5

Accountability and Transparency: The Sovereign Wealth Fund Scoreboard

As summarized at the end of chapter 4, most of the suggested approaches to address the five concerns about sovereign wealth funds discussed in chapter 3 are at best deficient and at worst counterproductive. In 2007, when I first began to think and write about making the world safer for SWFs, I proposed a collective effort to develop an internationally agreed-upon standard for SWFs (Truman 2007).[1]

I suggested, unrealistically but with good intentions, that the standard should apply to the gamut of international investment activities of governments, starting with traditional foreign exchange reserves, covering SWFs of all types, and including pension funds, investment holding companies, and miscellaneous international assets. My principal short-run focus, however, was SWFs. In making this suggestion, I was motivated and encouraged by similar international efforts to enhance transparency and accountability, specifically in the context of the Asian financial crises in the late 1990s (see box 5.1).

In the context of SWFs and the concerns summarized in chapter 3—mismanagement of SWF investments, pursuit of political or economic power objectives, financial protectionism in anticipation of or in response to the pursuit by SWFs of those objectives, financial market turmoil and uncertainty, and conflicts of interest—transparency primarily is a tool to

1. Some characterize the use of agreed-upon international standards as a "soft law" approach to such issues (Rose 2008).

Box 5.1 International transparency standards—Some history

In the wake of the Asian financial crises in the late 1990s, a group of systemically significant economies formed the Group of 22 (G-22) in a collective effort to assemble the lessons from those crises. The G-22, which turned out to be the precursor of the Group of Twenty (G-20), sponsored three working groups, one of which focused on the critical topic of enhancing transparency and accountability.[1]

In its report released in October 1998, the Working Group on Transparency and Accountability concluded that "a lack of transparency and accountability exacerbated financial weaknesses at the firm and national levels and complicated efforts to resolve the ensuing crisis" (Group of 22, 1998). The report observed, "Transparency contributes to the efficient allocation of resources by ensuring that market participants have sufficient information to identify risks and to distinguish one firm's, or one country's, circumstances from another's. Moreover, transparency helps to inform market expectations, thereby helping to stabilize markets during periods of uncertainty and also contributing to the effectiveness of announced policies." The report also said, "Accountability refers to the need to justify and accept responsibility for decisions taken. Accountability imposes discipline on decision-makers, thereby helping to improve the quality of decisions taken. Transparency helps to promote accountability by obliging decision-makers to make their decisions and the reasoning behind them known."

The working group also gave a further boost to the development of the IMF's Special Data Dissemination Standard (SDDS) and General Data Dissemination System, including the establishment of the Reserves Template (IMF 2000) as part of the SDDS. The working group recommended enhancement of various data collection and publication systems as well as establishment of a working party including private-sector representatives "to examine the modalities of compiling and publishing data on the international exposures of investment banks, hedge funds, and other institutional investors." This last recommendation did not produce any specific results, but the underlying issues continued to inform debates about the structure and functioning of the international financial architecture and are very much a part of the discussion of lessons to be learned and applied in the aftermath of the global economic and financial crisis of 2007–09.

1. The mandates of the other two working groups were on strengthening financial systems and managing international financial crises.

enhance accountability. However, transparency and accountability can also be treated as separate, but related, concepts. As part of my research on SWFs, I considered what would be appropriate content for such an international standard. In the process, I developed a scoreboard for SWFs that the Peterson Institute for International Economics released in October

2007.[2] I subsequently revised the scoreboard and expanded the coverage of SWFs, and the results were released in April 2008 (Truman 2008a).[3]

This chapter starts with a further update and revision of the scoreboard for SWFs along with a comparison of these 2009 results with those for 2007 and 2008. (Further details about the scoreboard are provided in appendix 5A.) Next, the new scoreboard results are compared with some other indices and indicators. I then address some of the issues that have been raised about this approach to SWF accountability. The chapter concludes with some observations on how an agreed-upon international standard for SWFs will assist in addressing the five principal concerns about such investment vehicles.

The Scoreboard

Table 5.1 presents the results of my latest assessment of the accountability and transparency of 53 SWFs of 37 countries. The funds include 40 of the nonpension SWFs listed in table 2.1 along with the four pension reserve SWFs and nine other pension SWFs.[4] With Doug Dowson and Daniel Xie, I have scored each fund on 33 elements based on systematic, regularly available, public information.[5] We asked simple questions that can be answered

2. The published version is Truman (2008c).

3. See also Edwin M. Truman, " Sovereign Wealth Funds: New Challenges for a Changing Landscape," testimony before the Subcommittee on Domestic and International Monetary Policy, Trade and Technology, Financial Services Committee, US House of Representatives, September 10, 2008, available at www.piie.com (accessed on July 12, 2010).

4. We scored 20 of the 23 SWFs listed in table 2.1 with estimated total assets of more than $50 billion. The exceptions were Libya's SWF, for which we had insufficient information; the holdings of the Saudi Arabian Monetary Agency (SAMA) which does not have an identifiable structure independent from the central bank; and Queensland's Investment Corporation, which is a government-owned investment management firm. We treated the two Russian SWFs as one observation, leaving a total of 19 large SWFs, including 11 nonpension SWFs and eight pension SWFs. In addition to the three large nonpension entities listed in table 2.1, we did not score 26 other smaller nonpension entities, as explained in the footnotes in table 2.1, because they are not independent investment pools, are invested exclusively domestically, were too new, and/or insufficient information was available. The scoreboard covers almost 90 percent of the total assets listed in table 2.1 and 85 percent of the international assets, with SAMA accounting for most of the difference.

5. For some of our facts, we relied on independent, published documents, such as those of the IMF or World Bank. However, in general, we required that the SWF produce an ongoing flow of systematic information. Consequently, more is known about some SWFs than is reflected in our scoring, but that information is anecdotal and occasional rather than systematic and regular. For the scoreboard, it is not sufficient that an individual SWF provides information in ad hoc interviews with the press. To be fair, some SWFs state that they are willing to respond to freedom of information or less formal requests for information. One example is the Alberta Heritage Savings Trust Fund, and another is the State Oil Fund of the Republic of Azerbaijan. Although we have tried to be rigorous and systematic in our evaluation of each fund, some degree of subjectivity necessarily is present in our procedure.

Table 5.1 Sovereign wealth fund scoreboard (percent of maximum possible points)

Country	Fund[a]	Structure	Governance	Accountability and transparency	Behavior	Total
Norway	Government Pension Fund-Global	100	100	100	75	97
United States	*California Public Employees' Retirement System (P)*	88	100	96	100	95
New Zealand	*Superannuation Fund (PR)*	88	100	100	75	94
Canada	*Canada Pension Plan (P)*	88	100	96	75	92
United States	Alaska Permanent Fund	94	86	100	75	92
	Wyoming Permanent Mineral Trust Fund	94	93	86	100	91
Canada	*Caisse de dépôt et placement du Québec (P)*	88	100	89	75	89
France	*Fonds de réserve pour les retraites (P)*	88	100	89	75	89
Ireland	*National Pensions Reserve Fund (PR)*	88	100	86	63	86
Netherlands	*Stichting Pensioenfonds ABP (P)*	88	86	86	75	85
Timor-Leste	Petroleum Fund	100	43	100	75	85
Japan	*Government Pension Investment Fund (P)*	88	93	80	75	84
Canada	*Ontario Teachers' Pension Plan (P)*	88	86	89	50	83
Trinidad and Tobago	Heritage and Stabilization Fund	100	64	93	50	83
Australia	*Future Fund (PR)*	88	86	75	75	80
United States	New Mexico Severance Tax Permanent Fund	94	50	89	75	80
Thailand	*Government Pension Fund (P)*	88	86	88	13	78
Azerbaijan	State Oil Fund	94	57	89	25	76
Canada	Alberta Heritage Savings Trust Fund	94	57	79	50	74
Singapore	Temasek Holdings	88	79	68	50	73
Chile	Economic and Social Stabilization Fund	94	57	86	0	71
China	*National Social Security Fund (P)*	81	43	82	50	70
Hong Kong	Exchange Fund	88	43	79	50	70
Chile	*Pension Reserve Fund (PR)*	81	57	86	0	68
United States	Alabama Trust Fund	94	57	64	50	68
Kazakhstan	National Fund	94	57	64	25	65
Singapore	Government of Singapore Investment Corporation	81	71	61	38	65
Kuwait	Kuwait Investment Authority	88	86	48	25	63
Korea	Korea Investment Corporation	75	71	45	63	60
United Arab Emirates	Mubadala Development Company	63	57	68	25	59
China	China Investment Corporation	75	50	59	25	57

Botswana	Pula Fund	69	57	57	25	56
United Arab Emirates	Dubai International Capital	75	86	36	25	55
Russia	Reserve Fund and National Wealth Fund	81	29	50	25	50
São Tomé and Príncipe	National Oil Account	100	57	29	0	48
Malaysia	Khazanah Nasional	56	50	46	0	44
Mexico	Oil Income Stabilization Fund	81	14	43	25	44
Kiribati	Revenue Equalization Reserve Fund	81	57	7	0	35
Vietnam	State Capital Investment Corporation	81	57	7	0	35
Bahrain	Mumtalakat Holding Company	38	14	43	0	30
Algeria	Revenue Regulation Fund	69	29	14	0	29
Iran	Oil Stabilization Fund	63	29	18	0	29
Nigeria	Excess Crude Account	63	36	14	0	29
Venezuela	Macroeconomic Stabilization Fund	69	14	18	0	27
	National Development Fund	50	14	27	0	27
United Arab Emirates	International Petroleum Investment Company	44	29	21	0	26
Oman	State General Reserve Fund	63	0	18	0	23
Brunei Darussalam	Brunei Investment Agency	44	0	25	0	21
United Arab Emirates	Investment Corporation of Dubai	44	7	21	0	21
Sudan	Oil Revenue Stabilization Account	50	0	14	0	18
Qatar	Qatar Investment Authority	47	14	2	0	15
United Arab Emirates	Istithmar World	31	21	7	0	15
	Abu Dhabi Investment Authority	25	14	4	0	11
Nonpension total[b]		73	45	47	24	50
Pension total[b]		87	87	88	62	84
SWF total[b]		76	56	57	33	59
Memorandum						
United Kingdom	Terra Firma	100	73	79	50	75
United States	Harvard University Endowment	100	69	66	50	69
	TIAA-CREF	100	88	86	75	84
	Blackstone	100	54	75	50	70
Total[b]		100	71	76	56	74

a. Pension funds (P) and reserve pension funds (PR) shown in italics.
b. For each category the value under total represents the average for all funds.

either yes or no. A "yes" receives a point, but we allow for partial credit. A "no" receives no credit. At least one SWF must receive a positive score on each element for that element to be included; normally several do.[6]

We group the elements in four categories: (1) structure of the fund, including its objectives, links to the government's fiscal policy, and whether the fund is independent from the countries' international reserves; (2) governance of the fund, including the roles of the government, the board of the fund and its managers, and whether the fund follows guidelines for corporate responsibility; (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 its risk management policies, including the use of leverage and derivatives. Table 5.1 provides overall scores for each fund and for each category. The scores are presented as a percentage of the maximum possible points—33 for the total and in each of the four categories (8, 7, 14, and 4, respectively).

