Principal Asset Allocation

Principal Asset Management[™]

Adapting to economic paradigm shifts

The strategic importance of real assets

KEY TAKEAWAYS

- 1. Long-term economic trends imply that we are now entering a new economic paradigm.
- 2. We've identified four global drivers, the 4 Ds, for short. They are: deglobalization, demographics, decarbonization, and deficits.
- 3. Investors should look to real assets to diversify beyond the traditional 60/40 portfolio (60% stocks, 40% bonds).

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Current data, alongside several longstanding global shifts, reveal that the global economy is transitioning. Due to several sizable macroeconomic trends, ranging from deglobalization to rising commodity costs, the global economy may be shifting from a low inflationary paradigm driven by disinflationary forces to an inflationary paradigm. Therefore, investors must consider their options for diversification.

Disinflationary pressures have subsided, likely stalling the run in equities and bonds. How might investors protect their portfolios and potentially provide portfolio resilience? We believe the answer is allocating to real assets. Real assets include commodities, natural resources, infrastructure, and real estate, among other categories.

Real assets are known investment entities, which can be appealing to more risk averse investors. Investing in real assets has an increased degree of relevance today, as they can serve as hedges against inflation and volatility, which can benefit even a well-diversified investor. Investors should look to real assets to diversify beyond the traditional 60/40 portfolio.

We've identified four global drivers behind the emerging economic paradigm investors should keep in mind while constructing portfolios. They are reversals of drivers in the previous disinflationary paradigm. We refer to them as the 4 Ds, for short: deglobalization, demographics, decarbonization, and deficits.

Global drivers behind the emerging economic paradigm

DEGLOBALIZATION

DEMOGRAPHICS

DECARBONIZATION

DEFICITS

DEGLOBALIZATION

← тне prior paradigm Globalized supply chains

Global market integration has enabled companies to access more affordable goods and services, worldwide. The rise of manufacturing economies like China, with vast and cost-effective labor and factory assets, exerted a downward force on wages and product prices. In developed nations, this led to "imported deflation." Although this effect was partially counterbalanced by rising domestic inflation in service sectors, such as health care and education, globalization impact leaned towards disinflation.

World trade continues to fall



As of September 30, 2023. Source: CPB Netherlands BEPA, Bloomberg, Principal Global Investors.

THE CURRENT PARADIGM Deglobalized supply chains

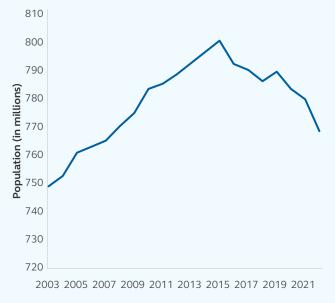
Geopolitical tensions, the rise of populism, and supply chain disruptions dramatically altered these trajectories. Populism redirected political will in favor of fortifying domestic economies over integrating international trade arrangements, the pandemic accelerated this de-integration with a major disruption of global supply chains, and the war in Ukraine created significant diplomatic and economic fissures between former trading partners. This sequence of jarring events has caused nations and corporations to implement reductions in international exposure, mitigating global risk events. Instead of continuing once ubiquitous "offshoring" policies, they are engineering either domestic or near-domestic supply chains, creating trends commonly termed "re-shoring" or "nearshoring." We believe although supply chains are now less cost-effective, they are more resilient. Increased U.S. domestic production of liquid natural gas and microchips are examples of this. The result of this shift is that production of many essential commodities and goods will take place in locations where it is less efficient to do so, which is inherently inflationary.

DEMOGRAPHICS

← THE PRIOR PARADIGM Global labor surplus

Globalization has deeply influenced labor markets, with China emerging as a standout example. Over the past 30 years, China underwent rapid economic expansion, establishing itself as the world's second-largest economy in terms of GDP. Beginning in the early 2000s, China solidified its position as the primary hub for affordable labor, subsequently becoming the leading exporter of goods in the global economy. Concurrently, advancements in manufacturing quality and efficiency became evident.

