

Sovereign Wealth Funds: New Challenges from a Changing Landscape

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Chairman Gutierrez and members of the Subcommittee on Domestic and International Monetary Policy, it is a pleasure to testify before you today on the challenges posed by sovereign wealth funds.

The broadest definition of a sovereign wealth fund (SWF) is a collection of government-owned or government-controlled assets. Narrower definitions may exclude such assets as government financial or nonfinancial corporations, purely domestic assets, foreign exchange reserves, assets owned or controlled by subnational governmental units, or some or all government pension funds. However, it is useful to keep these broader concepts in mind when discussing SWFs. The reason is that many of the anxieties that are conventionally associated with SWFs, narrowly defined, more appropriately are concerns about the management of government assets other than those of sovereign wealth funds.

The accountability of SWFs has been the focus of my research and analysis. I use “sovereign wealth fund” as a relatively broad descriptive term for a separate pool of government-owned or government-controlled assets that includes some international assets. I include all government pension, as well as nonpension, funds to the extent that they manage marketable assets. The basic objectives of both types of SWFs are essentially the same. They raise virtually identical issues of best practice with respect to government control and accountability regardless of their specific objectives, mandates, or sources of funding.

Sovereign wealth funds, on my terms, may be funded from foreign exchange reserves, earnings from commodity exports, receipts from privatizations, other fiscal revenues, or pension contributions. (Table 1 lists 56 sovereign wealth funds of 38 countries.) These funds have been around for more than half a century with a range of structures, mandates, and economic, financial, and political (primarily domestic, but in some cases maybe international) objectives—normally a mixture.¹ Consequently, it is perilous to generalize about sovereign wealth funds and any associated threats to US economic and financial interests.

¹ Table 1 also lists the dates when the funds were established, the sources of their funding, and estimates of their size. The table includes 44 SWFs that I have identified that are not hard-wired to government pension funds and 12 representative pension SWFs. Note that the data in table 1, in the other tables in this testimony, and described in the text include the government pension SWFs of Chile and Thailand that were not part of the analysis presented in my *Blueprint for Sovereign Wealth Fund Best Practices* released as Policy Brief 08-3 by the Peterson Institute for International Economics, April 1, 2008.

With that important qualification, my six summary conclusions are:

1. Sovereign wealth funds are here to stay and likely to grow in their relative importance in the international financial system as financial globalization continues.
2. The US economy is thoroughly intertwined with the global financial system on both the asset and liability side of our balance sheet through both the private and public sectors. We are a major player in the SWF game. It follows that advocates of formally regulating sovereign wealth funds should be careful what they wish for. Any regulations or other restrictions that are applied to foreign SWFs properly should be applied to our SWFs and would be applied to them by other countries.
3. The most promising approach to dealing with the SWF phenomenon is via “reciprocal responsibility.” Countries with SWFs should embrace a voluntary international standard of best practice along the lines of my scoreboard outlined below. Countries receiving SWF investments should strengthen the openness of their financial systems. At present more progress is being made by countries making SWF investments than by recipient countries. The financial turmoil that would result from an outbreak of financial protectionism would make recent events feel like a mere squall.
4. It is fundamentally impossible to distinguish sovereign wealth funds by their degree of political motivation in their investment decisions. They are governmental entities, and governments are political.
5. SWFs do not pose a significant new threat to US economic and financial interests. As long as we put in place and maintain sound economic and financial policies, we control our own destiny. We have adequate mechanisms to address any potential national security concerns posed by SWFs or other forms of foreign government investment in this country. At this point they appear to be minimal.
6. I am a bit uneasy about the possibility that some funds may exercise “undue influence” in connection with foreign governmental investments in our financial institutions. I hope our existing processes can deal with the more heavily regulated portion of our financial system. Improvements in the accountability of large hedge funds and private equity firms, which I favor, could help elsewhere.

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It is useful to place the activities of sovereign wealth funds in a broader perspective. The size of global capital markets is at least \$200 trillion.² A conservative estimate of financial assets owned or controlled by governments is \$15 trillion, or about 8 percent of global financial assets.³ Governments in the United States own or control more than \$3 trillion (20 percent)

² International Monetary Fund, *Global Financial Stability Report*, April 2008, table 3 provides a figure of \$190 trillion as of the end of 2006. The total includes stock market capitalization, public and private debt securities, and commercial bank assets.

³ This estimate includes \$6 trillion in foreign exchange reserves, \$6 trillion in government pension funds (excluding the US social security fund and government pension funds that invest exclusively in government assets or are not involved in the management of marketable assets), and \$3 trillion in assets of nonpension sovereign wealth funds.

of the global governmental total.⁴ The United States is in the business of sovereign wealth management.

International assets owned or controlled by governments are at least \$10 trillion: \$6 trillion in foreign exchange reserves, \$2.7 trillion in assets of nonpension SWFs, and at least \$1.3 trillion in government pension funds.⁵ Excluding our modest holdings of foreign exchange reserves, the international assets of US SWFs are about \$800 billion mostly in the form of the pension funds of state and local governments. The aggregate amount of international assets held by US sovereign wealth funds is second only to the estimated SWF holdings of the United Arab Emirates.

As an additional point of reference, at the end of 2007, US total holdings of foreign assets were \$15.4 trillion. About 93 percent was managed by the private sector. Foreign holdings of US assets were \$17.9 trillion. About 80 percent was managed by the private sector.⁶ US holdings of international financial assets are about 20 percent of the global total.

Over the past five years, the size of the global capital market has doubled, but asset holdings of SWFs have quadrupled. I expect them to continue to expand rapidly. The explosive growth of SWFs reflects the sustained rise in commodity prices as well as aspects of global imbalances. However, the increased international diversification of financial portfolios—the weakening investors’ so-called home bias—is at least as significant as macroeconomic factors in explaining the growth of SWFs.

In my judgment, it is a mistake to conflate the important issues raised by the growth of sovereign wealth funds with the probably more serious issues raised by global imbalances, in general, and our large and continuing current account deficits, in particular. As evidence, consider the fact that in Germany there is great concern about sovereign wealth fund investments, but Germany is in perpetual current account surplus and has a positive net international investment position. SWFs are part of the ongoing globalization of the international financial system.

The increasing relative importance of SWFs has exposed two tensions.

The first is the dramatic redistribution of international (or cross-border) wealth from the traditional industrial countries, like the United States, to countries that historically have not been major players in international finance. The newcomers have had little or no role in shaping the practices, norms, and conventions governing the system. Consequently, the leaders and citizens of many of those countries feel they have little stake in the health and stability of the international financial system.

The second is the fact that governments own or control a substantial share of the new international wealth. This redistribution from private to public hands implies a decision-making orientation that is at variance with the traditional private-sector, market-oriented

⁴ US governmental financial assets include \$3 trillion in state and local government pension funds, \$50 billion in other subnational SWF assets, and \$40 billion in foreign exchange reserves.

⁵ Based on various estimates, government pension funds around the world hold about \$6 trillion in assets, and roughly 25 percent of those are foreign.

