1. SWFs and State investments:

A preliminary general overview*

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The borderline between public and private domains in the economy is constantly shifting. Historically governments have intervened in many ways to influence production, labour relationships and often have exerted a direct influence in the economy, e.g. through state-owned enterprises or industrial policy, in order to attain their objectives.

Sovereign Wealth Funds (SWFs) represent a novelty because, in a nutshell, they are state owned but operate as private entities in financial markets. In fact, SWFs must exhibit two main characteristics: (a) being owned by a state or a public body (e.g. a central bank or a ministry); and (b) adopting investment objectives, strategies and practices typical of private financial institutions. This represents a sea change from the old-fashioned public company engaged in (often) loss-making operations to appease vested interests, maintain the social status quo or, more bluntly, to dispense politically motivated patronage and favours. The success and the spread of SWFs prove that the power and effectiveness of financial markets have gained popularity among government officials around the world, without distinctions between democracies, monarchies, collectivist countries and authoritarian regimes.

In this chapter we start by reviewing which institutions can be considered SWFs, what are the macroeconomic drivers of their growth, how they invest in global capital markets and how their role in financial markets has evolved over the last few years. We will conclude the chapter with a discussion on what we can expect in the future with regard to the management of ‘sovereign wealth’.

* The views expressed in this chapter must be attributed solely to the authors, as they do not, in any way, represent the official positions of the institutions or governments to which they are affiliated.

1. WHAT ARE SWFS?

SWFs cannot be considered a homogeneous set of institutions as they differ in mandates, investment style, openness, size, governance, accountability and strategy. Albeit a precise definition is elusive, SWFs are essentially publicly owned investment vehicles acquiring and managing assets for a specific purpose, e.g. covering budgetary shortfall, providing support in case of adverse shocks or preserving wealth for future generations. Often the media add to the confusion, portraying as SWFs institutions as diverse as central banks, pension funds, development banks, foundations, state-owned enterprises and even royal family offices.

Historically, SWFs were created professionally to invest excess foreign currency (FX) reserves of the central bank, especially of those countries with vast commodity exports and hence displaying an inherent tendency to accumulate a considerable stock of foreign assets. Foreign exchange reserves management hinges on conservative investments in liquid assets, because funds might be needed at extremely short notice to fend off a currency crisis or a sudden (albeit temporary) jolt in outward capital flows. But once the official reserves surpass a certain level, the loss of long-term revenues due to an overly prudent investment style is essentially a waste of forgone, more lucrative opportunities.

In fact, over the last decade, growth in assets managed by SWFs has broadly coincided with the growth in foreign exchange reserves currently amounting to about USD 12 trillion globally. In short, the opportunity cost associated with the limited portfolio diversification typical of the central bank reserves, induces the establishment of an SWF targeting higher returns.

Hence, embracing a broad definition, an SWF is state funded and managed (directly or indirectly) in the interest of its sponsoring country. But a host of more elaborate (some may say cumbersome) characterizations have been proposed.

The International Monetary Fund (IMF) has categorized SWFs as: (i) special investment funds; (ii) created or owned by governments; (iii) to hold foreign assets for long-term purposes. The Organisation for Economic Co-operation and Development adopts simpler criteria: (i) government-owned investment vehicles; (ii) funded by foreign exchange assets. Analogously an Occasional Paper by the European Central Bank states that SWFs are (i) public investment agencies; (ii) which manage part of the (foreign) assets of national states. US Under Secretary for International Affairs (Clay Lowery) added to the OECD's criteria a third one, namely (iii) which manages assets separately from official reserves.

The IMF Balance of Payment Manual provides a more rigorous definition¹ noting that

governments create: i) special purpose government funds, usually called *Sovereign Wealth Funds*; ii) to hold, manage or administer assets to achieve financial objectives, which include investing in foreign financial assets; iii) the funds are commonly established out of balance of payments surpluses, official foreign currency operations, the process of *privatisations*, fiscal surpluses, and/or receipts resulting from commodity exports.

According to the IMF, ‘a key determination is whether some legal or administrative guidance results in the assets being encumbered in a way that precludes their ready availability to the monetary authorities’.² This is what would differentiate SWFs’ assets from FX central bank reserves readily available for monetary or foreign exchange rate actions.

In the Santiago Principles SWFs are defined 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. The SWFs are commonly established out of balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, fiscal surpluses, and/or receipts resulting from commodity exports.

In other words, in addition to being state owned the assets of SWFs are de facto and de lege separate from other public assets (primarily official reserves), in order to pursue specific objectives defined by political bodies. Hence legal provisions prohibit other public entities from gaining access to SWFs’ assets.

Another source of ambiguity and misunderstanding originates from the fact that in addition to SWFs, which operate under a broad mandate, some countries have created state-owned enterprises (SOEs) managing activities and investments in specific sectors. For example, in Qatar, Barwa and Qatar Diar operate in real estate domestically and worldwide. Dubai Port World focuses on transport facilities and logistics. Saudi Arabia’s Sabic is a large petrochemical and basic industries conglomerate. Oman’s Omran covers projects in tourism.

The distinction between the SWFs and SOEs is clear, but this does not exclude the possibility that they might operate jointly. A notable example

¹ IMF (2013) paragraph 6.93.

² Ibid, paragraph 6.94.

highlights this development: Qatar Telecom (Qtel) formed a joint venture with the Qatar Investment Authority, which in turn acquired a 55 per cent stake in Qtel (now Ooredoo). Qtel's Chairman stated that the venture in turn would invest in foreign telecoms and IT companies.

Although SWFs are maintained as separate entities, central banks have increasingly been running what could be considered shadow SWFs as part of their reserve management. The largest of these entities is run by the Saudi Arabian Monetary Agency, but also the Hong Kong Monetary Authority manages a large pool of funds (see 2.4). Actually after the Lehman demise and the rock bottom interest rates that have prevailed since then, most central banks have stepped up the active management of their reserves. Many have extended the duration of their fixed-income holdings, but more importantly they are shifting to equities and in some cases to alternative asset classes such as real estate and hedge funds.

In this respect the EU Commission noted that

since SWFs are managed independently from a country's foreign exchange reserves, they are excluded from transparency mechanisms such as the IMF maintains for foreign exchange reserves The extension of specific transparency standards to SWFs should be considered. Existing IMF and OECD guidelines already contain such standards, and some SWFs, such as those of Norway and Singapore are governed by principles which could be seen as a reference. However, SWFs should not be expected to follow transparency practices going beyond those developed by the IMF and the OECD and already applicable to similar state-owned investors.³

An alternative method to identify SWFs is to define them by exclusion. In this respect State Street, an asset manager, proposes classifying SWFs as: (a) sovereign-owned asset pools; (b) which are neither traditional public pension funds nor traditional reserves assets supporting national currencies. Accordingly institutions are labelled as SWFs (irrespective of their other characteristics) as long as they are managed (directly or indirectly) to pursue public policy tasks other than those related to monetary or exchange policies, public pension systems/schemes, or precautionary functions such as bank deposits insurance or disaster relief.⁴

³ European Commission, 'A Common European Approach to Sovereign Wealth Funds', Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Brussels 2008.

