantee future results.

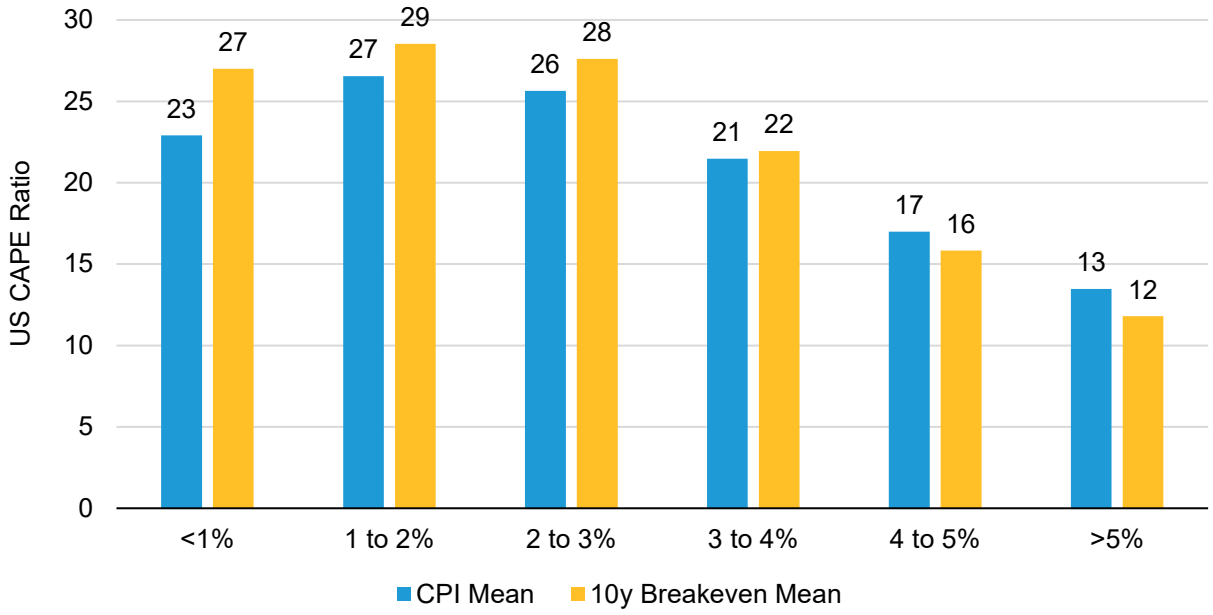
As of January 31, 2025

Source: LSEG Datastream and AB

The other potential constraint to equity returns is the demanded risk premium. This premium has a nonlinear relationship to the level of inflation. If there is a risk of deflation or high inflation, the risk premium rises because it is hard to make long-term forecasts of corporate cash flows. However, if inflation is between these levels, then a smaller risk premium is normal. The biggest headwind to the medium-term equity outlook is that current valuation multiples are at the top of their historical range. *Display 32* shows that historically, equity multiples were highest when inflation was close to or at the central-bank inflation target of 2%. But it also demonstrates that if inflation is contained around or below 3%, valuation multiples can remain elevated.

While we acknowledge that this is a headwind and we expect medium-term equity returns to be lower than what we have seen in the past 10 years, we expect them to deliver significantly positive real returns that compare favorably to what could be expected from other asset classes.

