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A Blueprint for Sovereign Wealth Fund Best Practices

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Over the past year, sovereign wealth funds (SWFs) have leapt from the back pages in business sections of financial newspapers to lead stories on the Internet.[1] Defenders of SWFs argue that they are benign, long-term investors that provide needed capital transfusions to hard-pressed private financial institutions. At the same time, political controversy surrounds SWFs in many countries including their own. Moderate voices have called for agreement on a set of best practices for SWFs.

In response to prodding from moderate voices, the International Monetary Fund (IMF) has embarked on a dialogue to establish best practices for SWFs. The Organization for Economic Cooperation and Development (OECD) is engaged simultaneously in identifying best practices for countries that receive SWF investments.

In this policy brief I first provide some background on SWFs and then present a blueprint for SWF best practices. This blueprint is based on a scoreboard for the current practices of 44 SWFs. The blueprint in turn provides a basis for evaluating the results of the IMF-sponsored dialogue. I conclude this brief with a few observations on implementation.

BACKGROUND

"Sovereign wealth fund" is a descriptive term for a separate pool of government-owned or government-controlled financial assets that includes some international assets. The emergence of these funds as a topic of public discourse reflects multiple trends in the world economy. SWFs take many forms and are designed to achieve a variety of economic and financial objectives.[2] Table 1 lists 54 SWFs of 37 countries. The list includes all the active nonpension SWFs that I have been able to identify as well as a sample of 10 large pension-related SWFs.[3] I estimate the total asset holdings of these funds at $5.3 trillion. This total includes assets recorded in foreign exchange reserves as well as domestic assets.[4]

1. Despite all this publicity, a survey conducted in February 2008 revealed that only 6 percent of 1,000 respondents had seen or heard anything recently about SWFs (Public Strategies 2008). However, 49 percent of respondents thought that investments by foreign governments in the United States have a negative effect on the US economy, and 55 percent thought such investments had a negative effect on US national security.

2. See Truman (2007a) for a discussion of the global trends contributing to the rise of SWFs.

3. Some argue that government-owned or government-controlled pension funds (public pension reserve funds or PPRFs) are not SWFs. Some make a further distinction between pension funds that mainly invest the surpluses of employee and/or employer contributions over current payouts (Social Security reserve funds or SSRFs) and those that are financed mainly from fiscal transfers from the government (sovereign pension reserve funds or SPRFs); see Blundell-Wignall, Hu, and Yermo (2008). (These authors classify Norway's Government Pension Fund–Global as an SPRF, which is difficult to justify given that the Fund's current payments to the government are unrelated to Norway's pension system. An SWF is not a pension fund just because the word pension is in its name.) The IMF (2008b) proposes to include PPRFs and exclude SSRFs from the definition of SWFs that would be covered by the proposed voluntary SWF best practices. However, as far as "best practices" are concerned, it is difficult to see why any distinctions should be made among government-owned or government-controlled investment vehicles as long as the government has some role in the fund, for example, in appointing the board members of the fund as with the Canada Pension Plan Investment Board. Such distinctions may have some merit for certain legal or analytical purposes, but in the context of best practices, all pension SWFs are useful for reference purposes. The only distinction I have made in the selection of pension SWFs is to exclude pension structures where the individual account holder chooses investments in particular subfunds and the role of the government is limited to assembling choices and executing the decisions of the individual, a narrower concept than SSRFs.

4. For purposes of this scoreboard and blueprint, I exclude SWFs that hold only domestic assets, such as Taiwan's National Stabilization Fund, because the investments of those funds are exclusively a domestic matter even though there might

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 Darussalam	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 Welfare 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 to 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 to 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 World	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
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 Pensioenfonds ABP[d]	1922	Employee contributions	316
New Zealand	Superannuation Fund[d]	2001	Fiscal surpluses	10
United States	California Public Employees' Retirement System[d]	1932	Employee contributions	237
Subtotal				**2,323**
Total[e]				**5,294**

(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.
d. A portion of the holdings is in domestic assets.
e. Total uses the midpoint of the range of estimates.

Sources: National authorities, International Monetary Fund, other public sources.

Table 2 provides estimates by country of the total holdings of nonpension and pension SWFs along with estimates of their combined holdings of foreign assets. [5] Total foreign asset holdings are $3.5 trillion, $2.7 trillion by nonpension SWFs and $0.8 trillion by pension SWFs. As of the end of 2006, US state and local government pension funds held $3 trillion in total assets.[6] If such funds hold 25 percent of their portfolios in foreign assets, which may currently be on the high side, and if all government pension funds of other countries hold an equal amount in foreign assets, which is probably on the low side, their total holdings of foreign assets would be $1.5 trillion, producing estimated total foreign asset holdings of all SWFs at more than $4 trillion.

Sovereign wealth funds are not a new phenomenon, but the recent growth and expansion of their activities have brought them substantial, generally unwelcome, attention. It has exposed two tensions in international economic and financial relations.

The growth of SWFs reflects a dramatic redistribution of international wealth from traditional industrial countries like the United States to countries that historically have not been major players in international finance....

First, the growth of SWFs reflects a dramatic redistribution of international wealth from traditional industrial countries like the United States to countries that historically have not been major players in international finance and have had little or no role in shaping the practices, norms, and conventions governing the international financial system.

Second, governments own or control a substantial share of the new international wealth. This redistribution of wealth from private to public hands implies a decision-making framework that is at variance with the traditional private-sector, market-oriented framework with which most citizens of industrial countries are comfortable.

As I have described in greater detail before (Truman 2007a, 2007b), these tensions contribute to five major concerns about the activities of SWFs.

First, governments may mismanage their international investments to their own economic and financial detriment, as well as with negative consequences for the global economic and financial system, including large-scale corruption in handling the huge amounts of money involved. This concern is the principal reason why it is in the interests of a country with an SWF to favor the establishment of internationally agreed SWF best practices.

Second, governments may manage those 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 conflict but also to microeconomic distortions.

Third, financial protectionism may be encouraged in host countries in *anticipation* of the pursuit of political or economic objectives by the owners of the investments or in *response* to their actual actions. Best practices would help to diffuse this element of the globalization backlash.

Fourth, in their management of their international assets, SWFs may contribute to market turmoil and uncertainty. SWFs may also contribute to financial stability, but their net contribution is difficult to establish a priori in particular if their operations are opaque.