⁴ State Street, *Sovereign Wealth Funds, Assessing the Impact*, July 2008. See also www.statestreetglobalmarkets.com/wps/portal/internet/ssgm/home/industrysegments/sovereignwealthfunds/overview!/ut/p/c4/fc6xDoIwGATgR-oV

Furthermore, a crucial distinguishing element of SWFs is that (as stressed in an ECB Occasional Paper) ‘they have no or only very limited liabilities’ (or liabilities with a long maturity) allowing for (or at least favouring) the pursuit of heterogeneous macroeconomic objectives also through: a) a wide range of investment strategies with a medium- to long-term timescale; b) higher risk taking behaviour; c) foreign investments’.⁵

To summarize, somehow, all the above definitions, an SWF is: (a) a publicly owned portfolio of real and financial assets (both foreign and domestic); (b) legally, financially and operationally separated from other public assets and liabilities; (c) available to political bodies (other than the central bank or the monetary authority) to achieve public objectives;⁶ (d) unburdened by explicit or legally mandated current or future liabilities.

As to point (b) an effective ring-fencing (e.g. as suggested by Mezzacapo (2009)) hinges on ‘Physical Separation’, ‘Organisational Separation’ and ‘Behavioural Separation’, in particular: (i) separate legal entities or ownership structures; (ii) financial, accounting and reporting separation; (iii) ‘Chinese’ walls and operational autonomy between SWFs and other public institutions.

As a final remark we stress that SWFs are institutions that by and large operate in an international financial environment imbued with free market practices and principles. This does not necessarily imply that the sponsoring government embraces or abides by these same principles at home. In other words, a state which repeals free markets might at the same time exploit global financial markets to reach its goals.

2. SIZE AND GROWTH OF SWFS

The first example of an SWF was an investment vehicle created in 1956 in the Gilbert Islands to manage the export revenues of phosphates. For those with a penchant for details, we remind that the Gilbert Islands at the time were a British colony, so the fund was not ‘sovereign’.

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⁵ Beck and Fidora (2008).

⁶ As observed earlier these objectives mainly comprise (a) cushioning the budget from excess volatility in revenues, (b) accumulating funds for the benefit of future generations, (c) economic and social development in a broad connotation.

Nowadays, it is worth about half a billion dollars and the Gilbert Islands have become a sovereign state, Kiribati. There is an even older example of a state-owned investment vehicle, the California Public Employees Retirement System, better known as CalPERS. However, CalPERS is not an SWF because it is funded by the pension contributions paid by civil servants, not by revenues or reserves accumulated by the government, and has future liabilities vis-à-vis its members.

Kuwait in 1960 launched the General Reserve, followed in 1973 by the Future Generations Fund, endowed with 50 per cent of the General Reserve and also 10 per cent of the yearly budget surplus. In 1982 the Kuwaiti government decided to consolidate all the assets held by the Ministry of Finance, as well as the General Reserve and the Future Generations Fund, under the Kuwait Investment Authority (KIA). Other SWFs managing sizeable resources were established during the oil price boom of the early 1970s when Middle Eastern oil exporters, following the example of Kuwait, started diversifying their current account surpluses by purchasing foreign assets. The Abu Dhabi Investment Authority (ADIA), for instance, was established in 1976 by Sheikh Zayed bin Sultan Al Nahyan, the founder of the United Arab Emirates to invest government surpluses across low-risk asset classes. At the time it was novel for a government to invest its reserves in anything other than gold or short-term bonds.

Nearly 50 nations currently have an institution that can be categorized as an SWF. The majority are not even remotely linked to commodity-producing countries, as in the case of Singapore, South Korea, China and Ireland. In other words the emergence of SWFs is a global phenomenon. At year-end 2013, according to the Sovereign Wealth Fund Institute, SWFs had USD 6.1 trillion in assets under management with commodity-exporting economies accounting for about two-thirds of the total.⁷ Among SWFs, asset concentration is high: the 11 SWFs with assets under management (AUM) larger than USD 100 billion account for nearly 80 per cent of the total. The largest SWF is the Government

⁷ The total size of assets managed by SWFs is a matter of speculation because some SWFs do not disclose the exact size of their assets under management. A further factor of uncertainty is the lack of a unique definition of SWFs; therefore one can find different estimates depending on which institutions are included. Broadly speaking, estimates of assets managed by SWFs at the end of 2013 range between USD 4 and 6 trillion depending on which data source is used. In this chapter we will refer to the data provided by the Sovereign Wealth Fund Institute (latest estimates are available on the website of the SWFI, www.swfi.com).

Pension Fund of Norway (GPFN) with nearly USD 900 billion of AUM; according to current projections this SWF will surpass the USD 1 trillion mark in a few years. ADIA, the Chinese Investment Corporation (CIC) and the Chinese State Administration of Foreign Exchange (SAFE), in charge of managing part of the Chinese FX reserves, manage assets in excess of USD 500 billion. KIA manages more than USD 400 billion, GIC from Singapore manages assets in excess of USD 300 billion and the Qatar Investment Authority (QIA) manage just under USD 200 billion.

2.1 The Rise of SWFs Reflects the Shifting of the Global Economy Towards Emerging Markets

Although SWFs have been in existence for decades they have acquired a higher profile over the last decade for two main reasons: a wave of high-profile acquisitions which attracted the attention of international media and, more importantly, a relentless surge in their AUM. The rapid growth in assets managed by these institutions stemmed from two interrelated developments: (a) a worldwide surge in raw materials and commodity prices (not only hydrocarbons), dubbed by some a super-cycle; (b) the rise of emerging markets (in particular India and China) where the demographic wave, thanks to capital inflows, is propelling rapid economic growth and the expansion of the middle class.

In particular, SWFs' rapid development mainly reflects the significant shift of emerging economies from the world's debtors to the world's creditors. Indeed throughout the second half of the twentieth century, emerging economies ran current account deficits and as a consequence imported foreign capital; nevertheless, in 1999, the emerging world as a whole began to run a current account surplus and export capital to the rest of the world. In fact, the common denominator of countries with an SWF is that they post a current account surplus stemming from large exports of commodities or manufactured goods. The combined current account surplus of the more than 30 countries with an established SWF increased from a yearly average of USD 50 billion in the 1990s to more than USD 500 billion in 2000–10. In 2008, the peak year, before the global crisis hit the global economy, their combined current surplus was in excess of USD 1 trillion. After the recession, current account surpluses shrank but remained large by historical standards, particularly in oil-exporting economies as oil prices stabilized at around or above USD 100 per barrel.⁸

⁸ Castelli and Scacciavillani (2012).

