PREQIN SPECIAL REPORT: SOVEREIGN WEALTH FUNDS

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ABOUT

Welcome to Preqin Special Report: Sovereign Wealth Funds. This report contains key highlights from our main 338-page publication, **The 2018 Preqin Sovereign Wealth Fund Review**, released in April 2018.

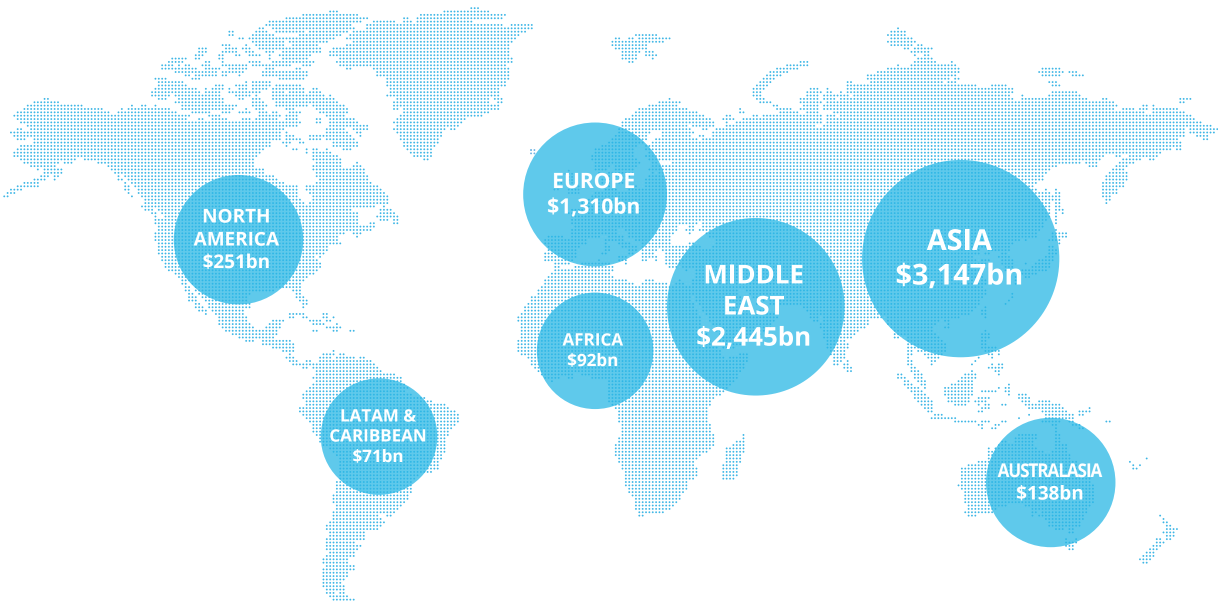
Preqin's first Sovereign Wealth Fund Review was launched in 2008 in response to the need for more information on these secretive entities and their investments in the private equity and real estate sectors. Following the success of this inaugural review of the industry, Preqin received hundreds of enquiries from professionals working in all areas of finance and research that were seeking a source of data and information on the more general strategies of sovereign wealth funds. In its 10th edition, we have expanded our publication to review the entire investment profiles of active sovereign wealth funds around the world including activities and allocations to public equities, fixed income, private equity, private debt, real estate, infrastructure, natural resources, hedge funds and other investments. Our dedicated research teams around the world reach out directly to sovereign wealth fund entities and examine public sources to ensure we capture the most accurate and up-to-date information.

The influence of sovereign wealth funds is undeniable; with assets reaching $7.45tn, they have reached a size comparable to that of the entire alternative assets industry, which Preqin today estimates at approximately $8.73tn.

For more information, or to purchase a copy of the full-length **2018 Preqin Sovereign Wealth Fund Review**, visit: www.preqin.com/swf

THE IMPORTANCE OF SOVEREIGN WEALTH FUNDS

SOVEREIGN WEALTH FUNDS HAVE A WORLDWIDE PRESENCE*



ACCELERATION IN SOVEREIGN WEALTH FUND GROWTH

$866bn
Assets added by sovereign wealth funds over the past 12 months.

78
Number of sovereign wealth funds in existence worldwide.

21
Number of sovereign wealth funds established since 2010.

71%
of sovereign wealth funds grew their assets over the past 12 months.

SUSTAINED APPETITE FOR ALTERNATIVES

76%
of sovereign wealth funds invest in at least one alternative asset class, up from 74% in 2017.

59%
of sovereign wealth funds invest in natural resources, up from 47% and 55% in 2016 and 2017 respectively.

Real estate and **infrastructure** remain the most favoured alternative asset classes among sovereign wealth funds.

Figures denote total assets under management by region as at March 2018.

KEYNOTE ADDRESS
- Will Jackson-Moore, PwC

It has been almost 10 years since the Global Financial Crisis (GFC) rocked the world's financial system. Sovereign wealth funds (SWFs) were not immune to the effects and experienced a drop in assets under management (AUM) of 3.1% in 2009; however, they rebounded strongly following this, with an AUM compound annual growth rate (CAGR) of 9.1% between 2010 and 2016. This strong growth will continue in the coming years due to increasing oil prices, newly established SWFs, and an increasing tendency for SWFs to derive their wealth from non-fossil sources. In line with the total growth of assets, we expect their investment strategies to change over time to incorporate more alternative assets into their portfolios. This has already been observed in the last seven years, with the allocation to alternatives increasing from 19% to 24% by 2016.

In 2004, SWFs accounted for only 5% of institutional investors' AUM, totalling $1.9tn. As of 2016, the share had doubled, and SWFs' AUM had risen to more than $7.4tn. SWFs recovered particularly quickly following the GFC, only experiencing an asset drop in 2009.

Despite this strong growth, SWFs have faced adverse market conditions since 2014. Hydrocarbon prices dropped significantly and, as 60% of these institutions' AUM originates from this source, less capital was injected into SWFs and the pre-2014 growth pace could not be maintained. This, in conjunction with the low interest rate environment, led SWFs to broaden their investment strategies. By looking at alternative investments – such as private equity, real estate, infrastructure, commodities and hedge funds – SWFs have found a way to possibly increase their returns.

SWFs will continue to increase their allocation to alternatives in the future as the asset classes will provide portfolio diversification to traditional assets such as equity and bonds, support economic development, and can be used as a hedge against crises, which is aligned with the long-term investment horizon of SWFs.

Alternative assets refer to a varied group of investments, including private equity, credit and real assets. They each have different profiles regarding risk/reward, liquidity, returns and correlation. There are a variety of types of funds, from Stabilization to Savings, or Reserve Investment to Development Funds. Based on their overall objectives, we group them into three broad categories: Capital Maximization, Stabilization and Economic Development funds. Their purposes are fairly different overall, meaning, of course, that their asset allocation will differ.

Economic Development funds, for example, are more focused on boosting a country's long-term productivity and do so by investing in physical and social infrastructure, as well as by diversifying the economy. Therefore, investments in infrastructure and private equity can be particularly appealing to them.

Capital Maximization funds aim to build a risk-adjusted capital base for the growth and preservation of national wealth. SWFs that fall into this category invest with a long-term horizon in mind, allowing them to withstand short-term market volatility in capital markets and benefit from a liquidity premium. These types of funds are therefore particularly attracted to asset classes such as equities and private equity.

Finally, Stabilization funds aim to facilitate the fiscal stability of their country's economy, as well as stabilize the exchange rate in certain cases, such as external shocks. These funds therefore tend to have short investment horizons and tend to be more liquid. Their investments then tend to be limited to fixed income products.

Legal and regulatory barriers will differ from country to country and between types of SWFs, e.g. Economic Development, Stabilization or Capital Maximization funds. However, what we have seen is that more and more countries are allowing private capital to play a role in funding infrastructure due to high debt levels and the need for funding. This can clearly be seen through the growth of the infrastructure asset class: its AUM rose by a CAGR of 16.5% between 2010 and 2016. Further, given that infrastructure projects are being set up across Asia and Africa, largely because of mass urbanization or, for example, the new silk road, the demand for financing infrastructure projects in those regions is rising. On the other hand, when we look at more developed nations in Europe and the US, old infrastructure needs to be renewed – hence the increased demand for financing infrastructure projects in these regions. What we have also observed, which is important to note in this respect, is a rising interest from governments for private-public partnerships.

The introduction of alternatives can bring a new set of risks to the portfolio, including illiquidity, complexity and cyclicality. Additionally, when investing in alternatives, their differences from traditional assets mean that new skillsets regarding risk and investment management are needed.

Historically, SWFs' direct exposure to commodities has been fairly limited, but we wonder whether with continued search for alpha this will change and we may see more interest, particularly given the liquidity and historical low correlation with equities for assets such as gold. Although expectations of an interest rate hike loom over Europe and the US, the increase should remain moderate, with institutional investors searching for yield and diversification still allocating to alternatives.

