Sovereign Development Funds:
Key financial actors of the shifting wealth of nations

Javier Santiso
Director, OECD Development Centre
Chair, OECD Emerging Markets Network (EmNet)

October 2008
Abstract

The emergence of Sovereign Wealth Funds (SWF) has signaled a major reshaping of the world’s economy: financial actors from developing countries playing on an equal footing with the financial giants of OECD countries. Rising financial centers such as Singapore, Dubai or Shanghai have nurtured leading financial institutional and asset managers independent of the traditional Western financial centers of New York, Boston or London.

Beyond this spectacular emergence also lies promising news for the wealth of (developing) nations. Sovereign wealth funds may grow to become major actors of development finance: Sovereign Development Funds. Should SWFs allocate 10% of their portfolio to other emerging and developing economies over the next decade, this could generate inflows of USD 1.400 billion: a yearly amount higher than all OECD countries development aid put together.

The international investment of sovereign funds is already increasing. If domestically, some sovereign wealth funds tend to behave as development finance institutions, working to boost economic diversification or build strong national champions, in their international investment strategies their behavior resembles traditional investment funds, seeking performance and solid returns.

This article will first discuss the emergence of these institutions (which are not totally new) and follow by assessing their potential impact in other emerging markets. We conclude by arguing that sovereign funds, because of their origins (emerging economies for most of them) and their potential (or already effective) re-positioning towards emerging markets could usefully be considered as Sovereign Development Funds (SDF).

Keywords: sovereign wealth fund, diversification, emerging markets
JEL: F30, O16, P16

We would like to acknowledge for the comments, documents shared, insights, comments and suggestions, Rolando Avendaño, Jaime Caruana, Jorge Chirino, Benoit Coeuré, Chloé Coussen Dauban, Arnab Das, Thomas Dickinson, Manuel González Cid, Goeril Havro, Stephen King, Gerard Lyons, Sebastián Nieto Parra, Sayasat Nurbek, Eric Parrado, Avinash Persaud, Helmut Reisen, Malan Rietveld, Andrew Razanov and Shuilin Wang. All the errors and opinions here developed are obviously the sole responsibility of the author.

This paper is based on a previous research and presentations see, in particular, Javier Santiso, “Sovereign Development Funds: are SWFs a stability factor for the unwinding of global imbalances?”, Presentation prepared for The Reinventing Bretton Woods Committee Conference “Bretton Woods II under stress?”, Banco de España, Madrid, April 2008; and also Javier Santiso, “Sovereign Development Funds”, Presentation prepared for the OECD Emerging Markets Network, Paris, OECD, March 2008. See also http://www.rbwf.org/ and http://www.oecd.org/dev
Sovereign Wealth Funds and the Shifting Wealth of Nations.

Through the emergence of sovereign wealth funds, we are witnessing a major rebalancing of the wealth of nations. In this sense, therefore, SWFs are part of a broader narrative, a tectonic shift to which “decoupling”, a popular buzzword in the financial markets over 2007 describing asymmetries of growth patterns experienced by OECD economies versus emerging ones (for a discussion see for example Pimco, 2008), does little justice. Decoupling belongs in fact to a world that is already disappearing, one where a Periphery splits from a Centre. In fact, the real issue is that the Centre is less and less the Centre and the Periphery less and less the Periphery. Classifications such as OECD / emerging economies have grown to reflect historical baggage more than economic reality: Mexico, South Korea or Turkey, three leading emerging markets, are already OECD members; still others, such as Chile or Russia, are on accession track.

World growth today is no longer driven by OECD countries but from emerging ones (see Figure 1). OECD countries, which five decades ago concentrated 75% of world GDP, today account for less than 55% of global wealth. The U.S. stock market accounts for 35% and falling of world market capitalization, from 50% just 10 years ago. In 2007, the share of foreign direct investment from OECD countries decreased to 85%, from nearly 100% in 1970 (see Figure 2). The same year, for the first time, emerging markets economies traded more between each other than with OECD countries, illustrating the major “shifting of fortunes” and south-south financial recycling of new wealth derived from the commodity bonanza (see HSBC, 2008).

This tectonic shift is particularly striking with regards emerging world corporations. Just to name some few Latin examples, a company like ImBev, born from the merger of Belgian and Brazilian brewers, is already an exotic bird representative of these new global emerging corporations: difficult to classify in either emerging market or OECD asset class. Cemex, the Mexican cement giant, is still headquartered in Monterrey but its strategic, financial and economic research centers are located in Spain. The profile of the Brazilian mining conglomerate Vale has already changed with the acquisition of Inco from Canada, and the pending deal on Swiss-based Xstrata should complete its transformation into a major global player. Brazil is growing into a global trader, reaching into exotic markets like the Middle East, Africa or South East Asia. Companies like Vale, Petrobras or Odebrecht are entering actively in the African markets while Embraer and Marcopolo are becoming big players in...
China\(^1\). These emerging global multinationals, with headquarters in Latin America, are following a trend that includes India, China, Russia or South Africa based companies, to name but the largest. It is ironical, to see a company like Tata, emerging from India, to buy the jewels of the old Empire, acquiring one after another, Corus, Jaguar and Rolls Royce. The Periphery is entering massively into the Centre.

Of course, emerging markets were not always on the periphery of the world economy: in many cases it would be more accurate to talk about re-emerging rather than emerging markets. China is probably the most spectacular case in point: till the mid-nineteenth century, it represented over 30% of world GDP, gradually slipping over the following hundred years (in 1950 dropping to less than 5% of world GDP - see Figure 3). In other words, not everything is new under the sun, China is re-assuming a leading role in terms of weight in the world economy, the big difference between then and now is that this re-emergence is taking place in a very different way, China being much more open and plugged into the world economy that it has been ever been before. According to Angus Maddison’s calculations, in a recent book published by the OECD Development Centre\(^2\), China will regain its place as the first world economy in terms of GDP by 2015 (see Figure 4). The recent revision of World Bank PPP data notwithstanding, China is poised to reclaim its place as the world’s largest economy over the next half century.