A country with a current account surplus must invest its surplus abroad. Conversely countries with a current account deficit, i.e. net importers, need external credit to buy foreign goods and services. Inevitably, part of the revenues earned by exporters finds its way to foreign bank deposits, foreign stock markets, foreign sovereign or corporate bonds, foreign real estate, etc. For each dollar (or euro or yen or yuan) of current account surplus there is a dollar of foreign assets that the exporting country piles up, corresponding to a dollar of foreign liabilities for the importers.

In market economies these foreign assets are predominantly accumulated by the private sector. For instance, the current account surplus of Germany (the largest in the world in absolute terms) has not translated into soaring FX reserves because it is largely held by corporations and individuals. In commodities-exporting countries where the natural resources are owned by the state, the stock of foreign assets ends up in public hands. For different reasons the same happens when a country adopts an exchange policy favouring its export sector. The foreign currency acquired to devalue the domestic currency ends up in the central bank coffers as a result of so-called sterilisation, that is, the mopping up of the extra liquidity created via interventions in the currency market.

When a country starts accruing reserves in excess of what is required for monetary policy or precautionary purposes, it is very often the case that it opts for the establishment of a separate entity in charge of investing in more risky and less liquid financial and real assets with a long-term investment horizon.⁹ Such an approach has several advantages when compared to a situation where the central bank is in charge of managing both the liquid and the investment tranches of FX reserves. From an institutional point of view, given that excess reserves have to be invested in a wide range of asset classes, it is easier for a separate SWF to attract from the private sector individuals with the right skills and capabilities. Central banks can face resistance among public officials and their trade unions to pay market-level salaries to financial specialists from the private sector. Additionally, from a political point of view, it is not easy for a central bank to justify the inevitable losses incurred from time to time when investing in less liquid and riskier assets such as equities or hedge funds. Finally, there are other factors behind the recent proliferation of SWFs not necessarily related to the pursuit of smarter investments. For instance, a country might decide to set up an SWF in order to create a centre of excellence capable of undertaking large and complicated infrastructure investments or attracting foreign investments. We will come back to this issue in Section 4.

⁹ Saidi and Scacciavillani (2011).

2.2 Will the Growth in Assets Managed by SWFs Continue in the Future?

Will the growth in assets managed by SWFs experienced over the last decade continue in the future? The answer depends largely on whether and how fast FX reserves will eventually grow over the next years and whether the diversification of FX reserves trend will continue. This is the approach we adopted in Castelli and Scacciavillani,¹⁰ where we estimated that, in a scenario of low nominal yields investment returns (as indeed has been the case over the past two years), the AUM by SWFs globally would amount to USD 6,144 billion in 2013; the actual figure as provided by the Sovereign Wealth Fund Institute for 2013¹¹ turned out to be USD 6.1 trillion. If we replicate our exercise by 2016, in the low nominal returns scenario, assets managed by SWFs will amount to USD 8.7 trillion. In a higher returns scenario, the total size of AUM by SWFs could reach nearly USD 10 trillion.

There are several reasons to believe that the rise in FX reserves will continue in future, though at a much slower pace than that experienced over the last two decades. First of all, large current account surpluses in oil-exporting countries will persist. For large exporters in emerging markets these imbalances shrank after the global recession, but once the global economy reverts to its long-term potential the tendency to grow will resume, although for some countries, notably China, there is a distinct possibility that their current account surplus could shrink.

In essence, two key variables will determine the future developments of the global stock of FX reserves: the pace of financial liberalisation in China and oil prices.¹² As mentioned above, Chinese FX reserves account for a third of global reserves and Chinese SWFs already manage more than USD 1 trillion. China is on the verge of major structural changes in its growth model involving fundamental structural reforms, including capital account liberalisation, which could dent the pace of FX reserves accumulation going forward. Oil prices are the fundamental driver of wealth accumulation for the Middle Eastern oil exporters, accounting for a substantial share of FX reserves (and assets managed by SWFs). The economic slowdown in China and shale hydrocarbons production in the US point to a period of weakness in energy prices. As a result some argue that the commodity ‘super-cycle’ has now run its course. Should

¹⁰ Castelli and Scacciavillani (2012).

¹¹ Institute for International Economics, Policy Brief No. PB08-3, Washington DC.

¹² Castelli (2013).

this be the case, several commodities exporters would be forced to rely for a while on accumulated wealth to sustain their rising domestic expenditures.

3. SWFS AS INVESTORS IN GLOBAL CAPITAL MARKETS

SWFs comprise very different financial institutions in terms of policy mandate, investment objectives, asset allocation and risk appetite.¹³ This distinction is of fundamental importance to understanding their investment behaviour and operational style.

3.1 Variety of SWF Models

In Figure 1.1 we illustrate the so-called risk-return profile of three different types of SWF: reserve investment corporations, stabilization funds and saving funds. At the bottom of the risk tolerance spectrum, we find reserve investment corporations. These institutions manage the FX reserves of central banks and their primary task is liquidity management through better diversification but within tight risk constraints and with a relatively short-term investment horizon (one to three years). Compared with central banks, which invest the majority of their reserves in government bonds, reserve investment corporations invest in a wider range of asset classes including corporate bonds and equities. The two best-known institutions falling into this category are the Hong Kong Monetary Authority (HKMA), which manages an Investment Portfolio in addition to the Liquidity Portfolio, and SAFE, an arm of the People's Bank of China that manages part of its huge FX reserves.

In the middle part of the risk-return spectrum we find the so-called stabilization funds. These SWFs are generally established by commodity-exporting economies and their primary policy goal is to provide a fiscal back-up during periods of depressed commodity prices or in the presence of adverse macroeconomic shocks. Examples of stabilization funds are the Kazakhstan National Fund, the Chilean Social Fund and the Russian Reserve Fund. These funds have an investment profile broadly similar to a reserve investment corporation as they also have a relatively short investment horizon: funds might be needed at short notice from the government to fill gaps in revenues. However, it is not unusual for

¹³ This section is largely based on Chapter 3 of Castelli and Scacciavillani (2012).

Figure 1.1 Risk-return spectrum for reserve corporations, stabilization and saving funds

stabilization funds to also invest in less liquid asset classes such as real estate or hedge funds in order to prop up returns when commodities prices are stable.

At the top of the risk-return spectrum we find so-called saving or future funds. These funds manage the bulk of the total assets managed by SWFs globally and often grab media attention for their multibillion investments. Their main investment goal is return maximization, hence they have a long investment horizon and no liquidity constraints. As mentioned they also invest through direct investments in listed or unlisted corporations or in real estate. Saving funds are among the largest SWFs in terms of AUM and include entities such as the Norwegian Government Pension Fund Global (GPF), the largest SWF in the world, ADIA, CIC and GIC from Singapore. In some cases, the stabilization and saving funds are managed within the same institution: for instance, the KIA has both a stabilisation and a saving investment mandate. Saving funds are the ‘true’ SWFs in the sense that they are institutions without any (explicit) liability and as such can in principle invest with a very long-term investment horizon. This is what makes these institutions different from other institutional investors such as pension or insurance funds. From an investment perspective, these institutions can invest when other institutions are forced to sell (i.e. they can follow an anti-cyclical investment behaviour) and they can invest a large share of their assets in illiquid asset classes such as private equity or infrastructure.