DISPLAY 32: EQUITY VALUATION MULTIPLES ARE MAXIMIZED AROUND 2% INFLATION



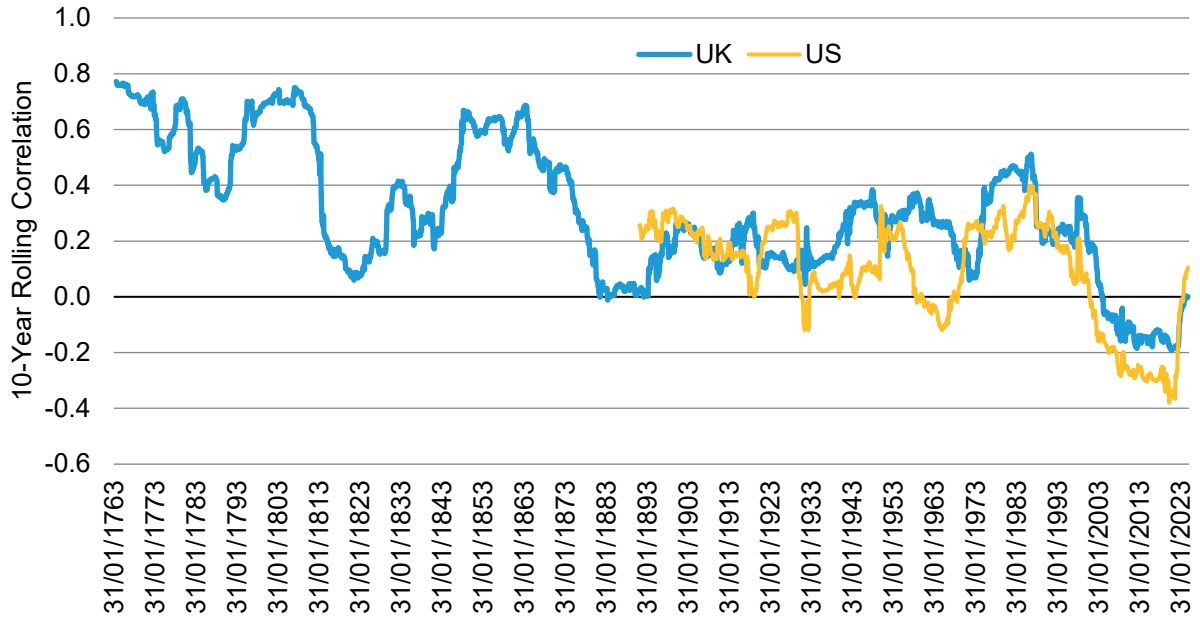
Current analysis does not guarantee future results.

Data from September 30, 1971 to August 31, 2022. Pre 1997, the 10-year breakeven rate is a backcast of implied inflation calculated by the New York Federal Reserve.

Source: NY FED, LSEG Datastream, Robert Shiller's Database and AB

Another important consideration of an outlook for higher but also more volatile inflation is that we expect the long-term stock versus bond correlation to remain positive (*Display 33*). This creates a challenge for portfolio construction and a need to find other assets that can help to diversify equity risk. Unfortunately, as we show in *Display 34*, inflation-linked bonds have also not been an effective diversifier in this case.

DISPLAY 33: THE DIVERSIFYING POWER OF BONDS IS LIKELY TO DECLINE



Current analysis does not guarantee future results.

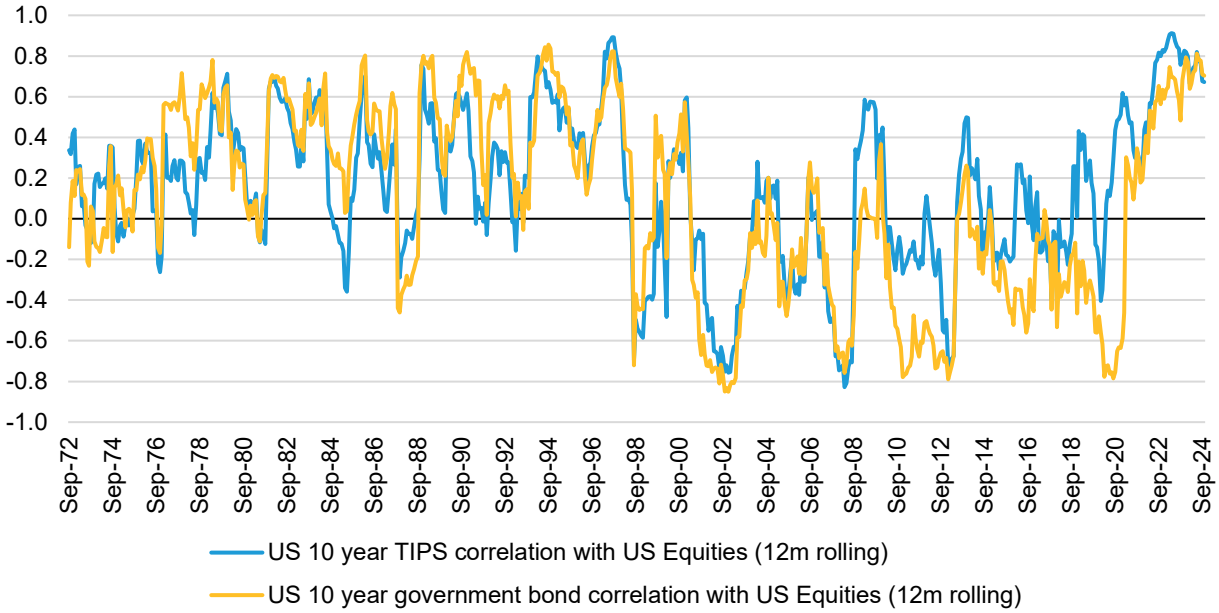
Rolling 10-year correlation between stock and bond returns.