What is true for China is also valid for other emerging economies, particularly India that also weighed heavily in the world economy until the late XIXth Century and is now also re-emerging (see Figure 5). These Asian Drivers are today impacting the entire developing world (see Avendaño, Reisen, and Santiso, 2008), as much as developed economies, becoming net exporters of capital to the global economy. In 2007, China was responsible for more than 20% of world net capital exports, ahead of Japan and Germany. This trend is set to persist: According to the IMF, Chinese cumulative net capital exports will amount to USD 3.4 trillion in 2008-2013.

Thus, one of the major events in international economics over the past decade has been emerging countries’ shift from net foreign debt to net foreign asset positions, what El-Erian labelled the transition from “debtor regime” to “creditor regime” (El-Erian, 2008; see also on this issue Pimco, 2007a). As estimated by Summers (2008), the aggregate level of central bank reserves alone for developing countries in excess of short term debt (if we apply the known “Greenspan Guidotti” rule that suggests that a healthy level of reserves is

---


enough to cover one year of short term debt was reaching USD 2 trillion by the end of 2006 and has been increasing yearly by USD 500 billion since the early 2000s. To place this in context, emerging markets hold reserves roughly equivalent to 20% of GDP, compared to a paltry 0.5% for the US (Figure 6). In absolute values China and Russia lead the ranking of emerging markets holders of reserves in excess of short term debt in terms of absolute values (Figure 7). African countries like Libya and Algeria lead in terms of GDP.

In terms of capital flows, in 2007 emerging markets received a record USD 953 billion, while outflows were USD 1,600 billion – about four and six times their respective 2000 levels. Emerging multinationals multiplied foreign acquisitions, notably in OECD economies, while central banks and other public or private asset managers bought into stocks and bonds in Western countries. In 2007 alone, of the USD 920 billion that foreigners pumped into US stock markets, bonds and government securities, a stunning 39% (more than USD 360 billion) came from emerging markets economies, according to calculations from Bank of America based on US Treasury Department data. This a low estimate and likely only the tip of the iceberg, as such estimations do not include most Gulf investments flowing to New York through London trading platforms and asset managers.

This explosion of investment activity (figure 8) is testimony to developing countries’ better and wiser stewardship of their national wealth. It is this process that has seen countries channelling their (often commodity-related) revenues through SWF or similar institutions, establishing endowment funds for social, economic and financial consolidation. With this newfound financial clout, emerging countries, once passive recipients of foreign portfolio investors, have become active and significant players in international financial markets, their asset allocation increasingly scrutinized due to their growing impacts on currency or equity markets.

The Reserve Federal Board recently underlined that the extent to which SWF involvement conveys a positive signal to market participants about a target firm: based on the analysis of 163 investment announcements, research showed an average positive risk-adjusted return of more than 2 percent for target firms over the two days surrounding SWF acquisition announcements. Fotak, et al (2008) assesses the financial impact of SWFs

---

3 On this rule and for a discussion see Pimco, 2007b. There is a large literature discussing the appropriate level of reserves by emerging economies. See in particular Aizeman, 2007; and for a discussion Ruiz-Arranz and Zavadil, 2008).

4 Data quoted by the Wall Street Journal, June 28th 2008, p. 11.

investments in the stock markets\textsuperscript{6}. They find a significantly positive mean abnormal return upon SWF acquisitions of equity stakes in publicly traded companies around the world. Also, evidence shows that equity acquisitions by SWFs are followed by deteriorating firm performance. The authors conclude that SWFs might act as monitors, improving governance and profitability on the firms where they invest, while at the same time following the principles of profit maximization. Similarly, Balding (2008) studies portfolio investments for a group of SWFs and concludes that they act as economic driven investors, and their impact on international financial markets may be more moderate than expected\textsuperscript{7}.

SWFs are not the only institutions managing these nations’ wealth. Central Banks manage reserves but with a prudential and risk averse approach, aligning objectives with national monetary and fiscal policies. Finance ministries also manage national wealth through Treasury and debt management divisions, operations bounded by government budgeting and civil service compensation. For governments therefore, the most flexible and innovative institutions are sovereign funds. Sometimes these answer to traditional institutions such as Finance Ministries or Central Banks – like in the cases of Chile or Norway (see on Chile, Parrado, 2008; on Norway Eriksen, 2008). However, in some cases new institutions were created from scratch to manage the fund: New Zealand, Korea, and above all Singapore, China or the Middle East.

In all cases, the primary stated objective of SWFs is to provide inter-temporal stabilization, diversification and risk adjusted investment for nation’s wealth (Kern, 2007). On average their asset allocation is split between fixed income securities (35-49%), equity securities in listed corporations (50-55%) and the remaining (8-10%) in alternative investments such as hedge funds, private equity companies or other products (Fernández and Eschweiler, 2008). This is an average estimation and obviously strategies diverge importantly between institutions. In the case of Norway, equities accounted in 2007 for 40% of the fund’s strategic benchmark portfolio and consisted mainly in Europe-listed equities (50%), Americas and Africa (35% and Asia/Oceania (15%). Fixed income accounted for the remaining 60%, denominated mostly in currencies from Europe (60%), Americas and Africa (35%) and Asia/Oceania (5%) (Kjaer, 2008). In the case of the National Oil Fund of Kazakhstan, inspired by Norway’s experience, assets were split into stabilisation and savings portfolios. The stabilisation portfolio has been mainly invested in high liquid money market instruments while the savings portfolio has been invested mostly in fixed income instruments (75%) but also equities (25%) (Sartbayev, Izbasarov, 2008).