The average score is 59 for all the SWFs scored, and 50 for the nonpension SWFs alone.[7] The median score is 64 for all funds, and 55 for the nonpension SWFs alone. Weighted by actual or estimated foreign assets (from table 2.1), the average is 58 for all funds, and 50 for the nonpension SWFs; the averages are slightly higher when weighted by total assets.

The results presented in table 5.1 point to a number of important summary observations.

First, all SWFs are not the same. Nor is there one cluster of "good" funds and another cluster of "bad" funds. It is remarkable how even knowledgeable researchers, such as Bortolotti et al. (2009), assert that all SWFs lack transparency.[8] The overall scores range from 97 to 11 out of a possible 100. The rating of each fund can be improved. The distribution of scores is quite even, with the largest number of funds (10) in the 80s and the next largest number of funds (nine) in the 20s.

6. In the 2007 edition of the scoreboard, we included 33 SWFs of 28 countries that we scored on 25 elements. In the 2008 edition, we included 46 SWFs of 35 countries that we scored on 33 elements. For this edition we have added seven funds and two more countries and again we have scored them on 33 elements; however, we dropped four elements from the 2008 edition (one of which had been in the 2007 edition) because we felt they were more prescriptive than descriptive, and we added four elements from the Santiago Principles discussed in the next chapter. See appendix 5A for details.

7. This average can be thought of as a weighted average of the four categories, where the weights are the number of questions in each category relative to the total. The simple average of the scores in the four categories comes out at three points lower for the two groups of funds individually and, thus, for the total of all SWFs. However, the simple correlation of the two methods of scoring is 0.98.

8. In the words of Bortolotti et al. (2009, 10), "Aside from a few notable exceptions (principally the Norwegian pension and oil stabilization funds), SWFs have been extremely reluctant to disclose any information about their investment policies and returns."

Second, the SWFs are in three broad groups: 14 funds with scores above 80, 14 funds with scores at or below 30, and 25 funds in a middle group. The top group includes funds of two developing countries, Timor-Leste and Trinidad and Tobago, as well as nine pension and three nonpension SWFs from industrial countries.

The middle group includes funds of nonindustrial countries as diverse as Russia, Mexico, Kuwait, and Singapore. Singapore's two funds have close to identical overall scores, but their scores differ on several individual elements. This group also includes Australia's Future Fund and the SWF of the province of Alberta, Canada, though both score above the mean and median for SWFs as a whole.

The bottom group includes four funds from the United Arab Emirates, two from Dubai, and two from Abu Dhabi, one of which is the Abu Dhabi Investment Authority, which scores at the bottom using data from 2009.[9] (However, see box 5.2, which updates the ADIA's scores based on its 2009 annual report published in March 2010.) The ADIA reportedly has an excellent reputation in financial markets and participated in the International Working Group of SWFs that drew up the Santiago Principles. The lowest-ranking SWF from Dubai is Istithmar World, which has been rumored to be in the process of liquidation. Its difficulties are associated in large part with commercial real estate and preceded the problems of its parent Dubai World.

Third, although each of the 13 representative pension SWFs scores 68 or higher, that group of 24 funds also includes nine nonpension SWFs. Thus, it is not unreasonable to hold nonpension SWFs to the standard of accountability of pension funds. Chile's pension and nonpension SWFs are both in the group scoring 68 or better. On the other hand, China's National Social Security Fund is there, but the CIC is somewhat lower at 57.

Fourth, of the 15 nonpension SWFs listed in table 2.1 that have estimated assets of more than \$50 billion, we scored 12 of them with \$2.6 trillion in estimated total assets and \$2.3 trillion in estimated foreign assets of nonpension SWFs, more than 70 percent of the respective totals listed in the table.[10] Norway's SWF is in the top group. The bottom group includes

9. A sister organization to the ADIA is the Abu Dhabi Investment Council (ADIC), which was established in 2007. It invests primarily, but not exclusively, in the Abu Dhabi economy, particularly in financial institutions. The Investment Company Institute reports that the ADIA receives 70 percent of Abu Dhabi's fiscal surplus and the ADIC receives 30 percent (www.swfinstitute.org/fund/adia.php [accessed on April 26, 2010]). We do not rate the ADIC on the scoreboard presented here, but in the 2007 and 2008 versions of the scoreboard, we rated it the same as the ADIA because at the time we could not distinguish the ADIA from the ADIC.

10. Excluded SWFs are those of Libya (because we did not have enough information to score the fund), the Queensland Investment Corporation (which is more of a public investment management firm), and in effect one of the Russian SWFs, which we scored as a single entity.

Box 5.2 Updated scores for the Abu Dhabi Investment Authority

Subsequent to our completion of the SWF scoreboard presented in table 5.1 with data available as of the end of 2009, the Abu Dhabi Investment Authority (ADIA) released its first-ever annual report on March 14, 2010 (ADIA 2010). Because of the size and importance of the ADIA, we rescored that SWF. Its overall score increased from 11 to 58, essentially matching the mean for all SWFs that we scored and 8 percentage points above the mean for the nonpension SWFs. The increase of 51 points from the ADIA's score on the 2007 SWF scoreboard is comparable with the largest change for any fund, the Government of Singapore Investment Corporation.

On the structure component, the ADIA's score increased to 75, roughly in line with the mean of 76 for all SWFs and 73 for nonpension SWFs. On the governance component, the ADIA's new score of 86 was substantially higher than the mean of 56 for all SWFs and 45 for nonpension SWFs. On accountability and transparency, the ADIA now scores 45, below the mean of 57 for all SWFs and approximately equal to the average for all nonpension SWFs. Finally, on the behavior component, the ADIA receives 25—below the average for all SWFs of 33, but in line with the average for nonpension SWFs.

four funds, two in the United Arab Emirates (one each from Abu Dhabi and Dubai), and one each from Algeria and Qatar. The remaining seven are in the middle group. The simple average score for these funds is 52, slightly below the mean and median for all nonpension SWFs.

Fifth, we also scored, for purposes of comparison, four non-SWF investment entities listed as memo items at the bottom of table 2.1. They are the Teachers Insurance and Annuity Association—College Retirement Equities Fund (TIAA-CREF), a private-sector retirement fund that is similar in many respects to public-sector pension funds; the Harvard University Endowment, which managed a portfolio of $26 billion as of June 30, 2009, down from $37 billion a year earlier, on principles of long-term capital preservation and current-period return that are similar to those that motivate some SWFs; the publicly traded Blackstone Corporation, which specializes in private equity investment; and Terra Firma, a UK private equity firm that is not publicly traded. The average score for the four comparators is 74. TIAA-CREF's score (84) is equal to the average for the 13 pension SWFs that we scored, though seven of them score higher. The Harvard Endowment scores somewhat lower at 69 but above the means for nonpension and all SWFs that we scored. Blackstone scores about the same, and Terra Firma a bit higher. Thus, the highest-scoring SWFs do as well as these other four investment entities and vice versa. Moreover, based on this comparison, it is reasonable to expect the majority of the SWFs to score higher in the future. In these cases, the private sector is creating a higher bar for the public sector.

Sixth, the difference in scores among different SWFs from the same country, mentioned above, is not unique to China or Singapore. The scores for the four Canadian funds range from 74 to 92, and the scores for the five US funds range from 68 to 95. It also should be noted that despite the low scores for many of the funds from the United Arab Emirates, one SWF from Abu Dhabi (Mubadala Development Company) scores at the mean for all nonpension SWFs, and one from Dubai (Dubai International Capital) scores only slightly lower. This lack of intracountry uniformity suggests that the influence of the particular government owner of an SWF is not the only determinant of how a fund scores on the SWF scoreboard. It is one influence, but the history and nature of the fund's operations are also relevant.

Seventh, there is a strong correlation of 0.959 between the total scores for the 53 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. Moreover, the grouping of scores is essentially identical if one examines only the category of accountability and transparency.[11]

Table 5.2 presents a summary analysis of the SWF scoreboard results comparing various groups of funds. It shows the number of funds in each group, the overall average and standard deviation for the group, and the *t*-test statistic of whether the means are significantly different. Confirming the visual inspection of table 5.1, the means for pension and nonpension SWFs are significantly different at the 1 percent level. Relevant to the discussion in chapter 6 on the Santiago Principles, the average for the 22 SWFs that participated in that process, and are now part of the International Forum of Sovereign Wealth Funds (IFSWF), is also significantly different from the 21 other nonpension SWFs.[12] The mean score for nonpension SWFs of OECD countries is significantly different from that for those not owned by OECD countries.[13] The average for funds of non-OECD

11. Eighteen SWFs score 86 or higher in the accountability and transparency category alone. They include a few that score relatively higher than on the SWF scoreboard as a whole, such as Azerbaijan's State Oil Fund and Chile's two funds. On the other hand, Japan's Government Pension Investment Fund scores relatively lower at only 80 in the accountability and transparency category alone. Within this category, 16 funds score 29 or lower. They include 13 of the 14 lowest-scoring funds on the SWF scoreboard as a whole. The exception is Bahrain's Mumtalakat Holding Company, which has a relatively higher score in this category than for the SWF scoreboard as a whole. On the other hand, São Tomé and Príncipe's National Oil Account and the SWFs of Kiribati and Vietnam score relatively lower.

12. In this comparison, we include the three pension reserve SWFs because they are members of the IFSWF and included in the definition of SWFs that that group uses.