As of January 31, 2025

Source: LSEG Datastream, Global Financial data, Shiller's database and AB

DISPLAY 34: NEITHER TIPS NOR NOMINAL BONDS ARE LIKELY TO DIVESIFY EQUITY RETURNS

US TIPS AND GOVERNMENT BOND CORRELATION WITH EQUITIES



Past performance does not guarantee future result.

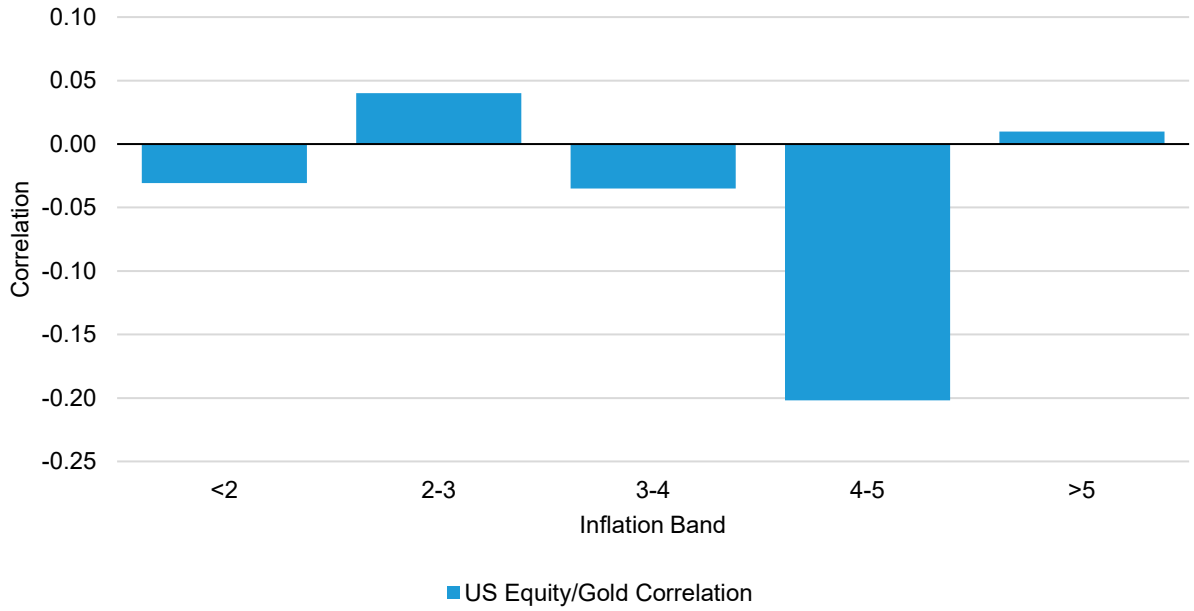
As of October 31, 2024

Source: LSEG Datastream and AB

This situation calls for a higher structural allocation to real assets that have a low or imperfect correlation to equities. None of these are quite as effective as the strongly negative correlation that bonds enjoyed in recent decades, but we think that correlation is very hard to achieve at scale for long-only asset classes, given the economic outlook. Low-correlated assets could include real physical assets such as farmland and infrastructure. Also, for diversification purposes in particular, gold has a role to play. A key attraction to gold is that over long horizons its correlation to equities has been close to zero and largely invariant to the inflation level (*Display 35*). And over the last 170 years, gold has successfully delivered a positive (although not very high) real positive return. We view a gold allocation primarily as a diversifying asset as well as a hedge against geopolitical risks and the possibility of an inflation overshoot.

We also note that gold should continue to benefit from the strong demand from central banks that we have seen in the past few years. The main driver for this demand is the attempt at de-dollarization by emerging market countries that view the weaponization of the US dollar as strategically harmful and wish to diversify their foreign exchange reserves.