Some of these SWFs are a sort of pension reserve fund, because more or less explicitly, their AUM represent an additional source of funds to cushion the impact of demographic changes on public pension systems.

Examples of these funds are the Norwegian GPF as originally designed, the Australian Future Fund or the New Zealand Superannuation Fund. Despite having an explicit liability mandate, their strategy is broadly similar to saving funds. In fact their liabilities are loosely defined with a generic reference to fill up gaps in public pension systems, but without specific guidelines in terms of modalities and timing.

Reserve investment corporations, stabilization funds, saving funds and pension reserve funds, while diverse in terms of their risk-return profile, share a common feature: they can broadly be defined as asset managers in the sense that they have an investment approach similar to other institutional investors such as pension funds or so-called endowment funds (e.g. university funds or charities). As such, the majority of their assets are invested in global capital markets and are blended with those of thousands of pension funds and other institutional investors.

However, some of the largest SWFs have reached such a magnitude that their holdings often represent a significant proportion of an asset class. For instance, the Norwegian GPF, which invests in listed equities largely passively (i.e. by holding shares of different companies in the same proportion as the underlying market capitalization share), is estimated to hold on average more than 1 per cent in every major stock market around the world. Given its rapid growth in the last few years, it has recently increased the threshold for investing in European listed corporations to 5 per cent and a more active investment approach is being considered. Given the rise in the assets managed by SWFs over the last decade, there is some evidence that SWFs are generally becoming more active in terms of asset management.

The fifth group of SWFs comprises institutions of a different nature i.e. investment holding companies. Sometimes defined as social development funds, their mandate goes well beyond obtaining a decent return on assets and includes objectives such as the launch of specific industries, the diversification of an oil-dependent economy or poverty alleviation. Well-known institutions falling into this category are Temasek in Singapore and Mubadala in the United Arab Emirates. Section 4 will provide an extensive overview of them.

3.2 SWFs' Direct Investments Have Risen Dramatically Over the Years

The key distinctive feature of investing holding companies is that they invest the bulk of their assets via strategic or direct (i.e. without the intermediation of a financial institution such as a bank or an asset manager) investments in listed or unlisted corporations. However, this is

not their exclusive prerogative: over the last decade many saving funds and some stabilization funds have also made direct investments by acquiring strategic stakes in large corporations, directly subscribing to initial public offerings (IPO) or acquiring large building complexes in Western cities. As shown in Figure 1.2, the rise of SWFs' direct investments has been dramatic over the last decade: in early 2000, SWFs' direct investments amounted to less than USD 2 billion; in 2008, when SWFs hit the news for their direct investments in Western banks during the financial crisis, they amounted to more than USD 110 billion. Since then SWFs' direct investments have averaged about USD 50 billion per year and more than 200 deals per year have been carried out by SWFs globally.¹⁴ The most active SWFs in the area of direct investments are the QIA, GIC, ADIA, CIC, Temasek, Mubadala and KIA. The sectors which have traditionally attracted the bulk of SWFs' direct investments have been real estate, financial services and the energy sector but also, more recently, traditional industries such as manufacturing and tourism.

Note: Publicly available data for direct SWF equity and real estate deals, joint ventures and capital injections.

Source: Sovereign Investment Lab, Università Bocconi

Figure 1.2 Direct SWF investments in 2000–13

Why such an increase over the last decade? Does it reflect a more active use of SWFs by their sponsoring governments for ulterior motives as sometimes argued by some Western politicians? The primary factor behind the rise in SWFs' direct investment is the increase in their number and the dramatic rise in their AUM over the last decade. Direct

¹⁴ Bocconi University (2014).

investments have in fact a venerable tradition for SWFs: as early as the 1970s the KIA made a large investment in Daimler and the Libyan Arab Foreign Investment company (LAFICO) in FIAT, the largest Italian automotive company. In the 1980s the KIA took a share of 10 per cent in the privatization of British Petroleum.

Secondly, the rise of direct investments also involves other sophisticated institutional investors such as large pension funds, insurance funds and endowment funds searching for higher returns in the 'low yield' environment through a more aggressive asset allocation. This investment approach reflects how portfolio allocation by large institutional investors has changed through time: by splitting the portfolio into two parts, (a) the 'core' is invested passively in public markets (i.e. listed bonds and equities), managed internally or at very low cost by external managers; (b) a smaller 'satellite' portfolio is invested in more eclectic, less liquid investments including direct investments with higher return potential. For instance, ADIA invests the bulk of its assets passively, but also has the ability to pursue strategic or opportunistic investments worth several billion dollars.

Last but not least, direct investments are a reflection of the SWFs' relatively high allocation to emerging markets. According to data provided by Bocconi University,¹⁵ over the period 2009–13 SWFs' direct investments in non-OECD countries averaged more than 40 per cent, a relatively high percentage when compared to other institutional investors. Public equities markets in emerging economies are often underdeveloped and opaque: direct investments are often the best way to capture the upside in these economies. As long-term investors with a willingness to wait for returns to materialize and high tolerance for risk, SWFs are the ideal candidates to leverage their distinctive position and embrace more aggressively these types of investments.

3.3 SWFs as Long-term Investors

Are SWFs truly long-term investors? A key feature of long-term investors is that they can allocate a large share of their assets into illiquid asset classes such as private equity and real estate, thereby capturing the so-called liquidity premium, i.e. the additional return obtained by investors in exchange for locking funds for an extended period. This is actually true for the majority of saving funds: these institutions allocate to less liquid alternative asset classes a share of their funds often much larger

¹⁵ Ibid.

than that allocated to these investments by pension funds or insurance funds, which are required to match their liabilities with the bulk of their assets.

SWFs also appear to be particularly interested in investing in infrastructure projects with a very long horizon (often more than 10 years and sometimes up to 25 years). Historically, the key provider of long-term financing has been the banking sector; however, due to both cyclical factors (i.e. ongoing deleveraging in Europe) and structural factors (regulatory changes making long-term lending more expensive for banks) over the last few years bank project finance has fallen by 10 to 30 per cent according to estimates by the World Economic Forum. SWFs are the ideal candidates to fill this gap and there is evidence of renewed actions by SWFs in providing lending in infrastructure in both advanced and emerging markets; for instance in 2013 the LIA announced that it was seeking to invest up to USD 5 billion in infrastructure assets in the UK, echoing a similar move by the QIA.¹⁶

Another distinct advantage of long-term investment is the ability to absorb significant market risk, meaning that a fund with a very long investment horizon can tolerate losses in the short term, sticking to its long-term investment strategy during periods of high price volatility in risky assets. While this is true in some cases – for instance when SWFs have been net buyers during recent market sell-offs while other institutional investors such as pension funds were forced to sell – this has not always been the case. The sovereign nature of the wealth managed by SWFs is perceived as a reserve of state-owned capital and this does not make it easy for politicians, often not familiar with financial market intricacies, not to mention the general public, to accept heavy capital losses, whatever the justification might be. For instance, many SWFs have come under heavy public criticism for the losses experienced in their capital injections into Western banks during 2007–08.