China's labor force declines



As of December 31, 2022. Source: NBS.

THE CURRENT PARADIGM Global labor shortage

However, the landscape of China's labor markets is evolving. The nation's manufacturing dominance has elevated several hundred million citizens from poverty to the middle class. This economic rise, combined with an aging population due to birth restrictions, indicates that Chinese labor costs are on an upward trajectory. Consequently, there's a shift towards identifying alternative affordable labor sources, with countries like Vietnam and India emerging as contenders. Yet, the manufacturing prowess of these nations is still nascent compared to China, reinforcing a persistent reliance on Chinese production. As China's labor expenditures rise, we anticipate that the prices of its exported goods will follow suit.



China's aging population —age 65 and above

As of January 01, 2022. Source: Federal Reserve Economic Data.



DECARBONIZATION

← тне prior paradigm Carbon surplus

The 2000s began with a large commodity surplus and cheap oil. Shortly after, a commodity boom began, largely due to China's industrialization. This spurred significant investments in commodity production. However, the global financial crisis in 2008 eroded much of this demand, leading to substantial commodity surpluses. Post-crisis, China's moderated growth prolonged this surplus situation. Further developments in the energy sector, including the rise of U.S. shale production in the 2010s, contributed to considerable oil surpluses, ensuring a steady availability of energy resources for a period.



Underinvestment leads to higher prices

As of December 31, 2023. Source: Morningstar.

Apting to economy shifts 4

THE CURRENT PARADIGM Decarbonization

The roots of the commodity shortage issue began with the rise of shale in the 2010s. The shale boom led to decreased oil prices, forcing many oil producers out of operation. Coupled with a swift and pressured shift from fossil fuels to sustainable energy sources in the latter half of the 2010s, a significant underinvestment in the energy sector began. This expectation misjudged the real timeline of the energy transition. Notably, electric vehicles amounted to around 14 percent of global passenger car sales in 2022.¹ The commodity landscape shifted further with the onset of the COVID-19 pandemic. The pandemic initially caused a sharp decline in demand, only to be followed by a subsequent surge, and energy companies were unable to keep pace. The commodity shortage has been further compounded by a commodity-intensive and climate-aware rush towards sustainable energy. We expect this to create a surge in demand for industrial metals like copper, lithium, nickel, cobalt, and rare-earth metals.

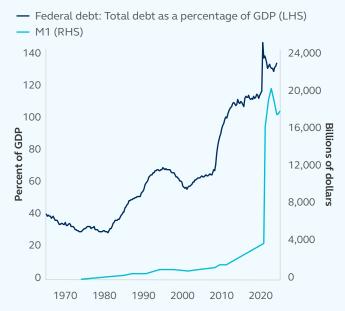
¹ Source: lea.org. <u>Global EV Outlook 2023</u>.

DEFICITS

← тне ряюя ракарідм Deficit discipline

After the 2008 global financial crisis, the prevailing response from most developed nations, with a few exceptions, was the adoption of austerity measures. The primary objective was to curtail public debt, achieved through either reductions in public expenditure, tax hikes, or a combination of both. In the U.S., debt-to-GDP ratios began to rise swiftly from 2015 onward, a phenomenon that was rather benign as it was offset by steadily declining interest rates.

U.S. Debt to GDP surpassed 100% setting new highs



THE CURRENT PARADIGM Deficit spending

In stark contrast, the onset of the pandemic ushered in unparalleled fiscal action, characterized by vast stimulus packages. These packages aimed to bolster workers, businesses, and healthcare infrastructures. To finance these initiatives, governments swiftly augmented the global money supply. Metrics like M1, M2, and M3² surged to record levels and maintained their elevated positions. In essence, an increased volume of money is now vying for a consistent quantity of goods and services, a scenario inherently predisposed to inflation. Further, the introduction of massive government spending has widened open a spigot that is not politically easy to completely close.

