2023

Invesco Global Sovereign Asset Management Study

This study is not intended for members of the public or retail investors.
Full audience information is available on the next page.

Contents

This document is intended only for Professional Clients in Continental Europe (as defined in the important information); Malta, Cyprus, Dubai, Jersey, Guernsey, Isle of Man, Ireland, South Africa and the UK; for Qualified Clients/Sophisticated Investors in Israel; for a Middle East client, Exempt Investor, Accredited Investor or non-Natural Qualified Investor; for Institutional Investors in the United States; for AFPs and Qualified Investors in Chile; for Accredited and Institutional Investors in Mexico, for Sophisticated or Professional Investors in Australia; for Professional Investors in Hong Kong; for Institutional Investors and/or Accredited Investors in Singapore; for Qualified Institutional Investors and/or certain specific institutional investors in Thailand, for certain specific institutional investors in Malaysia upon request; for certain specific institutional investors in Indonesia, for certain specific sovereign wealth funds and/or Qualified Domestic Institutional Investors approved by local regulators only in the People's Republic of China, for Qualified Institutional Investors, pension funds and distributing companies in Japan; for Wholesale Investors (as defined in the Financial Markets Conduct Act) in New Zealand, for certain specific Qualified Institutions/Sophisticated Investors only in Taiwan; for accredited investors as defined under National Instrument 45-106 and permitted clients as defined under 31-103 in Canada, and for one-on-one use with Institutional Investors in Bermuda, Panama and Peru.

Welcome

I am pleased to present our eleventh annual study on sovereign investors. Initiated in 2013, this study has expanded in scope over time. This year, it captures the viewpoints and opinions of 142 chief investment officers, heads of asset classes, and senior portfolio strategists from 85 sovereign wealth funds and 57 central banks. Collectively, these institutions manage approximately US$21 trillion in assets.

In 2023, sovereign investors find themselves navigating an altered macroeconomic environment, marked by surging inflation and higher real interest rates. Our first theme explores this change, spotlighting the impacts on portfolio construction and asset allocation. We observe an increased affinity for fixed income assets, including private debt, and heightened interest in Emerging Markets, believed to offer potential benefits in a higher-rate environment. Among the Emerging Markets, sovereign investors have turned their interest to India.

Theme 2 explores sovereign funds' approach towards private assets, such as real estate, infrastructure, and private equity. Despite market volatility, these alternative investments retain their allure. However, a pricing adjustment has underscored performance inconsistencies, prompting more discerning investment strategies. These strategies prioritise identifying top-tier managers and the most enticing transactions. Infrastructure, particularly renewable energy generation and distribution, emerges as a prominent sector.

Building on these findings, Theme 3 explores how sovereign investors are helping catalyse the energy transition. The current energy crisis has intensified the focus on establishing secure, sustainable energy supply chains. Sovereign wealth funds prioritise direct investments in green infrastructure, while central banks are gradually increasing allocations to green bonds. To counter greenwashing concerns, investors are proactively accepting development risks and self-issuing green bonds.

Theme 4 studies the emergent generation of sovereign wealth funds, established since 2012. We review their objectives and challenges, finding that most of these funds have development goals related to GDP growth, economic diversification, and the energy transition. However, they grapple with capability gaps vis-à-vis established funds. To bridge these, they seek partnerships with experienced funds and are engaging external asset managers. Good governance, clear objectives, and strategic partnerships are seen as the bedrock for success for this new generation of funds.

Our final theme, Theme 5, examines central banks' responses to a tumultuous macroeconomic and geopolitical environment. We find an increasing inclination towards gold as a safe-haven asset, culminating in record gold purchases in 2022, continuing into Q1 2023. While the US dollar maintains its reign as the world's reserve currency, central banks are diversifying their currency holdings, elevating allocations to Emerging Market currencies to leverage the growth and diversification potential opportunities that these developing nations offer.

Rod Ringrow
Head of Official Institutions

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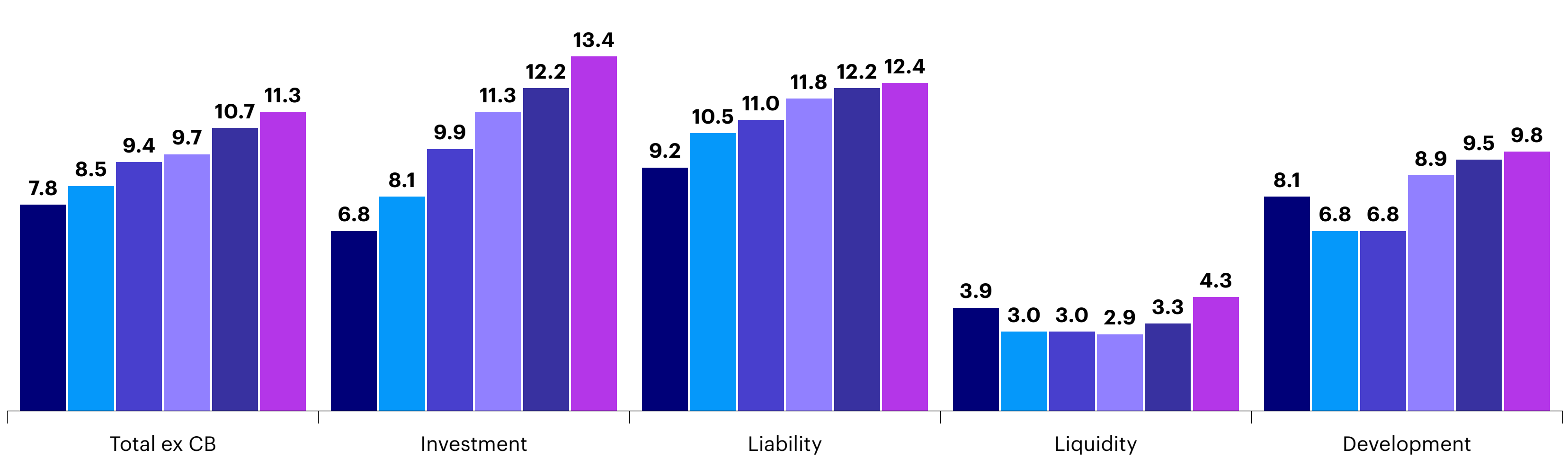
Key metrics

Investment horizons
Over the course of 2022, investors continued to extend their investment time horizons resulting in the sixth consecutive annual increase reported through this study. Sovereign wealth funds reported an average investment horizon of 11.3 years, versus the 10.7 years reported in 2022. Investment sovereigns reported the largest rise, aligned to previous years, though liquidity sovereigns (characterised by their shorter time horizons) also reported a notable uptick this year. Sovereigns have increased investment horizons to facilitate a broader range of investments, including allocations to private assets.

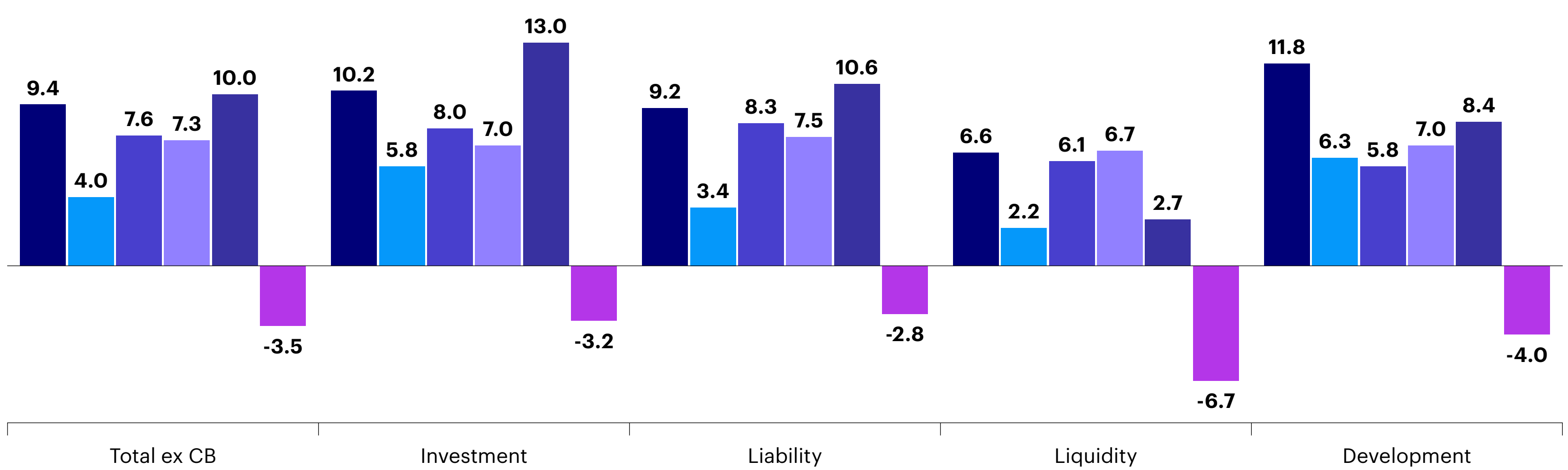
Figure A
Time horizon of investment objective (Years, SWFs only)



Sample size: 2018 = 64, 2019 = 65, 2020 = 58, 2021 = 55, 2022 = 62, 2023 = 73.

Performance
With the rapid rise of interest rates impacting fixed income returns and the listed asset price correction impacting equity returns sovereign investors were faced with a challenging year. As such sovereign investors reported negative returns to December 2022 for the first time since starting tracking performance in this study, with average returns of -3.5%. Liquidity sovereigns reported the worst performance of the segments due to the highest allocation to fixed income and minimal exposure to private markets.

Figure B
Fund returns to 31 December (%, SWFs only)

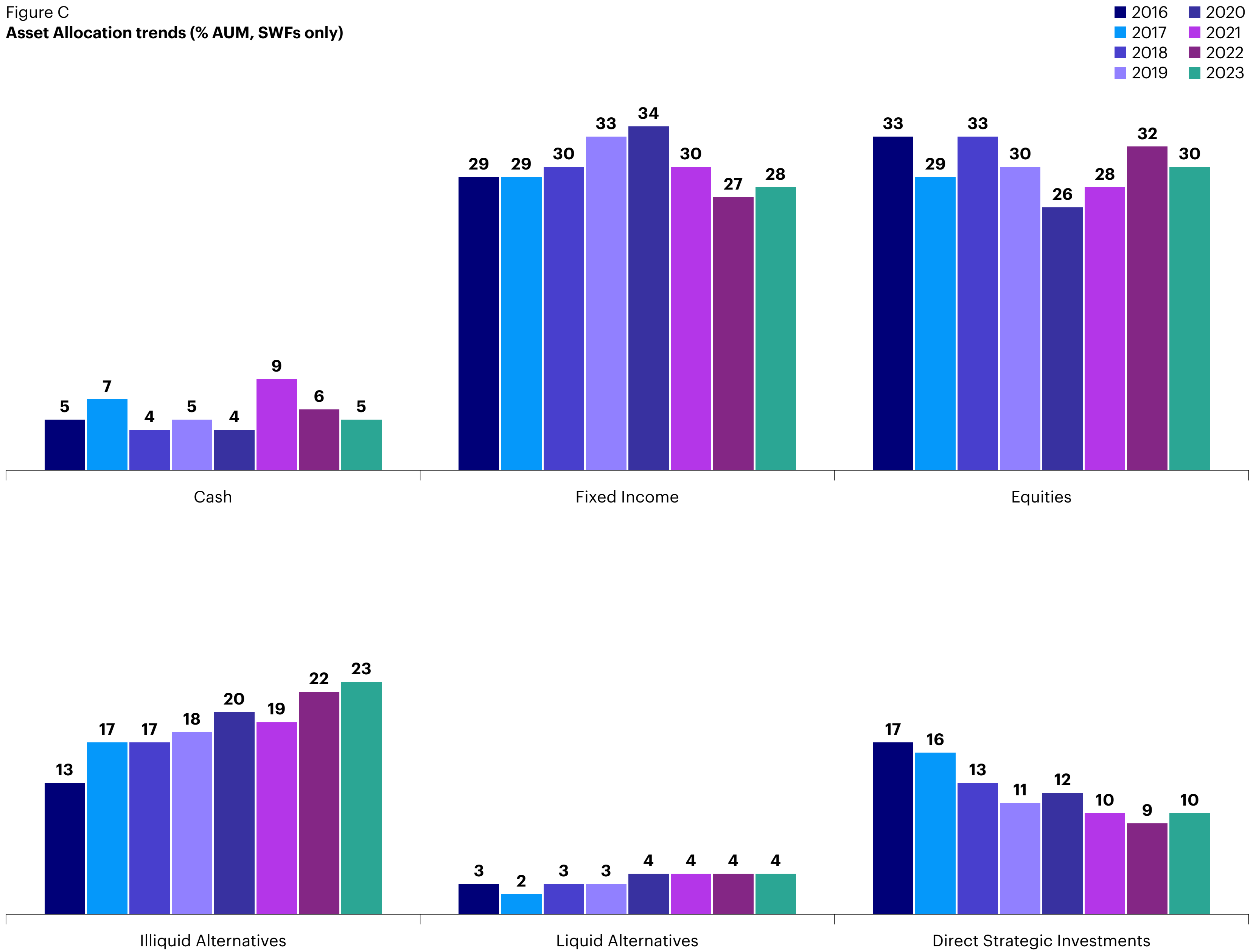


Sample size: 2017 = 52, 2018 = 55, 2019 = 71, 2020 = 61, 2021= 55, 2022 = 57.

Key metrics

Asset allocation
Fixed income allocations have slightly rebounded after two years of decline, now sitting at 28% on average (up from 27%). Equity allocations have retreated slightly, down from 32% last year to 30% in 2023.

Figure C
Asset Allocation trends (% AUM, SWFs only)

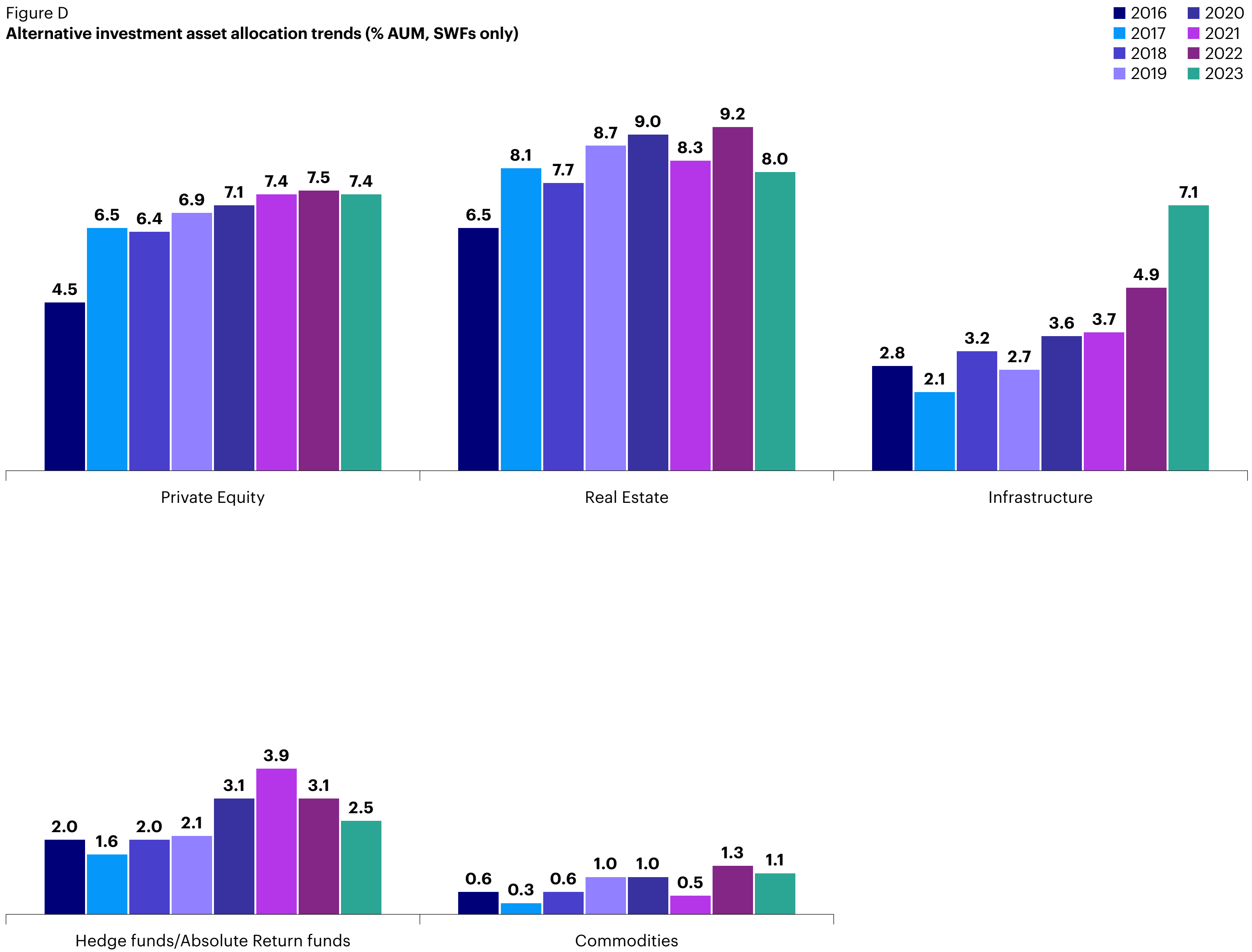


Sample size: 2016 = 57, 2017 = 62, 2018 = 63, 2019 = 53, 2020 = 78, 2021 = 54, 2022 = 74, 2023 = 80.

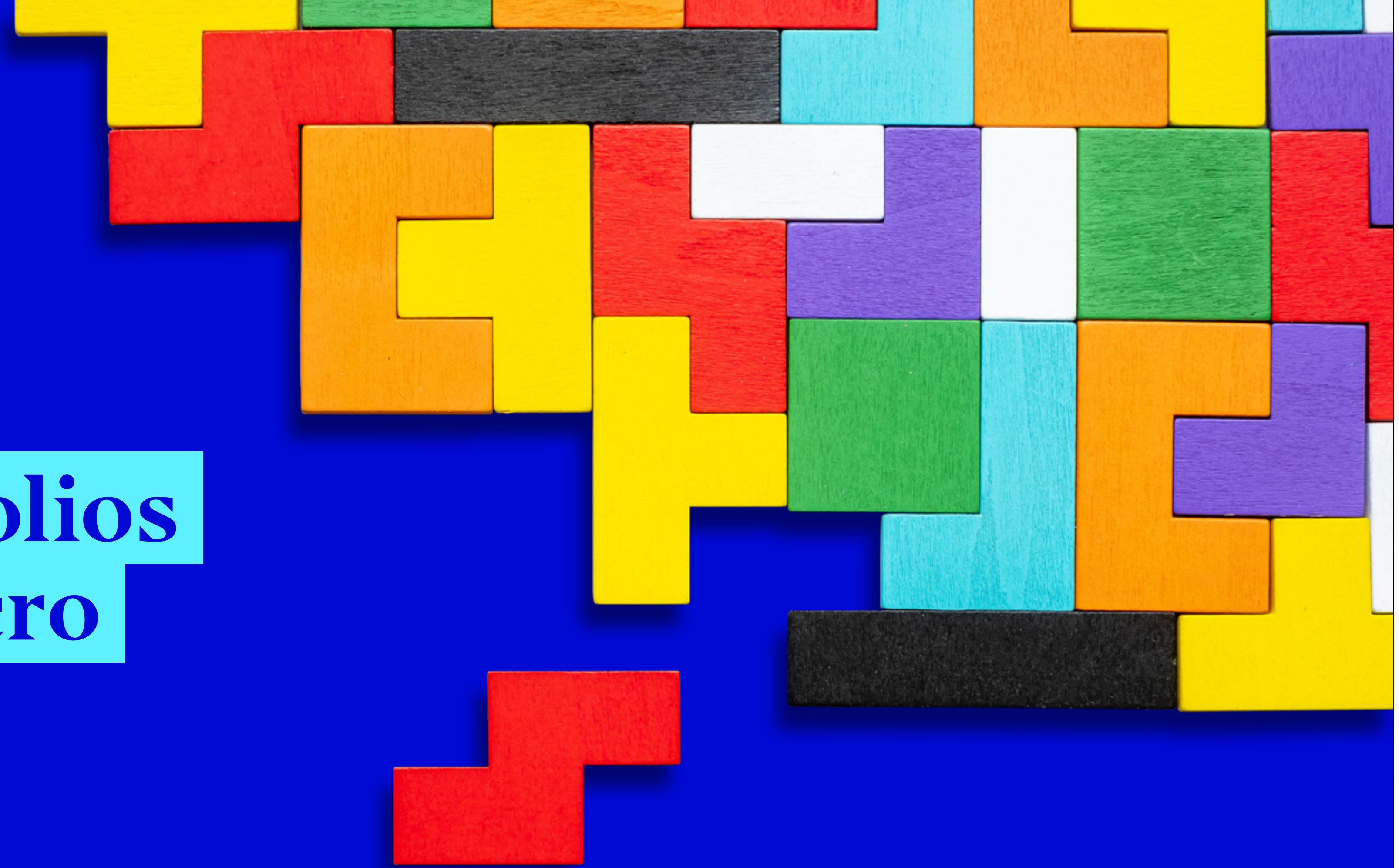
Key metrics

Sovereign wealth funds have continued to increase allocations to alternative investments which now stand at 27% (excluding direct strategic investments), with the increase driven by a steady rise in illiquid alternatives. Higher allocations to infrastructure were a notable feature of the past 12 months, with this asset class now accounting for 7.1% of portfolios, offsetting a decline in real estate and flat allocations to private equity.

Figure D
Alternative investment asset allocation trends (% AUM, SWFs only)



Sample size: 2016 = 57, 2017 = 62, 2018 = 63, 2019 = 53, 2020 = 78, 2021 = 54, 2022 = 74, 2023 = 80.



Theme 1

Building portfolios in the new macro environment

Sovereigns expect inflation to fall, but remain elevated relative to previous decade; sticky inflation is seen as the most serious risk to economic growth in the near term.