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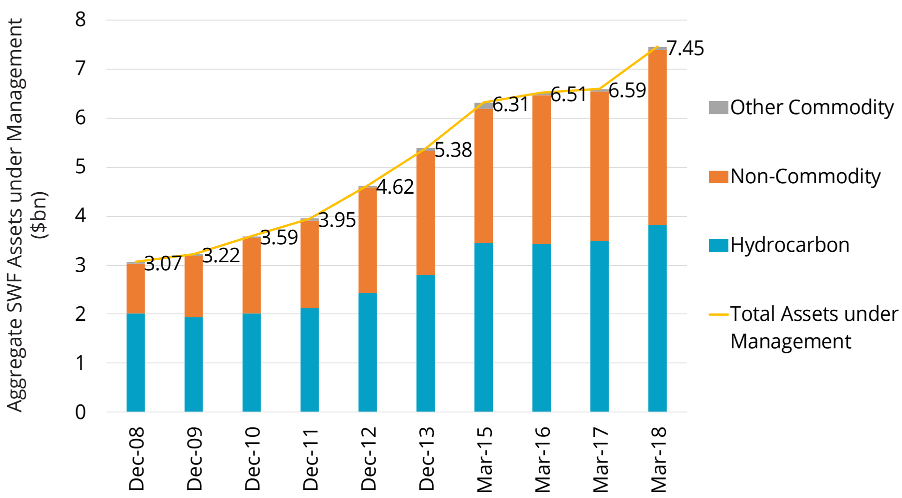
OVERVIEW OF SOVEREIGN WEALTH FUNDS

The secretive nature and dynamic investment activity of sovereign wealth funds (SWFs) have continued to make headline news since the publication of Preqin's 2017 Sovereign Wealth Fund Review, propelled by their large assets under management (AUM) and growing influence in the global economy. Despite interest rates and oil prices generally remaining at low levels over the years, and uncertainty pervading global markets, SWF assets continue to grow, reaching $7.45tn worldwide across 78 funds as at March 2018 (Fig. 1). This represents a 13% rise from one year ago.

SWFs invest across a wide range of asset classes (Fig. 2). As SWFs mature, they look for more ways to construct diversified portfolios to achieve their investment objectives. Over three-quarters (76%) of this exclusive group invest in at least one alternative asset class, up from 74% in 2017. The benefits of exposure to alternative assets can include low correlation to traditional asset classes, hedging against inflation and the potential for high risk-adjusted returns. Alternative assets are suitably aligned to the long-term investment horizons of SWFs, which are better placed to handle illiquid assets than other institutional investors.

Fig. 1: Aggregate Sovereign Wealth Fund Assets under Management, 2008 - 2018

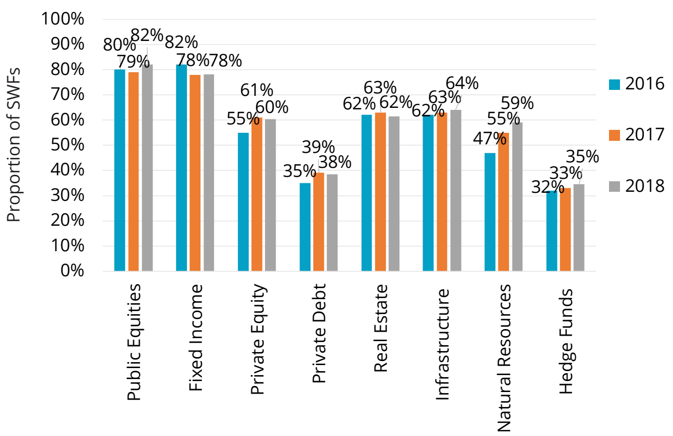


Source: The 2018 Preqin Sovereign Wealth Fund Review

Natural resources and infrastructure have the largest proportion of SWFs that invest domestically (91% and 90% respectively, Fig. 3). However, some SWFs have a strict mandate not to invest in domestic assets, instead seeking to diversify their exposure away from their own economy; for example, Government Pension Fund Global does not invest domestically to avoid overheating the Norwegian economy and to reduce the effect of oil price fluctuations on the country.

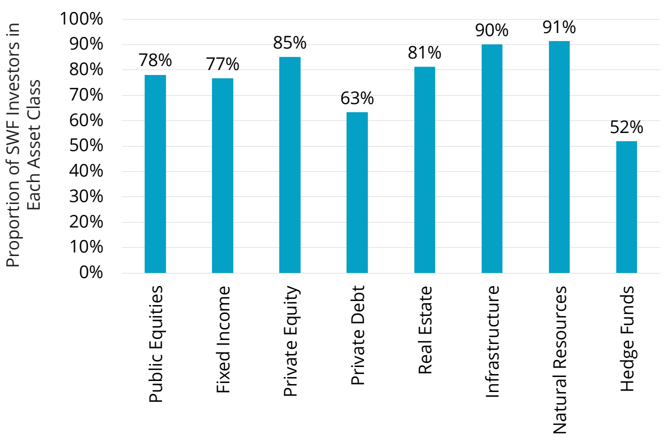
New for 2018, Preqin has added information on infrastructure deals invested in and exited by SWFs, with more analysis across investment portfolios, and in-depth commentary on this important sector to help our clients gain the best intelligence on SWFs.

Fig. 2: Sovereign Wealth Funds Investing in Each Asset Class, 2016 - 2018



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 3: Sovereign Wealth Funds that Invest Domestically by Asset Class



Source: The 2018 Preqin Sovereign Wealth Fund Review

SOVEREIGN WEALTH FUNDS AND THE LOW-CARBON ECONOMY TRANSITION

- Javier Capapé, **IE Business School**

Sovereign wealth funds (SWFs) are long-term and patient capital owners. With long-run investment horizons, SWFs are gradually getting involved in the sustainable finance movement. Also, SWFs are government linked or state owned. According to the International Forum of Sovereign Wealth Funds (IFSWF), SWFs fulfil three broad, different goals: long-term savings, fiscal stabilization and economic development.

The first motivation of SWFs is to attain a certain risk-adjusted financial return and to preserve national wealth. In many cases, this is compatible with fiscal stability goals (i.e. Norway, Kuwait, Abu Dhabi or Qatar). In some other cases, SWFs made explicit how the return of the sovereign fund includes not only typical financial measures but economic or development metrics (i.e. Ireland uses the concept of the "double bottom line" objective). Yet, the degree of motivations and goals of SWFs vary substantially. According to the IE Sovereign Wealth Lab Report, supported by ICEX, there are 92 SWFs established in 57 countries.

SWFs are diverse and changing too. For example, in 2012, SWFs invested just 9% of their assets under management (AUM) in private markets such as real estate, infrastructure or private equity funds. At the end of 2017, this figure had risen to 30%. This significant growth of real assets in SWF portfolios has increased in-house capabilities and attracted investment talent from mature financial plazas to lead investment teams on infrastructure, real estate or venture capital. In the end, this exposure to real assets has helped to professionalize SWFs' workforces, to enhance governance and organizational settings, and to engage further with co-investment partners.

THE SUPPORT OF SWFs TO TRANSITION TO A LOW-CARBON ECONOMY

All in all, these transformations may be supportive of a stronger stance of SWFs in the sustainable finance sphere. Enhanced capabilities and track record may facilitate the adoption of climate considerations, despite all the heterogeneity of the SWF industry, in line with long-term investment horizons and SWFs' diverse missions.

Yet, how green are SWFs' portfolios today? Over the last three years (2015-2017), the total value of green investments by SWFs has risen to $11bn. This is a tiny fraction of the total assets of the SWF industry (less than 0.15% of its total assets), and represents just 6% of total SWF direct investments in the 2015-2017 period, indicating the potential growth of investments in very much needed renewable energy companies and projects, green infrastructure funds or clean energy start-ups (see inset: page 7).

In the past 18 months, SWFs from Norway, New Zealand and France have divested their portfolios from companies with high levels of GHG emissions – valued at $2.9bn. Yet, it is important to note that only Government Pension Fund Global from Norway and New Zealand Superannuation Fund have fully integrated climate risks into their investment processes and strategic asset allocations. It is of no surprise that these two countries have been actively leading the One Planet initiative (see below), given their expertise on integrating climate-change-related risks into their investment practice.

Other SWFs from emerging and developing economies, such as the United Arab Emirates (UAE), Morocco, Singapore, China and Saudi Arabia, are investing in green infrastructure assets directly or via commitments to green infrastructure funds. However, there is a need to incorporate climate-specific strategies into the investment process.

Overall, SWFs invest in green assets by committing to green debt platforms ($4.3bn), investing in renewable energy companies and projects ($3.5bn) or participating in green infrastructure funds ($2.2bn). They have also backed start-ups that provide energy efficiency solutions, produce meat-free burgers and develop lab-grown leather.

