IMCO WORLD VIEW 2025

Investing to capitalize on the long-term trends shaping our future

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IMCO
Investment Management Corporation of Ontario

CONTENTS

INTRODUCTION

The IMCO World View is intended to be an ever-evolving lens through which shifting global economic and market trends are observed and analyzed. Rather than a static snapshot of the world, it is a living framework whose conclusions need to be reviewed and – if deemed appropriate – revised over time. This year's Update extends that vision by providing insight into how the framework is continuously reviewed and evaluated.

The 2023 World View report introduced IMCO's belief that shifting global trends are leading us towards a new era of investing – one where the past is less helpful in informing the future. This was followed in 2024 with a demonstration of our framework in action. By drawing on selected real-world examples, we showed how the World View can help translate the short-term noise of daily headlines into a signal that can inform IMCO's long-term outlook and strategy.

This brings us to the 2025 World View Update, which sheds light on how the framework's components are monitored and assessed, thus helping them avoid becoming stale in these fast-moving times. This is accomplished by working through each Theme and Implication, beginning with a **reminder of what they are** and how they fit within the World View framework.

Next is a discussion of **how each one is monitored**, including the types of variables seen as key to the Theme or Implication's evolution. These are defined broadly enough to ensure relevance – and thus continuity – year-to-year, with the most relevant metrics *within* the buckets changing according to the events of the day. For example, while trade-related policies (one of the buckets for Deglobalization) will always "matter" for the theme, the size and frequency of tariff actions are particularly relevant now – something that may change a few years down the road if US-China trade tensions hit an impasse. Some of the most relevant metrics being tracked are highlighted, with many more being monitored but not included in the report.

This is followed by a **review of key recent developments** for each Theme and Implication. Given the impossibility of addressing every pertinent event, the focus is instead on those that represent the biggest "deltas" relative to what was envisioned when the World View was first developed. Also included is **an assessment** of how these developments have impacted each Theme's or Implication's momentum (i.e., **DECELERATING**, **STEADY**, **ACCELERATING** – see Tables 1 & 2) over the past year or so. Finally, a forward-looking element is provided for each Theme in the form of a **what we are watching** list, while **potential investor actions** are noted for each Implication, similar to what was done in previous installments of the World View.

While working through the Update, it is important to keep in mind that it is *focused on recent events and near-term momentum*. This contrasts with the World View framework itself, which underpins IMCO's thinking and *strategy over a longer timeframe* (five to ten years). This distinction reflects our recognition of the fact that the long-term is ultimately a bunch of short-term periods strung together. And that by zooming in on the latter, we can get a sense of whether the assumed long-term trend is still in play. If things appear to be veering in an unexpected direction in any given year, course correction is still possible.

On the longer timeframe, all the Themes and Implications remain valid and intact in our view. Our assessment did not point to the need to reconsider or drop any of the originally identified ones, consistent with their expected enduring and persistent nature. Note that while no new Themes or Implications were added, work continues around demographics which – while not a standalone Theme on its own – is expected to have a significant impact on many components of the World View in the years ahead (see Box 1).

THEMES
MOMENTUM ASSESSMENTS

Theme	Assessment
Addressing Inequality	ACCELERATING
Deglobalization	ACCELERATING
Policy Inflection	STEADY
Climate Change and Sustainability[1]	DECELERATING
Disruptive Technologies	STEADY
Evolving Market Structure	STEADY

IMPLICATIONS
MOMENTUM ASSESSMENTS

Implication	Assessment
End of Low for Long	DECELERATING
Heightened Volatility & Greater Dispersion	ACCELERATING
Capital Investment Boom	STEADY
Growing Role for/ Complexity of Private Investments	DECELERATING
Growing Scope for Unintended Exposures	ACCELERATING
The Need for Innovation and Flexibility	STEADY

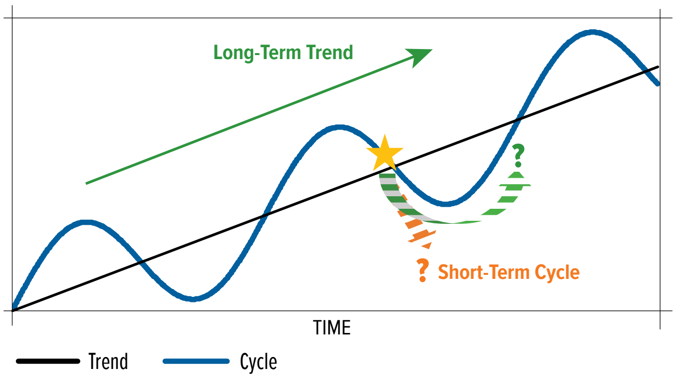
[1] When IMCO revisited our Responsible Investment strategy in 2023, we sharpened our view of this trend - with Climate Change and Sustainability as the two interrelated mega trends informing our thinking, and ESG a taxonomy within the broader sustainability umbrella.

The assessments in this Update relate to recent short-term cyclical developments. As suggested by the Table above, we have seen signs of faster-than-expected advances for some Themes and Implications, and near-term 'bumps in the road' for others. Importantly, *a slowing assessment does not suggest that we see the Theme or Implication fading away*. In fact, it can be consistent with an even stronger, more entrenched long-term trajectory (spoiler alert re: the Climate Change and Sustainability Theme's assessment).

A particular assessment will tend to carry more weight if it persists over multiple years. The monitoring process discussed in this Update aims to help discern whether short-term developments mark a temporary deviation from the anticipated trend, or rather something deeper that calls for a reconsideration of the longer-term thesis (Chart 1). This evaluation, which is more art than science, requires a heavy dose of judgement and is not based on a snapshot of a particular point in time. Rather, it is a cumulative process that gives more weight to assessments that persist for multiple years – something that does not currently apply to any of the World View's Themes or Implications.

Chart 1: The long and winding road

Cyclical Movements Around a Long Term Trend



BOX 1: DEMOGRAPHICS AND THE IMCO WORLD VIEW

Over the last several decades, countries around the world experienced a 'demographic dividend' from the large size of their working age populations relative to children and retirees. The resulting low dependency ratios spurred economic activity while weighing on wages and inflation. Now, as the baby boomers move into retirement, these trends are set to reverse.

Throughout the World View's development, these demographic forces have consistently been considered for inclusion in the framework. However, rather than adding demographics as a standalone Theme or Implication, we have opted instead to incorporate it over time as an external force that potentially impacts all the framework's components – reinforcing them in some cases, and imparting headwinds in others.

To this end, a cross-IMCO research team has been exploring what these demographic changes could mean for the members' respective asset classes, as well as economies and markets more generally. Below are a few examples of how demographics might be influencing the Themes and Implications of our World View.

Disruptive Technologies & Capital Expenditure Boom

Accelerated population aging and higher demand for services, combined with slower growth in the working age population, are expected to create labour shortages in many countries. This will be even more acute in countries with little immigration. The growing need for alternatives to human labour could accelerate the business case for AI, robots and computers, and spur more investment in these technologies. The pursuit and development of health-related technological breakthroughs would also require the buildout of supporting R&D facilities and infrastructure.

Addressing Inequality

Aging populations are likely to put increasing pressure on pension plans which, in turn, could lead to inter-generational shifts in benefits and burdens. For example, retirement ages might be raised, thus putting more onus on younger workers to support the already- or soon-to-be-retired cohort. Alternatively, contributions might be raised and/or benefits reduced. The negative impact on active workers could be countered by the potential for labour scarcity to boost wages and workers' share of the income pie.

Policy Inflection and End of Low-for-Long

Changing demographics also look set to put upward pressure on public health care expenditures, as well income supports more generally. At the same time, the tax base to support these rising demands could have a hard time keeping pace if the working-age cohort represents a smaller share of the total population. Combined, these dynamics are likely to put pressure on government deficits and debt levels. If these growing deficits – and the net addition of financial assets to private sector accounts that they entail – are occurring alongside productive capacity constraints (due to shrinking labour supply for example), inflation could result.

ADDRESSING INEQUALITY

Policymaking and politics are increasingly shaped by the need to address inequality. Widening disparities in income and wealth have stoked discontent with the "hands off" market-oriented philosophy that has guided social and economic policy over the past several decades. This shift can be seen in various guises, including the rise of populist parties and politicians, the shedding of fiscal restraint, and growing anti-trust efforts to stem the power of corporations globally. Taken together, these trends can significantly alter the economic and social backdrop against which investment decisions are made.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments on three broad fronts:

- **Measured gauges** of inequality e.g., income and wealth disparities, rental costs vs. home prices, inter-generational mobility across income and education levels
- **Social responses** to inequality e.g., protests, support for populist politicians, attitudes towards immigration
- **Economic and policy implications** of the above e.g., minimum wage laws, union membership, domestic content rules, immigration limits, government social spending, affordable housing supply

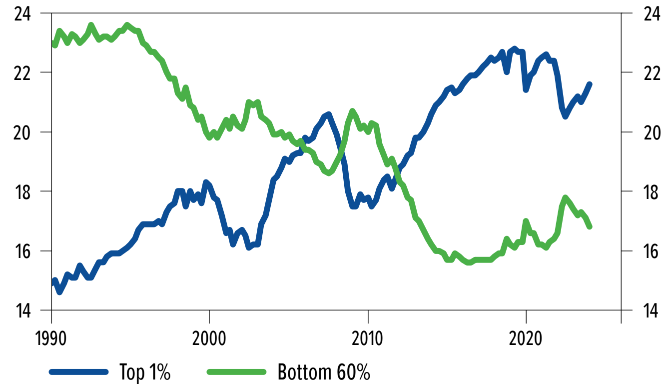
RECENT DEVELOPMENTS AND MOMENTUM

(ACCELERATING)

Even though the global economy has fared relatively well over the past couple of years, sentiment has not necessarily followed suit. This is especially true for those in the lower income and wealth groups, who have not benefited as much from the recent rise in asset values (Chart 2). At the same time, **the failure of prices** – including those for essentials such as shelter, food, and energy – **to return to pre-COVID levels has fueled a cost-of-living crisis** amongst lower-income segments of the population for whom these expenses take up a greater share of their resources (Chart 3).