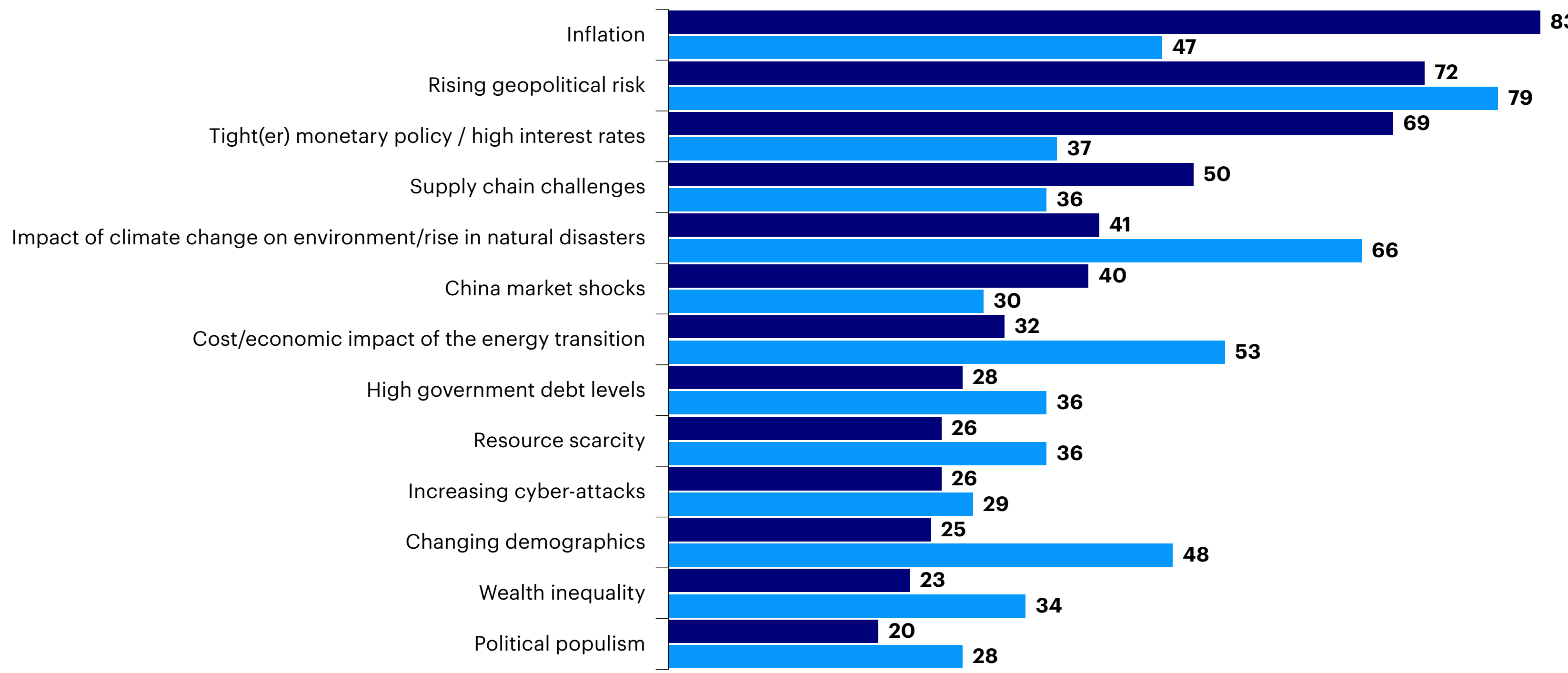
Funds are looking to reshape their portfolios to reflect the new macro environment. This includes a transition back to fixed income, with sovereign wealth funds making use of all fixed income asset classes and looking to increase investments in private debt.

Emerging Markets offer a range of attractive investment opportunities in both public and private markets; investors are focused on economies that offer favourable demographics, political stability, and positive regulatory initiatives, with India a priority.

In last year's study, inflation emerged as the most significant short-term risk to economic growth, a finding reiterated this year **(figure 1.1)**.

> **I don't believe we are going back to interest rates at zero. You must now take that into account in your models when making investments.**
>
> **Investment sovereign**
> Middle East

Figure 1.1
Risks to global growth (% citations, total sample)



What do you see as the major risks to global economic growth in the next year? What are the major risks for the next 10 years? Sample size: 137.

A year ago, high inflation was a novel phenomenon, with uncertainty about its persistence. However, as the situation clarifies **(figure 1.2)** our respondents largely agree that, despite falling, inflation is likely to remain elevated compared to the previous decade due to:

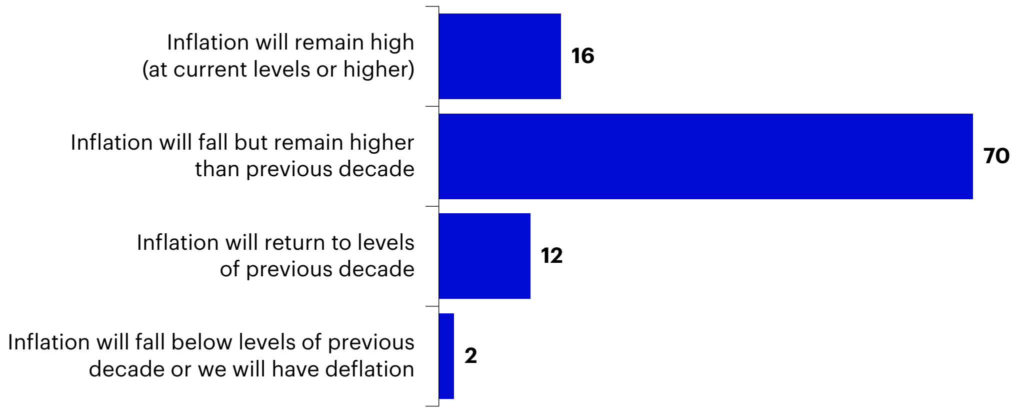
1. Supply chain disruptions and restructurings in response to the pandemic and Ukraine conflict,
2. Demographic shifts as baby boomers retire, leading to tight labour markets in developed countries,
3. "Greenflation" stemming from climate change and decarbonisation goals and initiatives.

Many respondents see inflation risk tilting to the upside. A central bank in the West noted, "I think that inflation will not return to where it was in the last five years. The main question mark is how sticky it is. In the past it has been surprising how persistent inflation can be."

As real interest rates reach levels unseen since 2007 amid one of the fastest hiking cycles in recent memory, over half of sovereign wealth funds and central banks expect these rates to remain at these levels or increase further over the next two years **(figures 1.3 and 1.4)**. This has led sovereigns to reassess long-term macro assumptions, as many believe the cheap money era has ended, and ultra-low and negative rates are history.

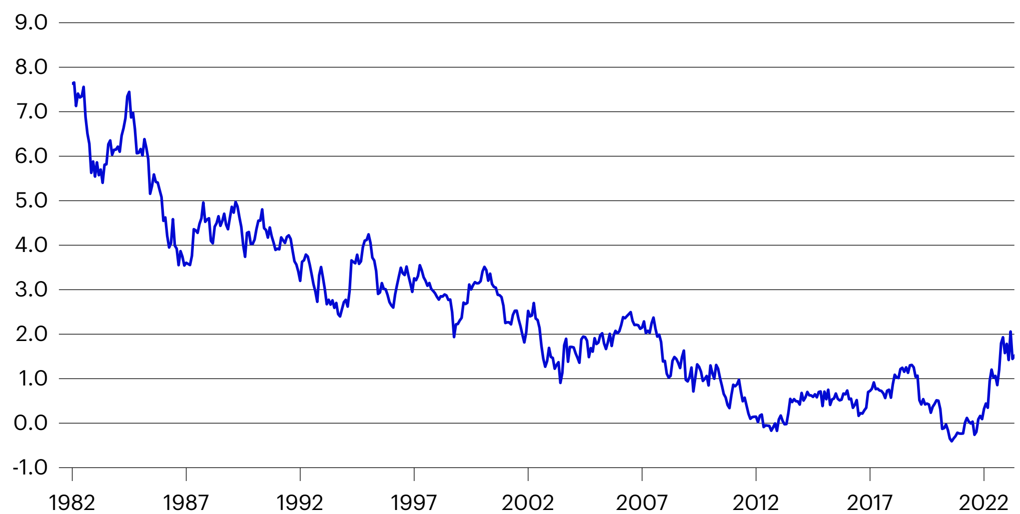
An investment sovereign in the Middle East summarised, "I don't believe we are going back to interest rates at zero. You must now take that into account in your models when making investments: leverage is going to cost more, and that is going to affect your cash flows and internal rate of return forecasts."

Figure 1.2
Expectations for inflation in Developed Markets in next 2 years (% citations, total sample)



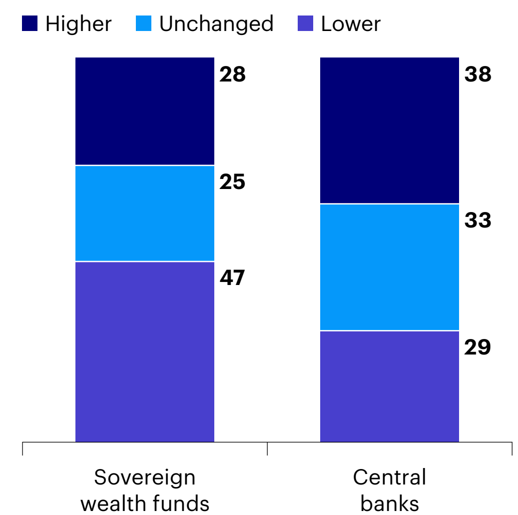
What is the more likely scenario for inflation over the next two years in Developed Markets? Sample size: 132.

Figure 1.3
US 10-year real interest rate (%)



Source: FRED.

Figure 1.4
Expectations for real interest rates in next 2 years (% citations, total sample)



How do you expect real interest rates to trend over the next two years? Sample size: 113.

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Theme 3
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Theme 5
Appendix

“

We already bought as much fixed income as we could based on our asset allocation. We have also increased duration and now have one of the highest durations we have ever had.

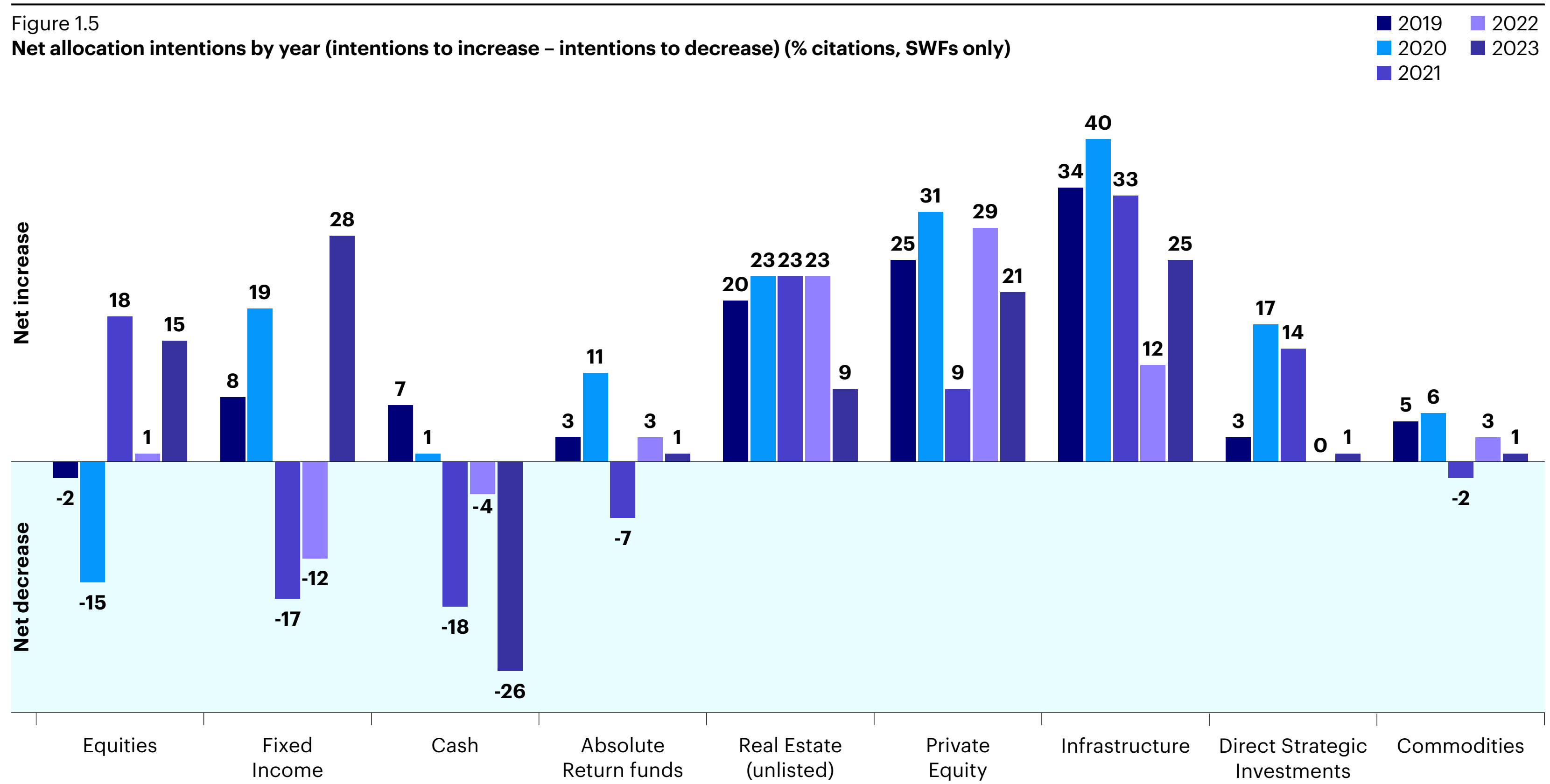
Development sovereign
Middle East

Realigning portfolios amid a shifting landscape

The challenges notwithstanding, rising interest rates have significantly boosted expected returns across fixed income and equities. “Expected returns are better than in many, many years, so I am more optimistic about the future” remarked an investment sovereign in the Middle East. “This is the most aggressive hiking cycle I have ever experienced, and despite that, the global economy is still very resilient. In my view, this is good for bonds, good for equities, and good in general for financial assets” added a development sovereign also in the Middle East.

This environment is encouraging investors to adjust allocation intentions, with fixed income rapidly rebounding after two years of declines and registering the highest net intention levels seen since the start of this study **(figure 1.5)**. Some investors reported buying as much fixed income as possible within existing asset allocation limits, and were considering revising their framework to accommodate the new interest rate environment. “We already bought as much fixed income as we could based on our asset allocation. We have also increased duration and now have one of the highest durations we have ever had,” said a development sovereign in the Middle East. While fixed income investments rise, sovereign wealth funds persist in augmenting allocations to private markets **(figure 1.5)**. However, investors are becoming more discerning in targeting these investments – a subject we will explore further in Theme 2.

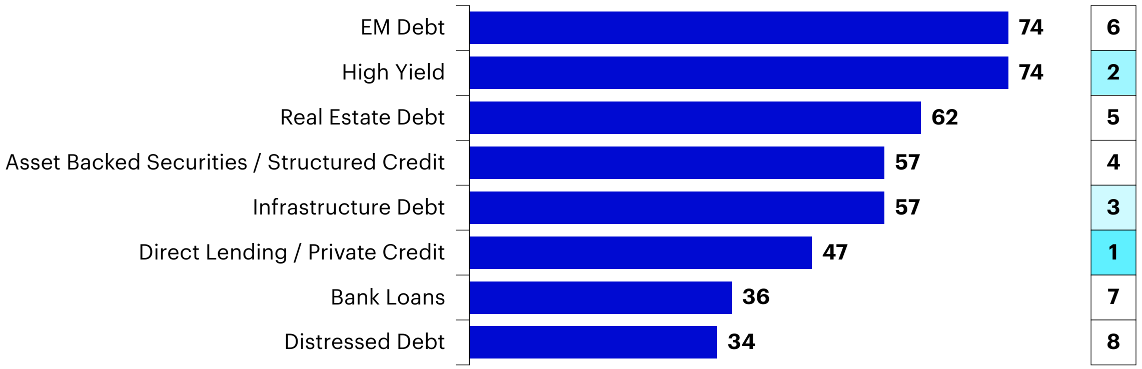
Figure 1.5
Net allocation intentions by year (intentions to increase – intentions to decrease) (% citations, SWFs only)



For each asset class, do you intend on increasing / maintaining / decreasing your strategic asset allocation (SAA) over the next 12 months? Sample size: 77.

Figure 1.6

Types of alternative fixed income invested in (LHS) and most attractive to invest in now (RHS) (% citations, SWFs only)



Which of the following types of fixed income do you invest in? How attractive do you see each of these for increasing allocations over the next 12 months? Sample size: 53.

Sovereigns rethink their fixed income strategies

This year's study reveals a shift in sovereign investors' approach to fixed income investing. Notably, during the 2022 asset price correction, fixed income failed to provide protection, and sovereign investors with the highest exposure to fixed income were among the worst performers. While this may be ascribed to the second-order effects of non-standard monetary policy and ultra-low interest rates that artificially inflated fixed income, along with other assets (and may reverse in line with a more normal monetary policy), it has influenced how sovereign investors view the asset class. Fixed income is no longer seen as a "set and forget" portfolio for diversification purposes.

Respondents are instead adopting a more tactical stance, utilising all available asset classes and believing that significant value can be added to a fixed income portfolio by actively rebalancing across different fixed income segments.
"You can add as much value to your fixed income returns by rotating to what is working and what has the highest possible return for risk as you can get from rotating around within public equity," suggested a liability sovereign based in the West.

Among alternative fixed income segments, Emerging Market debt and high-yield are the most widely held **(figure 1.6)**. However, we observed a strong appetite for private credit funds, with sovereign investors emphasising the favourable risk-return profile of the asset class and high liquidity levels. Sovereign investors also noted that holdings are transparent and generally offer good diversification within the fund, as most funds are large-scale and invest in a wide range of issuers. "You get great diversification through a single investment as the funds are huge," said a development sovereign in the Middle East.

Historically, private credit has often been categorised as private equity by many sovereign investors. However, rising allocations mean that private credit is now being carved out as a distinct asset class, supported by a dedicated investment team. "In the last couple of years, we have moved private credit into a separate asset class. This is an area where many funds have room for growing allocations as long as you have the risk appetite and you have access to the right managers," said a liability sovereign based in the West.

> **You can add as much value to your fixed income result by rotating to what is working and what has the highest possible return for risk as you can get from rotating around within public equity.**
>
> **Liability sovereign**
> The West

Emerging Markets gain traction: India leads amid rising rates

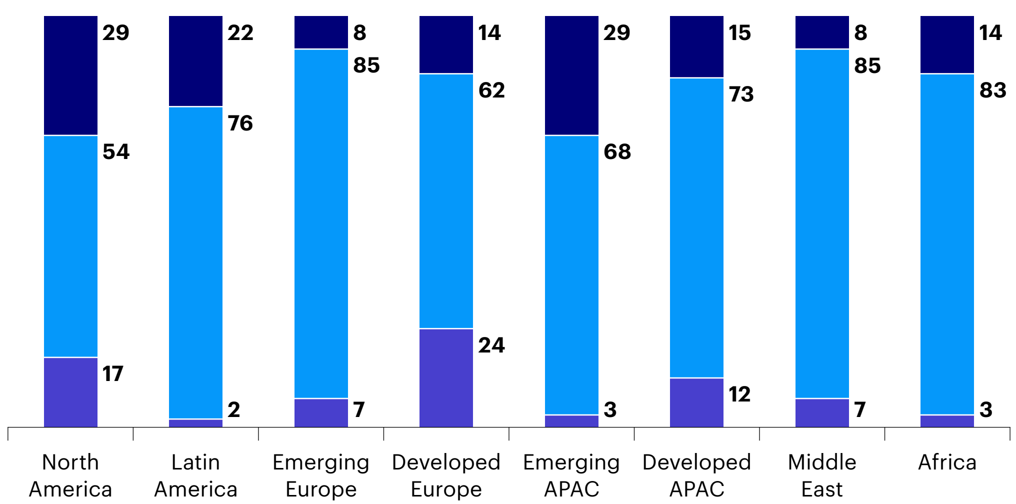
Over the eleven years of this study, sovereign wealth funds' sentiment to Emerging Markets has fluctuated. As Developed Markets' asset prices soared due to cheap money and negative real interest rates, many funds found little need to pursue the extra effort or risk associated with significant Emerging Market allocations. Consequently, most respondents maintained relatively low Emerging Market allocations.

The normalisation of interest rates looks poised to disrupt the status quo, as this year's study revealed a broadened appetite for Emerging Markets among sovereign investors. Respondents sought new sources of diversification and higher returns across emerging Asia, Latin America and Africa **(figure 1.7)**.

Respondents commended Emerging Markets' resilience amidst rapidly increasing interest rates – a contrast to previous crises such as the 2013 taper tantrum – indicating institutional strength has steadily improved over the last decade. Many countries have made strides to provide a stable investment environment. Respondents also highlighted the potential for sizable investments in appealing sectors, such as healthcare, education, and infrastructure, where Developed Markets face limited supply due to regulation or high competition levels. Respondents pointed to rising levels of health insurance driving demand for new medical facilities. Meanwhile technology-based solutions were seen as important for delivering rapid improvements in education provision.

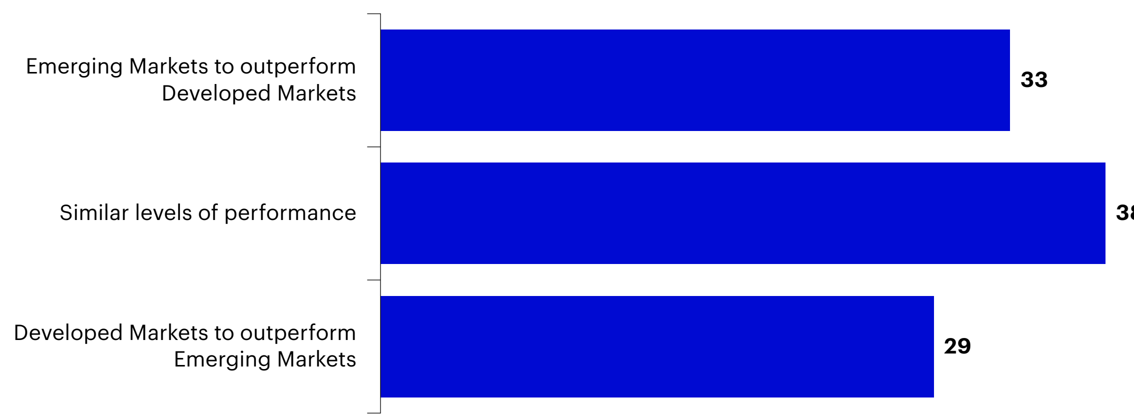
Markets offering favourable demographics and a growing middle-class, as well as those positioned to benefit from reshaped global supply chains, attracted attention. This includes increasing interest in Africa, particularly from Middle Eastern funds that initially invest across the MENA region before expanding into sub-Saharan Africa. "In the past seven years many of the fastest growing countries were African nations, and there are opportunities across health, agribusiness, and infrastructure" said one Middle East-based investment sovereign.

Figure 1.7
Change in regional allocations in next 12 months (% citations, SWFs only)



For each region how do you expect this to change in 2023? Sample size: 59.

