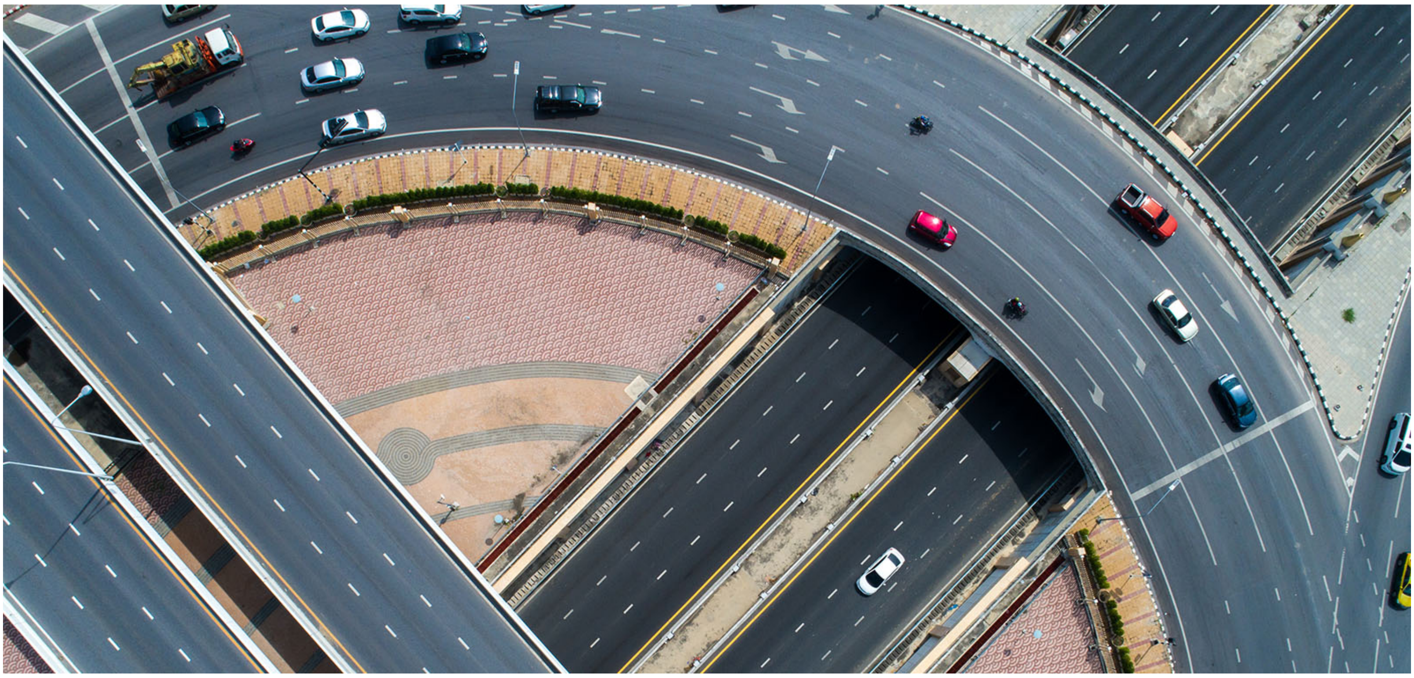

Investing in a Post-Global World

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Table of Contents

Executive Summary

It’s become almost a cliché to claim that the world is on a path to deglobalization. After the Brexit vote, the Trump presidency, years of growing US-China tensions and now the war in Ukraine, it might seem like a well-worn path. Still, we think the prospect of deglobalization demands attention from strategic investors, both for explicit allocation decisions and in investment praxis.

In this note we consider what form deglobalization might take, and its impact on the investment environment. The title of this note is an intentional oxymoron—investing will always be global in nature, but a specific paradigm of globalization is waning.

Our thesis: expect a prolonged phase of deglobalization. Its roots have been around for some time, a function of two distinct but mutually amplifying forces. The first force is the domestic opposition to globalization in developed economies, driven by the precarity of labor, which hasn't been changed by the recent decline in unemployment. (One could describe this by paraphrasing Lenin—that those at the bottom don't want to live in the old way, and those at the top are unable to rule in the old way.) The second force is geopolitics, most evident in the deterioration of US-China relations and the shift in the direction of Chinese policy. The current period of crisis, driven by Russia's invasion of Ukraine, has been an accelerant in the context of this backdrop.

Only part of this narrative is about geopolitics: the war in Ukraine may make it a natural focus, but there's also more demand to "reclaim" national sovereignty that spans the political spectrum. The narrative of the left is that sovereignty has been forfeited to corporations; the right believes it has gone to supranational organizations. Some portion of deglobalization must be seen as repositioning the global balance of power between corporations and governments (both democratically elected and autocratic).

Some countries have fared particularly well under globalization (e.g., Germany, South Korea, Taiwan and China), but investors have been the main beneficiaries, enjoying a free flow of capital, higher corporate margins and the deflationary impetus that has driven down the cost of capital. Deglobalization has direct implications for effective tax rates, employee compensation as a share of revenues, supply chains and regulation. These all challenge the expected real returns from holding passive long positions in traditional asset classes.

Deglobalization won't be a move toward some neo-Westphalian state, with each country its own island. Instead, it seems more likely to be a move toward blocs. Recent developments in Europe are instructive, with some reconciliation between eastern European states and Brussels as they face a perceived common threat, and the likely accession of Sweden and Finland to NATO. The tension between the economic priorities of Germany and southern European states has been a problem since the European debt crisis a decade ago.

However, these countries now exist in a world where maintaining open exports to China has become more challenging, and doubts linger about the durability of US defense guarantees. So, export-reliant Germany has a lot to lose, which explains its abrupt about-face on defense policy this year. The logical consequence is that it's more likely that Germany will realize it needs Europe as much as Europe needs Germany, implying a greater acceptance of outcomes that further the overall interests of the bloc.

Climate change is another major force preventing a total fracture of globalization into independent country-led policies. There's likely to be more global governance in this sphere, not less, and grassroots support for climate-sensitive policies seems set to grow. We see the intensifying focus on climate change leaning against deglobalization, though it's unlikely to help improve the aggregate profitability of the corporate sector. If ever a case could be made for "the commons," global climate would be it.1

The core of this note examines deglobalization's implications for investors, which depend very much on whether the forces of deglobalization are aligned with other far-reaching forces. We see the main implications for the investment landscape as:

+ Higher inflation
+ Lower corporate margins (due to less tax and labor arbitrage, as well as higher inventories)
+ Lower real growth
+ Dampened outperformance of financial assets over real assets, and perhaps a reversal
+ Supply chain and energy security becoming a key concern, leading to more direct government involvement

The impacts of this evolving landscape on portfolio design will likely include:

+ Yet another reason to include strategic inflation hedges
+ A need for benchmarks and mandates for many investors to be couched in real-return terms
+ The acceptance of a higher default risk level
+ Less acceptance of a passive global market with quasi-arbitrary weights to China
+ A long wave of investment in automation and renewables
+ Changing sources of diversification in portfolios (relatively less inter-asset diversification and more intra-asset regional diversification)

The specific allocations to assets and return streams will mean:

+ More real assets for many investors (including real estate, infrastructure and farmland, but also public equities, despite lower expected returns)
+ A strategic preference for US over international investments, even in the face of de-dollarization
+ An underweight to large/mega-cap stocks, whose leadership we don't expect to continue
+ Allocations to the low-volatility factor (market risk will be higher and equity returns lower)
+ Secular support for the themes of automation and renewables, boosted by deglobalization
+ Increased allocations to gold

Part I: The Case for Deglobalization

What Was the Impetus for the Latest Phase of Globalization...and Why Is It Under Threat?

Deglobalization is a very broad concept covering trade, the movement of labor and capital, regulation, sociopolitical forces and corporate structure. Above and beyond these factors, it represents a change in the intellectual zeitgeist.

If one wants to assert that deglobalization is happening, some form of metric is needed, and trade seems to be one of the cleanest. After WWII, global integration increased substantially, as seen in total trade as a share of global gross domestic product (GDP) (*Display 1*), though the previous peak in 1913 wasn't exceeded until the 1970s. The inflation of the 1970s stalled further growth, but the uptrend since the 1980s has been particularly strong.

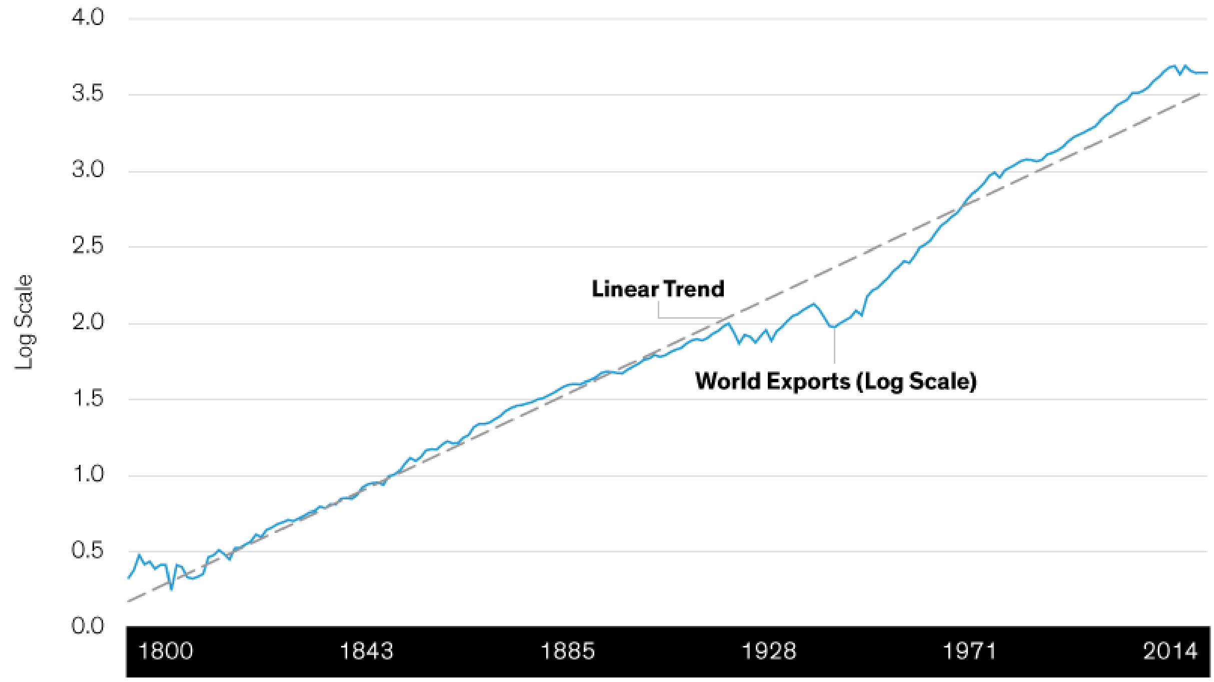
It's specifically this post-1980 episode of globalization that now seems under threat. The World Trade Organization (WTO) forecasts that world merchandise trade volume will grow roughly in line with global GDP in 2022 and 2023.[2] If this is the measure of globalization, then it's been in a gentle retreat for 10 years. Nevertheless, we suspect that history may look back and point to the pandemic as the key breaking point.

Display 1: Has Trade Globalization Peaked?

Historical analysis and current estimates do not guarantee future results.
From 1870 to 1970 data are from www.ourworldindata.org. From 1970 data come from World Bank.
World trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.
January 1, 1870, through December 31, 2020
Source: Our World in Data, World Bank and AB

Trade has had a long-run tendency to grow since the Industrial Revolution (*Display 2*), though the succession of WWI, the Great Depression and WWII clearly caused a deviation below trend. Closer inspection reveals that the period from the late 1980s through the 2000s was a special one, with above-trend growth. The most recent point shown in the display is 2014, so trade growth had fallen back toward trend even before the full effects of the pandemic, China's lockdowns and Russia's invasion of Ukraine were felt.

Display 2: Trade Growth Has Been Falling Back Toward Trend



Historical analysis and current estimates do not guarantee future results.
Chart shows inflation-adjusted value of world exports.
January 1, 1800, through December 31, 2014
Source: Giovanni Federico and Antonio Tena-Junguito, "A Tale of Two Globalizations: Gains from Trade and Openness 1800–2010" (discussion paper, Centre for Economic Policy Research [CEPR DP11128], February 21, 2016) and AB

If we identify the period since 1980 as the phase of globalization that's now threatened, two questions emerge: 1) What drove this phase? and 2) What's the basis for the claim that it's now under threat? To answer the first question, we believe the recent globalization phase was driven by a convergence of the following wide-ranging forces:

+ Deng Xiaoping's opening up of China as a pro-market, post-Mao entity
+ The dominance of the US-led world order, which morphed into US hegemony after the Cold War
+ The Reagan- and Thatcher-led shift toward sociopolitical acceptance of neoliberalism, particularly the path that enabled large corporations to use offshore labor
+ The previous two factors combining to help drive the evolution of the global-trade infrastructure from the GATT negotiations in 1947 to the establishment of the WTO in 1995
+ Technology and the role of intangible assets, which vastly increased the network/scale benefits for successful firms while also eroding the power of sovereign governments

Other unrelated factors, such as changing demographics and the acceptance of independent monetary policy as the key cushion for the economy, parallel these globalization forces—and have reinforced the investment consequences of globalization.

In our view, all these forces, except for technology, are under threat—or at least are no longer potent—and in many cases are reversing. Even in the case of technology, the potential splintering of the internet and shifts in regulation will likely blunt its globalizing tendency.

The Intellectual Basis for Globalization Has Exhausted Itself

Many financial-services publications understandably tend to focus on the economic aspects of deglobalization, but we think this process is more fundamental. At its core, deglobalization represents a *change in the intellectual environment*—a shift in the paradigm, or overarching narrative.

In this note, we focus on the unraveling of the specific surge in globalization since 1980. It's probably no coincidence that Jean-François Lyotard published his seminal text, *The Postmodern Condition*, in 1979.[3] It set the stage for a disbelief in history and progress, as well as an acceptance of relativism that we argue has been a key part of this globalization wave. A tenet of the book is a rejection of what Lyotard calls "metanarratives," or the grand theories of history. (However, it's become increasingly clear that any claims of the end of metanarratives are themselves merely another metanarrative.)

The assumption that the market's role is a given is the other intellectual underpinning of globalization. Probably the most well-known work in this vein among financial-services professionals is Francis Fukuyama's assertion in *The End of History and the Last Man* that history had "ended" because of the alleged consensus that a market-based liberal order was the "final form of human government,"[4] a claim that has long been under attack. This rejection seems particularly relevant in the context of the rise of an alternative economic/political system in China, the internal social problems in advanced economies and changing demographics.

Some of the developed-market backlash against globalization relates to the power shift that has favored corporations and capital markets. In his book Planetary Politics, Lorenzo Marsili writes:

> The revolt of our times, too hastily attributed to austerity politics or to a backlash against a multicultural society, represents instead a rejection of the new condition of impotence that is the result of a world that has surpassed its organisation in separate nation states.[5]

In other words, the greater power of markets in recent decades at the expense of governments has been a key force in making globalization seem inevitable and permanent, but this power shift seems set to reverse.

Franco Berardi made an assertion in a similar vein in *The Uprising:* On Poetry and Finance:

> The financial dogma states the following: if we want to keep participating in the game played in the banks and stock markets, we must forfeit…civilization. But why should we accept this exchange? Europe's wealth is not based on the stability of the Euro…it is wealthy because it has millions of intellectuals, scientists, poets and…has historically managed to valorize competence.[6]

If the underlying intellectual basis of globalization is being challenged in this way, it's likely that deglobalization has become a persistent theme—not simply a passing worry. Taken from this starting point, what are the proximate causes of deglobalization? These are key to mapping out an investment response.

The Reasons for Deglobalization Now

1. Russia-Ukraine

The immediate reason for deglobalization suddenly dominating investor conversations is Russia's invasion of Ukraine. The far-reaching repercussions have included sanctions on Russia, the decision by China to somewhat align with Russia against the US and the US decision to weaponize the dollar and access to payment systems.

The share of world trade as a percentage of GDP was declining even before the pandemic, so the conflict can be seen, in one sense, as merely an accelerant. It has also changed the nature of the deglobalization debate: this is the first time since the end of the Cold War that a large country has been cut off from the international system. Moreover, the degree of unity between the US, Europe and countries such as Japan and Australia has been surprising. Equally surprising has been the determination to cut Russia off from international payment systems and freeze central bank assets—these actions, which wouldn't have been expected by the average investor a year ago, mark a genuine shift.

In examining the reasons for deglobalization, one should ask: How permanent are these shifts? If deglobalization is painful, won't there be a push to simply reverse its driving forces? We think Russia's isolation should be viewed as semipermanent—at least while Putin remains in power. There's been too much rhetoric to easily go back. Investors shouldn't, in our view, expect a change in the status quo. The weaponization of the US dollar by limiting access to it is a new development too (at least on this scale); once used, it will be hard to avoid calls to do it again in future crises (for example, a serious threat to Taiwan).