Chart 2: Wealth gap remains wide

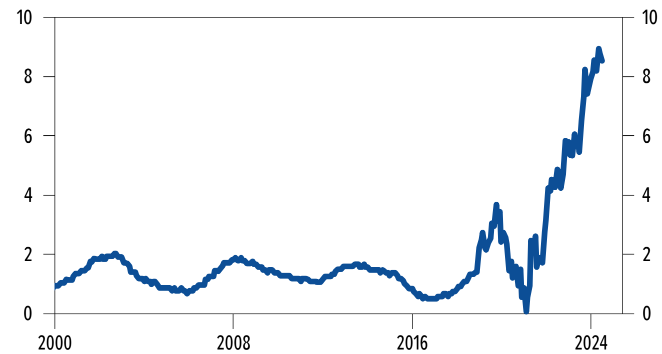
Share of Total Assets by Income Group (%)



Source: Federal Reserve, Distributional Financial Accounts

Chart 3: Rents have been soaring

Canada Rent Inflation (YoY, %)



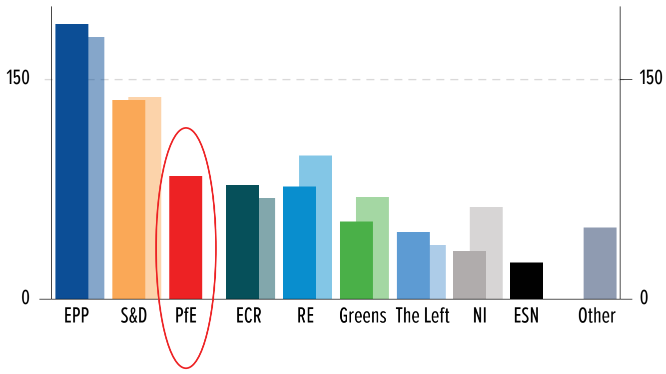
Source: CANSIM

A timely example is provided by housing in Canada, where record-high immigration and population growth have exacerbated already tight conditions. This dynamic has pushed rental vacancy rates to all-time lows while house prices remain near their highs. The net result is a **widening gap between homeowners and renters**, with the former enjoying higher asset values and income streams while the latter struggle to find basic shelter. Consistent with these developments, housing and other inequality-related issues are now playing an increasingly important role in Canadian politics. For example, the Conservative Party's leader, Pierre Poilievre, has seen his popularity rise after putting housing affordability at the top of his agenda. Meanwhile, Trudeau's Liberal government recently reversed some of its immigration-friendly initiatives in the face of mounting economic, social and political pressures.

Similar dynamics are seen in Europe, where **economic security, cost of living, and immigration have played key roles in recent elections**. Parties claiming to represent the interests of citizens over those of "the elites" and foreigners gained seats in European Parliamentary elections this past summer (Chart 4), building on previous successes by Giorgia Meloni in Italy, Marine Le Pen in France, and the Freedom Party in the Netherlands. Outside of the EU, the UK's Labour Party gained control for the first time in nearly two decades after campaigning on promises to address voters' top concerns, which, according to polls on the eve of the election, included immigration, inflation and housing.[2] These successes are consistent with a broadening distrust of the economic, institutional, and political arrangements that defined the "globalization era" of the past couple of decades.

Chart 4: Far-right parties made major gains in 2024 EU Elections

European Parliament Seat Totals 2024 & 2019



EPP = European People's Party, S&D = Socialists and Democrats, PfE = Patriots for Europe, ECR = European Conservatives and Reformists, RE = Renew Europe, NI = Non-attached, ESN = Europe of Sovereign Nations

Source: European Union

Combined, these developments suggest that disparities in wealth, income and access to basic necessities are stoking societal demands for a political response to inequality-related issues. In our assessment, these developments are consistent with the **ACCELERATION** of this Theme.

WHAT WE ARE WATCHING

Some of the potential catalysts for, and risks to, this trend that we will be monitoring over the near term include:

- **Developments around the Canadian federal election** (scheduled to be held in or before October 2025), particularly proposed or enacted policies relating to immigration and housing supply
- **US policy changes under their new President,** such as President Trump's proposed mass deportation of illegal immigrants
- **The progress of shelter costs** globally, including house prices, mortgage rates and rents
- **Chinese domestic economic policy** initiatives, particularly those relating to the government's "common prosperity" strategic objectives
- **Support for populist and nationalist political parties**, as well as other "fringe" parties' move towards mainstream acceptance
- **Regulatory measures to curb corporate influence**, especially around pricing power and control of personal information. Key areas are the continuation of bipartisan support (or not) for antitrust measures in the US, and fallout from the recently introduced Digital Markets Act in Europe

2 https://www.ipsos.com/sites/default/files/ct/news/documents/2024-06/Issues%20Index_June_v1_PUBLIC.pdf

DEGLOBALIZATION

After decades of intensifying cross-border economic integration, there is a growing awareness of the risks and costs associated with the unfettered free flow of goods and capital. The shortages and supply chain security issues that surfaced in the COVID-19 pandemic, and China's rapid competitive strides in recent years, have contributed to these concerns. This has induced a shift in international economic policy away from facilitating further globalization, towards domestic priorities such as job creation, reducing trade and financial dependencies, and helping secure supply chains – especially those critical to achieving energy and security goals.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments across three broad fronts:

- **Cross-border** activity e.g., global and regional trade, financial flows
- **International trade and finance policy** e.g., number and size of tariffs, use of subsidies, cybersecurity measures, national security measures
- **Geopolitical developments** e.g., strengthening of security ties between 'blocs', defense spending, conflicts and other significant geopolitical events

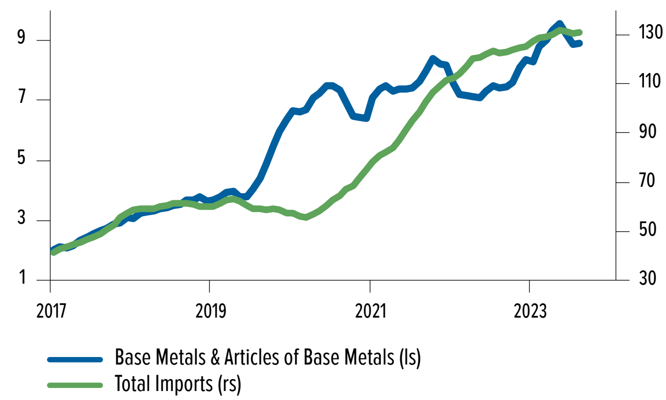
RECENT DEVELOPMENTS AND MOMENTUM

(ACCELERATING)

Deglobalization is not just about the *degree* of global flows, but also their *composition*. While trade activity (measured as a percent of GDP) has held up at the global level, these **trade flows are increasingly aligning with emerging geopolitical alliances**. As a timely example, China and Russia recently exchanged a record amount of goods and services on an annual basis, according to the IMF.[3] This was partially driven by increased Chinese demand for Russian commodities, including inputs to key strategic sectors at the frontline of US-China trade battles e.g., base and industrial metals such as the aluminium, copper, and nickel needed for EVs, batteries, solar panels and semiconductor chips (Chart 5).

Chart 5: Russian metals exports to China are growing

China, Imports from Russia ($Bln, 12m Sum)



Source: IMF

Meanwhile, **the US-China trade war has not only intensified but also widened**. With the help of subsidies, China is now the world's leading auto exporter and continues to maintain its global lead in EV battery production. These developments have prompted responses from several jurisdictions, particularly those with large industrial bases such as the EU, Canada, and Japan – all of whom have followed the US' lead and announced plans to apply tariffs on various Chinese imports over the past year. For its part, China responded by introducing anti-dumping investigations on European dairy products and Canadian canola producers.

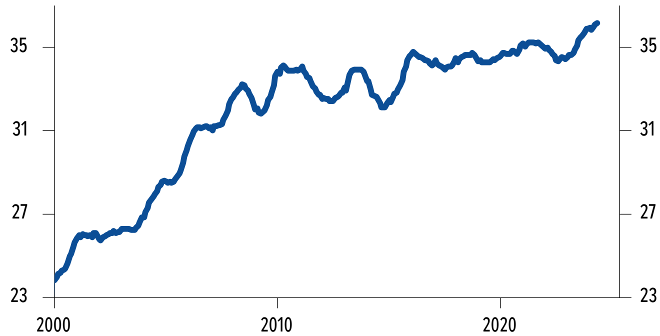
These types of tit-for-tat actions look set to gain pace over the next several years, driven by US-China strategic competition. One reason being that, despite US efforts, the world's reliance on Chinese goods has only increased since then-President Trump introduced anti-China tariffs in 2018. Not only has China's trade surplus continued to widen, but

3 As of February 2024. https://data.imf.org/?sk=9d6028d4-f14a-464c-a2f2-59b2cd424b85

unlike in the 2000s, it is now being driven by rising exports of high-tech products, a sign that China has moved up the value chain (Chart 6). This helps explain the Biden Administration's decision to hike tariffs on Chinese imports, strengthen export restrictions on critical AI-related inputs (including semiconductors), and propose measures to limit outbound US investment to China.

Chart 6: China is moving up the export value chain

Total High Value-Added Goods Exports, China (% of Total Exports)



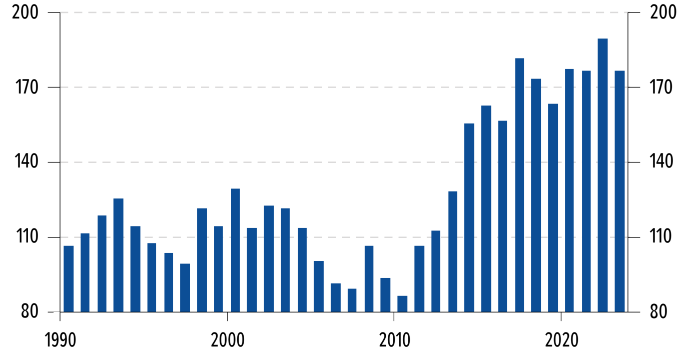
Contains television image & sound recorders, transport equipment, and pharmaceuticals & optical products

Source: China General Administration of Customs (GAC)

Emerging geopolitical alliances are also increasingly shaping global conflicts that continue to rise in number (Chart 7). Timely examples include the increased hostility of Iran (a Sino-bloc member) towards US-backed Israel, and the Houthis attacking shipping lanes in the Red Sea while allowing Russian and Chinese ships safe passage in exchange for "political support". Beyond their tragic direct human and economic costs, ongoing conflicts have had secondary social consequences in other parts of the world. Key among these is rising refugee flows, which, when combined with the cost-of-living crisis faced by many citizens in destination countries, has provided fertile ground for populist parties that have campaigned on anti-immigrant and protectionist policy agendas.

Chart 7: Global conflicts are rising

Number of Conflicts



Sum of non-state, state-based, and one-sided conflicts

Source: Uppsala Conflict Data Program

While overall trade has flattened, geopolitical tensions and the escalating need to respond to China's strategic gains suggest that this Theme is currently **ACCELERATING**.