We feel that this is only part of the story. The increasing U.S. debt-to-GDP ratios starting in 2015 were rather benign as we had steadily decreasing interest rates, which in turn offset the net interest expense the U.S. had to endure in servicing their debt. Fast-forward to today, in an environment where rates are elevated and trending up or sideways, and the net interest expense paid out on this debt is increasingly concerning. That net interest expense paid permeates into the economy and becomes an inflationary force.

LHS data from January 1, 1966-September 30, 2023. RHS data from January 01, 1975-February 5, 2024. Source: Federal Reserve Economic Data. FRED, Principal Global Investors.

² M1, M2 and M3 are measurements of the United States money supply, known as the money aggregates. M1 includes money in circulation plus checkable deposits in banks. M2 includes M1 plus savings deposits (less than \$100,000) and money market mutual funds. M3 includes M2 plus large time deposits in banks.



THE DISINFLATIONARY TREND THAT HASN'T CHANGED: Technological advancement

It's important to note that while several of the mightiest disinflationary trends have shifted, one has not: technological advancement.

The nature of technology is to create efficiency and lower costs. For example, if the current 1.2 billion combustion vehicles on the road become 25% more fuel-efficient compared to their efficiency a decade ago, it would likely lead to a reduction in oil prices. Likewise, a factory equipped with advanced technology, that can produce double the amount of product at the same cost, may lower prices while increasing profits.

Progress in artificial intelligence is expected to further amplify this disinflationary economic trend. It's possible that such advancements could counteract prevailing inflationary pressures. Near term, however, company investments in the research and development necessary to maintain productivity may increase prices. History has shown that prior technological advancements have not had much impact on price levels. Technology often impacts the price of very specific goods—for example, cotton and coal during the industrial revolution in the 19th century or IT equipment in the 21st—but does not have much impact on overall price levels.

While a broad set of trend reversals do indicate that inflationary forces are here to stay, for attractive risk-adjusted results, it's essential to craft investment portfolios resilient to a diverse set of economic scenarios—including technology-induced edge cases.

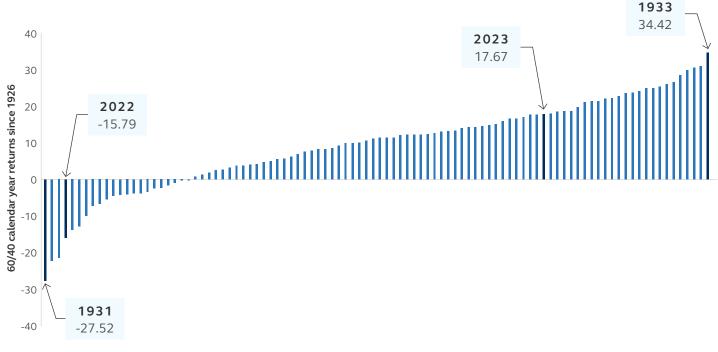
60/40 vulnerability and real asset opportunity

From 1987 to 2021, the 60/40 portfolio reported an average annual return of 9.44%.³ The 60/40 portfolio was effective in a disinflationary paradigm. This was a period of relative growth and stability enabled by globalization, technological advancement, stable energy markets, growing corporate profits—and reliable sources of income from quality debtors in the bond markets.

However, in the 1970s and 80s, a period more similar to the current environment—marked by high levels of inflation and less global stability—real assets, such as commodities and real estate offered risk mitigation against economic hardships. In the 1970s, stocks and bonds were not able to keep pace with inflation, while real assets delivered real returns that surpassed the inflation rate.

2022 further exposed the 60/40 strategy's inflationary vulnerabilities when the inflation rate reached 8.5% in the U.S., according to the Consumer Price Index (CPI). The strategy reported its worst performance since 2008, and one of its worst in history.

With equities and fixed income declining almost in tandem to inflationary and geopolitical market stresses, the diversification advantage of the 60/40 portfolio was undermined.