Fifth, foreign government owners of international assets may have conflicts of interest with the domestic or foreign managers of those assets or with the governments of the countries in which they are investing. Government ownership adds a further dimension in trying to balance open markets and macroprudential regulation.

At this point, these concerns, with the exception of the first, are largely in the realm of the hypothetical.[7] They are much more salient in the context of cross-border investments by government-owned or government-controlled financial or nonfinancial entities. Nevertheless, a loud, often acrimonious, public discourse about SWFs is under way.

As these concerns began to bubble to the surface over the

be international implications of a weak investment framework. The inclusion of such funds is one reason why estimates of total asset holdings of SWFs may differ.

5. Where the fund does not publish its size and a range of estimates is available, the table uses the midpoint. This is another reason why estimates of total holdings may differ. Going in the other direction, tables 1 and 2 include the nonreserve holdings of international securities reported by the Saudi Arabian Monetary Agency even though they are not currently formally part of an SWF. I also include the approximately $130 billion in assets of China's China Investment Corporation (CIC) that are claims on domestic institutions as foreign assets because my understanding is that these institutions are required to hold the counterpart of the CIC's investments in that form.

6. These data come from Pensions & Investments, available at www.pionline.com.

7. A number of nonpension SWFs have collapsed or have had their assets squandered. Two examples are Ecuador's Stabilization Fund and Nigeria's Petroleum (Special) Trust Fund though Nigeria is trying again. Pension SWFs also have had their share of scandals.

Table 2 Sovereign wealth funds by country (billions of US dollars)

			Total holdings	
Country	**Nonpension**	**Pension**	**All assets**	**Foreign assets**
United Arab Emirates (6)	817	—	817	762
Norway	375	—	375	375
Singapore (2)	375	—	375	333
Netherlands	—	316	316	280
Saudi Arabia	270	—	270	270
Japan	—	1,274	1,274	241
Kuwait	213	—	213	171
Russia (2)	160	—	160	160
China (3)	201	71	272	135
Canada (3)	17	278	295	128
Hong Kong	139	—	139	121
United States (4)	46	237	283	88
Qatar	60	—	60	60
Libya	50	—	50	50
Algeria	47	—	47	47
Australia	—	53	53	41
Brunei Darussalam	35	—	35	35
Korea	30	—	30	30
Kazakhstan	23	—	23	23
Venezuela (2)	22	—	22	22
Nigeria	17	—	17	17
France	—	50	50	17
Chile	15	—	15	15
Oman	13	—	13	13
Ireland	—	31	31	11
Iran	10	—	10	10
New Zealand	—	10	10	8
Botswana	7	—	7	7
Mexico	5	—	5	5
Azerbaijan	2	—	2	2
Timor-Leste	2	—	2	2
Trinidad and Tobago	2	—	2	2
Malaysia	18	—	18	2
Kiribati	1	—	1	1
Gabon	0.4	—	0.4	0.4
Sudan	0.1	—	0.1	0.1
São Tomé and Príncipe	0.02	—	0.02	0.02
Total	**2,972**	**2,323**	**5,294**	**3,483**
Less domestic holdings	**2,685**	**798**	**3,483**	

— = not applicable

Note: Number in parentheses represents the number of sovereign wealth funds.

course of 2007, responsible officials mounted a counteroffensive. At the Group of Eight (G-8) Summit in June 2007 at Heiligendamm, Germany, leaders reiterated a commitment "to minimize any national restrictions on foreign investment. Such investments should apply to very limited cases that primarily concern national security." They declared their intention to have their governments "work with the OECD and other fora to develop further our common understanding of transparency principles for market-driven cross border investment of both private and state-owned enterprises" (Group of Eight 2007, paragraph 11).

On October 19, 2007, the Group of Seven (G-7) finance ministers and central bank governors declared "sovereign wealth funds (SWFs) are increasingly important participants in the international financial system and that our economies can benefit from openness to SWF investment flows. We see merit in identifying best practices for SWFs in such areas as institutional structure, risk management, transparency and accountability. For recipients of government-controlled investments, we think it is important to build on principles such as nondiscrimination, transparency, and predictability" (Group of Seven 2007). The G-7 ministers and governors asked the IMF, World Bank, and OECD to examine these issues.[8]

The next day, October 20, the International Monetary and Financial Committee (IMFC) of the IMF responded, noting "the growing importance of Sovereign Wealth Funds in international financial markets. While recognizing their positive role in enhancing market liquidity and financial resource allocation, the Committee welcomes the work by the IMF to analyze issues for investors and recipients of such flows, including a dialogue on identifying best practices. It stresses the importance of resisting protectionism and maintaining an open global financial system" (IMF 2007a).

What should be the content of best practices for SWFs? The G-7 identified four areas: institutional structure, risk management, transparency, and accountability. US Treasury Assistant Secretary Clay Lowery (2008) outlined four guiding principles: (1) a statement of policies that investment decisions should be based solely on economic grounds rather than political or foreign policy considerations; (2) world-class institutional integrity including transparency about investment policies and strong risk-management systems, governance structures, and internal controls; (3) fair competition with the private sector; and (4) respect for host-country rules.[9] On March 20, 2008 the US Treasury and the governments of Singapore and Abu Dhabi issued a joint statement embracing five policy principles as the basis for SWF best practices. They have essentially the same content as the four US Treasury principles, with the second (world-class institutional integrity) split into two components: disclosure and governance. The three countries also laid down principles for countries receiving SWF investment.[10]

In addition, the Commission of the European Communities (2008) on February 28 spelled out its preferred standards of governance and transparency for SWFs. The EU Council (leaders) endorsed the Commission's recommended position on March 14 (Council of the European Union 2008). On governance, the Commission called for a clear allocation and separation of responsibilities (presumably, between the government and the SWF), an investment policy that defines the SWF's overall objectives, operational autonomy to achieve those objectives, public disclosure of the principles governing the relationship between the SWF and its governmental authorities, disclosure of principles of internal governance providing assurances of integrity, and issuance of risk-management policies.

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On transparency, the Commission called for annual disclosure of investment positions and asset allocations; exercise of ownership rights; disclosure of the use of leverage, the currency composition of assets, and the size and source of the fund's resources; and disclosure of the home country's regulation and oversight governing the SWF. The Commission also advocated endeavoring to open the countries of SWFs to EU investors to secure fair and equitable treatment for them, notably through free trade agreement negotiations—an element of reciprocity.