13. This result holds if the funds of Chile, Korea, and Mexico are included in the non-OECD group.

Table 5.2 Summary analysis of sovereign wealth fund scoreboard (tests of significant differences)

Comparison	Number	Mean score	Standard deviation	t-test statistic
Pension SWFs	13	84	8.5	4.8**
Nonpension SWFs	40	50	24.9	
Nonpension SWFs[a]				
IFSWF[b]	23	63	24.4	3.0**
Non-IFSWF	21	42	22.4	
OECD[c]	13	78	15.3	5.0**
Non-OECD	31	43	22.0	
Non-OECD SWFs				
Middle East	11	31	18.6	2.8*
Non-Middle East[c]	24	51	20.4	
Non-Middle East SWFs[c]				
Asian	10	57	19.0	1.2
Non-Asian	14	47	21.0	

* = significant at 5 percent level; ** = significant at 1 percent level.

a. Including Australian Future Fund, Chilean Pension Reserve Fund, Irish National Pensions Reserve Fund, and New Zealand Superannuation Fund.

b. SWF members of the International Forum of Sovereign Wealth Funds (IFSWF); see chapter 6.

c. Including SWFs of Chile, Korea, and Mexico.

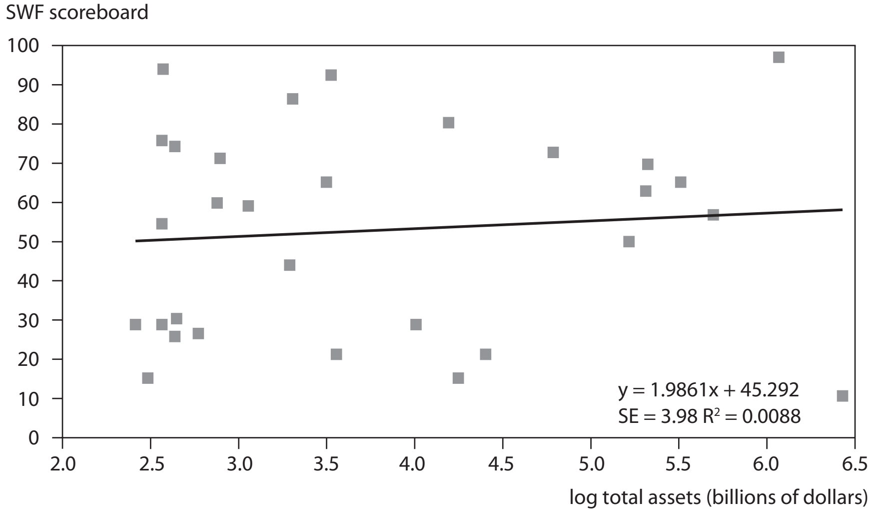
countries in the Middle East is significantly different from that of funds of other non-OECD countries, but only at the 5 percent level, which bears out some of the conventional wisdom. Finally, there is no significant difference between the average for funds of Asian countries and those from non–Middle East, non-OECD countries.

Figure 5.1 presents a different type of comparison: between the SWF scoreboard and the log of SWF assets under management for the 30 SWFs with assets of more than $10 billion. The results reject the oft-heard assertion that the larger the SWF, the less transparent it is, at least on the basis of the SWF scoreboard. In fact, the relationship is slightly positive, but not significant. Visual inspection confirms that it holds for the smallest funds as a group, for the largest funds, and for the group in the middle. The relationship is anchored by the SWF scoreboard result for the ADIA in the lower right-hand corner. Substituting the 2010 score for the ADIA (see box 5.2) increases the positive slope, but it is still not significant. Eliminating Norway at the upper right-hand corner also would not change the basic nonresult.

Elements of the Scoreboard

Tables 5.3 to 5.6 present the scoreboard results for each element in each of the four categories in turn: structure, governance, accountability and

Figure 5.1 Sovereign wealth fund scoreboard and fund asset size



Source: Table 2.1 for total assets.

transparency, and behavior. The score for each element is the sum of the scores across SWFs as a percentage of the maximum possible score, which is 53, the total number of funds. From the summary in table 5.1, SWFs as a group score highest on the eight elements in the structure category. The pension SWFs score equally well on seven elements in the governance category and the 14 elements in the accountability and transparency category, but less well on the four elements grouped under behavior. The nonpension SWFs score about the same in the governance and accountability categories, but decidedly less well under behavior.

Structure

The structure category (table 5.3) covers the basic organization of each SWF. 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 fund's organization is transparent. This is a first step in facilitating the process of holding the government and the fund accountable. On average, all SWFs that we have scored achieve a reasonably respectable 76, nonpension SWFs 73, and pension SWFs 87. Overall, the majority of funds comply with each element in this category in that the combined score is greater than 50, including some partial scores (see appendix 5A). The coefficient of variation (the mean divided by the standard deviation, a measure of dispersion, across the eight elements) is the smallest of any category at 0.174.

Table 5.3 Structure component (percent of maximum possible points)

Element	Nonpension	Pension	Total
Objective stated	95	100	96
Legal framework	83	100	87
Changing the structure	73	96	78
Investment strategy	67	96	74
Fiscal treatment			
Source of funding	88	100	91
Use of fund earnings	56	100	67
Integrated with fiscal and monetary policies[a]	61	50	58
Separate from international reserves[a]	64	50	60
Total	73	87	76

a. These items do not apply to pension funds, and we assign a neutral half point.

One might think that all SWFs 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 53 points (one for each fund) is recorded because the statements of objectives for four SWFs are rather vague.[14] The vast majority of SWFs also have clear legal frameworks, but our assessment of the public record is that seven do not.

Another relevant feature is whether there is a formal procedure to change the SWF's structure, which there is for about three-quarters of the funds. It is unrealistic to think that, once established, a fund's structure should be immutable to political forces or changing circumstances. An immutable structure 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 is initially grounded in 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 their structures and requirements were excessively rigid.

The structure category includes whether the SWF has a clearly stated overall investment strategy. Most funds do, but for nine no such statement is publicly available, and for another 10 the public 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 was suggested by Kimmitt (2008) and echoed by other US Treasury officials (Lowery 2008)—is an empty statement because such a commitment would be

14. In this 2009 version of the SWF scoreboard, the funds are the Abu Dhabi Investment Authority, Oman's State General Reserve Fund, Sudan's Oil Revenue Stabilization Account, and Venezuela's National Development Fund (Funden).

very difficult to translate into an operational test. Instead of relying on empty policy statements, it is more informative to examine the overall structure of the fund, its governance, and other aspects of its activities, as the SWF scoreboard does.

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 under what circumstances its principal and earnings are available to the government, and whether these flows are integrated with the budget. As detailed in IMF (2007c), for example, basic principles of good public finance aim at limiting the procyclical influence of an SWF on its country's 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 avoid explicitly and, if possible, implicitly borrowing 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 88 percent for the nonpension SWFs. In the lead-up to the formulation and adoption of the Santiago Principles for SWFs, representatives of the US Treasury argued that where and how a fund obtains its foreign exchange should determine whether it should be subject to such principles, for example, including funds financed either from foreign exchange market intervention or earnings from natural resource exports, but excluding those financed from other sources such as fiscal revenues or pension contributions.[15] This approach is too narrow, however; the public policy issues raised by SWFs are present wherever such a fund obtains its resources.

Compliance in clearly indicating how the earnings and principal of an SWF are to be used is substantially lower than compliance regarding the SWF's indicating its source of funding. A majority of funds have clear rules about how they are to interact with the government budget. In a number of cases, those rules or guidelines are not rigorously followed, as in the case, for example, of Norway and its Government Pension Fund-Global, which has tended to provide more financing to the Norwegian government than is called for in its guidelines.[16] As detailed in the 2009 IMF Article IV review of the Norwegian economy (IMF 2010, 23), "The experience of recent years suggests that fiscal loosening during downturns tends to be much more aggressive than the corresponding tightening during good

15. David H. McCormick, testimony before the Joint Economic Committee, February 13, 2008.

16. This issue does not normally arise for pension SWFs. For that reason, we have scored them with a neutral half a point in order not to bias the relative overall scores of pension and nonpension SWFs.

times, implying a slight expansionary bias relative to the 4-percent target" draw on the SWF's capital on average over the business cycle.[17]

The last element in the structure category is whether the resources in the SWF are separate from the country's international reserves. Only about two-thirds of the nonpension funds have this feature.[18] 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). On the other hand, in the wake of the 2007–09 global economic and financial crisis fewer countries may feel that their reserves are excessive. Therefore, in establishing new SWFs countries might be reluctant to segregate their reserves from such funds.

Governance

The governance category (table 5.4) covers the respective roles of the government, governing bodies, and SWF managers in the operations of a fund and also the use of corporate governance and ethical guidelines as part of those activities. Compliance with the elements in this category is far from complete or uniform. On average, all SWFs score only 56 and nonpension funds score 45, but the pension funds score a more respectable 87. However, the dispersion of results on the seven elements as measured by the coefficient of variation of 0.468 is the highest of any category, by a small margin.

In the context of establishing a sound governance structure, full compliance with the first four elements—clear roles of government, a governing body or bodies, and 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. These checks and balances are the central focus of the next category (accountability and transparency). Unfortunately, for nine of the 40 nonpension funds, the role of government is not defined at all, and for another six that role is ambiguous, producing a score of 70.

The role of the governing body or bodies that set the actual strategy and policies for the SWF should also be clearly defined. This is not the case for eight of the nonpension funds.

17. Compared with the 4 percent norm, the average structural nonoil fiscal deficit as a percent of the SWF's capital was 5 percent in 2004–05, 3.5 percent in 2006–08, and a projected 5.7 percent for 2009 and 2010.

18. Again, this issue does not normally arise for pension SWFs, so we have scored them with a neutral half a point in order not to bias the relative overall scores of pension and nonpension SWFs.

Table 5.4 Governance component (percent of maximum possible points)

Element	Nonpension	Pension	Total
Role of government	70	100	77
Role of governing body	81	100	86
Role of managers	74	100	80
Decisions made by managers	45	92	57
Internal ethical standards	24	62	33
Guidelines for corporate responsibility	13	85	30
Ethical investment guidelines	10	73	25
Total	45	87	56

For nine funds, the role of managers also is not defined, and again for another three their role is ambiguous, for a score of 74. In less than about half of the nonpension SWFs, actual investment decisions may not be made exclusively by managers but instead 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.

Of the dozen largest nonpension SWFs that we scored, five report that their investment decisions are made exclusively by investment managers. They are those of Australia, Kuwait, Norway, and the two Singapore funds. When we constructed this edition of the SWF scoreboard, we could find no such statements for the seven other funds (those of Algeria, the CIC, Hong Kong, Qatar, Russia, the Abu Dhabi Investment Authority, and the Investment Company of Dubai).

