

# How do Sovereign Wealth Funds<sup>1</sup> Invest? A Glance at SWF Asset Allocation

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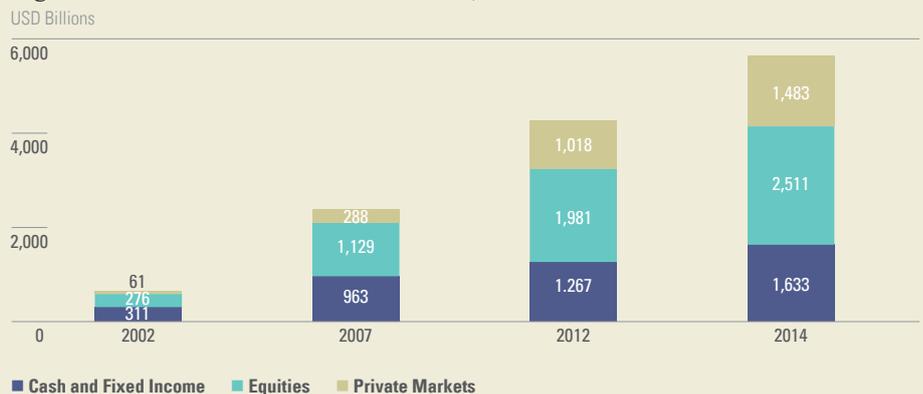
Since the early 2000s, the asset pool among sovereign wealth funds (SWF) has grown exponentially as has the number of newly established funds. We estimate that overall assets have grown about nine-fold from 2002 through 2014. With their unique position as a government agency with policy roles and their position as very large asset owners, the behaviour of SWFs has become the subject of increasing interest. However, there has been little analysis of the evolution of SWF asset allocation on an aggregate level, i.e. as a fund type. This paper seeks to address this issue.

Aggregate analysis of SWF asset allocation is not straightforward, for a number of reasons. The diversity of funds makes SWFs hard to compare and the lack of transparency among some of the largest SWFs is a further complication. Nevertheless, using proprietary research and data from the Sovereign Wealth Centre and IMF,<sup>2</sup> we have created a data series for 39 of the world's largest SWFs, covering over 95% of global sovereign wealth assets. Notably, roughly half of these funds did not exist in 2002. We have restricted asset class definitions to three broad categories: cash and fixed income (grouped together as it is hard to distinguish highly short-term and liquid fixed income instruments<sup>3</sup> from cash accounts); equities; and private markets (mainly real estate, alternatives and private equity<sup>4</sup>).

## Overview

Since 2002, the total assets under management (AUM) for the 39 funds we analysed has grown significantly, from about US\$650 billion to US\$5.5 trillion by the end of 2014. This constitutes a compound annual growth rate of nearly 20%, albeit the majority of this growth came not from investment returns but from balance of payments surpluses due to commodity production or other strong export sectors. Nevertheless, it raises the question of how this growing asset pool has been deployed. Figure 1 illustrates this dramatic nominal growth in SWF assets under management as well as the breakdown along the three main asset classes of cash and fixed income, equities and private markets.

**Figure 1: SWF Asset Allocation Overview, 2002–2014**



Source: SSGA research using Sovereign Wealth Centre data set.

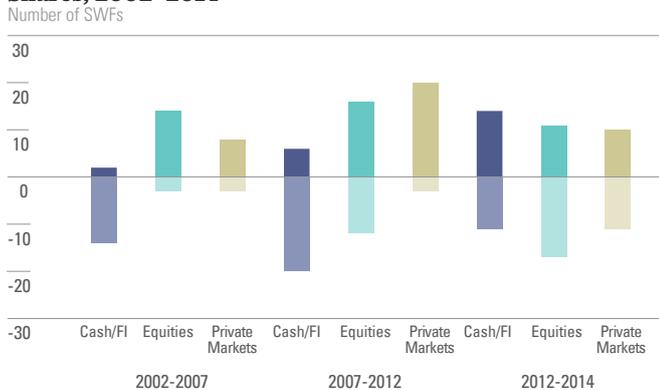
The rapid growth in overall assets resulted in asset-allocation growth across the board. However, the most visible evolution is the increasing allocation to higher-yielding assets. We see three main reasons for this development. First, the market cycle of zero-interest rate policies in the industrialised world has led to fixed income instruments holding

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lower utility for long-term investors. The portfolio reallocation into equities and illiquid alternatives is the theoretical and practical consequence of quantitative easing (QE) — SWFs have thus responded naturally to policy signals. Second, many of the new funds created since 2002, especially between 2007 and 2009, were more explicitly mandated to maximise returns. Hence, these SWFs did not follow the standard evolutionary path of being anchored in highly liquid, highly rated fixed income instruments before gradually broadening their portfolio. And third, established SWFs with a more balanced mandate nonetheless developed the institutional maturity and expertise to venture into more unconventional asset classes. Together, these factors produced a rapid change in investment behaviour.