⁶ US and foreign data on the international stocks and flows of financial assets generally do not distinguish government from nongovernment investors. The above estimate of assets controlled by US governmental units includes federal government assets as reported by the Commerce Department (The US Net International Investment Position at Yearend 2006, Bureau of Economic Analysis, BEA 08-32, June 27, 2008) plus estimated holdings of \$750 billion by state and local government pension funds that are included in our statistics among private-sector assets. In the same Commerce Department release, foreign official assets in the United States include foreign exchange reserves and some holdings of sovereign wealth funds, but the data as collected do not distinguish between the two categories. The figures cited exclude, on the asset and liability side, the “gross positive fair value” of derivatives.

framework with which most of us are comfortable even though our own system does not fully conform to that ideal; witness the current tribulations of our so-called government-sponsored agencies.

These twin tensions, in turn, are manifested in five more specific concerns.

First, home governments may mismanage the international investments of their SWFs, damaging their own economic and financial health and stability, including via large-scale corruption in handling the huge amounts involved. It is a well-known, though often ignored, regularity that governments are not good at picking economic winners; for example, government-owned banks tend to be less profitable than private banks. These concerns about financial mismanagement are the principal reason why it is in the interests of the citizens of every country with an SWF to favor the establishment of internationally agreed SWF best practices.

Second, governments may manage their SWF investments in pursuit of political objectives, raising national security concerns, or economic power objectives—for example, promoting state-owned or state-controlled national champions as global champions. Such behavior contributes not only to political conflicts between countries but also to economic distortions.

Third, financial protectionism may be encouraged in host countries in anticipation of the pursuit of political or economic objectives by the funds or in response to their actual actions. Development of and compliance with SWF best practices would help to diffuse this source of backlash against globalization. At the same time, countries receiving SWF investments should be as open as possible to such investments subject to the constraints of national security considerations narrowly defined.

Fourth, in the management of their international assets, SWFs *may* contribute to market turmoil and uncertainty. They also *may* contribute to financial stability, but their *net* contribution is difficult to establish a priori, in particular if their operations are opaque but also because judgments can be reached only on a case by case basis.

Fifth, foreign government owners of the international assets may come into conflict with the governments of the countries in which they are investing. For example, government ownership adds a further dimension in balancing open markets and appropriate conventional microprudential, as well as the newly rediscovered macroprudential, supervision and regulation of the financial system.

At this point, these concerns, with the important exception of the first—potential adverse economic and financial implications for the countries with the SWFs—are largely in the realm of the hypothetical. The others are much more salient in the context of cross-border investments by government-owned or government-controlled financial or nonfinancial corporations. Nevertheless, a loud, often acrimonious, public discourse about SWFs is under way in many countries, not only in the countries receiving SWF investments but also in the countries making the investments.

The challenge is to make the world safe for sovereign wealth funds.

Starting in May 2007, I have advocated the establishment of an internationally agreed voluntary set of best practices for SWFs. My view was that the natural place to start was with the current practices of individual funds today. To this end, I created a scoreboard for 46 of the 56 funds listed in table 1, including the 12 pension SWFs.⁷ The scoreboard

⁷ We scored the two new Russian SWFs as the single fund it was before its recent transformation. The remaining nine funds, indicated by “c” in table 1, are either too new to score or we could not find sufficient information to do so.

rates funds on their current practices and includes 33 elements grouped in four categories: (1) structure, (2) governance, (3) accountability and transparency, and (3) behavior. We have the funds based on systematic, regularly available, public information. At least one fund receives a positive score on each element. In fact, at a minimum, several do.

Table 2 provides a summary of the scoreboard results for all elements and for each of the four categories.⁸ Let me offer a few summary observations:

First, all sovereign wealth funds are not the same. Nor is there one cluster of “good” funds and another cluster of “bad” funds. The overall scores range from 95 to 9 out a possible 100. The rating of each fund can be improved.

Second, the funds are in three broad groups: 22 funds with scores above 60, 14 funds with scores below 30, and 10 funds in a middle group. The top group includes funds of a number of developing countries, including Thailand (84), Timor-Leste (80), Azerbaijan (77), China’s pension fund (77), Chile (71), and Kazakhstan (71). The middle group includes funds of nonindustrial countries as diverse as Russia (51), Mexico (49), Kuwait (48), and Singapore, whose two funds are in this group (45 and 41). Singapore’s two funds have close-to-identical overall scores, but their scores differ on several individual elements. The bottom group includes two funds from Abu Dhabi (15 and 9) each of which, nevertheless, reportedly has an excellent reputation in financial markets.

Third, as you can see from table 2, there is a strong correlation (0.967) between the total scores for the 46 SWFs and the category of accountability and transparency. Many commentators like to stress the *transparency* of SWFs, but in my view the central issue is their *accountability* to their own citizens (as direct or indirect owners of the assets), to citizens (including government officials) in the countries in which they invest, and to participants in financial markets. Transparency is only a means to this end.

Fourth, 11 nonpension SWFs have estimated assets more than \$60 billion. We scored nine of these funds.⁹ Two are in the top group (those of Norway (92) and Hong Kong (67)) and two are in the bottom group (one in Abu Dhabi (9) and one in Qatar(9)).

Fifth, again focusing on the nine largest nonpension funds that we scored, four funds say that their investment decisions are made exclusively by investment managers (Norway (92), Kuwait (48), and the two Singapore funds (45 and 41)). We could find no such statements for the other five funds (Hong Kong (67), Russia (51), China’s investment corporation (29), Abu Dhabi (9), and Qatar (9)).¹⁰

Taking this information at face value, would it be right to infer that in the first four cases there is no political influence on investment decisions and in second five cases investment decisions are guided by political considerations? Quite frankly, I doubt it. In the latter cases, it is reasonable to conclude that the political authorities may influence, guide, or approve major investment decisions. We know that is the case for China Investment Corporation.

In the former cases, it is difficult to conclude that political considerations are completely absent from investment decisions. For example, it would be a stretch to imagine that the investment managers in Singapore’s Government Investment Corporation or Temasek did not consider the potential international (and domestic) political ramifications

⁸ Table 3 provides the results for each fund on each element. The appendix provides a list of the 33 elements.

⁹ The two funds that we did not score are in Saudi Arabia, whose reported nonreserve assets are regarded by some as a de facto SWF, and in Dubai, in which case we could not find enough information about its Investment Corporation.

¹⁰ One should not necessarily conclude from this evidence that there is higher-level interference in investment decisions in these funds; their governance policies are unclear on this point.

of their large investments in foreign financial institutions before they committed to making them. This observation merely reinforces my earlier point: When a government entity makes an investment decision (no matter how it is formally structured to insulate it from political pressures), its decisions will be interpreted at home and abroad through a political lens. Just ask the Norwegians about the brouhaha over their reported disinvestment in Icelandic government bonds!

Finally, although each of the 12 representative *pension* SWFs is in the top group, that group of 22 funds also includes 10 *nonpension* SWFs. Thus, it is not unreasonable, in my view, to hold nonpension SWFs to the standard of accountability of pension funds. Chile's pension and nonpension SWFs both score in the top group (71). On the other hand, China's National Social Security Fund is in the top group (77), but the China Investment Corporation is in the bottom group (29). It is reasonable to ask why the latter entity cannot be as accountable as is the former entity.