Only about a quarter of nonpension SWFs have publicly stated standards for the internal ethics of the fund's professional staff. Such standards are one of the most obvious ways to signal a fund's concern about a wide range of destructive practices, including corruption. Most of the pension SWFs we looked at have such standards, but those we scored from the province of Ontario, Canada, Chile, China, the Netherlands, and Thailand do not.

Only a few SWFs (30 percent overall) make a public statement about adhering to guidelines for corporate social responsibility such as those developed under the auspices of the OECD (2000). They include three nonpension SWFs (Norway's Government Pension Fund-Global, Dubai International Capital, and the Alaska Permanent Fund) and four other such funds that make a general statement about exercising corporate responsibility. Eleven of 13 pension SWFs clearly state that they adhere to guidelines of corporate responsibility.

A more controversial element in this category concerns the adoption of ethical investment guidelines in the operation of SWFs. In a world of endowments of nonprofit organizations such guidelines are often described as "socially responsible investing," but more may be involved as well, such as active promotion of clean energy, as in the case of the Norwegian SWF, or sustainable development, which no SWF currently promotes.[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 have been established. In this case, the fund's ethical investment guidelines would involve ignoring so-called ethical considerations per se. 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. The SWF scorecard says it is better to have stated guidelines even if others do not agree with the policy. At least four nonpension SWFs have adopted such guidelines.[20] Those who think that such a requirement is onerous should note that the pension SWFs score 73 on having a policy with respect to ethical investments.[21] A recent study found that 21 percent of US colleges and universities follow some form of social investment policy (NACUBO and Commonfund 2010).

Accountability and Transparency

Accountability to the citizens of the home country of an SWF and to the citizens and government of the countries in which it invests, as well as to 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. Consequently, the elements included in this category are crucial to the overall compliance of an SWF with generally accepted standards. Table 5.5 provides a summary of compliance on the 14 elements in this category. Average overall compliance is about 57 (with a high of 79 on one element and a low of 36 on another), but compliance by nonpension funds is less than 50 (with a high of 73 and a low of 26), while compliance by pension funds comes in at 88 (with perfect scores on five elements). Overall, the dispersion of results for these 14 elements is quite low, with a coefficient of variation of 0.233.

The four elements in the subcategory of investment strategy implementation are designed to clarify how each SWF conducts its strategy. The first element is whether the fund publishes the broad categories of assets in

19. An example of such guidelines is the UN Principles for Responsible Investing.

20. They are Norway's Government Pension Fund-Global, Kuwait Investment Authority, Dubai International Capital, and Wyoming's Permanent Mineral Trust Fund. The Kuwait Investment Authority limits investments in certain countries.

21. The exceptions are Australia's Future Fund, Chile's Pension Reserve Fund, China's National Social Security Fund, and (with only partial credit) Japan's Government Pension Investment Fund.

Table 5.5 Accountability and transparency component
(percent of maximum possible points)

Element	Nonpension	Pension	Total
Investment strategy implementation			
Categories of investments	67	100	75
Use of benchmarks	44	100	58
Use of credit ratings	40	85	51
Mandates published	45	88	56
Investment activities			
Size of fund	73	100	79
Returns of fund	51	100	63
Location of investments	41	58	45
Specific investments	26	69	36
Currency composition	30	62	38
Reports			
Annual reports	59	100	69
Quarterly reports	34	85	46
Audits			
Regular audits	60	96	69
Audits published	40	92	53
Audits independent	56	96	66
Total	47	88	57

which it invests, such as stocks, bonds, real estate, alternative investments, and foreign exchange. This is universally the case for the sample of pension SWFs. About 20 percent of the nonpension SWFs provide no information on the categories of assets in which they invest; about another 20 percent release some information; and almost 60 percent match the pension SWFs.

Each of the pension SWFs, but less than half of the nonpension SWFs, reports the use of benchmarks in whole or in part to guide its investments. Credit ratings play a similar role: 11 of the 13 pension SWFs use them systematically, sometimes imposed by law or regulation, and somewhat more than a third of nonpension SWFs do so. It could be argued that these two elements are largely descriptive of the investment and risk management practices of SWFs, but they provide some concrete, if indirect, evidence of professionalism in the funds' operations. Of course, the extent of the use of benchmarks and credit ratings depends in part on the nature of the SWFs' overall investment strategy.

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 inside 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. Eleven of the 13 pension funds provide this information, and a 12th does in part. The nonpension funds score less than 50 as a group, but 20 of them do provide this information or state that they do not grant mandates.

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 eight nonpension funds do not, and another six provide only partial information, resulting in an overall score of only 79, and 73 for the nonpension SWFs alone.

What is the rationale for such nondisclosure? Some argue, as with a country's foreign exchange reserves, that the size of an SWF is a state secret. But that approach to reserve management went out of fashion more than a decade ago in the wake of the Tequila crisis and the Asian financial crisis. 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 are not within the country.[22] 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. A less respectable version of this argument, which applies as well to the next element (disclosing the SWF's returns), is that public release of the SWF's investment record would embarrass the authorities. 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. About half of nonpension SWFs do not disclose their annual returns or their disclosure is incomplete, but half also provide some or substantial overall information.

Only a dozen nonpension and four pension SWFs fully disclose the geographic location of their foreign assets. Four nonpension SWFs disclose the specific assets in their portfolios, though several others provide some information on key investments. A majority of pension SWFs comply with this element.

One of the issues with respect to the potential role of SWFs contributing to financial market turbulence and uncertainty is their effect on exchange rates as they convert foreign exchange, predominantly held in dollar assets but also disproportionately in euro assets, into a portfolio of

22. The Kuwait Investment Authority operates under prohibitions and penalties for 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 63 on the scoreboard—slightly above the median and the mean score for all nonpension SWFs.

assets more diversified with respect to currency composition. A simple way to address this concern is to publish information on the currency composition of countries' SWF assets, as more than two dozen countries do with respect to their foreign exchange assets. Surprisingly, nine of the 40 nonpension SWFs disclose in detail the currency composition of their portfolios and another seven provide some information; eight pension SWFs do so. But, why don't all SWFs follow the example of the few? One answer is that the practices of each SWF evolved in isolation and many funds until recently were unaware of the practices of others.[23]Annual reports, in principle, should contain much of the information covered by the elements in the subcategories of investment strategy implementation and investment activities in the scoreboard. However, 11 nonpension SWFs do not issue annual reports at all and only 18 funds issue reasonably complete reports to the public, producing a combined score of 59.

About two-thirds 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 financial market, but rather only to those of the political market. A fund also should be able to do so without tipping its hand about implementing its investment strategy. Reports are normally issued with a lag of a month or two. Not surprisingly, each of the 13 pension SWFs issues an annual report, and only one does not issue any quarterly report (Canada's Caisse de Dépôt et Placement du Québec). Two others issue only partial 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?

Fifteen nonpension SWFs are not subject to audit as far as can be ascertained from the public record, and for two others the audit appears to be less than complete. As a result, nonpension SWFs score a combined 60 on this element while the pension SWFs score 96. For seven nonpension funds where there is some type of audit, it is not published at all, producing a score of only 40. Twenty-two nonpension SWFs report that they are independently audited, for a score of 66, including Norway's Government Pension Fund-Global, which shifted to a fully independent audit in 2008. If the auditing is internal, it takes away some of the objectivity.

23. See the discussion of table 5.9.

However, we allow full credit if it is done by a separately constituted government auditing authority. Almost all pension SWFs have full scores on these three elements.

Behavior

The last category focuses on the investment behavior of the funds (table 5.6). 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. Overall compliance averages 33; the nonpension funds score 24, and the pension funds score 62. In this category with the fewest elements, the coefficient of variation is 0.464, essentially the same as for the governance category.

The first element is whether an SWF has a publicly stated risk management policy. Almost all of the pension SWFs do; the exceptions are Chile's Pension Reserve Fund and Thailand's Government Pension Fund. On the other hand, only 11 of the 40 nonpension SWFs do the same, including those in China, Korea, Singapore, Timor-Leste, and Norway, as well as most of the US SWFs.

An aspect of risk management policy 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 again 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. Several funds do take on leverage.

A similar question is whether a fund has a publicly stated policy on the use of derivatives, which is the case for a larger proportion (more than a third) of nonpension, and almost all pension, SWFs. Most, but not all, funds that have a policy on the use of derivatives—12 of 15 nonpension SWFs and 11 of 12 pension SWFs—say that derivatives are used primarily for hedging.

The final element of this category and the scoreboard is whether the fund has a rule or guideline for how it adjusts its portfolio. Six nonpension SWFs do so in some form, producing a score of 14. 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, a larger proportion of the pension SWFs have guidelines that are a matter of public record.

This review of the various elements of the SWF scoreboard points to two broad conclusions. First, there is a diversity of compliance. This almost certainly reflects the diversity of political and cultural origins of the

Table 5.6 Behavior component (percent of maximum possible points)

Element	Nonpension	Pension	Total
Risk management policy	30	85	43
Policy on leverage	16	38	22
Policy on derivatives	38	88	50
Portfolio adjustment	14	35	19
Total	24	62	33

various funds. Second, the pension SWFs reviewed have a higher level of compliance with each element. This suggests that there is a more fully developed implicit global standard for pension funds. This record suggests that in the future nonpension funds may conform to a greater degree with the elements of the SWF scoreboard presented here.

Evidence of Progress

Tables 5.7 to 5.9 address the question of whether there has been any change, which I would interpret as progress, over the past three years in how SWFs score on the elements included in the SWF scoreboard. Tables 5.7 and 5.8 provide a perspective on the evolution of the individual funds and table 5.9 of the elements in the scoreboard.[24]

The top part of table 5.7 focuses on the 33 funds that have been scored three times. They were scored on a different number of elements each time, but that does not introduce much of a bias in relative performance, as can be seen by comparing tables 5.7 and 5.8. The latter provides scores for the funds on the 24 elements that have been included in all three scoreboards. In the bottom of tables 5.7 and 5.8, results are presented for the 13 funds that have been scored twice.