So do SWFs act similarly or do their idiosyncratic features also mean idiosyncratic investment behaviour? Figure 2 shows that the SWF sector operated nearly in unison during the boom years before the 2008 global financial crisis, but in recent years has increasingly developed polarised approaches to markets. In particular, from 2012–2014, similar numbers of SWFs were decreasing their respective asset-class allocations versus increasing them. Notably, about as many funds increased their stakes in illiquid private investments as those that divested. This stands in great contrast to 2007–2012 where virtually no funds decreased their exposure to that asset class, exhibiting an erstwhile consensus. While they each have their particular

**Figure 2: Number of SWFs changing their Asset-Allocation Shares, 2002–2014**



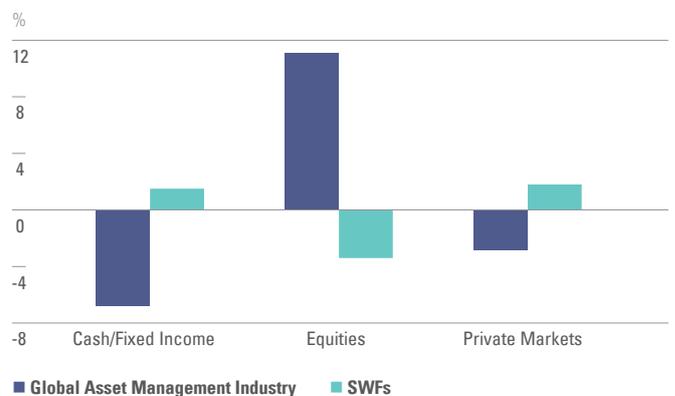
Source: SSGA research using Sovereign Wealth Centre data set. Balance of funds did not change their respective asset allocation during the cited time period.

reasons, it does suggest an increasing divergence of views about market opportunities and portfolio management.

This seeming divergence of views among the SWF sector in recent years does not tell us whether the group — as a whole — diverges from other fund types. It is tempting to conclude that SWFs behave similarly to other large investment vehicles and that their only unusual feature is their relatively young institutional age. However, anecdotal evidence has claimed that

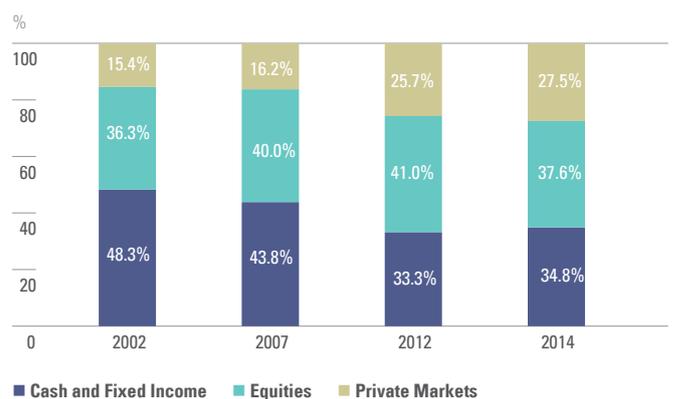
SWFs have been contrarian investors, i.e. they invest contrary to prevailing market sentiment, at least with regard to timing. One popular example would be their large investments in the Western financial institutions in 2007–2008 at the heart of the crisis when all other investors were fleeing financial sector assets. Figure 3 takes a small snapshot and compares the shifts in SWFs' relative asset allocation to that of the global asset management industry. It confirms the impression of contrarian timing. Regrettably, we do not have additional data to compare earlier years and can only speculate on whether the 2012–2014 period was an exception to the rule. The divergence is even starker than the image as the global industry figures include SWF investments placed through external managers.

**Figure 3: Changes in Asset Allocation: SWFs Versus the Global Asset Management Industry, 2012–2014**



Source: For SWF data: SSGA research using Sovereign Wealth Centre and IMF data set. For global asset management industry: P&I/Towers Watson, 500 Largest Asset Managers, November 2015 study, page 7.

**Figure 4: Average SWF Asset Allocation, 2002–2014**



Source: SSGA research using Sovereign Wealth Centre data set. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter.