\textbf{Fig.7: Top ten emerging market holders of excess reserves}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Top ten emerging market holders of excess reserves}
\end{figure}

\textit{Source: Based on Summers, 2008; actualization of data for 2007, OECD Development Centre.}


\textsuperscript{7}Balding, Ch. “A Portfolio Analysis of Sovereign Wealth Funds”. Mimeo University of California, Irvine. June 2008.
In general SWFs have been funded in various ways: from central bank reserves (China and Singapore for example); the export of state-owned resources (Botswana, Chile, Abu Dhabi, or Kuwait); taxation of exports (Russia, Alaska); fiscal surpluses (Korea or New Zealand for example); or from privatization receipts (Malaysia or Australia). Whatever their origins, objectives or funding, the SWF model is not new, even if their number has increased sharply over recent years. It is estimated that 35% of all SWFs were established over the past five years. However, some are far older, investing since the 1960s and 1970s and by now extremely diversified (see González Cid, 2008). The Kuwait Investment Authority, for example, the oldest, was created in 1953, Singapore’s Temasek Holdings in 1970, the Abu Dhabi Investment Authority (ADIA) in 1978. Singapore, with a powerful export base but a relatively small economy, was one of the very first in Asia to create a fund, establishing Temasek in 1974 and then the Government Investment Corporation of Singapore (GIC) in 1981, with the aim of increasing the return on investment of its external surpluses by targeting international portfolio investments since the very inception. It was the commodity boom of the 2000s and the rise of emerging markets economies which boosted the new wave of SWF creation, with China, Russia and Dubai creating their own sovereign wealth management institutions.

These institutions have often been key in helping navigate the dangers faced by resource-rich countries, helping to diversify their economic base through international portfolio diversification and foreign currency sterilization. In OECD countries, Norway, through the Government Pension Fund (formerly the Petroleum Fund), has been one of the most successful examples of this strategy. Similar oil funds in Kazakhstan or the Pula Fund from Botswana are other examples of SWF looking to invest their wealth in asset classes outside the commodity cluster in order to reduce the macroeconomic exposure of their countries to commodity fluctuations (oil and gas in the case of Kazakhstan, diamonds in the case of Botswana). In the Gulf, a number of private equity firms, funded partly or totally by sovereign wealth stemming from the oil bonanza, were also established in the 2000s, following the creation in the 1970s and 1980s of the very first wave of Gulf SWFs.

---

8 SWF are not new neither the sole large publicly-held pools of assets that are playing an increasingly prominent role in the global investment arena. For a comparison of distinct forms of such public funds, namely foreign exchange reserve funds, sovereign wealth funds, and public pension funds, see Olivia S. Mitchell, John Piggott, and Cagri Kumru, “Managing Public Investment Funds: Best Practices and New Challenges”, NBER Working Paper, June 2008, No. 14078. The red light between SWFs and pension funds is not always obvious as underlined by Truman’s scoreboard exercises that list a total of 56 sovereign wealth funds in 38 countries (Truman, 2008). In the same way, if sovereign wealth funds are linked to state or official assets, a lot of other governments around the world hold significant stakes in listed companies: France, for example, tops the rankings and holds listed equities valued at USD 280 billion, ahead of Russia that is second with nearly USD 250 billion (Balding, 2008).
The largest SWFs, from the United Arab Emirates, Kuwait and China, have already reached a scale in line with the largest global asset managers or the biggest hedge funds and private equity firms. The Abu Dhabi Investment Authority (ADIA) holds around USD 875 billion of assets under management, a size approaching Barclays Global Investors’ volumes under management (USD 1 815 billion) or State Street Global Advisors (USD 1 750 billion), two of the world largest OECD-based asset managers (see Figure 9 - see also for other comparisons City of London, 2008).

On a more aggregate level, the size of the assets managed by SWFs from emerging markets is impressive: by the end of 2007, these new power brokers had amassed more than USD 3,1 billion, according to Morgan Stanley (Morgan Stanley, 2007; see also Jen, 2007). Emerging world sovereign states were estimated to hold USD 7 trillion in international reserves at end 2007 (IMF, 2008) and a further USD 2-3 trillion in SWF assets (see annex 1 for estimates of SWF assets). IMF projections consider that SWF assets under management could surpass USD 10 trillion by 2013, while Morgan Stanley projects that they will surpass official reserves and Standard Chartered that they will reach over USD 13 trillion over the next decade (Lyons, 2007).


Although SWF holdings represent less than 2 percent of the world’s USD 167,000 billion of financial assets, accounting for just 1.3 per cent of the world’s stock of financial assets (stocks, bonds and bank deposits). Their size, in terms of assets, is lower than global reserves, pension funds assets or bank assets (see Figure 10 above). If we take as a reference the U.S. GDP, around USD 12 trillion in 2008, or again the total value of traded securities (debt and equity) denominated in U.S. dollars, estimated to be more than USD 50 trillion in 2008, the size of all assets managed by SWF is relatively modest.

This is however still more than the sums invested by hedge funds or private equity funds. If their growth trends maintained their current pace, they could reach USD 17,000 billion over the next decade according to Morgan Stanley, reaching over 5% of total global financial wealth. But above all, these financial actors represent already important players if we compare with the emerging markets asset class. They already concentrate assets equivalent to the total value of traded securities in Africa, the Middle East, and emerging Europe combined (about USD 4 trillion in 2008); or, taking another comparison, roughly the size of all of Latin American markets. Whatever the projections and numbers, these actors will be key drivers in the future of international finance, especially from an emerging markets perspective.

From the point of view of developing and emerging countries, the major question is how to invest this newfound wealth to their nation’s greatest profit? Is it wise, for instance, to continue investing in OECD countries, where returns are low and the risks not as low as expected (a lesson painfully learnt with the US banking meltdown)? Or should these funds rather look to diversify towards other markets, emerging ones in particular? The question is already in the minds of many economists, such as Lawrence Summers, who asks whether it is financially responsible to invest accumulated reserve assets only in short-term liquid securities of industrial countries (see also on the importance of this issue of asset allocation in Rozanov, 2006 and 2008). Some of the leading and more sophisticated SWFs such as Dubai International Capital, ADIA or Temasek, have been already diversifying actively towards other emerging markets regions, above all in Asia, Middle East and North Africa. This indicates what is maybe sovereign wealth funds’ major characteristic: to be development finance institutions from (and in) emerging markets.

The question is a key one for emerging and developing countries. As underlined by Summers (2008) in a very interesting simulation, the typical central bank portfolio, considering a risk-averse investment in a 0-3 years dollar denominated US Treasury, has earned 1% in real terms over the past 60 years. If we apply the same exercise for a more diversified portfolio (60% stocks and 40% bonds), the earnings could reach 6% and with an entire portfolio allocated to stocks, 7% (Figure 11). Bearing in mind that the endowment of a typical top-tier university in the US over the past two decades has been earning returns approaching 10%, it is clear that there is room of manoeuvre and the potential of higher returns.