Without controlling for the slightly different list of elements, the average improvement in table 5.7 for the funds that have been scored three times since they were first scored in 2007 is 12 points. The average improvement

24. In general, the evolution of the scores reflects changes instituted by the SWFs themselves. For a few funds, the evolution reflects our obtaining more complete information. In that latter respect, one could argue that progress by the funds has been exaggerated. However, in most cases, the funds themselves responded to earlier editions of the scoreboard and pointed us to or provided additional public information. I would regard this as a measure of progress in that the funds took the responsibility. In a very few cases, managers of the fund have shared with us some of the information that we think should be available regularly and publicly but is available only to those who ask. An example is the Alberta Heritage Savings Trust Fund. However, this approach is hardly consistent with the overall purpose of our exercise and receives no credit. The Alberta fund, maybe partly as a result, scores above the mean and median for all SWFs at 74, but not as well as other Canadian entities.

Table 5.7 Comparison of sovereign wealth fund scoreboards (all elements)

Country	Fund[a]	Score 2009	Change in percentage points 2008–09	Change in percentage points 2007–09	Percent change in percentage points 2007–09
Funds scored three times					
Norway	Government Pension Fund-Global	97	5	5	5
United States	*California Public Employees' Retirement System (P)*	95	8	14	18
New Zealand	*Superannuation Fund (PR)*	94	3	4	4
United States	Alaska Permanent Fund	92	0	22	32
Timor-Leste	Petroleum Fund	85	5	–2	–2
Trinidad and Tobago	Heritage and Stabilization Fund	83	30	34	70
Australia	*Future Fund (PR)*	80	5	18	30
Azerbaijan	State Oil Fund	76	–2	10	15
Canada	Alberta Heritage Savings Trust Fund	74	1	2	–2
Singapore	Temasek Holdings	73	27	19	35
Chile	Economic and Social Stabilization Fund	71	0	9	15
Kazakhstan	National Fund	65	2	7	12
Singapore	Government of Singapore Investment Corporation	65	24	56	624
Kuwait	Kuwait Investment Authority	63	15	15	31
Korea	Korea Investment Corporation	60	9	24	66
United Arab Emirates	Mubadala Development Company	59	45	47	392
China	China Investment Corporation	57	19	33	137
Botswana	Pula Fund	56	1	0	0
Russia	Stabilization Fund of the Russian Federation	50	–1	12	32
São Tomé and Príncipe	National Oil Account	48	0	–1	–1
Malaysia	Khazanah Nasional	44	6	6	16
Mexico	Oil Income Stabilization Fund	44	–3	16	57
Kiribati	Revenue Equalization Reserve Fund	35	6	5	16
Algeria	Revenue Regulation Fund	29	2	11	60
Iran	Oil Stabilization Fund	29	6	7	31
Venezuela	Macroeconomic Stabilization Fund	27	5	5	24
	National Development Fund	27	6	3	10
Oman	State General Reserve Fund	23	3	3	14
Brunei Darussalam	Brunei Investment Agency	21	3	11	112
Sudan	Oil Revenue Stabilization Account	18	–2	–2	–9
Qatar	Qatar Investment Authority	15	6	7	89
United Arab Emirates	Istithmar World	15	3	2	17
	Abu Dhabi Investment Authority	11	3	7	165
Average		54	7	12	64
Funds scored twice					
Canada	*Canada Pension Plan (P)*	92	2		
United States	Wyoming Permanent Mineral Trust Fund	91	2		
Canada	*Caisse de dépôt et placement du Québec (P)*	89	2		
France	*Fonds de réserve pour les retraites (P)*	89	2		
Ireland	*National Pensions Reserve Fund (PR)*	86	5		
Netherlands	*Stichting Pensioenfonds ABP (P)*	85	5		
Japan	*Government Pension Investment Fund (P)*	84	2		
United States	New Mexico Severance Tax Permanent Fund	80	–5		
Thailand	*Government Pension Fund (P)*	78	–2		
Hong Kong	Exchange Fund	70	5		
China	*National Social Security Fund (P)*	70	–2		
Chile	*Pension Reserve Fund (PR)*	68	2		
Nigeria	Excess Crude Account	29	3		
Average		78	1		

a. Pension funds (P) and reserve pension funds (PR) shown in italics.

Table 5.8 Comparison of sovereign wealth fund scoreboards (24 elements)

Country	Fund[a]	Score 2009	Change in percentage points 2008–09	Change in percentage points 2007–09	Percent change in percentage points 2007–09
Funds scored three times					
Norway	Government Pension Fund-Global	97	0	6	7
United States	*California Public Employees' Retirement System (P)*	95	0	11	14
New Zealand	*Superannuation Fund (PR)*	94	0	0	0
United States	Alaska Permanent Fund	92	0	21	30
Timor-Leste	Petroleum Fund	85	4	5	6
Trinidad and Tobago	Heritage and Stabilization Fund	83	25	41	87
Australia	*Future Fund (PR)*	80	4	13	20
Azerbaijan	State Oil Fund	76	2	15	23
Canada	Alberta Heritage Savings Trust Fund	74	0	2	–3
Singapore	Temasek Holdings	73	17	17	30
Chile	Economic and Social Stabilization Fund	71	0	17	28
Kazakhstan	National Fund	65	0	4	7
Singapore	Government of Singapore Investment Corporation	65	23	51	544
Kuwait	Kuwait Investment Authority	63	4	9	19
Korea	Korea Investment Corporation	60	0	18	53
United Arab Emirates	Mubadala Development Company	59	46	50	400
China	China Investment Corporation	57	26	47	225
Botswana	Pula Fund	56	2	–6	–11
Russia	Stabilization Fund of the Russian Federation	50	3	21	59
São Tomé and Príncipe	National Oil Account	48	0	7	16
Malaysia	Khazanah Nasional	44	0	10	29
Mexico	Oil Income Stabilization Fund	44	0	23	79
Kiribati	Revenue Equalization Reserve Fund	35	0	4	13
Algeria	Revenue Regulation Fund	29	2	17	89
Iran	Oil Stabilization Fund	29	0	8	36
Venezuela	Macroeconomic Stabilization Fund	27	2	6	27
	National Development Fund	27	0	3	13
Oman	State General Reserve Fund	23	0	6	30
Brunei Darussalam	Brunei Investment Agency	21	0	15	140
Sudan	Oil Revenue Stabilization Account	18	0	4	20
Qatar	Qatar Investment Authority	15	0	4	50
United Arab Emirates	Istithmar World	15	0	3	23
	Abu Dhabi Investment Authority	11	2	5	125
Average		54	5	14	67
Funds scored twice					
Canada	*Canada Pension Plan (P)*	92	0		
United States	Wyoming Permanent Mineral Trust Fund	91	2		
Canada	*Caisse de dépôt et placement du Québec (P)*	89	0		
France	*Fonds de réserve pour les retraites (P)*	89	0		
Ireland	*National Pensions Reserve Fund (PR)*	86	0		
Netherlands	*Stichting Pensioenfonds ABP (P)*	85	0		
Japan	*Government Pension Investment Fund (P)*	84	0		
United States	New Mexico Severance Tax Permanent Fund	80	2		
Thailand	*Government Pension Fund (P)*	78	0		
China	*National Social Security Fund (P)*	70	0		
Chile	*Pension Reserve Fund (PR)*	68	0		
Hong Kong	Exchange Fund	70	0		
Nigeria	Excess Crude Account	29	0		
Average		78	0		

a. Pension funds (P) and reserve pension funds (PR) shown in italics.

Table 5.9 Comparison of sovereign wealth fund scoreboard elements (24 elements)

Element	Score, 2009	Change in percentage points 2008–09	Change in percentage points 2007–09	Percent change in percentage points 2007–09
Structure				
Objective stated	94	0	6	7
Source of funding	86	3	6	8
Use of fund earnings	58	2	6	12
Integrated with budget	67	3	13	24
Investment strategy	69	7	16	30
Changes in the structure	73	6	33	85
Separate from international reserves	79	0	0	0
Total	75	3	11	23
Governance				
Role of government	71	8	18	34
Guidelines for corporate responsibility	20	0	6	44
Role of managers	74	3	3	4
Ethical investment guidelines	12	0	3	33
Total	44	3	8	29
Accountability and transparency				
Published mandates	52	3	35	209
Returns of fund	55	10	22	66
Published audits	45	12	21	88
Annual reports	64	9	20	47
Independent audits	65	6	20	43
Categories of investments	63	12	20	46
Regular audits	70	6	15	28
Location of investments	40	8	15	61
Specific investments	25	2	14	136
Quarterly reports	41	5	10	32
Currency composition	35	5	9	35
Size of fund	76	3	8	11
Total	53	7	17	67
Behavior				
Portfolio adjustment	14	6	9	200
Overall total	56	5	14	53

in the core set of 24 elements is 14 points—table 5.8—but each of the 24 elements is worth an additional 1.13 points.

The SWFs that have shown the largest increases in scores come from a variety of countries. The list is led by Singapore's GIC, the Mubadala Development Company of the United Arab Emirates (Abu Dhabi), Trinidad and Tobago's Heritage and Stabilization Fund, the CIC (which took over the Central Huijin Investment Company, which we scored in 2007), and the Korean Investment Corporation. The score of the Alaska Permanent Fund also increased by more than 20 points. Table 5.8 shows that on a consistent set of questions the list of funds showing substantial improvements is essentially the same, and is identical for the four funds with the largest increases in scores.

Among the funds that scored 80 or higher in the latest edition of the SWF scoreboard are several that have improved their scores since 2007, including Australia's Future Fund, the California Public Employees' Retirement System (CalPERS), and even the top-scoring Government Pension Fund-Global of Norway. This illustrates the earlier point that every fund can improve.

The bottom portion of table 5.7 shows less improvement in part because nine of the 13 funds are pension SWFs that were incorporated into the second edition scoreboard exercise to provide more of a comparison with the nonpension SWFs. Generally the pension funds score higher, providing less scope for improvement, notwithstanding the results for CalPERS and the Australian Future Fund shown in the top panel.[25] Similarly, the seven funds added in the latest edition of the scoreboard have an average score of 49, less than the averages for the other two groups.[26] The bottom portion of table 5.8 shows that there was very little overall improvement in the scores of the 13 funds that were scored only twice.

Turning to the areas of increased compliance or adherence to the scoreboard as it was originally constructed, table 5.9 focuses on the 24 elements in the 2007 edition that are in the latest edition and how the performance of the original 33 funds has evolved on those elements. As noted in connection with the discussion of table 5.8 and the record of the 33 funds, the increase in scores is significant if not overwhelming.

Focusing on the two-year change in 2007–09, increases were recorded in every element, with the exception of treating the SWF separately from the home country's international reserves. The governments have made substantial changes in other elements included in the structure category, in particular with respect to provisions for changing that structure, articulating an overall investment strategy, and integrating the SWF's operations with the budget. There has been an accompanying increase in clarifying the role of government in the management of the funds.