Turning to the issue of sovereign wealth funds and their potential to disrupt financial markets, any investor with a large portfolio has that potential whatever his or her motivation. However, the very size of such portfolios helps to inhibit them from doing so, in other words, discourages them from shooting themselves in their feet.

At the same time, it is inappropriate in my opinion to view SWFs as cornucopias available to be tapped to rescue the US or the global financial system. For every SWF investment in a US financial institution, that fund has to disinvest, or not invest, in some other asset, normally in the United States or at least in US dollars. If they invest in Citigroup, they don't invest in General Motors.

Some observers of private equity firms and hedge funds have concerns about the implications of such entities for the stability of our economy and financial system. I do not share most of those concerns though I have long favored increased accountability for large private equity firms and hedge funds. However, the facts do not support those who argue that SWFs are not like hedge funds and private equity firms in their speculative activities. Sovereign wealth funds invest in hedge funds, in private equity firms, and in other highly leveraged financial institutions whose activities, including the use of leverage, are indistinguishable from hedge funds and private equity firms. In effect, sovereign wealth funds are providing the capital that those firms subsequently leverage to generate high rates of return for the funds. They are no different from other investors except that their stakes may be measured in the billions rather than in the hundreds of millions of dollars.

Should we be concerned about SWF investments in US financial institutions? In most countries, financial institutions are subject to special regulatory regimes, in part, because they are viewed as quasi-public utilities and, in part, because financial institutions have special privileges in the form of access to discount windows, deposit insurance, and payments systems. The basic question is whether foreign government ownership, even if indirect or noncontrolling, is compatible with this special status.

Even in the case of a stake that is less than, say, 5 percent and not associated with board membership, will the government of the sovereign wealth fund that is a shareholder seek to exercise what I would call "undue influence" over the financial institution in its business and investment decisions? Or otherwise come into conflict with US government regulators and supervisors? "Undue influence" is a vague term. Presumably all shareholders, exercising their shareholder rights, seek to influence the decisions of the entities in which they have stakes. Nevertheless, in my view, this is more of a problem in the case of investments in regulated financial institutions than in the case of investments in nonfinancial institutions, whose assets are less portable. Therefore, it is reasonable to ask the supervisors

and regulators what procedures they have in place to reduce the probability that the government owners of sovereign wealth funds do not seek to exercise “undue influence” over the decisions of financial institutions in which they have significant stakes.¹¹

At the same time, it is highly probable that foreign investors—governmental or nongovernmental—in US financial or nonfinancial institutions will complicate the enforcement of US securities laws. But this is a fact of life in the 21st century. It does not provide a sufficient basis for limiting or barring such investments. Financial markets are global. This reality presents enforcement challenges. Limiting portfolio investments to countries that are currently our friends does not eliminate potential problems. There is often no consensus about who are our “friends,” and today’s friends may be regarded differently tomorrow. Moreover, as we learned in the case of *Crédit Lyonnais* and *Equitable Life*, which involved the French government, blood is thicker than water.

What about those SWF investments in hedge funds and private equity firms? Are they a matter for concern? As I see it, in effect, the SWFs are hiring these entities to manage their investments and maybe to develop some additional expertise for the SWF as a byproduct. Whether one approves of such investments depends on one’s view of the activities of hedge funds and private equity firms. Sentiment is not uniform on such matters. In my view, the principal concern is the nature of the contract between the SWF and the hedge fund or private equity firm. If it is an arms-length contract, then I would have no concern. If the SWF can direct and shape the investment policies of the entity, I would have more concern. As I said earlier, I favor greater accountability by large hedge funds and private equity firms in general, and not just to their counterparties but also to the general public and including about the nature of arrangements with their principal investors.

How should the US Congress and the administration address sovereign wealth fund investments in the United States? Notwithstanding my view that the greatest economic and financial risks associated with SWFs are to the citizens of the countries whose governments have accumulated the large stocks of international assets, authorities in the United States and other countries where those assets are invested also have legitimate concerns about how they will be managed. Those concerns focus primarily on acquisition of large or controlling stakes by foreign governments in private institutions. At present, this is the exception not the rule for SWFs.

My interpretation of the recent exhaustive report by the Monitor Group on equity investments by sovereign wealth funds is that they are rather small in aggregate. The global total value of all “deals” from 2000 to the first quarter of this year was reported to be \$250 billion, less than 10 percent of the assets of SWFs, and many of those deals did not involve controlling stakes.¹² However, one area of concern and potential conflict is the apparent use by a few countries, such as China and potentially Brazil, of their SWFs to promote the expansion of their own economic enterprises.

Of course, the current, largely benign pattern could change, and foreign government-owned or government-controlled financial and nonfinancial corporations do acquire stakes in companies, including controlling stakes. The 2007 Foreign Investment and National

¹¹ I also think it is reasonable to consider whether we need to improve the quality of our statistical information on US assets and liabilities of governments and government-owned or -controlled entities, including sovereign wealth funds. At present, we have very little, systematic information aside from liabilities that are lumped in with foreign exchange holdings.

¹² Miracky, Michael, Davis Dyer, Drosten Fisher, Tony Glodner, Loic Lagarde, and Vincent Piedrahita, “Assessing the Risks: The Behavior of Sovereign Wealth Funds in the Global Economy,” Monitor Group, June 2008.

Security Act (FINSIA) revised the framework and procedures of the Committee on Foreign Investment in the United States (CFIUS). With these changes and the existing powers of the Securities and Exchange Commission as well as other US financial regulators, we are well positioned to evaluate and, if necessary, to mitigate, block, or pursue any US acquisitions or investment by an SWF or other foreign government entity to protect our national security or to enforce our laws and regulations governing financial markets and institutions.

With respect to economic security concerns, the greatest risk to the US economy is that we will erect unnecessary barriers to the free flow of capital into our economy and, in the process, contribute to the erection of similar barriers in other countries to the detriment of the health and continued prosperity of the US and global economies. We may not in all cases be comfortable with the consequences of the free flow of finance and investment either internally or across borders, but on balance it promotes competition and efficiency.

The challenges posed by SWFs to the countries with the funds and to the international financial system require, in my view, a multilateral, two-pronged approach of what I would call “reciprocal responsibility” by the countries with the SWFs and by the countries receiving investments by them.

To this end, I have advocated the establishment of an internationally agreed voluntary set of best practices for SWFs. The news on this front is positive.

Last week it was announced that the IMF-sponsored International Working Group of Sovereign Wealth Funds had reached agreement in principle on Generally Accepted Principles and Practices (GAPP) for Sovereign Wealth Funds covering their institutional framework, governance, and investment operations—the so-called Santiago Principles. I do not think it is important whether the resulting document is called principles, practices, or both. I do not think it is important whether they are “generally accepted” or “best.” What is important is the content, which we do not know yet. The reports I have read are encouraging. I am confident that the content will be less than perfect, but members of this committee understand that in politics compromise is necessary if you are going to get anything done. I will be surprised if the GAPP template does not “score” at least 70 on my scoreboard.