WHAT WE ARE WATCHING

- **The evolution of China's trade relations with the US and its allies**, including Canada and especially the EU. US-related developments could be fluid under President Trump. Meanwhile, EU policymakers could move to aid struggling domestic industries in the face of China's unmatched competitiveness in the EV and battery sectors, possibly via additional tariffs and/or subsidies
- **The size and composition of global capital flows,** which are evolving alongside shifting trade and geopolitical relationships e.g., structurally lower cross-border flows post-GFC, re-allocation of international reserve assets into more "neutral" currencies, such as AUD and CAD
- **Potential escalations in ongoing geopolitical flashpoints**, such as China-Taiwan, Russia's invasion of Ukraine, and Israel-Iran conflict

POLICY INFLECTION

Until recently, macroeconomic policy was characterized by a drive for fiscal "discipline", independent inflation-targeting central banks, the pursuit of open trade, and deference to market forces. However, faith in these beliefs has wavered as societies wrestle with challenges around inequality, climate change, and intensifying geopolitical priorities. Consistent with these shifts, macroeconomic policy is inflecting in ways that call for the rising influence of fiscal policy, growing government economic intervention, and evolving central bank mandates.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments across three broad fronts:

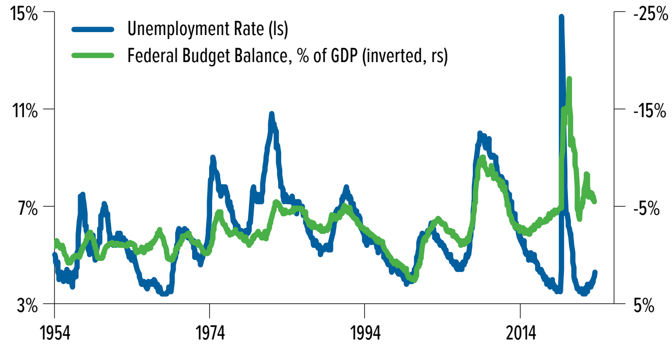
- **Fiscal policy actions** e.g., overall level and cyclically adjusted balance, evolution of fiscal rules, popular and academic thinking related to industrial policy
- **Government's "visible hand"** e.g., overall size of government, number of public sector employees, industrial policy, demand-related incentives, support for R&D and targeted sectors
- **Central banks' role** e.g., monetary vs. fiscal levers, degree of independence, objectives and trade-offs re: inflation, employment, financial stability

RECENT DEVELOPMENTS AND MOMENTUM

(STEADY)

Governments have been running large deficits in the last few years, even with the Covid-19 pandemic behind us and unemployment rates near historical lows (Chart 8). This trend is expected to continue in general, led by the US where recent historically-large deficits look set to persist given recently-elected President Trump's intention to fully extend the Tax Cuts and Jobs Act (TCJA) and reduce the corporate tax rate.

Chart 8: Fiscal policy has become more procyclical



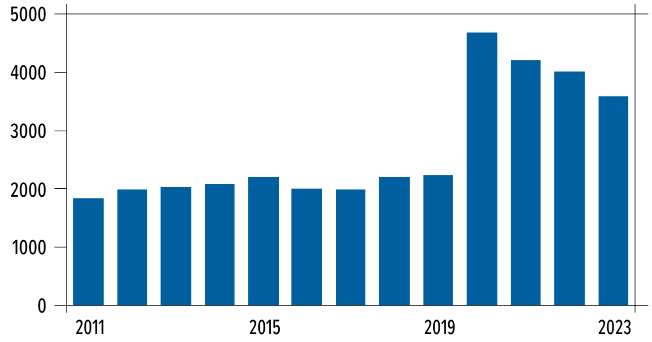
Source: BLS, US Department of Treasury

While fiscal momentum remains strong overall, **signs of pushback are emerging**. For example, the EU's fiscal rules were reinstated in 2024 after having been put on hold during the pandemic. Although the rules were modified to give countries additional time to address high debt levels and deficits, they failed to bring the bloc closer to the fiscal union required for more effective pursuit of its stated technological, climate and defence-related goals. In the UK, the new Labour government has committed to shifting the current budget towards balance while lowering debt-to-GDP over five years.

Industrial policy is also increasingly being used to pursue strategic aims, as seen with China's massive efforts around the energy transition and the subsequent response from the US and its allies. Mario Draghi's recent report on European Competitiveness, which calls for 800 billion euros of investment, is evidence of ongoing tailwinds behind this trend. The use of subsidies and tariffs is also on the rise, as countries seek to promote their strategic economic priorities. Consistent with this, the IMF recently introduced a database for monitoring the stated motive for policy interventions, as well as their type (subsidies, tariffs, FDI screening, regulations, procurement policies). Subsidies are shown to be the most favoured option, having grown rapidly in use since the pandemic (Chart 9).

Chart 9: The use of subsidies remains high

New Subsidy Awards & Subsidy Policy Changes



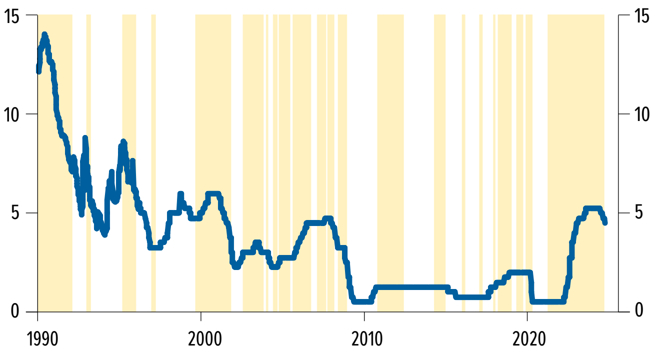
Note that most recent totals are understated due to publication lags

Source: Global Trade Alert

In the face of these fiscal and interventionist policy developments, major central banks including the US Federal Reserve and the Bank of Canada, have shown a "revealed preference" (or at least tolerance) for higher inflation, having commenced with rate cuts while inflation remained above their target (Chart 10). This is a dynamic we could see more of in the years to come, **as central banks adjust to a world with shifting policy priorities and heightened scope for supply shocks**. Federal Reserve Chairman Jerome Powell recently acknowledged these challenges, noting that "the limits of our knowledge—so evident during the pandemic—demand humility and a questioning spirit focused on learning lessons from the past and applying them flexibly to our current challenges". The Bank of Canada also sees a need for change and will introduce new forecasting models in 2025 that address supply-side dynamics and put less weight on a specific forecasted path in favour of ranges and potential scenarios.

Chart 10: The Bank of Canada started cutting rates with inflation above target

Bank of Canada Policy Rate (%)



Shaded regions represent periods where headline CPI inflation is above 2%

Source: Bank of Canada, Statistics Canada

These developments are largely consistent with the World View's outlook for macroeconomic policy, leading us to conclude that momentum in the Policy Inflection theme is **STEADY**.

WHAT WE ARE WATCHING

- **The degree of political pressure on central banks** to lower interest rates and tolerate higher inflation in the face of stimulative fiscal policy. An example was seen ahead of the US election, when Trump stated that – if victorious – he would "bring interest rates way down", fuelling speculation that he could seek to influence Fed policymaking in his role as President
- **Use of non-monetary policy levers to address inflation**, such as those hinted at during the US election campaign when Harris made targeting high inflation a priority in her campaign, going so far as to hint at introducing price controls if elected
- **Loss of fiscal momentum** with, for example, the disbursement of EU Recovery Fund resources relative to plan, opposition to energy transition costs, and potential for elements of the IRA to be scaled back under Trump's Presidency
- **The evolution of central banks' nascent easing cycles**, especially if inflation remains sticky or turns upward alongside weakening economic conditions
- **Developments in the global "industrial policy race"**, particularly in relation to sectors at the centre of US-China strategic competition

CLIMATE CHANGE AND SUSTAINABILITY

Sustainability considerations continue to demand attention in the face of rising global tensions, better access to information and tracking metrics, and evolving societal values and priorities. Climate change itself, and the public's awareness of its evolution and impact, is also having a significant impact on our economies and day-to-day lives more generally. These trends are manifesting as risks and opportunities for investors, with the on-going energy transition being a particular area of focus.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments across three broad fronts:

- **Climate change gauges** e.g., weather-related events, global warming's pace
- **Energy transition metrics** e.g., political support for government commitments, renewable energy capacity, transition-related investment flows, technological breakthroughs
- **Sustainable investing metrics** e.g., attitudes towards ESG investing, sustainability commitments of funds and companies, regulations, reputational considerations

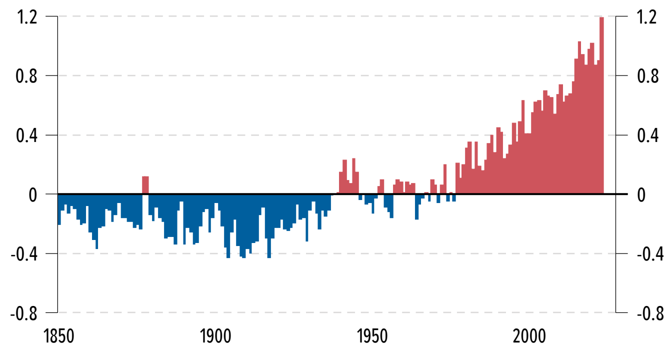
RECENT DEVELOPMENTS AND MOMENTUM

(DECELERATING)

The world is experiencing **faster-than-expected global warming**. Global surface temperatures have been consistently surpassing previous records (Chart 11), and global sea ice is rapidly receding. There has also been a noticeable increase in weather-related catastrophes, which, according to the National Centers for Environmental Information, have pushed the number of US 'billion dollar' weather events (in terms of damage costs) to a new record in 2023.[4] The rapidly changing global climate has contributed to a notable reduction in climate scepticism, even in the US.

Chart 11: Global average surface temperature

Difference From 1901-2000 Average (°C)

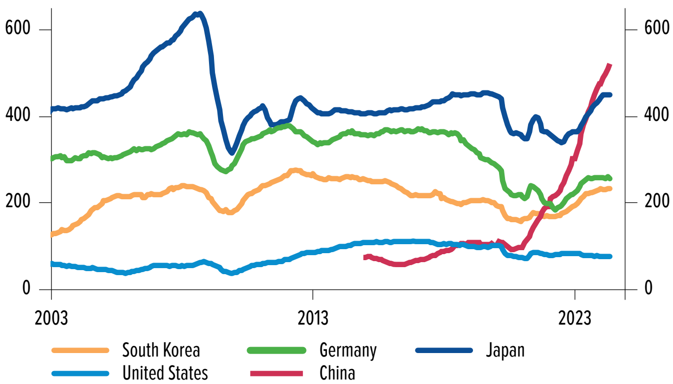


Source: US Global Change Research Program

Growing recognition of these climate realities is adding urgency to the development of potential technological "solutions". These **efforts have been most pronounced in China, where advances in green technology have far exceeded forecasts**. China's leadership has been especially pronounced in electrification. Recently, thanks in part to substantial government support, the Chinese automotive industry has taken off. In the span of just a few years, the country has moved from being a marginal player in global automotive markets to becoming its top exporter, with EVs playing a key role in this shift (Chart 12). China has also rapidly surpassed other jurisdictions in terms of solar and wind power build-out.

Chart 12: China EVs take over global car market

Car Exports By Volume, 12m MA (Thousands)



Source: National Accounts

The **US and its allies have responded by imposing tariffs** across a range of energy transition-related imports such as EVs and solar panels, citing unfair subsidies for Chinese

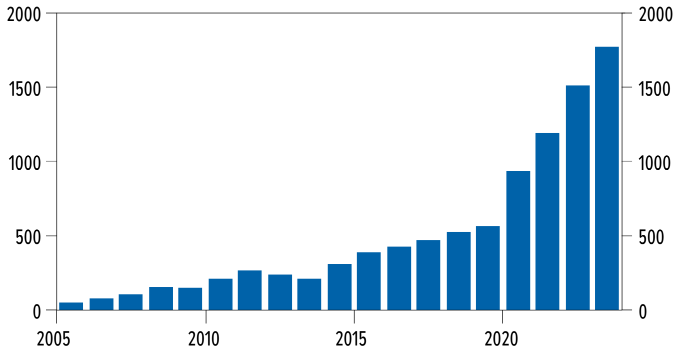
4 https://www.climate.gov/news-features/blogs/beyond-data/2023-historic-year-us-billion-dollar-weather-and-climate-disasters

producers in these areas. By potentially slowing adoption and raising the cost of green technologies, such tariffs could slow the energy transition in these jurisdictions.[5] However, **these short-term headwinds could translate into even *stronger* momentum longer term if they provide the US and its allies with more room to compete with China and continue to build their own green technology and energy transition capabilities**. Recall that several of the key technologies we use today (e.g., satellites, the internet, microwaves, etc.) emerged from the US-USSR "space race" and Cold War.