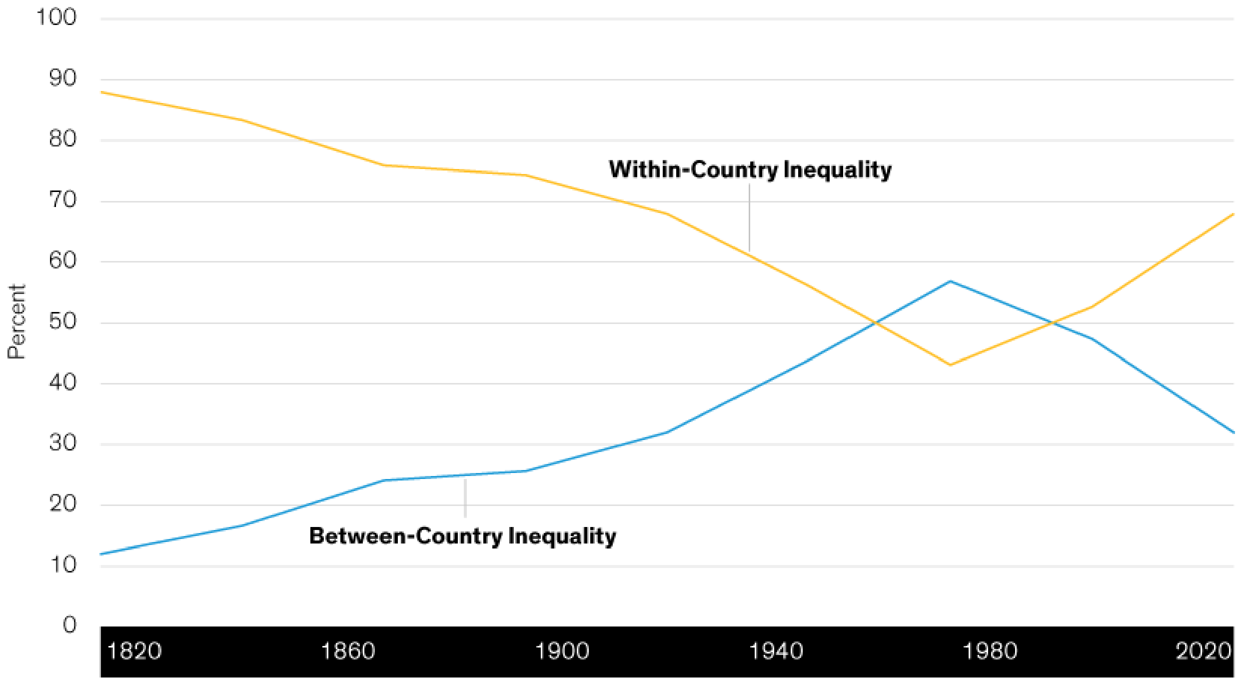
2. Declining Domestic Support for Globalization

A key engine of deglobalization is the perception that the benefits of globalization have only accrued to a small minority in developed countries. Of course, globalization has helped reduce inequality globally, for example by pulling people out of poverty in developed nations. The World Inequality Report shows a decline in global inequality between countries in the latest phase of globalization,[7] though recent academic research suggests that the pandemic has unwound a substantial portion of this effect.[8]

While wealth inequality between countries remains below its level in the 2000s and peak in 1980, inequality within countries has risen (*Display 3*). The world en masse doesn't vote for individual country governments, so intra-country wealth outcomes determine policy more than the global picture does—and intra-country is where inequality is higher today.

Display 3: The Different Paths of Wealth Inequality

Between-Country vs. Within-Country Inequality (Top 10% Income vs. Bottom 50% Income)



Historical analysis and current estimates do not guarantee future results.
The chart shows the ratio of the average incomes of the top 10% and the bottom 50%. Income is measured per capita after pensions and unemployment insurance transfers and before income and wealth taxes.
January 1, 1820, through December 31, 2020
Source: Lucas Chancel, Thomas Piketty, Emmanuel Saez and Gabriel Zucman, *World Inequality Report 2022*, World Inequality Lab, 2022 and AB

The resurgence of inequality has cost globalization support in the internal political dynamics of key developed nations. One can point to the rise of populism, the Trump presidency, the Brexit vote and the strong showing of Marine Le Pen as recent examples of this, but its roots stretch further back. A key pledge of Ross Perot's 1992 US presidential campaign was to end job outsourcing. Similar points (with more intellectual gravitas) have long been made in the writings of Yanis Varoufakis, Nick Srnicek and Franco Berardi.

Globalization's benefits haven't been shared equally. Two distinct elements of this issue relate to the distribution of wealth and income. Assets are owned very unequally (in capitalist societies, anyway), but (nearly) everyone can offer equal amounts of labor. Globalization drove discount rates down and growth up, fueling a massive rally in financial assets that boosted wealth inequality. Globalization also enabled corporate labor arbitrage, increasing the precarious state of labor in developed economies, which also introduced an element of income inequality, as Thomas Piketty detailed in his 2014 book *Capital in the Twenty-First Century*.[9] These trends are enough to not only slow globalization, but also to reverse parts of it.

"Hang on," one might say, "aren't today's headlines full of stories about labor shortages? Can't that help neutralize the populist rejection of globalization?" We don't think so. The apparent shortage of labor is a very recent phenomenon; labor's loss of bargaining power has been a long-run trend. Moreover, much of the world faces the prospect of very high short-term inflation, which will likely cause much more pain for low earners.

3. A New Cold War?

Another force that seems poised to sustain deglobalization stems from growing US-China tensions. Because this force is very different from the loss of domestic support for globalization, there's no reason to expect it to run at the same pace—and it will likely have subtly different investment implications.

Nevertheless, we see these tensions directionally supporting other deglobalizing tendencies. Just as China's opening up to the global economy was a central driver of the most recent wave of globalization, any change in that status is key to the deglobalization narrative. We'll leave aside the distinct topic of what these rising tensions mean for directional views on Chinese assets.

In a recent article in *Foreign Affairs* devoted to the topic of America's "cold wars," Hal Brands and John Lewis Gaddis claim that "it is no longer debatable that the United States and China…are entering their own new cold war."[10] Others have disagreed; for example, Ian Bremmer, founder and president of Eurasia Group, has advocated the view that China and the US are too intertwined to countenance a cold war[11] (though a similar sentiment was also expressed about the world in 1913).

Right now, China is still tied to a global economic system that depends heavily on the US dollar. The weaponization of access to dollar payment systems as a result of Russia's invasion of Ukraine presumably concerns Chinese authorities, a topic we'll cover later in the section on de-dollarization. This interconnectedness will likely inhibit some of the more dangerous forces indicating an unstitching of globalization. Also, China remains central to both investors' plans and to global supply chains.

We can debate the extent to which this path constitutes a cold war, but either way it changes the narrative from much of the previous decade. Under Xi, there's a path to ensuring greater orthodoxy within China, and his administration's brand of "wolf warrior" diplomacy has been more active in carving out China's role in the world. The belief in the West that Deng's opening of China economically would lead to social and political reforms has now been consigned to antediluvian status.

The Forces of Supply Chain and Energy Security

We also see supply chain and energy security becoming a long-lasting theme. Today, semiconductor chips are often called the 21st century's new oil, given their key role in modern manufactured products and the associated geopolitical tensions surrounding their supply chain. Semiconductor production is extremely concentrated, with Taiwan Semiconductor Manufacturing (TSMC) alone constituting more than 50% of global market share, and Asia overall constituting more than 80% of the global semiconductor market.[12] The tense geopolitical situation between the US and China related to Taiwan underscores the crucial importance of diversifying the semiconductor supply chain.

Efforts to increase domestic chip production have already started in Europe. The European Chips Act, passed in February 2022, aims to provide private and public funding of more than €43 billon for new chip fabrication plants.[13] In the US, the recently passed CHIPS Act provides $52 billion in government subsidies ($39 billion directly related to manufacturing) for boosting US semiconductor production.[14] It will also grant an estimated $24 billion in tax subsidies for the industry. It's part of the broader CHIPS and Science Act, which will also include around $200 billion for research and innovation in advanced technologies related to areas including energy, biology and quantum information science.

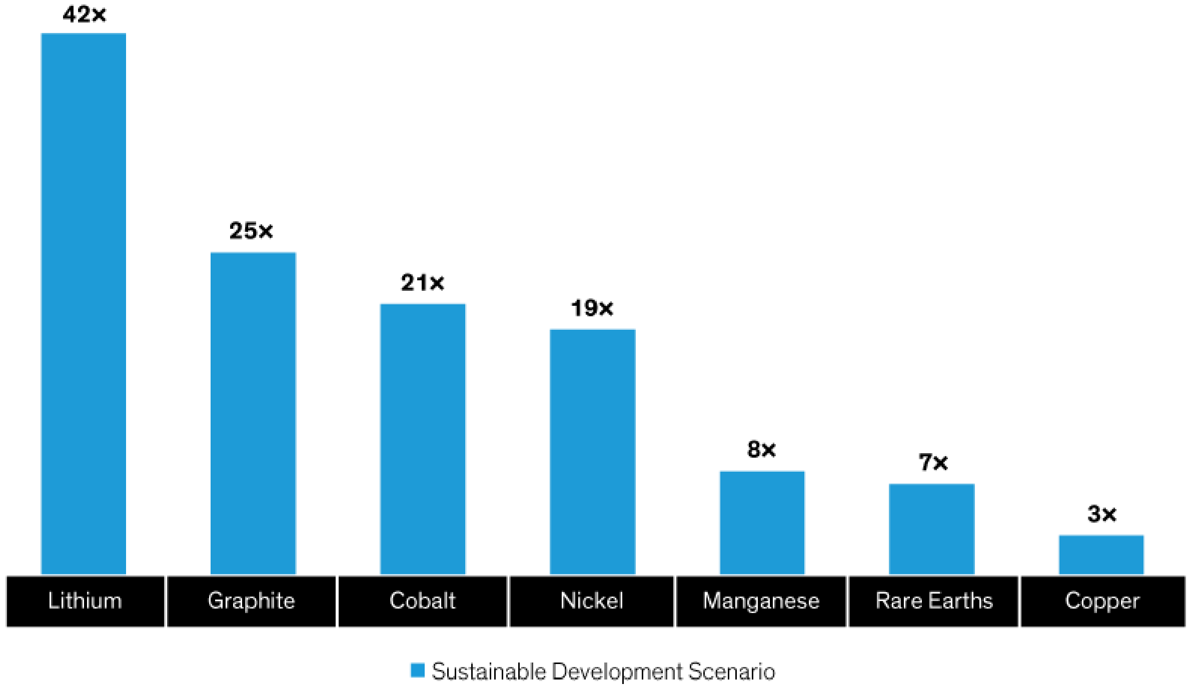
But diversifying the supply chain isn't a quick process: new plants can take years to build and exact a significant cost. *The Economist* cites research by Boston Consulting Group and the Semiconductor Industry Association showing that, in a scenario where chip production was self-sufficient within regions, prices could increase between 35% and 60%.[15] This is similar to estimates from TSMC, suggesting that the lack of an established talent base and infrastructure would make chip production in its US factories 50% more costly than in Taiwan.[16] It's a good example of deglobalization leading to a strategically higher level of inflation, beyond the current one- to two-year squeeze.

Energy security is another important element in the supply chain. Jason Bordoff and Meghan O'Sullivan claim in a recent issue of *Foreign Affairs* that analysts don't sufficiently account for a key impact—not a directional view on energy but the likelihood that governments will play a much larger role in the dynamics of energy markets than they have in recent decades.[17] The invasion of Ukraine also seems likely to accelerate the energy transition. For investors, this likely means that the corporate sector (and overall economy) will face higher near-term energy costs, but a potential longer-term deflationary effect. For strategic investors, this prompts questions of what "energy security" will mean during the transition.

Achieving the Paris Agreement scenario of stabilizing the global temperature rise at well below two degrees Celsius by 2040 would boost demand for select minerals.[18] For instance, demand for lithium would increase by over 40 times, while demand for graphite, cobalt and nickel would grow by around 20 times—or more—from their 2020 levels (*Display 4*).

Display 4: Addressing Climate Change Will Boost Mineral Demand

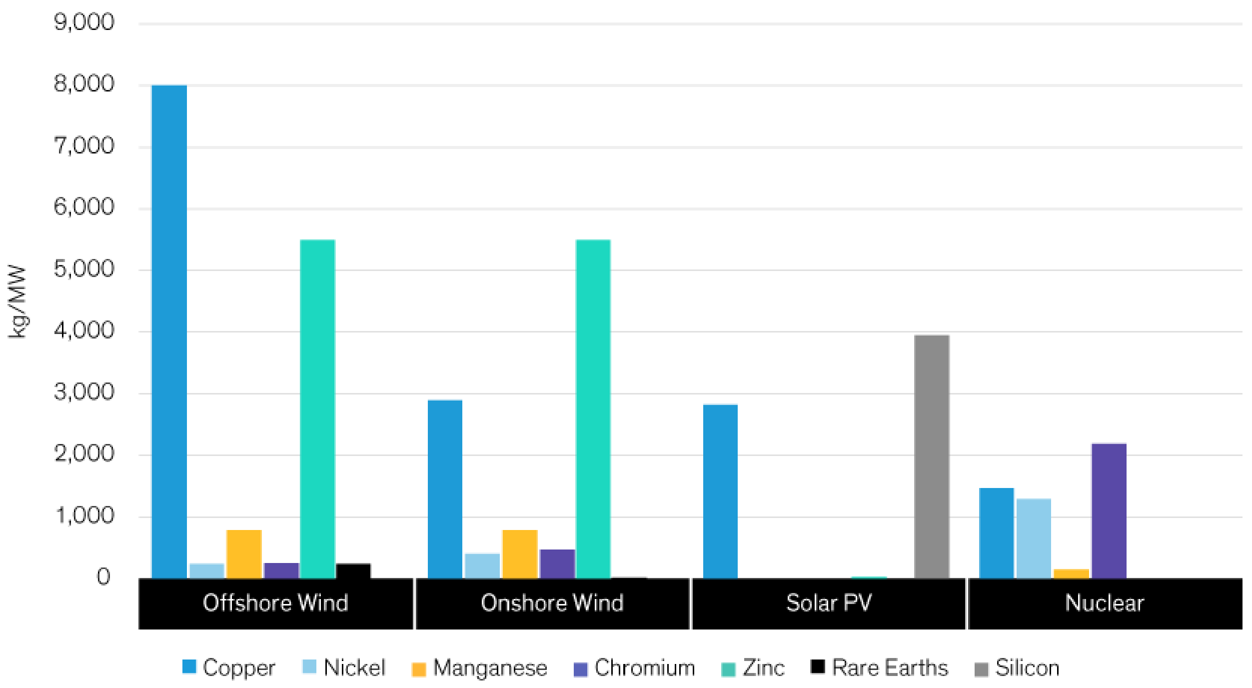
Estimated Demand Growth by 2040 Based on Sustainable Development Scenario



Historical analysis and current estimates do not guarantee future results.
Sustainable Development Scenario represents implementing the goals of the Paris Agreement by 2040.
Index (2020 = 1)
As of August 5, 2022
Source: International Energy Agency (IEA) and AB

The drive for clean energy means demand for essential minerals, such as copper and zinc in wind power (*Display 5*). Demand for electric vehicles and battery storage is the key driver in mineral-demand growth; electricity-network upgrades and buildouts are another pillar in the energy transition, they and are the main reason for an expected tripling of copper demand.

Display 5: Key Minerals Used in Select Clean-Energy Technologies

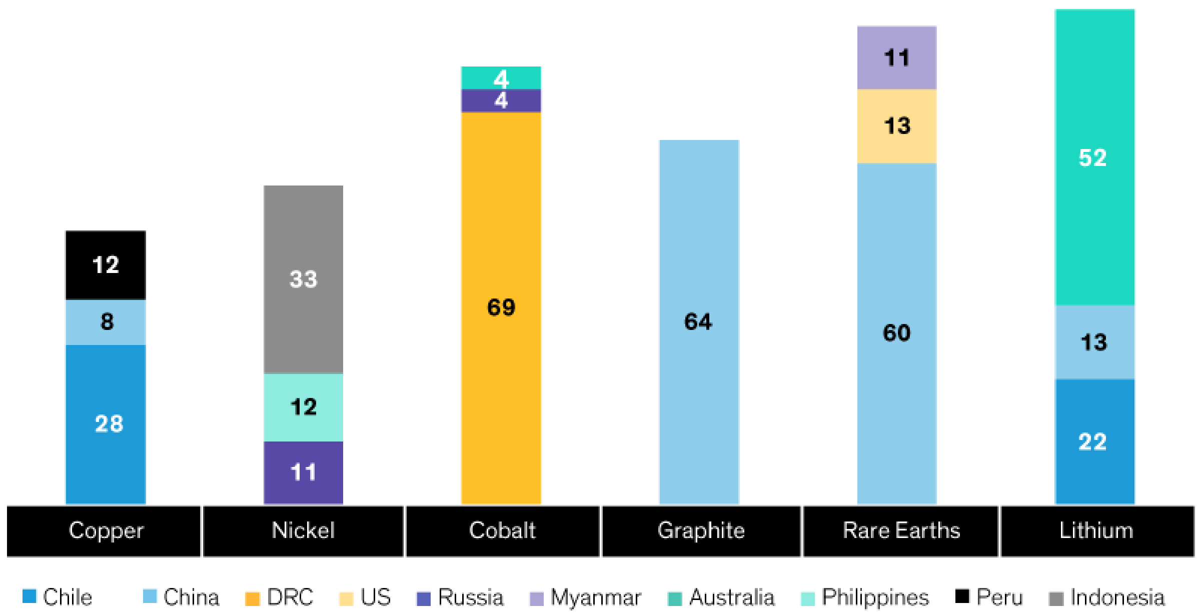


Historical analysis and current estimates do not guarantee future results.
As of August 5, 2022
Source: IEA and AB

The supply of key minerals is highly concentrated in certain countries and geographic areas (*Display 6*); the top three producers combined constitute around 50% or more of all production (more than 80% in the case of lithium). As European countries strive to achieve independence from Russian oil and gas, it's notable that Russia has no meaningful role in the supply chain of minerals required for the green transition, except for nickel and cobalt. However, China is a major supplier of crucial commodities such as graphite, rare earths and lithium. It also has strong interests in other commodity suppliers, such as Chile and the Democratic Republic of the Congo, through its Belt and Road Initiative.

Display 6: Production of Key Minerals Is Highly Concentrated

Percent Share of Top Three Producers in Select Mineral Extraction (2019)



Historical analysis and current estimates do not guarantee future results.