I believe that the IMF should be congratulated on facilitating an agreement in record time—less than a year since the first call by the International Monetary and Financial Committee (IMFC) and less than six months after the start of intensive work. It is significant that the agreement is expected to be embraced by 23 countries, including all but one country with a nonpension SWF with more than \$50 billion in foreign assets. (The exception is Hong Kong. Saudi Arabia was an observer, and as a formal matter does not have an SWF.) Over the next year, I expect that there will be a substantial improvement in the scores of most SWFs on my scoreboard.

I know that there are concerns about the voluntary nature of this agreement and about its enforcement. I would point out that very few international agreements have enforcement mechanisms, which does not mean that they are useless. Moreover, in the case of SWFs, we need to be sensitive to the risk of regulatory arbitrage. If too much emphasis is placed on sovereign wealth funds as defined in the Santiago Principles, countries will just disband their funds and conduct the same activities through more clandestine means.

The second prong of reciprocal responsibility regarding SWFs involves strengthening the investment frameworks of countries that receive SWF investments to ensure that appropriate investments are welcomed. This involves primarily the industrial or OECD countries. Again, doing so is in the interests of the recipient countries as well as the investing countries.

A less-well-publicized exercise to this end is under way in the Organization for Economic Cooperation and Development (OECD) headquartered in Paris. It seeks to build on existing Declarations and Codes of that organization. A June 4-5, 2008 OECD Ministerial Council Meeting in Paris adopted a Declaration on Sovereign Wealth Funds that weakly called for recipient countries not to erect protectionist barriers, not to discriminate among investors in like circumstances, and to restrict the use of safeguards where national security concerns are involved. The OECD process is not scheduled for completion until next year.

How are observers to judge results to date or in prospect and are they likely to be sufficient to provide comfort to countries that are not members of the OECD seeking to invest in those countries with their SWFs? I have three concerns.

First, OECD investment codes are binding only on investments from other members. Members commit to use their best efforts to extend them to nonmembers, but this is a potential loophole that should be closed.

Second, a country's decision to invoke the national security "exemption" from a policy of open investment is not subject to appeal or discussion even within the OECD as part of its so-called peer review process. The country alone makes the decision.

Third, more than half of OECD members have lists of sectors closed off from foreign investment. Links to national security for some of them are tenuous, for example, maritime dredging and salvaging in the United States. It is noteworthy that Germany's proposed new foreign investment legislation will also have a test of "public order" as well as national security. Furthermore, Canada recently prevented Alliant Techsystems of the United States from buying the space technology division of MacDonald-Dettwiler, which specializes in satellites and space robotics. This seems like a questionable national security call for such close allies. As another example, Japan rejected the Children's Investment Fund's expanded investment in a Japanese power producer on the grounds of a potential disruption of "public order." Finally, New Zealand recently prevented the Canada Pension Plan from buying a substantial stake in the Auckland airport because the investment failed to meet the test of being a "benefit to New Zealand."

What are we to conclude about the OECD efforts? My conclusion is that OECD members have more work to do.

In conclusion, the phenomenon of sovereign wealth funds is a permanent feature of our global economy and financial system. Their potential impacts on US economic and financial interests may be disquieting, but they do not endanger our economy or financial system. US authorities should exhaust all multilateral approaches to make the world safe for SWFs—in the form of SWF best practices and open financial environments—before turning to any additional, bilateral remedies for concerns that to date are largely imaginary.

Table 1: Sovereign wealth funds

Country	Current Name	Date Established	Source of Funds	Current Size ^a (billions of US dollars)
NONPENSION FUNDS				
Algeria	Revenue Regulation Fund	2000	Natural resources	47
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	1999	Natural resources	2
Botswana	Pula Fund ^b	1993	Natural resources	7
Brunei	Brunei Investment Agency	1983	Natural resources	35 (e)
Canada	Alberta Heritage Savings Trust Fund ^d	1976	Natural resources	17
Chile	Economic and Social Stabilization Fund	2006	Natural resources	15
China	China Investment Corporation ^d	2007	Foreign exchange reserves	200
	Shanghai Financial Holdings ^{c,d}	2007	Fiscal surpluses	1 (e)
Gabon	Fund for Future Generations ^c	1998	Natural resources	0.4 (e)
Hong Kong	Exchange Fund Investment Portfolio ^{b,d}	1993	Foreign exchange reserves, fiscal surpluses	139
Iran	Oil Stabilization Fund	2000	Natural resources	10
Kazakhstan	National Fund for the Republic of Kazakhstan	2000	Natural resources	23
Kiribati	Revenue Equalization Reserve Fund	1956	Natural resources	1 (e)
Korea	Korea Investment Corporation ^b	2005	Foreign exchange reserves	30
Kuwait	Kuwait Investment Authority ^d	1953	Natural resources	213
Libya	Libyan Investment Authority ^c	2006	Natural resources	50
Malaysia	Khazanah Nasional ^d	1993	Fiscal surpluses	18
Mexico	Oil Income Stabilization Fund	2000	Natural resources	5
Nigeria	Excess Crude Account ^b	2003	Natural resources	17 (e)
Norway	Government Pension Fund – Global	1990	Natural resources	375
Oman	State General Reserve Fund	1980	Natural resources	13 (e)
Qatar	Qatar Investment Authority	2005	Natural resources	60 (e)
Russia	National Wealth Fund ^b	2008	Natural resources	32
	Reserve Fund ^b	2008	Natural resources	128
São Tomé and Príncipe	National Oil Account	2004	Natural resources	0.02 (e)
Saudi Arabia	Saudi Arabian Monetary Agency ^c	1952	Natural resources	270
Singapore	Government of Singapore Investment Corporation ^b	1981	Foreign exchange reserves, fiscal surpluses, employee contributions	200 – 330 (e)
	Temasek Holdings ^d	1974	Government enterprises	110
Sudan	Oil Revenue Stabilization Account	2002	Natural resources	0.1
Timor-Leste	Petroleum Fund	2005	Natural resources	2
Trinidad and Tobago	Heritage and Stabilization Fund	2007	Natural resources	2 (e)
United Arab Emirates	Emirates Investment Authority ^c	2007	Natural resources	n.a.
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	1976	Natural resources	500 – 875 (e)
	International Petroleum Investment Company ^c	1984	Natural resources	12
	Mubadala Development Company	2002	Natural resources	10 (e)
United Arab Emirates (Dubai)	DIFC Investments ^c	2006	Natural resources	n.a.
	Dubai International Capital ^c	2004	Natural resources	13
	Investment Corporation of Dubai ^c	2006	Natural resources	82 (e)
	Istithmar	2003	Natural resources	12 (e)
United States	Alaska Permanent Fund ^d	1976	Natural resources	37
	Permanent Mineral Trust Fund (Wyoming) ^d	1974	Natural resources	4
	Severance Tax Permanent Fund (New Mexico) ^d	1973	Natural resources	5
Venezuela	Macroeconomic Stabilization Fund	1998	Natural resources	1
	National Development Fund	2005	Natural resources	21
Subtotal^e				2,972
PENSION FUNDS				
Australia	Future Fund ^d	2006	Fiscal surpluses	53
Canada	Canada Pension Plan ^d	1966	Employee contributions	121
	Caisse de dépôt et placement du Québec ^d	1965	Employee contributions	157
Chile	Pension Reserve Fund	2006	Fiscal surpluses	2
China	National Social Security Fund ^d	2000	Fiscal surpluses	71
France	Fonds de réserve pour les retraites ^d	2001	Fiscal surpluses	50
Ireland	National Pensions Reserve Fund ^d	2001	Fiscal surpluses	31
Japan	Government Pension Investment Fund ^d	1961	Employee contributions	1,274
Netherlands	Stichting Pensioenfondsen ABP ^d	1922	Employee contributions	316
New Zealand	Superannuation Fund ^d	2001	Fiscal surpluses	10
Thailand	Government Pension Fund ^d	1996	Employee contributions and fiscal surpluses	13
United States	California Public Employees' Retirement System ^d	1932	Employee contributions	237
Subtotal				2,337
Total^e				5,308

(e) = estimate; n.a. = not available

a. Data are from the end of 2007 or the most recent date available.

b. Some or all assets are included in reserves.

c. Excluded from scoreboard.

