Morgan Stanley
INVESTMENT MANAGEMENT

Global Multi-Asset Viewpoint

The Five Forces of Secular Inflation

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Three years after inflation began to rise, it remains substantially above target in most major economies except China. A number of cyclical factors, including temporary supply disruptions, have coalesced to lift inflation so far.[1] While many of them are reversing and some cyclical moderation of inflation is likely, we suspect that several secular forces are at work to raise inflation structurally. We have termed these forces the "5 D's" of secular inflation: dovish policy shifts, deglobalization, decarbonization, demographics as well as debt and deficits. These structural forces have the potential to make the eventual trough in inflation higher than target and result in average inflation remaining above target for a number of years, perhaps by 1 to 2%. If this is correct, there is substantial room for repricing of inflation-sensitive assets as most are priced for a return to the low inflation regime that dominated in the decade prior to COVID.

Despite a recent moderation in inflation, most readings in the majority of large economies remain substantially above target. So far, disinflation has

DISPLAY 1

DM Core inflation has come down only slightly from its peak

Developed Market Core Inflation, YoY

Source: MSIM Global Multi-Asset Team Analysis, Dallas Fed, and Haver Analytics. Data as of April 10, 2023. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

[1] Please refer to MSIM Global Multi-Asset Team's May 2020 "Stars Aligned for Higher Inflation" and July 2021 "Inflation Outlook – One Year Later" *Viewpoints* for more details.

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been largely limited to lower commodity prices as well as some moderation of goods prices. Most core inflation measures remain above targets (see *Display 1*) and the most representative core measures show only gradual moderation. Inflation forecasts have been persistently too low relative to the actual outturns. While the components of inflation that are supply-driven have moderated, the contribution from demand-driven inflation remains at 2.2% YoY, substantially above its 2000-2019 average of 0.4%.[2] Why has inflation been slow to return to target?

Near-term: Policy Lags

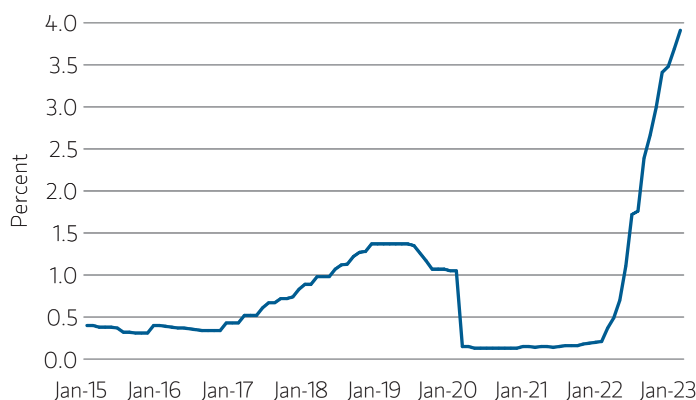
The obvious (partial) explanation is policy lags. Inflation moderation takes time. It typically lags growth and policy and today these lags may be more substantial than in the past because of the unprecedented size of the fiscal response to COVID, as well as forced accumulation of savings during periods of mobility restriction. It appears that the impact of fiscal stimulus has nearly run its course. Savings rates in most major economies have returned to normal levels, even undershooting in some. Accumulated excess savings that supported consumer spending even as real incomes struggled last year are inexorably getting closer to depletion.

Delayed and possibly insufficient monetary tightening also played a role in prolonging the inflation outbreak. But monetary policy too is finally working to slow growth. With policy rates in G-10 having risen to 4%, the neutral real policy rate is now positive on an expected basis for the first time since 2008. Housing markets in many (especially the dollar block) economies have seen pronounced downturns which have begun to affect consumption. In the US, higher rates are squeezing bank profitability and leading to deposit outflows from the banking system leading to tighter credit conditions and slower loan growth. As growth slows further, labor markets, which so far have remained tight in G-10, will likely begin to cool appreciably and core measures of inflation will likely decelerate. This process is at an early stage at present as unemployment rates in G-10 remain at historic lows.

DISPLAY 2

DM policy rates back to highest levels since '07

Dallas Fed Developed Market Policy Rate Composite



Source: MSIM Global Multi-Asset Team Analysis, Dallas Fed, and Haver Analytics. Data as of April 10, 2023. Forecasts/estimates are based on current market conditions, subject to change, and may not necessarily come to pass.