DRC: Democratic Republic of the Congo

As of August 5, 2022

Source: IEA and AB

Could This Whole Narrative of Deglobalization Be Wrong?

Is it possible that this deglobalization narrative merely reflects recency bias from the war in Ukraine? As we've discussed, we think the core forces of domestic opposition to globalization in developed markets and the shift in US-China relations are hard to reverse in the near term.

However, there are mitigating factors to deglobalization. One is technology—both the network and scalable advantages of intangible assets, and technology's role in making the world less resource intensive than it's been for the past 100 years of growth. Another factor is the huge economic incentives to retaining the current global system, both for corporations eyeing their supply chains and for the countries that have been relative winners under the status quo.

But the biggest counterforce to deglobalization is probably climate change. If there's one thing arguing for the role of the commons or for collective action, it's almost by definition the global climate challenge. We think climate change may limit how far governments can change to a deglobalized course. However, it is not enough to counter the intra- and inter-country deglobalizing forces.

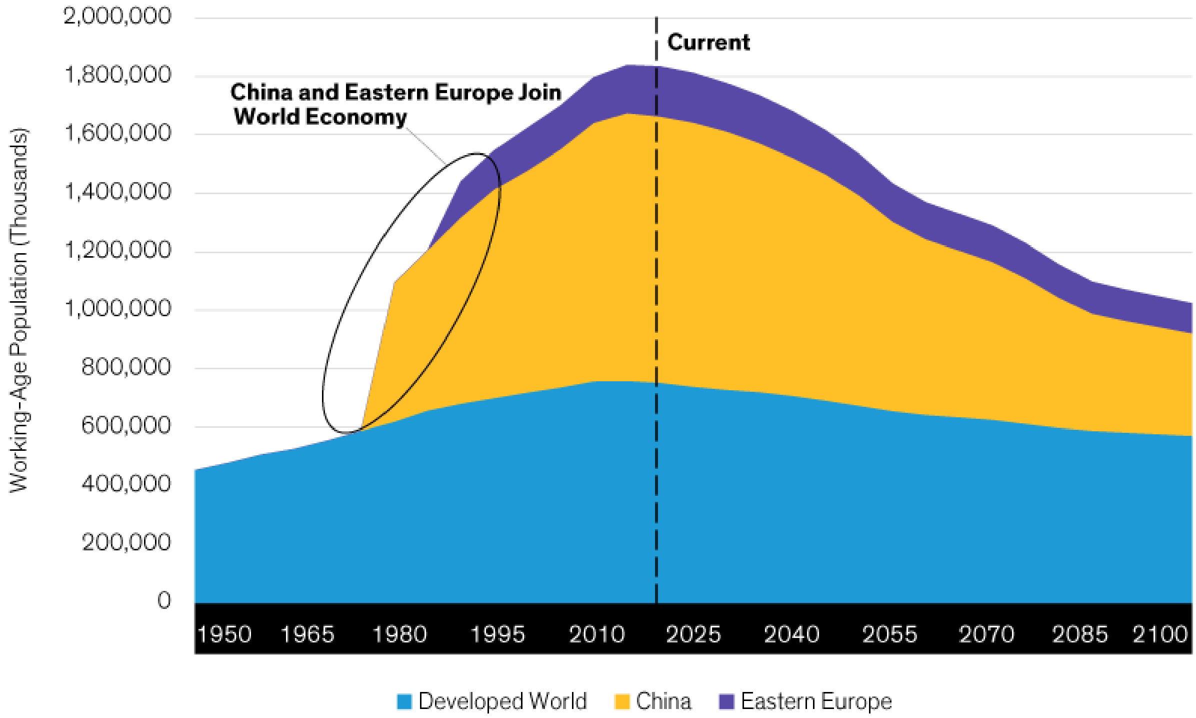
The Accelerating Force of the Power of Labor and the Implications for Inflation

Deglobalization isn't happening in a vacuum. One can opine on its consequences, but deglobalization's impact on the variables investors worry about depends on whether it's aligned or not with other contemporaneous trends. Deglobalization's most significant alignment is with demographics and the "social" part of ESG. What do these three forces together imply for wages and inflation? Deglobalization removes a key disinflation driver of the past four decades—the ability to offshore labor and keep wages low.

Globalization added more than 1 billion working-age people to the world's labor force between 1980 and 2000. Even ignoring the splintering of the global workforce behind trade walls, both an aging population and a lower birth rate are set to remove 21% of the extra workers that became available to the global economy through the opening of China and former Soviet countries (*Display 7*). Other countries, such as India, can temporarily mitigate this loss, but the fact remains that there will be fewer workers in the future.

There are signs that this trend could be playing out even faster than previously thought. The UN population-prospects report from 2019 put the Chinese population peak at 1.46 billion in 2031–2032. However, a recent report from the Shanghai Academy of Social Sciences suggests that China's population could fall this year, a decade sooner than originally expected, with a projected average decline in the country's population of 1.1% after 2021.[19]

Display 7: Demographics Will Remove 21% of the Extra Workers Added by Globalization

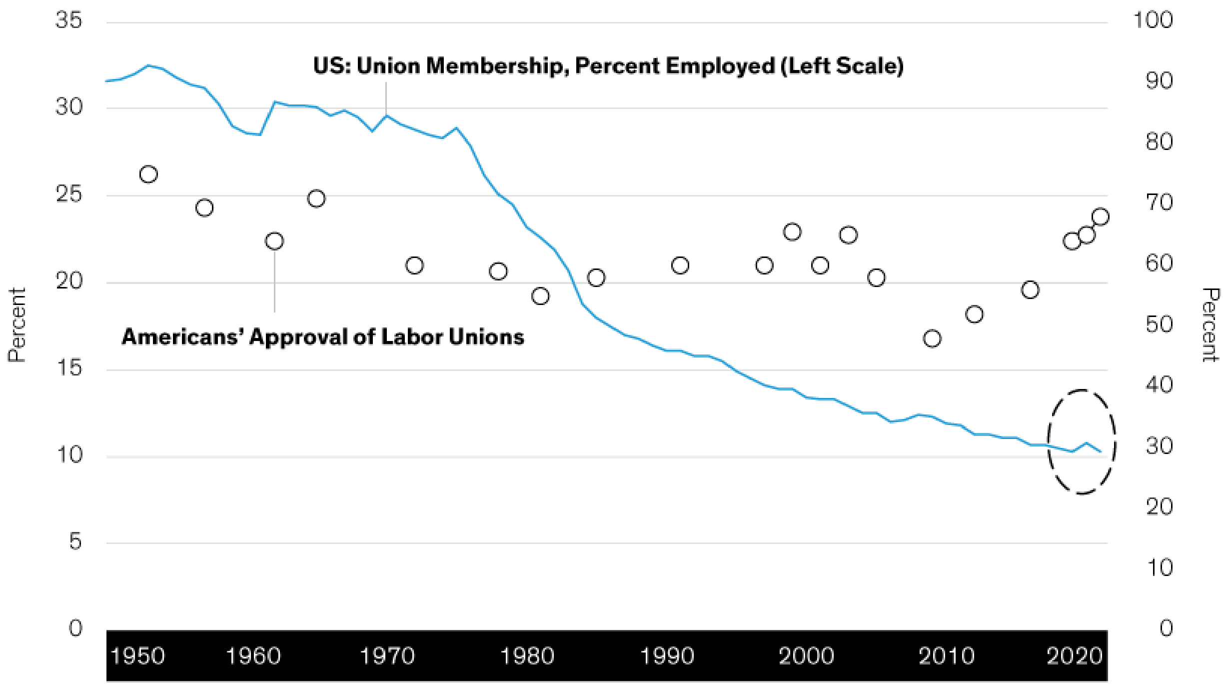


Historical analysis and current estimates do not guarantee future results.
Size of population aged 20–65 in regions shown.
As of March 12, 2021
Source: United Nations Population Division and AB

Charles Goodhart and Manoj Pradhan make the case in *The Great Demographic Reversal* that the pool of extra labor since the 1980s has undermined workers' bargaining power, and that this will change.[20] The narrow economic answer would be to allow mass immigration, but that's not a message many politicians would want to hear.

Investors at times dismiss demographics, since its effects can take a long time to manifest, but it has the advantage of being very predictable. The demand for social fairness in alignment with the "S" part of ESG is happening even faster, implying a path to greater unionization, among other measures that will likely increase labor's bargaining power (*Display 8*).

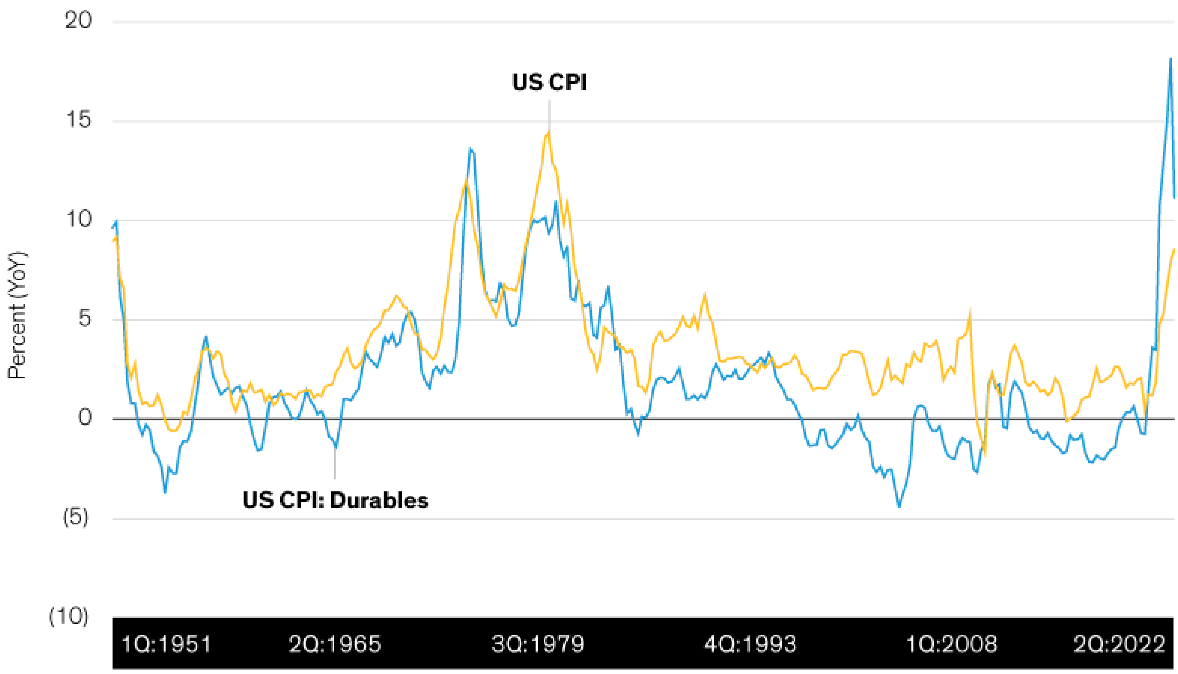
Display 8: The Return of Unions and Labor Bargaining Power



Historical analysis and current estimates do not guarantee future results.
Through December 31, 2021
Source: Gallup, Thomson Reuters Datastream and AB

If higher wages become entrenched, they'll have big implications for the structural level of inflation. As a case in point, outsourcing manufacturing production to China and other emerging markets helped keep the costs of durable goods low and below the overall Consumer Price Index (CPI), an important contributor to keeping overall inflation subdued (*Display 9*). When we're forecasting the impact of deglobalization on investors, its alignment with other forces that imply a higher path for wages results in a conclusion of higher, though unanchored, inflation.

Display 9: US Durables CPI Lagged Overall CPI from the Late 1980s to 2020



Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: Thomson Reuters Datastream and AB

Part II: What Deglobalization Means for Investing

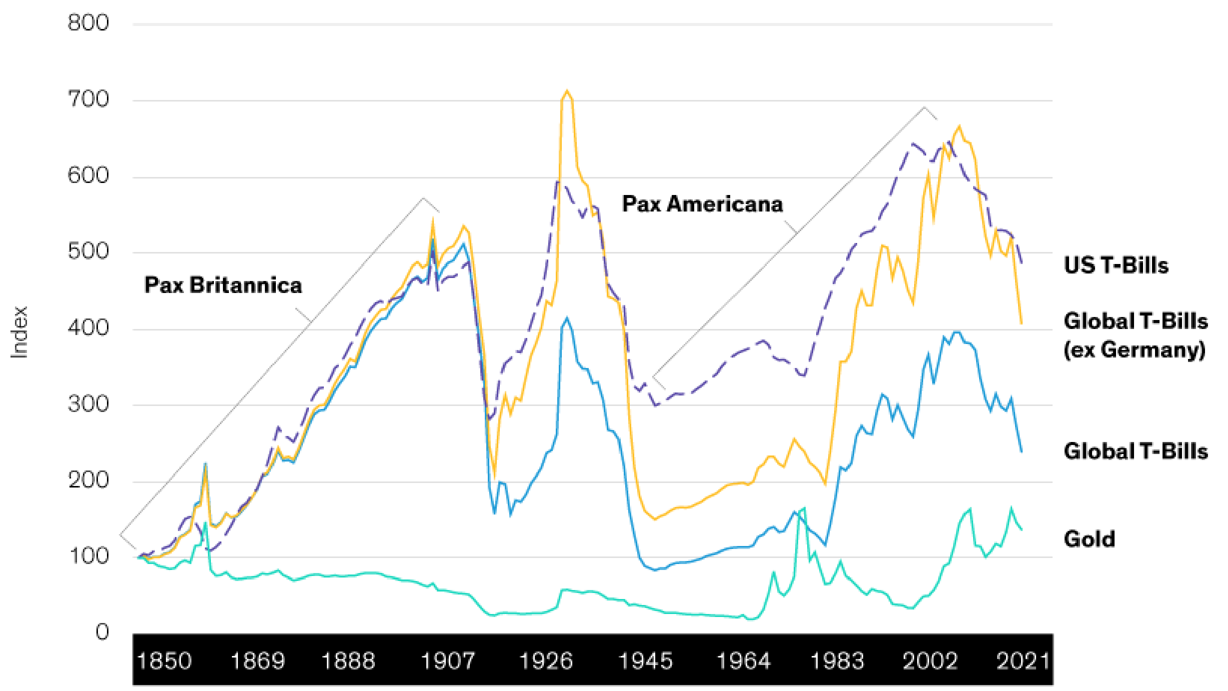
Deglobalization and the Meaning of Risk

Investors must bear in mind that recent decades have been unusually benign in the longer-run context—and are not likely to be repeated. This isn't a bearish statement and categorically does not imply a negative return on financial assets, but it does imply that investors need to be willing to accept a higher risk level and be ready to consider different types of risk. On one level, higher risk means expecting more volatility in portfolio returns, but we think there are also other dimensions to the definition of risk.

Perhaps most germane to the topic of deglobalization is that we see greater acceptance ahead that there's no such thing as a risk-free rate. Historically, risk-free rates were contingent on certain geopolitical environments that deglobalization challenges (*Display 10*). Also, the debt/GDP ratio today has risen back to its 1945 level across OECD nations, implying more risk that governments wish to monetize their debt, at least implicitly. If there's no such thing as a risk-free rate, the notion of absolute value is in question, and we're left with a nested set of risk premia.

Display 10: What Is Risk-Free?

Real Returns on Global Treasury Bills and Gold Since 1850



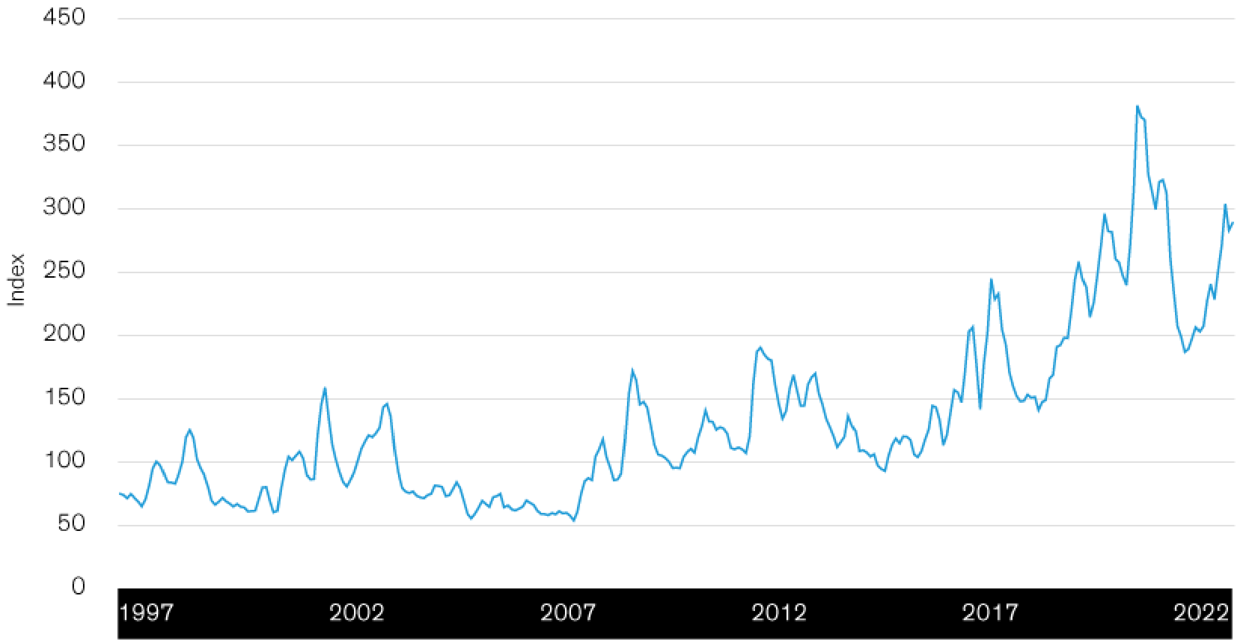
Historical analysis and current estimates do not guarantee future results.
Expressed in real terms using US CPI as the deflator. Global T-bills use an equal-weighted average of the US, UK, Holland, France, Prussia/Germany and Australia, with Italy, Japan, Switzerland and Belgium joining as the data become available or as the countries were created.
December 31, 1851, through June 30, 2022
Source: Global Financial Data and AB

We've made the case before that the pandemic has ushered in an era of greater government involvement in the world economy. The abrupt shift in energy and food prices, not to mention the availability of the natural resources needed to carry out the green-energy transition, implies that the national-security element of supply chains will be made more explicit.[21]

We also expect policy risk to be amplified in the years ahead as the job of cushioning economies in tough times shifts from monetary policy, run by technocrats, to fiscal policy, run by politicians. This risk factor might not show up in the daily volatility of markets, but it does imply the risk of more frequent changes in regime. One way to capture the effect of policy risk is through the Economic Policy Uncertainty Index, which has been rising to a structurally higher level since 2014 (*Display 11*). We expect it to remain above its historical average over the strategic horizon, and it could move higher.[22]

Display 11: Uncertainty over Policy Regimes Has Been Growing

Economic Policy Uncertainty Index (Three-Month Moving Average)



Historical analysis and current estimates do not guarantee future results.