The foundation for green technological progress continues to be built, with **significant public and private capital expenditures in the energy transition**. Although higher interest rates contributed to a slowing in energy transition investments globally in 2023, the pace of change remains exponential (Chart 13). In the US, renewable capacity additions continue to accelerate, while globally the current plans for solar capacity buildout are estimated to be enough to reach net zero by 2030.[6] Indeed, thanks to the renewable nature of green investments, the long-term capacity of the world's largest solar companies already surpasses the amount of energy available from the largest oil and gas companies' known fossil fuel reserves[7].

Chart 13: Global energy transition investment slowed in 2023

Global Energy Transition Investment ($bln)



Source: BloombergNEF

While investment in the energy transition continues apace, there are **signs of a growing 'green backlash'** as consumers feel the continued pressure from energy costs that remain high relative to pre-COVID/pre-Ukraine invasion levels. For example, support for green-oriented parties has receded in the last year, except in a few notable instances like the UK where the Labour Party – which placed environmental issues high on its campaign agenda – won the latest election in a landslide. This pushback is not surprising given the economic realities of climate change, but it nonetheless presents headwinds to further progress.

There has also been an '**ESG investing backlash**' in the US and elsewhere, with many Republican-leaning states introducing legislation related to investor activism. While this is counter-balanced to some extent by new pro-ESG legislation in Democrat-leaning states as well as globally, it nonetheless represents a headwind to this theme. Poor performance of ESG-labeled funds has added to lower US momentum around sustainability.

In response to heightened "greenwashing", we are also seeing new sustainability disclosure legislation coming into force in large jurisdictions such as the EU, China and India, as well as a higher percentage of listed companies with science-based targets.[8] At the same time, **some companies are rescinding sustainability commitments**. For example, in July 2024, Google declared that it would no longer be claiming carbon neutrality, joining a growing number of tech companies that have pointed to rising AI-related energy demands as a meaningful headwind to their ambitious climate goals.

Headwinds stemming from higher energy costs and associated required behavioural changes, tighter regulations, and competitive concerns between China and the US and its allies suggest that this Theme may continue to **DECELERATE** in the *immediate future* – particularly when it comes to the latter group's adoption of lower-emission technologies. This does not mean that climate change risks are decreasing. Longer-term, the Theme remains well-entrenched, but not necessarily along a linear path. *In the interim, investment opportunities look set to continue, and perhaps even expand*, as the US and its allies counter China's advances with intensified efforts to build energy-transition capabilities and capacity of their own.

WHAT WE ARE WATCHING

- **US policy shifts in the wake of the Presidential election**, particularly regarding Trump's suggestion that he will repeal parts of the IRA and loosen regulations to encourage fossil fuel use and production
- **Further anti-ESG legislation in the US**, which Trump has also said he would seek to pass
- **Energy prices and associated political headwinds**, particularly in Europe but also in other jurisdictions with ambitious energy transition strategies
- **China's responses** to US and EU actions
- **Green technological advances** with the potential to change the trajectory of the energy transition

5 https://www.project-syndicate.org/commentary/solar-energy-trade-war-jeopardizes-biden-agenda-by-anne-o-krueger-2024-08
6 https://www.iea.org/reports/renewable-energy-market-update-june-2023/is-there-enough-global-wind-and-solar-pv-manufacturing-to-meet-net-zero-targets-in-2030
7 https://www.bloomberg.com/opinion/articles/2024-06-13/solar-power-s-giants-are-providing-more-energy-than-big-oil
8 chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.msci-institute.com/wp-content/uploads/2024/08/2024-July-MSCI-Net-Zero-Tracker4.pdf

DISRUPTIVE TECHNOLOGIES

Technological advances are expected to continue apace, supported by increased investment – private as well as public – in areas such as AI, renewable energy, and health and medical. US-China strategic competition and the energy transition will support activity on these fronts, with resulting technological advances set to shape global growth, geopolitical dynamics, and investment risks and opportunities in the years ahead.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments across three broad fronts:

- **Investment in, and proliferation of, existing technologies** e.g., EV capacity and adoption (including charging infrastructure), generative AI infrastructure and applications, weight-loss drugs, installment of small nuclear reactors
- **Innovation and research around emerging technologies** e.g., quantum computing, "cure" for cancer, anti-aging drug advances, and AI-led breakthroughs in materials science and pharmaceutical research
- **Policy support for R&D and technologies** e.g., government grants and incentives for R&D, purchase guarantees, protection from foreign technological competition (tariffs, trade restrictions)

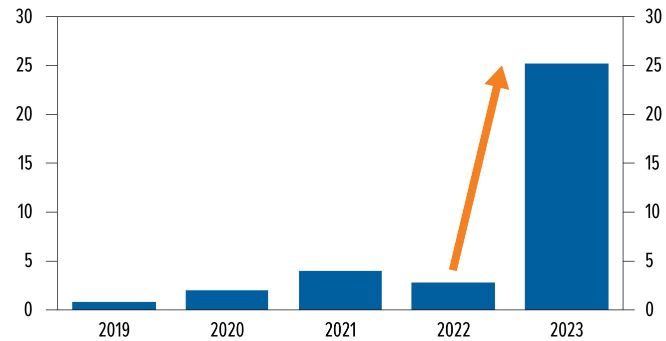
RECENT DEVELOPMENTS AND MOMENTUM

(STEADY)

This past year has seen a **proliferation of investment in generative AI and related technologies (Chart 14)**. While the full impact of this technology may not be known for years, new use cases and applications are steadily emerging, bringing with them the potential to alter existing business models, disrupt industries, and transform economic interactions (Chart 15).

Chart 14: Surge in private investment in generative AI

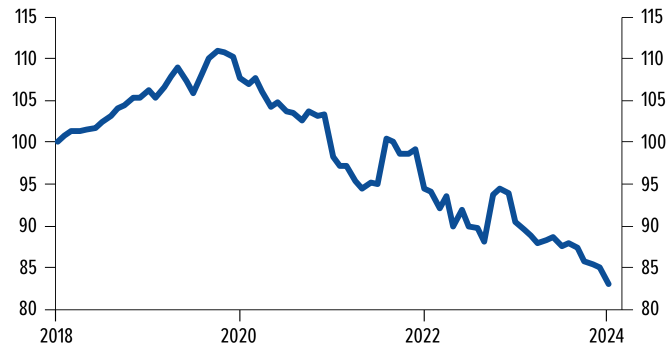
Global Private Investment in AI, $Bn



Source: AI Index Report, Stanford University, Stanford, CA

Chart 15: First victims of AI?

US Software Developer Employment Index (January 2018 = 100)

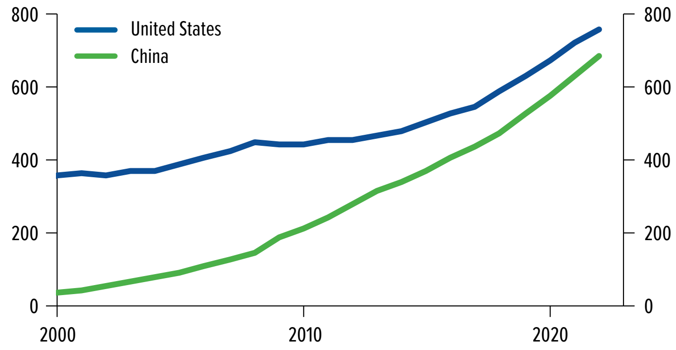


Source: ADP Research Institute (ADPRI)

Access to AI-related technologies, including advanced semiconductors, is a key element of US-China strategic competition. This **US-China competition extends to other technologies** as well. While China still lags the US in terms of R&D spending (measured as a share of GDP), it is rapidly catching up. The nation's spending on R&D has grown 16-fold since 2000, far outpacing the twofold increase in US spending over this same time frame[9] (Chart 16). Various emerging technologies including quantum computing and certain forms of green technology (such as clean hydrogen & advanced nuclear) have been drawing a significant flow of investment dollars in China, which could set the stage for future competition in these areas.

Chart 16: China's spending on R&D has caught up rapidly to the US

Total Gross Domestic Spending on R&D
(PPP, 2015 Constant Prices, USD, Billions)



Source: OECD

Technological advances arising from the US-China tech race could be tempered to some degree by **new regulations**. The US is witnessing growing bipartisan pushback against increasing corporate power, including in relation to the use of data and personal information. The EU, meanwhile, recently introduced their AI Act, which establishes bloc-wide legislation around data quality, transparency and accountability. Regulatory efforts related to a technology like generative AI could dampen or alter existing or future investments in the rapidly expanding space. Ideally these rules could be implemented in ways that recognize the commercial, economic and strategic appeal of the technology's advancement, while mitigating some of the potential risks arising from its broader adoption.

In our assessment, these developments combine to provide **STEADY** momentum for this Theme.

WHAT WE ARE WATCHING

- **AI's evolution**, including its adoption into business models and processes, its appearance in consumer use cases, and signs of it having an impact on labour demand and productivity more generally
- **Stepwise advances in nascent technologies**, including breakthrough discoveries as well as movement from the development to application stage e.g., alternatives to lithium-ion based batteries, AI applications in cancer detection, pharmaceutical treatments for Alzheimer's
- **Public sentiment** towards, and policy support for and regulation of, AI and energy transition-related technologies
- **Financial and other supports for R&D-related efforts** around technologies lying at the centre of US-China strategic competition e.g., semis, AI, quantum computing

9 In real (inflation-adjusted) purchasing power parity (PPP) terms.

EVOLVING MARKET STRUCTURE

A growing number of institutions are dedicating resources to private markets, which are well-suited to investors that have the resources, scale and patience to capitalize on private investments' many attractive features. This includes the flexibility to introduce strategic, operational and capital structure improvements that drive value creation, and the long-term focus that allows these efforts to translate into returns. In the public realm, index-based investing continues to benefit from investors' desire to gain broad liquid exposure to targeted markets at low cost. Pursuit of these benefits heightens the potential for unintended exposures, including concentration risks.

HOW WE MONITOR THIS THEME

To monitor the evolution of this Theme, we consider developments across three fronts:

- **The investable universe** e.g., size and composition of the "global market portfolio", new asset classes and geographic markets
- **Asset class composition** e.g., dynamics within asset classes, relative weights of sectors/geography/ factors/ segments (such as regulated vs. user-pay infrastructure)
- **Investor behaviour and preferences** e.g., demand for passive exposures, need for stable vs. high returns, regulatory requirements, need for liquidity

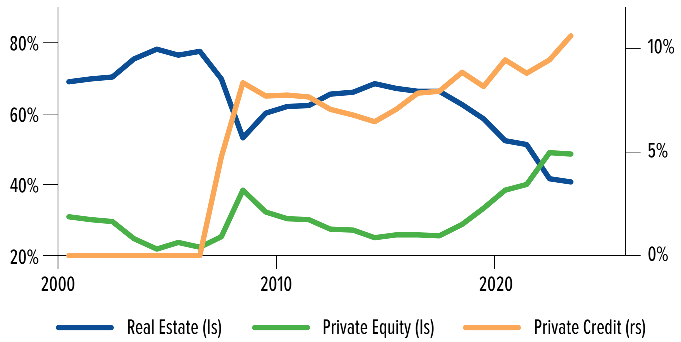
RECENT DEVELOPMENTS AND MOMENTUM

(STEADY)

While the structural uptrend in private equity remains intact (Chart 17), the sector has been contending with multiple cyclical headwinds recently, including rising interest rates, challenging valuations relative to recent years, and slower deal flow. **An area of relative strength within the private space has been credit**, which could be in the early innings of a secular rise thanks in part to mounting regulatory demands on the traditional banking system, coupled with the potential diversification benefits of credit more generally in multi-asset portfolios.