Figure 1.8
Expected performance of DM vs EM markets in next 3 years (% citations, SWFs only)

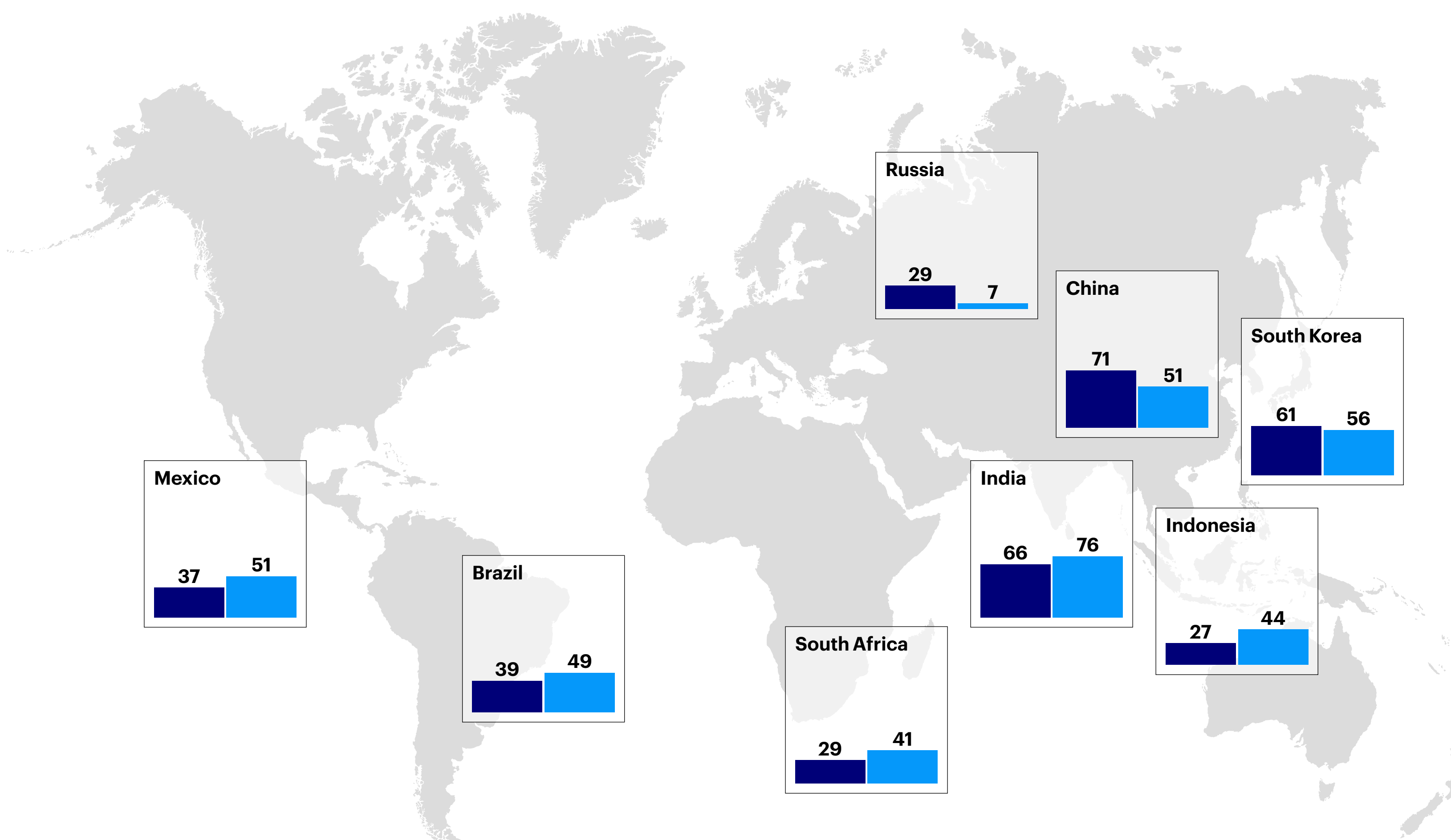


What is your outlook for Developed Markets vs Emerging Markets over the next 3 years? Sample size: 72.

India exemplifies the attributes sought by sovereign investors. Viewed increasingly positively for its improved business and political stability, favourable demographics, regulatory initiatives, and a friendly environment for sovereign investors, India has now overtaken China as the most attractive Emerging Market for investing in Emerging Market debt **(Figure 1.9)**. A development sovereign based in the Middle East noted, "We don't have enough exposure to India or China. However, India is a better story now in terms of business and political stability. Demographics are growing fast, and they also have interesting companies, good regulation initiatives, and a very friendly environment for sovereign investors."

India is among a number of countries, including Mexico and Brazil, that are benefitting from increased foreign corporate investment aimed at both domestic and international demand through "friend-shoring" and "near-shoring". This was seen as helping fund current account deficits as well as support currencies and domestic assets including debt. Expectations for peaking inflation and a completion of the Emerging Markets tightening cycle was also playing a role in this trend. Several EMs that saw an increase in their perceived fixed-income attractiveness, including Brazil, were widely expected to be overcoming inflation and to eventually stop tightening and start easing monetary policy. At the same time important commodity countries including Brazil and Indonesia were seen as well placed for the green transition and electric vehicle revolution, and thus potentially an important source of diversification for sovereigns with more concentrated commodity revenue streams.

Figure 1.9
Most attractive markets for Emerging Market debt (% citations, SWFs only)



Which of the following markets do you see as attractive for increasing your EM debt exposure? Sample size: 41.

Geopolitics also accounts for the sharp decline in attractiveness of Russia over the past 12 months **(figure. 1.9)**. The continuing appeal of Russian fixed income to a small minority of sovereign investors can be accounted for by a lack of domestic sanctions and residual positive perceptions of economic management. However, these elements are now under considerable pressure because of the war effort, the possibility of secondary sanctions towards countries found to be aiding Russia's war effort, and a potential G7 oil price cap.

> We need to think about our portfolio differently, with more consideration of factors like inflation and geopolitical risk.
>
> **Investment sovereign**
> Emerging Markets

Heeding 2022's lessons for resilient portfolios

The swift increase in interest rates and sharp correction in listed asset prices led most sovereign wealth funds to report negative returns for 2022, with portfolios heavily weighted towards fixed income and listed equities performing particularly poorly **(figure 1.10)**. "Last year, diversification didn't really work so all assets underperformed, making it especially difficult" said a liquidity sovereign based in an Emerging Market.

Although average sovereign returns in 2022 were negative, there was significant variation within these results. Common among better performers was recognising the risks posed by elevated asset prices and a willingness to respond with substantial portfolio changes. "Because of the way our fund was originally designed we had a huge allocation to fixed income and we should have better appreciated the risks that this left us exposed to," said one Asian investment sovereign. When asked about the lessons from this challenging period and potential changes to their portfolio construction approach, two responses stood out:

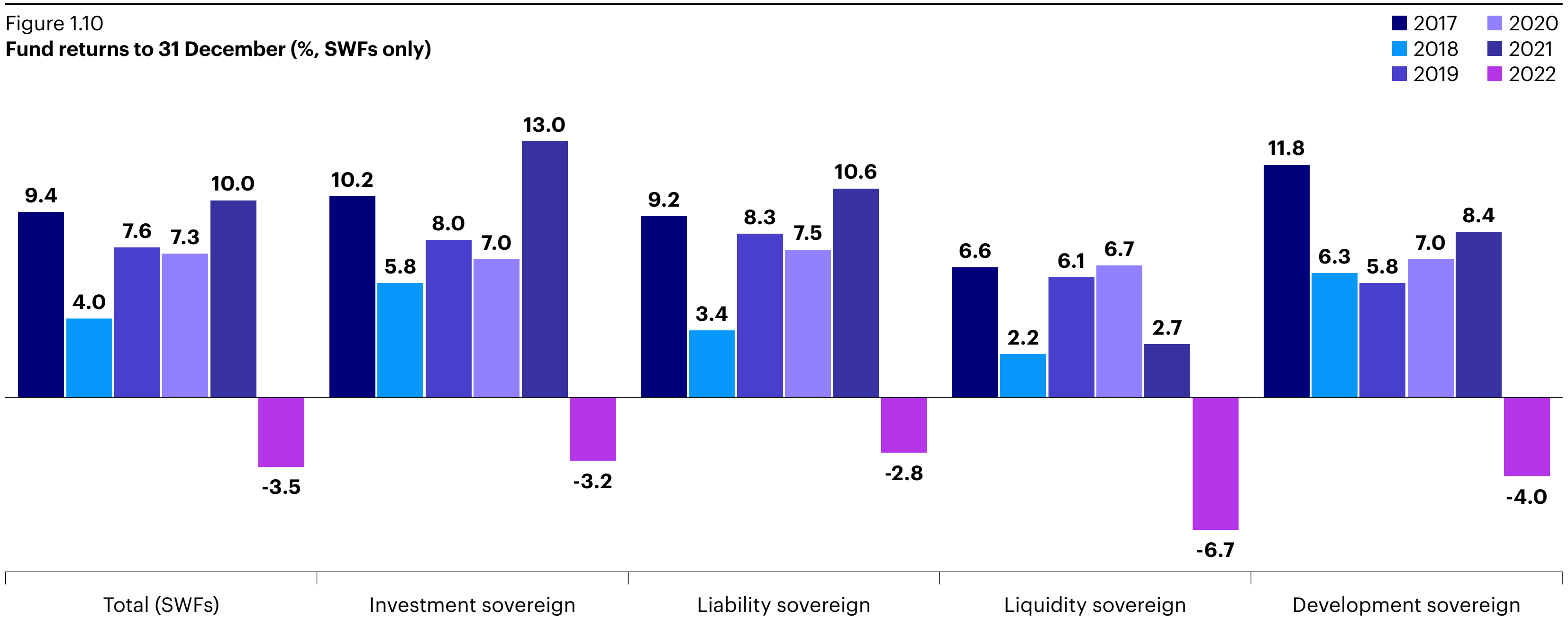
1. those considering a broader range of inputs when building a portfolio (and reducing reliance on the traditional SAA approach); and
2. those demonstrating greater flexibility and responsiveness to market conditions.

Several sovereign wealth funds mentioned plans to give macroeconomic factors and geopolitical concerns more weight in decision-making. One Emerging Market-based liability sovereign revealed, "We need to think about our portfolio differently, with more consideration of factors like inflation and geopolitical risk that may not have been taken into consideration when setting our original investment framework". An Emerging Market-based investment sovereign shared this sentiment, "This year taught us that every cycle is different and historical analysis is insufficient in today's fast-changing world. We are looking at how we can better use metrics such as expected returns to add rigour to our process."

Other investors emphasised the importance of adapting to changing market conditions and adjusting strategies as needed. "Not just in 2022, but throughout the years, we have learned that there is no single approach that can help us navigate through the increasingly rapid changes in the underlying market environment" said an Asian investment sovereign.

In summary, the lesson from 2022 is clear: sovereign investors must be prepared to think differently and adapt quickly to shifting market conditions. The rapid pace of change in financial markets makes this more crucial than ever.

Figure 1.10
Fund returns to 31 December (%, SWFs only)



What has been your fund's actual percentage return (at 31st December 2022) over the past year? Sample size: 57.

Theme 2

Finding value in private assets

Private assets maintain their appeal; sovereign wealth funds focus on investment selection as disparities emerge.

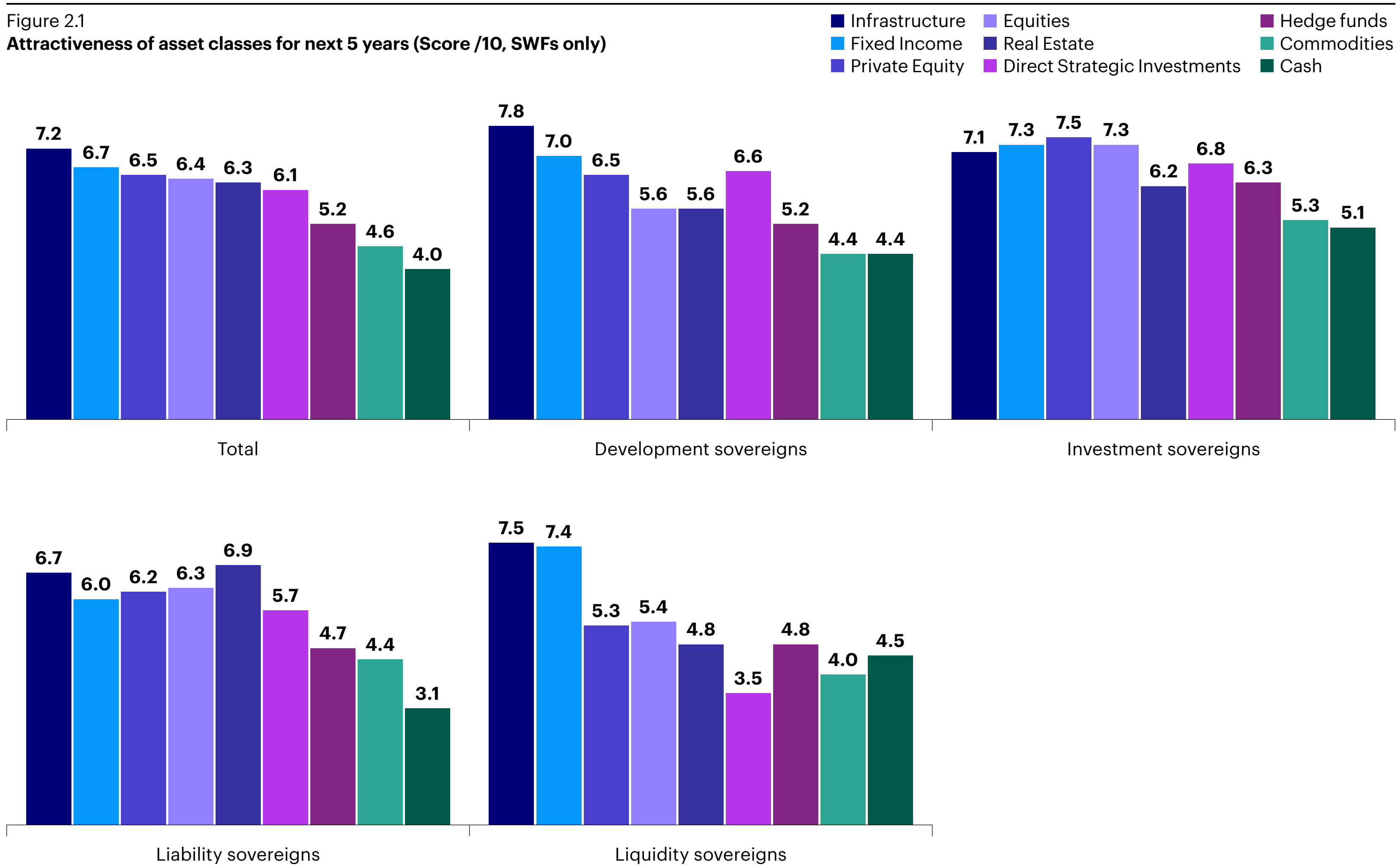
Debt metrics are an increasingly important consideration; private equity funds are assessed on their ability to deliver organic growth and operational improvements, rather than a reliance on leverage for returns.

Infrastructure leads private asset segments, with renewable energy generation and distribution especially attractive amid the global energy crisis.

Rising allocations to private assets has been a recurring theme over the years. Despite varying market conditions, sovereign wealth funds consistently increased allocations to real estate, infrastructure, and private equity, a trend that has persisted over the past year against a very different macroeconomic backdrop.

Private assets remain appealing to sovereign wealth funds across all segments **(figure 2.1)**. However, a valuation correction has revealed performance disparities among funds and assets, prompting investors to be more selective, emphasising the identification of top managers and attractive transactions. "Valuations have come down so doing deals at the right price is not as much of a challenge as before. The main challenge is to find attractive transactions and gaining access to top tier funds" said a Middle Eastern investment sovereign.

Figure 2.1
Attractiveness of asset classes for next 5 years (Score /10, SWFs only)



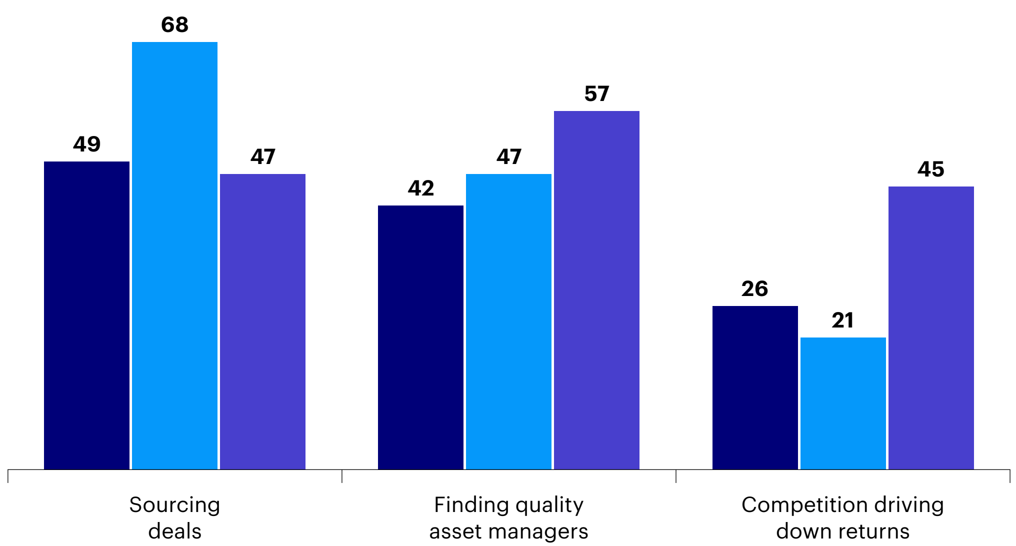
How would you rate the attractiveness of the following asset classes over the next 5 years? (Score 1-10 where 10 = very attractive) Sample size: 80.

Among the different private asset segments, the most significant obstacle is securing deals and accessing the best managers, particularly for new and smaller sovereign wealth funds **(figure 2.2)**. Over the past year, capital-rich sovereign wealth funds, such as those funded by energy reserves, have been well-positioned to develop a robust pipeline and secure additional access to top-tier funds as other more capital-constrained investors have withdrawn. Smaller funds emphasised the importance of building relationships and becoming reliable partners for their fund manager counterparts. They cited providing capital in challenging macro environments and making quick decisions on co-investment opportunities as ways to become attractive partners for top-tier managers.

A Middle Eastern investment sovereign explained, "We are faster in our decision-making than some of our peers which helps. Our ticket size compared to some of our peers is smaller, so our challenge is accessing more desirable funds and building relationships. Performance varies widely, and accessing the top quartile becomes harder, especially with long-standing, high performing funds."

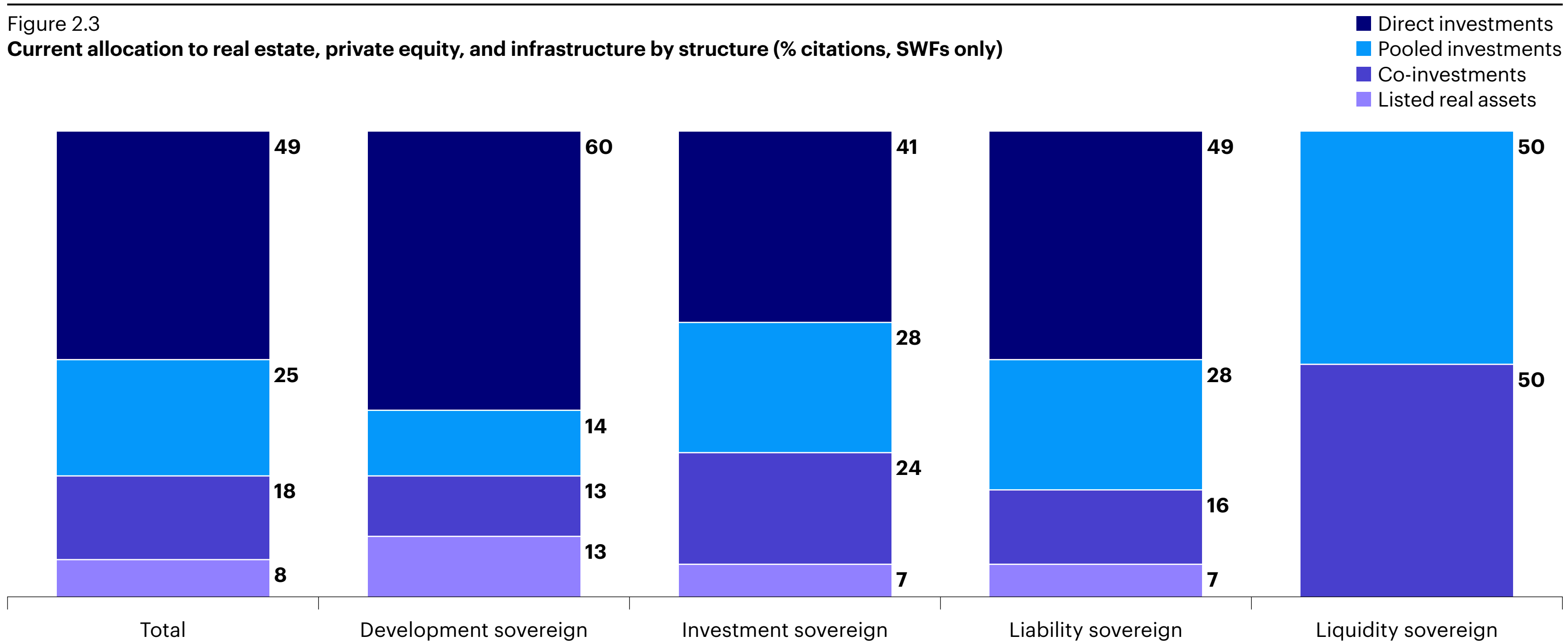
Most sovereigns investing in private assets employ a combination of direct investments, co-investments, and funds **(figure 2.3)**, with direct and co-investments considered vital for reducing expense ratios. Sovereign wealth investors noted that fund investments were important for gaining access to the top co-investments: "When we allocate capital to a PE fund, we expect them to offer co-investment opportunities, which is an essential part of the relationship," said a Middle Eastern investment sovereign. Indeed, the quality of co-investments is often a key consideration when deciding on a manager as an Asia-based liability sovereign noted: "It's common to get to know a new fund by exploring a couple of their co-investment opportunities before we allocate to the fund itself."

Figure 2.2
Challenges in private assets (% citations, SWFs only)



What are the challenges in deploying capital in each asset class? Sample size: 53.

Figure 2.3
Current allocation to real estate, private equity, and infrastructure by structure (% citations, SWFs only)



Roughly what percentage of your real estate, private equity and infrastructure investments are currently allocated to the following structures? Sample size: 46.