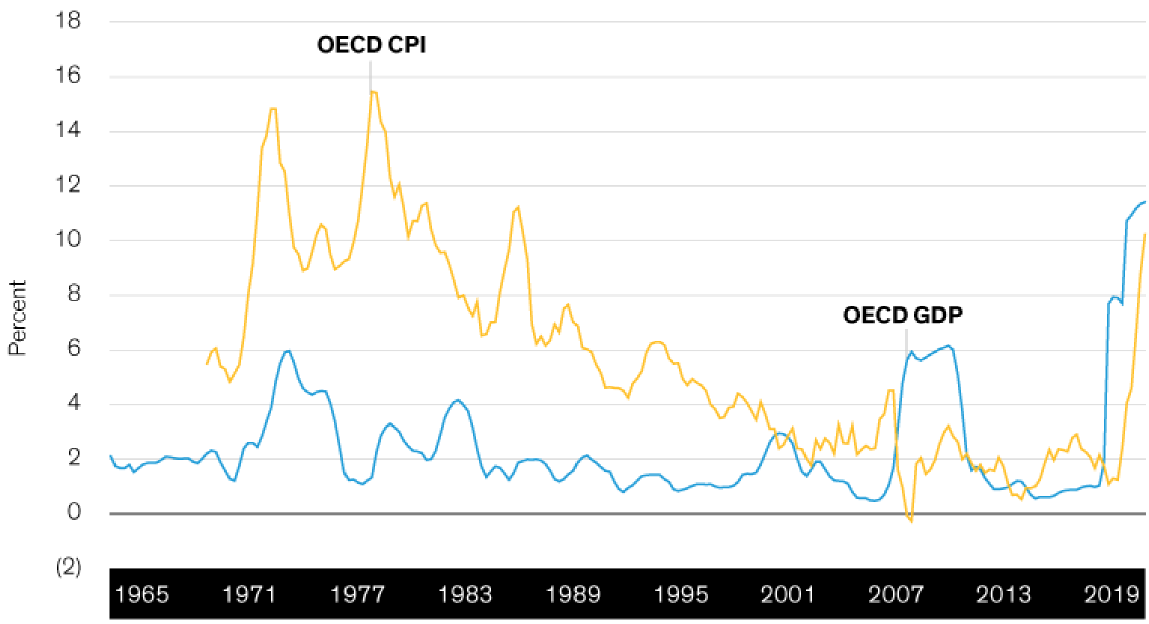
Through July 15, 2022

Source: Economic Policy Uncertainty, Thomson Reuters Datastream and AB

Macroeconomic uncertainty is also rising, as shown by a simple measure of the volatility of both inflation and GDP (*Display 12*). Greater government involvement implies that these macro measures of volatility will likely remain above their pre-pandemic levels.

Display 12: Macroeconomic Uncertainty Is on the Rise

OECD CPI and GDP, Three-Year Rolling Standard Deviation



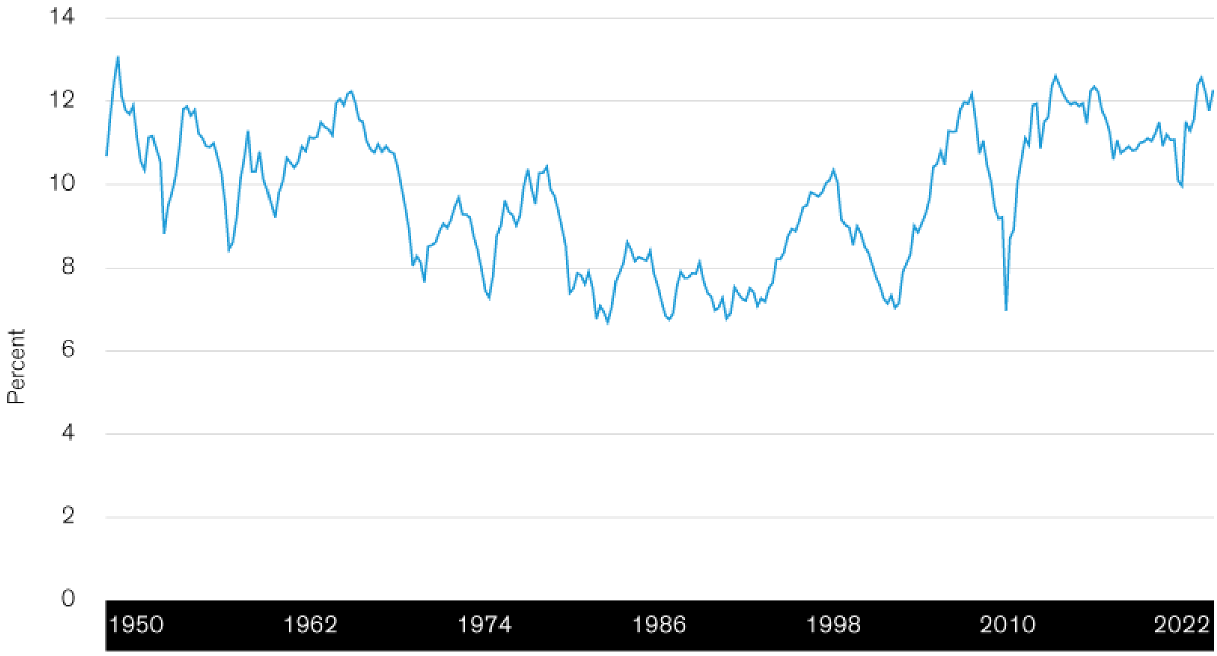
Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: OECD, Thomson Reuters Datastream and AB

Deglobalization Will Likely Reduce Corporate Profitability

In our view, deglobalization will depress corporate profitability. In the near term, profitability will likely be dictated by the procyclical nature of profit margins, while also benefiting from investments in automation during the pandemic. However, over horizons longer than three years, we think margins will fall. As with inflation, profitability is an area where the deglobalization process aligns with other macro factors pointing in the same direction. In the US, the corporate profit share of GDP is close to an all-time high at 12.2%, and it has been elevated for a decade compared with historical norms (*Display 13*).

Display 13: Near-Record US Corporate Profit Share Will Likely Decline

US Profit Share of GDP



Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: Federal Reserve Economic Data (FRED), Thomson Reuters Datastream and AB

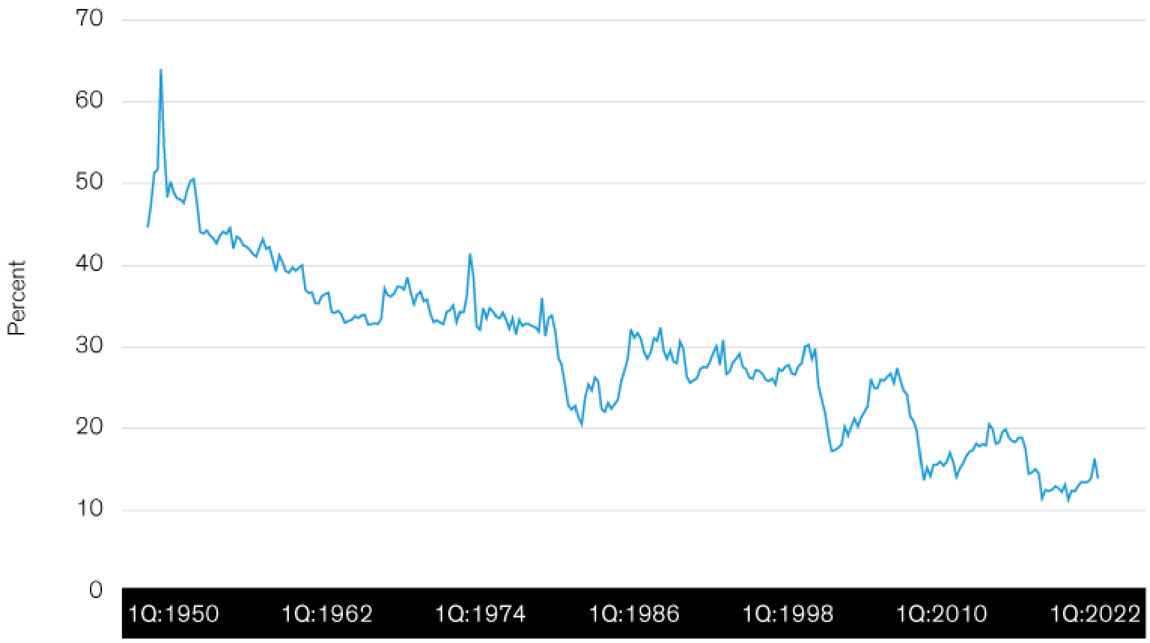
We expect several structural issues to bring this ratio lower in the coming years, such as:

+ Rising effective corporate tax rates
+ Increased inventory levels
+ Greater bargaining power for labor versus capital
+ A fading of the flattering effect of mega-cap efficiency on cap-weighted corporate profitability

The effective corporate tax rate in the US has been on a downward trajectory since the 1950s (*Display 14*). This decline isn't solely due to globalization, but the ability to engage in what could be described as tax arbitrage has been a huge boost to corporate profitability. A shift to a less globalized world and multilateral discussions on minimum corporate tax rates in response to questions of social fairness imply that there will be a climb in effective tax rates.

Display 14: Corporate Tax Rates, Long Declining, Will Likely Rise

US Effective Corporate Tax Rate



Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: Thomson Reuters Datastream and AB

Inventory levels are poised to move permanently higher, after a downward trend lasting from 1992 to 2015 as just-in-time supply chains were built out (*Display 15*). The COVID-19 pandemic caused huge fluctuations in inventory levels, which are still seeking an equilibrium as a result of ongoing supply chain issues, particularly with respect to China.

Deglobalization implies that "just in time" supply chains, with their light inventory levels, will be replaced with higher "just in case" inventory levels. The exact consequences will vary by sector, and automation can help to an extent, but we generally see inventory levels as likely to be closer to what they were 20 years ago.

Display 15: Inventory Levels Fell with Globalization and Are Set to Rise Again

Total Business Inventories to Sales

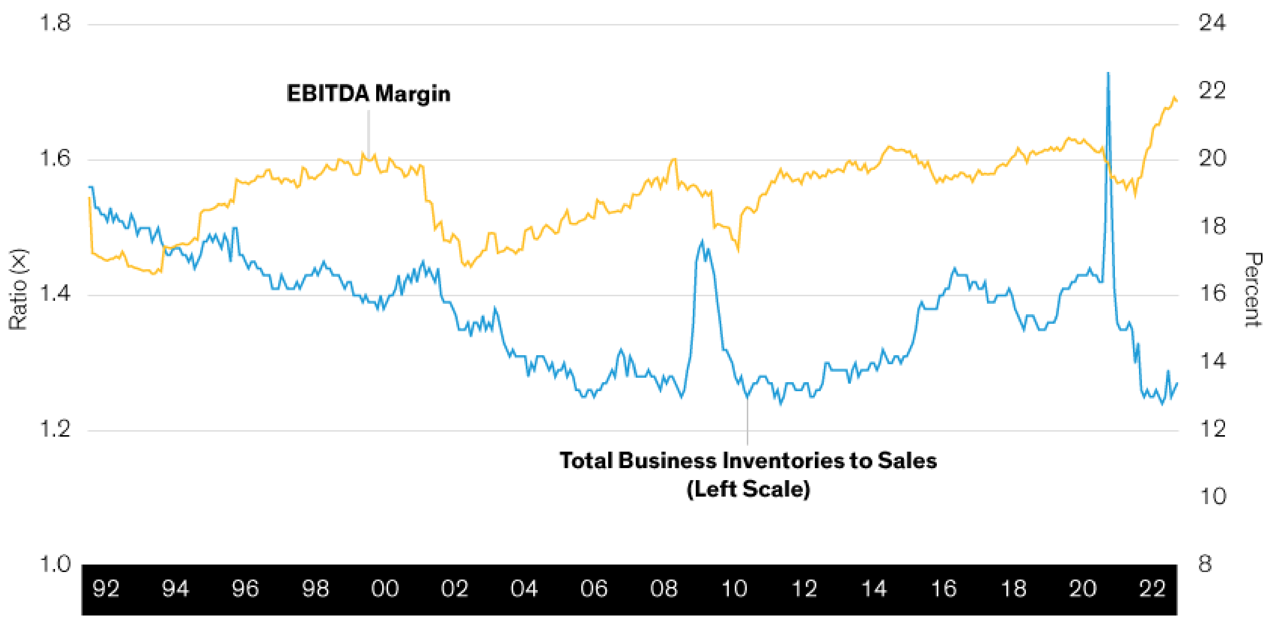
Historical analysis and current estimates do not guarantee future results.

Through March 21, 2022

Source: FRED and AB

There's a negative relationship between inventory levels and corporate profit margins (*Display 16*). A simple regression of corporate margins against the inventory-to-sales ratio shows a negative, and highly statistically significant, beta coefficient with a t-statistic of (4.5). Based on this result, if the inventory-to-sales ratio returns to its historical average of 1.4, that shift alone would be enough to bring the EBITDA margin down to its historical average of 19%.

Display 16: The Inverse Relationship Between US Margins and Inventories



Historical analysis and current estimates do not guarantee future results.
Through March 31, 2022
Source: Thomson Reuters Datastream and AB

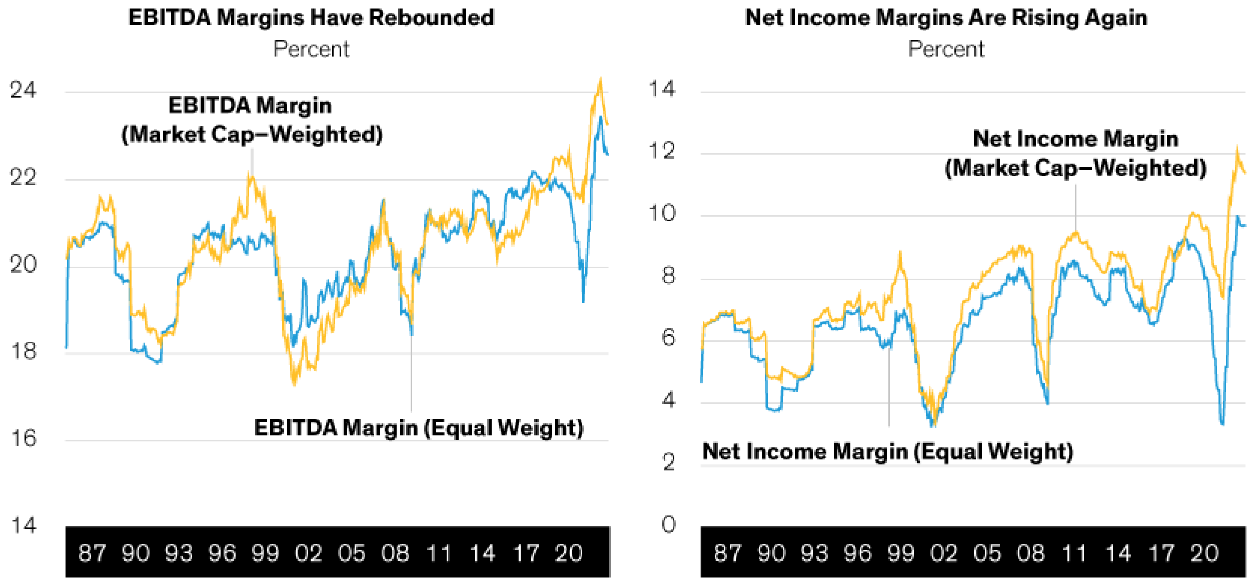
We've laid out multiple reasons to expect labor to achieve greater wage-bargaining power. We're seeing this in the very short term in response to a rapid decline in unemployment, but we think this will be a persistent feature of the economy (*Display 17*).

Display 17: US Labor Costs Have Risen Sharply Since the Start of 2021

Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: Thomson Reuters Datastream, US Bureau of Labor Statistics and AB

Finally, we note that margins at the median US firm have been elevated for the reasons cited above—over and above that, the cap-weighted margin is even higher (*Display 18*).

Display 18: Margins for North American Companies Have Been Elevated



Historical analysis and current estimates do not guarantee future results.
Time series are constructed from equal-weighted and market-cap-weighted sector margins.
December 31, 1987, through August 31, 2022
Source: Thomson Reuters Datastream and AB

A Drag on Equity Market Returns

Over a strategic time horizon, the drivers of real equity returns can be expressed as the following equation:

Real equity return = dividend yield + net buyback yield + real growth per capita + population growth + change in profit share of GDP + multiple expansion / contraction

The current US dividend yield is 1.6%, and the current buyback yield is 2.3%. Long-term real GDP growth per capita is 1.5% annualized, and the long-run US population-growth estimate from the UN is 0.5% annualized. However, we think the share of this growth that can accrue to the owners of equity capital will decline.