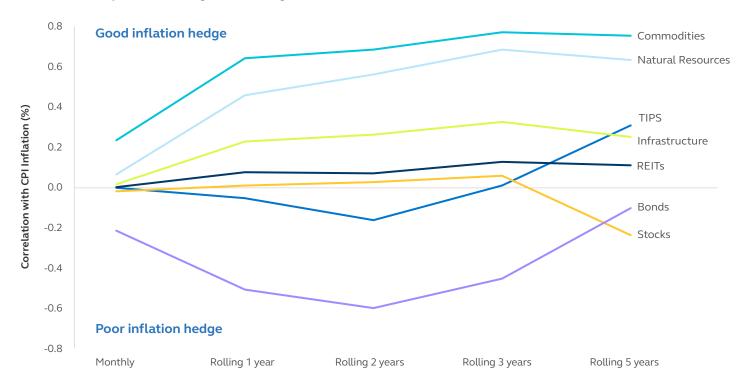
60/40 portfolios are vulnerable to inflation shocks

Years ranked by largest loss to largest gain

Source: Morningstar Direct, Principal Asset Allocation. Data as of December 31, 2023. The 60/40 portfolio utilized for this time series analysis was comprised of 60% IA SBBI US Large Stock TR USD Ext/40% IA SBBI US IT Govt TR USD from 12/31/1925 to 3/31/1936. Beginning on 3/31/1936 when the S&P 500 returns series started, the S&P 500 replaced the IA SBBI US Large Stock TR USD Ext for the equity index utilized, thus from 3/31/1936 to 1/31/1980 the 60/40 portfolio was comprised of 60% S&P 500 TR USD(1936)/40% IA SBBI US IT Govt TR USD. From 1/31/1980 to 12/31/2023, once the Bloomberg US Agg Bond TR USD return series was available, it was used in place of the IA SBBI US IT Govt TR USD for the fixed income index, thus the 60/40 portfolio was comprised of 60% S&P 500 TR USD.

³ Source: Morningstar.

Continued inflationary and recessionary pressures, alongside global instability, make a strategy adjustment imperative. The chart below displays the historical correlation between 60/40 portfolio returns and elevated levels of inflation, alongside real asset classes that were able to fare better.



Real assets outperform during inflation regimes

Source: Bloomberg, Principal Global Investors. Data as of December 31, 2023. Bloomberg U.S. Treasury Inflation Protected Securities TR Index (TIPS); Bloomberg Commodity TR Index (Commodities); FTSE EPRA/NAREIT Developed TR Index (REITs); S&P Global Infrastructure Index (Infrastructure); S&P Global Natural Resources Index (Global natural resources), S&P 500 Index (Stocks); Bloomberg U.S. Aggregate index (bonds). Data series from August 1997 to December 2023.

Given the cost of such dramatic declines, we believe it's essential that investors find solutions to help mitigate the risk to their assets from inflation and volatility. Fortunately, real assets have historically shown potential, both for helping mitigate the effects of inflation on assets and for delivering attractive returns.

Conclusion: There has been an economic regime change. Investors should consider a strategic allocation to a diversified portfolio of real assets.

Real assets—particularly when diversified among the various segments within the asset class—remain attractive due to numerous other non-inflationary factors. An investor can benefit from incorporating real assets into their portfolio. It is important to be mindful of the shifting paradigms and the 4 Ds driving the economy that could benefit real assets, while potentially being problematic for the 60/40 portfolio. Furthermore, diversification within real assets is just as important, investors should seek a solution that provides access to a variety of real assets to take full advantage.

Risk considerations

Investing involves risk, including possible loss of principal. Past performance does not guarantee future return. Real assets include but not limited to precious metals, commodities, real estate, land, equipment, infrastructure, and natural resources. Each real asset is subject to its own unique investment risk and should be independently evaluated before investing. As an asset class, real assets are less developed, more illiquid, and less transparent compared to traditional asset classes. Asset allocation and diversification do not ensure a profit or protect against a loss. Any risk management process discussed includes an effort to monitor and manage risk which should not be confused with and does not imply low risk or the ability to control certain risk factors. Inflation and other economic cycles and conditions are difficult to predict and there Is no guarantee that any inflation mitigation/protection strategy will be successful.

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MM13940 | 04/2024 | 3447104-042025