DISPLAY 35: GOLD AND EQUITY CORRELATION IN DIFFERENT INFLATION REGIMES



Current analysis does not guarantee future results.

Note: The chart shows 12-month rolling correlation from January 1969 through to October 2024 bucketed by inflation band.

Source: Global Financial Data, LSEG Datastream and AB

We have shown in earlier research that gold and other commodities historically have been particularly effective in hedging short-term spikes in inflation. However, investors with long-term time horizons seeking to achieve a certain real return objective should also consider higher allocations to other real assets, such as real estate, farmland and timberland, and inflation-linked infrastructure assets.

The bottom line is that a higher equilibrium level of inflation implies a higher allocation to real assets, including public equities as a real asset. More fundamentally, it calls for a reassessment of governance in the form of a greater focus on the preservation of real purchasing power and the implicit or explicit recognition of inflation as a benchmark, as opposed to benchmarks founded only in financial market indices.

Bibliography

Ciccarelli et al (2023) The Asymmetric Effects of Weather Shocks on Euro Area Inflation, ECB Working Paper No. 2023/2798

Faccia et al (2021): Feeling the Heat: Extreme Temperatures and Price Stability, ECB Working Paper No. 2021/2626

Juselius and Takáts (2018): The enduring link between demography and inflation (BIS working paper no 722) https://www.bis.org/publ/work722.pdf

Kingston, Comas-Herrera and Jagger (2018) Forecasting the care needs of the older population in England over the next 20 years: estimates from the Population Ageing and Care Simulation (PACSim) modelling study, The Lancet Volume 3, Issue 9, September 2018. Available at https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(18)30118-X/fulltext#:~:text=We%20find%20that%2C%20over%20the,two%20or%20more%20other%20diseases.

Kotz et al (2023) The Impact of Global Warming on Inflation: Averages, Seasonality and Extremes ECB Working Paper No. 2023/2821

Letta et al (2021) Weather shocks, traders' expectations, and food prices https://onlinelibrary.wiley.com/doi/full/10.1111/ajae.12258

Mukherjee and Ouattara (2021) Climate and monetary policy: do temperature shocks lead to inflationary pressures? https://link.springer.com/article/10.1007/s10584-021-03149-2

Nashville
501 Commerce Street
Nashville, TN 37203
United States
(615) 622 0000

New York
66 Hudson Boulevard East
New York, NY 10001
United States
(212) 969 1000

London
60 London Wall
London EC2M 5SJ
United Kingdom
+44 20 7470 0100

Singapore
One Raffles Quay
#27-11 South Tower
Singapore 048583
+65 6230 4600

Tokyo
Hibiya Parkfront 14F
2-1-6 Uchisaiwaicho,
Chiyoda-ku
Tokyo, 100-0011, Japan
+81 3 5962 9000

Toronto
200 Bay Street, North Tower
Suite 1203
Toronto, Ontario M5J 2J2,
Canada
(647) 375 2803

Sydney
Level 32, Aurora Place
88 Phillip Street
Sydney NSW 2000
Australia
+61 02 9255 1200

Hong Kong
39th Floor, One Island East,
Taikoo Place
18 Westlands Road
Quarry Bay, Hong Kong
+852 2918 7888

objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement. AllianceBernstein L.P. is not licensed to, and does not purport to, conduct any business or offer any services in Taiwan. **Note to Readers in China:** This information contained here reflects AllianceBernstein Hong Kong Limited ("AB") or its affiliates and sources it believes are reliable as of the date of this publication. This presentation has been provided to you for the sole use in a private and confidential meeting. AB makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized. Past performance does not guarantee future results. The views expressed here may change at any time after the date of this publication. This presentation is for informational purposes only and does not constitute investment advice. AB does not provide tax, legal or accounting advice. In considering this material, you should discuss your individual circumstances with professionals in those areas before making any decisions. This presentation or any information contained or incorporated by reference herein does not constitute an offer to sell or the solicitation of an offer to purchase any financial instrument, product or service sponsored by AB or its affiliates within the People's Republic of China ("PRC", for such purposes, excluding Hong Kong, Macao and Taiwan). **Note to Readers in Vietnam, the Philippines, Brunei, Thailand, Indonesia and India:** This document is provided solely for the informational purposes of institutional investors and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement and is not intended for public use or additional distribution. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in any of the above countries.

ICN20250353