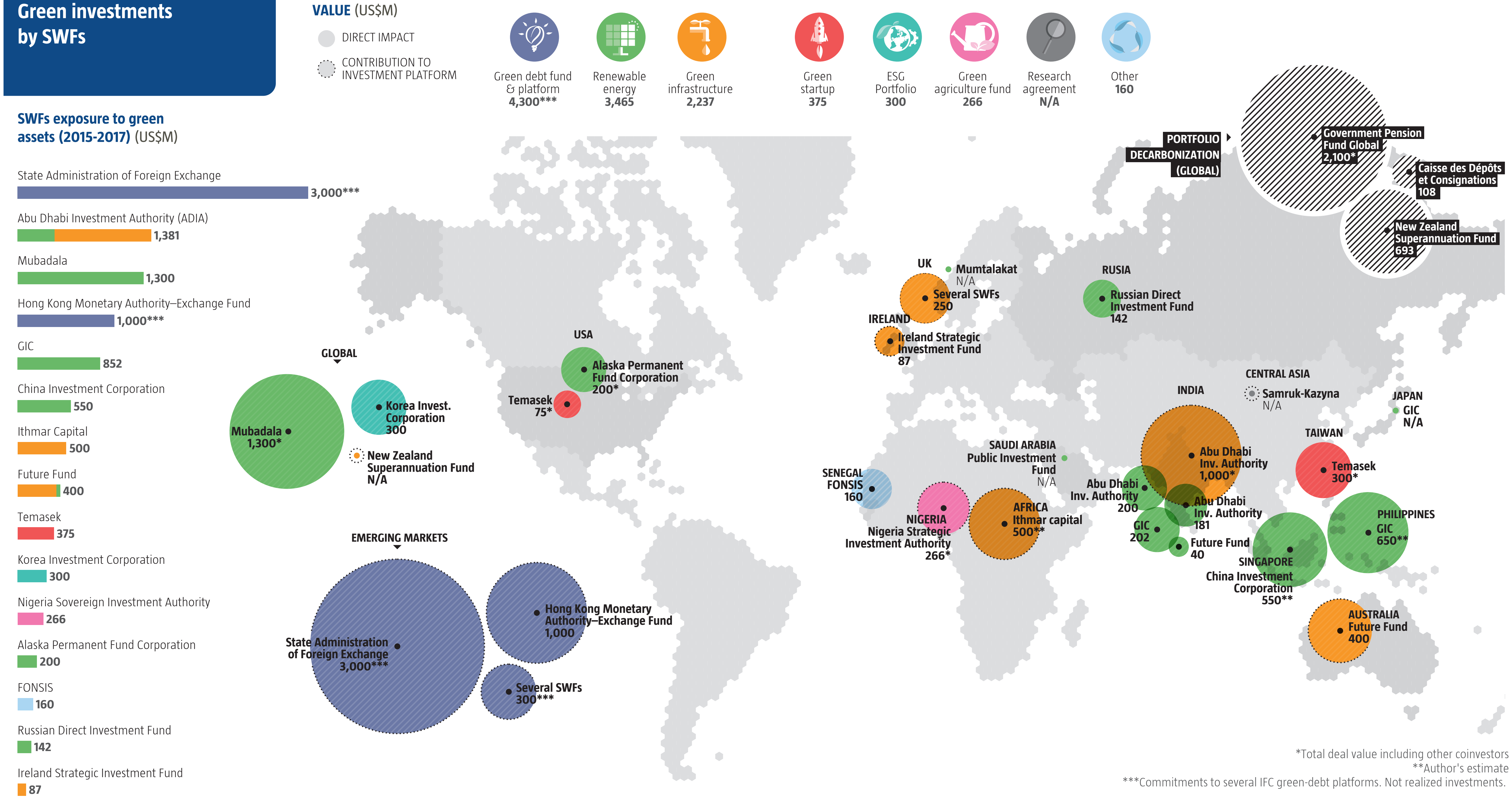
In sum, more sovereign wealth funds, as long-run and diversified institutional investors, are becoming aware of the risks posed by climate change. In this regard, the Framework developed by a group of SWFs (One Planet SWF Working Group) to accelerate the integration of climate change analysis into the management of SWFs' asset pools seems very timely. This group of SWFs is formed by Abu Dhabi Investment Authority, Kuwait Investment Authority, New Zealand Superannuation Fund, Norges Bank Investment Management of Norway, Public Investment Fund of the Kingdom of Saudi Arabia and Qatar Investment Authority, which collectively manage over $3tn in assets. This group has identified three main principles to address climate change:

1. **Alignment**. Build climate change considerations, which are aligned with the SWFs' investment horizons, into decision-making.
2. **Ownership**. Encourage companies to address material climate change issues in their governance, business strategy and planning, risk management and public reporting to promote value creation.
3. **Integration**. Integrate the consideration of climate-change-related risks and opportunities into

[1] *Green investments include commitments to green debt funds and platforms, renewable energy projects, green infrastructure, green startups and green agriculture funds. It excludes the value of companies divested through of decarbonization strategies.*

Figure 2

Green investments by SWFs



Source: Author's elaboration.

investment management to improve the resilience of long-term investment portfolios.

THE CHALLENGES OF SWFs IN GOING GREENER

The estimates about SWFs' involvement in green and sustainable opportunities show that SWF participation remains low. What are the reasons derailing SWFs from investing more strongly in long-term assets that support a transition to a low-carbon economy? A recent working paper by the UN Environment details four key factors derailing SWFs from green investments.

The uncertainty of green portfolio performance

Despite the fact that recent research suggests greener portfolios provide higher returns, most SWFs are still reluctant to divest from high-emitting sectors such as oil & gas. SWFs, as other institutional investors such as pension funds or university endowments, fulfil a fiduciary role. Their main mission is to preserve and grow wealth and obtain a certain risk-adjusted long-term return. Hence, SWFs without climate-related investment criteria face difficulties in justifying investments that do not provide a similar risk-adjusted return. The consideration of climate-change-related risks (regulatory, technology disruption, physical and obsolete assets) among SWFs is still nascent.

Weak political demand

SWFs face little pressure to go green due to the lack of national sustainable development policies or weak social demand for greener portfolios. There is still a need to educate stakeholders about positive-impact finance frameworks.

Costs of carbon footprint analysis

The high costs of analyzing a portfolio's carbon footprint, given the lack of standards for risk disclosure and measuring techniques, or the costs of being active owners (exercising voting rights or engaging with companies) can derail SWFs from acting in a greener way. Higher transparency and standardization would help, as well as sharing the best cases from SWFs' active owners.

Operating in developing countries: Sourcing enough small-scale deals

SWFs have invested in large-scale green infrastructure projects such as wind farms or solar plants. Yet, most Sustainable Development Goals (SDGs) will be achieved through small and micro actions in developing economies. But to match large capital owners with these multiple small capital needs remains a challenge. The growing number of SWFs participating in co-investment platforms, or engaging directly with regional and local experts, brings some hope to the resolution of this typical conundrum of institutional investors in developing markets.

WHY SWFs CAN PLAY A STRONG ROLE IN PROMOTING SDGs

A growing number of SWFs are ready to invest in sustainable assets today. Moreover, there are, at least, five reasons to think that SWFs will play a larger role in the transition to a low-carbon and sustainable economy:

SWFs hold enormous pools of capital

This is required to bridge the huge investment gap to achieve the SDGs. The current financing gap to accomplish the SDGs is estimated to be $2.5tn per year to 2030. The mobilization of large-scale players would allow to fulfil these goals.

SWFs have patient capital

Patient capital aligns with long-run projects and real assets. The widest capital gap of SDGs is linked to infrastructure and clean energy. These two sectors have spill-over effects which would contribute to multiple SDGs, particularly in developing countries. Thus, the growing alignment between SWFs' long-term investment goals and real assets facilitates this purpose.

SWFs have strong linkages with developing countries

From the list of the largest 25 SWFs by assets, 22 are located in developing countries in the Middle East or North Africa, or Southeast, Central and East Asia. In 2017, emerging markets represented 30% of all SWF infrastructure investments. India is a growing target among SWFs. Thus, both the sources of SWFs' capital and expertise are rooted in developing contexts. SWFs are gradually adding developing countries to their geographical asset allocation strategies.

SWFs have an influential role over governments and regulators

SWFs in most markets, especially in developing economies, play a central role in the country's financial architecture. This position would help to foster reporting of material climate-related risks and to act as role models for other institutional public and private investors. SWFs have incentives to drive financial institutions towards long-term aligned practices and regulations. The relationship with other stakeholders may motivate a stronger demand for sustainability investment criteria among institutional investors.

SWFs are influential owners

Given their equity positions in companies around the globe, a more active ownership role, as promoted by the One Planet Group, would help companies to address material climate change issues through governance, business strategy and planning, risk management and public reporting. SWFs with economic development goals, following a holding SWF's model, directly influence their fully or partially owned subsidiaries.

IE BUSINESS SCHOOL

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IE Business School is a graduate school located in Madrid, Spain. IE Business School's International MBA program holds the No. 8 position worldwide, as well as being No. 4 in Europe and No. 1 in Spain, in the FT's 2017 ranking of MBA programs.