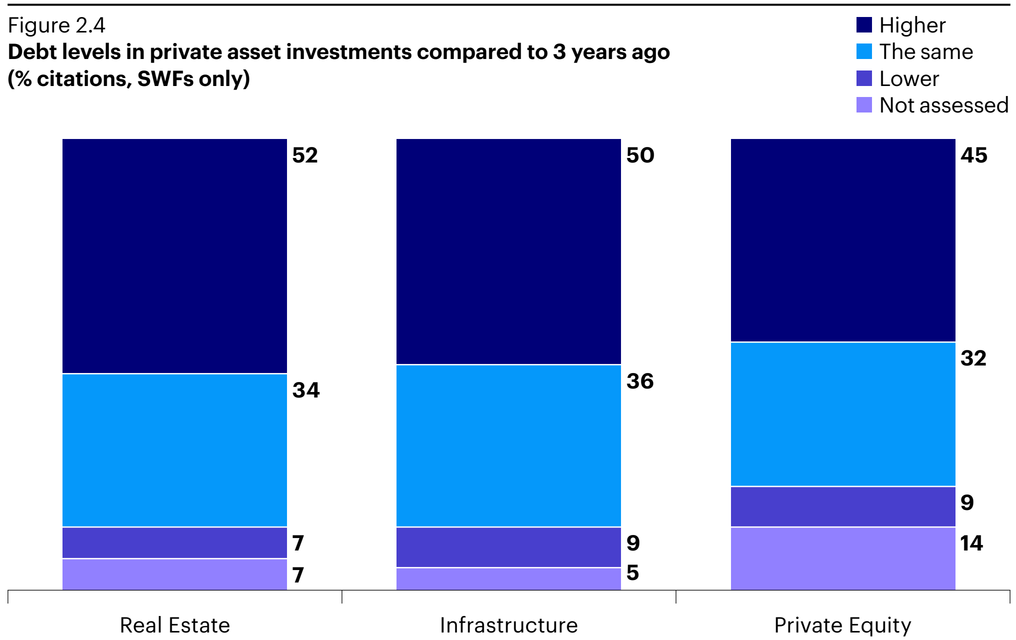
Private asset debt evaluation comes into focus

Most respondents say that debt levels in their private market investments have risen compared to three years ago **(figure 2.4)**, making debt an increasingly important consideration in private asset investment assessments as rates rise. Almost half of sovereign wealth funds report being dissuaded from recent real estate, private equity, and infrastructure deals due to unappealing debt structures **(figure 2.5)**. Investors are now particularly cautious about highly leveraged deals and thoroughly examine debt metrics at both the fund and individual deal levels.

Within private equity, sovereigns increasingly assess private equity funds to determine whether they create real value through organic growth or operational improvements, or if they rely on leverage to generate returns. An Asian investment sovereign explained, “When analysing a fund, we delve into the cash flow and examine value creation. If most value stems from leverage, we consider it a significant risk in the current market. Organic growth or operational improvements are favourable, but leverage-driven value raises concerns.”

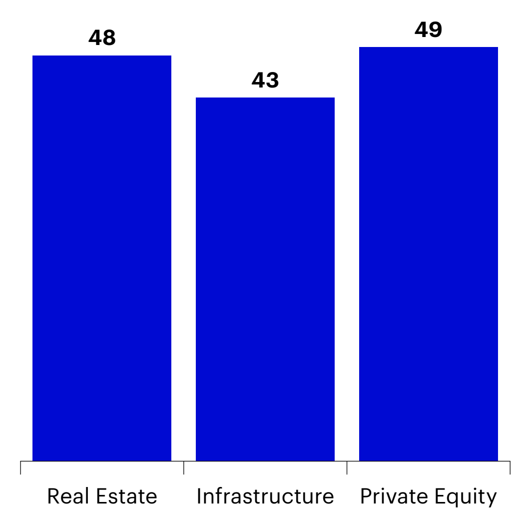
When making direct investments and co-investments, respondents scrutinise the purchase structure and leverage amount. They pay close attention to debt repayment terms and whether interest rates are fixed or variable. A Middle Eastern development sovereign stated, “We definitely examine debt levels; it’s a crucial KPI right now. In co-investments where we would be a bigger ticket size, we dig deeper, studying the buyout structure, leverage applied, interest rates, and whether they’re locked in.”

Figure 2.4
Debt levels in private asset investments compared to 3 years ago (% citations, SWFs only)



How do overall debt levels in your private asset investments compare to 3 years ago? Sample size: 44.

Figure 2.5
Debt levels a barrier to making recent investments (% citations, SWFs only)



Has the level of debt been the deciding factor when choosing to not make an investment in any of the following asset classes? Sample size: 44.

Sovereigns look beyond offices in search of attractive diversification

Real estate is currently perceived to be less attractive than infrastructure and private equity **(figure 2.1, page 16)**, mainly due to challenges in the office and retail sectors **(figure 2.6)**. Many sovereign wealth funds, heavily exposed to these sectors, seek diversification in more attractive sectors such as industrials, healthcare, and data centres. The reshoring and friend-shoring trend has boosted demand for logistics spaces and warehouses, driving interest in the industrial sector. "We have considerable office exposure and aim to diversify by acquiring more residential and alternatives like self-storage and logistics," said a Middle Eastern investment sovereign.

While funds pointed to a desire for increased diversification within their real estate portfolios, they also noted deals are generally opportunity led, with investments assessed on a deal-by-deal basis. Indeed, despite office sector challenges, some investors saw the current environment as an opportunity. A Western liability sovereign stated, "We're increasing real estate allocations. The short-term office pinch will be followed by a gradual return. The lack of construction and underinvestment in the next two years will create better opportunities in 2024."

Figure 2.6
Most attractive segments for investing in real estate (% citations, SWFs only)

>80%
>60%
>40%
>20%
>0%

	Total	Region based			
		Asia	Emerging Markets	Middle East	West
Industrial	75%	75%	63%	83%	76%
Medical/Health Care	68%	50%	75%	67%	71%
Data Centres	61%	75%	63%	83%	53%
Residential	52%	75%	38%	50%	50%
Leisure/Hotels/Resorts	48%	50%	75%	83%	35%
Office	36%	63%	38%	17%	32%
Retail	21%	25%	38%	0%	21%
Self-Storage	18%	13%	13%	17%	21%

Please rank the following areas in terms of attractive investment options for real estate. Sample size: 53.

Sovereigns are also exploring opportunities in alternative real estate sectors, such as healthcare and data centres, ranking them second and third in attractiveness. The pandemic underscored healthcare infrastructure's importance, prompting investments in hospitals, clinics, and assisted living facilities. Meanwhile, data centres have gained popularity due to the growth of digital technologies and remote work.

Sovereign wealth funds, navigating the evolving real estate landscape, strive to balance risk and return by diversifying their portfolios and exploring new investment opportunities. An Asian investment sovereign said, "We always aim to optimise our portfolio and risk-adjusted returns. Diversification is crucial, and we're open to exploring new sectors and asset classes that offer attractive returns and help us achieve our investment objectives."

Sovereigns paddle out for a green energy wave

Infrastructure is considered the most attractive private asset segment **(Figure 2.1, page 16)**. For some time, across different categories of infrastructure, sovereigns have preferred monopoly-like infrastructure assets with multi-decade contracts providing long-term, predictable revenues and with implicit or explicit inflation pass-through overseen in a mature regulatory environment. These include major airports, toll roads, power networks, water supply, and electrical grids – all critical infrastructure difficult to replace. Offering long-term stable returns, these assets align well with sovereign wealth funds' long-term focus.

Traditionally, renewable energy generation hasn't fit the monopolistic category, as energy producers are typically price-takers. Nevertheless, sovereign wealth funds now view renewables as the most attractive infrastructure sector **(figure 2.7)**. The war in Europe and energy crisis that followed has triggered a global surge in renewable infrastructure demand, with governments offering long-term price commitments in return for investment. Some sovereigns note the potential for more revenue and valuation certainty, perhaps stabilising their return profile and bringing these assets closer to those infrastructure characteristics they find attractive while meeting their climate goals.

Sovereigns based in Emerging Markets and the West had the most appetite for investing in renewable energy generation. In Emerging Markets additional energy generation infrastructure was often identified as a priority while many Western funds noted that their country had been hard hit by the energy crisis. A Western liability sovereign commented, "The recent energy crisis has heightened global consciousness about energy consumption, prompting economies to seek alternative energy sources. This will attract investment in renewable and green infrastructure."

Figure 2.7
Most attractive segments for investing in infrastructure (% citations, SWFs only)

>80%
>60%
>40%
>20%
>0%

	Region based				
	Total	**Asia**	**Emerging Markets**	**Middle East**	**West**
Renewable energy generation	81%	70%	86%	71%	85%
Energy transmission and supply	65%	50%	71%	71%	67%
Water & wastewater	50%	44%	71%	57%	45%
Public transport, roads and rail	45%	50%	57%	57%	39%
Ports (sea and air)	35%	22%	33%	67%	33%
Telecoms and communications	31%	38%	33%	67%	23%
Conventional energy generation	30%	30%	71%	29%	21%

How attractive do you see the following types of infrastructure over the next five years? Sample size: 57.

"

The recent energy crisis has heightened global consciousness about energy consumption, prompting economies to seek alternative energy sources. This will attract investment in renewable and green infrastructure.

Liability sovereign
The West

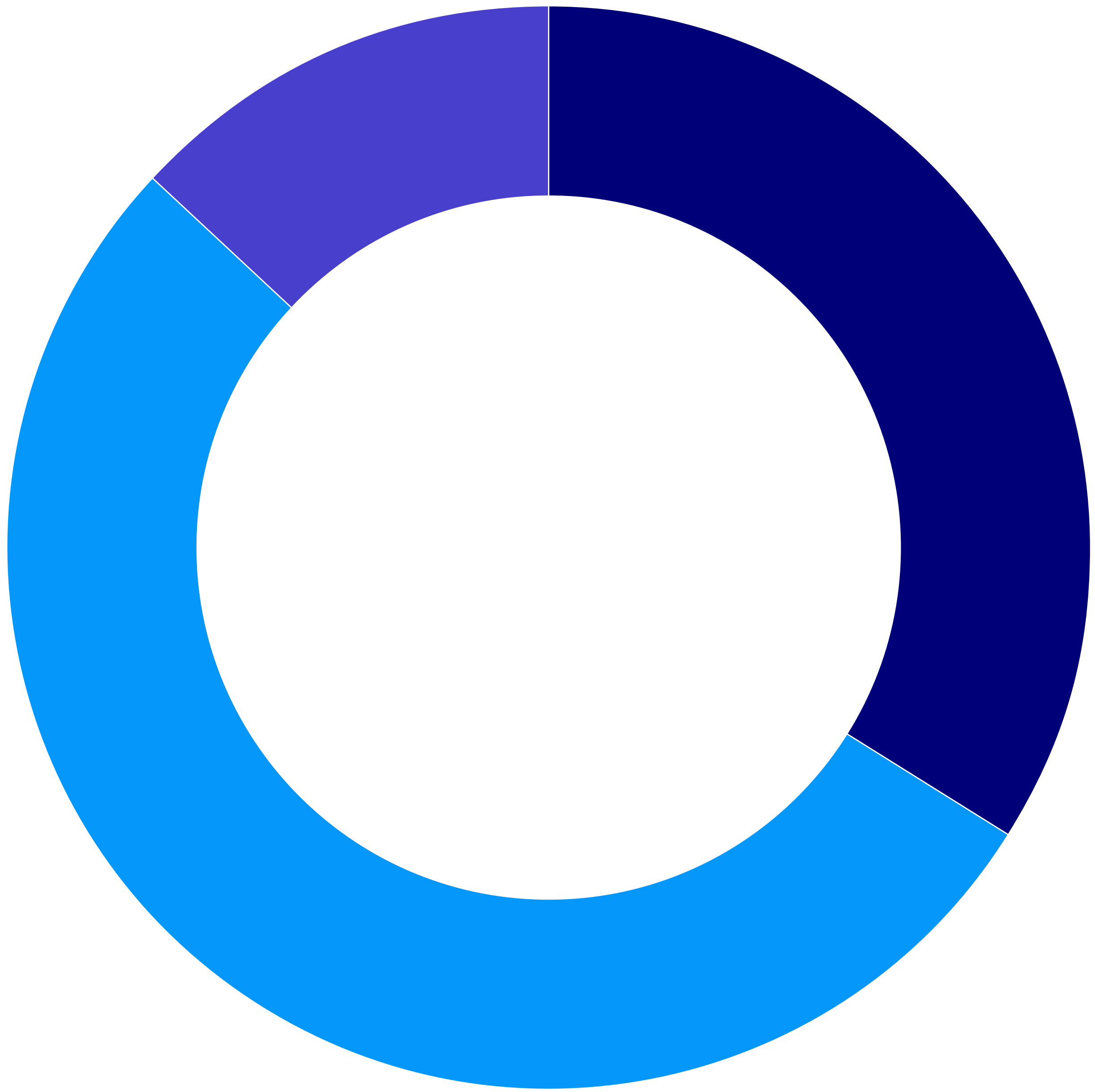
Price correction positive for current PE vintages

The price correction in listed markets is gradually affecting valuations within private equity (PE) and venture capital (VC), highlighting discrepancies in mark-to-market policies. Despite questions surrounding real performance levels, sovereigns remain enthusiastic about PE investing – the second most attractive asset class **(figure 2.1, page 16)**. Around one third of respondents believe the listed market's price correction is positive for PE **(figure 2.8)** since current investments are made at better prices, emphasising the importance of investing across multiple cycles to mitigate pricing risk.

An investment sovereign from the Middle East explained, "When it comes to PE and VC returns there are lean and fat years. During more challenging periods a shake-out occurs, returns fall, and the asset class faces scepticism. However, the following years are often an excellent time to invest fresh capital."

Despite the positive sentiment for private equity, rising rates and debt concerns make identifying top performers more critical than ever. A North American liability sovereign noted, "EBITDA multiples for private equity transactions are similar to S&P 500 EBITDA multiples, offering no price advantage. Skilful application is required to generate alpha in your portfolio, covering fees and leaving value for our (pooled) customers."

Figure 2.8
Impact of price correction in listed markets on attractiveness of private equity (% citations, SWFs only)



More attractive	**34%**
The same	**53%**
Less attractive	**13%**

Has the 2022 price correction in listed markets impacted your appetite for private equity? Sample size: 42.

Theme 3

Financing the future: sovereigns’ strategies for accelerating the energy transition

Geopolitical tensions and climate change highlight the need for secure, sustainable energy supply chains, elevating renewables in investors’ priorities.

Sovereign funds and central banks favour direct green infrastructure investments and green bond allocations to align with their objectives.

To tackle greenwashing, investors adopt a proactive stance, embracing development risks and issuing green bonds, ensuring genuine ESG alignment.

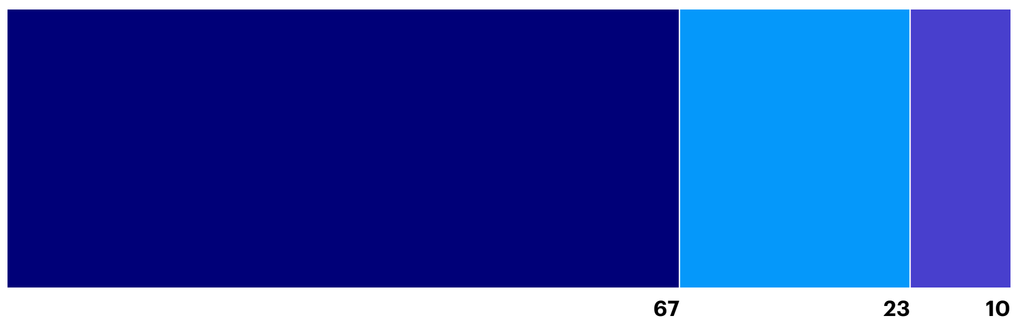
Over the course of this eleven-year study, the ascendance of environmental, social, and governance (ESG) factors for sovereign wealth funds has been meticulously documented. Although our 2017 study saw sovereigns divided on the case for ESG, by 2019 and 2020, ESG had garnered momentum, chiefly in the realm of climate-resilient portfolio management.

Since then, ESG has captured the attention of a growing number of investors. 2023 marks the sixth (and largest) annual rise in the proportion of sovereign wealth funds and central banks implementing ESG policies, rising from 46% in 2017 to 79% in 2023 for sovereign wealth funds, and from 11% to 59% for central banks **(figure 3.2)**.

The mounting significance of ESG for sovereign investors initially stemmed from climate-driven long-term risks to returns – 'improving returns' and 'reducing risk' were primary motivations for adopting ESG policies in 2020. The emphasis has since shifted due to the intensifying necessity of environmental action. Russia's invasion of Ukraine has underscored the criticality of energy security, further compounding the urgency.

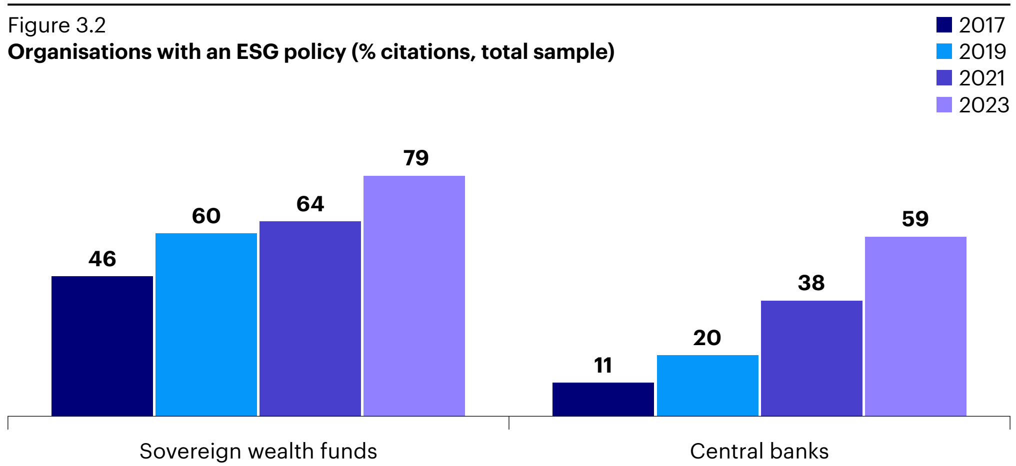
Investors assert that the ramifications of climate change (66% of citations) and the financial cost of the energy transition (53% of citations) represent two of the three most significant risks to global growth over the next decade, with only 'rising geopolitical risk' amassing more citations **(figure 1.1, page 08)**. Sovereign wealth funds are now more resolute than ever in their ambitions to fund the energy transition.

Figure 3.1
SWFs/CBs can play a significant role in financing the energy transition (% citations, total sample)



To what extent would you agree with the following statement: SWFs/CBs can play a significant role in financing the energy transition? Sample size: 115.

Figure 3.2
Organisations with an ESG policy (% citations, total sample)



Do you have an ESG policy? Sample size: 140.

Stepping up funding for the energy transition through a focus on direct investment and green bonds

Sovereign wealth funds now constitute a substantial share of global assets. While several SWFs treat their size as state secrets, estimated total AUM of state-owned investors in 2022 was US$32 trn.[1] With heightened public awareness, SWFs face increased demands for accountability and global leadership. As an Emerging Market-based development fund explained, "We understand that global markets and foreign investors seek a framework from sovereign wealth funds on ESG. These are risks we consider with all our new investments". This increased accountability extends beyond sovereign wealth funds, as an Asian central bank remarked, "We began to invest in ESG stocks in 2019 to meet the demand for public accountability".

Over two thirds of investors agree that sovereign wealth funds and central banks can significantly contribute to financing the energy transition **(figure 3.1)**. This role is substantiated by another consecutive annual increase in investors – particularly central banks – implementing ESG policies **(figure 3.2)**.

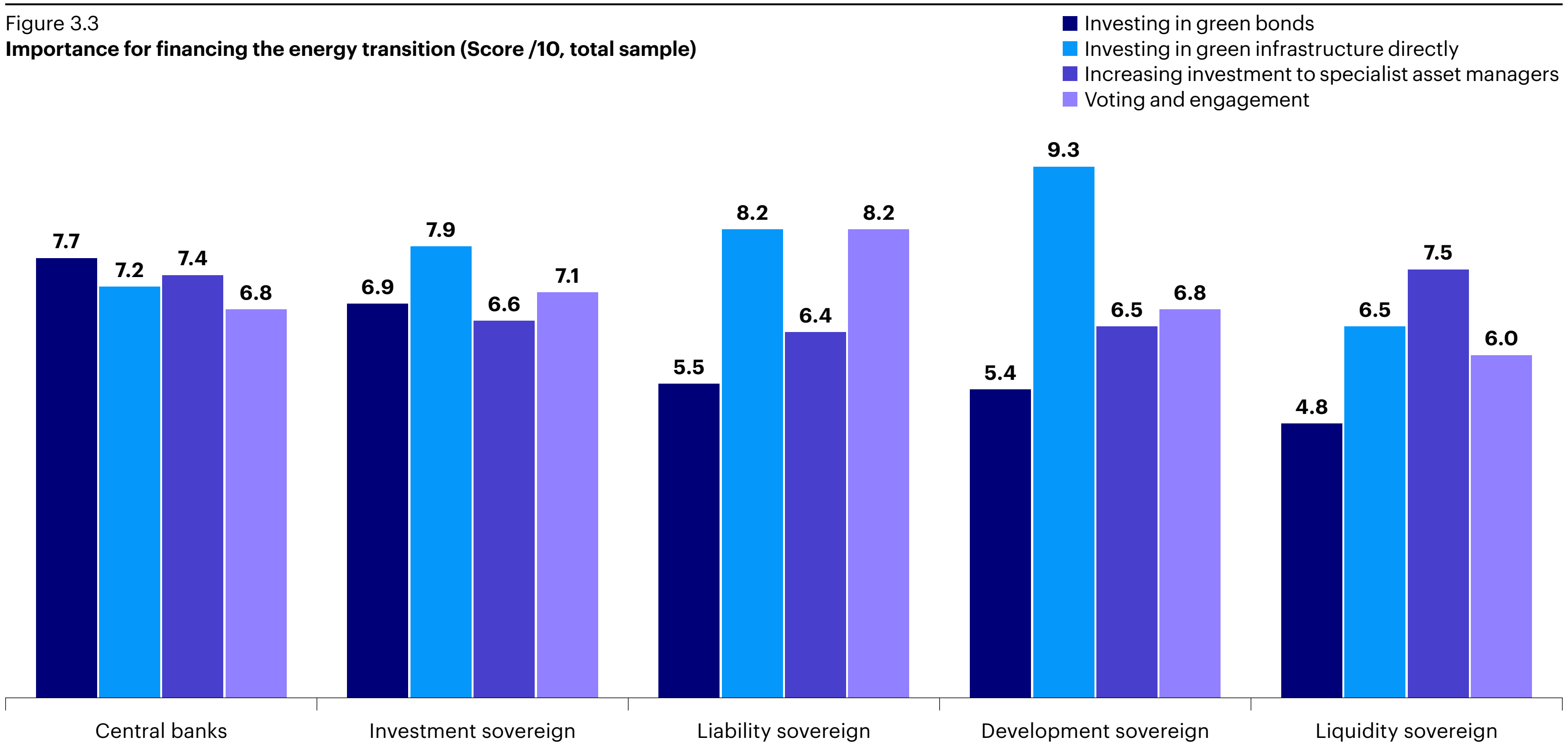
[1] Global SWF Global Tracker: https://globalswf.com/reports/2023annual.

“

Green bonds are a wonderful way in which we can contribute to having a sustainable environment by investing in green projects.

Central bank
Asia

Figure 3.3
Importance for financing the energy transition (Score /10, total sample)



How important are the following (out of 10 where 10 = very important) for financing the energy transition? Sample size: 88.