![Fig.11: Annualised risk/return of investment portfolios, 1926-2004](image)

<table>
<thead>
<tr>
<th>Portfolio Description</th>
<th>Average Annual Real Return (geometric)</th>
<th>Annualised standard deviation of return</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% US 1-month deposits</td>
<td>0.65%</td>
<td>0.89%</td>
</tr>
<tr>
<td>Typical central bank portfolio</td>
<td>0.98%</td>
<td>1.24%</td>
</tr>
<tr>
<td>Typical pension portfolio</td>
<td>5.75%</td>
<td>12.45%</td>
</tr>
<tr>
<td>100% US stocks</td>
<td>7.11%</td>
<td>19.37%</td>
</tr>
</tbody>
</table>

Source: Summers (2008), based on Ibbotson Stocks, Bonds, Bills and Inflation Yearbook 1925-2005

---

risk adjusted earnings for developing countries’ wealth is pretty large. It we consider the figure of USD 2 trillion of excess reserves mentioned previously and we apply a 5% return, the cost for wealth management institutions of emerging and developing countries not to diversify their portfolio holdings away from classical US Treasuries or stocks, can reach more than USD 100 billion, that is 1% of the GDP of all developing countries or, putting it in another way, an amount equivalent to the annual ODA (Official Development Aid) that OECD countries are putting into those same developing countries.

Norway’s fund, one of the most sophisticated SWFs, decided to transfer assets from one asset class (petroleum) into more broadly diversified portfolio including equities and fixed income from both developed and developing countries. As stressed by a former manager of the fund, the return on a dollar invested in oil in 1900 is worth 2 dollars in 2005 while the same dollar invested in equities is worth 376 dollars and the value for fixed income instruments almost 6 dollars (Kjaer, 2008). The decision of asset allocation, and subsequently the benchmarks for the portfolio, is probably one of the most important ones for a sovereign fund.
Sovereign Development Funds in Emerging Markets.

Sovereign funds have been grabbing the headlines of western newspapers. The debate continues as to their potential global financial impact and their investment policies. Strangely, however, the development dimension is missing from the debates10.

This is a striking omission as sovereign funds are major actors arising precisely from emerging and developing countries. Beyond their spectacular emergence, however, lies promising news for the wealth of (developing) nations: sovereign wealth funds are (or at the very least, will become) major actors of development finance, not only domestically, but also abroad in other emerging countries. In this perspective, sovereign funds could well grow to become Sovereign Development Funds.

Firstly, SWFs are, for the most part, emerging market institutions. Only 15% of them are from OECD and developed countries. The majority (75%) are from the Middle East and Asia (see Figure 12). They are key engines of development finance within their homelands, some very explicitly involved in national strategies of industrial diversification. This is the case of Malaysia’s Khazanah, which is actively involved in financing long term projects and infrastructures throughout the country (Radhi, 2008). The same applies for Kazyna, one of Kazakhstan’s SWFs, mandated to promote innovative industrial projects and contribute to diversification toward more value added and employment-intensive industries for the oil rich country (Nurbek, 2008). This is also the case of their private equity arms, sophisticated financial institutions like Mubadala from Abu Dhabi or Istithmar from Dubai, in the Gulf – who consider themselves however as private investors rather than sovereign funds.

Secondly and even more interestingly, SWF have not only become major development finance institutions in their own countries, but are also becoming major players of development throughout the developing world. Although recent stakes in big OECD banks have dominated newspaper headlines and SWF bailouts of Western financial institutions were indeed striking (totaling 35 billion by the end of 2007), sovereign funds’ bets on emerging economies are in fact equally significant. Some of SWFs’ biggest investments have taken place in developing countries in Asia, Africa or Latin America, with the likelihood of this increasing in the future.

Fig.12: Sovereign Wealth Funds by origin, 2008

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
<th>Total assets (USD bn)</th>
<th>% total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle East</td>
<td>7</td>
<td>1533</td>
<td>48</td>
</tr>
<tr>
<td>Asia</td>
<td>9</td>
<td>867</td>
<td>27</td>
</tr>
<tr>
<td>OECD</td>
<td>10</td>
<td>489</td>
<td>15</td>
</tr>
<tr>
<td>Russia &amp; Central Asia</td>
<td>4</td>
<td>177</td>
<td>6</td>
</tr>
<tr>
<td>Africa</td>
<td>7</td>
<td>109</td>
<td>3</td>
</tr>
<tr>
<td>Latin America</td>
<td>4</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Pacific islands</td>
<td>6</td>
<td>1.2</td>
<td>0.04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>3,194</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: OECD Development Centre, 2008; based on Deutsche Bank, 2008.

Some SWFs like, for example, Temasek Holdings of Singapore already have large stakes and investments in Asian companies, contributing to the development of these countries. Temasek holds a USD 160 billion portfolio that includes substantial chunks of India’s ICICI Bank and in 2007 acquired a 10 per cent stake in Tata Sky, one year after taking a 20 per

---

10 For a more conceptual approach see the note written from a development economics perspective by my colleague Helmut Reisen, “How to Spend it: Sovereign Wealth Funds and the Wealth of Nations”, OECD Development Centre, Policy Insight, January 2008.
cent stake in China’s Misheng Banking Corp and investing in the India telecoms sector (10 per cent stake in Tata Teleservices). All in all, Asia (excluding Singapore and Japan) already concentrates 40 per cent of Temasek’s portfolio, more than its total holdings in Singapore (38 per cent) and double those in OECD countries (20 per cent). By mid-2008, Temasek confirmed its ambitions to invest beyond Asia with the hiring of new head for its international division. While it relocated a senior manager to Sao Paolo to head the Brazil office, Temasek hired also a former Barclays executive to head its Mexico office as it aims to boost investments in Latin America, confirming its ambitions to look beyond its core Asian businesses. Also in Asia, the much more recently created China Investment Corporation is planning to allocate a significant share of its USD 200 billion fund in Asian and Pacific countries. Another Asian based SWF, Khazanah Nasional Berhad (KNB), the Malaysian government’s investment holding company, opened in 2008 regional offices in Mumbai and in Beijing as part of its efforts to seek more business avenues overseas.