Medium-term: 5 "D"s of higher inflation

Looking beyond any near-term cyclical disinflationary forces, we believe there are five medium-term structural forces that are likely to keep inflation higher for an extended period. These 5 D's of secular inflation are: Dovish Monetary Policy Shift, Deglobalization, Decarbonization, Demographics as well as Fiscal Deficits and Debt.

Dovish Policy Shift

Fiscal policy has been excessively stimulative in recent years. COVID fiscal stimulus in the US was excessive relative to the demand loss at the time and was followed by additional spending packages (IIJA, IRA, CHIPS and Science Act). The deficit impact of some of this legislation, especially the Inflation Reduction Act, remains difficult to estimate as it depends on the uptake of the various subsidies it offers. Some recent estimates put it at $1.2 trillion versus the Congressional Budget Office's (CBO's) original estimate of $390 billion.[3] In the Eurozone, a series of fiscal packages helped lift inflation while fiscal rules were suspended due to COVID and the war in Ukraine. Although the impact of the fiscal measures is lessening, no effort is being made to tackle persisting deficits. The US Congressional Budget Office revised higher its projected 10-year primary budget deficit from 2.5% last year to 3.0% in its 2023 annual outlook. In our opinion, this is an optimistic forecast which, among other things, assumes defense spending cuts and does not reflect the impact of a recession over the 10-year forecast period, both seemingly unrealistic expectations. Our forecast for the primary annual budget deficit in the US over the next ten years is closer to 5% of GDP.

Major central banks have been de facto tolerating higher-than-target inflation for the past three years and do not expect inflation to return to target levels for another two years. The risk of being too dovish is still high as signs of willingness to pause monetary policy tightening at the first sign of trouble

[2] Based on the San Francisco Fed's disaggregation.

[3] See "The Third American Energy Revolution" March 2023 by Goldman Sachs Research. The report shows the cost of various tax credits could be 3x the CBO's original estimates. The cost of the EV tax credit alone could be nearly $400 bn over 10 years.

have already appeared. In Korea, as higher mortgage rates led to affordability problems for overstretched homeowners, authorities stepped in to protect the most vulnerable borrowers from excessive increases in debt servicing by limiting allowed mortgage rate increases. Meanwhile, core inflation remains above target at 4%. In the US, in response to deposit flight out of some banks, the authorities were quick to offer additional lines of liquidity and preemptively take over institutions (e.g., Signature Bank). Although the dovish panic has not yet occurred—the Fed did hike 25 basis points in March and New Zealand's central bank by 50 basis points in early April—severe tests by pronounced growth slowdowns and weaker labor markets have yet to come.

The rationale of sticking to a 2% inflation target rather than lifting it to 3% is continually publicly debated. Traditionally, inflation spikes as a result of supply shocks (e.g., high oil prices) have been treated as temporary and ignored. It appears especially likely today that if persistent inflationary pressures from various structural factors, which are discussed below, come to be recognized as being beyond the control of monetary policy, they will be treated as 'supply shocks' have been traditionally. Thus, the probability that monetary policy tightening will be reversed quickly as growth weakens appears high. Consequently, the chance of inflation troughing at a higher than target rate is also elevated. In our *Viewpoint* publication from July 2021, we termed such a scenario as a "60s-style dovish policy error" and assigned a substantial probability to it. Recent developments suggesting other inflationary forces are becoming more pronounced indicate that such a policy error is highly probable.[4]

Deglobalization

The economic and political logic for a pause in the rapid advance of globalization was somewhat evident even before the pandemic. The productivity-adjusted labor cost differential between western economies and China has narrowed, and China's export competitiveness diminished somewhat as its share of global exports began to stall. Global goods trade declined by approximately 1.4 percentage points from the peak in 2008 to 49.7% of GDP by 2022. Internal divisions in advanced economy societies have led to protectionist trade policies enacted in the US in the years leading up to the pandemic, reversing the previous decline in tariffs (which had fallen from 9% in the mid-1990s to 3% in 2017). Security of supply concerns rose during the pandemic as many western economies found themselves dependent, almost exclusively at times, on imports of certain vital goods and inputs from China. Over the past two years, the rift between China and the west has acquired an added geopolitical dimension as economic competition has come to be seen as a key element of a broader contest for global influence. Various measures have been enacted in the US to lessen dependence on economies deemed unfriendly and, in the case of China, to limit China's access to advanced technology. The CHIPS act was enacted in August 2022 to encourage onshore semiconductor industry investment in the US. The IRA legislation, although primarily focused on decarbonization, incorporates incentives for shifting production of related technologies to the US or to friendly countries. In Europe, energy transition-related legislation (European Green Deal, REPower UE Plan and EU Green Industrial Plan), while it does not discriminate against foreign producers in the way that the US IRA does, nevertheless also contains provisions stipulating limits on geographic mix of externally sourced raw materials.