As the energy transition takes precedence, investors almost unanimously concentrate on green infrastructure and green bonds. Sovereign wealth funds with extended investment horizons increasingly consider direct investments in green infrastructure as a means of maximising impact. A Middle Eastern investment sovereign commented, “Voting and engagement certainly help; however, the most impactful approach is to invest directly and develop the infrastructure”. Investment, liability, and development sovereign wealth funds all deem ‘direct investment in green infrastructure’ as the most crucial method for financing the energy transition **(figure 3.3)**.

Direct investment frequently offers a more dependable means of tracking progress toward sustainable objectives, along with more influence and leverage to achieve those objectives. “Investing in the infrastructure directly can have the greatest impact. The companies can directly monitor the progress and we don’t have to rely on external sources for ensuring that the money is being optimised” stated a Western investment sovereign wealth fund.

Conversely, due to reserve portfolio liquidity constraints, central banks primarily focus on green bonds. One Asian central bank observed, “Green bonds are a wonderful way in which we can contribute to having a sustainable environment by investing in green projects”, encapsulating the role green bonds can play as central banks become more active investors.

The rise of green bonds and mitigating greenwashing concerns

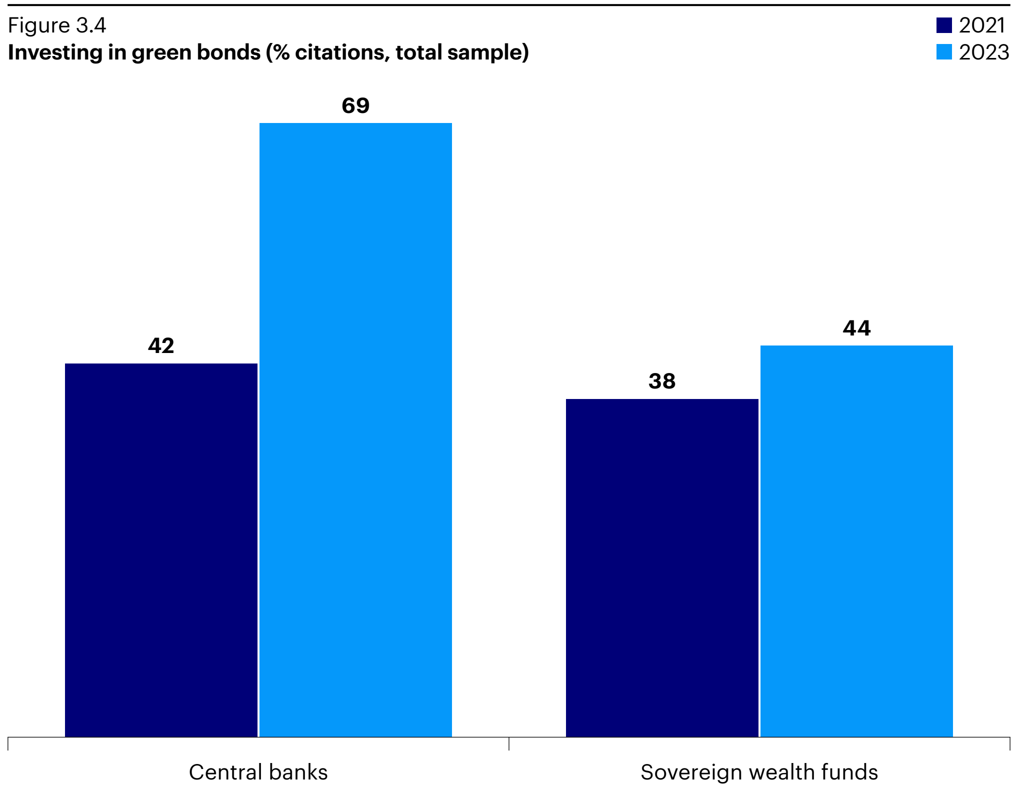
Green bonds are emerging as a means for liquidity-constrained investors to participate in green projects, with central banks, in particular, increasing their allocations. In 2019, a mere 28% of central banks had invested in green bonds, which grew to 42% in 2021, and now, over two-thirds (69%) of central banks maintain investments in green bonds **(figure 3.4)**.

For some central banks, this is a direct outcome of heightened emphasis on ESG, as one Western central bank remarked, "We have invested in green bonds since last year. It was part of our renewed commitment to ESG". Conversely, for others, green bond allocations were not necessarily the result of a direct mandate but rather met liquidity, credit, and risk-return requirements. This was echoed by both a Western central bank and one based in Emerging Markets.

The increased prevalence of green bond issuance leads to greater liquidity and lower 'greeniums', with green bond performance posing less of a challenge than other factors, resulting in the overall increase in central bank uptake **(figure 3.4)**.

Despite a dip in global green bond issuance in 2022 following a record high in 2021, the market is expected to continue its growth trajectory, driven by heightened policymaker action. For instance, the EU plans to issue up to €250 billion in green bonds by the end of 2026 to finance its NextGenerationEU, which supports the bloc's economic recovery and green development.[2] The Climate Bonds Initiative contends that green bond issuance must reach at least US$5 trillion per year by 2025 to substantially address climate change risks,[3] representing an almost tenfold increase from 2021's record issuance of over US$500 billion.

Figure 3.4
Investing in green bonds (% citations, total sample)



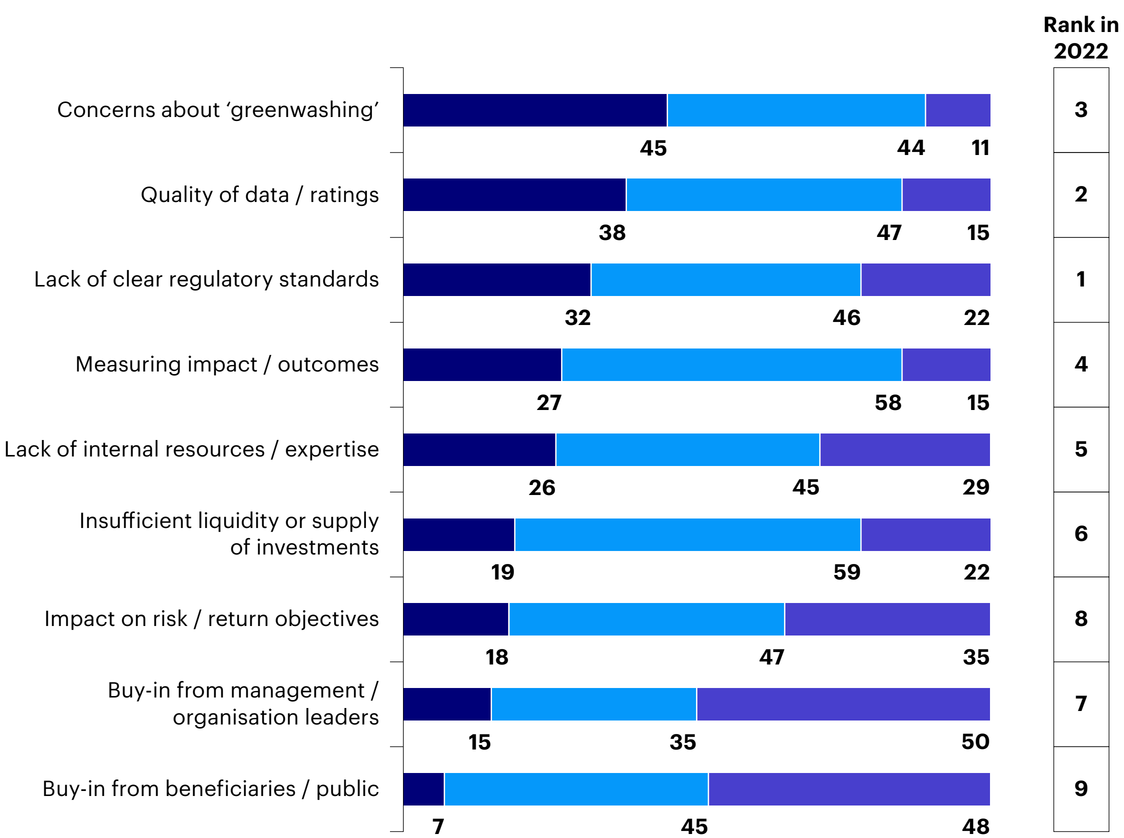
Are you currently investing directly or indirectly in any of these bonds? Sample size: 111.

Public commitments are also being made by sovereign wealth funds. Some have even contributed to green bond issuance themselves, with 12% having issued their own green bonds and an additional 18% considering doing so.

However, with the growing interest in green bonds comes the concern of reputational risk and greenwashing. "Liquidity and loose definitions still loom as an issue despite the market doubling," remarked a Western central bank, "Let's not pretend those issues are solved. Several issuances simply don't qualify as a viable investment let alone as 'green'." Investors, therefore, seek established names to minimise reputational risks and guard against greenwashing. As one central bank in the West noted, "One risk we are mindful of is reputational risk – financing projects that turn out to be greenwashing – we try to stick to verified names and verified projects to minimise this reputational risk of investing in something that isn't actually green."

2 https://commission.europa.eu/strategy-and-policy/eu-budget/eu-borrower-investor-relations/nextgenerationeu-green-bonds_en
3 https://www.climatebonds.net/resources/press-releases/2022/10/climate-bonds-calls-5trillion-green-bond-issuance-year-2025

Figure 3.5
Challenges of ESG investing (% citations, total sample)



How significant are the following challenges in relation to ESG investing? Sample size: 122.

Tackling greenwashing and aligning ESG objectives

In a broader context, 'concerns about greenwashing' ranks as the most significant challenge of ESG investing among sovereign wealth funds and central banks this year, with 45% of investors citing it as a considerable challenge and only 11% deeming it a non-issue **(figure 3.5)**. This challenge has increased in significance, rising from the third-largest challenge in 2022. A Middle Eastern investment sovereign wealth fund remarked, "There is a lack of transparency around how to classify ESG products – the issue of greenwashing is still too high, which is a reputational risk for investors".

Greenwashing concerns have consistently high citations across sovereign segments compared to other challenges. Investors are increasingly worried about implementing their ESG policies amid growing accountability and the need to ensure their actions are both impactful and genuine.

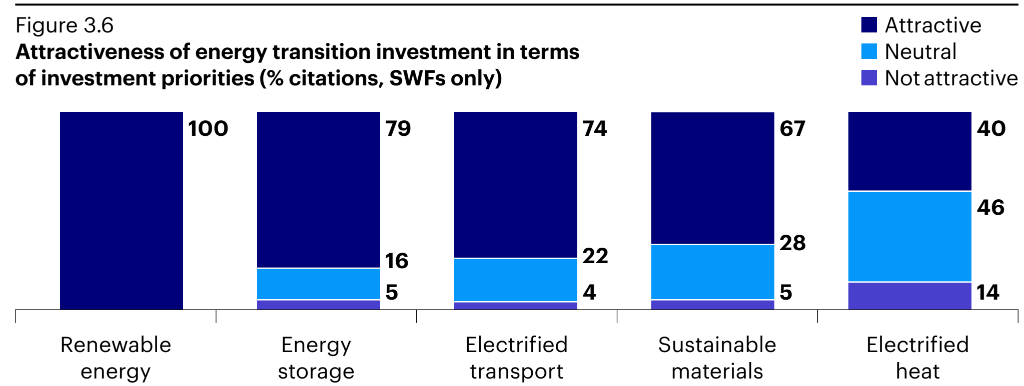
A clear correlation exists between the size of sovereign wealth funds and greenwashing concerns – 60% of small sovereign wealth funds (AUM<$25bn) consider it a significant challenge compared to just 36% of large sovereign wealth funds (AUM>$100bn). This disparity stems from smaller funds' lower internal capabilities and reliance on external managers, data providers, and rating agencies, to monitor investments, with one small Asian sovereign noting, "We don't have the resources needed to separate the opportunities from the greenwashing activities". Larger sovereign wealth funds' internal capabilities allow for greater confidence in green activities.

Apart from greenwashing concerns, other challenges are primarily driven by external factors rather than internal capabilities. Quality of data / ratings and lack of regulatory standards persist as top challenges year-on-year, with 38% and 32% of investors identifying them as significant challenges, respectively. As sovereign wealth funds develop their ESG capabilities, they become more concerned about external data and providers to ensure investments are genuinely green.

To mitigate some of these concerns, direct investment in private markets is often the preferred route to access long-term energy transition commitments. For example, one investment fund in the Middle East revealed that investing directly allows for greater control and alignment to objectives.

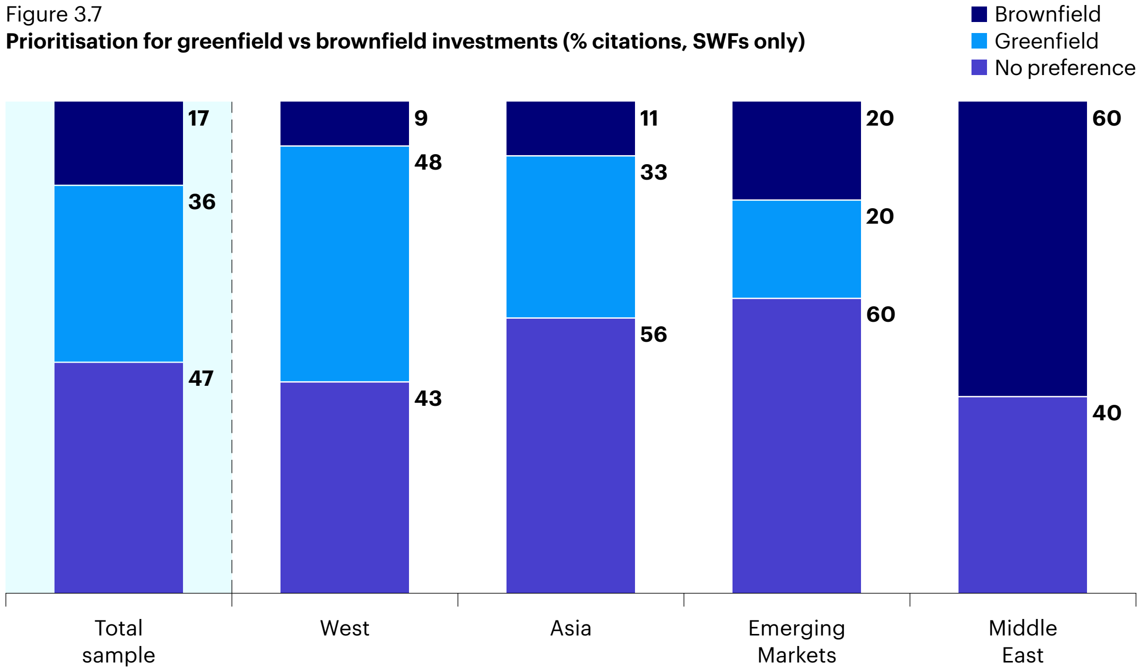
Renewable energy emerges as the most attractive area, with all sovereign wealth funds with ESG objectives considering it a priority for investment **(figure 3.6)**. Coupled with this, infrastructure investors are finding attractive sub-sector opportunities in renewable energy development and energy storage as discussed in Theme 2 **(figure 2.7, page 20)**. The alignment of renewable energy infrastructure investment with both investment objectives and return requirements of sovereign wealth funds offers promising prospects for financing the energy transition if commitments are fulfilled.

Figure 3.6
Attractiveness of energy transition investment in terms of investment priorities (% citations, SWFs only)



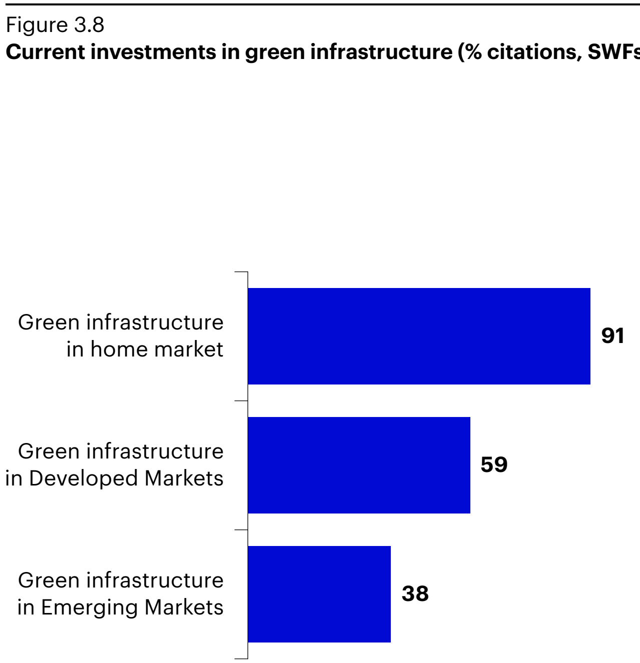
How attractive are the following areas of energy transition investment in terms of your investment priorities? Sample size: 58.

Figure 3.7
Prioritisation for greenfield vs brownfield investments (% citations, SWFs only)



Do you prioritise greenfield or brownfield projects? Sample size: 44.

Figure 3.8
Current investments in green infrastructure (% citations, SWFs investing in green infrastructure)



	Region based		
	West	**Middle East**	**Asia**
Green infrastructure in home market	91%	83%	100%
Green infrastructure in Developed Markets	68%	50%	40%
Green infrastructure in Emerging Markets	36%	67%	20%

Are you currently investing in any of the following? Sample size: 34.

Greenfield vs. Brownfield: Building confidence in renewable energy investments

In the current context, investors express a preference for greenfield investments over brownfield projects, with more than twice as many infrastructure-investing sovereign wealth funds prioritising greenfield projects over brownfield ones **(figure 3.7)**.

Although brownfield projects, which involve investing in existing facilities and infrastructure that often already comply with local codes, present lower development risk and more predictable revenue streams than greenfield investments, sovereign wealth funds currently prioritise greenfield investments to ensure greater control and influence from the beginning of the process. A development sovereign wealth fund explained, "We prioritise greenfield projects because we can participate from the beginning of the process and can shape them according to our preferences."

A development sovereign wealth fund based in Asia echoed this statement, stating, "The majority of our projects are greenfield because there is a vast scope of improvement in these, and we can properly assess and plan all the risks and returns." An infrastructure investor based in Asia who prioritised brownfield projects said that they were exploring opportunities for large greenfield investments with attractive project structures due to difficulty in finding tangible investment opportunities.

Greenfield projects allow investors to gain confidence that their investments align with their objectives by exerting greater influence throughout the process, albeit while taking on development risk. This approach necessitates extensive experience in infrastructure, with sovereign wealth funds prioritising greenfield projects most commonly based in the West and typically having greater exposure to more developed infrastructure markets. Sovereign wealth funds in the Middle East prefer brownfield while most investors in Asia and Emerging Markets have no preference.

While investment in renewables is necessary, decarbonising existing assets is crucial for reaching net-zero global targets, emphasising the need for both brownfield and greenfield infrastructure investments.

Consistent with broader private market investments, sovereign wealth funds tend to initially seek green infrastructure opportunities in their home market or region. 91% of sovereign wealth funds investing in green infrastructure have done so in their home market, a trend consistent across regions **(figure 3.8)**. Investing in home markets often aligns with the development objectives of sovereign wealth funds, as exemplified by early-stage investments from several European sovereign wealth funds in Northvolt, a green battery manufacturer in Sweden.

Harnessing expertise to boost green investments

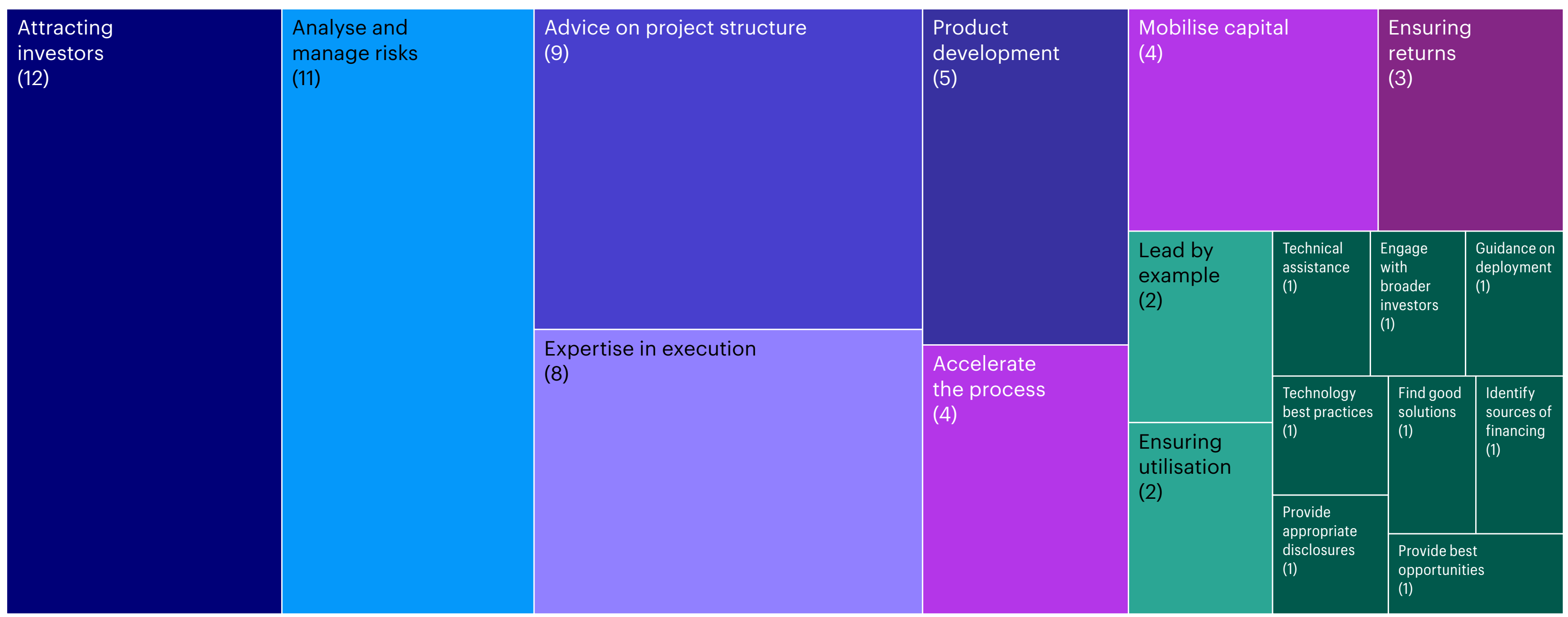
As noted in the 2019 study, the most significant obstacle for sovereigns investing in infrastructure is sourcing deals, with one-fifth citing this as a challenge, a finding that holds true this year **(figure 2.2, page 17)**. For sovereigns seeking to invest in green infrastructure, this hurdle is even more pronounced. A liability sovereign in the West stated, "Sourcing deals and investment opportunities that align with our ESG policy is the main challenge we face when funding green infrastructure."

Many investors also grapple with a lack of knowledge in green infrastructure or insufficient internal resources. Eager to partake in financing the energy transition, they require support in project execution, often turning to asset managers for assistance. A liability sovereign in the West commented: "Asset managers have the expertise needed to execute these projects and attract investments."