Chart 17: Private equity and credit maintain uptrend

% of Total Alternatives Capitalization



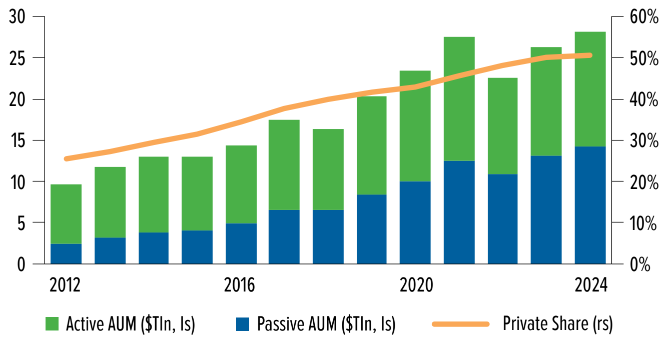
Source: State Street

Assets held in US passive funds recently overtook those held in active ones for the first time in the data series' history (Chart 18). While passive investing is often motivated by a belief that markets are "efficient" – and thus efforts to beat them are futile – the growth in passive strategies themselves could impair the market's ability to efficiently price assets. The fact that allocations within these funds tend to be based on market capitalization inherently leads them to overweight the most overvalued stocks (relative to their conceptual fair value), and vice versa. Passive investing can also result in unintended concentrations, a timely example of which is provided by the "magnificent 7"[10] stocks in the US, which comprise around a third of the S&P 500[11], up from 20% in the beginning of 2023 (Chart 19).

10 The Magnificent Seven companies are Apple, Amazon, Google parent Alphabet, Meta, Microsoft, Nvidia, and Tesla.
11 As of September 13th, 2024

Chart 18: Share of assets in passive strategies now exceeds those in active strategies

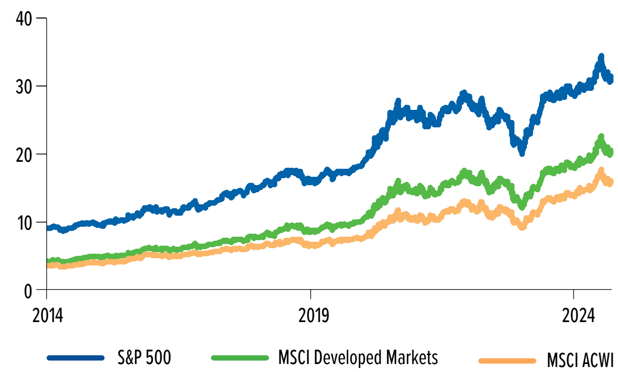
All ETFs & Mutual Funds



Source: Bloomberg

Chart 19: Stock indices are becoming more concentrated

Weight of Magnificent 7 Stocks in Key Indices (%)



Source: MSCI, S&P Global

Consistent with this mix of headwinds and tailwinds, this Theme is seen to have **STEADY** momentum.

WHAT WE ARE WATCHING

- **Private markets growth** in terms of assets under management, number of transactions, and fundraising, including the private credit space's unique dynamics
- **Composition changes in public equity and credit markets**, including geographic and sector weights, as well as the "resolution" of US markets' highly-concentrated state i.e., whether the Mag 7 catches-down to the rest of the market, or the gains widen so that the rest of the market catches up. The relative performance of growth vs. value stocks could provide insight into how markets are digesting a potentially shifting interest rate and growth environment

END OF LOW-FOR-LONG

The post-GFC years were characterised by relatively low growth, inflation and interest rates. The COVID pandemic, however, marked a turning point. Supply chain shocks, tight labour markets, massive fiscal expenditures and accelerating deglobalization combined to create a perfect inflationary storm, catching monetary authorities off-guard with its level and persistence. On the growth front, renewed urgency around the energy transition, as well as heightened global competitive dynamics, have stoked further fiscal support and private capital expenditures. The longer-term nature of many of these trends suggest that this cycle is likely to be characterised by inflation, growth and interest rates that are higher than what investors had gotten used to in the post-GFC/pre-COVID era.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

In addition to developments in the World View Themes, we consider the following types of metrics (with a particular focus on their progression relative to the 2009-2019 period):

- **Price dynamics** e.g., longer-term consumer, business, economist and central bank expectations, level relative to previous cycle, 5-year break-even inflation rates, wage growth, consumption, profit margins and share of income
- **Growth dynamics** e.g., trend productivity growth, capex spending, labour-force participation and immigration, consumption dynamics
- **Interest rate and bond yields** e.g., 5-year and 10-year forward rates, central bank projections, 10- and 30-year bond yields, term premium, stock-bond correlation

RECENT DEVELOPMENTS AND MOMENTUM

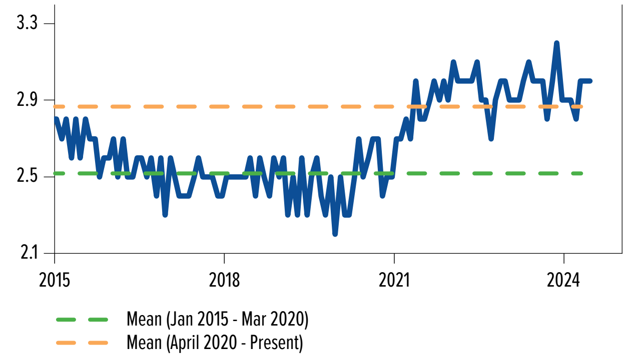
(DECELERATING)

In our view, **inflation's dramatic retreat from its COVID-era peak reflects the normalization of pandemic-related supply & demand pressures**, as well as policy tightening at the margins, **and not the return of 'secular stagnation'**. Longer-term, several of our Themes point to new persistent inflation pressures via onshoring and tariffs (deglobalization), fiscal support and subsidies (policy inflection), wage growth (inequality) and volatile energy prices (climate change and sustainability). Note that, even after its recent retreat, inflation remains high relative to pre-pandemic norms and central bank targets in several key economies.

In the US case, **household inflation expectations are consistent with this outlook**. For example, survey data shows that consumers' expectations for inflation over the next 5–10 years have jumped since the pandemic and now sit around 2.9% (Chart 20). **Market expectations of inflation over a similar timeframe have retreated alongside the rapid decline in realized inflation but remain higher than in the years leading up to COVID**. This contrasts with the views of economists and monetary policymakers, who are maintaining their faith in a return to the 'good old days' of at-target inflation. The US Fed, for example, expects 2% PCE inflation longer term, an estimate nearly matched by the economist community's 2.2% forecast for CPI over the longer term[12] – both in line with pre-pandemic expectations.

Chart 20: Inflation expectations have settled at a higher average

Expected Change in Prices During the Next 5-10 Years: Median, University of Michigan, Consumer Sentiment (%)



Source: University of Michigan

12 According to Consensus Economics, July 2024. Long-term relates to the 6-to-10-year timeframe.

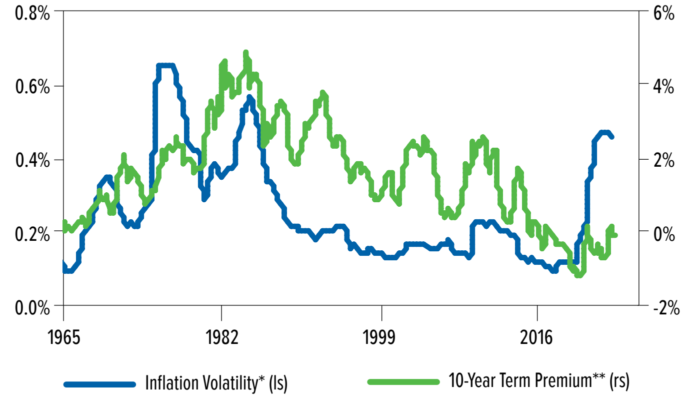
Real GDP growth also suggests that a return to secular stagnation does not look to be in the cards. US GDP growth has been particularly robust, helped by government spending, capital expenditures and a resilient consumer. Taken together, these factors have helped shift US 10-year annualized growth above trend and provide some cushion against nascent but intensifying demographic headwinds. Additional long-term support could also arise via productivity gains from increased capital expenditures and the continued development and application of AI-related technologies and processes.

The combination of softening cyclical pressures with "end of low for long" structural dynamics is being reflected in interest rates and yields. Major central banks have been cutting interest rates as inflation moves closer to their targets and economic activity softens. In the Fed's case, it sees the US neutral rate of interest as being lower than the market's estimate, implying more rate cuts than what is currently priced in and suggested by our World View (which foresees higher policy rates than in the post-GFC/pre-COVID era) (Chart 21). In addition to differing views around growth and inflation, this divergence could also reflect differences in the anticipated path for the term premium. Currently estimated to be at historically low levels, the term premium appears to have scope to widen further if inflation concerns remain top-of-mind for markets (Chart 22).

Chart 21: The market's implied neutral rate is higher than the Fed's

Source: Federal Reserve, Bloomberg

Chart 22: Higher inflation vol associated with higher term premium



*5-year rolling standard deviation of q/q % changes in the core PCE price index
**3-month moving average

Source: BEA, Federal Reserve Bank of New York

These developments are consistent with a *cyclical* DECELERATION in this Implication, as post-pandemic normalization is generating a rapid retreat in inflation, bringing rates and yields down along with it. *Longer term, however, our Themes continue to suggest that investors should not expect a return to the "low for long" environment that prevailed pre-COVID*.

ACTIONS INVESTORS CAN TAKE

If we are indeed experiencing a cyclical pause within an ongoing structural shift to higher and more volatile growth and inflation, this recent deceleration could present investors with an opportunity to better prepare for the new macro regime. To do so, investors can:

- Increase exposure to inflation-linked bonds, such as US TIPS.
- Consider increasing allocations to other assets that could experience a relative boost in inflationary environments, such as private credit (given its typical floating-rate structure), regulated infrastructure and assets with contractual escalators or cost pass-throughs.
- Pursue opportunities arising from low credit-quality borrowers' efforts to navigate a higher rate environment. Examples include debt-restructuring and capital solutions in private credit.
- Adopt a strong underwriting process to ensure that individual investments stand on their own fundamental merits, rather than relying on aggressive financial leverage and/or attractive financing. This is a crucial bottom-up driver in a more competitive investment environment.