To estimate the long-term impact on corporate profitability, we can construct a simple profit and loss account for nonfinancial corporations using the Z.1 Financial Accounts of the United States. We assume revenue growth in line with the average over the past five years, and that the employee-compensation share of sales will return to the pre-2000 average of 63.5% from its current 59.5%. We also assume a higher corporate tax rate of 20% versus 17.7% now. To adjust for the impact from higher inventory levels, we assume that the inventory share of sales will return to its pre-2000 average.

Based on this exercise, after-tax profit margins for nonfinancial corporations would decline from its current 12% to around 10%, which we use as a proxy for the decline in profit share of GDP. This result is broadly in line with the average profit share of GDP from 1950 to 2010, before the very elevated levels of recent years. We acknowledge that, because the composition of the cap-weighted market has shifted toward technology, the role of inventories and median-worker compensation may arguably matter less. But tech has seen an outsize benefit from the reduction in the effective tax rate, so we believe it's right to apply this profit-share adjustment to the whole corporate sector.

We'll leave the question of the correct multiple aside for the moment, and as a first step will assume it stays constant. In that case, the above equation simplifies to:

> *Real equity return = dividend yield + buyback yield + real growth per capita + population growth + change in profit share of GDP*

> *Real equity return = 1.6% + 2.3% + 1.5% + 0.5% – 0.2% = 5.7%*

Here, we assume a decline in the profit share of GDP of 2 percentage points spread over the next 10 years. This is a real-return forecast, so it's still a high nominal-return forecast.

However, we then need to layer in the impact of a change in multiple. For forecasting 10 years ahead, we find the Shiller PE Ratio to be one of the most useful metrics.[23] While the current 27x Shiller PE multiple is elevated versus history, we don't expect it to revert all the way down to its historical average, given our outlook that real rates will remain close to 0% in the coming years. As *Display 19* shows, the ex-ante Shiller Equity Risk Premium (ERP) is currently 2.4%, compared with its 4.1% historical average since the 1950s. If we assume that real yields stay at 0% and the ERP returns to 4.1%, this implies a 24x Shiller PE market multiple. A multiple compression from the current level to 24x over 10 years would imply an annual 1.2 percentage point drag on equity returns.

Display 19: Shiller Equity Risk Premium

Through July 31, 2022
Source: Robert Shiller's database and AB

Adding the effect of multiple compression to the earlier equation, the real return falls to 4.5%:

Real equity return = 1.6% + 2.3% + 1.5% + 0.5% – 0.2% – 1.2% = 4.5%

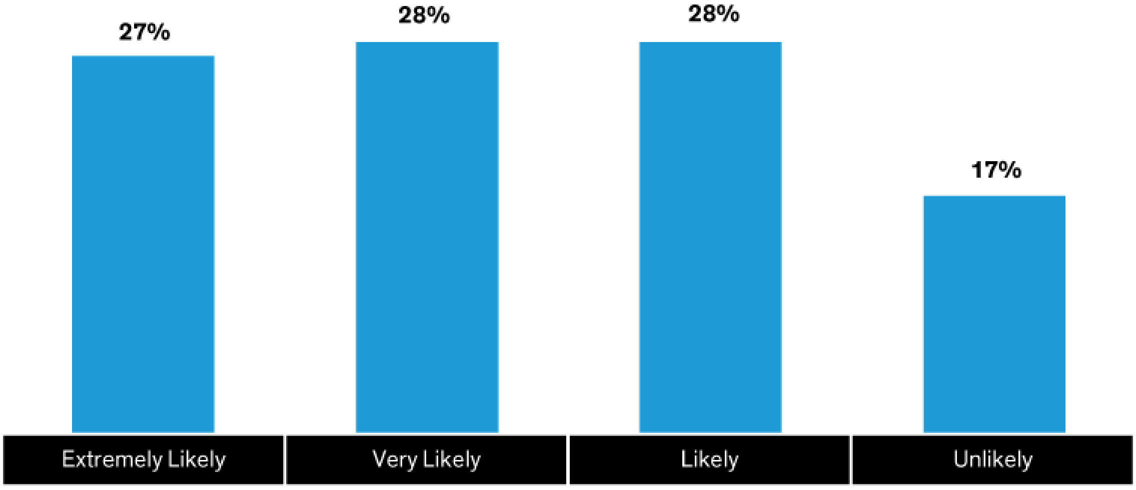
This might seem low, but it's not bearish in real terms, and still more than a 7% annualized nominal return, assuming our inflation target of 3% 10 years forward. This is lower than our previous long-run equity forecast because we're incorporating a higher equity risk premium as a function of deglobalization. Because this is a discussion about equilibrium levels, not sudden movements in valuations, the market could arrive at this lower multiple over a period of years.

Reshoring and Automation Are Likely to Be Lasting Themes

In our view, the related themes of automation and "reshoring," bringing supply chains back within national borders, will be central for many years to come. They'll have macro implications, and they could influence a strategic thematic tilt in portfolios.

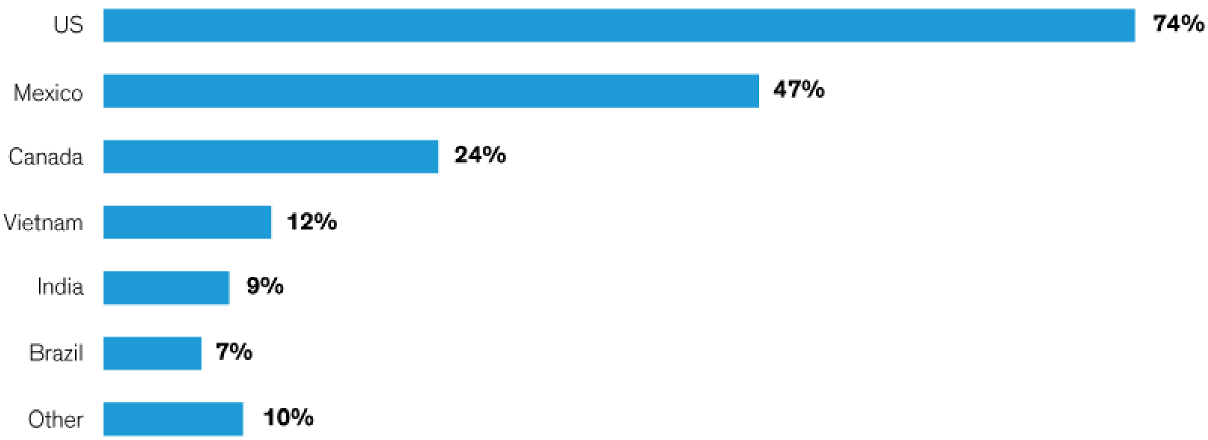
Bernstein Research's US Multi Industry & Electrical Equipment research team noted a recent manufacturing CFO survey showing a high level of interest in reallocating production from overseas.[24] North America was the favored destination for future investment (*Displays 20 and 21*).

Display 20: How Likely Are You to Replace an Overseas Supplier with a North American Supplier in the Next 12 Months?



Historical analysis and current estimates do not guarantee future results.
As of June 3, 2022
Source: AB Bernstein Research; BDO USA, *2021 BDO Manufacturing CFO Outlook Survey;* Thomas Publishing Company, *State of North American Manufacturing: 2021 Annual Report;* and AB

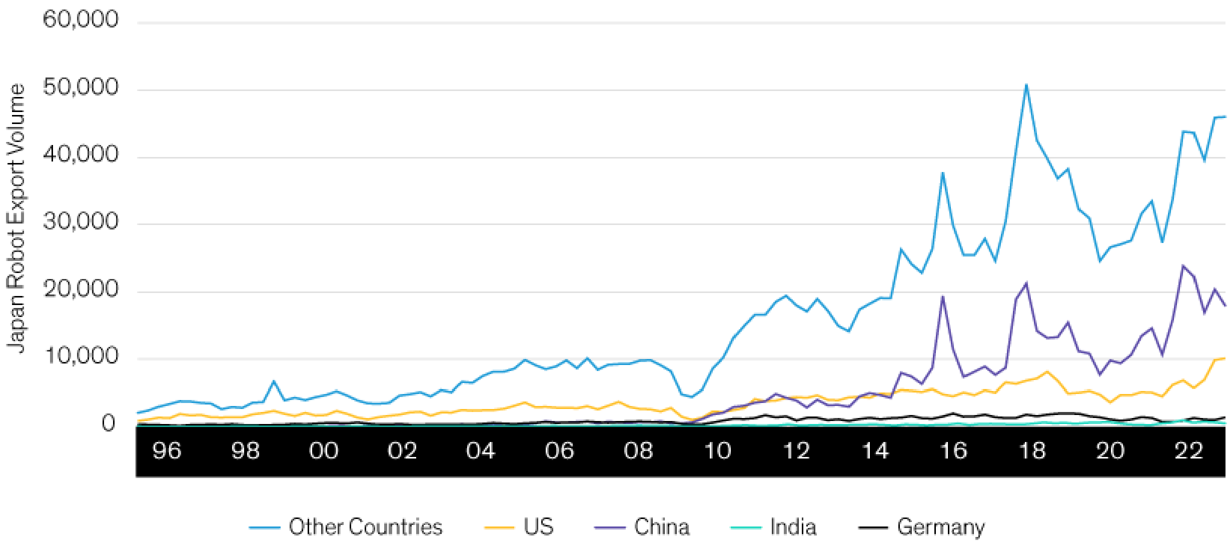
Display 21: What Countries Are You Moving to or Considering Moving To?



Historical analysis and current estimates do not guarantee future results.
As of June 3, 2022
Source: AB Bernstein Research; BDO USA, *2021 BDO Manufacturing CFO Outlook Survey;* Thomas Publishing Company, *State of North American Manufacturing: 2021 Annual Report;* and AB

Reshoring brings with it automation. Automation in the economy has been a growing theme of the past decade, and it was sharply accelerated by the pandemic. As we show in *Display 22* below, Japan's robot export volume has risen sharply over the past two years, reflecting strong demand. That demand is corroborated by data from the Association for Advancing Automation (A3) showing the highest-ever quarterly orders in the first quarter of 2022.[25] The auto industry has historically been the biggest source of demand for robots, but its share has been overtaken in recent quarters by non-automotive industries such as food and consumer goods, construction, and agriculture. This leadership change shows that demand for automation is increasingly spreading across diverse sectors of the economy.

Display 22: The Pandemic Boosted Robot Sales; Onshoring Could Continue the Trend



Historical analysis and current estimates do not guarantee future results.
March 31, 1996, through March 31, 2022
Source: Bloomberg, Ministry of Finance Japan and AB

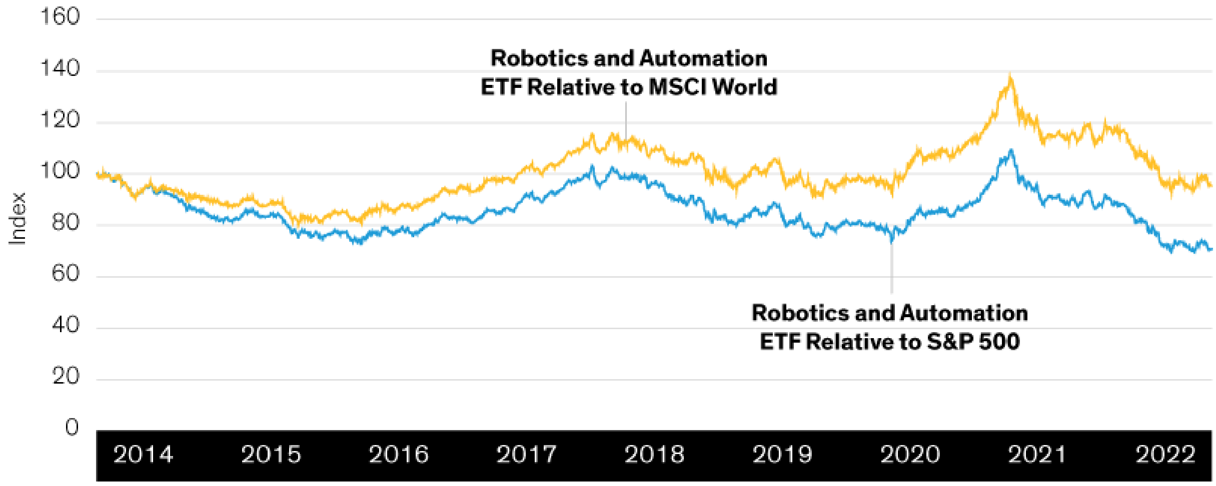
Deglobalization and onshoring (or even near-shoring) of production should be strong structural tailwinds for the continued automation wave. In our view, automation will be a key disinflationary force in the economy in the coming years. Increased competition from robots will counterbalance some of the bargaining power of workers, keeping wage growth in check. Companies may also see productivity gains and cost reductions from operating more efficiently with fewer workers, and from reduced transportation costs with production closer to end markets, offsetting some of the broader expected decline in margins.

But a structural tailwind isn't enough to create an investment theme; valuation is equally important. In *Display 23*, we show the relative performance of the ROBO Global Robotics and Automation ETF. These types of companies have suffered so far in 2022, along with the broader universe of long-duration growth companies, with real yields rising. As a result, both absolute and relative valuations have become much less demanding compared with their peak at the start of 2021 (*Display 24*).

From a factor perspective, we're happy to have an allocation to long duration within the equity market. Despite the recent rise in real yields, they're still low with regard to the bigger picture, and we expect them to stay that way. In that context, justifying the valuation of growth companies isn't the problem, per se. Instead, the key issue is identifying conviction that the level of growth can be maintained. In the case of automation and robotics companies, we think that's indeed the case.

Display 23: Robotics and Automation Have Struggled So Far in 2022

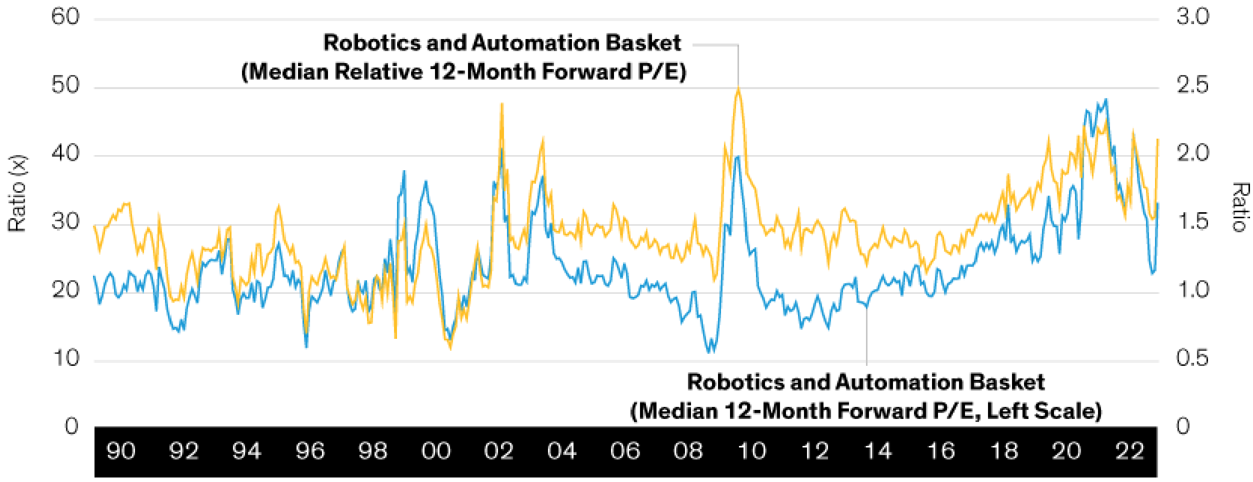
ROBO Global Robotics and Automation ETF Relative Performance



Historical analysis and current estimates do not guarantee future results.
Through August 31, 2022
Source: MSCI, S&P, Thomson Reuters Datastream and AB

Display 24: Much Less Demanding Robotics and Automation Valuations

Absolute and Relative Valuation of the Top 15 Stocks in the ROBO Global Robotics and Automation ETF



Historical analysis and current estimates do not guarantee future results.
Through August 31, 2022
Source: FactSet, Thomson Reuters Datastream and AB

De-dollarization: A Likely Effort to Reduce Dollar Dependence

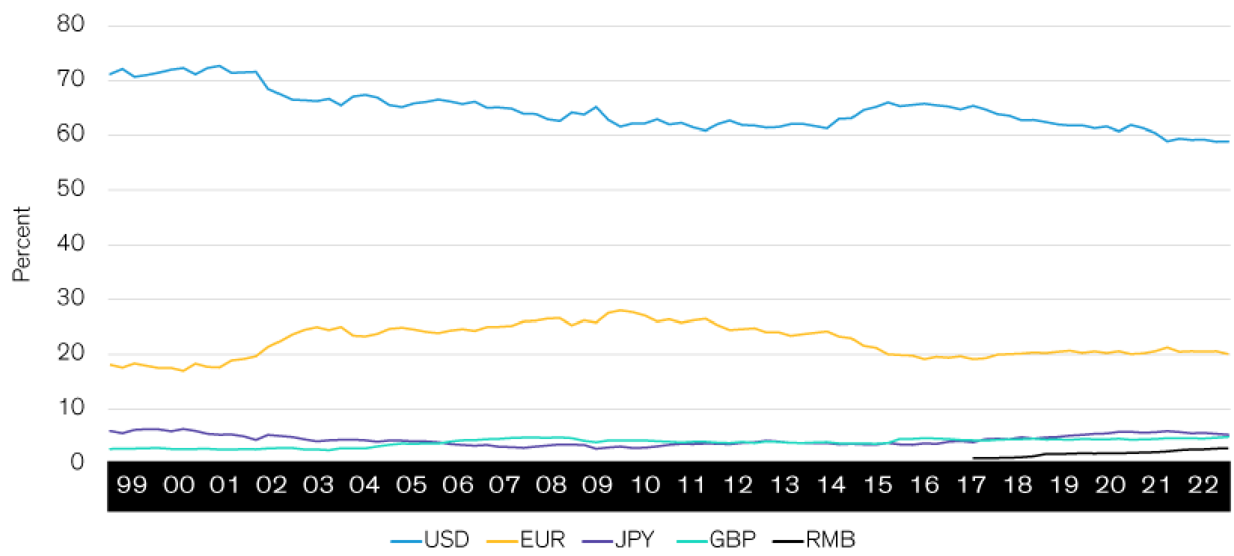
The prospect of de-dollarization is distinct from deglobalization but a related topic, so we think it's appropriate to include it in this note. A key reason why de-dollarization has become a more urgent topic is the recent weaponization of the dollar as an extension of foreign-policy goals. This is prominently the case with Russia, but it was also the case with policy directed at Iran before that.[26]

That's why countries will likely make a concerted attempt to reduce their dependence on the US dollar. This effort is currently centered on China and Russia, but likely to spread to other countries. For instance, at the BRICS Summit in June 2022, Russia announced plans to develop a new reserve currency based on a basket of currencies from the group's members—Brazil, Russia, India, China and South Africa.[27] Other recent initiatives aimed at undermining the US dollar include using Chinese yuan to pay for coal and oil imports by Chinese firms, and Russia's offer to accept payment in rupees and United Arab Emirates dirhams for oil to a number of Indian corporations.[28]

The US dollar's share of global foreign exchange reserves has fallen from above 70% in 2000 to below 60% today (*Display 25*). Despite a brief increase in holdings of euros early in that currency's history, there's been no sustained meaningful increase in holdings of the other major currencies.