These bets already appear to be paying off: Kuwait Investment Authority (KIA), the USD 215 billion Middle Eastern sovereign wealth fund, has already made considerable profits on its USD 750 million stake in the Industrial and Commercial Bank of China (ICBC). By mid-2008, KIA confirmed that it intended to boost its portfolio investments in China and India and walk away from more investment in the US. Both the Qatar Investment Authority and Dubai International Capital are pursuing important investments in the Middle East and North Africa. In 2008 Qatar Investment Authority raised its international profile by making investments also in other emerging countries in Asia, Africa and Latin America and agreed in particular to raise the percentage of its total Asian assets up to 40 per cent. One of ADIA’s blue chip investments (Abu Dhabi Investment Authority) is the Egyptian investment bank EFG Hermes (where it holds a stake of 8 per cent). Among other recent key holdings we also find a 39 per cent stake in Banque de Tunisie et des Emirats and many other Arab financial institutions. In 2007 it also made a USD 1.2 billion investment in Malaysian land projects. Dubai Investment Group also has stakes in North African companies like Tunisia Telecom (17.5 per cent). In 2008, another Abu Dhabi Government investment fund, the International Petroleum Investment Company (IPIC), and the government of Kazakhstan, signed an agreement to invest USD 1 billion in oil and gas projects in the Central Asian country.

The future will bring even more investment towards emerging and developing economies. The European Central Bank conducted a simulation which underlined that SWFs behave similarly to CAPM-type investors, implying that they allocate their assets according more to market capitalizations rather than liquidity considerations. This would imply that more capital should be directed in the future towards high return emerging and developing countries (Beck and Fidora, 2008). It has been estimated by the IMF and Mc Kinsey Global Institute that SWFs from the Gulf in 2007 held 22% of their assets in Asia, Middle East and North Africa (IMF, 2008; Mc Kinsey, 2007). These figures are low estimates and should increase in the future. KIA, for example, is already cutting the portion of their portfolio invested in Europe and in the US to less than 70 per cent from about 90 per cent.

Emerging markets in Asia (and other regions) are attracting more and more attention: in the end why bother to invest in low OECD growth economies when you can access nearly double digit growth rates in emerging countries? Certainly, as argued by the managers of Botswana’s sovereign fund (Pula Fund), emerging markets could be excluded because of their high volatility and their high dependence on commodities. Indeed, for a country like Botswana, rich in resources (diamonds), investing in such asset classes could reduce the benefits from diversification and increase exposure to commodity ups and downs (Mohohlo, 2008). However, not all emerging markets are equal, some exhibit a high return / lower risk combination (in particular the investment grades ones) while not all are commodity dependent: precisely, in order to get higher return, without increasing commodity dependence, emerging markets like China, India, Mexico, Turkey or South Africa could become interesting targets. This is exactly what Qatar Investment Authority did in 2008 with the signature of a deal between the two governments for further investments and also
plans to invest in South Africa. Another Gulf investor, Kuwait Investment Authority (KIA), has investments of up to USD 1.7 billion in a non resource rich country like Turkey.

Dubai International Capital is willing to pursue its moves towards emerging Asia, a region where it intends to raise its portfolio to 30 per cent. For the moment its portfolio is concentrated in Europe (70 per cent), the remaining being in the Middle East. Istithmar, another Dubai based institution, has for the moment located the bulk of its investments in the Emirates (50 per cent) and the remainder in the US (27 per cent) and the UK (10 per cent), but is also willing to look for more opportunities in emerging countries. Mubadala, another Emirates-based institution created in the early 2000s in Abu Dhabi, also has a portfolio concentrated in the MENA region and is willing to diversify away from Western Europe. Dubai Investment Group is another SWF that is betting in Northern Africa with a recent 16 per cent stake acquired in Tunisie Telecom in 2007.

This is good news for developing countries. SWFs will contribute to boost equity investments, injecting capital into local companies and emerging countries’ projects. They are building long term portfolios and will therefore contribute to reducing volatility as they are less subject to the constraints of more immediate returns on investments and short term gains that are the common stock of traditional portfolio asset managers. Most interestingly, because of their mandates and objectives they tend to look for secure investments and long-term returns. Ironically however, this has led them to invest the bulk in OECD countries while portfolio allocation considerations and infrastructure needs would suggest that they would benefit more by extending into other emerging markets regions such as Africa Asia and Latin America, where correlation of returns with OECD stays low and where infrastructure gaps are yawning. In the future, their portfolio diversification strategies will push them to look not only for higher return on investments but also for allocations less correlated with their homelands. Here probably, we will see an increasing interest for regions like Latin America or Africa, less correlated with those located in Asia and the Middle East. Africa could become an important investment playing field for all of them, with the promise of higher returns and less correlated investments.

OECD based sovereign funds, such as Norway’s are also considering increasing their asset allocation towards emerging countries. In 2008, for example, Norway’s almost USD 400 billion fund declared its intention to boost emerging markets exposure, investing even in frontier markets such as Egypt, Morocco, or Peru. Martin Skancke, director-general at Norway’s Ministry of Finance, declared in several official statements that the government fund intended to invest five percent of its equities portfolio in emerging markets, including frontier ones of Africa or Andean countries.
Some policy implications

The policy implications both for developed and developing countries derived from these emerging trends are twofold. Firstly, sovereign funds are becoming important investors both from and in developing and emerging countries. Sovereign funds thus contribute directly to development in their homelands, but also, through equity stakes or private equity investments in other emerging and developing countries, increasingly to development in many other parts of the developing world also.

If Sovereign Development Funds choose to allocate, for example, 10% of their portfolio towards other emerging and developing economies over the next decade, this could generate inflows to the height of USD 1 400 billion, or, in other words, an annual amount superior to all OECD countries’ aid to developing economies... For donor countries committed to furthering global development, sovereign funds could be valuable partners for development finance. The current US meltdown may have precipitated this trend by discouraging state-run investment funds from buying further into U.S. dollar-denominated assets.