Some of the principles advocated by the G-7, US, and EU authorities easily can be made operational. Others appear to be more hortatory and, therefore, are difficult to incorporate into

8. The World Bank subsequently chose to play a secondary, advisory role in these examinations.

9. US Treasury Deputy Secretary Robert Kimmitt (2008) earlier had set out these four principles. He included a fifth principle: to promote international financial stability.

10. US Treasury press release HP-881, "Treasury Reaches Agreement on Principles for Sovereign Wealth Funds with Singapore and Abu Dhabi," March 20, 2008, Washington.

a set of best practices that is designed to condition and guide the behavior of the funds. The IMF (2008b) proposes to cover issues of public governance, transparency, and accountability principles in the set of voluntary best practices it is committed to pursuing. The blueprint for SWF best practices laid out in the next section concretely outlines realistic, operational content for such a set of best practices, code of conduct, or standard for these funds.

A BLUEPRINT FOR SWF BEST PRACTICES

The logical starting point for a blueprint for SWF best practices is the funds' practices today. This rationale motivated the scoreboard for SWFs presented in this policy brief. The elements of the scoreboard can be incorporated into best practices without asking any fund to do something that at least one other SWF does not already do. Moreover, the funds that decline to do so are on weak ground if they argue that doing so is not in their interests. Why would other funds do something that is not in their interests?

Doug Dowson and I have constructed a scoreboard for 44 SWFs, 34 nonpension funds and 10 representative pension funds, out of the 54 funds listed in table 1.[11] The scoreboard contains 33 elements. They are constructed as questions and are grouped in four categories: (1) structure of the fund, including its objectives, fiscal treatment, and whether it is separate from the country's international reserves; (2) governance of the fund, including the roles of the government and the managers, and whether the fund follows guidelines for corporate responsibility and ethical investment behavior; (3) accountability and transparency of the fund in its investment strategy, investment activities, reporting, and audits; and (4) behavior of the fund in managing its portfolio and in the use of leverage and derivatives.

We rely primarily on systematic, regularly available public information.[12] It is not sufficient that an individual SWF provides information on an ad hoc basis via interviews with the press because the information flow is not continuous and its accuracy is difficult to confirm. We ask simple questions that can be answered as yes or no. A "yes" receives a point, but as described in the appendix, in some cases we allow for partial credit.[13] Although we have tried to be comprehensive, rigorous, and objective in our evaluation of each fund, some degree of subjectivity necessarily is present. (The appendix lists the questions and table A.1 in the appendix provides the score for each fund on each element.) As discussed below, some of the elements that we have constructed or grouped together may be controversial, and the reader is free to design his or her own scoreboard from this raw material.

Table 3 provides an overall summary of the scoreboard exercise. The scores are expressed as a percent of the number of possible points for each SWF in the four categories (8, 5, 14, and 6, respectively) and in the scoreboard total (33). Scores for the full list of elements range from 95 for the Canada Pension Plan and New Zealand's Superannuation Fund (followed closely by the Alaska Permanent Fund) to 9 for the Abu Dhabi Investment Authority and Council.[14]

In general, the pension SWFs have higher scores than the nonpension SWFs. However, scores for the pension SWFs range from 95 to 77, and 10 of the nonpension SWFs have scores above 60. This demonstrates that nonpension SWFs can, and some do, follow as rigorous practices as pension SWFs. The results presented in table 3 also illustrate the range of actual practices by nonpension SWFs: 10 score above 60 (as noted), 10 score below 25, and 14 score between 25 and 60.

The average score for all SWFs is highest (75) in the structure category, and not surprisingly, each of the pension SWFs has a perfect score. The average scores for all SWFs in the governance and accountability and transparency categories are in the low 50s. The pension SWFs again score higher: Seven have perfect scores on governance, but only one has a perfect score on accountability and transparency along with two nonpension SWFs. The lowest average scores for all funds are in the behavior category, and none of the pension SWFs has a perfect score, though, again, two of the nonpension SWFs do.[15]

The results of this scoreboard exercise easily can be translated into a blueprint for SWF best practices. To understand better some of the issues and challenges in doing so, it is useful to examine separately the elements in each of the four categories. In this analysis, scoring is by element. The score for each

11. We score 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.

12. In a few cases, we confirmed facts with the funds themselves, or they provided information to us in reaction to Truman (2008a).

13. This scoreboard is revised and updated from the one presented in Truman (2008a) in three respects: First, we have expanded the number of funds from 33 to 44. Second, we have added eight new elements, primarily in the behavior category. Third, we have re-scored all the funds in some cases on the basis of new or improved information. Over the past six months some SWFs have substantially improved the public availability of information about their activities in response to the increased scrutiny of their activities, including in the initial scoreboard.

14. The table presents the score for each fund in each category and the total relative to the maximum possible points. The total scores and rankings are similar if they are computed as the simple average of the scores in each of the four categories. The correlation is 0.77.

15. For nonpension SWFs, coefficients of variation (standard deviations divided by means) are highest in the behavior category (1.19), essentially the same for the governance and accountability and transparency categories (.71 and .72, respectively), and lowest in the structure category (.35). The same pattern carries over to the full list of 44 funds that were scored.

Table 3 Summary sovereign wealth fund scoreboard (percent of maximum possible points)

Country	Fund	Structure	Governance	Accountability and transparency	Behavior	Total
NONPENSION FUNDS						
United States (Alaska)	Alaska Permanent Fund	100	80	100	83	94
Norway	Government Pension Fund–Global	94	100	100	67	92
United States (Wyoming)	Permanent Mineral Trust Fund	100	90	82	100	91
United States (New Mexico)	Severance Tax Permanent Fund	100	50	86	100	86
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
Canada (Alberta)	Alberta Heritage Savings Trust Fund	94	60	79	50	74
Chile	Economic and Social Stabilization Fund	94	60	82	17	70
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 Welfare 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		**68**	**41**	**44**	**25**	**46**
PENSION FUNDS						
Canada	Canada Pension Plan	100	100	96	83	95
New Zealand	Superannuation Fund	100	100	100	75	95
Canada (Québec)	Caisse de dépôt et placement du Québec	100	100	89	83	92
France	Fonds de réserve pour les retraites	100	100	89	83	92
United States (California)	California Public Employees' Retirement System	100	100	96	67	92
Japan	Government Pension Investment Fund	100	90	80	83	87
Ireland	National Pensions Reserve Fund	100	100	86	58	86
Netherlands	Stichting Pensioenfonds ABP	100	100	86	50	85
Australia	Future Fund	100	80	68	83	80
China	National Social Security Fund	100	40	82	67	77
Subtotal		**100**	**91**	**87**	**73**	**88**
Total		**75**	**52**	**54**	**36**	**55**