HEIGHTENED VOLATILITY AND GREATER DISPERSION

Changing macroeconomic dynamics and more frequent supply-side disruptions are expected to lead not only to higher growth and inflation, but also more volatility. In this environment, central banks could face additional difficulties in achieving their inflation objectives, given their focus on influencing demand rather than supply. Heightened market volatility and dispersion could also result from greater policy intervention, more frequent supply chain disruptions, and a pickup in macroeconomic volatility more generally.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

In addition to developments in the World View Themes, we consider:

- **Macroeconomic variables** e.g., short- and long-term volatility of growth, inflation, and measures of economic cycles
- **Market variables** e.g., implied volatility including VIX and the MOVE Index, realized volatility (standard deviation, variance) of various asset classes, standard deviation of returns across asset classes, sectors, and geographies
- **Policy-related variables** e.g., fiscal and monetary stances, central bank reaction functions, global policy dispersion in terms of direction and magnitude

RECENT DEVELOPMENTS AND MOMENTUM

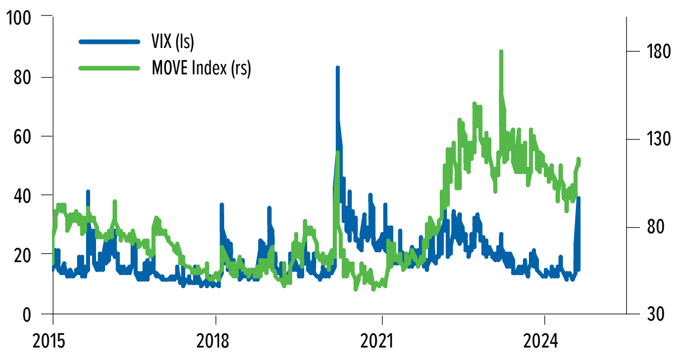
(ACCELERATING)

The combination of resilient growth, robust labour markets, and declining – but still high – inflation, has made it difficult for markets to get a handle on central bankers' plans over the past couple of years. Central bankers themselves seemed to be navigating through a fog at times, trying to hit their targets in the face of various cross-currents including procyclical fiscal policy. This made for some interesting times in US fixed-income markets, with the yield curve remaining inverted for the longest period in history and volatility (as measured by the MOVE Index) remaining near the top of its decade-long range (Chart 23).

While US equity markets were relatively calmer through much of this period, they were hit with their own bout of volatility this past summer when the VIX spiked to post-COVID highs.

Chart 23: Financial market volatility is higher than normal

VIX and MOVE Index

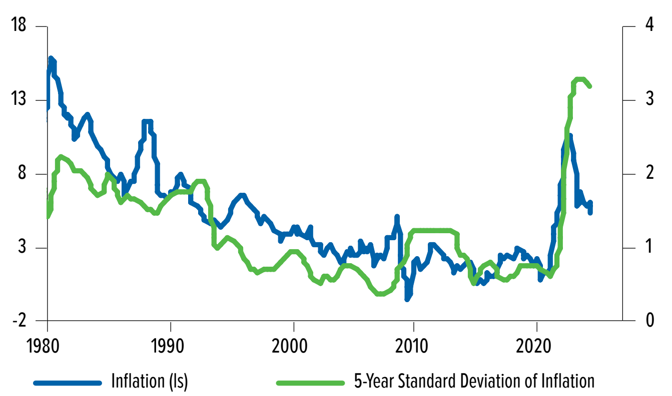


Source: Chicago Board Options Exchange (CBOE), ICE BofAML

Deglobalization is playing a growing role in driving economic and financial volatility. Intensifying geopolitical tensions from ongoing conflicts, renewed supply chain disruptions in the Red Sea, the escalation of the technological race between the US and China, and increasing forms of protectionism worldwide, all contributed to gyrations in commodity prices and, by extension, inflation more broadly. Despite significant progress in abating price pressures, inflation rates and volatility remain elevated across OECD economies (Chart 24).

Chart 24: Inflation has cooled but remains volatile

OECD Countries (GDP-Weighted)

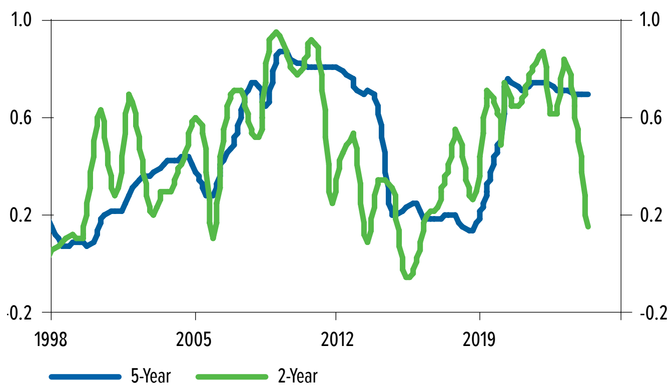


Source: OECD

Economic cycles have recently been less synchronized and more dispersed than in the past (Chart 25). A good example is provided by emerging markets, which historically responded to US interest rate hikes in a magnified fashion. Not only would they be prone to slowing, but possibly even crisis as foreign capital flowed out, risking currency collapse and sovereign debt default in the process. This time around, despite aggressive Fed hikes, emerging markets have remained relatively stable (and, in some cases, have even seen cuts by their own central banks). Developed countries have also exhibited greater decoupling and dispersion, with many major central banks – including those in Europe, England and Canada – cutting interest rates ahead of the US Fed. Even more divergent is the Bank of Japan, whose recent hikes coincided with this past summer's bout of market volatility.

Chart 25: Economic cycles have dislocated in recent years

Rolling Average Pairwise Correlations of OECD Composite Leading Indicators



Total includes 13 DM and EM countries

Source: OECD

Taken together, these developments suggest that the scope for heightened volatility and great dispersion is **ACCELERATING**.

ACTIONS INVESTORS CAN TAKE

To help address the challenges presented by higher economic and market volatility, investors can:

- Adopt a robust and dynamic rebalancing program, such as the one introduced by IMCO.
- Focus on investments whose expected returns derive from fundamental value creation over the long term, rather than price changes over shorter horizons.
- Maintain ample exposure to safe assets such as US Treasuries, which can serve as a source of liquidity and collateral through periods of market stress and heightened volatility, limiting the chance of "forced sales" of other assets at a steep discount.
- Increase exposure to the USD, which tends to fare relatively well through periods of market stress, thus potentially serving as a hedge from a Canadian investor perspective while reducing liquidity demands.
- Take advantage of opportunities presented by increased dispersion of investment returns within asset classes, which lends itself to more opportunities for active management to generate alpha via security selection and portfolio construction.

CAPITAL EXPENDITURE BOOM

Decades of domestic under-investment, driven in part by offshoring and the pursuit of fiscal "discipline", have paved the way for a capital investment boom. Governments have shifted towards more direct intervention and are now seeking to crowd-in private investment in support of new strategic priorities relating to climate, supply chain security, reshoring, income inequality (including around housing affordability), and technological competition. The need for AI and data-related infrastructure is adding further tailwinds.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

To gauge the progress and trajectory of the capital expenditure boom, we monitor developments along three broad fronts:

- **Public-related capital expenditures** e.g., those related to housing, and the IRA/CHIPs Act (as well as mirror legislation introduced by other countries in response)
- **Private-sector capital expenditures** e.g., investments in AI and datacenters, as well as energy transition related investments such as upgrading the electrical grid, solar/wind power generation
- **The relative market performance of cap-ex related sectors** e.g., materials, construction services, mechanical and engineering, electrical machinery, and technology

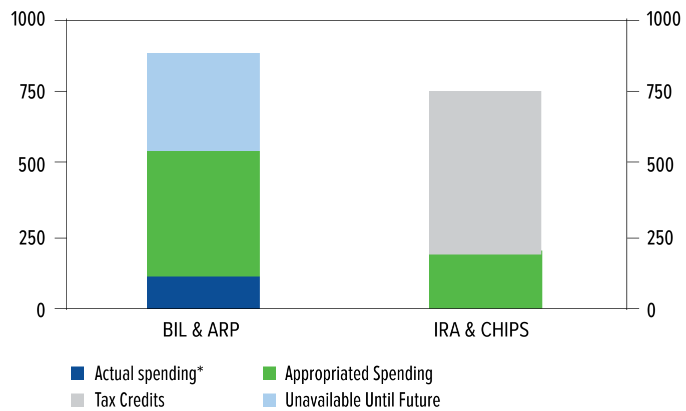
RECENT DEVELOPMENTS AND MOMENTUM

(STEADY)

After decades of under-investment, governments have been playing an active role in driving investment towards priority initiatives. This trend is typified by the US IRA and CHIPS Act, which were signed into law in August 2022, and similar legislation introduced by Japan (Green Transformation Basic Plan), the EU (Green Deal Industrial Plan) and Canada (select budget measures and deal-specific matching of IRA subsidies/tax credits). While some of these projects have already been implemented, many others have been either delayed or not yet allocated funding, suggesting potential pent-up fiscal support ahead (Chart 26). As the initial impetus from these efforts tapers off, other priority areas could be the subject of further fiscal measures. A prime candidate on this front is housing, which has faced persistently tight supply in several jurisdictions since the GFC, including Canada. Relatedly, the Canadian government announced $8.5 billion in housing-focused spending in its 2024 Federal budget, aimed at catalyzing private investment and increasing the housing stock.

Chart 26: $583 billion of $1.1 trillion allocated spending has been announced as of April 2024

Total appropriated US spending/tax credits on energy and infrastructure ($Bln)



*There is no central database tracking how much has been obligated or sent under IRA & CHIPS

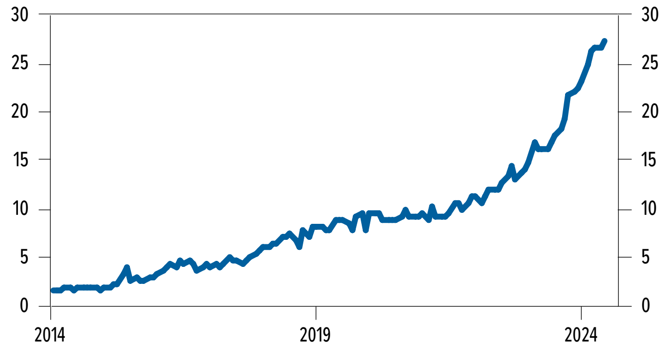
Source: Politico

The private sector has also been making significant capital expenditures, led by hyperscalers and their AI-focused investments.[13] The surge in AI-related activity has increased the need for the digital infrastructure necessary for storing, processing, and managing the vast amounts of data required by AI systems. While this has led to a surge in construction spending on data centers (Chart 27), demand is expected to continue outpacing supply for some time, pointing to further needed capital expenditures in this area in the years ahead.