Famously, most SWF investments made in the US over 2007 dissapointed. Since taking a USD 3 billion stake in U.S. private equity firm Blackstone Group in 2007 and a USD 5 billion stake in Morgan Stanley in 2008, China Investment Corporation, for example, has taken sizable losses on the value of these investments. After sinking USD 5 billion into Merrill Lynch when shares were trading around USD 48, Singapore’s Temasek Holdings has watched Merrill’s shares dive to about USD 30. Between August 2007 and August 2008, all large Sovereign Fund investments in the banking sector sustained heavy losses: Merrill Lynch (~62% fall in share price with massive write downs and losses amounting to nearly USD 52 billion), UBS (~6% and losses totaling nearly USD 40 billion), etc.

Emerging and developing countries could turn out to be the unexpected winners of the current rebalancing, with major implications, above all in the low and middle income countries of Africa or South East Asia. Donors in particular should take into consideration this new landscape and engage discussions with these emerging development finance actors, not limiting dialogue to the traditional development banks, central bankers or ministries. One particular type of Western based institution that could usefully engage these funds are the so called European development finance institutions (that exist also in the US, Japan and other OECD countries) such as FMO of Netherlands, CDC Group of the UK or the Scandinavian Norfund, Swedfund or FinnFund. They all share long term horizon strategies, comparable levels of investment technologies and target both financial and social outcomes in a similar range of countries. Most of these institutions are owned jointly by public sector and private companies and hold a specific interest for long term and financially sustainable investments.

But we should here avoid misinterpretation: SWFs are not donors, they are not pursuing MDGs (Millenium Development Goals) and are not held to development rhetoric or practice. They may act as classical development finance institutions in their homelands, and as such contribute to the diversification of their economies, but when investing abroad, these funds tend to act as much more classical private asset managers. As noted by Balding, who carefully analyzed their portfolios and asset allocations strategies, sovereign wealth funds have to date, acted as rational and economically driven investors, diversifying their portfolio by asset class and geographic region (Balding, 2008). They require returns, risk adjusted diversification and, above all, good investments. But through their investing in developing and emerging countries, they contribute to development: generating employment, providing capital for infrastructure and supplying long term money for diverse industries from telecoms to banking services.

See http://www.edfi.be/
Asking, as the World Bank President pledged in 2008, that sovereign wealth funds should invest 1% of their assets in Africa, is in this regard a good idea if we mean that they should look to that region (as they are already doing) through the eyes of investors looking for returns (and Africa is the kind of investment that makes sense on a purely financial level) and not because it follows a political pledge from a world leader or whatever other political consideration. Most of the Gulf sovereign wealth funds are already operating in Africa looking for good business and returns. This is the case also of African SWFs like the Libyan Investment Authority. De facto, Libyan investment in the region has soared over the past decade, funded by record oil prices, through the Libya Africa Portfolio for Investments (LAP), the USD 5 billion sovereign wealth fund. China also created in 2007 a China Africa Development Fund with USD 5 billion to invest in the continent. The Qatar Investment Authority has announced that it has created a new investment fund, PME Infrastructure Management Limited Fund, with USD 400 million assets, to invest in African transportation, communication and energy sectors. This fund was announced on the eve of a trip by South African President Thabo Mbeki to Qatar that took place in 2008.

Secondly, and maybe more importantly, the most experienced and sophisticated sovereign funds, those from the Middle East and South East Asia in particular, have accumulated a deep knowledge of setting up and developing such funds and managing national wealth. Each national context is specific, with differing objectives from one country to another, but all share similar capacity constraints, asset allocation priorities and strategies. Which investment benchmarks should they use? Which risk adjusted investment should be targeted and which investment strategies and portfolio breakdown should be pursued? What products, sectors or countries are most/least correlated with their own economy? On top of that how is one to organize the management of a nation’s wealth? Should it be delegated to a specific institution or established within the already installed capacity of Central Banks or Ministries of Finance?

The above questions underline the great potential for fruitful exchange and mutual learning. The OECD is above all known and regarded for its unique peer review and learning process developed over five decades’ experience. Such a peer review and peer learning could also be highly beneficial to sovereign experience. An informal institution, a Sovereign Wealth Network (SovNet), could be envisaged to provide a forum for such funds to exchange experiences and learn from each others' successes and difficulties. The most experienced and sophisticated might share their experiences with countries in the process of planning or establishing their own national funds. More established SWFs from Gulf countries, Malaysia or Singapore would have precious experiences to share with African or Central Asian countries for instance. Nigeria, Thailand, Brazil and India (all of them planning such institutions), but also China and Russia (both already with SWF institutions in the making) could learn from the difficulties or successes of their peers in Kuwait, Dubai or Kuala Lumpur. Such a platform of dialogue does not exist per se. Mongolia, contemplating creating a sovereign fund to manage its rich mineral wealth, could learn from other experiences. The same applies for Saudi Arabia, Thailand, Central Asian or most of the African countries that are planning to set up such institutions or that are struggling with the management of an already existing fund.

This could lead to informal and formal cooperation or even to joint investments and developments. Training and transfer of technology and knowledge could be also included, the demand from newly created SWF being to develop internal capacity with people that can manage increasing share of new mandates. Frequently, one of the requests of SWFs when they agree mandates with external fund managers is precisely to provide training for employees.

Some cooperation among SWFs already exists. Norway’s SWF has been very active in providing expertise to countries in need of wealth management capacity building. Some other SWFs from developed countries have been also engaged in international technological and knowledge transfers like the US based Alaska Permanent Fund involved in the exercise
of helping the Democratic Republic of Sao Tomé and Príncipe to set up its own wealth fund (Cowper, 2008). Norway, through its Oil for development initiative, also helped Sao Tomé in 2005, both in terms of financial management and technical expertise. The authorities of East Timor (The Democratic Republic of Timor-Leste) have been also helped by Norway in the process of establishing a petroleum management system. When the National Oil Fund of Kazakhstan was established in the year 2000, the Ministry of Finance and the Central Bank studied previous SWFs experiences, especially the Alaska Permanent Fund, the Alberta Heritage Fund and the Norwegian Government Pension Fund (formerly the Petroleum Fund). In the end, Norway was used as a model for setting the Kazakh SWF (Sartbayev and Izbasarov, 2008).