Unsurprisingly, companies have started reshoring and nearshoring. Anecdotes of higher costs that are likely to result from this abound: TSMC's (Taiwan Semiconductor Manufacturing Company's) original plans for a factory in Arizona envisioned a $12 billion investment; at the end of last year the cost was revised up to $40 billion. On a recent call with investors, a company representative indicated that the cost of manufacturing in the US is at this point twice as high. The IRA stipulates, for example, that solar equipment be manufactured in the US or in friendly countries. As a result of these policies and probably expectations of additional similar ones, discussions of reshoring by companies are on the rise.

Assessments of the future inflationary impact of deglobalization obviously vary depending on the speed and degree of deglobalization. On the current trajectory of rising geoeconomic fragmentation, it is fair to assume not only that the previous, persistent disinflationary impulse will be gone, but also that as a result of its reversal the impulse will become inflationary. One estimate suggests that the decline of tariffs in the past couple of decades lowered producer price inflation by 0.3% per year.[5] Another estimate of the impact of deteriorating trade estimates the impact will be 0.5% higher PCE on average.[6] By some other estimates, curtailing trade by 25% with China and other countries with lower wages would raise core PCE in the US by 0.4% per year.[7] Most of the estimates of the impact of

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[4] Please refer to MSIM Global Multi-Asset Team's July 2021 "Inflation Outlook – One Year Later" *Viewpoints* for more details.

[5] Andrews, Dan, et al. "Will the Inflation Genie Stay in the Bottle?" *OECD Observer*, ECO/WKP(2018)10, 20 Mar. 2018.

[6] Nathan, Allison, et al. "(De)Globalization Ahead?" Goldman Sachs Research, 28 Apr. 2022,

[7] *Ibid.*

deglobalization on inflation tend to focus on the impact of lower goods prices. But it is likely that higher slack in goods-producing industries made the broader labor market less tight and depressed wages overall, thereby likely dampening inflationary pressures throughout the economy. A reversal of this dynamic would likely lead to structurally tighter labor markets than over the past 20 years.

Decarbonization

Over recent years, efforts to accelerate the transition to carbon neutrality have led to a flurry of major legislation, subsidies, spending packages, regulations and new rules. Given the complexity and the multitude of these measures, assessing their macroeconomic impact conclusively has been difficult for most observers. At the optimistic end of the spectrum, the IMF, based on the GMMET (The Global Macroeconomic Model for the Energy Transition) Model[8,9] found the impact on inflation to be nearly negligible: 0.1 to 0.4 percentage point of extra inflation per year. On the more pessimistic side, a number of commentators and policy makers, including the ECB's Isabel Schnabel, have acknowledged the likely significant inflationary impact of decarbonization.[10]

In our view, rapid decarbonization is already having a pronounced inflationary impact and we expect it to continue over the coming decade. Spending to replace the existing fossil-fuel based energy system represents a substantial macroeconomic demand shock. Current estimates put required spending at $3-5 trillion per year, or roughly 3-5% of global GDP. Advanced economies will likely see related spending representing a larger share of GDP. Of course, this spending could be funded via taxation and as such result in a dramatic shift from consumption to investment, without causing the overall price level to rise. However, due to the public's limited willingness to pay for decarbonization, additional taxation is likely politically not palatable, as responses, such as the Yellow Vests in France, have illustrated. At the same time, because decarbonization is supposedly done for the benefit of future generations, incurring public debt to finance it may be politically more acceptable than spending on society's current needs such as social obligations to older generations. Thus, it is likely that decarbonization will result in de facto ongoing fiscal stimulus, likely funded by ongoing deficit spending, and will result in higher inflation (or "greenflation" as the ECB's Schnabel termed it).