13 This group includes companies such as Alphabet, Amazon, Meta, Microsoft, and Nvidia.

Chart 27: Data center spending is on the rise

US Data Center Construction Spending
($Bln, SAAR)

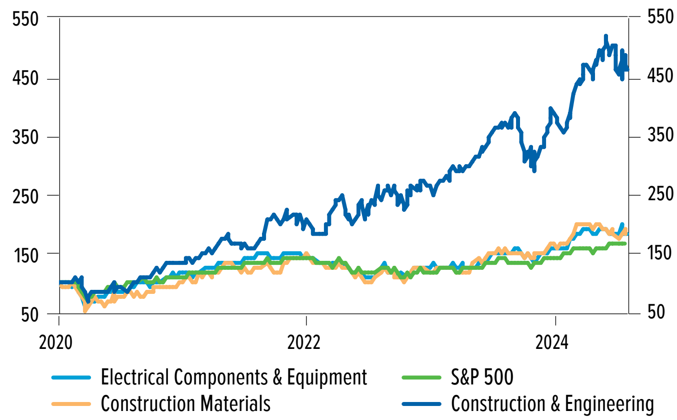


Source: US Census Bureau

Areas of the market that benefit from capex activities have fared relatively well. The technology sector has done a lot of the lifting for the S&P 500 in recent years, bolstered by the promise of AI-related sales growth in the years ahead – growth that depends on the required capital investments being made now. Construction and engineering stocks, though with less fanfare, have also performed relatively well (Chart 28).

Chart 28: Construction & engineering stocks have been soaring

S&P 500 GICS Level 4 Index
(Rebased = 100, 2020-01-01)



Source: S&P Global

Based on these developments, the capital investment boom appears to have **STEADY** momentum.

ACTIONS INVESTORS CAN TAKE

To take advantage of the opportunities arising from the boom in capital expenditures, investors can:

- Invest in the core infrastructure needed to support the energy transition (e.g., grid modernization/expansion) and new disruptive technologies (e.g., data centers, fibre optic networks). This can be achieved via direct or indirect equity and credit investments, such as the one IMCO has made in Pulse Energy and the Brookfield Global Transition Fund.
- Gain exposure to multi-family residential real estate, which could see sustained capital expenditures over the next several years – consistent with current low vacancy rates and the dearth of new supply following the GFC.

GROWING ROLE FOR PRIVATE INVESTMENTS

Private markets are accounting for a growing share of the investable universe, playing an increasingly important role in the portfolios of patient investors that can look through rising cyclical volatility, focusing instead on value creation over the longer term. Larger, sophisticated investors are well-placed to take advantage of private markets' features, given potential economies of scale and these investors' access to strategic partners, deals and origination opportunities.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

To monitor the evolution of the private segment of the investment world, we consider:

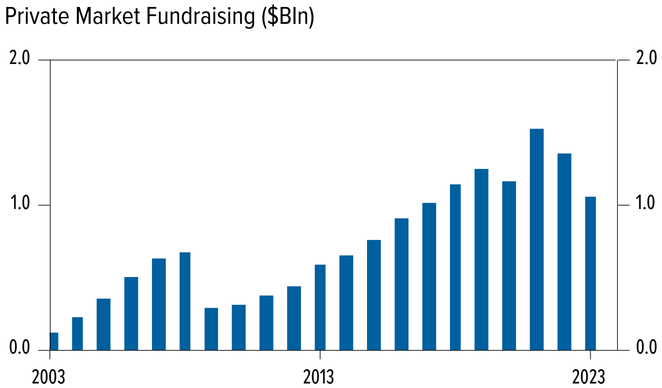
- **Activity and performance of private markets** e.g., fundraising, deal volume, returns
- **Growth of and participation in private markets** e.g., AUM vs. public, participation of pension funds, wealthy investors, retail investors
- **External macro drivers** e.g., banking regulations, privatization efforts, energy transition, economic and market volatility

RECENT DEVELOPMENTS AND MOMENTUM

(DECELERATING)

Globally, private markets continue to experience a slowdown. The headwinds that emerged in the latter half of 2022 alongside rising interest rates have persisted, pressuring deal flow, performance and fundraising in the process. Within private equity, the value of global buyout deals fell by 37% in 2023 year-over-year, as market participants continued to adjust to a new higher rate environment.[14] This contributed to record highs in 'dry powder'—capital committed but not yet deployed— which reached an all-time high of $3.7 trillion in 2023, a 19% increase from the previous year.[15] Performance also saw waning momentum, with real estate continuing to face challenges while infrastructure slowed in 2023 following several robust years. At the other end of the performance spectrum was private credit, which has managed to remain resilient in – and even benefit from – the higher rate environment. Global fundraising also revealed some of the challenges in the privates' space, enduring its second consecutive year of declines (Chart 29), with larger funds dominating activity at the expense of smaller players.

Chart 29: Private market fundraising has slowed



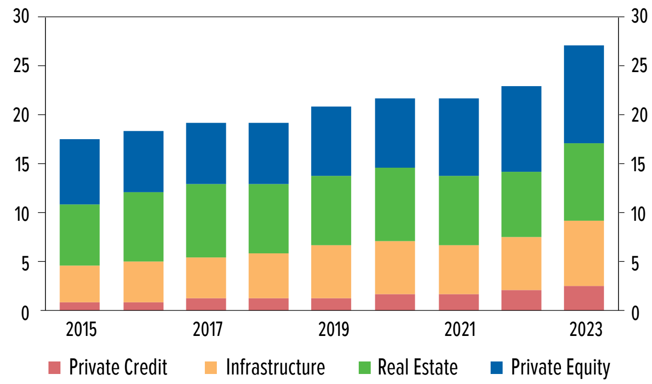
Source: McKinsey

Despite these cyclical speedbumps, the longer-term trend towards larger and deeper private markets remains well-entrenched. The number of US companies backed by private equity firms has grown multifold in the last two decades, rising from 1,900 to around 11,200. In contrast, the number of US publicly listed companies has fallen from a peak of 7,300 in 1996 to 4,300.[16] **Globally, institutional investors also continue to increase their allocations to private markets**, which reached a record high 27% share of their portfolios in 2023 – a 10-percentage point climb from a decade prior (Chart 30).[17] Beyond the institutional space, there has also been a notable push to increase high-net-worth individuals' participation in private markets, with Blackstone and Partners Group launching 'open-ended' funds to serve this segment. The scope for further growth here appears to be significant.

14 https://www.bain.com/insights/topics/global-private-equity-report/
15 https://www.mckinsey.com/industries/private-capital/our-insights/mckinseys-private-markets-annual-review#/
16 https://www.jpmorganchase.com/ir/annual-report/2023/ar-ceo-letters#section-3
17 CEM benchmarking data includes 265 pension funds globally, including 68 Canadian funds. Allocations to privates among the Maple 8 was 57% on Dec. 31, 2023.

Chart 30: Increasing allocations to privates by institutional investors

Institutional Investor Asset Allocations (%)



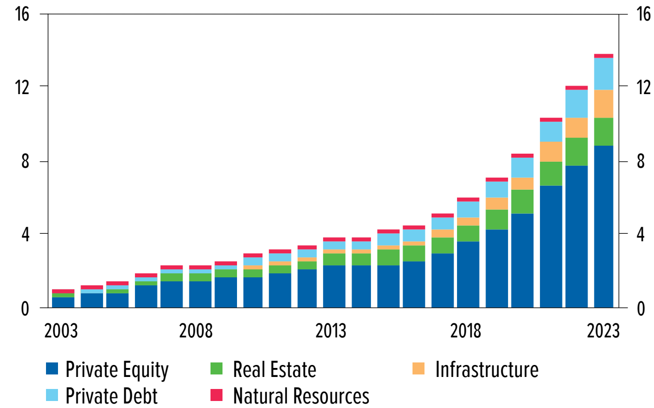
Source: CEM Benchmarking

Private credit has endured fewer near-term challenges than other segments of the private investment universe, while similarly facing supportive structural tailwinds. Higher interest rates have helped bolster returns in the lending space, attracting new dedicated allocations and expediting the "formalization" of the asset class in the process. This built on the momentum that followed the US regional banking crisis in early 2023, and the even broader decade-long shift away from traditional bank-sourced financing. Though this segment has been primarily focused on corporate credit, there is scope for growth in the $20 trillion public asset-backed securities market —including residential mortgages, credit card debt, student loans, and car loans— where higher regulatory and capital constraints have reduced banks' activity.

While private markets have experienced some recent DECELERATION, they remain a growing destination for investors' assets (Chart 31) – a trend that is likely to continue in the face of structurally-supportive trends.

Chart 31: Secular rise in privates looks set to continue

Private Assets AuM ($Tln), Source: Preqin



Source: Preqin

ACTIONS INVESTORS CAN TAKE

To capitalize on the growing private market opportunity set, investors can:

- Consider expanding exposure to private investments. Service-geared businesses with the ability to adjust their pricing structure when faced with rising input costs could provide additional attractive features in a world of higher and more volatile inflation.
- Expand exposures to market segments that are well positioned to withstand higher and more volatile rates and inflation, such as private credit and certain types of infrastructure.
- Ensure a strong underwriting process and avoid concentration across sectors, segments, and themes. Identify opportunities that emphasize fundamental value-creation over financial leverage as their key driver of returns.
- Partner with best-in-class large private asset managers. Build internal expertise to better invest alongside these partners across industries and sectors. Large institutional investors can use their size to negotiate preferable fees.
- Ensure adequate portfolio liquidity when incorporating private (illiquid) investments in a portfolio.

GROWING SCOPE FOR UNINTENDED EXPOSURES

The growing popularity of passive investing has stoked the potential for value-agnostic behaviour to lead to highly concentrated and mispriced (relative to conceptual fair value) markets. At the same time, evolving social and strategic priorities – including ones related to sustainability, climate change, and global strategic competition – are leading to heavier policy interventions and geopolitical instability. Against this backdrop, individual companies, sectors and countries are more likely to face sudden changes in their operating environments, thus raising the scope for "stroke of the pen" risks for investors.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

The "unexpected" (and thus potentially unintended) elements of this Implication do not necessarily lend themselves easily to quantification or tracking by way of specific measures. Recognizing this, we still attempt to gauge the potential for such exposures by monitoring social, policy, regulatory and geopolitical developments that can impact investments. This is augmented by the tracking of more measurable concentration risks. Our three broad monitoring areas are:

- **Market concentration** e.g., index weights of single names, geographies, sectors, fund managers
- **Non-financial investment considerations (domestic)** e.g., policy changes, regulations and reporting requirements, social norms and values
- **Geopolitical investment considerations (international)** e.g., trade restrictions and sanctions, conflict, changes in government, cross-border supply chain vulnerabilities

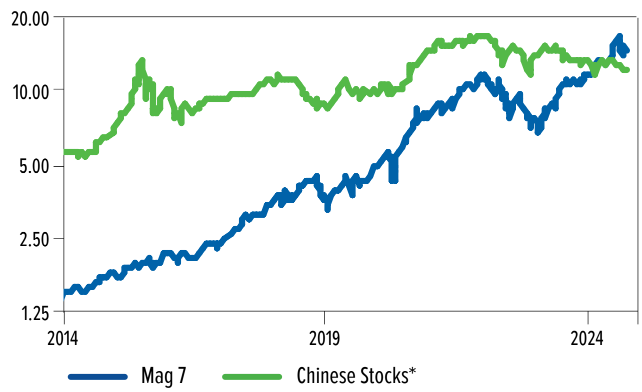
RECENT DEVELOPMENTS AND MOMENTUM

(ACCELERATING)

The continued shift towards passive investing has contributed to heightened concentration risks, especially in tech-heavy US markets where the dramatic outperformance of the Mag 7 AI-linked companies has led to one of the most concentrated rallies and index composition profiles in history. In addition to generating high weights for these stocks relative to other US index constituents, this dynamic has also raised concentration risks when it comes to sectors and geographies (Charts 32 and 33).