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RISE OF THE MACHINES: INVESTING INTO A DISRUPTIVE WORLD

- Matthew Alabaster, PwC

"What about weaponized nanobots?" my colleague asked, and it was at this point I realized I was in a different realm of long-term planning.

We were running a workshop with the executive board of one of my client's portfolio companies, facilitating a conversation about disruptive threats and opportunities. The exam question was 'what can knock this business off course?'

It is a question that more and more of our clients are asking. And for good reason: the world is changing faster, and with greater uncertainty, than arguably at any time over the last thirty years. Exponential technologies such as Artificial Intelligence (AI), Blockchain and autonomous vehicles are set to revolutionize many industries and take many of our jobs; the effects of megatrends such as urbanization, climate change and resource scarcity are starting to bite in unpredictable ways; and a new political discourse in developed markets (with Brexit as its gestating progeny) is starting to challenge preconceived ideas about the inevitability of globalization and rising living standards.

All-in-all, there is a lot going on.

Some investors are used to such challenges. Venture capital thrives on disruption, of course. And private equity invests into fast-cycle industries by using a balancing approach to risks and opportunities. But it is the longer-term investors and their portfolio companies that are having problems adjusting. Pension funds, infrastructure funds and sovereign funds often look for stable, long-term, defensive assets, for which the past is a reliable guide to the future. For these businesses, the financial models can look out more than 20 years, confidently asserting cash dividends in perpetuity. But in our changing world, how can an investment be considered low risk if the investment hypothesis depends on predicting the world 20 years from now? As one client said, "we put a huge effort into understanding year zero, quite a lot on years 1-5, but almost nothing on years 6-20". Another told me that it was about avoiding shoulder-shrug in response to difficult questions: "When my investment committee asks me what would be the impact of AI on this business, I have to have an answer".

But thinking about disruptions requires a different mindset. The traditional starting point for diligence or business planning is the past: understand what has happened over the last five years, and you are halfway to predicting the next five. But the point about disruptions is that they are non-linear: you cannot spot the impact of AI in the financial statements of a logistics business; you cannot see the impact of autonomous vehicles in the P&L of a motorway service station; and you cannot see the risk of social change in the track record of an airport. And these are all direct, 'first-wave' disruptions. We certainly cannot extrapolate out to the 'second wave' of indirect disruption as automation reduces spending in the economy. But all these threats are real, and could have a material impact on the value of the assets over the next decade.

So how can investors build disruption-thinking into their deal-doing? Here are some suggestions from some clients who are doing just that:

1. **Forget the 'official version of the future'**
   Most deal-doing is underpinned by the idea that there is a single, tightly defined scenario that represents the target and its markets over the next three to five years. Vendors put forward their own official version of the future in the form of financial projections: a single, precise line picking its way with misplaced confidence through the near future. Buyside advisers unpick this version and propose some incremental sensitivities – slightly lower market growth, slightly higher inflation – to form their own version of the future. Dozens of official versions take shape on laptops across the City, each proclaiming itself the one true 'base case'. The reality is that unless you are happy taking a call on what the world will be like 10 years from now, investment hypotheses need to be robust enough to survive a range of different futures.

2. **Work backwards**
   If extrapolating the past only gives you a single future, you have to work backwards. Imagine some alternative futures and work back. We have developed four world scenarios that we use as starting points for our clients. One, called the 'Rise of the Machines', shows a world where rapid technological advancement is used in a centralized way, for example for security and national self-reliance purposes. We have developed a Virtual Reality experience to immerse our clients in this scenario to let them experience and react to one possible future.

   Our scenarios are a helpful starting point, and also serve a useful purpose for getting our clients in the right mindset, but in reality scenarios need to be developed specifically for the business being looked at. We have done a lot of work with a regulated monopoly in the UK which has developed four different political and technological scenarios that have radically different implications for their own role and business model. They have then worked backwards, tracing four lines back to the present, in order to understand how that scenario might occur and what the 'weak signals' are that would indicate which path we are on.

3. **Give the team the confidence to have the conversation**
"Just don't mention flying cars," a client relationship partner instructed me on the way to a meeting with an infrastructure fund two years ago. He was worried that we would look like wackos in front of his client. Well since then, Airbus, Boeing, Uber and Google founder Larry Page have all announced flying car programmes. So not so wacky after all! In the dry, analytical world of due diligence and valuation, having a conversation about future disruptions can feel uncomfortable. Senior staff need to encourage their teams to think in this way, and in particular to seek input from the most junior. After all, the youngest people on the team are more closely connected to the future than the most senior. When it comes to disruptions, normal hierarchy does not apply.

4. **Use the portfolio**
Not all businesses will be able to respond to disruption. Under certain scenarios, the future for individual business may look very challenging. You may take the view that this makes the investment too risky; or you might take the view that you can balance this risk across your portfolio. Financial investors have the luxury of diversification, of owning a number of assets that have different risk profiles. We have worked with one fund to understand the overall exposure of its existing portfolio to a number of underlying disruptive trends and technologies, including our 'essential eight' emerging technologies. Investors can review the impact of each of these across the portfolio and consider the appropriate mitigation: investing in something to hedge against a particular risk, avoiding 'doubling down' on a particular disruptive risk, or more passive strategies around monitoring and managing risks before they become critical.

A single version of the future – PwC's immersive Virtual Reality experience that brings some disruptive technologies to life.

5. **Forewarned is forearmed**
Nobody can predict the future with certainty. But we can give investors and their investments a competitive edge by helping them to spot trends before everyone else. So once we have identified the specific scenarios or disruptions that represent threats or opportunities, we have learned to listen for the 'weak signals' that serve as predictors of that particular scenario. We have developed a tool that uses AI (yes, our jobs are under threat too!) to scan the world's media in 80 different languages and, if we train it correctly, provide alerts that can serve as an early warning signal for a particular disruption.

Ultimately this is about a bringing a different lens to deal-doing and asset management. Standing in the future and looking back at the target, with some informed options about what the world might be like, is not going to replace a DCF model any time soon. But it is a healthy discipline, especially for investors with long hold periods. There are plenty of tools and frameworks to help you do it effectively, but even having the conversation is a step forward.

Weaponized nanobots? You heard it here first.

MATTHEW ALABASTER
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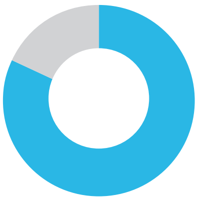
PUBLIC EQUITIES AND FIXED INCOME ACTIVITY

Traditional asset classes such as public equities and fixed income are regarded as important components within SWFs' investment portfolios: 82% and 78% of SWFs invest in these asset classes respectively.

PUBLIC EQUITIES

The potential for significant yield, liquidity and portfolio diversification are just some of the reasons why SWFs regard public equities as an attractive form of investment.



82% of SWFs invest in public equities.

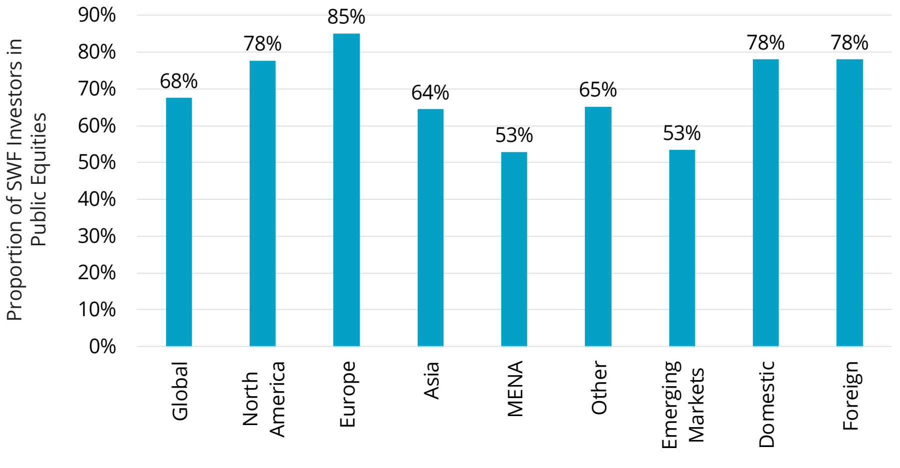
Sixty-eight percent of SWFs invest in public equities on a global scale (Fig. 4). A broad approach may be taken to mitigate the risk of affecting domestic stock markets while acting as a diversification tool. Ireland Strategic Investment Fund, however, operates a global mandate to maintain capital growth and address the short-term liquidity needs of the fund while it transitions to a fully Irish portfolio.

FIXED INCOME

As shown in Fig. 5, almost all (96% of) SWFs target government bonds. A large proportion (84%) also look to invest in bonds issued by companies, which, while carrying greater risk than government bonds, have the potential for greater returns and increased diversification. Significantly, all SWFs that invest in fixed income target investment-grade bonds, signifying a preference for bonds with a lower risk of defaulting.