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d. A portion of the holdings is in domestic assets.

e. Total uses the midpoint of the range of estimates.

Sources: National authorities, IMF, other public sources.

Table 2: Summary sovereign wealth fund scoreboard (percent of maximum possible points)

Country	Fund	Structure	Governance	Accountability & Transparency	Behavior	Total
<i>Canada</i>	<i>Canada Pension Plan</i>	100	100	96	83	95
<i>New Zealand</i>	<i>Superannuation Fund</i>	100	100	100	75	95
United States (Alaska)	Alaska Permanent Fund	100	80	100	83	94
<i>Canada (Québec)</i>	<i>Caisse de dépôt et placement du Québec</i>	100	100	89	83	92
<i>France</i>	<i>Fonds de réserve pour les retraites</i>	100	100	89	83	92
Norway	Government Pension Fund – Global	94	100	100	67	92
<i>United States (California)</i>	<i>California Public Employees' Retirement System</i>	100	100	96	67	92
United States (Wyoming)	Permanent Mineral Trust Fund	100	90	82	100	91
<i>Japan</i>	<i>Government Pension Investment Fund</i>	100	90	80	83	87
<i>Ireland</i>	<i>National Pensions Reserve Fund</i>	100	100	86	58	86
United States (New Mexico)	Severance Tax Permanent Fund	100	50	86	100	86
<i>Netherlands</i>	<i>Stichting Pensioenfonds ABP</i>	100	100	86	50	85
<i>Thailand</i>	<i>Government Pension Fund</i>	100	100	88	42	84
<i>Australia</i>	<i>Future Fund</i>	100	80	68	83	80
Timor-Leste	Petroleum Fund for Timor-Leste	100	40	96	50	80
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	88	60	89	50	77
<i>China</i>	<i>National Social Security Fund</i>	100	40	82	67	77
Canada (Alberta)	Alberta Heritage Savings Trust Fund	94	60	79	50	74
Chile	Economic and Social Stabilization Fund	94	60	86	17	71
<i>Chile</i>	<i>Pension Reserve Fund</i>	94	60	86	17	71
Hong Kong	Exchange Fund	88	40	79	33	67
Kazakhstan	National Fund for the Republic of Kazakhstan	88	60	64	33	64
Botswana	Pula Fund	69	60	54	33	55
Trinidad and Tobago	Heritage and Stabilization Fund	100	60	46	0	53
Korea	Korea Investment Corporation	75	60	45	25	51
Russia	Reserve Fund and National Wealth Fund	72	40	50	33	51
São Tomé and Príncipe	National Oil Account	100	60	29	17	48
Kuwait	Kuwait Investment Authority	75	80	41	0	48
Mexico	Oil Income Stabilization Fund	69	20	43	50	47
Singapore	Temasek Holdings	50	50	61	0	45
Singapore	Government of Singapore Investment Corporation	63	40	39	17	41
Malaysia	Khazanah Nasional	44	50	46	0	38
China	China Investment Corporation	50	50	14	17	29
Kiribati	Revenue Equalization Reserve Fund	69	60	7	0	29
Algeria	Revenue Regulation Fund	56	40	11	17	27
Nigeria	Excess Crude Account	50	30	14	17	26
Iran	Oil Stabilization Fund	50	20	18	0	23
Venezuela	Macroeconomic Stabilization Fund	50	0	18	17	23
Venezuela	National Development Fund	38	0	27	0	20
Oman	State General Reserve Fund	50	0	18	0	20
Sudan	Oil Revenue Stabilization Account	56	0	14	0	20
Brunei Darussalam	Brunei Investment Agency	31	0	25	0	18
United Arab Emirates (Abu Dhabi)	Mubadala Development Company	44	10	7	0	15
United Arab Emirates (Dubai)	Istithmar World	38	10	7	0	14
Qatar	Qatar Investment Authority	34	0	2	0	9
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	25	0	4	8	9
Subtotal Nonpension		68	41	44	25	46
Subtotal Pension		99	89	87	66	87
Total		76	53	55	35	56

Note: Pension funds are in italics.