Chart 32: Mag 7 now worth more than all Chinese stocks

Market Capitalization ($Tln)

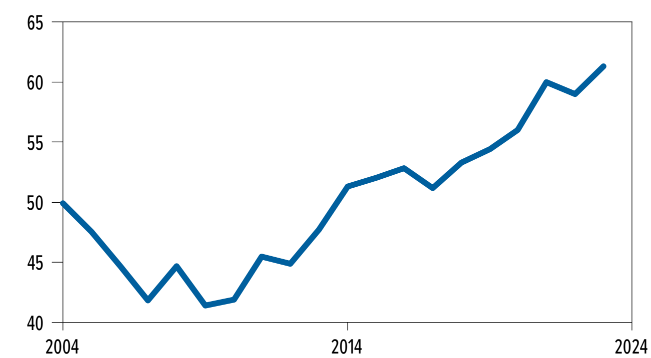


*Chinese stocks includes Chinese companies listed in Shanghai, Shenzhen, and Hong Kong exchanges; excludes HSBC, Manulife, Prudential, Bud APAC, & Standard Chartered headquartered abroad.

Source: Bloomberg, Macrobond

Chart 33: The global equity market has become more concentrated

US Weight in the MSCI ACWI (%)



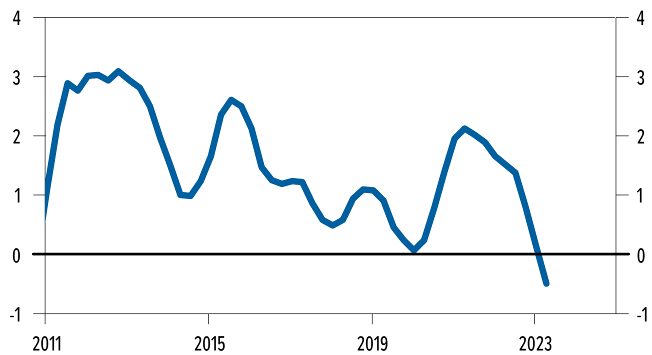
Source: MSCI

Closer to home, **policy changes have generated new potential ESG-related risks for companies operating in Canada** and, by extension, for their investors as well. The passing of anti "greenwashing" measures in Bill-C59 has opened Canadian-domiciled companies to greater scrutiny regarding their claims about climate-related efforts, with the potential for monetary penalties should the claims be proven 'misleading'. This has led some companies to withdraw climate-related information from public channels, citing a lack of clarity on the Bill's requirements.

In the US, **restrictions on US outbound investment to China – first introduced by Trump in 2020 and since expanded on by former President Biden – have added new uncertainties**, particularly around activities relating to semiconductors, quantum computing and AI (Chart 34). Though potentially very impactful, these restrictions are difficult to make contingency plans for given the lack of details around timelines, exemptions, and the type and size of transactions affected.

Chart 34: China's net inward capital flows have fallen

China, Capital Inflows (% of GDP); 3-year MA



Yearly change in annual inward (liabilities minus assets) FDI and portfolio investments

Source: State Administration of Foreign Exchange (SAFE) of China

These examples from across our three monitoring areas point to the **ACCELERATION** of this implication.

ACTIONS INVESTORS CAN TAKE

The fact that many unintended exposures result from unforeseen developments makes them inherently difficult to plan for in a targeted way. However, general approaches and processes can help mitigate some of these risks. For example, investors can:

- Use custom indices to gain broad-based liquid exposure that aligns with investors' beliefs, while also potentially limiting undue concentration risks.
- Ensure that external partners comply with the investor's sustainability policies, as is done here at IMCO.
- Dampen country-specific risks by actively managing investments, avoiding illiquid direct investments in some situations, and capping country weights – all examples of actions taken by IMCO around China-related investments.
- Remain conscious of the scope for "stranded assets", whether due to policy (e.g., Russia post-Ukraine invasion), obsolescence (e.g., technological advances), social choice (e.g., clean energy over fossil fuels) or investor beliefs (e.g., sustainability).
- Reduce potential business risks by conducting due diligence on up- and downstream vulnerabilities, from supply sources to end customers.

NEED FOR INNOVATION & FLEXIBILITY

In a world of rising uncertainty, the need for investors to respond quickly and innovatively to shifting conditions is becoming increasingly important. The "set it and forget it" approach to investing could become increasingly challenged in the face of growing market concentration risks, diverging cross-country economic performances, rising military conflicts, and intensifying trade wars. It is under such conditions that an active and innovative investment approach – one that frequently reviews economic, market, and asset return assumptions – could prove fruitful. Investors are also likely to find it increasingly necessary to remain humble and flexible when responding to fluid conditions and unforeseen events.

HOW WE MONITOR THIS INVESTMENT IMPLICATION

The need for innovation and flexibility is, in essence, a "catch-all" outcome of our various Themes and Implications. As a result, our suite of monitoring indicators includes derivative measures of some of the metrics discussed elsewhere in this Update. Using such indicators allows us to capture a measure of uncertainty, rather than merely quantifiable risk, as we attempt to gauge whether the need for innovation and flexibility is increasing or decreasing.

In particular, we focus on three main areas to measure the force of this trend:

- **Financial market/economic uncertainty** e.g., volatility of derivative instruments, dispersion of economic forecasts, difference between actual policy outcomes vs. what is being "priced in"
- **Policy/ "stroke-of-the-pen" uncertainty** e.g., policy uncertainty measures, composition of parliaments by political parties, domestic policy priorities
- **Noneconomic uncertainty** e.g., number of natural disasters, global health emergencies, military conflicts

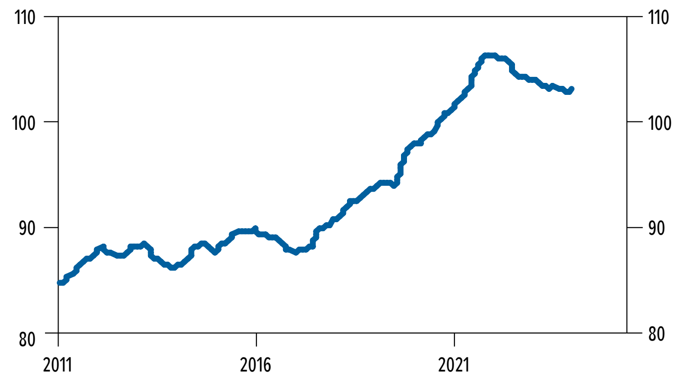
RECENT DEVELOPMENTS AND MOMENTUM

(STEADY)

Movements in financial market and economic variables have become increasingly volatile (Chart 35). A major driver of this shift has been the recent escalation in geopolitical tensions, which has seen strategic objectives – such as national security and supply chain de-risking – supplant economic and market considerations as the key determinant of cross-border policy.

Chart 35: Volatility itself has become more volatile

VVIX* Index, 5-year MA



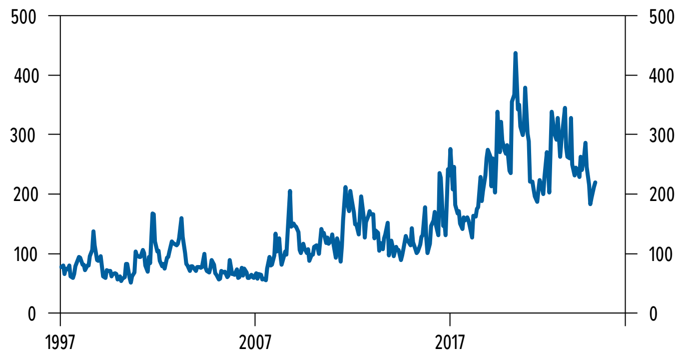
*VVIX is a measure of the volatility of the VIX, which measures the short-term volatility of the S&P 500 index

Source: Chicago Board Options Exchange (CBOE)

Domestically, **governments' increased involvement in shaping business and economic outcomes has introduced additional uncertainty (Chart 36)**, especially given that their priorities can change with each election cycle. The magnitude of these potential changes is amplified by the increasingly polarized political landscapes found in many countries, as leadership changes could bring with them wider swings in proposed and enacted policies.

Chart 36: Policy uncertainty has risen on a structural basis

Global Economic Policy Uncertainty Index
(PPP-adjusted GDP-weighted average)

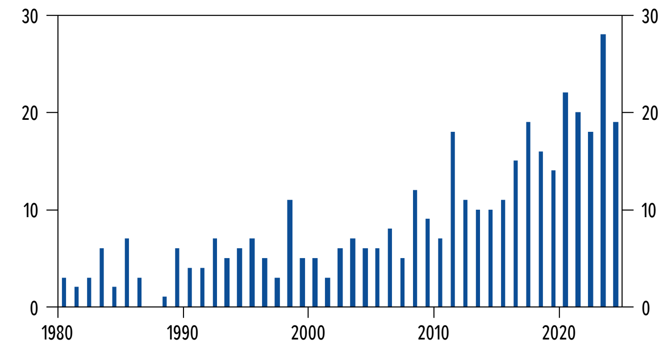


Source: Baker, Bloom & Davis

Beyond the human element driving geopolitics and domestic policy changes, **physical forces are adding to the uncertainty as climate-driven natural disasters rise due to intensifying global warming (Chart 37)**.

Chart 37: Costly climate disasters are becoming common

Number of US billion-dollar disaster events (CPI-adjusted)



Source: National Centers for Environmental Protection

Given these various forces and crosscurrents, investors' need to remain innovative and flexible remains **STEADY** and similar in degree to what was envisioned when the World View was first shared.

ACTIONS INVESTORS CAN TAKE

To address this need, investors can:

- Invest in asset classes with broad remit, e.g., public versions of private assets, and "investing in between the lines".
- Ensure ample portfolio liquidity by holding high-quality liquid fixed-income assets and equities.
- Look beyond economic growth rates and invest in structural trends that are likely to persist beyond a cycle.
- Adopt a research-driven investment process that includes consistently monitoring and assessing "the state of the world". Applied to portfolio construction, this entails regularly reviewing capital market assumptions and considering these against investor objectives and risk tolerances.
- Remain humble and strive to constantly learn and adapt.

CONCLUSION

A primary goal of this year's World View Update is to communicate the process by which we continuously monitor the framework's Themes and Implications. Additionally, the report aims to translate recent news and data flow into an assessment of each components' momentum.

Even though the World View takes a long-term perspective, the assessments in this Update are focused on the recent past and future. This is because, outside of crises and other major inflection points, structural changes tend to be slow-moving, taking years – if not decades – to materialize. When moving aboard such a slow-moving ship, changes in direction can be difficult to discern. And if one is not paying close attention, they might eventually end up in an entirely unintended destination.

Looking ahead to 2025, the recent developments highlighted in this Update will intensify, slow, or possibly even reverse course. Viewing these changes through our monitoring framework puts us in a better position to gauge what they mean for the strength and validity of our long-term outlook. While it is impossible to draw comfortable conclusions about systems as complex and dynamic as financial markets and economies, it is still worth trying. The research-driven, flexible investment process implied by the World View and its Updates is a key part of IMCO's efforts to do so.

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