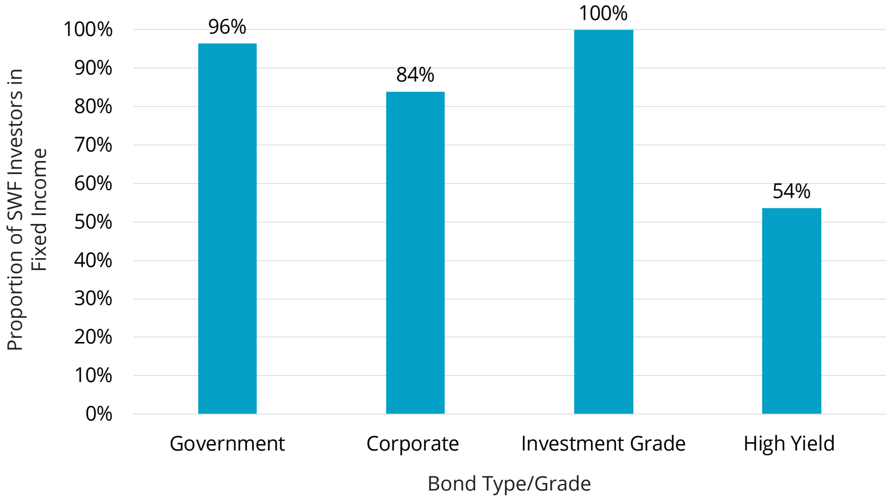
North America and Europe remain the most targeted regions for fixed income investment due to their mature economic markets and high levels of transparency.

Fig. 4: Regional Preferences of Sovereign Wealth Funds Investing in Public Equities



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 5: Sovereign Wealth Funds Investing in Fixed Income by Bond Type and Grade



Source: The 2018 Preqin Sovereign Wealth Fund Review

In contrast, some funds look to emerging markets, citing increased liberalization measures and activity in the service sector as key motives.

Public equities are likely to remain a key part of SWFs' portfolios, as many will look to rebalance their portfolios and diversify against macroeconomic shocks in their domestic economy. Given that 61% of SWFs are below their target allocation to fixed income, there remains potential for further inflows into the asset class.

61% of SWFs are under their target allocation to fixed income.

PRIVATE EQUITY AND PRIVATE DEBT ACTIVITY

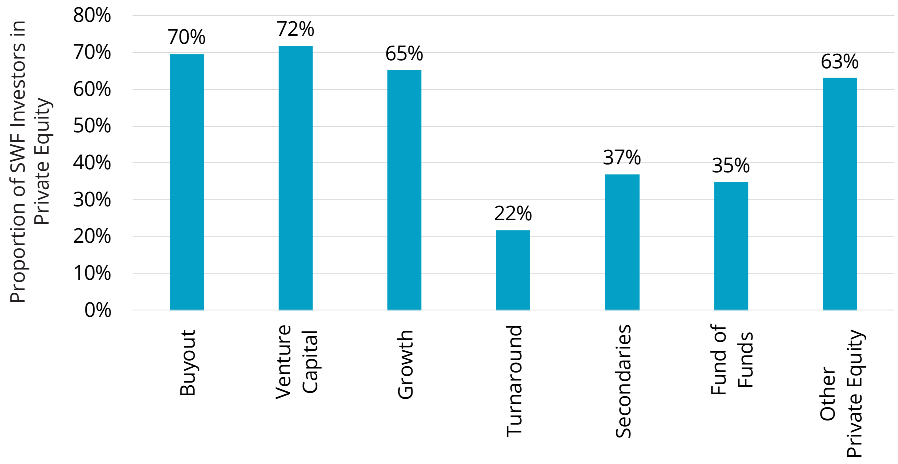
SWFs have long been recognized as a major source of capital for private equity fund managers, while many SWFs gain exposure to private debt through their private equity allocations.

PRIVATE EQUITY

The largest proportion (72%) of SWFs target venture capital funds (Fig. 6), overtaking buyout funds, which were sought by the greatest proportion of SWFs in 2017. Investments in the venture capital sector allow SWFs to nurture domestic enterprise and support economic development initiatives. Europe remains the most appealing region for private equity investment, with many established fund managers located in the region. A similar proportion of SWFs operate a global mandate in search of access to a wider range of fund strategies and opportunities. Seventy percent target Asia, a sign that many SWFs continue to search for value outside the developed markets.

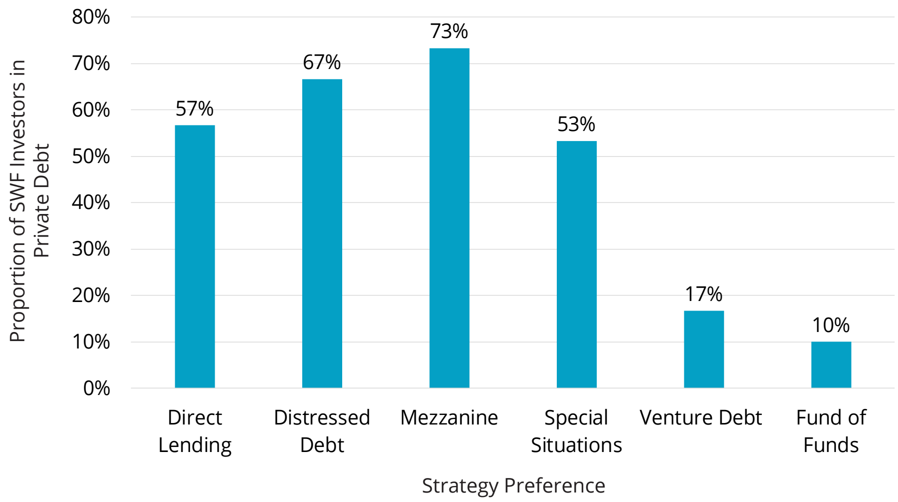
In recent years, the private equity secondary market has seen increased activity from SWFs, with many utilizing the market as a mechanism for restructuring portfolios that have become unbalanced. Kuwait Investment Authority, for example, sold a portfolio of buyout fund stakes to Coller Capital in October 2017. Some SWFs have also used the secondary market as an opportunity to access fund interests further along in a fund's lifecycle at a reduced price, while also mitigating the J-curve effect.

Fig. 6: Strategy Preferences of Sovereign Wealth Funds Investing in Private Equity



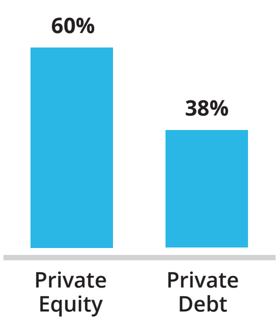
Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 7: Strategy Preferences of Sovereign Wealth Funds Investing in Private Debt



Source: The 2018 Preqin Sovereign Wealth Fund Review

SOVEREIGN WEALTH FUNDS INVESTING IN PRIVATE EQUITY vs. PRIVATE DEBT



PRIVATE DEBT

Seventy-three percent of SWFs target mezzanine vehicles, likely due to the strategy's well-established standing in the private credit market, while many also favour distressed debt and direct lending funds (67% and 57%, Fig. 7). New Mexico State Investment Council's private debt investments in 2017 included a $100mn commitment to Golub Capital Partners 11.

OUTLOOK

SWFs have significantly increased their average target allocation to private equity from 7.8% of total assets in January 2013 to 16.6% in January 2018, with these investors continuing to break barriers and, at times, act as cornerstone investors in funds. Meanwhile, private debt will remain attractive to SWFs in markets where interest rates remain low, and banks continue to face challenges owing to regulatory restrictions placed upon them.

REAL ESTATE ACTIVITY

SWFs are often cornerstone investors in the real estate industry, with ever-growing AUM and increasing influence on financial markets around the world. The majority (62%) of SWFs invest in real estate. This proportion includes some of the world's largest, such as Government Pension Fund Global (GPFG) and GIC, which each allocate over $20bn to the asset class.

Around four in five SWFs gain exposure to real estate through direct investments, which provide them with greater autonomy in the management of their assets (Fig. 8). Sixty-eight percent invest in private real estate funds, which allow institutions to leverage the expertise of fund managers and generally offer greater diversification. In February 2017, Qatar Investment Authority committed $250mn to ArthVeda STAR Fund II.

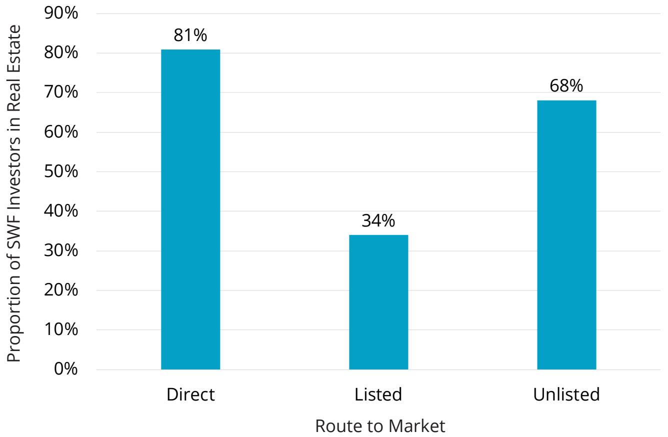
Several trends have emerged in recent years around the type of properties acquired by these institutions, with more investments made in niche real estate (specifically student accommodation), hospitality assets and logistics facilities. In June 2017, China Investment Corporation acquired Logicor, a pan-European logistics company, from Blackstone Group for €12.25bn – the largest real estate transaction completed that year (Fig. 10).