Table 3: Scoreboard for sovereign wealth funds

		Structure								Subtotal
		Objective Stated	Fiscal Treatment				Investment Strategy	Changes in the Structure	Separate from International Reserves	
			Source of Funding	Use of Fund Earnings	Integrated with Budget	Guidelines Followed				
NONPENSION FUNDS										
Algeria	Revenue Regulation Fund	1	1	0.5	0	0	0	1	1	4.5
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	1	1	0.5	1	1	0.5	1	1	7
Botswana	Pula Fund	1	0.5	1	1	1	1	0	0	5.5
Brunei Darussalam	Brunei Investment Agency	1	0.5	0	0	0	0	1	0	2.5
Canada (Alberta)	Alberta Heritage Savings Trust Fund	1	1	1	1	0.5	1	1	1	7.5
Chile	Economic and Social Stabilization Fund	1	1	1	1	1	0.5	1	1	7.5
China	China Investment Corporation	1	1	0	0	0	1	0	1	4
Hong Kong	Exchange Fund	1	1	1	1	1	1	1	0	7
Iran	Oil Stabilization Fund	1	1	0.5	0	0	0	0.5	1	4
Kazakhstan	National Fund for the Republic of Kazakhstan	1	1	1	1	0.5	1	0.5	1	7
Kiribati	Revenue Equalization Reserve Fund	1	1	1	1	0	0.5	1	0	5.5
Korea	Korea Investment Corporation	1	1	0	1	1	1	1	0	6
Kuwait	Kuwait Investment Authority	1	1	0	1	0	1	1	1	6
Malaysia	Khazanah Nasional	1	1	0	0	0	0.5	0	1	3.5
Mexico	Oil Income Stabilization Fund	1	1	0.5	1	0	0.5	0.5	1	5.5
Nigeria	Excess Crude Account	1	1	1	0	0	0	1	0	4
Norway	Government Pension Fund – Global	1	1	1	1	0.5	1	1	1	7.5
Oman	State General Reserve Fund	0.5	1	0.5	0.5	0	0	0.5	1	4
Qatar	Qatar Investment Authority	1	0	0	0	0	0.25	0.5	1	2.75
Russia	Reserve Fund and National Wealth Fund	1	1	0.5	1	1	0.25	1	0	5.75
São Tomé and Príncipe	National Oil Account	1	1	1	1	1	1	1	1	8
Singapore	Government of Singapore Investment Corporation	1	0.5	1	1	1	0.5	0	0	5
Singapore	Temasek Holdings	1	1	0	0	0	1	0	1	4
Sudan	Oil Revenue Stabilization Account	0.5	1	0.5	1	0.5	0	0	1	4.5
Timor-Leste	Petroleum Fund for Timor-Leste	1	1	1	1	1	1	1	1	8
Trinidad and Tobago	Heritage and Stabilization Fund	1	1	1	1	1	1	1	1	8
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	0.5	0	0	0	0	0.5	0	1	2
United Arab Emirates (Abu Dhabi)	Mubadala Development Company	1	0	0	0	0	0.5	1	1	3.5
United Arab Emirates (Dubai)	Istithmar World	1	0.5	0	0	0	0.5	0	1	3
United States (Alaska)	Alaska Permanent Fund	1	1	1	1	1	1	1	1	8
United States (New Mexico)	Severance Tax Permanent Fund	1	1	1	1	1	1	1	1	8
United States (Wyoming)	Permanent Mineral Trust Fund	1	1	1	1	1	1	1	1	8
Venezuela	Macroeconomic Stabilization Fund	1	1	0	0	0	0.5	0.5	1	4
Venezuela	National Development Fund	0.5	0.5	0	0	0	0	1	1	3
Total^a		32	28.5	18.5	20.5	15	20.5	23	26	5.4
PENSION FUNDS										
Australia	Future Fund	1	1	1	1	1	1	1	1	8
Canada	Canada Pension Plan	1	1	1	1	1	1	1	1	8
Canada (Québec)	Caisse de dépôt et placement du Québec	1	1	1	1	1	1	1	1	8
Chile	Pension Reserve Fund	1	1	1	1	1	0.5	1	1	7.5
China	National Social Security Fund	1	1	1	1	1	1	1	1	8
France	Fonds de réserve pour les retraites	1	1	1	1	1	1	1	1	8
Ireland	National Pensions Reserve Fund	1	1	1	1	1	1	1	1	8
Japan	Government Pension Investment Fund	1	1	1	1	1	1	1	1	8
Netherlands	Stichting Pensioenfondsen ABP	1	1	1	1	1	1	1	1	8
New Zealand	Superannuation Fund	1	1	1	1	1	1	1	1	8
Thailand	Government Pension Fund	1	1	1	1	1	1	1	1	8
United States (California)	California Public Employees' Retirement System	1	1	1	1	1	1	1	1	8
Total^a		12	12	12	12	12	11.5	12	12	8.0
GRAND TOTAL^a		44	40.5	30.5	32.5	27	32	35	38	6.1

a. For each category the value under subtotal represents the average for all funds.

Table 3: Scoreboard for sovereign wealth funds (continued)

		Governance					Subtotal	Accountability & Transparency			
		Role of Government	Role of Managers	Decisions made by managers	Guidelines for Corporate Responsibility	Ethical Guidelines		Investment Strategy Implementation			
								Categories	Benchmarks	Credit Ratings	Mandates
NONPENSION FUNDS											
Algeria	Revenue Regulation Fund	1	1	0	0	0	2	0	0	0	1
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	1	1	1	0	0	3	1	1	1	1
Botswana	Pula Fund	1	1	1	0	0	3	1	1	1	0
Brunei Darussalam	Brunei Investment Agency	0	0	0	0	0	0	0	0	0	1
Canada (Alberta)	Alberta Heritage Savings Trust Fund	1	1	1	0	0	3	1	1	0.5	0
Chile	Economic and Social Stabilization Fund	1	1	1	0	0	3	1	1	1	1
China	China Investment Corporation	1	1	0	0.5	0	2.5	0.5	0.5	0	0
Hong Kong	Exchange Fund	1	1	0	0	0	2	1	1	1	0
Iran	Oil Stabilization Fund	0.5	0.5	0	0	0	1	0	0	0	1
Kazakhstan	National Fund for the Republic of Kazakhstan	1	1	1	0	0	3	0.5	1	1	0
Kiribati	Revenue Equalization Reserve Fund	1	1	1	0	0	3	0	0	0	0
Korea	Korea Investment Corporation	1	1	1	0	0	3	0.5	0.5	1	0
Kuwait	Kuwait Investment Authority	1	1	1	0	1	4	0	0.5	1	0
Malaysia	Khazanah Nasional	0.5	1	0.5	0.5	0	2.5	0.5	1	0	0
Mexico	Oil Income Stabilization Fund	0.5	0.5	0	0	0	1	0	0	0	0
Nigeria	Excess Crude Account	0.5	1	0	0	0	1.5	0	0	0	1
Norway	Government Pension Fund – Global	1	1	1	1	1	5	1	1	1	1
Oman	State General Reserve Fund	0	0	0	0	0	0	0	0	0	0
Qatar	Qatar Investment Authority	0	0	0	0	0	0	0	0	0	0
Russia	Reserve Fund and National Wealth Fund	1	1	0	0	0	2	1	0	1	1
São Tomé and Príncipe	National Oil Account	1	1	1	0	0	3	0.5	0	0	1
Singapore	Government of Singapore Investment Corporation	0.5	0.5	1	0	0	2	0.5	1	0.5	0
Singapore	Temasek Holdings	0	1	1	0.5	0	2.5	0.5	0.5	0	0
Sudan	Oil Revenue Stabilization Account	0	0	0	0	0	0	0	0	0	1
Timor-Leste	Petroleum Fund for Timor-Leste	1	1	0	0	0	2	1	0.5	1	1
Trinidad and Tobago	Heritage and Stabilization Fund	1	1	1	0	0	3	1	0.5	0	1
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	0	0	0	0	0	0	0.25	0.25	0	0
United Arab Emirates (Abu Dhabi)	Mubadala Development Company	0	0.5	0	0	0	0.5	0	0.5	0	0
United Arab Emirates (Dubai)	Istithmar World	0	0.5	0	0	0	0.5	0.25	0	0	0
United States (Alaska)	Alaska Permanent Fund	1	1	1	1	0	4	1	1	1	1
United States (New Mexico)	Severance Tax Permanent Fund	1	1	0.5	0	0	2.5	1	1	1	1
United States (Wyoming)	Permanent Mineral Trust Fund	1	1	1	0.5	1	4.5	1	1	1	1
Venezuela	Macroeconomic Stabilization Fund	0	0	0	0	0	0	0.5	0	0	1
Venezuela	National Development Fund	0	0	0	0	0	0	0.25	0	0	0
Total^a		21.5	24.5	16	4	3	2.0	16.75	15.75	14	16
PENSION FUNDS											
Australia	Future Fund	1	1	1	1	0	4	1	1	0.5	1
Canada	Canada Pension Plan	1	1	1	1	1	5	1	1	1	1
Canada (Québec)	Caisse de dépôt et placement du Québec	1	1	1	1	1	5	1	1	0.5	1
Chile	Pension Reserve Fund	1	1	1	0	0	3	1	1	1	1
China	National Social Security Fund	1	1	0	0	0	2	1	1	1	1
France	Fonds de réserve pour les retraites	1	1	1	1	1	5	1	1	1	1
Ireland	National Pensions Reserve Fund	1	1	1	1	1	5	1	1	0	1
Japan	Government Pension Investment Fund	1	1	1	1	0.5	4.5	1	1	1	1
Netherlands	Stichting Pensioenfondsen ABP	1	1	1	1	1	5	1	1	1	0
New Zealand	Superannuation Fund	1	1	1	1	1	5	1	1	1	1
Thailand	Government Pension Fund	1	1	1	1	1	5	1	1	1	1
United States (California)	California Public Employees' Retirement System	1	1	1	1	1	5	1	1	1	1
Total^a		12	12	11	10	8.5	4.5	12	12	10	11
GRAND TOTAL^a		33.5	36.5	27	14	11.5	2.7	28.75	27.75	24	27

a. For each category the value under subtotal represents the average for all funds.