But even more revealing has been the development of south-south agreements. The Vietnamese State Capital Investment Corporation (SCIC) and Qatar Investment Authority, for example, set an agreement in 2008 to create a USD 1 billion investment fund to invest in Vietnamese companies. Qatar’s SWF has been very active in its investments and cooperation with Asian countries. Another Gulf based SWF, Oman’s State General Reserve Fund, set up a USD 100mil investment fund with Vietnam’s SCIC. Also in 2008, gas exporters Qatar and Indonesia set up a USD 1 billion fund to invest in energy and infrastructure. Barwa Real Estate Company, an affiliate of the Qatar Investment Authority’s USD 40 billion property wing, agreed a USD 2 billion deal with state-owned Libyan Development and Investment Company to develop leisure, commercial and residential. Within the Gulf examples abound, like for example the recent joint venture between the Qatar Investment Authority and the International Petroleum Investment Company, a subsidiary of the Abu Dhabi Investment Council, which agreed in 2008, to create a USD 2 billion fund for global acquisitions. In June 2008, Libya and Qatar stroke a sovereign fund deal, the agreement being on setting up and regulating an investment fund between Qatar Investment Authority (QIA) and the Libyan Investment Authority (LIA).

The most sophisticated SWFs with the greatest human resources could therefore develop cooperation arms to advise their peers in the management of sovereign wealth, engage in knowledge transfer and capacity building. They would have a direct interest in doing so, some of them being able to manage mandates for other institutions. But beyond this potential direct business such an engagement would above all raise such funds’ international profile and bring them to become key interlocutors in the international finance arena. Interestingly, some SWF have already set up offices of public affairs and international cooperation that could handle such activities. This is the case, for example, of the Chinese Investment Corporation (CIC) (see Wang, 2008)12, who hired a former World Bank officer to take the position or of the Abu Dhabi Investment Authority (ADIA) who also has a director for international affairs in charge of dealing with international organizations, like the IMF or the European Commission, as well as with governments (also in mid 2008 ADIA brought in the former head of corporate communications at Morgan Stanley, as global head of corporate communications and public affairs).

The scope of the mandates of such international offices could go however well beyond a public relations exercise with international organizations and help to stimulate more investment towards other developing and emerging countries (as in the case of Temasek's international director appointed in 2008), as providing also macroeconomic coverage for the firm, such double mandate being frequently the one of chief economist and international directors of more classical financial institutions like banks. When such international offices or relations activities exist they tend however to be narrowly defined and mostly limited to deal with international organizations like the IMF or the World Bank or Western officials when they visit the country, like in the case for example of the State Oil Fund of the Republic of Azerbaijan, a small SWF with USD 5 billion of assets under management in 2008 but who has developed such international relations.

12 See for a detailed analysis of the origins of this SWF Cognato, 2008.
Although the IMF set out an International Working Group of Sovereign Wealth Funds (IWG) in 2007 to elaborate a set of SWF principles properly reflecting their investment practices and objectives\(^\text{13}\), there is no south-south peer review or peer learning driven institution. The OECD Development Centre created in 2006 a similar informal, closed and restricted platform of dialogue between OECD and emerging multinationals, the Emerging Markets Network (EmNet). A companion of this platform of dialogue could be replicated for sovereign wealth funds, from both OECD and emerging countries, including also other emerging and developing countries that have commodity endowments or wealth management issues. This Sovereign Wealth Network (SovNet) would be a unique platform for peer review and peer-learning for and largely by developing and emerging countries.

Such a platform would also be a unique space of dialogue and interaction with regional development banks, particularly the ones based in emerging and developing countries that are becoming important actors of development\(^\text{14}\). In Latin America, the Andean based Corporación Andina de Fomento or the Brazilian development bank BNDES have operations that already match or surpass the ones that Washington based institutions such as the Inter-American Development Bank or the World Bank dedicate to the region. Similarly, as already suggested, such platform could also facilitate the dialogue with OECD based bilateral development banks involved in private or public private equity deals in frontier emerging markets, particularly the Scandinavian ones or the others like FMO from the Netherlands or CDCD Group from UK.


\(^{14}\) In a recent paper Griffith-Jones and Ocampo suggest another type of linkage between SWFs and regional development Banks, the former providing additional funding to the later (Griffith-Jones and Ocampo, 2008). Here we are more thinking about potential joint ventures as the ones already in the making between SWFs themselves.
Conclusions

Sovereign wealth funds are the products of a major global economic and financial rebalancing of power. Their emergence has been controversial not only because of the fear of politically induced investments, lack of transparency and other conspiratorial arguments, but also because they symbolize a much deeper phenomenon reshaping the world’s economy and finance. Emerging markets are taking an unusual lead, becoming, among other things, massive creditors to the world and to industrialized countries in particular. Since the early 2000s, the emerging world as a whole is for the first time running current account surpluses and exporting capital to the rest of the world. Emerging countries are now key engines and actors of the world economy.

When the OECD was created five decades ago, it concentrated nearly 75 per cent of world GDP. Now it represents a mere 55%. Takeovers by emerging Middle Eastern, Asian or Latin American multinationals are taking place all around the world. The novelty lies this time not only in the size of the takeovers but also in the fact that the bulk of their targets are now OECD multinationals. In 2007 an emerging multinational (PetroChina) became, for the first time, the major capitalization in the world, surpassing traditional US titans like Exxon or General Electric. Among the 11 biggest listed companies in the world, 6 are now from emerging markets, with China leading the race along with Russia and Brazil.

The emergence of SWF should therefore be put into this broader perspective: for the first time financial actors from developing countries are playing with other OECD financial giants as equals. The novelty is that the new global financial players are no longer headquartered in The City of London, or in the Boston or New York financial districts but rather in more exotic places like Beijing, Singapore or Dubai.