The majority (62%) of SWFs investing in real estate have a global reach for their investments (Fig. 9). North America and Europe remain key regions for investment, each targeted by 68% of SWFs, representing an eight- and five-percentage-point rise respectively from 2017. Asia remains targeted by a notable proportion (55%), including GPFG, which made its first foray into the Asian real estate market in December 2017, acquiring a 70% stake in five Tokyo-based properties in a joint venture with Tokyu Land Corporation for JPY 92.75bn ($865mn).

While investors have faced challenges and uncertainty around a potential market downturn, real estate remains an important component of many SWFs' portfolios. Despite some large economies starting to raise interest rates, the disparity between returns generated by real estate and fixed income remains attractive.

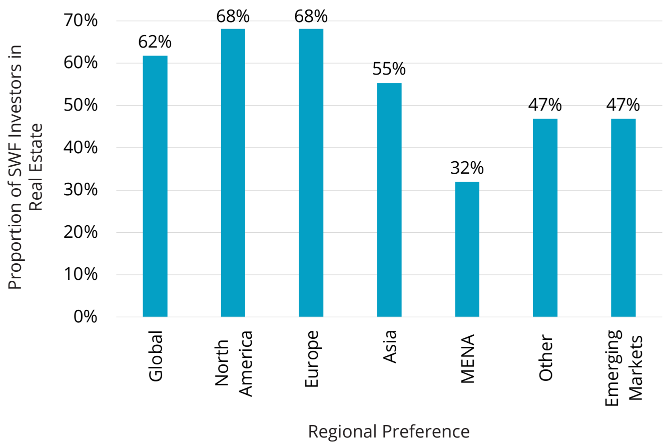
SWFs appear satisfied with real estate and the value it provides: several of these funds have been involved in real estate transactions worth over $1bn throughout 2017 and in early 2018. Such activity highlights their presence within the industry as a major source of institutional capital.

Fig. 8: Sovereign Wealth Funds Investing in Real Estate by Route to Market



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 9: Regional Preferences of Sovereign Wealth Funds Investing in Real Estate



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 10: Sample Real Estate Transactions Completed in 2017-2018 Involving Sovereign Wealth Funds

Asset	Buyer(s)	Seller(s)	Deal Size (mn)	Deal Date
Logicor	China Investment Corporation	Blackstone Group	12,250 EUR	Jun-17
20 Fenchurch Street	LKK Health Products Group	China Investment Corporation, Canary Wharf Group, Morgan Stanley Real Estate Investing, Landsec	1,280 GBP	Jul-17
The Grand Wailea	Blackstone Group	GIC	1,100 USD	Jan-18
Washington, DC, Diversified Portfolio	GIC, Beacon Capital Partners	Unidentified Seller(s)	1,050 USD	Feb-17
Rockefeller Center	China Investment Corporation	CPP Investment Board	1,030 USD	Jan-17

INFRASTRUCTURE ACTIVITY

Infrastructure investments are targeted by the majority (64%) of SWFs, which look to deploy their significant AUM in projects with the aim of stimulating their domestic economies and meeting their development objectives. Furthermore, the inherent long-term lack of liquid assets tied to infrastructure projects and lower liability risk complement the investment horizons of SWFs and their longer-term objectives.

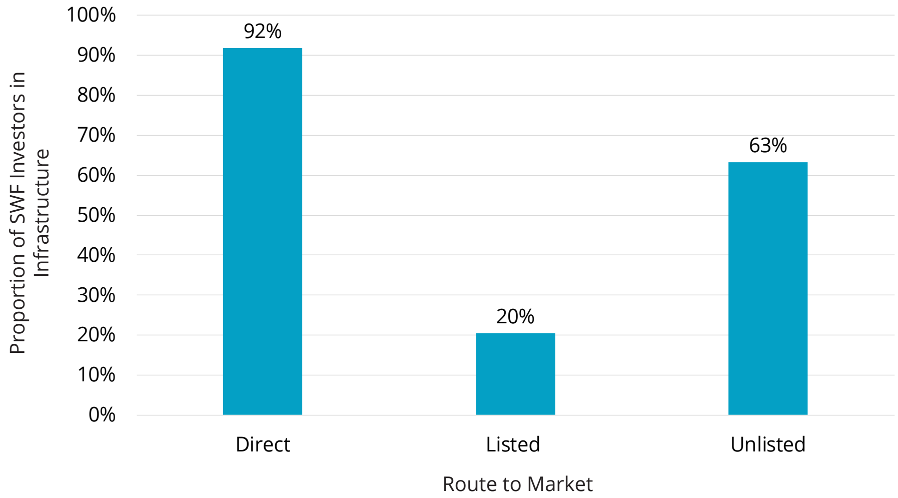
The majority (92%) gain exposure to the asset class through direct investments (Fig. 11), which reflects the primary aim of SWFs to achieve economic and social development goals through the construction of new infrastructure assets, and the expansion and modernization of current ones. Almost two-thirds (63%) access the market through unlisted funds; Alaska Permanent Fund Corporation previously committed $500mn to Global Infrastructure Partners III, the largest unlisted infrastructure fund closed to date.

Greenfield assets remain favoured by the majority (84%) of SWFs (Fig. 12). Such projects naturally carry a higher degree of risk but can potentially deliver stronger yields. Brownfield and secondary-stage investments are also targeted by many SWFs, illustrating the appeal of investing in more mature, established assets, as well as spreading risk across a range of projects.

Over half (57%) of SWFs maintain a global scope for their investments, while the same proportion target Europe and emerging markets (Fig. 12), with interest in the latter on the rise. In January 2018, DP World, a subsidiary of Dubai World, and India-based National Investment and Infrastructure Fund announced the creation of an investment platform to invest in ports, terminals, transportation and logistics businesses in India.

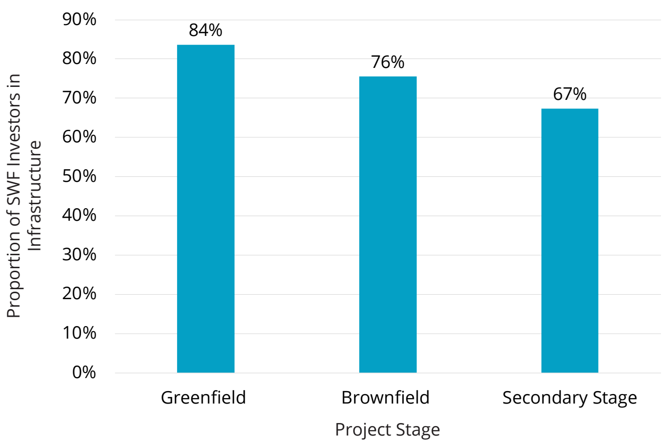
The industry continues to present challenges in the form of increasing competition for assets and the resulting effect of rising asset prices, which are likely to eventually eat into net returns. SWFs are also presented with fewer opportunities to acquire core infrastructure assets and may need to expand their reach to regions outside the developed markets in search of relative value.

Fig. 11: Sovereign Wealth Funds Investing in Infrastructure by Route to Market



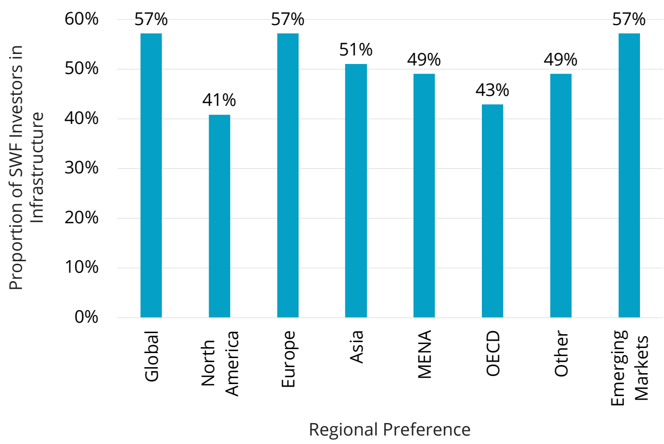
Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 12: Sovereign Wealth Funds Investing in Infrastructure by Project Stage



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 13: Sovereign Wealth Funds Investing in Infrastructure by Regional Preference