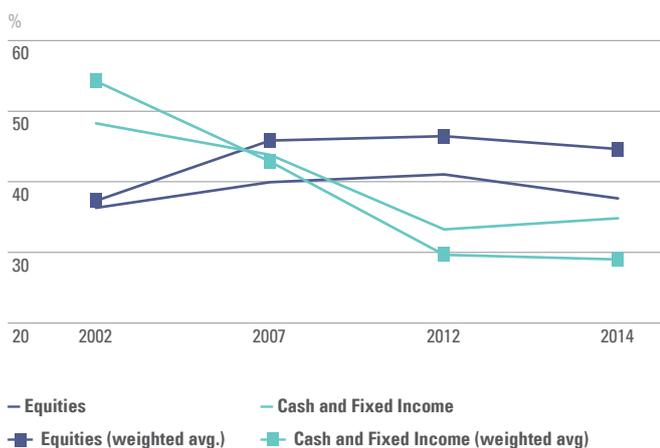
### Asset Allocation Breakdown

On average, what has SWF asset allocation looked like? Figure 4 shows the average asset allocation of SWFs during this period, not weighted by size, i.e. treating each fund equally, whether US\$800+ billion in AUM or less than US\$3 billion.

The breakdown suggests that the initial shift into higher-risk assets<sup>5</sup> occurred from fixed income to public equities, at least from 2002–2007. Thereafter, the post-2008 environment triggered a more rapid shift into alternative assets, with a big jump in allocation to private markets. Despite the slight de-risking from 2012–2014, about two-thirds of assets remain invested in higher-risk assets, with public equities continuing to be the single largest asset class.

However, Figure 5 shows that this trend is more pronounced among larger funds, as illustrated by the different equity/fixed income allocations with a weighted average, i.e. the average computed in proportion of the fund size (AUM). The result demonstrates that the 10 largest funds, covering 80% of total AUM and therefore constituting a very concentrated share of the total, entered more eagerly into equities than smaller funds and were satisfied with lower levels of fixed income allocation. This suggests that larger funds may have higher risk tolerance than smaller ones. One can clearly conclude that large funds shifted their emphasis early and massively towards equities and away from fixed income to a greater extent than the average. The greater risk tolerance of larger funds can be partially explained by the fact that they can service any potential short-term liabilities comfortably from a proportionally lower cash/fixed income position than smaller funds. They also tend to be older and more institutionally developed, enabling them to respond more efficiently to market developments in recent years.

**Figure 5: Weighted Average SWF Asset Allocation in Equities and Fixed Income, 2002–2014**

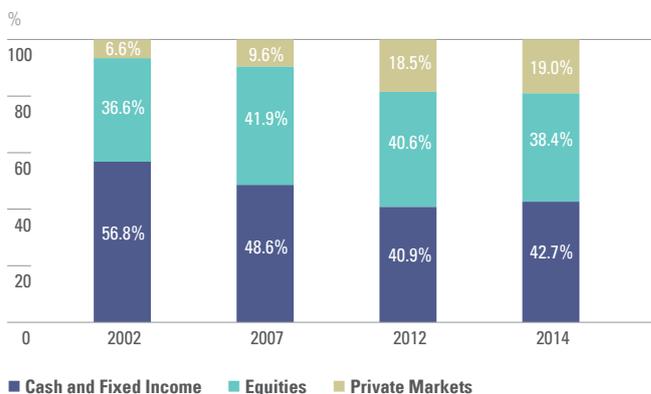


Source: SSGA research using Sovereign Wealth Centre data set.

### Commodity Savings Funds

At this point, one should recall that not all SWFs are alike: in fact, many differ profoundly in mission. According to the IMF, there are five classifications of SWFs: 1) stabilisation fund; 2) savings fund; 3) development fund; 4) pension reserve fund and 5) reserve investment corporation.<sup>6</sup> In this paper, we have excluded pure stabilisation funds (‘rainy day’ funds simply to act as a fiscal buffer in downturns) given that their investment mandates are fundamentally different from the rest and need to be able to provide liquidity on short notice. We should also note that development funds are strategic investment funds<sup>7</sup> where typically 50% or more of their investments are in national companies (i.e. defined as a private equity stake). Pension reserve funds and reserve investment corporations are yield-seeking, long-term investors so both types tend to also have disproportionate levels of assets allocated to private markets. Consequently, it can be useful to look only at savings funds (generated by commodity wealth<sup>8</sup>). This leaves us with 20 fairly similar funds whose asset allocation has evolved more gradually in the past 12 years. Figure 6 suggests that savings funds have stabilised near a 40–40–20 asset allocation to cash & fixed income, equities and private markets, respectively.