The most dramatic changes have been in the area of accountability and transparency, where for six elements the change has been more than 20 percentage points. Even in the area of portfolio adjustment there have been some improvements.

25. An inspection of table 5.8 reveals that the small improvement shown for New Zealand's Superannuation Fund reflects changes in the list of elements between 2007 and 2009 rather than a change with respect to the core 24 elements.

26. The added group of funds includes the lowest-scoring Dubai International Capital at 21 and the highest scoring Ontario Teachers' Pension Fund at 83.

Why have these changes occurred? As noted earlier, the activities of the funds have increased in salience in their home countries. The authorities appear to have responded with an increase in overall accountability and transparency. In addition, during this period the international profile of SWFs increased and the Santiago Principles were developed. The authorities appear to have responded to these developments. Finally, I know from personal contacts that the authorities responsible for a number of the funds have reacted to the publication of the first two editions of the SWF scoreboard in late 2007 and early 2008.

Comparison with Other Indices and Indicators

In the next chapter, I compare the results of the SWF scoreboard presented here with the international standard for SWFs that was agreed upon by the IWG in September 2008—what are known as the Santiago Principles or Generally Accepted Principles and Practices of SWFs. However, the Santiago Principles have just begun to influence the behavior of the authorities of countries with SWFs. Meanwhile, the results of one other measure of SWF practices, the Linaburg-Maduell Transparency Index, can be compared with the scoreboard I have developed. In addition, it is useful to compare the results of the scoreboard with other indicators of the national environments in which SWFs operate.

The Linaburg-Maduell Transparency Index is produced by the Sovereign Wealth Fund Institute and scores SWFs on 10 principles (Linaburg and Maduell 2010). Each fund receives a score of either one or zero on each principle with a minimum overall score of one. The developers list the principles but do not provide substantial information about how their principles are applied. Indeed, they state on their website, "There are different levels of depth in regard to each principle, judgment of these principles is left to the discretion of the Sovereign Wealth Fund Institute."[27] Seven of the 10 principles overlap, in whole or in part, with about half of the elements in the scoreboard presented in this chapter.[28] There is no overlap with three principles.[29]

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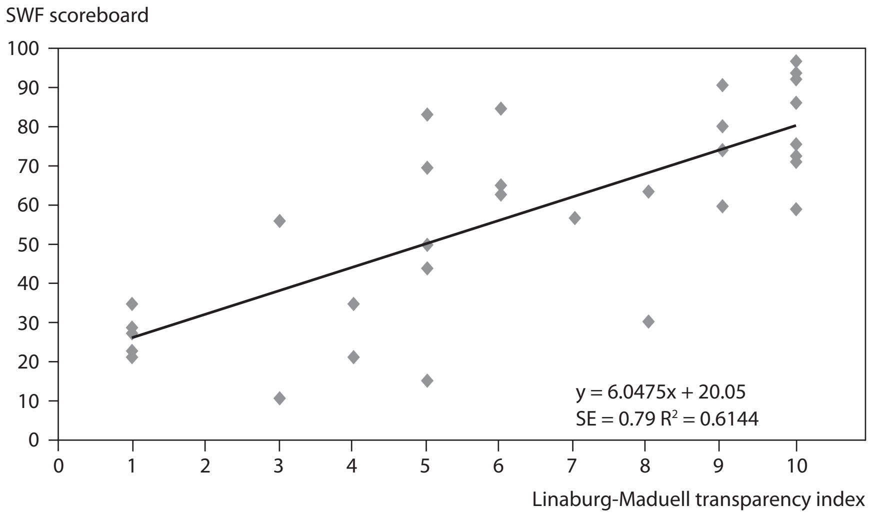
27. If a background or technical paper on the Linaburg-Maduell index exists, it has not been released to the general public. The index is at www.swfinstitute.org/research/transparency index.php (accessed on April 26, 2010).

28. In some cases the overlap appears to be very clear with one or more of the elements in the scoreboard. In other cases, it is less clear. And in some cases, Linaburg and Maduell include in a principle an aspect that is not captured by any of the elements in the scoreboard. For example, total management compensation is included in a principle along with total portfolio market value and returns.

29. The three other Linaburg-Maduell principles are whether the fund manages its own website, whether it provides an address and contact information, and whether, if applicable,

Figure 5.2 Sovereign wealth fund scoreboard and the Linaburg-Maduell index



Source: Linaburg and Maduell (2010) for transparency index.

As of the fourth quarter of 2009, Linaburg and Maduell rated 44 funds, of which 36 are covered in the SWF scoreboard.[30] Figure 5.2 is a scatter diagram of the two sets of scores. The results are broadly similar, with a significant, positive correlation of 0.61, but there are some prominent outliers.

Linaburg and Maduell rate as perfect 10s eight SWFs that are included in the SWF scoreboard. The average score for those eight funds on the scoreboard is 81, with a standard deviation of 13 points. The scores range from a high of 97 for Norway's Government Pension Fund-Global to a low of 59 for the Mubadala Development Company in Abu Dhabi. The Korea Investment Company receives a Linaburg-Maduell score of 9 and a 60 on the scoreboard. Bahrain's Mumtalakat Holding Company receives a Linaburg-Maduell score of 8 and a 30 on the scoreboard.

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it identifies subsidiaries and their contact information. For this and another "if applicable" principle, the user does not know the scoring if the question is not applicable.

30. Three of the additional eight funds—those of Angola, Libya, and Mauritania—are listed in table 2.1. Linaburg and Maduell also rate the Saudi Arabian Monetary Agency, which is listed in table 2.1 but is not generally included as an SWF, and the Saudi Arabian Public Investment Fund, which is understood to invest exclusively in domestic projects. They also rate the China-Africa Development Fund and the investment company of China's State Administration of Foreign Exchange (SAFE); although the investment activities of both raise concerns similar to those raised by SWFs, they generally are not included in the SWF universe. The other two entities rated by Linaburg and Maduell but not in the SWF scoreboard are located in the United Arab Emirates. Three UAE SWFs appear on both lists.

At the other extreme, Linaburg and Maduell rate eight SWFs on the scoreboard as 1. On the SWF scoreboard, their mean score is 31, with a standard deviation of 10 points and scores on the scoreboard ranging from 21 for the Brunei Development Agency to 35 for Kiribati's Revenue Equalization Reserve Fund. The Abu Dhabi Investment Authority is rated at 3 by Linaburg and Maduell but received the lowest score of 11 on the SWF scoreboard as of the end of 2009.[31] Trinidad and Tobago's Heritage and Stabilization Fund receives a score of only 5 from Linaburg and Maduell but 83 on the scoreboard. The Petroleum Fund for Timor-Leste is rated at 6 by Linaburg and Maduell but 85 on the scoreboard.

The Linaburg-Maduell index is self-described as focusing on transparency. The SWF scoreboard focuses on the broader concept of accountability to the general public in the home and host country as well as to markets. This may account for some of the differences. The Linaburg-Maduell judgmental weighting algorithm may also account for the more pronounced differences between the two sets of results.[32]

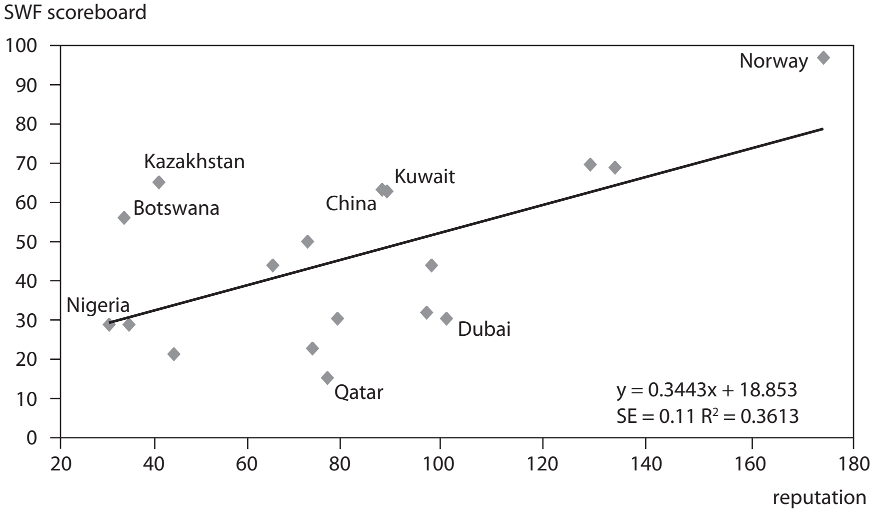
Figure 5.3 provides another a type of comparison with the results of the SWF scoreboard. It presents a summary of the results assembled in the Hill & Knowlton and Penn Schoen Berland (2010) survey of perceptions of SWFs and their reputation. The reputation variable, shown on the x-axis, is constructed from the sum of answers to three questions about the funds of 18 countries: Does transparency/accountability/good governance apply to the funds of these countries? The SWF scoreboard results are shown on the y-axis, averaging the results for countries with more than one SWF and treating Abu Dhabi and Dubai as separate countries. As depicted in the figure, there is a significant positive relationship between the SWF scoreboard result and the reputation of the SWFs of the countries. However, the relationship is not very tight, and the figure labels some of the outliers. Norway, Kuwait, China, Kazakhstan, and Botswana score better than the average relationship, and Dubai and Qatar score worse.

As has been emphasized throughout this study, SWFs are a collective description of government investment vehicles with diverse objectives in a wide range of countries with different histories and cultures. Nevertheless, in their international investments they are part of one global financial system and each feels pressure to conform to evolving global norms. We examined the statistical relationship between several representations

31. Both the SWF scoreboard and the Linaburg-Maduell index as of the fourth quarter of 2009 do not reflect the publication of the ADIA's annual report in March 2010 (see box 5.2).

32. Galani and Nixon (2008) developed an SWF risk index that focuses on the economic and political risks associated with 20 funds. They score funds on only three dimensions: transparency of investment criteria, extent of control of investments, and the nature of the home country's political system. Not surprisingly, Norway's Government Pension Fund-Global receives the highest score and China's CIC receives the lowest, though the scale is inverted. As of mid-2010, the index had not been updated.