Source: The 2018 Preqin Sovereign Wealth Fund Review

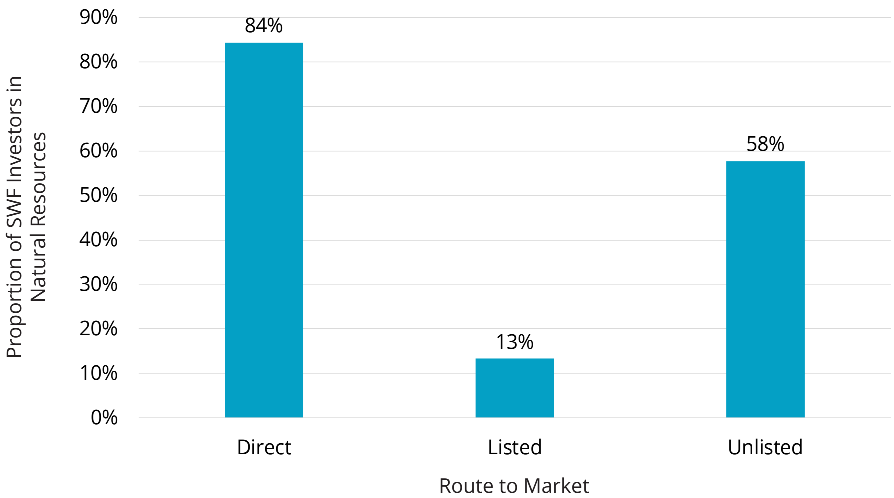
NATURAL RESOURCES ACTIVITY

Many SWFs have created significant revenues from the extraction of hydrocarbons (such as oil and natural gas), while these funds have also recognized the value of additional natural resources investments not only in energy but in agriculture/farmland, metals & mining, timberland and water.

Eighty-four percent of SWFs active in natural resources gain exposure to the asset class through direct investments, while a growing proportion target unlisted funds (Fig. 14). Australia's Future Fund made several investments in 2017, including its acquisition of the 200 MW Silverton Wind Farm project in western New South Wales alongside AGL Energy and QIC.

All SWFs currently investing in natural resources target the energy sector (Fig. 15), with sustained appetite partly reflecting the number of opportunities available in the industry, which typically span a wider range of assets compared to other natural resources sectors. In October 2017, Public Investment Fund and SB Investment Advisers, via its $100bn SoftBank Vision Fund, signed a memorandum of understanding to create 'Solar Energy Plan 2030', a new framework for developing the Saudi Arabian solar energy sector.

Fig. 14: Sovereign Wealth Funds Investing in Natural Resources by Route to Market

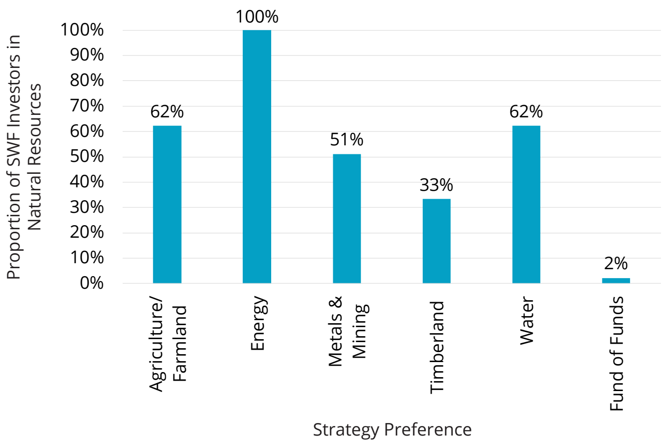


Source: The 2018 Preqin Sovereign Wealth Fund Review

Fifty-three percent of SWFs target investments on a global basis, primarily with the aim of diversifying their portfolios (Fig. 16). The same proportion also look to invest in emerging markets, with Middle Eastern funds such as Dussur well placed to develop these types of projects locally through direct investment. In May 2017, Dussur signed a joint venture agreement with GE, worth more than $270mn, which will help the SWF to localize gas turbine manufacturing and establish a global industrial supply chain for the energy sector.

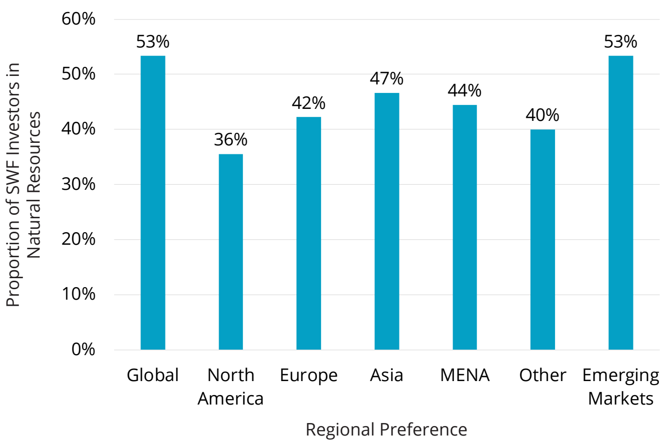
In addition to a focus on energy, most SWFs also target agriculture/farmland, water and metals & mining assets. It is likely that these institutions will continue to diversify their portfolios away from an overreliance on energy, which may result in further investment across other sectors within the natural resources industry.

Fig. 15: Strategy Preferences of Sovereign Wealth Funds Investing in Natural Resources



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 16: Regional Preferences of Sovereign Wealth Funds Investing in Natural Resources



Source: The 2018 Preqin Sovereign Wealth Fund Review

HEDGE FUND ACTIVITY

Constituting a small group of SWFs investing in hedge funds, these large state-owned investment vehicles account for 10% of all institutional capital invested in the asset class, and rely on the industry for a more diversified portfolio.

The proportion of SWFs investing in hedge funds has steadily grown in recent years with 35% currently allocating to the asset class, up from 33% and 32% in 2017 and 2016 respectively. The largest allocator in the group is Abu Dhabi Investment Authority, which allocates approximately $62bn.

Almost all (93% of) SWFs target hedge funds that employ equity strategies (Fig. 17), in recognition of the benefits of the versatility and durability offered by the top-level strategy. More than four in five SWFs target multi-strategy funds, including Korea Investment Corporation, which looks to spread the risk associated with a single-strategy hedge fund across an array of investment vehicles.

A diversified approach in terms of structure is also adopted by a growing proportion of SWFs: 68% look to invest in hedge funds through both direct and fund of hedge funds vehicles, which may reflect the way in which these institutions are growing their expertise in the asset class. Furthermore, 52% of SWFs utilize managed account structures, which allow them to exhibit greater control over their hedge

SOVEREIGN WEALTH FUNDS INVESTING IN HEDGE FUNDS

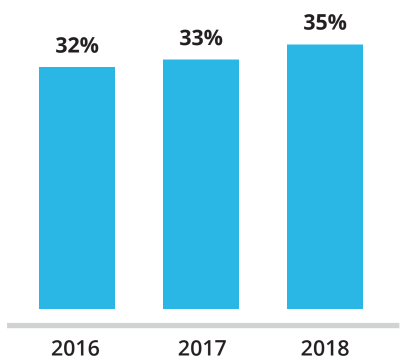
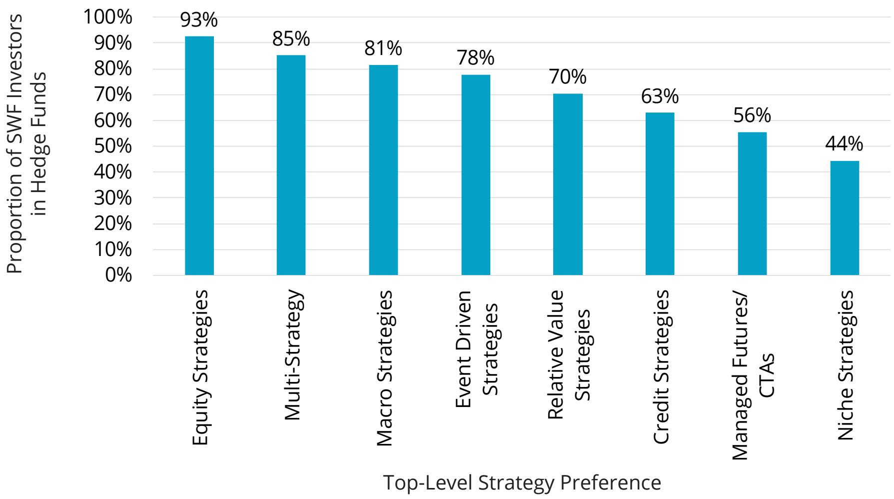
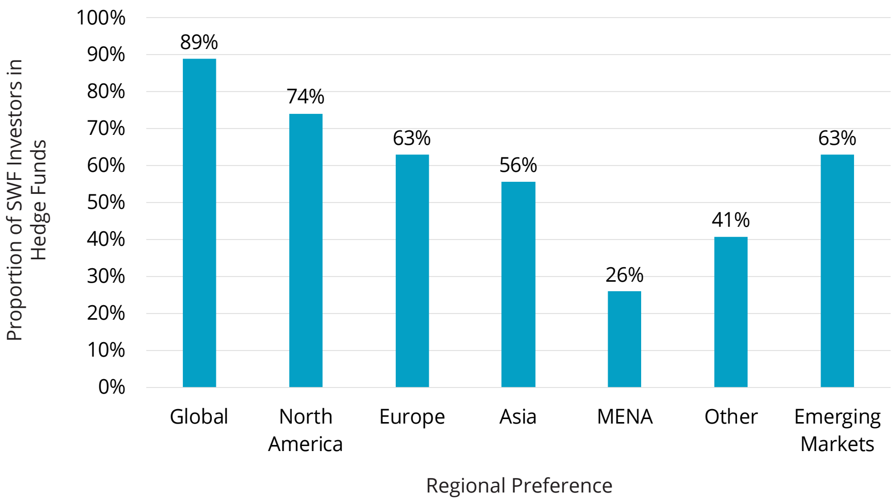