Display 25: Falling US Dollar

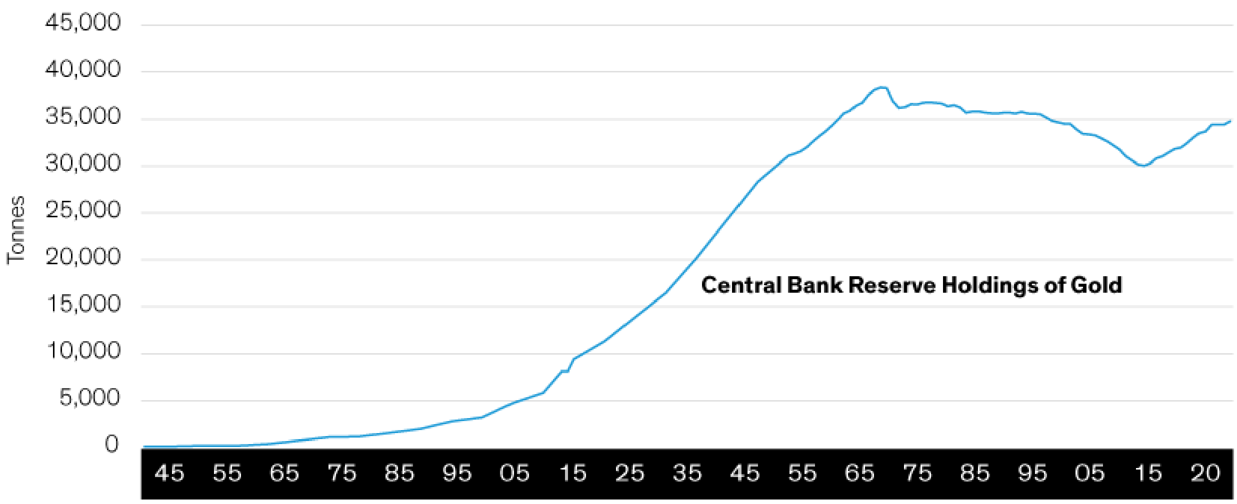
Currency Composition of Global FX Reserves



Historical analysis and current estimates do not guarantee future results.
March 31, 1999, through March 31, 2022
Source: International Monetary Fund (IMF) and AB

Allocations to gold as part of central bank reserves, on the other hand, have started to rise over the past 10 years—the first meaningful increase since the 1950s (*Display 26*).

Display 26: Central Banks' Gold Has Been Rising for the First Time Since WWII



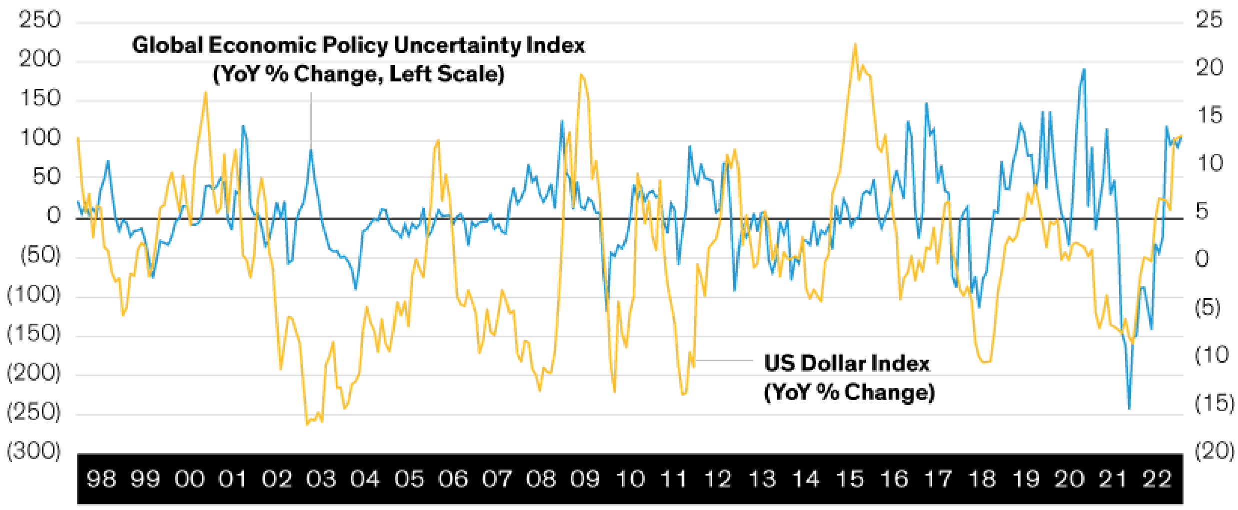
Historical analysis and current estimates do not guarantee future results.
December 31, 1845, through August 31, 2022
Source: Bernstein Research, World Gold Council and AB

What are the implications for this renewed interest in gold? One implication is a background tailwind for gold, especially when coupled with a limited ability to increase the gold supply and an outlook that calls for higher inflation.[29] That said, shifts in real yields matter much more for the price of gold over short-term horizons.

Other things being equal, this backdrop implies diminishing dollar demand from central banks. But with trade-weighted gold prices reaching new highs, interest-rate differentials clearly matter far more in the near term—it would take a brave strategist to use de-dollarization as a case for near-term dollar weakness. In a world where synchronized debt monetization by developed countries could be an implicit policy goal, it does imply that the US at least has a greater ability to undertake such a policy.

There's still a tendency for the dollar to be seen as a safe-haven asset, with increases in global economic policy uncertainty positively correlated with changes in the dollar index (*Display 27*).

Display 27: Dollar Still Regarded as a Key Safe-Haven Instrument



Historical analysis and current estimates do not guarantee future results.
Through July 15, 2022
Source: Economic Policy Uncertainty, Thomson Reuters Datastream and AB

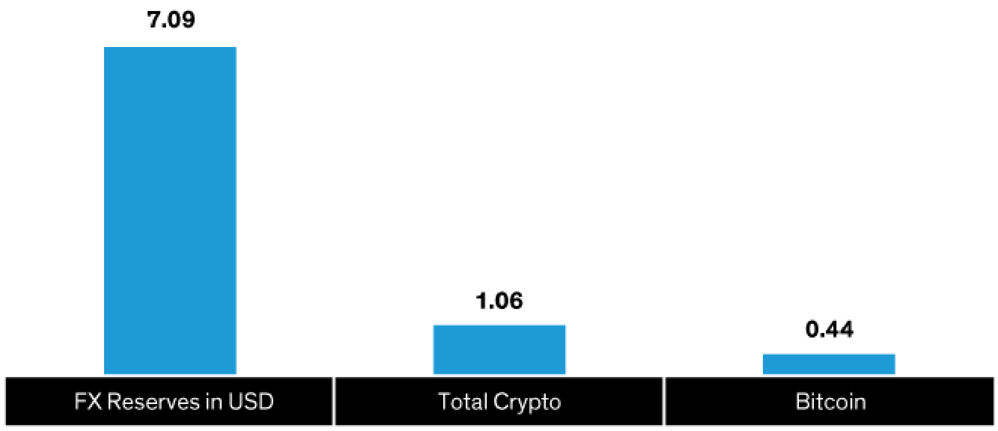
Ben S. Bernanke has argued that the most important reason why the dollar has retained its trade preeminence in the post–Bretton Woods world is simply inertia.[30] Is there any plausible alternative? The great hope (for enthusiasts at least) was that crypto would be the alternative. The tumbling of crypto in 2022 will likely delay any such move. In our own interactions with asset owners, we find that questions about crypto have entirely dried up this year. The day of Russia's invasion of Ukraine was a stark case in point—gold went up and Bitcoin went down. One worked and the other didn't.

Despite the crypto collapse this year, we think there's a long-run case for a subset of crypto assets to play a role, especially if fiat currencies depreciate in response to current debt levels. The recent rout in crypto could be a useful mechanism to clear out coins that don't have enough of an economic case to survive.

The current market cap of all cryptocurrencies is very small compared with the size of FX reserves denominated in US dollars (*Display 28*), and regulation is likely to increase, not decrease. China has limited the use of crypto as a way to circumvent capital controls.[31] Using dollar access as a tool of foreign policy has also led for calls to restrict crypto use if it's being used to evade sanctions. Also, if crypto ever accounted for a large part of the price-setting mechanism in an economy, it would likely impede the ability to implement monetary policy, attracting the ire of policymakers. The bottom line is that despite its recent declines, we think crypto's share will rise somewhat, but there are very real limits on how large its share can become in any plausible near-term scenario.

Display 28: Crypto Assets Are Small Compared with FX Reserves

Market Size (USD Trillions)



Historical analysis and current estimates do not guarantee future results.
As of August 1, 2022
Source: CoinMarketCap, IMF and AB

Is China's yuan an alternative? The major constraint is capital controls, which won't likely be relaxed any time soon. An internationalized currency would imply opening access to financial markets, which would weaken China's control over its markets. Moreover, while international users of the dollar are aware of the risk of sanctions, surely the same applies for users of China's currency. Both forces imply that any increase in renminbi holdings will more likely be in specific countries that need access (such as Russia), rather than a wholesale switch.

As for the euro, there was a brief increase in global holdings early in the common currency's adoption, but the eurozone debt crisis put the kibosh on that process. The currency's long-run stresses in debt differentials, growth and retirement funding between members are well known. What could be new here is the astonishing speed with which German policy has changed on a number of fronts since Russia's invasion of Ukraine. This includes Germany's willingness to allocate a higher share of government spending to defense, to play an active role in regional defense (including signing off on the export of weapons), and the rapid change to its energy policy that could delay the country's transition away from nuclear and fossil fuels.

It's true that these shifts don't directly relate to monetary policy, but we've argued that Germany is one of the countries with the most to lose from deglobalization. Its economy has relied on the ability to export globally (to China and elsewhere), on cheap energy imports (from Russia) and (heavily) on the US security guarantee. To counteract these forces, a logical reaction might be to double down on pan-European cooperation, such as the common bond issuance of the COVID-19 assistance funds. Germany's reaction to the Ukraine crisis implies that it is able to shift policy more rapidly than previously thought.

In the near term, the euro is suffering from the country's interest-rate differential with the US and from Europe being in the eye of the energy-supply storm. It would be hard to have a tactically bullish view on the currency when the region faces the very real possibility of significant energy rationing over the next year. Nevertheless, this crisis might cause Germany to blink—in that context, the strategic, longer-term prognosis for the euro may be somewhat more positive now than it has been in recent years. But the currency is not about to displace any central bank holdings of US dollars.

Portfolio Diversification: Regional Asset Correlations Are Likely to Fall

Investors might habitually praise globalization for boosting asset prices while decreasing costs and discount rates, but there's been one clear negative consequence for portfolios—higher correlations. Globalization has been associated with a steady increase in the correlation between assets in different regions, impairing diversification. Investors haven't minded so much, because the negatives have been outweighed by the positive impact on asset-price returns. We think this may change.

Since the late 1980s, the average pairwise correlation of equity returns across major regions has seen a pronounced upward shift (*Display 29*). Globalization has almost certainly been the prime cause, although it's actually been a blend in the form of macroeconomic linkages, corporate exposure and a globalization of investment portfolios. Any reduction in this correlation between regions could, in theory, be helpful for investors.

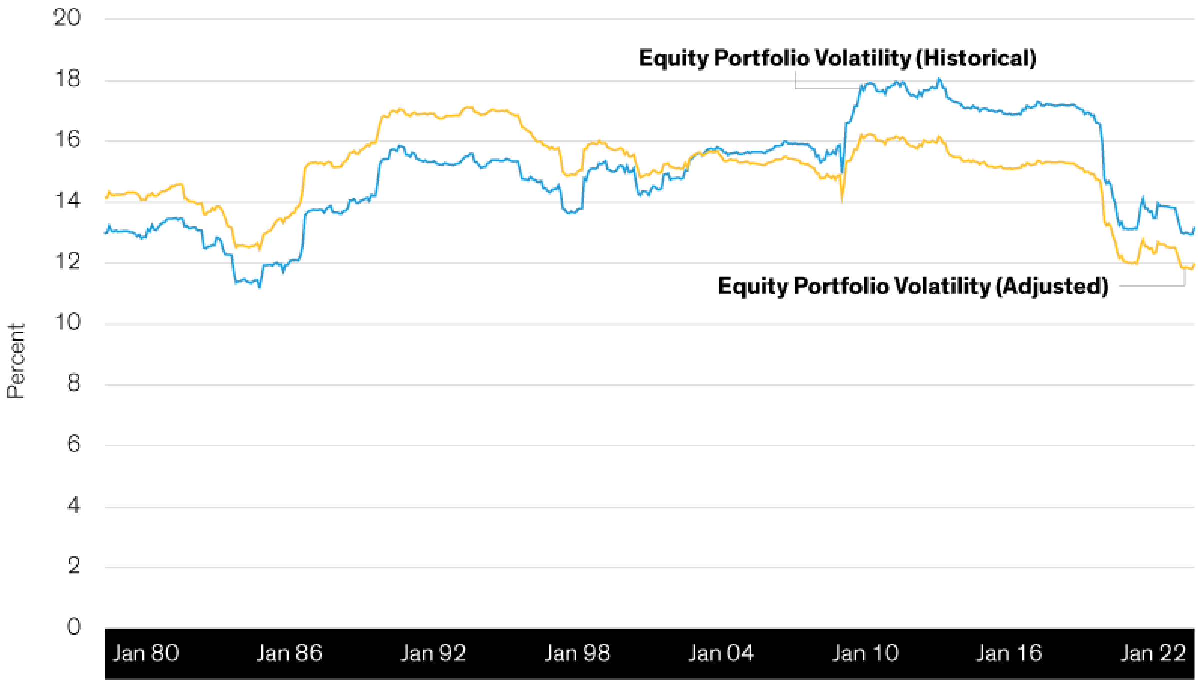
Display 29: Correlation of Regional Equity Markets Has Risen…Until Now

Regional Pairwise Correlation (36-Month Rolling) of Equity Markets

Historical analysis and current estimates do not guarantee future results.
36-month rolling correlation between US, Japanese, European and emerging-market equity markets in US-dollar terms
Through March 31, 2022
Source: Thomson Reuters Datastream and AB

It's all very well to make a directional statement on regional diversification, but can we quantify how big an effect this could be? In *Display 30*, we show the 10-year rolling realized volatility of a global equity portfolio. We compare it to what the volatility would be if regional cross-correlations had stayed at their average level for the entire period since 1970, but assuming that the variance of each region evolved in line with its history. Imposing constant cross-correlations would have reduced portfolio volatility over the past decade.

Display 30: 10-Year Rolling Global Equity Portfolio Volatilities



Historical analysis and current estimates do not guarantee future results.
Ten-year rolling volatility of an equal-weighted portfolio of US, European, Japanese and emerging-market equities. The volatility-adjusted portfolio assumes that the cross-correlation between each country is equal to its average since 1970 and that the variance of each region evolved as per its history.
Through April 29, 2022
Source: MSCI, Thomson Reuters Datastream and AB

It's hard to say at this stage what level of diversification between regions may be possible. But if we assume, for argument's sake, a return to the average intraregional correlations since 1970, it could be expected, *ceteris paribus*, to reduce equity portfolio volatility by one percentage point.

This is one area where it's critical to see the impact of deglobalization on portfolios in a broader context. One of our key conclusions is that it leads to higher equilibrium inflation. We've shown in recent research, What Happens When Diversification Disappears?, that higher inflation can be expected to raise the correlation of stocks and bonds from its deeply negative level of recent decades to closer to zero, and possibly even to a positive correlation. Negative stock-bond correlation has been the key engine of diversification for many portfolios for decades, so any benefit from greater regional diversification needs to be viewed in this context.

In *Display 31* we try to calibrate the scale of these effects, using 60/40 stock/bond portfolios as an example. First, we show the effects of the 10-year rolling stock/bond correlation rising to 0.1, which would result in an 85 basis point (b.p.) increase in overall portfolio volatility. Second, the impact of lower regional equity market correlation would be about 70 b.p. less volatility.