Table 4 The structure component
(percent of SWFs complying in whole or in part)

Element	Nonpension	Pension	Total
Objective stated	94	100	95
Fiscal treatment			
Source of funding	84	100	88
Use of fund earnings	54	100	65
Integrated with budget	60	100	69
Guidelines followed	44	100	57
Investment strategy	60	100	69
Changes in the structure	68	100	75
Separate from international reserves	76	100	82
Total for the category	68	100	75

element is presented as the number of points recorded as a percent of the total number of possible points (34 for nonpension, 10 for pension, and 44 for all funds) for that element if each SWF had fully complied.

Structure

This category covers the basic structure of each SWF. What is the fund's objective? Where does it obtain its funding? How are its earnings used? Is it well-integrated with the fiscal system of the country? Does it have a clearly stated investment strategy? Is the fund separate from the country's international reserves?

An SWF's high score on the elements in this category provides confidence to the citizens of the home country and of countries where the fund may invest that the activities of the fund are transparent. This is a first step in facilitating holding the government and the fund accountable. Table 4 indicates for each element in this category the percent of all SWFs (nonpension, pension, and total) that receive "credit" for their existing practices—in short, their "compliance" with this aspect of the blueprint.[16] Overall, the majority of funds comply with each element in this category. Each of the pension SWFs achieves perfect scores on all the elements. The majority of nonpension SWFs comply with all the elements except having and following guidelines for the relationship between the fund and the country's budget.

One might think that all funds would have a clearly defined objective, but this is not the case. Although the highest level of compliance is with this element, only 95 percent of the maximum of 44 points (one for each fund) is recorded because the statements of objectives for four SWFs are rather vague.[17]

Fiscal treatment is central to maintaining the macroeconomic stability of a country with an SWF. This involves several elements including how an SWF receives its funding, when and to what extent its principal and earnings are to be available to the government, and whether the government follows those procedures. As detailed, for example, in IMF (2007b), basic principles of good public finance aim at limiting the procyclical influence of fiscal policy. It follows that an SWF should not be used as a second budget, any nonadministrative expenditures by a country's SWF should be integrated with the overall budget of the government, and the government should not explicitly or implicitly borrow against resources building up in the SWF. In addition, clear rules and principles in this area help to limit the potential scope for corruption in the management of the SWF.

While the majority of SWFs clearly specify the source of their funding, this is not always the case: Compliance is only 84 percent for the nonpension SWFs. This fact tends to undercut the argument made, for example, by representatives of the US Treasury (McCormick 2008), that where and how the fund obtains its foreign exchange should determine whether a fund should be subject to SWF best practices, for example, either from foreign exchange market intervention or earnings from natural resource exports and not from other sources such as fiscal revenues or pension contributions.[18]

Compliance in clearly indicating how the earnings and principal of a fund are to be used is substantially lower than

16. Where a fund receives partial credit in the scoreboard exercise (see appendix A), the total for the element includes that score.

17. The funds are the Abu Dhabi Investment Authority and Council, Oman's State General Reserve Fund, Sudan's Oil Revenue Stabilization Account, and Venezuela's National Development Fund (Fonden).

18. In addition, the economic rationale for such a distinction is weak; see Truman (2008b).

Table 5 The governance component
(percent of SWFs complying in whole or in part)

Element	Nonpension	Pension	Total
Role of government	63	100	72
Role of managers	72	100	78
Decisions made by managers	47	90	57
Guidelines for corporate responsibility	12	90	30
Ethical guidelines	9	75	24
Total for the category	41	91	52

on indicating its source of funding. A majority of funds have clear rules about how they are to interact with the government budget, but in more than half the nonpension SWFs, either any rules (guidelines) are unknown or they are not rigorously followed, including, for example, by Norway and its Government Pension Fund–Global, which has repeatedly provided somewhat more financing to the Norwegian government than is called for in its guidelines.

The structure category also includes an element about whether the SWF has a clearly stated investment strategy. Most funds do, but for seven no such statement is publicly available, and for another 12 the statement is imprecise. On the other hand, to require that SWFs state formally that investment decisions are based solely on economic grounds rather than political, foreign policy, or noncommercial considerations, as has been suggested by Kimmitt (2008) and echoed by other US Treasury officials (Lowery 2008) is an empty statement because such a "best practice" would be very difficult to translate into an operational test. Instead of relying on feel-good, political statements, it is more informative to examine the overall structure of the fund, its governance, and other aspects of its activities that this blueprint covers.

Another such element is whether there is a formal procedure to change the fund's structure, which there is for about three-fourths of the funds. It is unrealistic to think that, once established, a fund's structure should be immutable to political forces or changing circumstances. This is an invitation either to illegal activity or to overturning the structure completely. The process of changing the structure is more straightforward and less subject to caprice if it was initially grounded in a law. Norway has altered the structure and orientation of its SWF several times since it was first established in 1990, but a number of SWFs have collapsed or have been liquidated in part because they were excessively rigid.

The last element in the structure category is whether the resources in the SWF are separate from the country's international reserves. Only three-quarters of the nonpension funds have this feature. A lack of separation between an SWF and the country's international reserves creates ambiguity about the investment activities and objectives of the SWF as well as about the management and quality of the government's international reserves. Such lack of separation also is inconsistent with the spirit, if not the letter, of the IMF's Guidelines for Foreign Exchange Reserve Management (IMF 2004), which have been pointed to as an example for the current IMF dialogue on best practices for SWFs. Those guidelines call for clarity about the nature of the assets included in reserves, their availability to meet a country's obligations, and transparency and accountability in their management.

Governance

The governance category covers the respective roles of the government and fund managers in conducting the operations of an SWF and also the use of corporate governance and ethical guidelines as part of those activities. As summarized in table 5, compliance with the elements in this category is far from complete or uniform. On average, all SWFs score only 52, pension funds score 91, and nonpension funds 41.