Decarbonization is also affecting inflation via the supply side, by restricting investment in resources needed for current consumption and to rebuild the energy system. Capital flow is increasingly restricted to the resources sector and companies are pressured to either decarbonize their current businesses (e.g., Fortescue Metals Group, an iron ore miner, aiming to achieve carbon neutrality by 2030, or Occidental Petroleum's plan to become carbon neutral via investment in carbon capture) or by limiting investment in their current fossil fuel businesses and shifting to renewables (e.g., European integrated oil companies). This adverse supply shock is going to be all the more pronounced given the large increase in demand for certain minerals to achieve decarbonization. Substantial supply shortfalls of certain key metals looms, as mineral demand will rise six-fold by 2050 if net zero is pursued, according to a recent IEA report.[11] This would likely cause price spikes and shortages along the way due to the adverse commodity supply influence of ESG coupled with increased demand for many commodities.

In addition to the impact of spending on decarbonization and rising cost of traditional fuels as they are made scarce and expensive, as decarbonization progresses, its marginal costs are likely to increase due to the steep abatement cost curves. Despite expectations for innovation to drive costs down, over recent years estimated cost curves remained fairly static, absent subsidies. The cost of renewable energy appears to have been increasing in recent years, contrary to previously reported declines. Even as renewables unit costs have fallen, their broader impact on the distribution and storage networks have resulted in higher and often volatile electricity prices. For example, UK power prices skyrocketed in 2021 due to slow wind conditions and shortfalls in wind-generated electricity. In 2022, the UK spent GBP 150 per household to address high-cost peaking capacity during periods of renewables shortfalls.[12] Higher input prices have the potential to result in cost increases. For example, according to

[8] The Global Macroeconomic Model for the Energy Transition (GMMET) is a multi-region model configured for four regions – the United States, the euro area, China, and a fourth block for the rest of the world. It belongs to the class of large-scale structural New-Keynesian dynamic general equilibrium models that are traditionally used for the quantitative short- and medium-term analysis of monetary and fiscal policy. The model's macroeconomic core is inherited from GIMF (the IMF's Global Integrated Monetary and Fiscal Model). Consequently, it includes tradable and non-tradable goods sectors, liquidity-constrained and overlapping-generations households, a wide menu of real and nominal rigidities, a fiscal sector with a variety of fiscal instruments, and a simple monetary policy rule.

[9] International Monetary Fund. 2022. *World Economic Outlook: Countering the Cost-of-Living Crisis*. Washington, DC. Oct. 2022

[10] Schnabel, Isabel. "A New Age of Energy Inflation: Climateflation, Fossilflation and Greenflation." European Central Bank, 17 Mar. 2022, https://www.ecb.europa.eu/press/key/date/2022/html/ecb.sp220317_2~dbb3582f0a.en.html.

[11] Kim, Tae-Yoon. "The Role of Critical Minerals in Clean Energy Transitions." IEA, May 2021, https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions.

[12] Nuclear Industry Association. "Cost of Balancing Britain's Power Grid Shatters Record", (niauk.org). Feb. 2023.

WindEurope, the price of wind turbines rose 40% in 2021-22 due to higher input costs.[13] As a result, orders for new wind turbines fell in 2022 and investment in European wind capacity fell in 2022, rather than increasing as is needed based on EU plans. Secondly, manufacturing costs are likely to rise as local or 'friendly country' supply content requirements of the IRA and some European legislation will lead to production relocating to higher cost countries. On balance it is hard to imagine how a 3-5% of GDP ongoing spending spree, likely deficit-financed, amidst disrupted supply side will not result in a large and sustainable increase in inflation. Estimating the precise effect is hard but it seems likely that a 1-2% additional annual inflation is likely, if decarbonization is indeed implemented further.