4. LATEST TRENDS IN SWFS

Despite the great recession, the systemic fragility of international financial markets has been tackled decisively and as a result a sense of instability prevails. Key issues remain to be solved: ongoing deleveraging, bubbly asset prices, reluctance to address the ‘too big to fail’

¹⁶ Castelli (2014).

conundrum, pro-cyclical banking prudential regulations, opaque accounting practices, fiscal laxity.

SWFs in the early phases of the crisis had been lured into supporting ailing Western banks whose capital had been severely dented by write-downs of subprime loans and complex quasi-derivatives structures dubbed toxic assets (supposedly created with the aim of allocating efficiently financial risks). In a matter of six months (from the last quarter of 2007 to the first quarter of 2008) SWFs invested around USD 70 billion to recapitalize the biggest investment banks in mature economies, a figure that paradoxically is larger than the analogous flow going in the opposite direction as a result of an emerging-markets crisis. During this period, GIC invested more than USD 30 billion in two banks, UBS and Citigroup; the KIA injected about USD 6 billion in Citigroup and Merrill Lynch and then Temasek USD 7.8 billion in Merrill Lynch; ADIA USD 7.5 billion in Citigroup; CIC USD 5 billion in Morgan Stanley. Unsurprisingly, in 2010 the total value of direct investments by SWFs in financials dropped from the level reached in 2008 from USD 96.2 billion to about USD 20 billion. However, the mix of careless risk taking, fraudulent actions, and negligent regulatory oversight, spread much worse havoc when Lehman Brothers collapsed and the SWFs suffered hefty losses.

The scars left by the lifeline thrown in 2007–08 to a basically bankrupt financial sector and the uncertainty surrounding the global economy in the aftermath of the global crisis have prompted a further evolution in how SWFs have operated and invested in global capital markets over the last few years. The most visible change has been a strengthening of their risk management practices and macroeconomic monitoring. It is now common practice among the most sophisticated SWFs to have a fully fledged and comprehensive risk framework encompassing the whole investment process rather than being a mere final notary assessment of the final investment decision. Many SWFs have established research and strategic functions separate from the Chief Investment Officer's department: their key mandate is to challenge the investment decisions through a more deep economic, political and institutional assessment of the countries, markets and industries where funds are invested.

There have been further changes in the recent behaviour of SWFs, often less visible to an outside observer, that are worth exploring in more detail. The sense of disenchantment in the wake of the financial crisis has led to a more careful balance between domestic and foreign portfolio holdings. In these circumstances it is normal that a cost-benefit analysis persuades governments to contemplate domestically focused initiatives as a defensive strategy. For example at present the Gulf Cooperation

Council (GCC) countries in the face of a new bout of global financial crisis would be one of the more resilient areas, thanks to a prudent fiscal stance, accumulated assets and a pipeline of infrastructure investments.

Furthermore, as we will argue extensively, in a hypercompetitive world it is natural for like-minded asset managers to join forces in the pursuit of their objectives. Another notable recent trend, in fact, has been the increasing cooperation among SWFs and between SWFs and other financial institutions such as pension funds and private equity houses.

4.1 SWFs as Development Tools in Domestic Economies

A combination of distrust towards international financial markets and the need to boost domestic GDP amid anaemic global growth has induced governments to add a variety of local development objectives to the tasks of SWFs. Moreover, a number of countries have jumped onto the SWF bandwagon, creating a publicly owned investment fund which adopts market tools to drive domestic investments. These entities have been labelled as Sovereign Development Funds (SDFs).

The idea is hardly new. The most illustrious example is Temasek, which was instrumental in jump-starting key industries in Singapore. Temasek Holding was established in 1974, wholly owned by the government of Singapore. Its main purpose was to take over and manage the state's equity investments in local firms operating in strategically important industries. At its inception Temasek held majority stakes in 35 companies spanning sectors as diverse as shipping, public utilities and telecommunications. By 1983, the fund's portfolio had grown to include 58 diverse companies, some having become leading conglomerates in the country, others having flourished in sectors such as semiconductors and pharmaceuticals, which now are pillars of Singapore's economy. A development fund does not imply a paltry return. Since its inception Temasek has delivered on average 16 per cent per year to its shareholders and is a major stakeholder in the Singapore community through several social, educational and healthcare initiatives.

Mubadala in the United Arab Emirates, Mumtalakat in Bahrain, Kahzanah Nasional in Malaysia and the Oman Investment Fund have been assigned a role similar to Temasek in propelling domestic development possibly through joint ventures with international industrial partners. For example in its website, Mubadala is defined as 'an investment and development company supporting the diversification of the UAE by investing in key social infrastructure and creating globally integrated industry sectors in Abu Dhabi'. SDFs take strategic stakes in domestic or

international companies; they rely less than other SWFs on the intermediation of external asset managers.

SDFs differ from the typical development institutions in that they operate with a clear mandate to produce returns. Furthermore, in many countries SWFs are the most prominent pool of competencies and therefore it is simply natural that part of this human capital be deployed at home. More generally these vehicles can perform three functions: (1) deploy capital to industries where the country might have a comparative advantage the private sector struggles to exploit; (2) foster efficiency, discipline and governance in large investment projects; and (3) act as partner for multinationals looking to locate in emerging markets. In short, the SDFs act as catalysts for domestic financial and real-asset ventures.

In recent years the spread of these vehicles has been notable. For instance, some of the recently established SWFs in Africa have multiple objectives including that of sponsoring domestic development by investing in infrastructure or industrial projects. The best-known SWFs recently established in Africa, which became also official members of the International Working Group of Sovereign Wealth Funds, are the Nigerian Sovereign Investment Authority (NSIA) and the Fundo Soberano de Angola. Another example is provided by the Russian Direct Investment Fund, established in 2011. This institution has the objective of attracting foreign capital by facilitating the screening and sourcing of domestic investments in collaboration with foreign institutional investors, including other SWFs.