In the context of best practices, full compliance with the first three elements—role of government, role of managers, and whether the managers alone make investment decisions—would indicate that the SWF operates at arm's length from the government, presumably with an appropriate set of checks and balances, which are the central focus of the next category (accountability and transparency). Unfortunately, for 10 of the 34 nonpension funds, the role of government is not defined, and for another five that role is ambiguous, producing a score of 63. For seven funds, the role of managers also is not defined, and again for another five their role is ambiguous, for a score of 72. In less than about half the nonpension SWFs, actual investment decisions may not be made exclusively

Table 6 The accountability and transparency component
(percent of SWFs complying in whole or in part)

Element	Nonpension	Pension	Total
Investment strategy implementation			
Categories	49	100	61
Benchmarks	45	100	57
Credit ratings	41	80	50
Mandates	47	90	57
Investment activities			
Size	72	100	78
Returns	44	100	57
Location	28	58	35
Specific investments	16	60	26
Currency composition	31	60	38
Reports			
Annual	53	100	64
Quarterly	38	75	47
Audit			
Audited	62	100	70
Published	32	100	48
Independent	57	100	67
Total for the category	44	87	54

by managers but instead may be made by the government or a government-controlled board. Similarly, for China's pension SWF (the National Social Security Fund), the managers are not solely responsible for investment decisions. This is a crucial element if the activities of SWFs are to be conducted at arm's length from the government.

Only a few SWFs (30 percent overall) make a public statement about adhering to guidelines for corporate responsibility such as those developed under the auspices of the OECD (2000). They include two nonpension SWFs (Norway's Government Pension Fund–Global and the Alaska Permanent Fund) and four other such funds that make a general statement about exercising corporate responsibility. Nine of 10 pension SWFs clearly state that they adhere to guidelines of corporate responsibility.

A more controversial element in this category concerns the adoption of ethical guidelines in the operation of SWFs. Three nonpension SWFs have adopted such guidelines.[19] It could reasonably be argued that the objectives of an SWF should be merely to implement its investment strategy and maximize financial returns subject to whatever risk-management constraints that have been established. In this case, its "ethical guidelines" would involve ignoring so-called ethical considerations per se.[20] However, in some cases, an SWF may implicitly limit its investments in certain instruments, entities, activities, or countries without a clearly articulated set of guidelines.[21] Those who think that such a requirement is onerous should note that the pension SWFs score 75 on having a policy with respect to ethical guidelines.[22]

Accountability and Transparency

Accountability to the citizens of the home country of the SWF as well as to the citizens and government of the countries in which it invests, and participants in financial markets more generally, should be the principal motivating objective of SWF best practices. Transparency about the fund's structure and operations is a means toward this broader end.[23] Consequently, the elements

19. They are Norway's Government Pension Fund–Global, the Kuwait Investment Authority, and Wyoming's Permanent Mineral Trust.

20. We would give such an SWF a score of "1," even though we have not identified such an entity.

21. In the absence of any public information, an SWF receives a "0" in our scoring.

22. The situation for Japan's Government Pension Investment Fund is vague, receiving half a point.

23. On the role of transparency and accountability in economic policymaking, see Group of 22 (1998).

included in this category are crucial to the overall compliance of an SWF with the blueprint for SWF best practices. Table 6 provides a summary of compliance on the 14 elements in this category. Average overall compliance is about 50 (with a high of 78 on one element and a low of 26 on another), but compliance by nonpension funds is less than 50 (with a high of 72 and a low of 16), and 87 by pension funds (with perfect scores on eight elements).

The four elements in the subcategory on investment strategy implementation are designed to clarify how each SWF conducts its strategy. The first element is whether it publishes the categories of assets in which it invests, for example, stocks, bonds, real estate, alternative investments, and foreign exchange. This is universally the case for the sample of pension SWFs. About a third of the nonpension SWFs provide no information on the categories of assets in which they invest; another third release some information; the final third match the pension SWFs.

Each of the pension, and about half of the nonpension, SWFs use benchmarks in whole or in part to guide their investment activities (an aspect of risk management), but more than a third of nonpension funds are silent about doing so. Credit ratings play a similar role in some cases, 7 of the 10 pension SWFs use them systematically (and two do in part) to guide their investment decisions, and somewhat more than a third of nonpension SWFs do so.[24] It could be argued that these two elements are more descriptive of the investment and risk-management practices of SWFs than they are prescriptive, but they provide some concrete, if indirect, evidence of professionalism in the funds' operations.

The same cannot be said for the last element in this subcategory: whether the SWF identifies holders of individual investment mandates. Through this type of disclosure, the public both in and outside the country can check on the records, quality, and reliability of those intermediaries. Disclosure also limits the scope for sweetheart arrangements and corruption.[25] Ninety percent of the pension funds provide this information, but the nonpension funds score less than 50.

Investment activities are the next subcategory under accountability and transparency. Average compliance with the five elements included in this subcategory ranges from high to quite low. First is whether the SWF makes public its size. One might think it is obviously appropriate and necessary to do so, but seven nonpension funds do not, and another five provide only partial information, resulting in a score of only 72.

What is the rationale for such nondisclosure? Some argue, as with a country's foreign exchange reserves, the size of an SWF is a state secret, but that approach to reserve management went out of fashion a decade ago. The adoption of the reserve template as part of the IMF's Special Data Dissemination Standard (Kester 2001) codified this change. A related argument is that if a country's enemies know the size of its asset holdings, including in its SWF, the country might be more vulnerable to military attack. However, as in the case of Kuwait following the 1990–91 Gulf War, the foreign assets of an SWF generally are not within the country.[26] The most plausible argument is that the citizens of the country, knowing how large the assets of the SWF are, will mobilize politically to obtain immediate access to them.[27] This is a political issue in many jurisdictions, as those involved with the Alaska Permanent Fund and Wyoming's Permanent Mineral Trust Fund have testified (Cowper 2007, Lummis 2007), but nondisclosure as a strategy to deal with such pressures is likely to exacerbate them over the long term.

The logical starting point for a blueprint for SWF best practices is the funds' practices today.

A majority of nonpension SWFs do not disclose their annual returns or their disclosure is incomplete. Only seven nonpension and three pension SWFs disclose fully the geographic location of their foreign assets. However, to reinforce a previous point, the relevance of these scores as a blueprint for SWF best practices is that some funds do make these disclosures. The question is why cannot all SWFs follow the example of the few? One answer is that the practices of each SWF evolved in isolation and many funds were until recently unaware of the practices of others.