Debt and Fiscal Deficits

As we discussed in more detail in a recent note,[14] unprecedented debt burdens in most major economies are colliding with primary budget deficits that are becoming increasingly structural in nature. In the example of the US, with a net government debt to GDP ratio of 100% and a 5% primary budget deficit over the next 10 years, real interest rates on US government debt would need to be negative 3.3% for the debt to GDP ratio to remain stable (this assumes US trend GDP growth of 1.7%). Even if policy rates return to zero and the yield curve is kept flat via quantitative easing (QE), inflation would need to be 3.3% (to achieve negative -3.3% real interest cost) to prevent debt from ballooning. By contrast, if the real interest cost of government debt is positive 1%, in 10 years US debt/GDP will snowball to over 140% of GDP. The actual outcome will likely lie somewhere in the middle such that the full debt stabilization will not be achieved but negative real rates (via higher inflation) will mitigate its increase. This mild 'financial repression' (i.e., lower than normal real interest rates) has a strong historical precedent in the post-World War II deleveraging period which started with similarly elevated government debt and led to real interest rates remaining negative until the 1980s.

Arguably, the need for financial repression today may be larger than back then due to the high stock of private debt and wider budget deficits. The pressure on budget deficits to remain high is significant due to rising social spending (as discussed under 'Demographics' below), higher defense spending and decarbonization-related spending and subsidies.

Demographics: Rising Dependency Ratios

The inflationary impact of the rising dependency ratio appears to be intuitive and has been widely discussed.[15] The entry of low-cost economies, mainly China, into the global economy since the 1980s drove an increase in the global labor force from about 0.6 billion to 1.5 billion between the mid-1970s and the 1990s. The aggregate labor force peaked at approximately 1.9 billion people in the middle of the last decade and is expected to decline in coming decades. At the same time the number of older, retired persons is expected to increase, from 200 to 350 million in advanced economies. The shrinking working age population relative to the growing retired population is likely to cause an aggregate supply shortfall relative to demand. Obviously, this assumes that steady, or even increasing, consumption in old age will continue to be supported via government social and healthcare spending commitments. This appears unlikely to change in advanced economies, where voters over 65 years of age will outnumber 20 to 40-year-olds within just a few years, making a reduction of social spending politically very difficult. While Japan is often cited as evidence of an ageing population leading to deflation, it is just the exception that proves the rule. It is more likely that Japan's inflation dynamics were overwhelmed by China's integration into the global economy and the downward pressure on labor costs this caused, enabling Japan to in effect monetize its deficit spending without inflationary consequences, at least so far.

In Conclusion – Portfolios Need to be Prepared for the Lasting Impact of Secular Inflationary Forces

Although it is difficult to quantify with any precision the impact of each of the "5 Ds" or secular inflationary forces described above, it seems likely that the combined effect will be pronounced. Our estimate is that it will lift inflation in major economies by 1 to 2 percent above targets. While there are risks to the forecast of higher inflation, it seems that on balance the probability of it materializing is quite high. This is because many of the secular forces discussed above are closely linked, e.g., decarbonization leading to higher budget deficits; or demographics accelerating deglobalization; or decarbonization also contributing to deglobalization, as discussed above. As such, they together constitute an inflationary shift in the macro environment.

[13] WindEurope. "Europe Invested €17BN in New Wind in 2022, the Lowest since 2009." 29 Mar. 2023, https://windeurope.org/newsroom/press-releases/europe-invested-e17bn-in-new-wind-in-2022-the-lowest-since-2009/.

[14] Please refer to MSIM Global Multi-Asset Team's February 2021 "What's in Store for Real Rates in the U.S.?" *Viewpoint* for more details.

[15] Goodhart , Charles, and Manoj Pradhan. "Demographics Will Reverse Three Multi-Decade Global Trends." Bank for International Settlement, Aug. 2017, https://www.bis.org/publ/work656.pdf.

As we have written in the past, traditional balanced portfolios (comprised of equities and bonds) historically tend to perform poorly in higher inflation environments.[16] And today many of the assets that dominate balanced portfolios, such as US equities and the US dollar, are significantly overvalued. By contrast many assets that tend to perform well in high inflation environments are attractively valued. We continue to advise that investors consider strategically increasing exposure to real assets, inflation-linked bonds, value equities and non-US assets.[17]

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[16] Please refer to MSIM Global Multi-Asset Team's September 2022 "Difficult Decade Ahead for the Balanced Portfolio" *Viewpoint* for more details.
[17] Please refer to MSIM Global Multi-Asset Team's April 2018 "Navigating Higher Inflation: An Empirically-Based Multi-Asset Approach" *Viewpoint* for more details.

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