Figure 5.3 Sovereign wealth fund scoreboard and reputation



Source: Hill & Knowlton and Penn Schoen Berland (2010) for reputation.

of those global norms for the 37 home countries to funds included in the scoreboard and each fund's score. We ran simple regressions of the form:

$$S_i = c + bI_i + u_i,$$

where S is the fund's score on the scoreboard, I is the country's score on some other index, i refers to a particular fund or average of funds in each country, and u is an error term.[33] The results are summarized in table 5.10 using the scores of the 40 nonpension SWFs as the dependent variable. The first set of tests, shown on the left-hand side of the table, was preformed with the total SWF scores as the dependent variable.

The strongest relationship is between the World Bank's governance indicator for voice and accountability and the SWF scoreboard results. This is reassuring given the emphasis in the scoreboard on accountability. As might be expected, and as others have found (Setser 2008b), a high score on the Heritage Foundation's well-known index of economic freedom also is significantly correlated with the relevant country's SWF score. The World Bank's indicator of the ease of doing business is in the same ballpark, and

33. Where the SWF scoreboard includes more than one fund from the country, we averaged the scores for the dependent variable. We also adjusted the independent variables to a scale of 100 so that the coefficients could be interpreted as the effect of a change of a single point in that independent variable on the SWF scoreboard.

Table 5.10 Sovereign wealth fund scoreboard index and other indicators

	Dependent variable					
	Scoreboard total			Accountability and transparency subset		
Independent variable indicator	Coefficient	Standard error	R^2	Coefficient	Standard error	R^2
Transparency International corruption perceptions index	0.344*	0.170	0.12	0.499**	0.222	0.14
Heritage index of economic freedom	0.567**	0.239	0.12	0.982***	0.341	0.18
World Economic Forum global competitiveness index	0.341	0.332	0.05	0.425	0.459	0.05
World Bank						
Ease of doing business	0.299**	0.142	0.15	0.429**	0.183	0.17
Worldwide governance indicators						
Voice and accountability	0.764***	0.165	0.40	0.908***	0.239	0.32
Government effectiveness	0.466**	0.176	0.18	0.659**	0.238	0.20
Regulatory quality	0.438**	0.176	0.16	0.689***	0.238	0.23
Rule of law	0.398**	0.190	0.13	0.516**	0.248	0.12
Control of corruption	0.364*	0.183	0.12	0.497*	0.243	0.12
Political stability	0.323	0.203	0.08	0.34	0.273	0.05

* = significant at 10 percent level; ** = significant at 5 percent level; *** = significant at 1 percent level.

most other elements of the set of World Bank governance indicators are in the same range of significance. The exceptions are the indicator of political stability, which has no significance, and control of corruption, whose significance is only at the 10 percent level. Interestingly, the relationship of Transparency International's corruption perceptions index with the scoreboard results is also significant but only at that lower level. The World Economic Forum's global competitiveness index does not appear to be significantly related to the SWF scoreboard results.

The right-hand panel focuses just on the category of accountability and transparency on the SWF scoreboard as the dependent variable. The pattern is not substantially altered. While the R-squares are essentially the same, the significance of the Heritage Foundation's index of economic freedom, the World Bank's indicator of regulatory quality, and Transparency International's corruption perceptions index are each increased a notch. Including the 13 pension SWFs on the scoreboard boosts the correlations across the board because those observations tend to be more heavily concentrated in the funds and countries that score highly on both variables.

These results are consistent with findings by Aizenman and Glick (2009) using, in part, a subsample of 26 countries with SWFs in the 2008 SWF scoreboard (Truman 2008a) and the World Bank governance indicators. Aizenman and Glick find a weak positive correlation between the overall scoreboard result for these countries and the average of the six World Bank governance indicators, but it is not significant. However, they find a strong relationship between the overall governance score and the probability that a country will have an SWF and a strong positive correlation between the 2008 SWF scoreboard result and the World Bank governance component indicator of voice and accountability. Table 5.10 in effect replicates this result for the updated SWF scoreboard. Aizenman and Glick interpret their results through the prism of a few fuel-producing countries with older SWFs that have reasonably good governance scores but weaker voice and accountability scores. They link the latter not only to the strength of governance in the countries but also to relatively low levels of democracy, such as in Russia, Kazakhstan, Azerbaijan, and Timor-Leste. At the same time, some of the countries with newer SWFs may have relatively low democracy scores but higher SWF scoreboard results. The authors speculate that countries with newer funds have a greater incentive to foster more globalization by fostering more transparency and accountability in their funds. A supporting observation is the fact that these four countries were more engaged with the IMF and World Bank, and thus with international norms and standards, when they were setting up their funds.

Arguments against the Scoreboard Approach

A number of arguments have been put forward disparaging an agreed-upon global standard such as the SWF scoreboard presented in this chapter. They fall under four headings: unnecessary, undesirable, inappropriate, and unenforceable.

As was discussed in chapter 3, observers such as El-Erian (2008) think that the scoreboard approach sets up an *unnecessary* arbitrary standard for SWFs, which are entities that knowledgeable market participants are fully capable of assessing on their own. That argument not only flies in the face of the general demand for greater transparency and accountability that has been a feature of, and positive trend in, global finance for more than a decade, but it also rings a bit hollow in 2010 when markets and important players in markets have lost some of their luster, and along with it the willingness of outsiders to trust existing institutions to be entirely self-policing.

It also is argued that the scoreboard approach is *undesirable* because it would hamper funds from discharging their obligation to maximize returns to their beneficiaries, the residents of their home countries.[34] The way one

34. Interestingly, the survey by Norton Rose (2008) described in chapter 3 found that more than 60 percent of non-SWF respondents thought that the imposition by a jurisdiction of disclosure and transparency requirements would discourage SWF investments there, while more than 70 percent of SWF respondents said it would not, of course depending on the nature of the requirements.

hears this argument is that forcing SWFs to disclose their investment strategies and intentions will undercut their profit opportunities.[35] For example, Lou Jiwei of the CIC was quoted in late 2007 as saying, "We will increase transparency without harming the commercial interests of CIC. That is to say it will be a gradual process. Transparency is a really tough issue. If we are transparent on everything, the wolves will eat us up."[36] More aggressively against the rising demands for increased transparency, Bader M. Al-Sa'ad of the Kuwait Investment Authority said in January 2008, "We are concerned about what they mean when they call for transparency. Do we have to announce every investment before we make it?"[37]

It is reasonable to ask whether SWFs that have higher figures on the scoreboard have lower returns. This is not an easy question to answer without access to a dataset covering many funds over an extended period of time standardized on their portfolio preferences. Those data are not in the public domain. We looked at a limited amount of data for a small subset of the funds in terms of their 2007 returns—not a very satisfactory set of evidence. What we found was that there was no correlation one way or the other between the 2007 financial performances of SWFs and how they ranked on the 2009 SWF scoreboard. For 11 pension SWFs, the coefficient on the total scoreboard's score as the independent variable was negative but not significantly different from zero. For a dozen nonpension SWFs, the coefficient was positive, but also not significantly different from zero. Using the accountability and transparency score alone produced similar results.

We do have some indirect evidence on the importance of an SWF's performance on the scoreboard. Kotter and Lel (2010), using a dataset of 358 announced investments in 40 countries by 22 SWFs of 15 countries from 1988 to February 2009, find that the announcements are associated with a positive initial impact on stock prices, looking principally at a two-day window. This finding is not surprising; studies involving other types of large investors yield similar results, and those results can be explained by anything from insider information to market respect for the due diligence of the investor. What is more surprising and relevant in the context of the SWF scoreboard is that the stock-price effect is stronger and statistically significant for the funds that have a better record of accountability and

35. A related argument is that SWFs will increase the frequency and rapidity of their adjustments to market conditions as a result of having to disclose their short-term results and contribute to greater market volatility. The appropriate response is that opacity has never helped markets and the owners and managers of SWFs should be able to do the right thing for their citizens and the financial system as a whole without having to retreat into darkness.

36. As quoted in Marin Arnold, "China Fund Warns on National Security," *Financial Times*, December 11, 2007, 4.

37. Henny Sender, "KIA Chief Focuses on Long-Term Opportunities," *Financial Times*, January 2, 2008, 20.

transparency as indicated by their scores on that component of the 2008 edition of the SWF scoreboard (Truman 2008a).[38]

Bortolotti et al. (2009) look at similar evidence for a slightly larger sample of SWF investments, which is still a very small portion of total SWF portfolios—$141 billion, or less than 5 percent of the overall total even for a narrow definition of SWFs. They find that SWFs tend to invest in listed companies that have a history of low returns compared with investments in matched targets and with other standards. They find, as do Kotter and Lel (2010), that those investments are significantly associated with immediate positive returns. For Bortolotti et al., this effect is not significantly enhanced or reduced by an SWF's score on the 2008 edition of the scoreboard or any of its components. The reason for the apparent conflict with the Kotter-Lel results may be that Bortolotti et al. introduce as a separate independent variable whether the investment is in a financial institution.[39] Finally, Bortolotti et al. look at longer-term returns of up to 24 months and find that those returns are substantially negative compared with matched targets and with other standards. Although a fund's score on the governance component of the 2008 edition of the scoreboard has a significant positive influence, its score on the accountability and transparency component goes the other way at least at the 6- and 12-month time horizons, providing a bit of evidence that transparency may hurt returns. Bortolotti et al. (2009, 28) conclude that poor stock picking by SWFs "could be a consequence of political pressures which led SWFs to invest in distressed industries in order to minimize target-country regulatory and political opposition." It should be noted that a quarter of their overall sample of 1,216 investments involved domestic investments, but this did not show up as a significant explanatory variable.

Is it *inappropriate* to ask SWFs to practice a high degree of accountability and transparency under something like the SWF scoreboard approach? The results of Bortoloti et al. are insufficient to support that case. My answer is no for three reasons.

First, no one is asking a fund to reveal its investment intentions, and thus to set itself up for front running. The approach involves only ex post reporting. Moreover, a large fund can hardly disguise its investments, and many now announce their significant investments, providing the information for the limited number of statistical studies of the effects of those investments.

Second, these are governmental institutions, and they should be held to the highest standards even if it proves to be embarrassing to their boards

38. Separate regressions with each of the 33 elements of the 2008 SWF scoreboard produce statistical significant results for 14 of those elements, and all 14 are included in the updated scoreboard presented in this chapter.

39. Kotter and Lel find that their results are robust to excluding those investments.

and managers when they incur losses. As I have argued (Truman 2007), over the longer run an established track record of accountability and disclosure protects managers from unjustified criticism. Many officials of SWFs with whom I have spoken over the past three years have confirmed this judgment.