Investors believe that asset managers can provide valuable advice on project structure, risk analysis and management, and expert execution, thereby helping deliver financing to green projects. As one central bank in the West observed, "Asset managers can help in financing and delivering the green projects on a larger scale. Their expertise helps in execution as well as attracting investments for the projects".
In response to the mounting urgency to accelerate energy funding, there is a palpable appetite among sovereign wealth funds and central banks for green project investments. Although greenwashing concerns persist, asset managers can play a critical role in offering leadership, guidance, and ultimately, expediting the energy transition for many investors.

> **Asset managers have the expertise needed to execute these [green] projects and attract investments.**
>
> **Liability sovereign**
> The West

Figure 3.9
Role of third parties / asset managers in delivering financing to green projects (Number of citations, total sample)



What role can third parties / asset managers play in delivering financing to green projects? Sample size: 48.

Theme 4

The next generation of development funds

There has been a surge in new sovereigns over the past decade. These funds are looking to partner with their more established peers, with strong governance crucial in helping to facilitate these relationships.

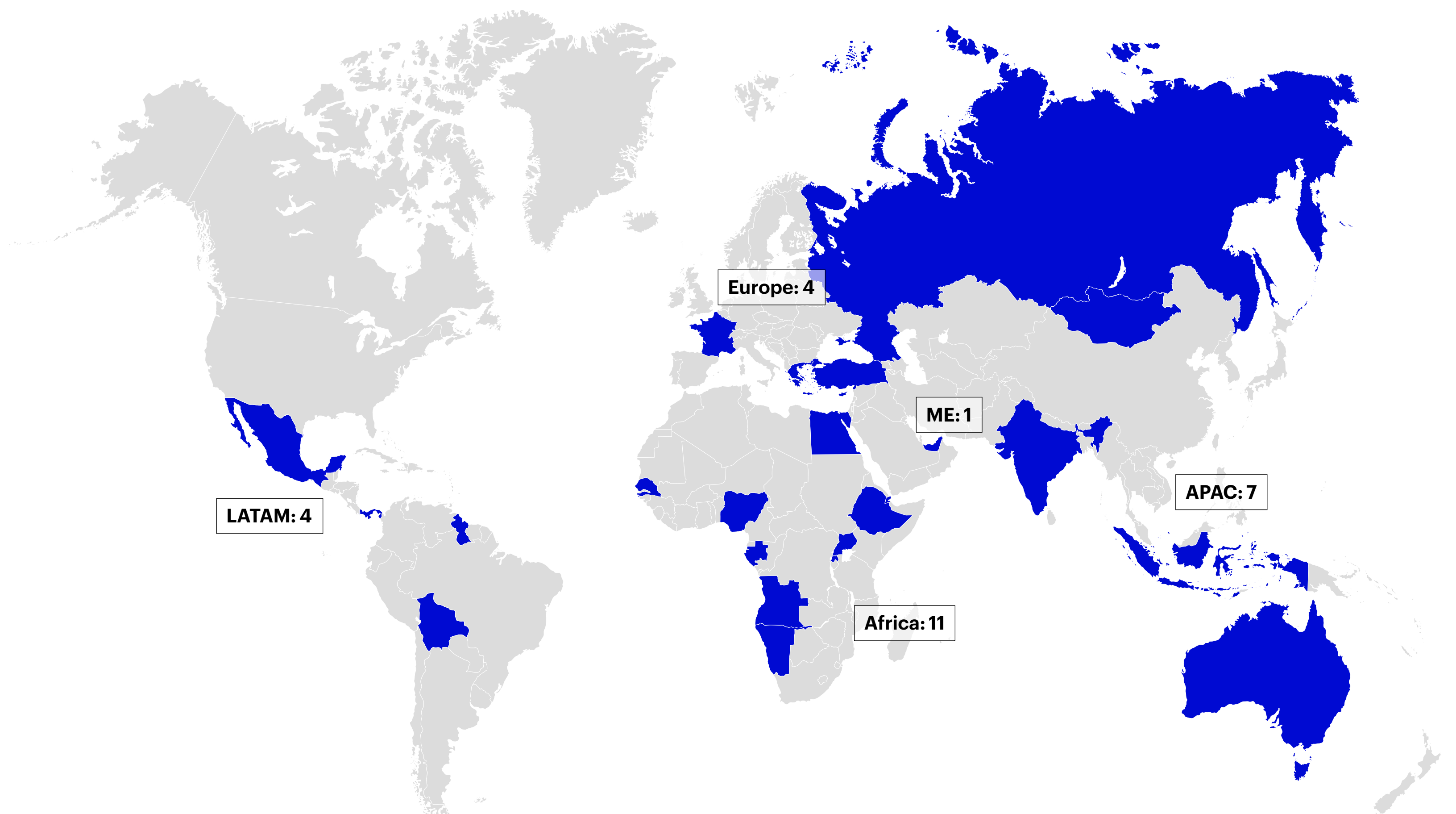
The new generation of sovereigns are typically development focused, with energy transition and social objectives. However, formally defining these objectives is a challenge as is building trust and transparency around those objectives.

External asset managers are being used to overcome capability gaps, with these requirements expected to increase as these new funds grow and mature.

The last decade has seen a surge in new sovereign wealth funds. The majority of these funds have been established in Emerging Markets, with Africa emerging as a hotspot and accounting for 11 of the 27 funds established since 2012 **(Figure 4.1)**.

The latest generation of sovereign wealth fund is typically development-focused with objectives that include GDP growth, economic diversification and the energy transition. However, these funds often have capability gaps in comparison to their more established global peers and to close these gaps, many are looking to learn from more experienced funds and tap into the skills and knowledge offered by asset managers.

Figure 4.1
New sovereign wealth funds since 2012



Source: IFSWF.

Governance crucial for building partnerships with other sovereigns

When assessing their own capabilities, the new generation of Emerging Market-based SWFs typically see themselves as lacking in a range of key areas including investment strategy, risk management, governance and operational capability **(figure 4.2)**. At the same time, many have been set up with transparency and ESG at their core and in these areas are often ahead of some of their more established peers.

Nearly all of the new funds we spoke to for this year's study said that they were looking to learn from their more established peers, and organisations such as the International Forum of Sovereign Wealth Funds (IFSWF) were seen as invaluable for this process. "We have partnered with the IFSWF to develop an investment framework and understand best practices in the industry. We also collaborate with sovereign funds on investments in areas such as infrastructure, technology, and healthcare. These partnerships help us access new opportunities and gain knowledge from other organisations" revealed one such fund. "We have adopted the IFSWF Santiago principles on governance and sought help from larger SWFs to help us build our objectives" said another.

More established funds were keen to highlight the importance of governance for developing these partnerships. "If new SWFs look to us for a partnership or for outside investment then governance is key. They must take care to avoid any red flags such as employees with links to corruption or criminal activity" said one Middle East-based development sovereign.

> **We have adopted the IFSWF Santiago principles on governance and sought help from larger SWFs to help us build our objectives.**
>
> **Development sovereign**
> Emerging Markets

Figure 4.2
Assessment of capabilities (Score /10, SWFs with development objectives only)

■ Above global average
■ Below global average

	Total	Asia	Emerging Markets	Middle East	West
People & talent	8.2	8.3	7.7	8.3	8.3
Investment strategy	8.0	8.8	6.7	8.7	7.9
Risk management	7.7	8.3	6.0	8.0	8.0
Governance (reporting, sovereign status)	7.8	9.0	6.0	7.7	8.0
Operational capability (systems, processes)	7.8	8.8	6.3	8.3	7.6
ESG	7.3	6.8	8.0	5.3	8.0
Transparency	7.9	9.3	8.0	6.0	8.0

Please assess the following based on your capability in these area (scale 1-10, where 10 = very capable) Sample size: 18.

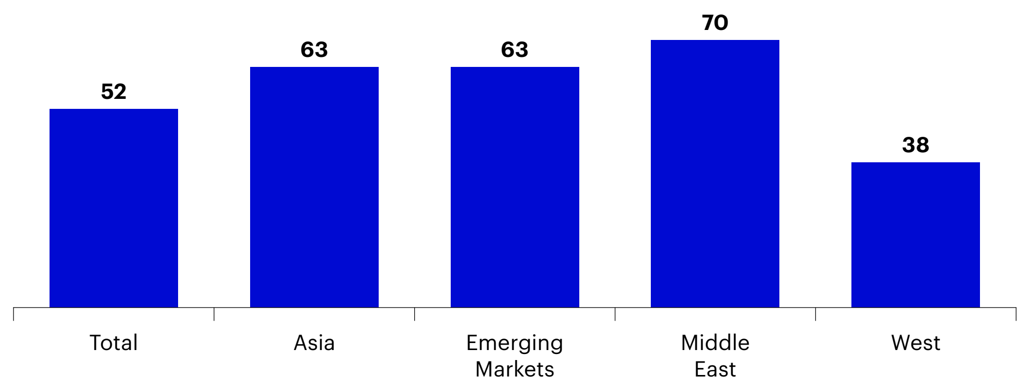
Setting the right objectives

Just over half of all sovereign wealth funds have development objectives within their mandate with this rising to 70% for funds based in the Middle East **(figure 4.3)**. More mature development sovereigns have traditionally prioritised economic growth and diversification, as a development sovereign based in the Middle East explained: "Our original objective was to drive development in non-energy sectors. The goal was to drive more employment opportunities in alternatives and also increase the wealth of our economy." Interestingly, as these funds start to mature these objectives often start to shift, with many now also focused on driving technological development and the energy transition. "We are looking at the different sectors within technology and where we stand in terms of supply and demand. When there is a massive mismatch, such as in gaming, we are looking to build national champions" said a development sovereign based in the Middle East. This view was echoed by a development sovereign based in the West "Our first objective is now focused on technological development. The second most significant objective is energy transition. Accordingly, we are investing in renewable energy sector for green and sustainable energy."

Rather than economic growth, the new generation of development sovereigns is much more likely to be focused on the energy transition from the outset as well as social objectives such as health and education **(figure 4.4)**. Without huge energy reserves many do not have the financial resources to drive a fundamental shift in the makeup of the local economy (as has been seen in some Middle Eastern markets). Instead, they are looking to help direct investment towards important parts of the economy that may be underserved or neglected by other types of investors. "Our mandate is firstly to deliver socio-economic projects for our region" revealed one Emerging Market-based development fund".

Many of these funds are still focused on building up capital and many have yet to fully formalise their objectives. This was reflected in nearly 9 in 10 respondents based in Emerging Markets saying that defining their development objectives was a challenge, including a quarter that said this was very challenging **(figure 4.5, page 33)**. Even among long-established funds the ability to clearly define development objectives was regularly cited as a challenge, with the exact goals of a fund often emerging organically and changing over time. Whatever those goals might be, funds agreed on the importance of establishing objectives that are well aligned with government's own priorities and can also survive future changes in political leadership. More generally, conflict with the government is seen as one of biggest barriers to successfully meeting long-term development goals.

Figure 4.3
Fund has development objectives (% citations, SWFs only)



Does your fund have any development objectives? Sample size: 81.

Figure 4.4
Development objectives of fund (% citations, SWFs only)

>80%
>60%
>40%
>20%
>0%

		Region based			
	Total	**Asia**	**Emerging Markets**	**Middle East**	**West**
Energy transition	65%	43%	67%	57%	79%
Employment	59%	71%	44%	86%	50%
GDP growth	57%	71%	44%	86%	43%
Social objectives (e.g. health, education, diversity)	57%	71%	56%	14%	71%
Economic diversification	54%	57%	22%	100%	50%
Development of capital markets	49%	71%	33%	71%	36%
Drive technology/skills	46%	43%	33%	86%	36%
Encourage private investment	43%	29%	33%	71%	43%

What are the development objectives of your fund? Sample size: 37.

Figure 4.5
Development challenges by region (% citations, SWFs with development objectives only)

How challenging do you find the following? Sample size: 31.

Balancing return and development objectives

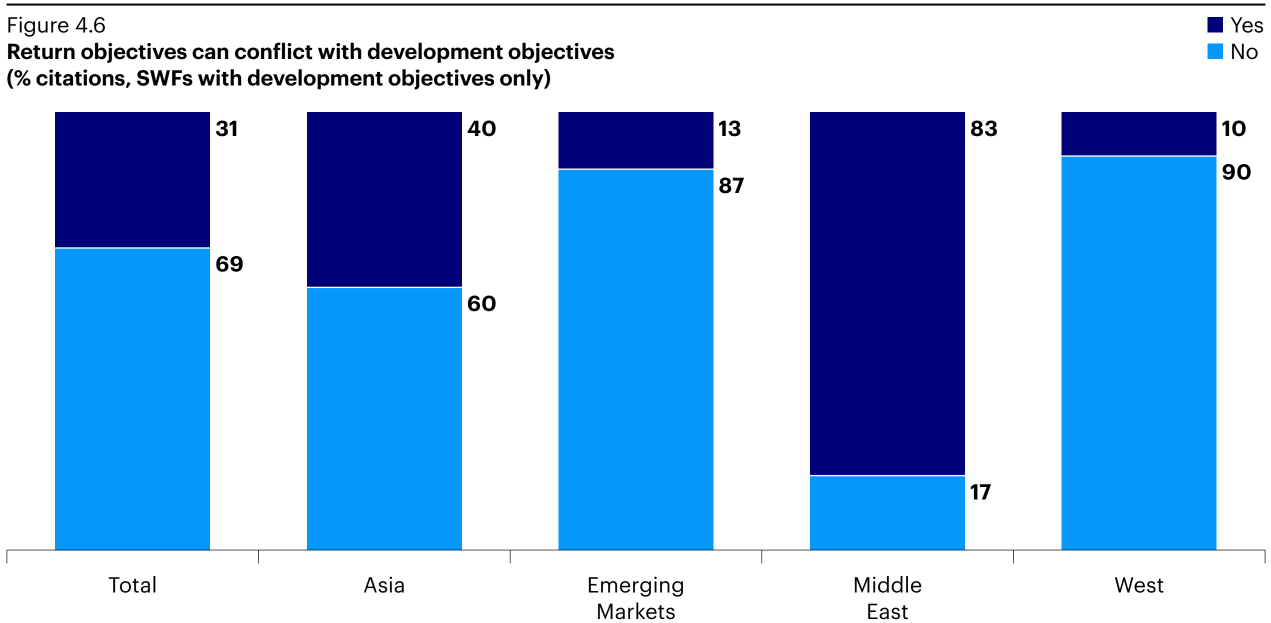
As economies develop, sovereign wealth funds that have been established to focus on development are often increasingly tasked with delivering returns. Other funds are set up with this dual focus from the outset as one development sovereign from the West explained, "Our mandate is for commercial returns, but also to generate economic impact. Each of our investments needs to have some benefit there in terms of job numbers, wages, or contribution to GDP but our overall performance is judged also by our returns."

These twin objectives often lead to challenges as funds are tasked with balancing competing demands that are not always aligned.
Just under a third of sovereign wealth funds with development objectives said that their return objectives sometimes conflict with their development objectives **(figure 4.6)**. Notably, 83% of funds based in the Middle East identified this conflict and this is a region where a shift in the balance of objectives from development to returns has proceeded rapidly. One development sovereign based in the Middle East highlighted an example of this conflict noting that they might be asked to step in if an IPO on the local stock exchange was struggling to get underwritten: "In some cases there is a large institutional tranche and there is a desire to show that market is active and there is liquidity. However, this might not be an investment we would necessarily make from a returns perspective."

This challenge is compounded by development objectives often being hard to quantify and measure. Transparency around this issue is seen as important for building trust and is something that funds in the Middle East said they were more likely to struggle with **(figure 4.2, page 31 and figure 4.5, page 33)**. Building in transparency from the outset was seen as an important way to mitigate this challenge, with one West-based development sovereign providing an example of this process "We track the economic impact of our investments through a survey of the companies we invest in. This is then collated into a public report. It's not perfect but it's important part of our process to see if we are meeting our objectives."

> **Our mandate is for commercial returns, but also to generate economic impact. Each of our investments needs to have some benefit there in terms of job numbers, wages, or contribution to GDP but our overall performance is judged also by our returns.**
>
> **Development sovereign**
> The West

Figure 4.6
Return objectives can conflict with development objectives
(% citations, SWFs with development objectives only)



Do your return objectives ever conflict with your development objectives? Sample size: 29.

Developing partnerships to overcome capability gaps

To help overcome the challenges they face most of the newer set of SWFs are engaging with external asset managers. Initially, asset managers are often asked to help manage the liquid portion of assets held prior to deployment and to generate returns to fund the cost of running the organisation. However, the level of support generally increases as funds scale up and their investment needs become more complex **(figures 4.7 and 4.8)**. “We have used external managers to help construct a portfolio that meets our goals and objectives. This includes managing risk through diversification and by using appropriate hedging strategies” said one Asian investment sovereign.

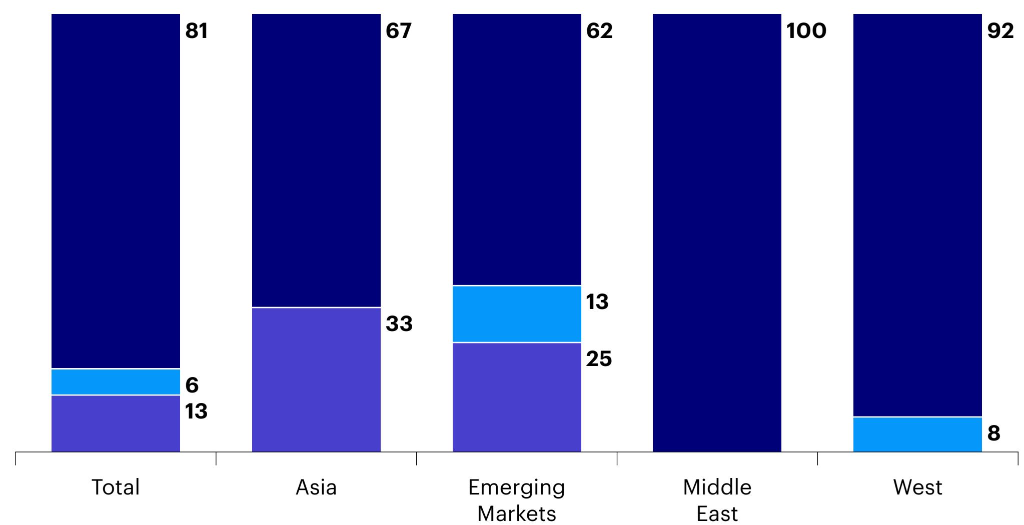
More established funds highlighted that asset managers can play a valuable role by helping them to meet their development objectives. These respondents noted that by building relationships with external managers they had helped foster the development of the local investment industry and capital markets. This in turn was seen as helping attract additional investment and reducing the reliance on the sovereign wealth fund as a source of capital. Interestingly, this is an area where newer funds are perhaps yet to recognise these opportunities – only 33% of SWFs based in Emerging Markets identified encouraging private investment as one of their objectives, compared to 71% of those based in the Middle East.

The surge in new SWFs in the last decade highlights the growing importance of these funds in delivering development in Emerging Markets. Good governance and setting the right objectives are likely crucial for their success. While challenges remain, partnerships with other sovereigns and asset managers are helping these funds close capability gaps and achieve their goals.

We have used external managers to help construct a portfolio that meets our goals and objectives. This includes managing risk through diversification and by using appropriate hedging strategies.

Investment sovereign
Asia

Figure 4.7
Work with external asset managers
(% citations, SWFs with development objectives only)



Do you currently work with external asset managers? Sample size: 32.

Figure 4.8
Ways that sovereign wealth funds work with external asset managers
(% citations, SWFs with development objectives only)

>80%
>60%
>40%
>20%
>0%

	Region based				
	Total	**Asia**	**Emerging Markets**	**Middle East**	**West**
Mandates	75%	75%	67%	80%	75%
Products (pooled funds/ETFs)	75%	25%	67%	100%	88%
Market information and trends	65%	75%	67%	80%	50%
Risk management	50%	75%	33%	60%	38%
ESG implementation	40%	25%	33%	40%	50%
Solutions (e.g. multi-asset)	35%	75%	0%	20%	38%
Benchmarking	35%	25%	0%	60%	38%
Training and seminars	35%	0%	33%	60%	38%

In which ways do you work with external asset managers? Sample size: 20.

Theme 5

Golden opportunities: central banks seek stability amid currency challenges

Central banks navigate volatile yields and inflation risks, turning to gold as a safe-haven asset, resulting in record gold purchases during 2022, and continuing into Q1 2023.

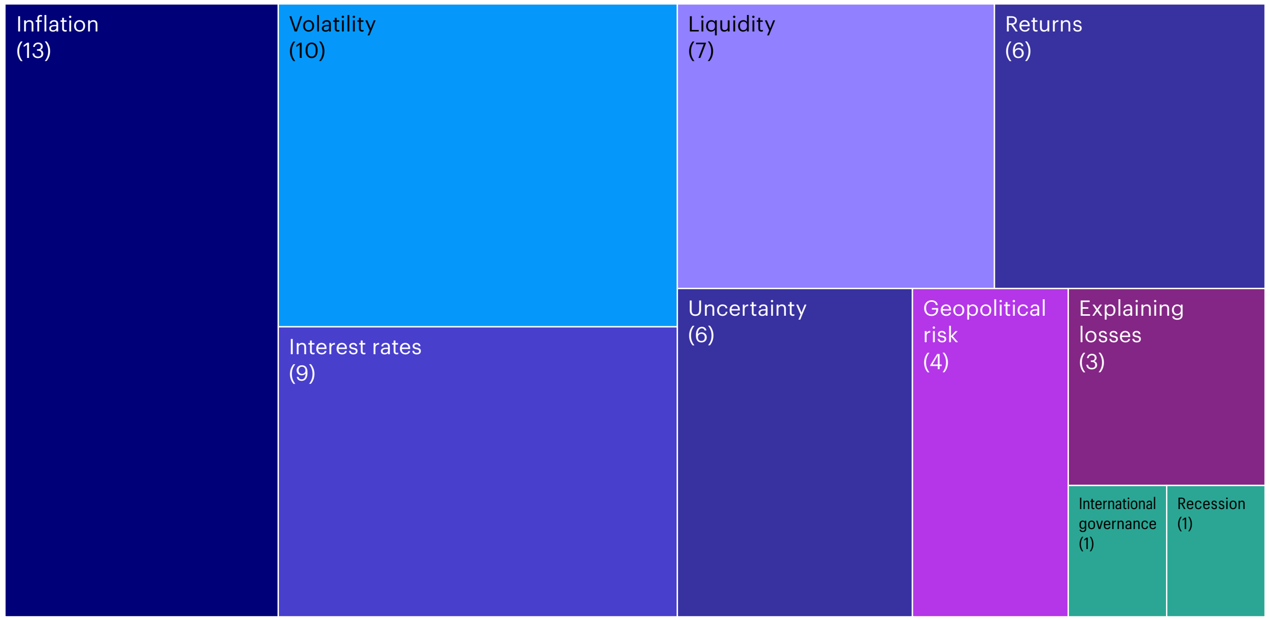
The US dollar remains dominant as the world's reserve currency, but geopolitical concerns and Emerging Market opportunities drive central banks to diversify currency holdings.