The establishment of SDFs has not been confined to emerging markets. Developed economies such as Sweden, France, Italy and Greece have all proudly launched SDFs. A list which covers the best-known cases was compiled by Ashby Monk on his blog on *Institutional Investor*.¹⁷ Moreover, a number of joint investment funds have been established with the explicit purpose of boosting deployment of funds in a country: the

¹⁷ See www.institutionalinvestor.com/Blogs-and-Columns-Ashby-Monks-Avenue-of-Giants.html. The list include (1) AP6, Sweden; (2) Central Huijin, China; (3) Emirates Investment Authority, UAE; (4) Hellenic Republic Asset Development Fund, Greece; (5) Infrastructure Fund, NSIA, Nigeria; (6) Khazanah, Malaysia; (7) Mubadala, UAE; (8) Mumtalakat, Bahrain; (9) National Development Fund, Iran; (10) National Development Fund, Taiwan; (11) National Development Fund, Venezuela; (12) Oman Investment Fund, Oman; (13) Palestine Investment Fund, Palestine; (14) Public Investment Corporation, South Africa; (15) Public Investment Fund, Saudi Arabia; (16) Russia Direct Investment Fund, Russia; (17) Samruk-Kazyna, Kazakhstan; (18) State Capital Investment Corporation, Vietnam; (19) Strategic Investment Fund, France; (20) Strategic Investment Fund, Italy.

examples are numerous, especially with Arabian countries, and increase by the day, for example those between Oman and Brunei, Kuwait and Italy, Oman and India, China and Canada, Emirates and Oman, Kuwait and China, Oman and Libya, Qatar and Turkey.

The governance of SDFs is an extremely delicate issue. After all SWFs were set up with the purpose of ring-fencing public assets from the appetite of vested interests. Does not a domestic focus risk whetting precisely those appetites? The critical issues that emerge in such a context are the governance framework, the arms-length relations with government and the insulation from pressure groups. The most effective tool in this respect would be to set an ambitious long-term return target on the investments and a mandatory (possibly publicly accessible) assessment of each project by professionals assisted in their due diligence by internationally renowned consultants. Such a mandate would impose discipline on the management team's decision making, provide a powerful argument against wasteful projects and help gain credibility vis-à-vis other investors.

Furthermore most ventures should involve one or more co-investors (to have a levered impact on the local economy), but most crucially they should rely on an industrial partner with a proven track record and the know-how to ensure the success of the initiative. Finally the investment proposal should clearly envisage an exit strategy from the investment once it reaches maturity for example over a three-to-seven year horizon. Overall the governance framework should ensure that the decision-making process be free of undue influence from bureaucracies and lobbies, with the government and parliament in charge of high-level supervision of results as specified in the mandate.

An SDF has a clear advantage when it comes to expertise on the execution of investment plans in the local economy, covering a number of critical areas from the interface with the authorities (and their priorities) to relations with banks, or the legal framework, as it can be challenging for foreign investors to navigate the plethora of local practices. It might be able to select, assess and manage the investment opportunities best suited to the local conditions and act as a bearer of first loss in order to allay concerns over the country risk. Multinational companies evaluate the prospects of a country as a location for their expansion plans based on the overall business climate and the reliability of domestic partners. Partnering with a local fund would be quite attractive and an SDF provides a viable point of contact while acting as a facilitator. Research shows that local knowledge can translate into as much as 2 per cent per year in additional returns. It is also likely that an SDF could be a magnet

to attract into the country a pool of talent and competencies that could easily interface with international professionals.

4.2 Increasing Partnership Among SWFs and Co-investments with Private Equity Houses

A tendency that has already emerged over the past few years is the disintermediation of sovereign capital flows from international investment banks located in traditional financial centres. Financial centres exist to bring together demand and supply of financial assets in a world of imperfect information, essentially the place where savers and borrowers from different corners congregate. Global intermediaries such as investment banks direct the flow of information among operators thanks to expert, quasi exclusive knowledge and access to both sides of a potential transaction.

Most SWFs are not located in a major international financial centre. This has a twofold consequence: (a) their staff are not part of the exclusive networks that form in New York or London (though often their senior staff have a professional background in major financial institutions and asset managers); (b) their investment committees are not influenced by the prevailing views spread in backrooms or conveyed by industry insiders. It is not therefore surprising that over the last few years SWFs have shown an interest to team up and find opportunities for co-investments.¹⁸

Currently, cooperation and co-investment among sovereign entities takes place infrequently on deals that have unique characteristics or require large outlays; but it is definitely a growing trend. The main reason was that SWFs saw each other as competitors, but also they had enough cash that the need for pooling funds was minimal. A breakthrough which highlighted ample room for collaboration came in 2010, with the IPO of Brazilian national oil company Petrobras worth USD 70 billion, into which Asian and Middle Eastern SWFs poured considerable (but undisclosed) amounts and which was also the catalyst for the USD 1 billion invested by CIC, GIC and ADIC in BTG Pactual, a Brazilian investment bank.

The QIA through its subsidiary Qatar Holding led other SWFs to conclude the merger of Glencore with Xstrata – concluded after 450 days from the initial announcement on 2 May 2013 – worth USD 66 billion, a new record for SWF co-investments, giving birth to a global actor in

¹⁸ Bocconi University (2014).

commodities trading on a par with Vale, BHP Billiton, Rio Tinto or Anglo American. In particular, CIC, GIC, KIA, KIC, Khazanah, Mubadala and a few others have shown a distinct openness to join forces with other funds. In a direct investment involving SWFs and/or institutional investors a discount on pricing of as much as 10 per cent of the purchase price in a transaction is quite common. A deal rarely involves more than two or three SWFs because the complication of a co-investment can be thought to increase with the square of the number of participants (especially if each one brings its team of lawyers).

There are examples of SWFs cooperating to acquire large infrastructure assets, and there is definitely more dialogue also with large institutional investors such as pension funds. This comes at a time when SWFs are reducing the number of external managers and increasing the proportion of assets managed in-house, to boost their internal capabilities, manage more of their assets independently and save on fees that are becoming a contentious issue. In the infrastructure sector, where commercial banks are reducing lending due to regulatory concerns, SWFs are becoming very active. For instance, in 2013 Singapore's GIC announced that it would invest in the Brazilian sewage sector by injecting equity into a local utility company. SWFs also appear very keen to leverage the expertise of international institutions to find the best investment opportunities in this sector: for instance, as reported by the *Financial Times*, the African Development Bank announced the setting-up of a USD 3 billion infrastructure fund with capital being provided from regional and non-African pension funds, insurance companies and SWFs.

The total amount of SWF co-investment is still in the order of a few dozen billion dollars, so not huge, but it could swell as soon as SWFs put together a critical mass of specialists and strengthen their ties. Closer ties among SWFs will require innovative solutions in devising cooperative behaviour. Joining partners with similar time horizons and aligned interests is a crucial stepping stone. Nevertheless even if funds have similar ideas about investment strategies, they face different internal governance structures and compliance demands that might not be mutually compatible.