The net result is a plausible case that if global portfolios can be designed to take advantage of increased diversification between regions, and if regional correlation falls back to its long-run average, that could go a long way toward offsetting the higher risk that seems likely from an increased correlation between stocks and bonds.

Display 31: The Effect of Stock/Bond Correlation and Cross-Region Equity Correlation on a 60/40 Portfolio

	Base Case	Stock/Bond Correlation of 0.1	Regional Diversification	Correlation and Regional Diversification
Equity Weight	60%	60%	60%	60%
Bond Weight	40%	40%	40%	40%
Equity Volatility	13%	13%	12%	12%
Bond Volatility	7%	7%	7%	7%
Correlation	(24)%	10%	(24)%	10%
Portfolio Volatility	**7.71**	**8.56**	**7.04**	**7.88**

Historical analysis and current estimates do not guarantee future results.
Effect on 10-year rolling portfolio volatility of stock/bond correlation rising to 0.1 and increased diversification of an equal-weighted global equity portfolio comprising US, Japanese, European and emerging-market equities through a lower cross-correlation between each region.
As of May 31, 2022
Source: MSCI, Thomson Reuters Datastream and AB

One final note: a change in regional correlations might prompt investors to shift away from accepting a simple “passively” weighted global equity index in favor of investing by region, or more actively on a global basis. The supporting case is made all the starker by the somewhat artificial weight for China in some global indices, given the open question of how much of an “inclusion factor” to allow for markets that aren’t fully open. A less globalized world should make investors less willing to passively accept the effect of these types of index inclusion decisions on portfolios.

PART III: How Should Investors Respond to Deglobalization?

Implications for Portfolios

We argue that the case for deglobalization outlined here amplifies the need to construct a strategic asset allocation that protects portfolios against inflation in the long run. This imperative implies a prolonged requirement for a high allocation to real assets, whether private assets or public equities and factor strategies. In tandem, inflation is probably the true benchmark for many investors, and more migration in that direction is likely, which would amplify the focus on generating real returns.

The corporate sector has managed a historically unusual stretch of high profitability in the most recent period of globalization, and margins will most likely fall from here. Still, equity's role as a real asset as well as the size and liquidity of the market implies that it will remain a core portfolio anchor.

However, the 60/40 portfolio is in danger—we've been saying this for a while, and many investors have moved away from this structure. However, it still plays an outsize role in allocations, including as a default. The increase in yields in 2022 implies that the expected returns for the 60/40 portfolio are higher than they were six months ago, though they're still materially below trend. Moreover, its volatility is set to rise as the stock/bond correlation becomes less negative, and its very disappointing performance in the first half of the year has probably shaken many investors out of their assumption that the 60/40 was somehow low risk.

Implications for "Passive" Investing

Deglobalization raises specific issues for passive investing, aside from the potential indirect impact of higher risk premia. If a bigger share of portfolio diversification comes from intra-asset class regional diversification than from inter-asset class diversification, that shift implies relatively less investor interest in buying passive exposure to global asset classes.

Moreover, the weighting of Chinese assets in indices will likely become a more prominent issue. This relates to how that weighting is determined (it's hard for that process to be truly "passive"). Another facet is the implications for the changing nature of the global market if the weighting is large (affecting the relative shares of liberal open-market economies and alternative governance structures). This is an issue that passive investing hasn't had to face before at this scale.

Relative Winners: The Candidates

Below we outline a series of themes or secular trends that are candidates to become long-term overweight positions in portfolios:

- **Automation companies.** These are set to benefit from a long-term process of "reshoring."

- **Renewables.** We see the question of energy security as an accelerating factor in the energy transition.

- **Inflation protectors.** The need for more inflation protection is a key investment consequence of deglobalization, in conjunction with demographic changes. For most asset owners, this elevates the need for long-run inflation protection. In other words, this means defining "inflation protection" as assets that can generate positive real returns even when inflation is high, as opposed to having a high-frequency correlation with inflation expectations. We see this need leading to higher long-run allocations to real assets, such as real estate, farmland and power delivery, as well as to private debt (with its floating rates) and liquid public assets, such as equities and the value factor. Taken together, these constitute key elements of inflation protection.

Relative Losers: The Candidates

Likewise, some themes or secular trends are candidates to become long-term underweight positions:

- **Specific countries.** Some nations risk losing more than others. Germany stands out, given its reliance on Russia for energy, China for exports and the US for a defense umbrella. Germany's exports to China constitute 3% of GDP, so any geopolitical deterioration from deglobalization would put it in a very uncomfortable position (*Display 32*). Taiwan and South Korea are other countries that could fall into this category.

Display 32: Germany's Reliance on China for Exports

German Monthly Exports to China

Historical analysis and current estimates do not guarantee future results.

Through May 15, 2022

Source: Thomson Reuters Datastream and AB

+ **Mega-cap stocks.** Mega-caps have benefited both directly and indirectly from globalization. The direct benefit is plain to see in the benefits of scale for revenue generation and the benefits of tax and labor “arbitrage” to minimize costs. The indirect benefit historically came via lower interest rates and their implications for the valuation of long-duration growth stocks.

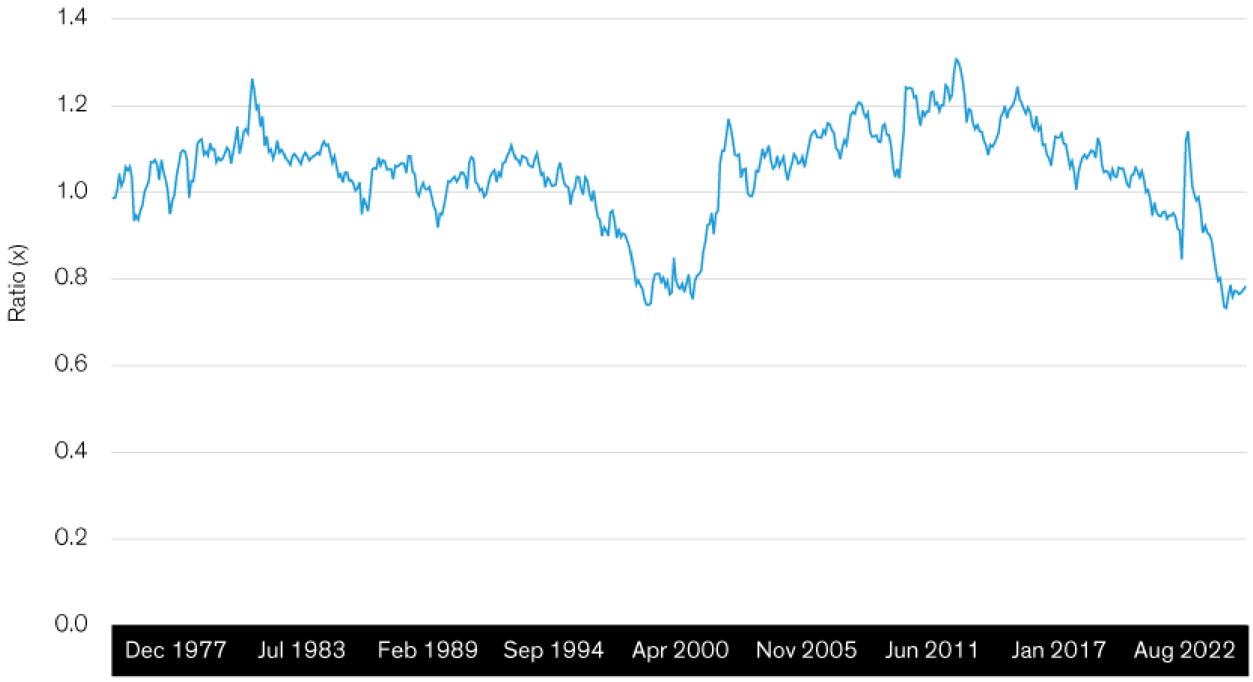
  The case against mega-caps from here is the fading of those benefits, though there are countervailing forces: First, any re-onshoring requires automation, and therefore greater scale and capital. Second, an increase in the risk premium could impact smaller, higher-risk companies. And third, the prospect of real yields staying low in the long term, along with evidence that the profitability of higher-profitability companies tends to be more persistent, implies that some benefits of large growth companies will last until a politician takes them apart.

  Given these countervailing forces, valuation is key. In *Display 33*, we show that smaller companies are at historically cheap multiples versus large-caps in the US. We’re wary that small-caps tend to underperform going into a recession, which could account for some of this valuation spread, but nonetheless the gap is at an historical extreme. In *Display 34*, we show the impact of removing just mega-caps from the valuation of the market rather than simply comparing large and small companies. The spread is less dramatic, but still shows that the presence of mega-caps raises the market’s valuation.

  This valuation spread, alongside the macro forces we’ve outlined, implies that we would want to underweight the largest companies. This could be achieved either by explicitly targeting the indices of mid-size or smaller companies or by gaining exposure to indices that reduce the impact of the very largest companies.

Display 33: Smaller Companies Are Historically Cheap vs. Large-Caps

Small 1,000 vs. S&P 500–12-Month Forward P/E



Historical analysis and current estimates do not guarantee future results.

Small 1,000: 1,000 stocks by market capitalization that come after the largest 1,000 stocks in the US market.

December 31, 1977, through September 15, 2022

Source: FactSet, S&P and AB

Display 34: The Presence of Mega-Caps Boosts Market Valuation

1,500 Largest US Stocks, Both Including and Omitting the Mega-Caps—Trailing P/E

Historical analysis and current estimates do not guarantee future results.

Valuation of the largest 1,500 US stocks, with the same series excluding Apple, Microsoft, Meta Platforms, Alphabet Inc., Tesla and Amazon

Through August 31, 2022

Source: Bernstein Research and FactSet

+ **Gold.** For many asset owners, gold is a difficult investment to hold: its 170-year real return is just barely positive, it provides no income and it can't be valued. Still, we think the implication of this note is for investors to hold an "overweight" allocation to gold versus their base starting point. Gold is an effective inflation/debasement hedge, its lack of correlation to equities doesn't change with the inflation level and it can be a low-risk asset in a world where truly risk-free assets may no longer exist.

  The recent rise in real yields, leading to the underperformance of gold, will likely be a significant obstacle for investors. However, this is a primarily tactical note, and the growth implications of both deglobalization and demographic changes imply subdued real-yield levels over strategic horizons. And those investors who are more tactically disposed need only compare the performance of gold and Bitcoin on the day Russia invaded Ukraine to see which asset is preferred as a risk-off hedge.

+ **Commodities.** As borne out by the price dynamics over the past year, commodities have a key role as a tactical inflation hedge. Given our strategic view that inflation will remain higher than its pre-pandemic level, one might expect an overweight in commodities to be a natural result, but there are headwinds:

  1. There are prospects for a near-term recession, which tends to be damaging for commodities. Despite their recent price declines, there's still huge uncertainty as to the scope of the slowdown.

  2. Long-term investors seek to generate real returns from diversifying assets in portfolios. Commodities are a highly effective tactical inflation hedge, but there's a broader range of real assets to consider over longer horizons—and commodities' procyclical nature means they're not such effective diversifiers.

  3. We think ESG investing is evolving, but those considerations will make it hard for some investors to have a large allocation to traditional commodities.

Perhaps the most important question is, which commodities? The energy transition implies a wider dispersion of returns within commodities over strategic horizons. On balance, we advocate a neutral position over strategic horizons, but with a skew toward commodities that are positively exposed to the energy transition.

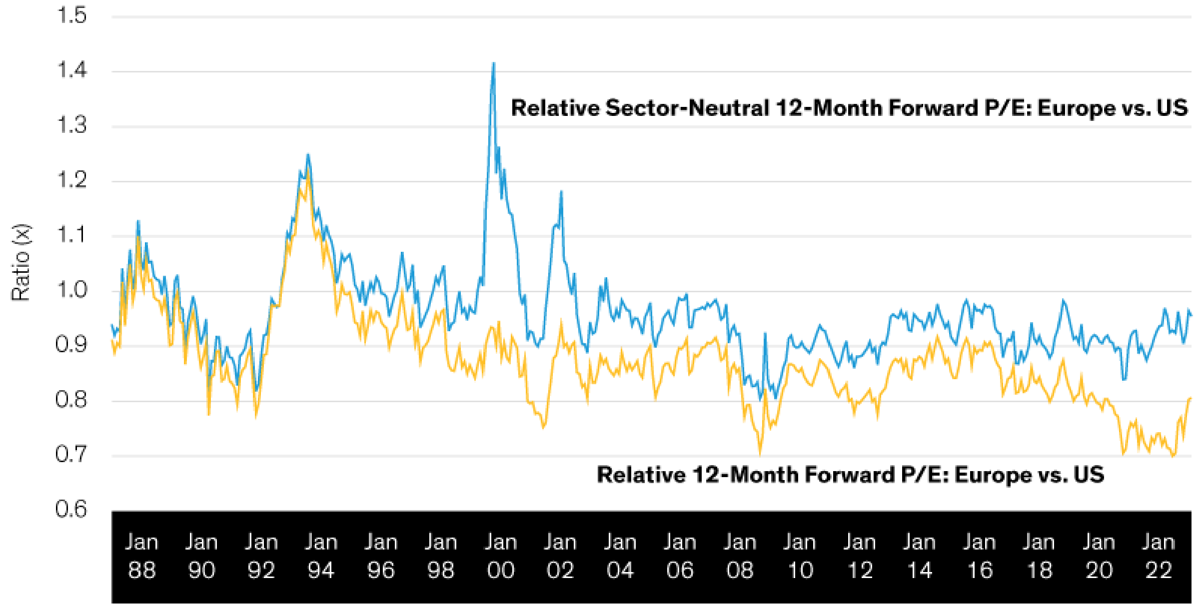
Overweight US vs. International Equities

According to financial theory, given the established, liquid and deep nature of US markets, investors should demand a higher return from holding non-US assets than US assets. This notion is reflected in the near-universal default assumption that the US will underperform international developed markets over long horizons. This assumption is often embedded in long-run forecasting models through capital-market assumptions, so they have to forecast a higher relative return for international assets.

However, the pedagogical arguments only hold in "equilibrium." One can endlessly debate how close to such a mythical state markets may come. The US could be expected to lose out if the US-led multilateral order falls apart or is at least curtailed. We're not so sure. This isn't like the case of Britain when its hegemonic position fell apart. The US is larger, self-sufficient in key commodities and has one of the most robust demographic profiles of developed nations.[32]

At some point, de-dollarization implies a weaker US dollar, but there's no sign of that in the near term. It's also highly unclear what the scale of that impact would be compared with the benefit of somewhat better demographics and energy security. At this point, it would usually be helpful to turn to asset valuation. European equities, perhaps unsurprisingly, look cheaper than US equities (*Display 35*), but the gap is much smaller on a sector-neutral basis, and—crucially—not far from its historical average.

Display 35: US/Europe Valuation Spread Is Only Small on a Sector-Neutral Basis

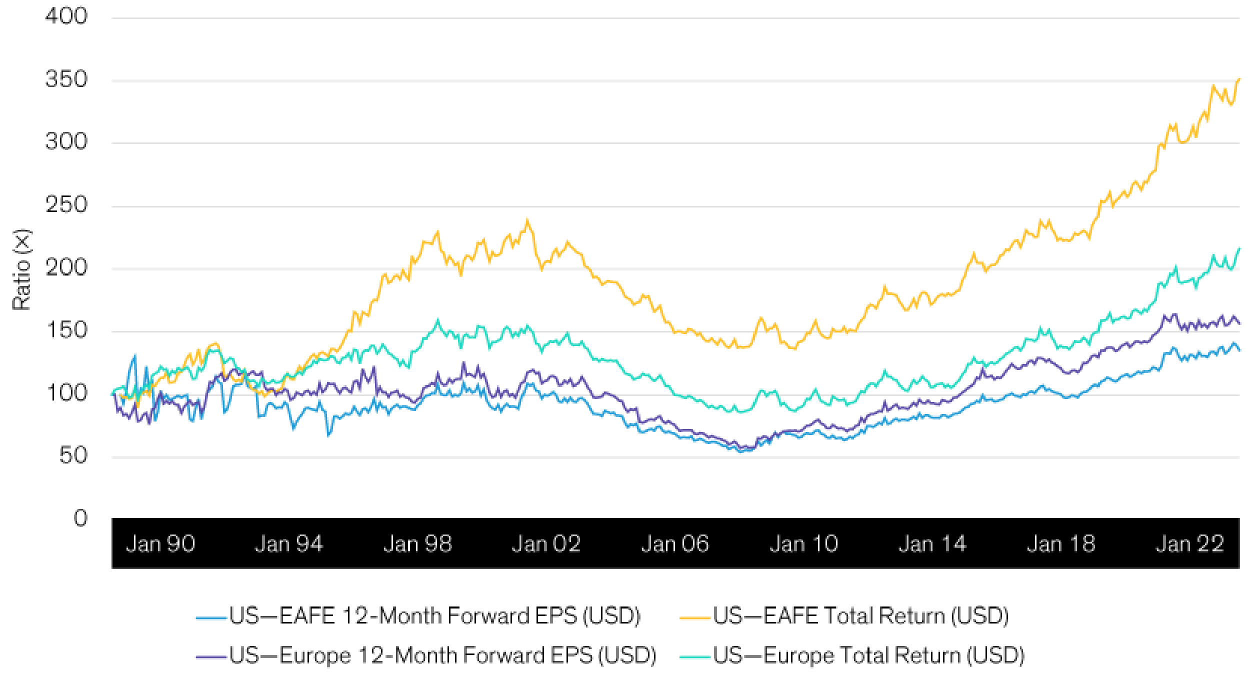


Historical analysis and current estimates do not guarantee future results.
Through June 30, 2022
Source: FactSet and AB

The relative returns of US and international equities are very closely linked to relative earnings growth (*Display 36*). On this basis, relative value is less important on a long-term basis than the ability to deliver growth. We would struggle to suggest that non-US developed-market earnings are set to outgrow the US for the foreseeable future, so we think it might be time to revisit models that suggest that developed international markets can outperform. We suggest an overweight US bias, though this is a strategic—not a tactical—view.