An even smaller number of nonpension SWFs (four) disclose the specific assets in their portfolios, but a majority of pension SWFs comply with this element. It may be surprising but eight of the ten nonpension SWFs disclose in detail the currency composition of their portfolios and another six provide some information; six pension SWFs do so.

Annual reports, in principle, should contain much of the information covered by the elements in the subcategories of

24. Recall that when a fund receives partial credit on an element, it is included in the total score.

25. To receive full credit in the scoreboard, an SWF must publish the names of each holder of a mandate. If it merely states that it grants mandates, we give it no credit.

26. The Kuwait Investment Authority operates under prohibitions and penalties for the public disclosure of information, but it nevertheless now makes public the size of its General Reserve Fund, which is invested primarily in Kuwait, and its much larger Future Generation Fund, which is invested primarily outside the country. Overall, the Kuwait Investment Authority is at 48 on the scoreboard—slightly above the median and the mean score for all nonpension SWFs (46).

27. A less respectable version of this argument that applies as well to the next element (disclosing the SWF's returns) is that the investment record of the fund would embarrass the authorities.

Table 7 The behavior component
(percent of SWFs complying in whole or in part)

Element	Nonpension	Pension	Total
Portfolio adjustment	10	45	18
Limits on stakes	15	65	27
No controlling stakes	46	80	54
Policy on leverage	13	50	22
Derivatives			
Policy on derivatives	35	100	50
For hedging only	26	100	43
Total for the category	25	73	36

investment strategy implementation and investment activities in the scoreboard. However, 10 nonpension SWFs do not issue annual reports and only a dozen funds issue to the public reasonably complete reports, producing a combined score of 53.

Most of the SWFs that issue complete annual reports also issue quarterly reports on their operations. Views differ on the desirability of quarterly financial reporting. Some argue that it promotes too much focus on short-term returns. The principal argument for quarterly reporting by an SWF is transparency. The fund should be able to withstand the influence of excessive short-term emphasis given that it is not subject to the disciplines of the market. A fund also should be able to do so without tipping its hand about its investment strategy. Reports are normally issued with a lag of a month or two. Not surprisingly, all of the pension SWFs issue annual reports, and 7 of the 10 issue reasonably complete quarterly reports.

The final group of elements in this category focuses on audits. Regular audits, preferably independent and published, are a central element of accountability and transparency. For this reason, the scoreboard includes a maximum of three points in this area: Is the fund audited? Is the audit published? Are the auditors independent of the fund and its management?[28] A dozen nonpension SWFs are not subject to audit as far as can be ascertained from the public record. As a result, nonpension SWFs score a combined 62 on this element. For seven funds where there is some type of audit, it is not published, producing a score of only 32. Nineteen nonpension SWFs are independently audited, for a score of 57, including Norway's Government Pension Fund–Global, which in the past year shifted to a fully independent audit. All pension SWFs have perfect scores on these three elements.

28. If the auditing is internal, it takes away some of the objectivity. However, we allow full credit if it is done by a separately constituted government auditing authority.

Behavior

The last category focuses on the investment behavior of the funds. It combines aspects of risk management with features that may be of concern to market participants because of the potentially large scale of SWF investment activities. Consequently, the selection of elements is somewhat more judgmental and potentially controversial. Table 7 provides a summary of compliance by the 44 SWFs on the scoreboard with the six elements in this category. Overall compliance averages 36; the nonpension funds score 25, and the pension funds score 73.

The first element is whether the fund has a rule or guideline for how it adjusts its portfolio. A few nonpension SWFs do so, producing a score of 10. For example, Norway's Government Pension Fund–Global states that it uses new inflows of resources to make adjustments in its portfolio in light of market changes that move the portfolio away from its benchmarks, in other words a policy of portfolio rebalancing. New Mexico's Severance Tax Permanent Fund and Wyoming's Permanent Mineral Trust Fund follow similar guidelines, and the Korea Investment Corporation uses something close. Interestingly, about half of the pension SWFs have similar guidelines that are a matter of public record.

More controversial, but of substantial interest to some observers, is whether an SWF has limits on the stakes that it takes in entities. Some advocate that host countries should apply such limits; this element merely asks about a fund's voluntary policy. Six nonpension funds do so at least in part, scoring 15. A majority of the pension SWFs also do so.

It has been suggested that an SWF that takes a noncontrolling stake in a company should be forbidden from voting its shares, presumably increasing the probability that the investment is passive—a concept that has no generally accepted legal definition. Such an approach by the United States, if applied uniformly, would disenfranchise as much as several trillion dollars of investments by US state and local government pension funds. If the United States did not apply this type of restriction to domestic pension SWFs, it would still risk disenfranchising US government pension funds in their investment operations abroad. It would be difficult to apply such a restriction to foreign nonpension SWFs and not to foreign pension SWFs. As a consequence, foreign governments almost certainly would retaliate in kind.

Lowery (2008) endorsed a more sensible approach: either an SWF should choose voluntarily not to vote its shares or it should disclose how it votes, as is now done voluntarily by some UK institutional investors and is required by the Securities and Exchange Commission (SEC) for US mutual funds. The objective of the SEC rule for mutual funds is to address concerns about conflicts of interest and, as noted earlier, similar concerns arise with respect to SWFs. Presumably, the SWF would not face a formal SEC reporting requirement in this area; that would raise a host of other process and jurisdictional issues.

Even more controversial is whether the fund does *not* take controlling stakes. This is one element in the scoreboard that may cross over the line from best practice to restriction. Some observers argue that SWFs should not take controlling investment stakes, presumably with an exception for real estate projects where control may be essential to insuring the economic performance of the investment. For that reason, at least, the evidence is interesting. Fifteen, or almost half, of the nonpension SWFs declare that they do not take controlling investment stakes, and a few others limit their controlling stakes. Eight of the ten pension SWFs do so as well. In the former category, the 17 SWFs that do not make any such declaration most likely include at least half a dozen funds that do not take controlling stakes but do not advertise that fact. In the latter category, the California Public Employees' Retirement System (CalPERS) and the Netherlands' Stichting Pensioenfonds ABP do not have official policies in this area.