The sometimes cumbersome internal procedures that thwart cooperation among SWFs and SDFs are less critical when dealing with private equity funds. Co-investment is appealing for an SWF looking to increase its exposure to alternatives or reduce costs and liquidity risk. Co-investment requires quick decisions and for this reason some SWFs have contemplated the creation of separate vehicles with private partners to decentralize the governance of certain deals and reap the benefits of scale while building a diversified portfolio. According to Preqin, a data

provider on alternative asset classes, the proportion of aggregate capital provided by SWFs to private equity houses has doubled from 5 per cent to 10 per cent over the last three years.

5. THE FUTURE OF ‘SOVEREIGN WEALTH’ MANAGEMENT

The rapid accumulation of FX reserves managed by central banks and assets managed by SWFs has been a dominant feature of the evolution of the global economy over the last two decades. Combined assets managed by central banks and SWFs – what we could define as ‘sovereign wealth’ – currently total approximately USD 18 trillion. Sovereign institutions have now become one of the largest institutional investor sectors and their scale of operations in global capital markets is now comparable to that of pension funds or insurance funds. However, there are some notable differences between these two assets pools: pension and insurance funds’ assets are largely privately owned and are concentrated in advanced economies; sovereign wealth is state controlled and concentrated in emerging markets. Furthermore, pension and insurance funds’ assets are managed by thousands of institutions dispersed across countries while sovereign wealth is concentrated in a relatively small number of countries (China, a few other Asian countries and many oil-exporting economies) and institutions (largest central banks and SWFs).

Over the last decade – as we discussed in the previous sections – there has been an evolution in how sovereign wealth is managed and invested in global markets. First of all, we have witnessed a gradual move away from a very conservative asset allocation largely centred on liquid, safe, short-duration government bonds towards a much more diversified investment strategy encompassing a wide range of asset classes including equities, less illiquid asset classes and strategic investments. This evolution has raised the profile of sovereign institutions, which have moved from their traditional position of being custodians of a reserve of liquidity to being active players in the private economy. This has raised some eyebrows among those who see this evolution as the return of state capitalism through the back door of capital markets.

Secondly, following the global financial crisis and the fall in global capital flows as financial institutions retreated from cross-border lending to repair their balance sheets and strengthen their capital position, governments discovered that a pool of assets controlled by the central bank or an SWF can become instrumental in ensuring financial stability

and supporting growth. In the future we may see more action in this regard as countries search for additional sources of funding for long-term investments in key sectors such as infrastructure while banks' lending remains subdued and public investments are constrained by fiscal prudence. The independence of central banks, a fundamental pillar of the low inflation we have experienced over the last few decades, could be put at risk.

Last but not least, sovereign wealth is likely to play an important role as the global financial architecture is redesigned to better reflect the changes that have occurred over the last 20 years, in particular the increased weight of emerging markets in the global economy. FX reserves and (to a lesser extent) SWFs' assets are still largely invested in dollars, euros and a few other advanced economies' currencies. The role of emerging markets' currencies is set to rise over the next years with the Chinese RMB as the front runner. SWFs already have a large exposure to emerging markets as discussed earlier and central banks have just begun diversifying their reserve away from traditional reserve currencies. How fast and deeply the currency diversification of sovereign wealth will evolve will eventually contribute to determine the future global financial architecture.

5.1 The Borderline Between Central Banks and SWFs is Waning

The rise of FX reserves has been a fundamental element of the rise of emerging markets in the global economy. During the last two decades, global FX reserves increased from just over USD 1 trillion to nearly USD 12 trillion by the end of 2013 (International Monetary Fund 2014). Emerging economies currently account for 70 per cent of the total, with Chinese reserves alone accounting for about two-thirds of it. The pace of growth in FX reserves slowed down in the years following the global recession but has remained solid despite the financial jitters surrounding China and other emerging markets.

On the optimal size of central bank reserves there exists a venerable and extensive literature. For the scope of this chapter we can observe that the conservative approach to reserve management by central banks is appropriate until levels do not exceed a certain threshold. The Greenspan-Guidotti rule (named after the former US Fed President and the former Deputy Argentinean Finance Minister), for example, states that the central bank should maintain reserves equal to the country's short-term foreign liabilities (i.e. with a maturity less than one year). The IMF considers three months' worth of imports the bare minimum for small open economies. It is arguable that the current level of FX reserves in

certain countries (e.g. China and several other Asian countries) is already well beyond what is required for monetary and precautionary reasons. The majority of central bankers consider the current level of FX reserves – when measured against some key economic variables such as months of imports or external debt – as adequate. As we will discuss later in the chapter, central banks have already started diversifying their reserves away from government bonds over the last decade and this trend appears to be continuing. However, there are limits to the degree of diversification that central banks can actually achieve compared to the degrees of freedom enjoyed by SWFs with the specific mandate of investing excess reserves in a wider range of asset classes.

When the foreign asset stock accumulated through commodity exports or foreign exchange intervention swells, the opportunity cost associated with the limited portfolio diversification of central bank reserve management becomes unduly high. This opportunity cost has increased over the last few years with the introduction of unorthodox monetary policies in most advanced economies to fight stagnation and unemployment. We argued earlier that this was the reason for authorities to establish an SWF entrusted with the mandate to pursue a more aggressive return target.

However, since the turn of the century, with interest rates sinking to rock bottom levels, even central banks have started to separate their portfolios more or less formally into two parts: one managed rather conservatively to maintain dry ammunition in case of a currency crisis; the other seeking greater yields.

And the emergence of SWFs has certainly not eclipsed the role of central banks. Some, like the Saudi Arabian Monetary Agency or the Hong Kong Monetary Authority actually continue fully to manage their reserves in the absence of an SWF in their country. The largest Asian exporters still assign the bulk of their sovereign assets to central banks. Countries such as Malaysia or South Korea continue to maintain within the central bank reserves well in excess of what the Greenspan-Guidotti rule or any reasonable prudential logic would dictate. Also in Singapore, despite two well-established SWFs, the central bank still holds about 40 per cent of total reserves.

The bulk of the assets managed by central banks is still invested in (relatively) safe government bonds of advanced economies. However, diversification across asset classes has been a power trend over the last decade. In particular, the number of central banks investing in equities has been steadily rising. Central banks which have made public their allocation to equity include Israel and the Czech Republic.

The most macroscopic case is China, whose central bank, even after the substantial transfer of reserves to CIC in 2007, holds 85 per cent of

the total FX reserves. SAFE, part of the People's Bank of China (which reportedly has invested directly in European stocks), is the biggest overall public sector investor, with USD 3.9 trillion under management, well ahead of the Bank of Japan and Japan's Government Pension Investment Fund (GPIF), each with USD 1.3 trillion. Despite not disclosing detailed information on its asset allocation, SAFE is well known to be a big investor in equity. The Bank of Japan announced in April 2013 its plan to double investments in equity exchange-traded funds to JPY 3.5 trillion (USD 35.2 billion) by 2014. This trend has involved also central banks from smaller countries. The Swiss National Bank had USD 480 billion under management, of which USD 72 billion was in equities, at the end of 2013.