Despite the US dollar's resilience, central banks increasingly allocate to Emerging Market currencies, seeking higher risk-adjusted returns and growth potential in developing nations.

In 2022, central banks worldwide grappled with unprecedented volatility, 40-year record high inflation, and climbing interest rates, making the management of reserve portfolios an uphill battle. The economic turbulence resulting from the Covid-19 pandemic, exacerbated by geopolitical events, made determining the most appropriate strategies difficult, prompting ongoing reviews throughout the year **(figure 5.1)**.

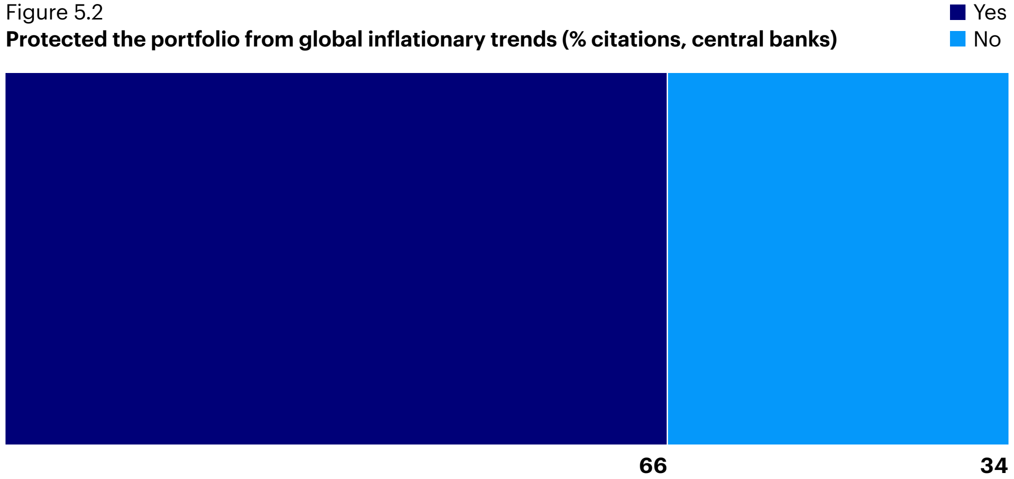
> **Volatile yields can lead to increased volatility in the value of investments, which can lead to reduced returns and increased risks.**
>
> **Central bank**
> The West

Figure 5.1
Biggest challenge in managing reserves during 2022 (Number of citations, central banks only)



What was the biggest challenge managing your reserves during 2022? Sample size: 48.

Figure 5.2
Protected the portfolio from global inflationary trends (% citations, central banks)



Have you looked to protect the portfolio from global inflationary trends? Sample size: 50.

Banking on Gold: hedging against volatility and geopolitical risk

Gold's spot price surpassed record levels of US$2,000 per ounce three times in as many years, reflecting the uncertainty of the current macroeconomic environment. Persistent geopolitical tensions, recession fears, and threats of bank runs and broader banking crises, signal that economic uncertainty will persist.

In 2022, central banks made record gold purchases, with net acquisitions of 1,136 tonnes,[4] marking a 12th consecutive year of a net increase in gold holdings. It is worth noting that almost 20% of these net purchases came from just two central banks – Turkey and China – both of which continued to drive high demand into Q1 2023.[5] However other central banks, particularly in the Middle East and Emerging Markets, were also noteworthy buyers in 2022, and sentiment towards increasing allocation further is overall bullish amongst our sample **(figure 5.4, page 39)**.

Reserve portfolio managers identified inflation as a key risk, with two-thirds of central banks seeking to protect their portfolios from global inflationary trends **(figure 5.2)**. Increasing gold allocation was the most prevalent method, with 69% of central banks countering global inflation through gold allocations **(figure 5.3)**.

4 World Gold Council: https://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-full-year-2022/central-banks.
5 World Gold Council: https://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-q1-2023/central-banks.

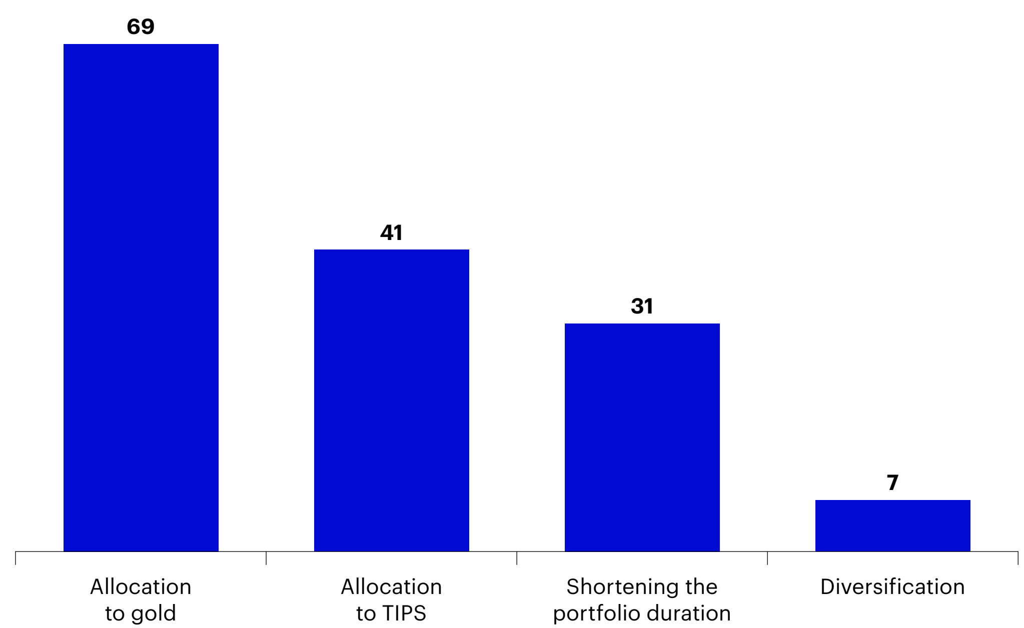
Central banks' balancing act: higher yields, volatility, and the flight to gold

The end of zero yields presents both opportunities as well as challenges for central banks. Higher bond yields boost returns in traditionally weighted fixed income portfolios, with 70% of central banks agreeing that 'higher yields makes managing central bank reserves easier'. One Asian central bank plans to increase duration but reduce diversification, exiting low-yielding markets and focusing on high-yielding countries like the US and Emerging Markets. While some other central banks also agree with increasing portfolio duration over the next 2 years (30% agree, 63% neutral), in contrast, the majority (57%) of central banks expect to increase diversification in the changing macroenvironment landscape.

Higher yields can signal higher risk, prompting an appetite for diversification. One central bank based in the West explained, "The increase in yields can lead to higher borrowing costs, which can reduce the amount of funds available for investment. In addition, volatile yields can lead to increased volatility in the value of investments, which can lead to reduced returns and increased risks". As a result, many central banks closely monitor yield movements and take appropriate action where necessary.

Amid volatile yields, 2022 saw a flight to gold, questions around the US dollar's future as the world's reserve currency, and increased diversification of currency holdings.

Figure 5.3
Methods for protecting portfolios from global inflationary trends (% citations, central banks)

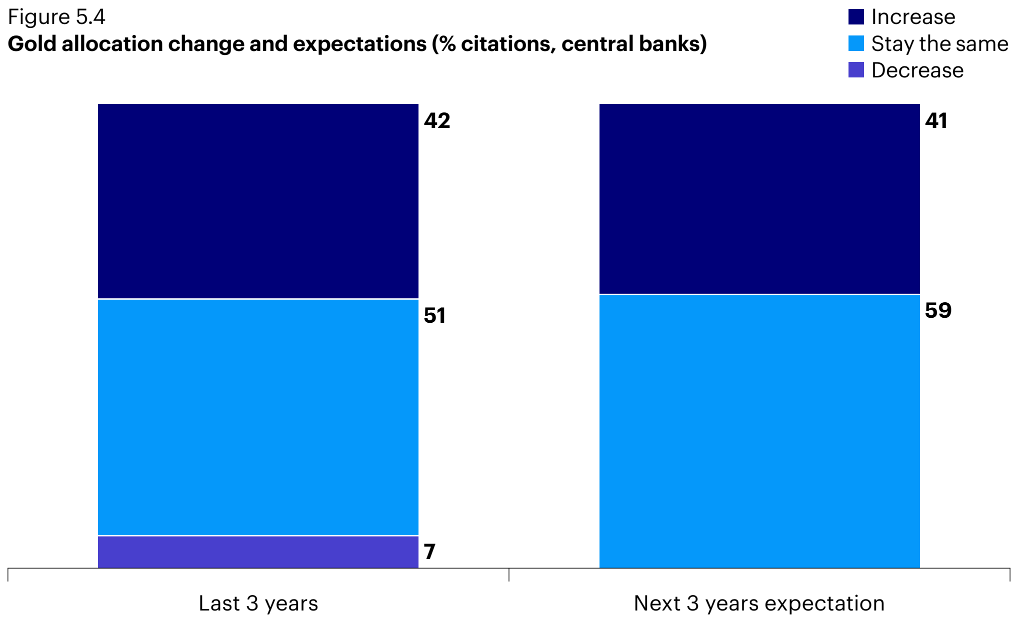


How are you looking to protect the portfolio from global inflationary trends? Sample size: 29.

Traditionally viewed as an effective inflation hedge, gold has been favoured by many central banks. One Western central bank said, "Gold is one of the inflation-protected assets and a major part of our diversification strategy. Liquidity, risk-return, and even reputational restrictions of reserve portfolios makes gold more attractive as alternative hedging options are limited.

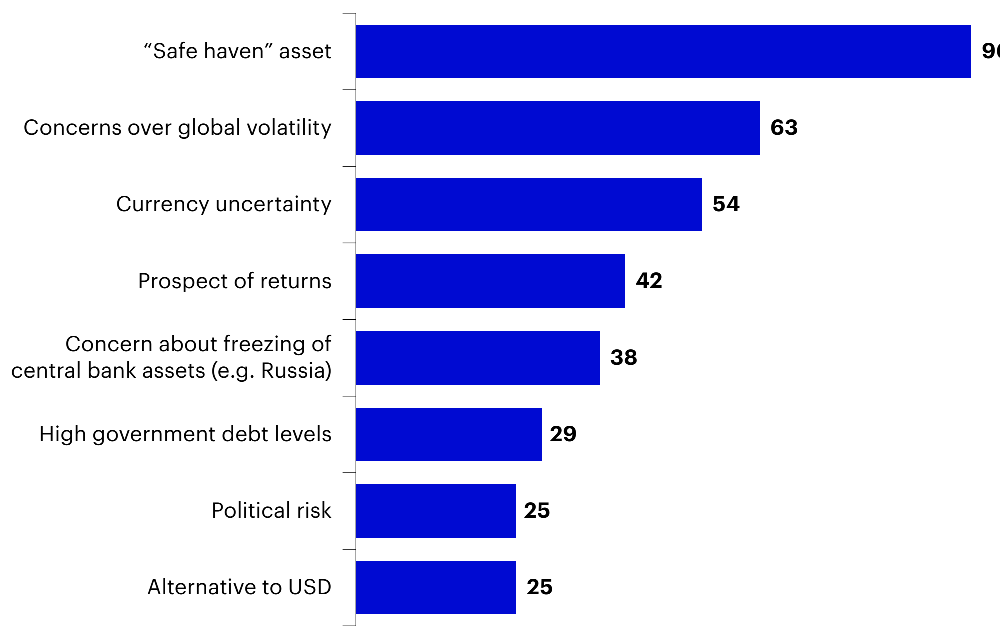
A significant proportion of central banks expect gold allocations to increase over the next three years, with not one anticipating a decrease **(figure 5.4)**. With gold proving reliable, the Russia-Ukraine war and subsequent weaponisation of reserves have driven global volatility and currency uncertainty, prompting a flight to safety. A total of 96% of central banks increasing gold allocations cited its status as a 'safe-haven' asset **(figure 5.5)**.

Figure 5.4
Gold allocation change and expectations (% citations, central banks)



How has the allocation to gold changed over the last 3 years? How do you expect it to change in the next 3 years? Sample size: 53.

Figure 5.5
Reasons for increasing gold allocations (% citations, central banks)

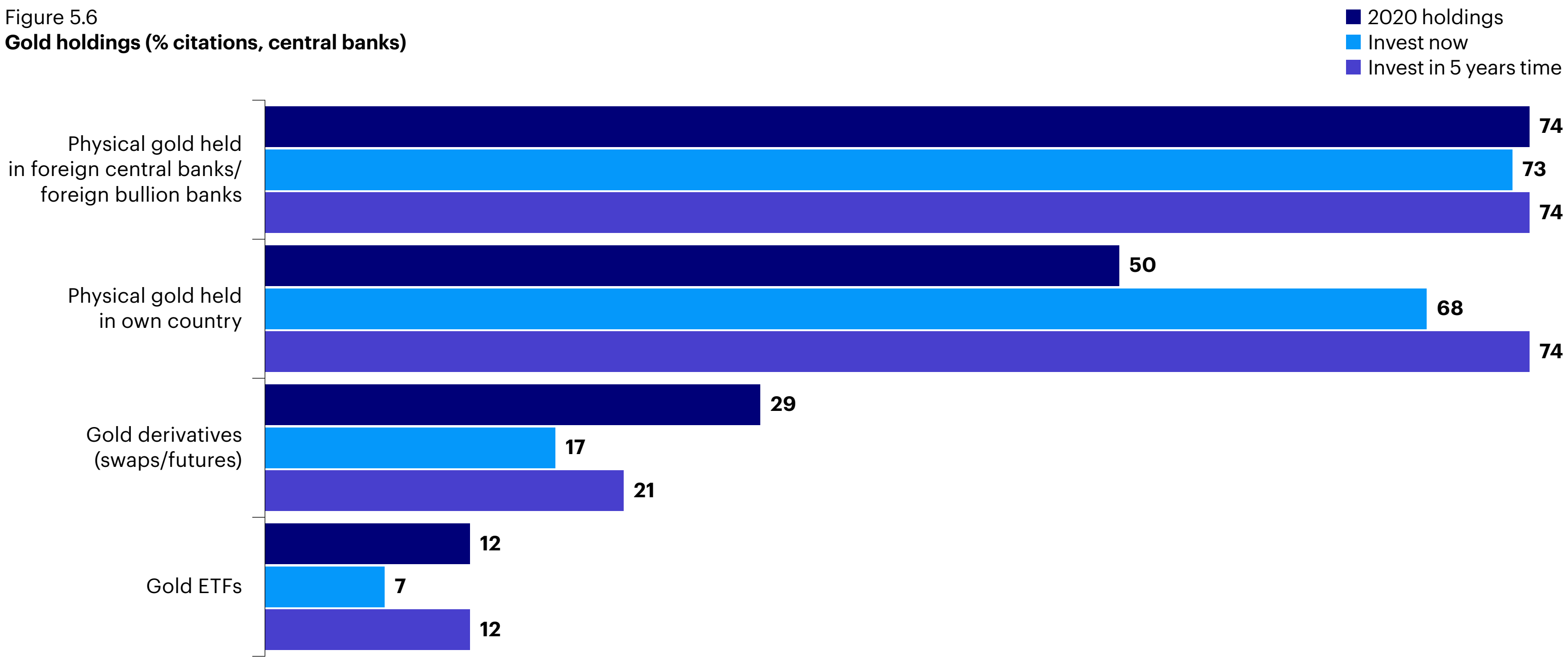


Why have you increased allocations to gold?/Why are you increasing allocations to gold? Sample size: 24.

A substantial percentage of central banks are concerned about the precedent set by the US freezing of Russian reserves, with the majority (58%) agreeing that the event has made gold more attractive. Consequently, central banks now prefer to hold physical gold rather than gold ETFs or derivatives **(figure 5.6)**. Physical gold holdings have increased the most when compared with 2020, while gold ETF usage has fallen. "Gold has played a crucial role during the last couple of years: We increased the exposure 8-10 years ago and had it held in London, using it for swaps and to enhance yields, but we've now transferred our gold reserves back to our own country to keep it safe – its role now is to be a safe-haven asset" said one central bank based in the West. The World Gold Council reported an increased demand for gold bars and coins in 2022, while holdings of gold ETFs fell.[6] This shift reflects a heightened geopolitical risk environment, with 57% of central banks agreeing that gold is a hedge against geopolitical turmoil.

> **We increased the exposure 8-10 years ago, and transferred gold reserves back to country – we did have it held in London and could use it to enhance yields and for swaps, but now we've transferred it back to own country to hold as a safe haven asset and to keep it safe.**
>
> **Central bank**
> The West

Figure 5.6
Gold holdings (% citations, central banks)



How do you invest in gold now? How do you think you will invest in gold in 5 years' time? Sample size: 43.

[6] World Gold Council: https://www.gold.org/goldhub/research/gold-demand-trends/gold-demand-trends-full-year-2022.

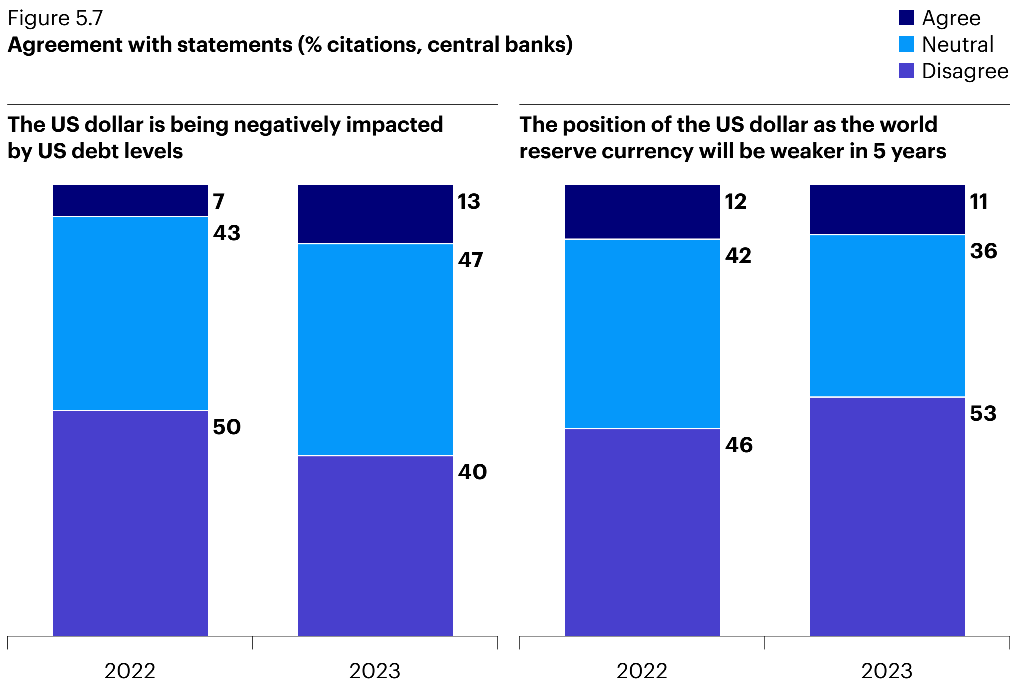
> **People have been looking for alternatives to the dollar and euro for a long time and they would've gone to them already if there were any suitable alternatives.**
>
> **Central bank**
> Emerging Markets

Dedollarisation dilemma: no alternative in sight

The freezing of Russian assets by Western nations has thrust the world's reliance on the US dollar as the dominant reserve currency into the spotlight, raising questions about its long-term viability amidst high US debt levels. A growing percentage of central banks year-on-year believe that the US debt levels are negatively impacting the Dollar **(figure 5.7)**. However, central banks generally agree that there is no clear alternative to replace the US dollar as the world's reserve currency, with 53% disputing that the dollar will be weaker in five years, up from 46% last year. One central bank based in an Emerging Market explained: "People have been looking for alternatives to the dollar and euro for a long time and they would've gone to them already if there were any suitable alternatives". Another central bank, based in an Emerging Market, shared this sentiment: "I don't see a world in which US dollar is threatened as there is no real alternative".

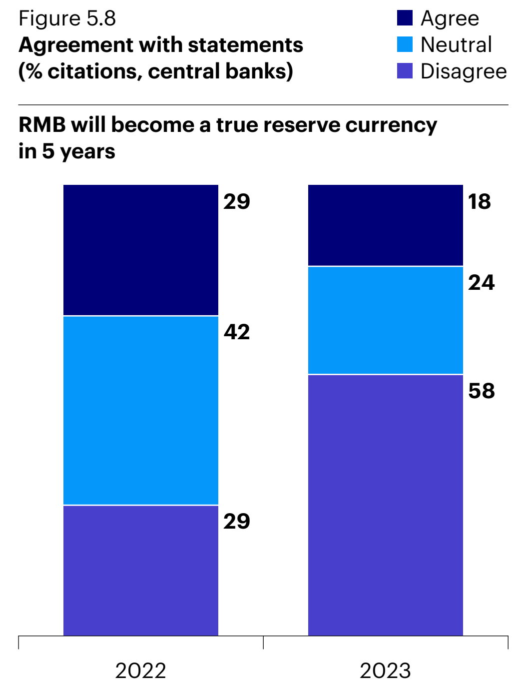
The Chinese renminbi, with its increasing allocations in recent years, is often considered a potential future alternative. Allocations rose from 1.1% of total foreign exchange reserves at the end of 2016 to 2.8% at the end of 2021[7] (2.69% at the end of 2022). However, sentiment surrounding the renminbi becoming a true reserve currency has declined year on year, with a significantly greater proportion of central banks disagreeing that it will achieve that status within five years **(figure 5.8)**.

Figure 5.7
Agreement with statements (% citations, central banks)



To what extent do you agree with the following statements?
Sample size: 55.

Figure 5.8
Agreement with statements (% citations, central banks)



To what extent do you agree with the following statements?
Sample size: 55.

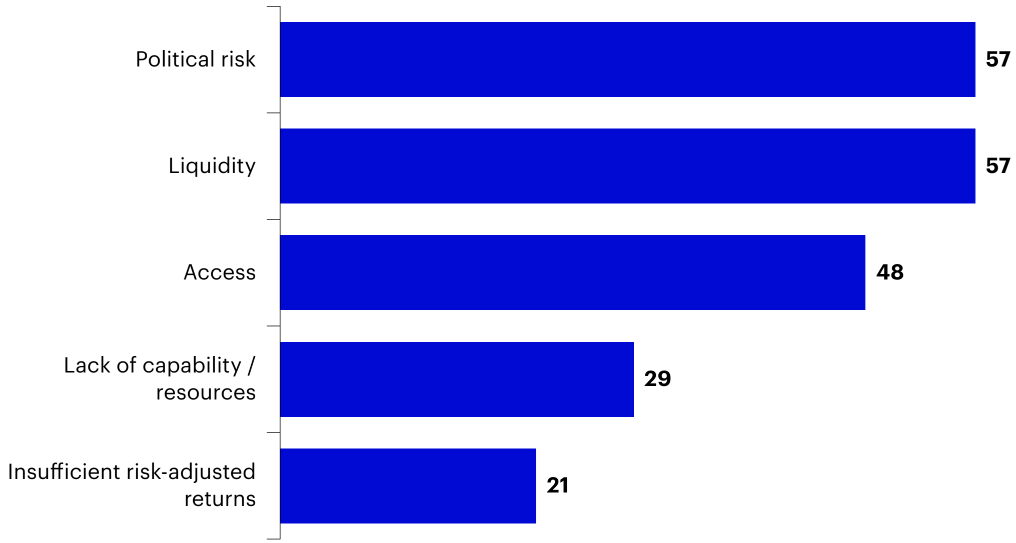
[7] IMF COFER: https://data.imf.org.