Table 3: Scoreboard for sovereign wealth funds (continued)

		Investment Activities					Reports		Audit			Subtotal
		Size	Returns	Location	Specific Investments	Currency Composition	Annual	Quarterly	Audited	Published	Independent	
NONPENSION FUNDS												
Algeria	Revenue Regulation Fund	0.5	0	0	0	0	0	0	0	0	0	1.5
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	1	1	0.5	0	1	1	1	1	1	1	12.5
Botswana	Pula Fund	1	0	0	0	0	1	0.5	1	0	1	7.5
Brunei Darussalam	Brunei Investment Agency	0	0	0	0	0	0.5	0	1	0	1	3.5
Canada (Alberta)	Alberta Heritage Savings Trust Fund	1	1	1	0	0.5	1	1	1	1	1	11
Chile	Economic and Social Stabilization Fund	1	1	1	1	1	1	1	0.5	0	0.5	12
China	China Investment Corporation	1	0	0	0	0	0	0	0	0	0	2
Hong Kong	Exchange Fund	1	1	0.5	0	0.5	1	1	1	1	1	11
Iran	Oil Stabilization Fund	0.5	0.5	0	0	0	0.5	0	0	0	0	2.5
Kazakhstan	National Fund for the Republic of Kazakhstan	1	1	0.25	0	0.25	0.5	0.5	1	1	1	9
Kiribati	Revenue Equalization Reserve Fund	0	0	0	0	0	0.5	0.5	0	0	0	1
Korea	Korea Investment Corporation	1	0.25	0	0	0	0.5	0	1	0.5	1	6.25
Kuwait	Kuwait Investment Authority	1	0.5	0.25	0	0	0.5	0	1	0	1	5.75
Malaysia	Khazanah Nasional	1	1	1	0.5	0	0.5	0	1	0	0	6.5
Mexico	Oil Income Stabilization Fund	1	1	0	0	1	0.5	0.5	0.5	0.5	1	6
Nigeria	Excess Crude Account	0.5	0	0	0	0.5	0	0	0	0	0	2
Norway	Government Pension Fund – Global	1	1	1	1	1	1	1	1	1	1	14
Oman	State General Reserve Fund	0	0	0	0	0	0.5	0	1	0	1	2.5
Qatar	Qatar Investment Authority	0	0	0	0	0.25	0	0	0	0	0	0.25
Russia	Reserve Fund and National Wealth Fund	1	0.5	0.5	0	1	0.5	0.5	0	0	0	7
São Tomé and Príncipe	National Oil Account	0.5	0	0	0	0	0	0	1	0	1	4
Singapore	Government of Singapore Investment Corporation	0	0.25	0.25	0	0	0.5	0.5	1	0	1	5.5
Singapore	Temasek Holdings	1	1	1	0.5	0	1	0	1	1	1	8.5
Sudan	Oil Revenue Stabilization Account	1	0	0	0	0	0	0	0	0	0	2
Timor-Leste	Petroleum Fund for Timor-Leste	1	1	1	1	1	1	1	1	1	1	13.5
Trinidad and Tobago	Heritage and Stabilization Fund	1	0	0	0	0	0.5	0.5	1	0	1	6.5
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	0	0	0	0	0	0	0	0	0	0	0.5
United Arab Emirates (Abu Dhabi)	Mubadala Development Company	0	0	0	0.5	0	0	0	0	0	0	1
United Arab Emirates (Dubai)	Istithmar World	0.5	0	0.25	0	0	0	0	0	0	0	1
United States (Alaska)	Alaska Permanent Fund	1	1	1	1	1	1	1	1	1	1	14
United States (New Mexico)	Severance Tax Permanent Fund	1	1	0	0	1	1	1	1	1	1	12
United States (Wyoming)	Permanent Mineral Trust Fund	1	1	0	0	0.5	1	1	1	1	1	11.5
Venezuela	Macroeconomic Stabilization Fund	1	0	0	0	0	0	0	0	0	0	2.5
Venezuela	National Development Fund	1	0	0	0	0	1	0.5	1	0	0	3.75
Total^a		24.5	15	9.5	5.5	10.5	18	13	21	11	19.5	6.2
PENSION FUNDS												
Australia	Future Fund	1	1	0	0	0	1	0	1	1	1	9.5
Canada	Canada Pension Plan	1	1	0.5	1	1	1	1	1	1	1	13.5
Canada (Québec)	Caisse de dépôt et placement du Québec	1	1	1	1	1	1	0	1	1	1	12.5
Chile	Pension Reserve Fund	1	1	1	1	1	1	1	0.5	0	0.5	12
China	National Social Security Fund	1	1	0.5	0	0	1	1	1	1	1	11.5
France	Fonds de réserve pour les retraites	1	1	0.5	0	1	1	1	1	1	1	12.5
Ireland	National Pensions Reserve Fund	1	1	1	1	0	1	1	1	1	1	12
Japan	Government Pension Investment Fund	1	1	0.25	0	0	1	1	1	1	1	11.25
Netherlands	Stichting Pensioenfondsen ABP	1	1	0.5	1	1	1	0.5	1	1	1	12
New Zealand	Superannuation Fund	1	1	1	1	1	1	1	1	1	1	14
Thailand	Government Pension Fund	1	1	0.25	1	0	1	1	1	1	1	12.25
United States (California)	California Public Employees' Retirement System	1	1	0.5	1	1	1	1	1	1	1	13.5
Total^a		12	12	7	8	7	12	9.5	11.5	11	11.5	12.2
GRAND TOTAL^a		36.5	27	16.5	13.5	17.5	30	22.5	32.5	22	31	7.8

a. For each category the value under subtotal represents the average for all funds.