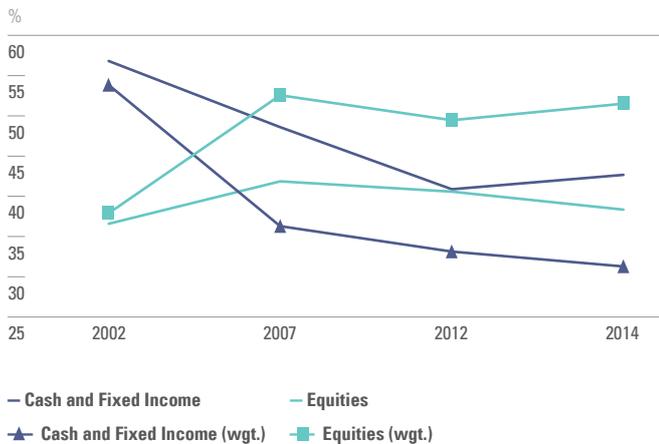
**Figure 6: Average Commodity Savings Fund Asset Allocation 2002–2014**



Source: SSGA research using Sovereign Wealth Centre data set.

Here too the question emerges as to whether fund size is a significant predictor of different behaviour. The answer is more pronounced among savings funds than among the SWF industry as a whole depicted in Figure 5. The level of concentration is similar to the whole group, with a quarter of the funds holding about 80% of all assets. Figure 7 shows the weighted average of savings funds in their main equity/fixed income distribution. Once again, it is clear that large funds shifted their emphasis, earlier on and considerably, towards equities and away from fixed income to a far greater extent than the average.

**Figure 7: Average Commodity Savings Fund Asset Allocation 2002–2014**



Source: SSGA research using Sovereign Wealth Centre data set.

### Initial Conclusions

This short overview is a small part of a much larger debate. Nevertheless, we believe it confirms three widely held assertions, the details of which should be of no surprise to seasoned observers:

**More Yield** the rapid growth of assets over the past decade-plus has been accompanied by a shift into higher-risk and higher-yield asset classes. By and large, this parallels broader market trends among large asset owners, but it also suggests that as these relatively young institutions evolve, they increasingly leverage their long-term investment horizon to operate higher-yielding and less liquid investment strategies.

**Size Matters** the larger funds tend to accentuate overall trends. More assets under management seem to give SWF investors more freedom and a greater ability to be early movers. While true in the aggregate, this does not necessarily apply consistently. For example, the world’s largest SWF, Norway’s Government Pension Fund, embraced public equities early but has been slow to integrate private investments into its portfolio.

**SWFs Appear to be Contrarians** While we could point to only one recent time period, the opposite trends among SWFs and the larger asset management industry are remarkable. We can only speculate on the reasons for this divergence, but long-term thinking and fewer tangible liabilities presumably allow SWFs to detach investment decisions from short-term market cycles.

### Sources and Definitions

- <sup>1</sup> We use the IMF definition of Sovereign Wealth Funds which defines them as special purpose investment funds or arrangements, owned by the general government. Created by the general government for macroeconomic purposes, SWFs hold, manage, or administer assets to achieve financial objectives, and employ a set of investment strategies which include investing in foreign financial assets.
- <sup>2</sup> All asset allocation data presented in this paper is based on SSGA proprietary research and estimates. However, it draws on the original database provided by the Sovereign Wealth Centre and using IMF reported data as reference values. In this regard, the years provided were not arbitrarily chosen but resulted from being the only years where complete and comparable datasets were able to be constructed.
- <sup>3</sup> Highly short-term and liquid fixed income instruments refers to conventional securities such as short-term treasuries and money market funds.
- <sup>4</sup> Such as direct illiquid stakes in private companies, hedge funds project finance or infrastructure, among others.
- <sup>5</sup> Higher risk assets are typically understood as being characterized by higher price volatility.
- <sup>6</sup> IMF Working Paper WP 13/231, Sovereign Wealth Funds: Aspects of Governance Structures and Investment Management. Authors: Abdullah al-Hassan, Michael Papaioannou, Martin Skancke, Cheng Chih Sung. As of November 2013.
- <sup>7</sup> These funds are designed to channel investment into areas of policy priority, typically in sectors with socio-economic importance, such as infrastructure.
- <sup>8</sup> Commodity wealth refers to wealth generated by the abundance of natural commodities with a developed production and distribution infrastructure.

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#### Commodity Savings Funds

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