A more neutral question is whether a fund has a policy on the use of leverage, which four of the nonpension SWFs and half of the pension SWFs do. It should be noted that having a policy of limiting the use of leverage is not the same as having no involvement with leverage, as is claimed by some who depict the activities of SWFs as benign and long-term in orientation. SWFs invest in hedge funds, in private equity firms, and in other highly leveraged financial institutions such as banks whose activities, including the use of leverage, are indistinguishable from hedge funds and private equity firms. In effect, SWFs provide the capital for firms subsequently to leverage and to generate high rates of return for the funds themselves. The funds are no different from other investors except that their stakes may be measured in the billions rather than in the hundreds of millions of US dollars. They should be held indirectly responsible for the investment behavior of the institutions in which they invest.

A similar question is whether a fund has a policy on the use of derivatives, which is the case for a larger proportion (almost a third) of nonpension, and almost all pension, SWFs. Finally, are derivatives used primarily for hedging purposes? Most, but not all, funds that have a policy use derivatives for hedging.

To conclude this section, the actual practices of both nonpension and pension SWFs differ widely. At least one fund complies with each element included on the scoreboard, but no fund does everything. The patterns of compliance are diverse. There is room for improvement across the board.

IMPLEMENTATION

This section discusses a few aspects of implementing SWF best practices. As noted earlier, the IMF has initiated a dialogue to establish best practices for SWFs. The IMF executive board on March 21, 2008 approved this activity (IMF 2008a). How should the effort be judged when it is completed in the fall of 2008?

One test is whether the resulting set of best practices covers substantially all the elements included in the scoreboard presented in this policy brief, thereby conforming to the blueprint that has been laid out. Of course, it is not essential to incorporate each element in precisely the form presented here. However, each should be adequately addressed. An omission should be counted as falling short of expectations. Recall, under the approach advocated here, no SWF would be asked to do something that at least one other SWF does not already do. The prospective IMF survey (IMF 2008b) of current SWF practices should cover at least all the elements in the scoreboard presented here.

The blueprint presented here provides a basis for evaluating the results of the IMF-sponsored dialogue on SWF best practices.

A second test of success is whether the best practices are embraced by substantially all countries with large SWFs. Table 2 lists a dozen countries with more than or close to $100 billion in foreign assets in their SWFs. If they all were to adhere to the best practices, it is less critical that the remaining 25 countries did so immediately. For each country, including those that choose not to adhere fully or at all, the expectation should be that the country would comply, or it should explain why it does not do so in whole or in part.[29]

A third test is the quality of compliance by the countries that embrace the best practices. If they are drawn up properly, following the blueprint presented here, the overall regime should be self-enforcing. Politicians, the media, financial-market

29. Some note that hedge funds and private equity firms are not subject to best practice standards and associated disclosures and, therefore, argue that SWFs should not be. To these arguments, I have three responses: The trend is toward increased disclosure by hedge funds and private equity firms. For about a decade, I have supported increased disclosure by large hedge funds and, by extension, private equity firms. Governments should be held to a higher standard of disclosure because they are more broadly accountable for their policies and actions.

participants, and the general public in the home and host countries should be able to determine the degree of compliance.

On the other hand, if the voluntary best practices agreed under the auspices of the IMF are less precise than they should be, it will be necessary to have an "auditing" function to report on compliance. That function might be lodged in the IMF or the World Bank, which have experience with respect to overseeing compliance with 12 of the many existing international standards and codes. However, in the case of an SWF standard, where the country coverage would be far from universal, the financial costs of that "auditing" activity might be shared among the major home and host countries rather than assigned implicitly to the general membership of the Fund or the Bank. As is the case with compliance with existing standards subject to IMF and World Bank surveillance and oversight, the process of naming and shaming, combined with peer pressure from other SWFs that want to avoid the application of draconian restrictions to their activities, should contribute to a high level of compliance within a short period.

In advance of knowing the outcome of the IMF's dialogue on SWF best practices, some observers have criticized that effort because, they argue, the IMF lacks enforcement powers (see column by US Senator Evan Bayh, "Time for Sovereign Wealth Rules," *Wall Street Journal,* February 13, 2008). The implicit proposition is that the United States unilaterally should establish best practices for funds that invest in the United States and "enforce" those practices. It is not clear what "enforcement" would mean in this context. How would the United States ensure compliance? Would the SWFs be required to submit reports to the SEC and subject to penalties if they were found not to be reporting truthfully? What would be the nature of those penalties, and what would be the consequences for an SWF that refused to report to the SEC? Such an apparatus, at this point, has all the advantages of using nuclear weapons to wipe out a herd of sheep that is suspected of carrying an infectious disease.

On the recipient side, many countries today have (very diverse) regimes covering foreign direct investment in their countries. Pending the establishment of a broad consensus on those regimes as they apply to government investments, such as is being pursued within the OECD, and perhaps even in that context, the United States and other similarly situated countries might reasonably decide to take account of a country's voluntary compliance with the international best practices for SWFs as one of a number of factors considered in making determinations about whether a particular SWF's investment should be blocked because of a threat to national security. For example, in a March 13 letter sent to US Treasury Secretary Henry Paulson, Representatives Barney Frank, Carolyn Maloney, and Luis Gutierrez suggested that a country's compliance with aspects of SWF best practices could be used by the US Committee on Foreign Investment in the United States (CFIUS) as a factor in determining whether the CFIUS should grant that country a waiver from a full investigation of an investment by a government-owned pension fund under the 2007 Foreign Investment and National Security Act (FINSA).

How well would the blueprint for SWF best practices outlined in this policy brief address the criteria articulated in recent months by the G-7 and US and EU officials? (Group of Seven 2007, Kimmitt 2008, Lowery 2008, and Commission of the European Communities 2008)

Under the approach advocated here, no SWF would be asked to do something that at least one other SWF does not already do.

With respect to governance, which is common to the criteria put forward on both sides of the Atlantic and appears in the form of "institutional structure" in G-7 communiqués, the blueprint presented here should satisfy broadly the principles articulated by the Commission of the European Communities. (Statements about the content of this category by US officials have been less detailed than those of the European Union.) The Commission Communication includes among its principles clear allocation and separation of responsibilities, issuance of an investment policy, and operational autonomy. Each of these elements is included in this blueprint. The EU principles also include the SWF's relationship with its government, internal governance, and home country regulation and oversight, but those are largely restatements of the other EU principles.[30]

With respect to transparency, which is on the G-7 and EU lists of desiderata and under the US heading of "world-class institutional integrity," the blueprint covers many aspects of investment policies as suggested in general terms by US officials and each of the elements specifically listed by the European Union: annual disclosure of investment positions and asset allocations, disclosure of the use of leverage and of the currency composition of assets, and size and source of the fund's resources. The EU Commission Communication does not explain what is meant by "exercise of ownership rights." I assume the intention is to cover such topics as guidelines for corporate responsibility and ethical investment, which are included in the blueprint, and possibly issues of controlling stakes and voting practices, which were discussed earlier.