Table 3: Scoreboard for sovereign wealth funds (continued)

		Behavior						Subtotal	Grand Total
		Portfolio Adjustment	Limits on Stakes	No Controlling Stakes	Policy on Leverage	Derivatives			
						Policy on Derivatives	For Hedging Only		
NONPENSION FUNDS									
Algeria	Revenue Regulation Fund	0	0	1	0	0	0	1	9
Azerbaijan	State Oil Fund of the Republic of Azerbaijan	0	0	1	0	1	1	3	25.5
Botswana	Pula Fund	0	0	1	0	1	0	2	18
Brunei Darussalam	Brunei Investment Agency	0	0	0	0	0	0	0	6
Canada (Alberta)	Alberta Heritage Savings Trust Fund	0	0	0	1	1	1	3	24.5
Chile	Economic and Social Stabilization Fund	0	0	1	0	0	0	1	23.5
China	China Investment Corporation	0	0	1	0	0	0	1	9.5
Hong Kong	Exchange Fund	0	0	0	0	1	1	2	22
Iran	Oil Stabilization Fund	0	0	0	0	0	0	0	7.5
Kazakhstan	National Fund for the Republic of Kazakhstan	0	0	0	0	1	1	2	21
Kiribati	Revenue Equalization Reserve Fund	0	0	0	0	0	0	0	9.5
Korea	Korea Investment Corporation	0.5	0	0	0	1	0	1.5	16.75
Kuwait	Kuwait Investment Authority	0	0	0	0	0	0	0	15.75
Malaysia	Khazanah Nasional	0	0	0	0	0	0	0	12.5
Mexico	Oil Income Stabilization Fund	0	0	1	0	1	1	3	15.5
Nigeria	Excess Crude Account	0	0	1	0	0	0	1	8.5
Norway	Government Pension Fund – Global	1	1	1	0.5	0.5	0	4	30.5
Oman	State General Reserve Fund	0	0	0	0	0	0	0	6.5
Qatar	Qatar Investment Authority	0	0	0	0	0	0	0	3
Russia	Reserve Fund and National Wealth Fund	0	1	1	0	0	0	2	16.75
São Tomé and Príncipe	National Oil Account	0	0	1	0	0	0	1	16
Singapore	Government of Singapore Investment Corporation	0	0	0.5	0	0.5	0	1	13.5
Singapore	Temasek Holdings	0	0	0	0	0	0	0	15
Sudan	Oil Revenue Stabilization Account	0	0	0	0	0	0	0	6.5
Timor-Leste	Petroleum Fund for Timor-Leste	0	0	1	0	1	1	3	26.5
Trinidad and Tobago	Heritage and Stabilization Fund	0	0	0	0	0	0	0	17.5
United Arab Emirates (Abu Dhabi)	Abu Dhabi Investment Authority and Council	0	0.25	0.25	0	0	0	0.5	3
United Arab Emirates (Abu Dhabi)	Mubadala Development Company	0	0	0	0	0	0	0	5
United Arab Emirates (Dubai)	Istithmar World	0	0	0	0	0	0	0	4.5
United States (Alaska)	Alaska Permanent Fund	0	1	1	1	1	1	5	31
United States (New Mexico)	Severance Tax Permanent Fund	1	1	1	1	1	1	6	28.5
United States (Wyoming)	Permanent Mineral Trust Fund	1	1	1	1	1	1	6	30
Venezuela	Macroeconomic Stabilization Fund	0	0	1	0	0	0	1	7.5
Venezuela	National Development Fund	0	0	0	0	0	0	0	6.75
Total^a		3.5	5.25	15.75	4.5	12	9	1.5	15.1
PENSION FUNDS									
Australia	Future Fund	0	1	1	1	1	1	5	26.5
Canada	Canada Pension Plan	0	1	1	1	1	1	5	31.5
Canada (Québec)	Caisse de dépôt et placement du Québec	0	1	1	1	1	1	5	30.5
Chile	Pension Reserve Fund	0	0	1	0	0	0	1	23.5
China	National Social Security Fund	0	1	1	0	1	1	4	25.5
France	Fonds de réserve pour les retraites	1	1	1	0	1	1	5	30.5
Ireland	National Pensions Reserve Fund	0.5	0	1	0	1	1	3.5	28.5
Japan	Government Pension Investment Fund	1	1	1	0	1	1	5	28.75
Netherlands	Stichting Pensioenfondsen ABP	1	0	0	0	1	1	3	28
New Zealand	Superannuation Fund	0	0.5	1	1	1	1	4.5	31.5
Thailand	Government Pension Fund	0	1	1	0	0.5	0	2.5	27.75
United States (California)	California Public Employees' Retirement System	1	0	0	1	1	1	4	30.5
Total^a		4.5	7.5	10	5	10.5	10	4.0	28.6
GRAND TOTAL^a		8	12.75	25.75	9.5	22.5	19	2.1	18.6

a. For each category the value under subtotal represents the average for all funds.

APPENDIX

Scoreboard for Sovereign Wealth Funds

This appendix presents the elements of the scoreboard described in the testimony. For each of the 33 questions, if the answer is an unqualified yes, we score it as “1.” If the answer is no, we score it as “0.” However, partial scores of 0.25, 0.50, and 0.75 are recorded for many elements, indicated by (p) in the descriptions below.

The four categories in the scoreboard are listed below with subcategories where relevant. The words in bold are keyed to the results presented in table 3 for each SWF on each element.

Structure

1. Is the SWF’s objective clearly communicated? (p)

Fiscal Treatment

2. Is the **source of** the SWF’s **funding** clearly specified? (p)
3. Is nature of the subsequent **use** of the principal and earnings of the fund clearly stated? (p)
4. Are these elements of fiscal treatment **integrated with** the **budget**? (p)
5. Are the **guidelines** for fiscal treatment generally **followed** without frequent adjustment? (p)

Other Structural Elements

6. Is the overall **investment strategy** clearly communicated? (p)
7. Is the procedure for **changing the structure** of the SWF clear? (p)
8. Is the SWF **separate from** the country’s **international reserves**?

Governance

9. Is the **role of the government** in setting the investment strategy of the SWF clearly established? (p)
10. Is the **role of the managers** in executing the investment strategy clearly established? (p)
11. Are **decisions** on specific investments made **by the managers**? (p)
12. Does the SWF have in place and publicly available **guidelines for corporate responsibility** that it follows? (p)
13. Does the SWF have **ethical guidelines** that it follows? (p)

Transparency and Accountability

Investment Strategy Implementation

14. Do regular reports on investments by the SWF include information on the **categories** of investments? (p)
15. Does the strategy use **benchmarks**? (p)
16. Does the strategy limit investments based on **credit ratings**? (p)
17. Are the holders of investment **mandates** identified?

Investment Activities

18. Do regular reports on the investments by the SWF include the **size of the fund**? (p)
19. Do regular reports on the investments by the SWF include information on its **returns**? (p)
20. Do regular reports on the investments by the SWF include information on the geographic **location** of investments? (p)
21. Do regular reports on the investments by the SWF include information on the **specific** investments? (p)
22. Do regular reports on the investments by the SWF include information on the **currency composition** of investments? (p)

Reports

23. Does the SWF provide at least an **annual report** on its activities and results? (p)
24. Does the SWF provide **quarterly reports**? (p)

Audits

25. Is the SWF subjected to a **regular** annual **audit**? (p)
26. Is the audit **published** promptly? (p)
27. Is the audit **independent**? (p)

Behavior

28. Does the SWF indicate the nature and **speed of adjustment** in its portfolio? (p)
29. Does the SWF have limits on the **size of its stakes**? (p)
30. Does the SWF not take **controlling stakes**? (p)
31. Does the SWF have a policy on the use of **leverage**? (p)
32. Does the SWF have a policy on the use of **derivatives**? (p)
33. Are derivatives used primarily for **hedging**?