This emergence of SWF investors in developing countries is a chance for those developing countries where SWFs are seeking to invest. It is also an opportunity for the international community to engage in a positive dialogue over two key dimensions. One is between OECD and emerging countries that are hosting or planning to develop SWF institutions or have more generally wealth management issues to deal with. Here we could envisage cooperation between development finance institutions, both bilateral and multilateral, and these rising actors. More generally, OECD countries should plug more money and resources in helping wealth management capacity in developing countries that badly need them: if we consider, as mentioned previously, that the potential cost for a non performing asset allocation of the wealth of these nations can reach USD 100 billion, an amount equivalent to all annual ODA from OECD countries, this is a major issue. Countries like Norway, which is both resource rich and has its own SWF and extensive experience in technology transfer and capacity building related to oil, are already active in this field. But we could imagine that others, either through their cooperation, finance ministries or their own SWF, enter also in this dynamic, as we suggest for example for Chile (Havro and Santiso, 2008).

In this exercise of wealth management cooperation and capacity building, SWFs from emerging and developing countries can also be active and key actors. They could work to

---

It is however ironic to see Western capitals pledging for more transparency from SWF (targeting mostly the ones in emerging and developing country) in the midst of the subprime crisis, due precisely to the lack of transparency in all the Western financial system. Another complication lies also in the fact that even if SWFs agree to the strip tease requested by Westerners we will quickly encounter another difficulty: what about the private equity, hedge fund and other investment companies, based mostly in Western financial centres, that receive mandates from SWF? A SWF like Norway declared to have mandates allocated to 50 external fund managers for about 22% of the assets of the fund, by the end of 2006 (data from Kjaer, 2008). If we take this ratio as a reasonable minimalist assumption we can easily see that the sums are nearly equivalent to one third of all the SWFs assets: according to a Cerulli Associates report, sovereign wealth funds have an estimated USD 1.3 trillion already in play with external managers, that amounts to about 44% of the total of SWFs assets. Some SWF from emerging countries have already ratios that are higher: in the case of Kazakhstan, 46% of the assets of the national Oil Fund are managed externally (Sartbayev and Izbasarov, 2008).
transfer their own knowledge and technologies or, more simply, share with other developing countries that are caught in wealth management capacity traps or planning to develop institutions to deal with their resource wealth. In this regards, we propose to create an informal platform of peer review and peer learning between SWF and developing countries with similar issues, a SovNet (Sovereign Wealth Network) based on the same dynamics and characteristics that the one we developed at the OECD Development Centre for OECD and emerging multinationals, the Emerging Markets Network (EmNet). Such a platform would be unique, driven by sovereign funds themselves promoting south-south cooperation (with also OECD SWFs also involved), the Development Centre offering infrastructure and logistics.
Annex 1: Estimates for SWF assets under management, 2008

<table>
<thead>
<tr>
<th>Market Estimates for Assets under management by SWF in 2008</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE Abu Dhabi Investment Authority</td>
<td>250</td>
<td>875</td>
</tr>
<tr>
<td>Norway Government Pension Fund-Global</td>
<td>380</td>
<td>380</td>
</tr>
<tr>
<td>Saudi Arabia 1/ No designated name</td>
<td>289</td>
<td>289</td>
</tr>
<tr>
<td>Kuwait Reserve Fund / Government Reserve Fund</td>
<td>213</td>
<td>213</td>
</tr>
<tr>
<td>Russia Reserve Fund</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>National Welfare Fund</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Libya Libyan Investment Corporation</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Qatar State Reserve Fund/Stabilization fund</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Algeria Reserve Fund/Revenue Regulation Fund</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>USA (Alaska) Alaska Permanent Reserve Fund</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Brunei Brunei Investment Authority</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Kazakhstan National Fund</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Malaysia Khazanah Nasional BHD</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Canada Alberta Heritage Savings Trust Fund</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Nigeria Excess Crude Account</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Iran Oil Stabilization Fund</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Azerbaijan State Oil Fund</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Oman State General Reserve Fund</td>
<td>2.2</td>
<td>2</td>
</tr>
<tr>
<td>Timor-Leste Petroleum Fund of Timor-Leste</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Venezuela FIEM - Macroeconomic Stabilization Fund</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>Trinidad &amp; Tobago Revenue Stabilization Fund</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Singapore Government Investment Corp.</td>
<td>100</td>
<td>330</td>
</tr>
<tr>
<td>China China Investment Corporation</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Singapore Temasek Holdings</td>
<td>108</td>
<td>108</td>
</tr>
<tr>
<td>Korea Korea Investment Corp.</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Taiwan, Province of China National Stabilisation Fund</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Australia Australian Future Fund</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>Chile Economic and Social Stabilization Fund</td>
<td>14.9</td>
<td>14.9</td>
</tr>
<tr>
<td>Pension Reserve Fund</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Botswana 1/ Pula Fund</td>
<td>4.7</td>
<td>4.7</td>
</tr>
<tr>
<td>Kiribati Revenue Equalization Fund</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Total</td>
<td>2,093</td>
<td>2,968</td>
</tr>
</tbody>
</table>

Bibliography


Balding, C. (June 2008), "A Portfolio Analysis of Sovereign Wealth Funds", University of California, Irvine, Department of Economics.


Havro, G. and J. Santiso (September 2008), "To benefit from plenty: Lessons from Chile and Norway", OECD Development Centre, Policy Brief, 37.

HSBC (June 2008), Shifting fortunes, London, HSBC Global Research, Emerging Markets Macro Strategy.


Pimco (June 2007a), When capital flows uphill: emerging markets as creditors, San Francisco, Pimco. See also http://www.pimco.com/

Pimco (November 2007b), Perils of plenty: can foreign reserves grow forever, San Francisco, Pimco Global Central Bank Focus. See also http://www.pimco.com/


Rozanov, A. (February 2008), "A liability based approach to sovereign wealth", Central Banking Quarterly Journal Vol. 18, no. 3


Santiso, J. (April 2008a), "Sovereign Development Funds: are SWFs a stability factor for the unwinding of global imbalances", Presentation prepared for The Reinventing Bretton Woods Conference "Bretton Woods II under stress?", Banco de España, Madrid. See also http://www.rbwf.org/


Santiso, J. and G. Havro (September 2008), "To benefit from plenty: Lessons from Chile and Norway", OECD Development Centre, Policy Brief, 37.