30. US officials also have mentioned internal controls, which are related to the behavior category of this blueprint.

The G-7, US, and EU officials highlight risk-management policies as part of SWF best practices. This blueprint covers several aspects that are normally part of sound risk management policies. No doubt, a few other features could be included, but against the background of recent developments in global financial markets to say that there is no codification of sound risk-management policies would be an understatement. Moreover, a mere statement by an SWF that it follows sound risk-management policies, as has been advocated by both US and European officials, does no provide much substantive comfort. Details are more important than embracing general principles. US officials also have mentioned internal controls, which are important but difficult to assess without direct supervision. It may be that in these areas, US and EU officials favor supervisory inspections of SWFs beyond those that would be covered by published, independent audits. They have not said so publicly, and to advocate this type of supervision clearly would escalate the debate over SWF best practices.

Finally, some of the principles put forward by US officials appear to be largely feel-good statements of good intention. Beyond their superficial political appeal, some of these principles have little practical content without a strong supporting set of SWF best practices. With such a set of best practices, statements such as these would be largely superfluous. As noted earlier, a requirement that an SWF state that its investments are based solely on economic considerations has this character. The US-suggested principle that an SWF should commit to compete fairly with the private sector is more relevant to the activities of a government-owned or government-controlled financial or nonfinancial corporation than to an SWF except to the extent that the SWF acts to support another government-owned or government-controlled entity.

It also is not clear what the content is in a principle that an SWF should respect host-country rules. Do we really expect that any SWF would state that it plans to flout such rules or be ambiguous on this point given the likely economic, financial, and political consequences of violating such rules, in particular, in the United States, where in the past firms have been thrown out of the country or suffered severe financial penalties for violations? Moreover, the United States does not require similar statements from other inward investors, and one of the four principles for countries receiving SWF investment that the United States, Singapore, and Abu Dhabi endorsed on March 20, 2008 is that recipient countries should not discriminate among investors.

The blueprint for SWF best practices presented in this policy brief meets the substantive principles that to date have been enunciated by the G-7, US, and EU officials. The overarching principle is accountability, which is in the interests of the countries with SWFs as well as the international financial system. Adoption of this blueprint for SWF best practices should allay many of the reasonable concerns about SWFs that have been articulated by citizens and politicians of both their home countries and the countries in which they invest. In the process, SWFs would be demystified, calming the political environment in countries receiving their investments. Moreover, the environment for SWF owners and managers would become more stable and predictable.

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APPENDIX A
SCOREBOARD FOR SOVEREIGN WEALTH FUNDS

This appendix presents the elements of the scoreboard described in the policy brief. 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 A.1 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**?

Table A.1 Scoreboard for sovereign wealth funds

		Structure								
			Fiscal treatment							
Country	Current name	Objective stated	Source of funding	Use of fund earnings	Integrated with budget	Guidelines followed	Investment strategy	Changes in the structure	Separate from international reserves	*Subtotal*
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 Welfare 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**
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 Pensioenfonds ABP	1	1	1	1	1	1	1	1	**8**
New Zealand	Superannuation 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]		**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**8**
GRAND TOTAL[a]		**42**	**38.5**	**28.5**	**30.5**	**25**	**30.5**	**33**	**36**	**6.0**

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

(table continues next page)

Table A. 1 Scoreboard for sovereign wealth funds *(continued)*

Country	Current name	Governance: Role of government	Governance: Role of managers	Governance: Decisions made by managers	Governance: Guidelines for corporate responsibility	Governance: Ethical guidelines	Governance: *Subtotal*	Transparency and accountability — Investment strategy implementation: Categories	Bench-marks	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	0.5	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 Welfare 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**	**15.25**	**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
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 Pensioenfonds 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
United States (California)	California Public Employees' Retirement System	1	1	1	1	1	**5**	1	1	1	1
Total[a]		**10**	**10**	**9**	**9**	**7.5**	**4.55**	**10**	**10**	**8**	**9**
GRAND TOTAL[a]		**31.5**	**34.5**	**25**	**13**	**10.5**	**2.6**	**26.75**	**25.25**	**22**	**25**

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

(table continues next page)

Table A.1 Scoreboard for sovereign wealth funds *(continued)*

		Transparency and accountability										
		Investment activities					Reports		Audit			
		Size	**Returns**	**Location**	**Specific investments**	**Currency composition**	**Annual**	**Quarterly**	**Audited**	**Published**	**Indepen-dent**	***Subtotal***
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	**11.5**
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 Welfare 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**
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 Pensioenfonds 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**
United States (California)	California Public Employees' Retirement System	1	1	0.5	1	1	1	1	1	1	1	**13.5**
Total[a]		**10**	**10**	**5.75**	**6**	**6**	**10**	**7.5**	**10**	**10**	**10**	**12.2**
GRAND TOTAL[a]		**34.5**	**25**	**15.25**	**11.5**	**16.5**	**28**	**20.5**	**31**	**21**	**29.5**	**7.5**

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

(table continues next page)

Table A.1 Scoreboard for sovereign wealth funds *(continued)*

		Behavior							
						Derivatives			
Country	**Current name**	**Portfolio adjustment**	**Limits on stakes**	**No controlling stakes**	**Policy on leverage**	**Policy on derivatives**	**For hedging only**	***Subtotal***	**GRAND TOTAL**
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**
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 Welfare 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**
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 Pensioenfonds ABP	1	0	0	0	1	1	**3**	**28**
New Zealand	Superannuation Fund	0	0.5	1	1	1	1	**4.5**	**31.5**
United States (California)	California Public Employees' Retirement System	1	0	0	1	1	1	**4**	**30.5**
Total[a]		**4.5**	**6.5**	**8**	**5**	**10**	**10**	**4.4**	**29.2**
GRAND TOTAL[a]		**8**	**11.75**	**23.75**	**9.5**	**22**	**19**	**2.1**	**18.3**

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