Display 36: The Close Link Between Relative Returns and Earnings Growth

Relative Performance of US vs. International Markets and Relative Earnings-per-Share (EPS) Growth



Historical analysis and current estimates do not guarantee future results.
Through August 31, 2022
Source: Thomson Reuters Datastream, Thomson Reuters I/B/E/S and AB

A Nuanced Impact on Fixed Income

As deglobalization becomes more entrenched as a theme, we see implications across fixed income. On one level, this narrative is about higher risk, which might incline asset owners to shift toward lower-risk assets, but we think the story is more subtle than that.

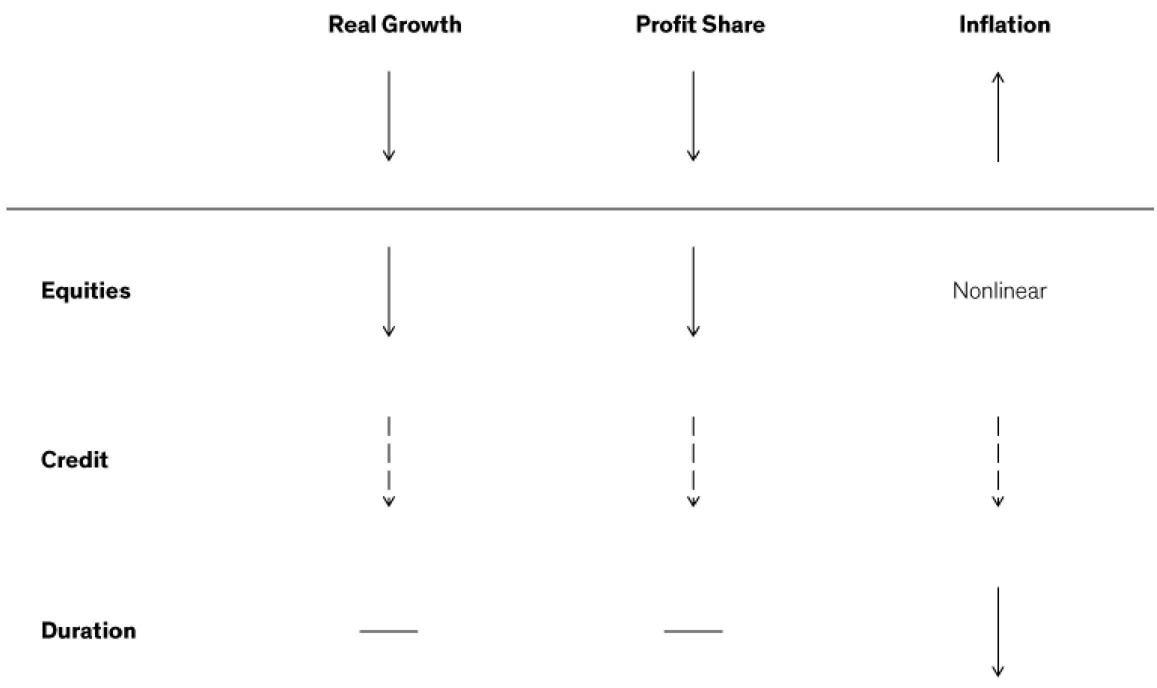
As we see it, this will be more about a general increase in the level of risk, which differs from predicting a big drawdown. When it comes to protecting against a sudden drawdown, high-grade fixed income has a special role to play. If the problem is instead a more generalized increase in risk, then the portfolio-construction challenge is more about finding diversification. For this purpose, we've illustrated that a broader mix of assets is needed in today's environment, including real assets and factor strategies. The key conclusion is that investors should expect inflation to be higher and more volatile—given the prospect of an economy with more government involvement—leading to a negative view on duration.

The prospect for credit is somewhat more complicated. The exposure to inflation is less negative for credit than it is for longer-duration government bonds. However, there's a somewhat negative force being exerted on the asset class from lower corporate margins —though the effect is less significant for credit than it is for equities.

We've summarized these effects in *Display 37*, looking at the three big macro implications of deglobalization. Equity returns have a negative relationship to changes in real growth and margins, but a nonlinear relationship to inflation. A 2%–3% inflation range is benign for equities, allowing them to behave as a real asset; inflation only becomes a more negative force at much higher or lower levels.

Credit has a weak negative link to all three macro forces; duration isn't (directly) linked to margins and growth, but it has a strong negative link to inflation.

Display 37: The Relationship of Duration, Credit and Equity to Deglobalization Trends



Historical analysis and current estimates do not guarantee future results.
As of August 31, 2022
Source: AB

Bolstering the Case for the Low-Volatility Factor

As a factor trade, we think deglobalization further boosts the case for low volatility at the margin, for three reasons:

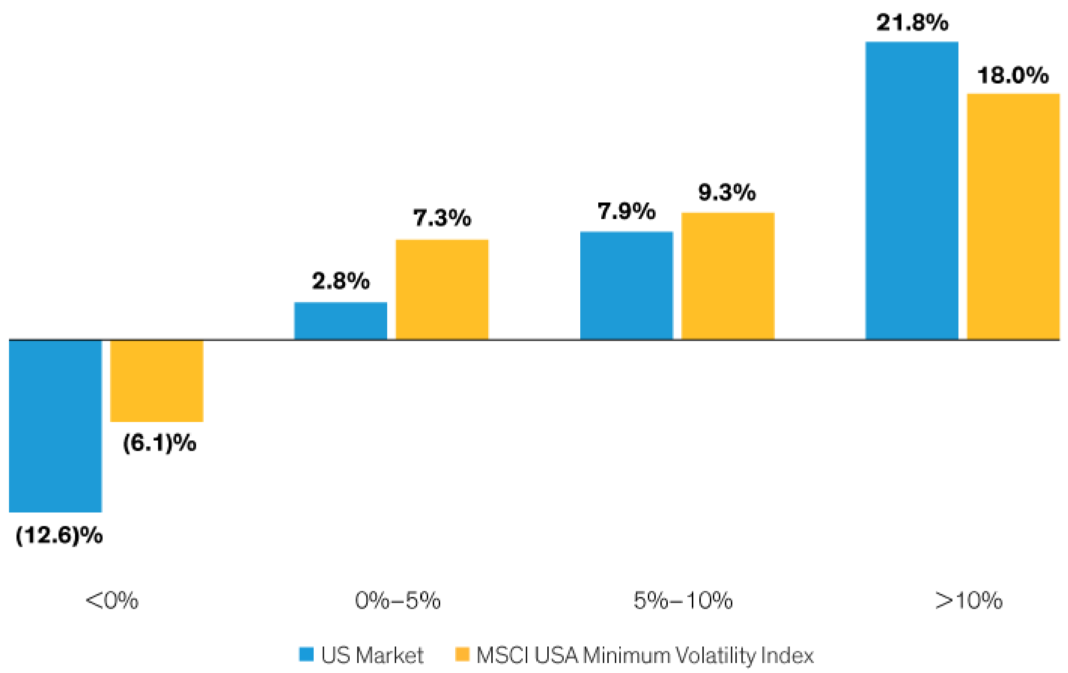
1. We expect the unstitching of globalization to drive a somewhat higher default risk level, which tends to boost low-volatility strategies.

2. While we expect equity returns to be positive, deglobalization mutes them; low volatility fares worst when equities rally strongly, which becomes less likely as a default expectation.

3. We see deglobalization cementing an outlook for high inflation, but not as high as current extremes, which tends to support low volatility.

Display 38 shows the average annual performance of the MSCI USA Minimum Volatility Index based on different ranges of broad US market returns. The low-volatility factor returns are higher on average in all cases, except when market returns surpass 10%.

Display 38: Low-Volatility Performance in Different Market Return Regimes



Historical analysis and current estimates do not guarantee future results.
Annual data from 1988 through 2022
As of August 12, 2022
Source: MSCI, Thomson Reuters Datastream and AB

The Deglobalization Theme: Valuing the Investment Options

So far, we've outlined a series of asset or thematic views that we think make sense in steering a portfolio, given the forces of deglobalization. It's all very well to claim that a secular force is acting on these options, but what about valuation? In *Display 39*, we show the valuation of relevant assets expressed as z scores of their current valuation versus the longest history available.

Most long-only asset classes are above their long-run average valuations, with positive z scores, which is to be expected given the path of yields in recent decades. However, these z scores still aren't very high. We include gold, even though it can't be valued; its z score is based on price which, arguably, makes it look worse relative to other assets.

Display 39: Valuation of Selected Assets and Themes Relevant to Deglobalization Positioning

Start Date	Asset	Valuation Z Score
Jan 1988	US vs. EAFE	1.21
Jan 1970	US Equities	0.83
Jan 1987	Emerging-Market Equities	0.46
	Fixed Income	
Jan 1970	US 10-Year Government Bonds	0.98
Jan 1997	US High-Yield Credit	0.21
Jan 1997	US Investment-Grade Credit	0.15
	Inflation Hedges	
Jan 1975	US Residential Real Estate	4.01
Jan 1970	Gold	2.35
Sep 1971	US TIPS 10-Year	1.14
Jan 1973	US REITs	0.21
	Thematic Investments	
Jan 1990	Global Automation Stock Basket	(0.14)
Dec 1977	US Small-Caps vs. Large-Caps	(2.76)
Dec 2010	US Min Vol Equities vs. Market	(0.61)

Historical analysis and current estimates do not guarantee future results.
Data from 1970, or longest available history indicated in the start date column. For equities, valuation metric is the cyclically adjusted earnings yield (1/CAPE ratio). For bonds, the valuation is measured by the bond yield. Credit index valuation is measured by the option-adjusted spread. REITs sector valuation is measured by the dividend yield.
US residential real estate is valued by the price to rent ratio, which is calculated as the ratio of the Freddie Mac (pre-1991) and FHFA House Price indices divided by the index of the Shelter in US City Average component of the US CPI.
A higher z-score value indicates a higher premium to historical valuation.
As of July 31, 2022
Source: Federal Housing Finance Agency, Freddie Mac, Global Financial Data, MSCI, Thomson Reuters Datastream, US Bureau of Labor Statistics and AB

How to Think About Scaling Deglobalization Options

The scaling of investment positions is a crucial process—marking the shift from a series of views related to deglobalization to actually changing a portfolio. The answer for any given client will depend on their risk tolerance, ability to hold particular kinds of assets and degree of conviction in how strong the forces of deglobalization will be versus other secular and tactical forces. The conclusion that equilibrium inflation will be higher aligns with the conclusion of the demographics and ESG secular themes, so we think it should be a high-conviction conclusion and core to the scaling decision.

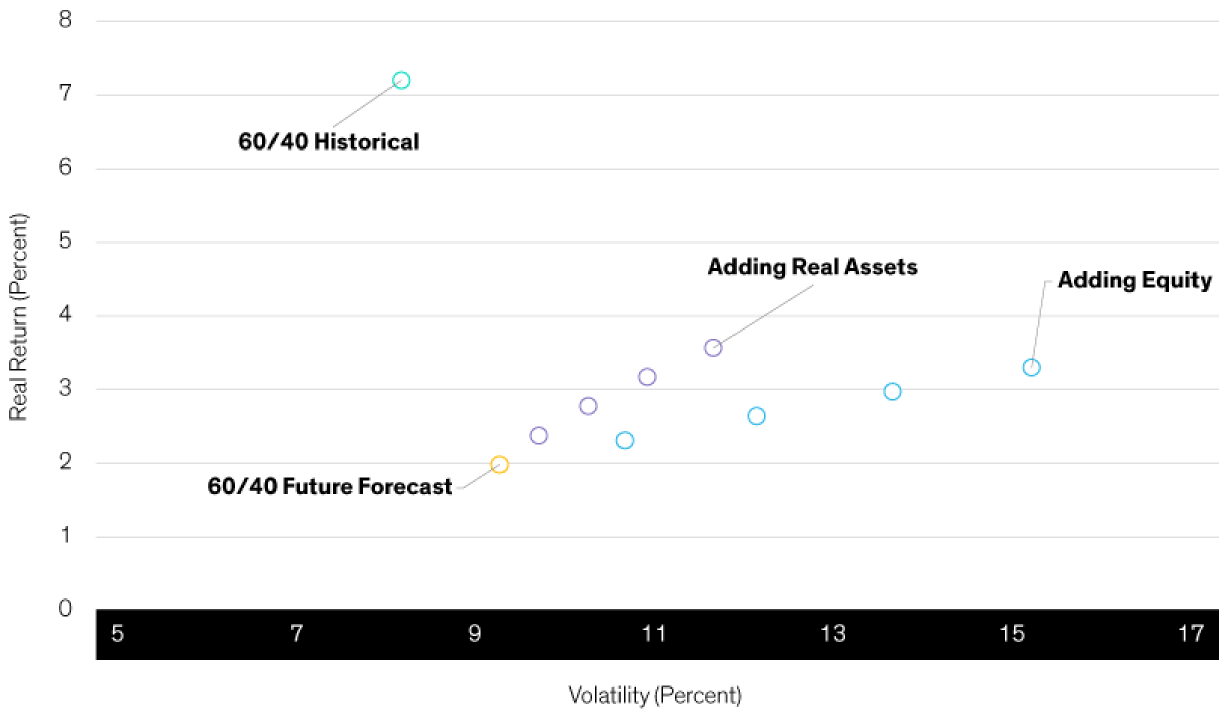
We attempt to show the scale of the shift needed in *Display 40*, which plots real return against volatility. Over the past 10 years, with nominal returns high, inflation low and stock/bond correlation negative, the return of a 60/40 mix of US equities and government bonds was very favorable. We think that return/risk space is probably unattainable for most investors, as we show in our current prognosis for the 60/40 at the bottom of the display. Note: this framework is for US assets; on a global basis, the real-return outlook is slightly worse, though there is more diversification available.

For each option, we also show two indicative paths: each progressively reallocates 10% from the 40% US government bond allocation—one to equities and the other to a basket of real assets. That basket could include many permutations of the assets and factors outlined in this note, but to keep things simple we've arbitrarily set the mix at 60% global real estate, 20% private debt (in this case US middle market debt), 10% low-volatility equities and 10% farmland. At the most extreme position, shown on the right-hand side of the chart, this real-asset portfolio would be 40% of the overall portfolio (24% real estate, 8% private debt, 4% low-volatility equities and 4% farmland).

These allocations can make up some of the lost ground in real returns. Total portfolio volatility is higher than in the 60/40 portfolio, because these assets are all more volatile than the high-grade bonds that fund them. They also have positive correlations with equities, so diversification is imperfect. The correlation number could be reduced with a bigger allocation to long/short factors, active strategies and physical real assets.

Note that we're assuming that the volatility of private assets is akin to their economic volatility, not the *prima facie* low volatility of their reported returns, which are smoothed by not being marked to market. If one is allowed to pull off that ruse, then the apparent lower portfolio volatility is eminently achievable!

Display 40: Scaling the Response to Deglobalization



Historical analysis and current estimates do not guarantee future results.
As of September 14, 2022
Source: Cliffwater, FactSet, Thomson Reuters Datastream and AB

This scaling exercise also highlights the scale of the task investors face. The traditional portfolio construction way to scale this positioning would be to take the target return/risk level and then work out the required asset allocation to achieve it. We think that approach won't be sufficient for these purposes, because maintaining a given level of real return will require a higher risk level than has been typical in the past.

Conclusion

This note makes the case that the deglobalization theme is here to stay. The period of globalization that started in the early 1980s is coming to a close, and we're entering a new paradigm. This transition has implications for directional views on return streams, and it poses methodological questions: What is the best way to achieve diversification? How does this impact the nature of passive investing?

In the final chapter of Thomas Mann's magisterial *The Magic Mountain*, the residents of the alpine resort that represent the comfortable cosmopolitan life of the European elite from Russia to France and Italy find themselves suddenly shaken out of their sedate lives. The assassination in Sarajevo, "the thunderbolt," sends them "heels over head, five thousand feet downwards to the catastrophe-smitten flat-land."[33]

Thankfully, the ending of this particular chapter of globalization is nowhere near as violent or abrupt as the end of that previous—and in many ways equivalent—age of globalization. Nevertheless, we think it could be of a similar order in terms of the need to rethink economic rules. Globalization has been enmeshed in the methodology of building investment portfolios for the entire careers of most of today's financial professionals. Rethinking investment practice for deglobalization requires profound changes.

Twin forces are at work: rising domestic unease with globalization among developed markets and greater China-US tensions. When we add other forces happening in parallel, particularly the demographic shift that's reducing the working-age population, this shift has sizable implications that investors have yet to account for in their strategic asset allocations.

For the investment environment, this cements the case for higher-equilibrium inflation than before the pandemic. Bluntly, we think this means 10-year forward US inflation will be closer to 3% than to the Fed's target of 2%. Deglobalization also brings downward pressures on corporate margins: higher labor costs, higher effective tax rates and higher inventory levels. Nevertheless, all of those developments still enable positive real returns for equities—just at lower levels.

On a positive note, this heralds greater opportunities for regional diversification within asset classes; as we've shown, this could make up for at least some of the lost diversification from a higher stock/bond correlation. Specific themes, such as automation and renewables, are set to enjoy a prolonged tailwind, and we'd prefer US over international assets.

Deglobalization also points to more government intervention in markets, either directly in terms of supply chain or energy security or indirectly as country "blocs" become entrenched. "Friend-shoring," remapping supply chain locations to friendly countries, is an ugly neologism but a term that investors should expect to hear more often.

Although the topic of deglobalization has certainly been prominently discussed in many quarters, its implications for inflation, risk and asset returns imply that it still hasn't been reflected in strategic asset-allocation decisions.

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