Despite these concerns, central banks still expect to increase renminbi holdings over time, driven by strong performance and uncorrelated returns. However, barriers such as liquidity, property sector debt, and political risk hinder the renminbi's potential to overtake the US dollar as the world's reserve currency **(figure 5.9)**. Central banks are less bullish about the proportion of renminbi holdings in five years compared to last year's predictions.

Looking further ahead (10 years plus), most central banks do not anticipate a significant shift in global trade currencies **(figure 5.10)**. A considerable proportion do expect a shift towards renminbi (27% of central banks), but expectations differ based on the region. Emerging Markets are more likely to use renminbi in global trade, as seen with Brazil, Argentina, and Russia making deals to trade in their own currencies or renminbi.

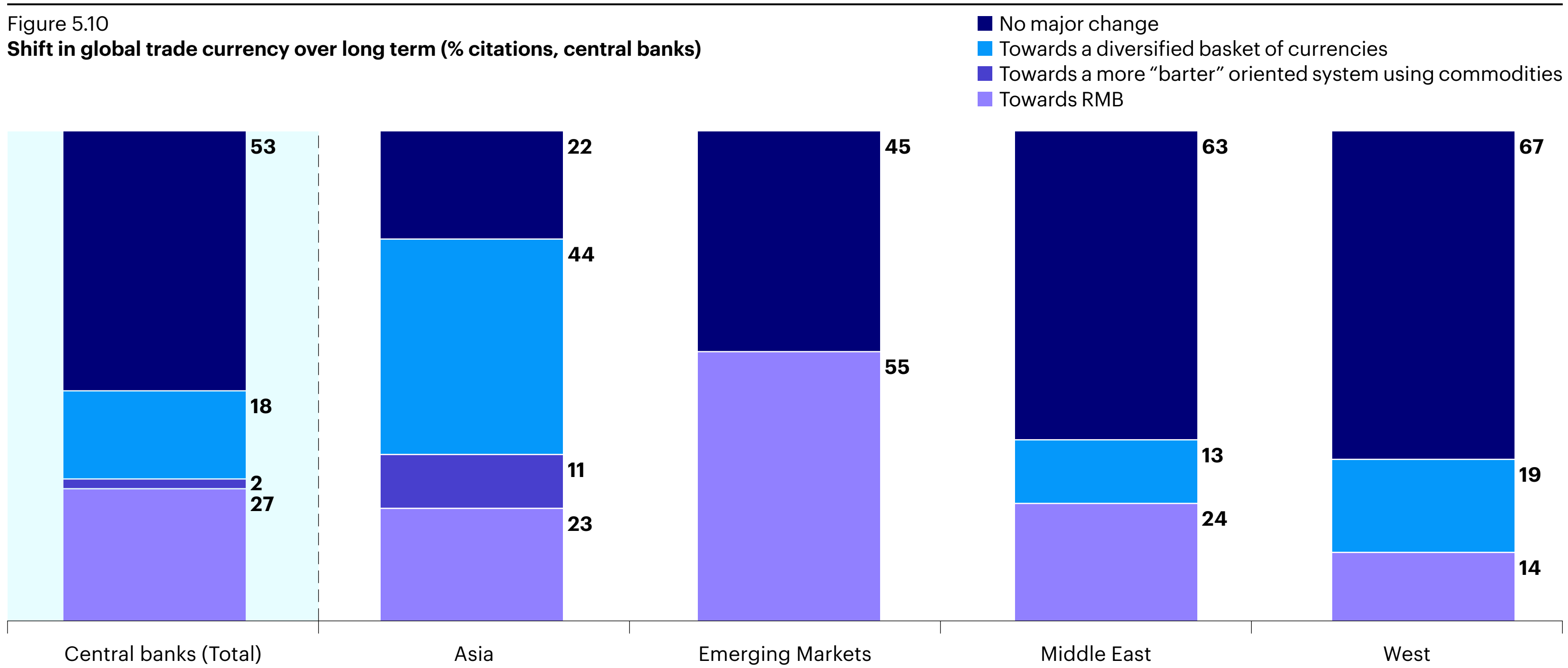
Despite the headlines surrounding dedollarisation and the ongoing search for an alternative reserve currency, the lack of a stable and liquid contender keeps central banks confident in the US dollar's position as the world's reserve currency.

Figure 5.9
Barriers to higher RMB allocations (% citations, central banks)



What are the barriers to higher RMB allocations? Sample size: 42.

Figure 5.10
Shift in global trade currency over long term (% citations, central banks)



Over the long term (10 years+) do you expect any shift from the dollar/western currencies in global trade/payments? Sample size: 48.

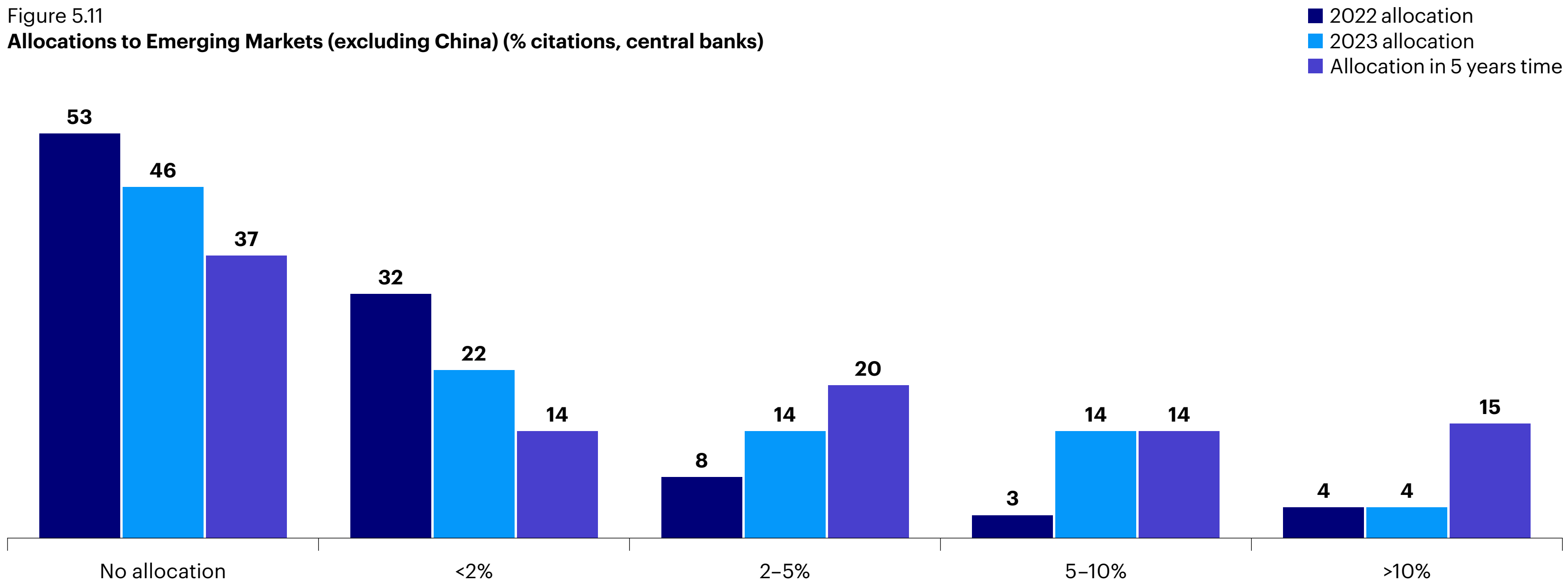
Currency diversification to Emerging Markets

While the US dollar is expected to retain its dominance, central banks are increasingly exploring diversification into Emerging Market currencies to hedge against volatility and stay within authorised asset classes. Sentiment towards broader Emerging Market allocations shifted dramatically over 2022 – 47% of central banks had non-renminbi Emerging Market allocations in 2022, rising to 54% in 2023 **(figure 5.11)**. Furthermore, 63% of central banks anticipate having allocations in five years, with a notable increase in the size of holdings.

One central bank in the West highlighted the appeal of Emerging Markets, stating, "Emerging Markets are attractive because of the high returns, and the potential for higher growth. Currently these countries are economically developing". Another central bank, currently without any Emerging Market allocations, concurred, "We don't have any allocation in Emerging Markets as of now. However, in the coming years we are looking to invest due to the economic growth and higher return in those regions". With most central banks holding Emerging Market currency allocations in their investment tranche, risk-adjusted returns emerge as a driving factor, aligning with the interest in Emerging Market debt as a fixed income sub-sector as discussed earlier in this report **(Theme 1, figure 1.7, page 12)**.

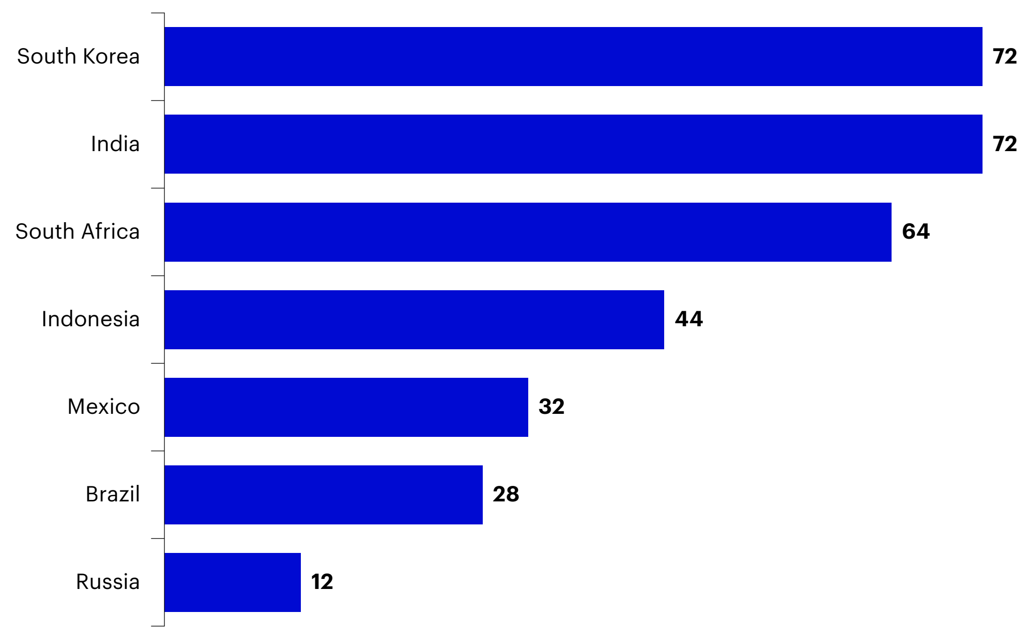
India and South Korea continue to be the most attractive destinations for increasing exposure **(figure 5.12)**. One central bank based in the West explained that they were looking at increasing their exposure to EM debt and in particular focused on debt targeting real estate and infrastructure as well as other diversified industries.

Figure 5.11
Allocations to Emerging Markets (excluding China) (% citations, central banks)



What is your current allocation to EM (excluding-China) in your reserves? What do you think your allocation will be in 5 years' time? Sample size: 50.

Figure 5.12
Attractive EM markets for increasing exposure (% citations, central banks)



Which of the following EM markets do you see as attractive for increasing your exposure? Sample size: 25.

Appendix

Sample and Methodology

The fieldwork for this study was conducted by NMG between January and March 2023. Invesco chose to engage a specialist independent firm to ensure high quality objective results. Key components of the methodology include:

- A focus on the key decision makers within sovereign wealth funds and central banks, conducting interviews using experienced consultants and offering market insights rather than financial incentives
- In-depth (typically 1 hour) face-to-face interviews using a structured questionnaire to ensure quantitative as well as qualitative analytics were collected
- Analysis capturing investment preferences as well as actual investment allocations with a bias toward actual allocations over stated preferences
- Results interpreted by NMG's team with relevant consulting experience in the global asset management sector

In 2023, we conducted interviews with 142 funds: 85 sovereign investors and 57 central banks. The 2023 sovereign sample is split into three core segmentation parameters (sovereign investor profile, region and size of assets under management). The 2023 central bank sample is broken down by region.

Figure 6.1
Sovereign investor sample, by segment

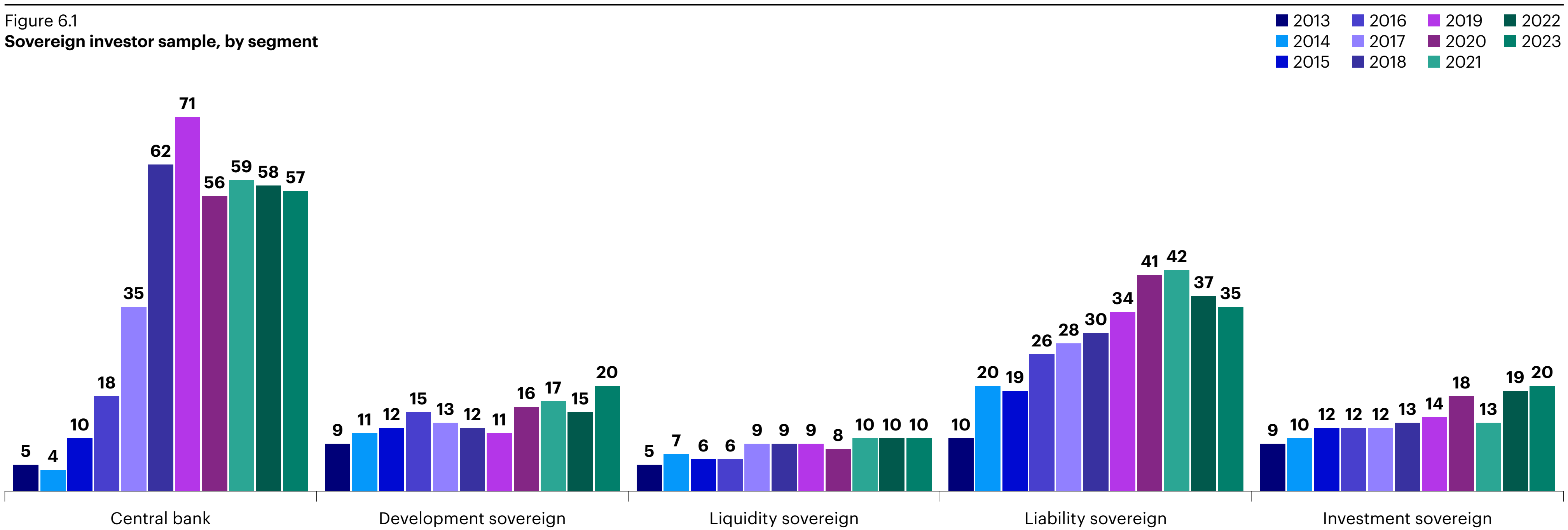


Figure 6.2
Sovereign investor sample, by region

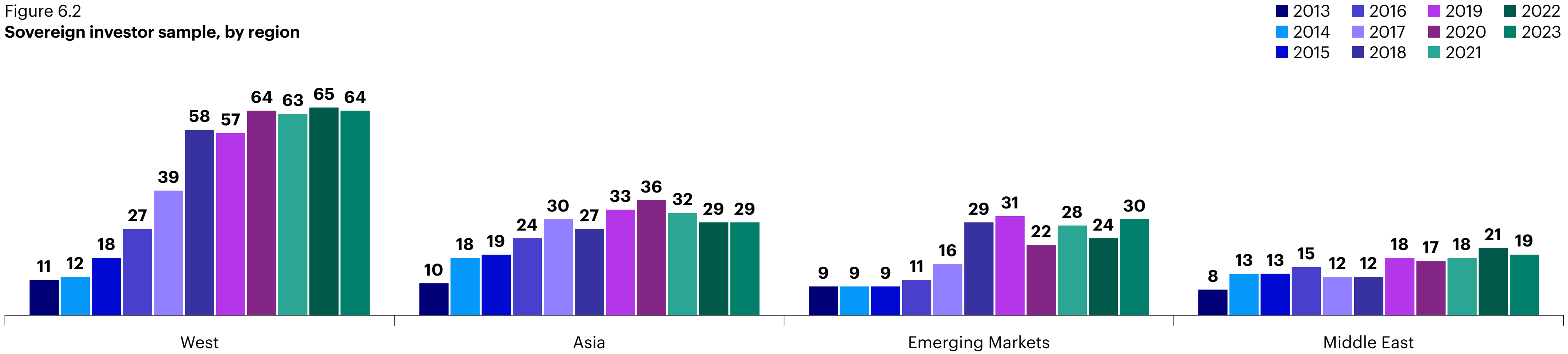


Figure 6.3
Sovereign wealth fund sample, by assets under management

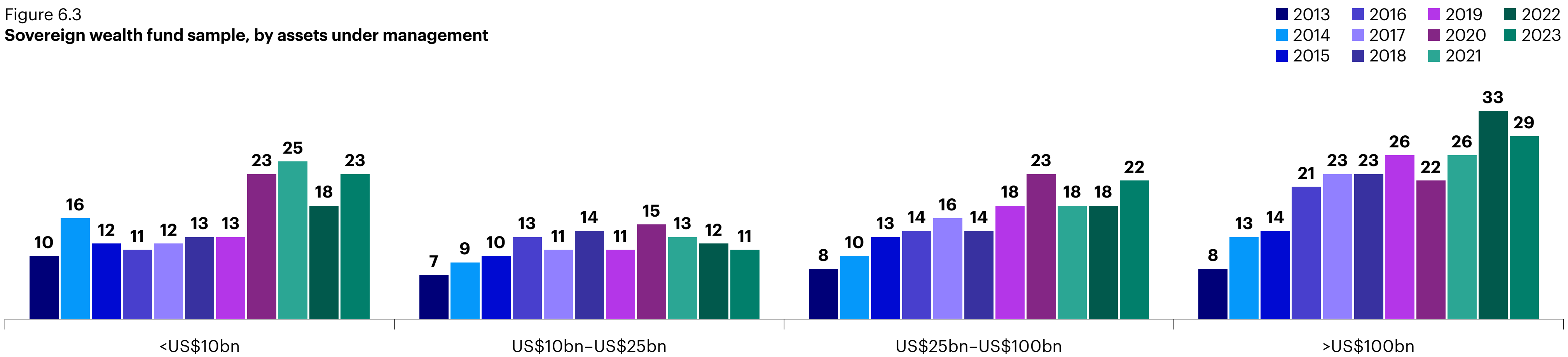
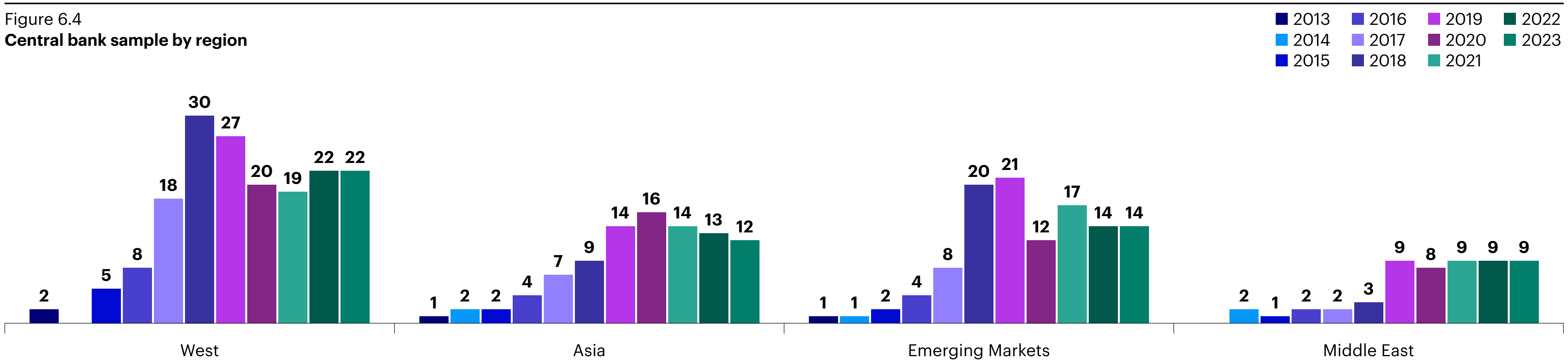


Figure 6.4
Central bank sample by region



Defining sovereign investors

There are distinct segments of sovereign investors, determined in the first instance by their objectives. This framework is outlined below.

Investment sovereigns
Investment sovereigns have no specific liabilities that they are intended to fund. This typically means this segment invests with a particularly long-time horizon and high tolerance for illiquid and alternative asset classes. Long investment return objectives tend to be high, reflecting an ability to capture additional return premia.

Liability sovereigns
Liability sovereigns in contrast are intended to fund specific liabilities, liability sovereigns are sub-segmented into those which are already funding liabilities (current liability sovereigns) vs those where the liability funding requirement is still in the future (partial liability sovereigns). Liability sovereigns generally seek to match their portfolio with the duration of the liabilities they are funding. Those where funding requirements are still well into the future resemble investment sovereigns in their approach; those with significant current funding requirements tend to still have a diverse long-term portfolio but will be more liquid and higher yielding.

Liquidity sovereigns
Liquidity sovereigns operate so they can act as a buffer in the event of economic shocks. They are most commonly located in Emerging Markets which are prone to exchange rate volatility and / or in resource-based economies which are highly exposed to fluctuations in commodity prices. Because of the priority placed on being able to deploy capital predictably and at short notice, Liquidity sovereigns invest with a much shorter time horizon and with a focus on liquidity ahead of returns.

Development sovereigns
Development sovereigns are only partial portfolio investors. Their principle objective is to promote domestic economic growth rather than achieve an optimal risk / return portfolio trade-off. This is pursued by investing in strategic stakes in companies which make a significant contribution to the local economy to promote expansion and growth in employment. They pursue portfolio strategies with their other assets which are usually influenced by the size and characteristics of their strategic stakes.

Central banks
Central banks have a range of domestic roles in their economy – banking to government, issuance of currency, setting of short-term interest rates, managing money supply, and oversight of the banking system. Central banks also have a range of external facing roles, including managing foreign exchange rate policy and operations, including payments for imports / receipts for exports and government overseas borrowings. Central banks hold substantial reserves to support those functions and ensure they are seen as credible. Those reserves have traditionally been invested with a priority on capital preservation and liquidity.

Figure 6.5
Sovereign profile segmentation

Primary objective	Capital preservation & liquidity	Investment & liquidity	Investment & liability funding	Investment & development	Investment only
Global sovereign segment	Central banks	Liquidity sovereigns	Liability sovereigns	Development sovereigns	Investment sovereigns

Time horizon & illiquidity tolerance →

Investment risk

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

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