Fig. 17: Top-Level Strategy Preferences of Sovereign Wealth Funds Investing in Hedge Funds



Source: The 2018 Preqin Sovereign Wealth Fund Review

Fig. 18: Regional Preferences of Sovereign Wealth Funds Investing in Hedge Funds



Source: The 2018 Preqin Sovereign Wealth Fund Review

fund investments and to benefit from greater transparency in their underlying holdings.

Eighty-nine percent of SWFs invest in hedge funds on a global scale (Fig. 18), illustrative of the importance of a regionally diversified portfolio for these institutions. While there has been a notable proportional rise in SWFs targeting North America and Europe from the previous year (seven and five percentage points respectively), the same can be said for those seeking investment in emerging markets, rising from 54% to 63% over the same period.

With many SWFs below their target allocations to hedge funds, these investors will likely remain an important source of capital for hedge funds in the long term.

SAMPLE PROFILE

OMAN INVESTMENT FUND

Year Founded: 2006

P.O. Box 329, Muscat, 115, Oman
Tel: +968 246 430 33   Fax: +968 246 913 44   www.oif.om

Oman Investment Fund (OIF) is an investment fund of the Sultanate of Oman and was established in 2006 in accordance with a royal decree. While its sole shareholder is the Government of the Sultanate of Oman, it is governed by the Financial Affairs and Energy Resources Council (FAERC).

KEY CONTACTS

Contact	Position	Telephone	Email
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Mr. Nigel Govett	CFO	+968 246 430 59	nigel@oif.om
Dr. Fabio Scacciavillani	Chief Economist	+968 932 149 78	fabio@oif.om

Source of Capital: Hydrocarbon   **Total Funds under Management:** $6,000mn

Portfolio Allocation	Current (%)	Target (%)
Equities	✓	✓
Fixed Income	✓	✓
Private Equity	✓	✓
Private Debt	✓	✓
Real Estate	✓	✓
Infrastructure	✓	✓
Natural Resources	✓	✓
Hedge Funds	✕	✕
Other Investments	-	-

STRATEGY

The principal strategic objective of OIF is to serve as a source of long-term risk-adjusted returns, and to propagate the acceleration of economic growth within Oman.

OIF has a diverse investment portfolio, investing in both traditional and alternative asset classes both globally and domestically. The sovereign wealth fund invests principally in private equity, and also maintains allocations to equities, fixed income, real estate, infrastructure, private debt and natural resources. OIF gains exposure to a broad range of industry sectors, including engineering, financial services, industrial goods, mining, media & entertainment, telecoms, travel & leisure and utilities. Despite gaining exposure to a variety of alternative assets, the sovereign wealth fund does not yet invest in the hedge fund asset class.

STRATEGY (CONT.)

State-owned investment arms within Oman, such as OIF, are trying to increase the involvement of the private sector in major economic development projects to counteract the financial strain of low oil prices seen in recent years.

In early 2017, OIF began the process of merging with State General Reserve Fund of the Sultanate of Oman. The fund will not disclose details of its investments until the merger has been concluded.

EQUITIES

OIF is an active investor in public equities and will invest on a global scale in medium- and long-term projects. The sovereign wealth fund has a preference for mid-cap and large-cap equities.

Recent Key Event:

2016 In Q4 2016, the Government of Oman transferred its 51% stake in the country's largest telecoms provider, Omantel, to OIF. The move was part of an effort by the Finance Ministry to harness the capabilities and resources of OIF to better manage state assets.

EQUITIES PREFERENCES

Large Cap	✓	Global	✓
Mid Cap	✓	North America	✓
Small Cap	✕	Europe	✓
Indexed	✕	Asia	✓
		MENA	✓
		Other	✓
		Emerging Markets	-

FIXED INCOME

OIF has a small allocation to fixed income securities. The portfolio is entirely invested through investment-grade sovereign bonds, which gives the sovereign wealth fund exposure on a global scale.

REVIEW ALL PROFILES FOR 78 SOVEREIGN WEALTH FUNDS GLOBALLY

The full-length edition of The 2018 Preqin Sovereign Wealth Fund Review contains full investment profiles for 78 sovereign wealth funds, with detailed information on their investment portfolios and activities.

FIXED INCOME PREFERENCES

Government	✓	Global	✓
Corporate	✕	North America	✓
Investment Grade	✓	Europe	✓
High Yield	✕	Asia	✓
		MENA	✓
		Other	✓
		Emerging Markets	-

PRIVATE EQUITY

OIF maintains a considerable allocation to the private equity asset class and is invested both directly and indirectly through private equity funds. The sovereign wealth fund has a preference for buyout and venture capital vehicles, focused on the domestic market. It also gains exposure to global markets. OIF takes an opportunistic approach to the purchasing of funds on the secondary market, but will not consider selling on the secondary market. It is open to investments in spin-offs and to co-investment opportunities.

Recent Key Event:

2016 In Q4 2016, OIF launched the $200mn Oman Technology Fund (OTF) to invest in start-up technology companies around the region and the world. OIF partnered with Atlantic Bridge Capital, 500 Start-ups and Techstarts Ventures to create the fund. Its aim is to attract technology companies to Oman and help transform the country into a tech hub while delivering sustainable returns.

PRIVATE EQUITY PREFERENCES

Direct	✓	Global	✕
Listed	✕	North America	✕
Unlisted	✓	Europe	✓
Co-Investor	✓	Asia	✕
Separate Account	-	MENA	✓
		Other	✕
Buyout	✓	Emerging Markets	✕
Venture Capital	✓		
Growth	✕	Emerging Managers	✓
Turnaround	✕		
Secondaries	✓		
Fund of Funds	✕		
Other Private Equity	✕		

SAMPLE FUND INVESTMENTS

Fund Name	Vintage	Fund Type	Geographic Focus	Size (mn)	Committed (mn)
Cambridge Innovation Capital I	2014	Venture Capital (All Stages)	Europe	50 GBP	-
Cambridge Innovation Capital Fund II	2016	Venture Capital (All Stages)	Europe	75 GBP	-

PRIVATE DEBT

OIF actively invests in the private debt asset class as part of its allocation to private equity. The sovereign wealth fund principally utilizes mezzanine vehicles, but considers other private debt strategies, including direct lending, on an opportunistic basis. Geographically, OIF targets private debt vehicles within MENA and Asia, and has previously targeted Australia-focused funds.

PRIVATE DEBT PREFERENCES

Direct Lending	✓	Global	✕
Distressed Debt	✕	North America	✕
Mezzanine	✓	Europe	✕
Special Situations	✕	Asia	✓
Venture Debt	✕	MENA	✓
Fund of Funds	✕	Other	✓
		Emerging Markets	✓
Co-Investor	✕		
Separate Account	-	Emerging Managers	✕

REAL ESTATE

OIF is highly active within real estate and maintains a real estate portfolio comprised primarily of direct property holdings. The sovereign wealth fund focuses on the domestic property market, but has also been known to acquire international assets. The investment strategy for the asset class is typically in line with Shariah principles. OIF has previously considered entering the private real estate fund arena, and has stated that it would only invest locally in GCC states. It is also known to invest in listed REITs. In 2016, OIF was a cornerstone investor in the IPO of the Manulife U.S. REIT on the Singapore stock exchange.

In line with its strategic aim to accelerate economic growth within Oman, OIF has increasingly targeted real estate investments in the domestic tourism sector. Through its subsidiary, Alila Salalah, OIF has developed Alila Jabal Akhdar, a luxury resort development in Oman.

OIF plans to develop iconic residential and leisure destinations, including Yiti and Yenkit on Muscat's coastline, aiming to set up the Sultanate's own version of the Riviera. The project is proposed to include hotels, affordable to luxurious residential properties and retail and office areas.

PREQIN SPECIAL REPORT: SOVEREIGN WEALTH FUNDS

AUGUST 2018

PREQIN

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- **Fund managers:** fundraising, portfolio monitoring and investor relations
- **Service providers and advisors:** business development and in-depth market knowledge
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