This activism by central banks has not been immune from criticism. In particular it has been remarked that the authorities in charge of financial stability become active investors in markets which are affected by their monetary policy and have access to privileged information on the monetary policy of other central banks which directly impact share prices. Furthermore, whenever a public institution invests in the stock market it raises the suspicion that the decision has been taken to lend support to ailing national champions rather than to maximize expected returns. To avoid this criticism several central banks tend to invest in passive equity strategies.

5.2 The Pressure to Deploy SWFs' Resources within the Home Country

According to the IMF, gross capital formation as a percentage of GDP has yet to recover to its pre-crisis level. This is the result of a combination of several factors, including: (a) ongoing deleveraging in the banking sectors, historically the largest provider of long-term financing; (b) a drop in public investments, particularly in Western economies, as governments tackle soaring public debt; (c) a very cautious corporate sector not willing to invest in additional production capacity despite their cash reserves being at a historic high. This has happened despite the fact that the economic rationale for a substantial increase in long-term investing is compelling in both advanced and emerging markets. In advanced economies it is about refurbishing or totally renovating mature infrastructure: the best example is the US where estimates of the size of investment needed to upgrade existing infrastructure are in excess of USD 2 trillion. In emerging economies it is about new infrastructure, in order to provide more people with basic transportation services as well as

sanitation, healthcare and housing. Some emerging markets face infra-structural bottlenecks, thwarting their growth potential or enhancing them further. According to estimates, the current long-term investment gap at a global level is about USD 1.5 trillion per year over the next two decades.

Could the huge amount of assets being managed by central banks and SWFs be used to fund long-term investments, thus contributing to revive the global economy? Some influential economists – for instance Larry Summers in the *Financial Times* – have already suggested such an approach. The increasing domestic focus of some SWFs we discussed earlier should also be seen as a move in this direction. However, one can think of more comprehensive and radical approaches to mobilize sovereign wealth for such a purpose. A possible creative solution to such a dilemma would be a debt-to-equity swap through which a significant portion of foreign reserves held by countries such as China, other Asian economies, GCC countries and Norway and invested in sovereign bonds are swapped into equity funds and diversified investment vehicles.¹⁹ The freed assets could then be invested in the real economy filling the long-term investment gap. This would be a win-win situation for both creditors and debtors: creditors would achieve diversification away from government bonds, thus protecting their wealth, and debtors would get the investment in the real economy that they desperately need without undergoing any restructuring of their debts.

An alternative approach would be to develop liquid and tradable project bonds that then could be bought by either central banks or SWFs. Indeed there are already some policy initiatives in this regard such as the ‘2020 Project Bond Initiative’ recently launched by the European Investment Bank and the European Commission and the G20 and OECD Long-Term Investment Project now being discussed within the G20. Emerging markets have also launched new initiatives in this area, the most prominent one being the recently announced BRICS development bank whose capital is likely to be funded by accumulated sovereign wealth.

Should the global economy remain on this low-growth path and unemployment not fall substantially from current level in Western economies, the political pressure on central banks to do more and SWFs to deploy more assets domestically could increase. This could raise some concerns with regard to the independence of central banks and to the fact that the wealth accumulated by SWFs should be saved for the benefit of future generations. It might well be that in the future the independence

¹⁹ Campanella (2013).

which so far has been a prerogative of central banks only should be reinforced and eventually extended to SWFs as well.

5.3 The Future Global Financial Architecture: Towards a Multicurrency Regime

One area where the diversification process has just begun is currencies. By end 2013, according to the IMF COFER data, nearly 94 per cent of FX reserves were invested in advanced economy currencies, with the USD accounting for the lion's share. Over the last decade, the USD has been on a declining path while the EUR's share has risen, although the EUR's rise has recently stalled following the Eurozone fiscal crisis and is reverting as a result of the ECB's new ultra accommodative stance. The share labelled by the IMF as 'other currencies' (including the CAD and the AUD before 2012) has been steadily rising, from 2 per cent in 2008 to over 6 per cent in 2013 (including CAD and AUD for comparability). The IMF does not disclose the breakdown of its 'other currencies' category, but it likely includes currencies such as the Korean Won, the Singapore dollar and the Norwegian krone. Anecdotal evidence points to these so-called secondary reserves taking a growing share of global FX reserve allocation over the last few years. This conclusion is broadly confirmed by another IMF data source, the Survey of Securities Held as Reserve Assets (SEFER). According to this source, official institutions' holdings of securities issued by Korea and Singapore have grown very fast since 2008 from a few billion US dollars to more than USD 10 billion in 2012 (but still representing a mere 0.25 per cent of the total).

The role of emerging market currencies is set to rise over the next 20 years with the RMB as the front runner. According to the 2013 survey of central banks by RBS (Central Banking Publications, 2013) the number of central banks investing or considering investing in RMB is steadily growing. The growing interest among sovereign institutions in exposure to the RMB reflects a number of factors: (a) diversification of FX reserves largely invested in dollars, euro and a few other advanced economy currencies; (b) the rise in the relative weight of emerging markets in sovereign institutions' portfolios, particularly SWFs with a long-term investment horizon and lower liquidity constraints; and (c) the secular trend in emerging market currency appreciation.

The increasing interest of sovereign institutions in RMB exposure is also confirmed by their growing share of RMB onshore investment quotas. By the end of 2013, quotas totalling more than RMB 1 trillion had been approved under the three programmes through which foreign institutional investors can invest in Chinese bond markets (PBoC's

interbank investment programme, QFII and RQFII). Sovereign institutions are among the largest holders of quotas for investing in the RMB markets. Together with supranational institutions and insurance companies – in addition to RMB clearing and settlement banks – central banks and SWFs have benefited from the PBoC interbank investment programme announced in 2010 and the recent lifting of quota limits for sovereign institutions. More than 20 central banks, including those of Australia, Indonesia, Malaysia, Thailand and South Africa, have invested or are planning to invest in the RMB onshore market. Most of the largest SWFs, including Norges, ADIA, HKMA, GIC, KIA, Qatar Holding and KIC, hold quotas for investing onshore in China. In December 2012, as already mentioned, China scrapped the USD 1 billion limit on domestic quotas for central banks and SWFs, and two SWFs – Norges and HKMA – have already surpassed this limit.

The shift towards a new financial architecture is likely to be a slow and gradual process as it will require substantial political changes of global governance, however, it appears inevitable given the changes that have occurred in the global economy over the last few decades, particularly the rise of China and other emerging markets. What appears certain is that the role of emerging market currencies in FX reserves and SWFs' assets, and particularly the role of the RMB, will expand. This is a scenario of a gradual and steady shift towards a multipolar currency system where more currencies will emerge in international finance; a 'grand' reform is likely to follow in order to simply acknowledge such a *fait accompli* in the international financial architecture.

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