Third, as for the rest of the argument that hedge funds and private equity firms do not practice such accountability and transparency, the pendulum is swinging in that direction. I have long argued that hedge funds and private equity firms should provide more public disclosure. John Gieve, speaking in early 2008 as the deliberations of the IWG were about to begin, turned this argument around saying that there should be a level playing field. He reminded his listeners that efforts were then under way in the United Kingdom to promote greater transparency on the part of hedge funds and private equity funds.[40]

Those efforts produced a report on transparency and disclosure by UK portfolio companies and private equity firms (Walker Group 2007) and a report on hedge fund standards (Large Group 2008). The Walker Group report prescribed the types of information that should be in the public annual reports of portfolio companies under the UK Companies Act of 2006 and recommended that private equity firms publish annual reviews on their websites communicating specific types of information, including investment strategies, portfolios, and partners. The Large Group report (2008) on hedge funds went into much greater detail, but limited its call for public disclosure to a call for hedge fund managers "to carry on their websites an appropriate amount of information about themselves" and for the sector as a whole to provide more generic information about the sector and individual firms. The UK groups also put forward the useful concept of "comply or explain" why you are not complying, which should be adopted by the owners of SWFs.

A parallel exercise in the United States instigated by the President's Working Group on Financial Markets produced two reports on hedge funds in April 2008 (Asset Managers' Committee 2008, Investors' Committee 2008). These reports, while going into considerable detail about disclosures to counterparties and information that should be made available to investors, did not directly address the issue of standards of public disclosure. Thus, they did not go as far in this direction as was recommended for the United States or globally in the wake of the Long-Term Capital Management episode (President's Working Group on Financial Markets 1999, Financial Stability Board 2000). However, those recommendations were not fully implemented because of resistance from representatives of financial institutions. In 2004, the SEC moved toward regulating hedge funds more

40. John Gieve, "Sovereign Wealth Funds and Global Imbalances," speech to the Sovereign Wealth Management Conference, London, March 14, 2008, available at www.bankofengland.co.uk (accessed on July 12, 2010).

formally by issuing a rule requiring them to register as investment advisors. This rule was struck down by the courts in 2006, responding to the hedge funds. In a similar vein of resistance to regulation, in the middle of the global economic and financial crisis of 2007–09, the Institute of International Finance (2009b) released a report that cautioned against the unintended consequences of substantially increased disclosure under pillar 2 of the Basel II capital framework that applies to regulating the banking sector.

I am confident that when all the dust settles from the global economic and financial crisis, hedge funds and private equity firms, as well as more comprehensively regulated financial institutions, will be subject to a great deal more in the way of public disclosure requirements than was the case in 2007 before the crisis broke. Although the exact modalities have yet to be established, and they may not be consistent with nondiscrimination and a level playing field, both the United States and the European Union will subject hedge funds or alternative investment managers to a higher degree of disclosure as well as oversight than has been the case.

These actions with respect to hedge funds and similar entities are occurring despite the fact that many argue, with considerable merit, that hedge funds and private equity firms had little to do with the crisis. Indeed, Mallaby (2010) argues that in the case of hedge funds, incentives were better aligned than they were in large, publicly traded financial institutions that came under severe stress to the point of collapse during the crisis.

What about the *enforceability* of a scoreboard approach to best practices for SWFs? It is necessary to recognize that SWFs are owned and controlled by sovereign governments. International leverage over sovereign governments is constrained by that reality unless a country wants to impose a unilateral prohibition on such investments. In that context, various international agreements and conventions operate as restraints on the other side.[41] Thus, the principal mechanism of enforcement is peer pressure, possibly reinforced by naming and shaming. In general, countries with low scores on international indicators do not like the negative publicity associated with those scores and often respond by trying to raise them. The evidence on improved scores on the SWF scoreboard adduced earlier in this chapter supports this argument. More importantly in this context, each country with an SWF has an interest in encouraging "compliance," for want of a better word, by other countries with SWFs lest they all become tarred with the same brush. This fact reinforces the positive role that transparency about relative performance on the SWF scoreboard can play.

41. US Senator Evan Bayh advocated unilateral enforcement of best practices by the United States; countries seeking to invest in the United States would be prohibited from doing so unless they could demonstrate that they adhered to best practices that would be enshrined in US law. It is not clear how the United States would verify compliance with this type of national standard without the cooperation of other countries. See Evan Bayh, "Time for Sovereign Wealth Rules," *Wall Street Journal*, February 13, 2008.

Finally, host countries are not entirely without some leverage. 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 fund's investment should be blocked because of a threat to national security. For example, in a March 13, 2008 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 CFIUS as a factor in determining whether it should grant that country a waiver from a full investigation of an investment by a government-owned pension fund under the FINSA. A record and a reputation can matter. It is just not enough in this regard for a fund to have established a reputation with market participants alone.

The Scoreboard and Concerns about Sovereign Wealth Funds

Chapter 3 identified five concerns about SWFs: mismanagement of their investments; pursuit of political or economic power objectives; financial protectionism in anticipation of, or in response to, the pursuit by SWFs of political or economic power objectives; market turmoil and uncertainty; and conflicts of interest. I argued in that chapter that the various approaches to dealing with these concerns were either off the mark, infeasible, or counterproductive. How does an agreed-upon international standard for SWFs such as the SWF scoreboard approach measure up?

With respect to the home country's mismanagement of the investments of its SWFs, the scoreboard approach helps to limit the scope of the problem. The scoreboard is built on the concept of accountability and transparency, exploiting the disinfecting and inoculating effects of sunshine. Although it is not possible to exclude the possibility of mismanagement and corruption in the activities of SWFs, the more that is known about them, the more difficult it is for that mismanagement or corruption to occur.

On the pursuit of political or economic power objectives, I have argued that politics is inherent in any government-owned or -controlled economic or financial institution. However, if that institution is accountable not only to its own government and citizens but also to the governments and citizens of countries hosting its investments—which would be aided by the SWF scoreboard approach—then the temptation and scope to use the SWF to achieve this type of objective is reduced. Countries do not in general set up an SWF with a high degree of transparency and accountability to undertake activities that would not be welcome in the countries in which they are investing. I am not saying that countries' motives are always pure, only that they are disinclined to advertise their impurities.

On financial protectionism in anticipation of, or in response to, the pursuit by an SWF of political or economic power objectives, that risk would be reduced to the extent that the home countries were more accountable and transparent about the operations of their SWFs. As El-Erian (2008, 197) put it while defending the inherent respectability of SWFs, "the risk is that the absence of adequate safeguards at the level of the SWF—as opposed to that of the recipient country—will end up feeding general protectionist pressures into the global economy. The specific risk is a proliferation of capital account protectionism and negative externalities in the form of further delays in completing the next stages of trade liberalization." Host countries would have less to fear and, hence, less to protect against.

Market participants would be similarly aided with respect to concerns about potential turbulence and uncertainty on account of SWF activities. Some of the funds are large and could move markets. If the SWFs can establish an open record of credible accountability, then this potential source of disturbance or at least uncertainty would be reduced if not eliminated. This is the rationale behind the scoreboard element focused on whether an SWF has a stated guideline for adjusting its portfolio. As we saw, very few SWFs currently have such a guideline.

Finally, with respect to conflicts of interest, those conflicts involving the funds and agents acting for them in markets should be reduced by the promotion of standards covering their interactions. This is part of the rationale behind the scoreboard element focused on whether an SWF publishes the list of recipients of its mandates. As we saw, compliance with this element is not perfect, but it has increased substantially over the past several years. On the potentially more serious conflicts between home and host governments over the activities of SWFs, the fact that they can jointly agree upon an international standard should promote better understanding and trust among them, or at least reduce misunderstanding and distrust. This is the case whether the standard is described as a scoreboard, a code of conduct, a set of best practices, or the IWG's Generally Accepted Principles and Practices to which I turn in the next chapter, as long as that standard is robust and compliance with it is high.

Appendix 5A
Scoreboard for Sovereign Wealth Funds

This appendix and its accompanying table 5A.1 present the individual elements of the scoreboard described in chapter 5. The scoreboard has evolved since the first edition in 2007, as summarized below.

For each of the 33 elements, posed as 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 presentation of results in table 5A.1.

Structure

1. Is the SWF's **objective** clearly **stated**? (p)
2. Is there a clear **legal framework** for the SWF? This element was incorporated into the 2008 scoreboard from Santiago Principle 1.1 (see chapter 6).
3. Is the procedure for **changing the structure** of the SWF clear? (p)
4. Is the overall **investment strategy** clearly **stated**? (p)

Fiscal Treatment

5. Is the **source of** the SWF's **funding** clearly specified? (p)
6. Is the nature of the subsequent **use of** the principal and **earnings** of the **fund** clearly specified? (p)
7. Are the SWF's operations appropriately **integrated with fiscal and monetary policies**? (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 governing body** of the SWF clearly established? (p) This element was incorporated into the 2008 scoreboard from Santiago Principle 8 (see chapter 6).

11. Is the **role of** the **managers** in executing the investment strategy clearly established? (p)
12. Are **decisions** on specific investments **made by** the **managers**? (p)
13. Does the SWF have **internal ethical standards** for its management and staff? (p) This element was incorporated into the 2008 scoreboard from Santiago Principle 13 (see chapter 6).
14. Does the SWF have in place, and make publicly available, **guidelines for corporate responsibility** that it follows? (p)
15. Does the SWF have **ethical investment guidelines** that it follows? (p)

Transparency and Accountability

Investment Strategy Implementation

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

Investment Activities

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

Reports

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

Audits

27. Is the SWF subject to a **regular** annual **audit**? (p)
28. Does the SWF **publish** promptly the **audits** of its operations and accounts? (p)
29. Are the **audits independent**? (p)

Behavior

30. Does the SWF have an operational **risk management policy**? This element was incorporated into the 2008 scoreboard from Santiago Principle 22.2 (see chapter 6).
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. Does the SWF have a guideline on the nature and **speed of adjustment** in its portfolio? (p)

Four elements in the 2008 scoreboard are not included in this scoreboard. Element (a) was also included in the 2007 version. The others were new with the 2008 version.

(a) Are the guidelines for fiscal treatment generally followed without frequent adjustment?

(b) Does the SWF have limits on the size of its stakes?

(c) Does the SWF not take controlling stakes?

(d) Are derivatives used primarily for hedging?

Five elements in this scoreboard and the 2008 version were not included in the 2007 version.

(a) Are decisions on specific investments made by the managers?

(b) Does the strategy use benchmarks?

(c) Does the strategy use credit ratings?

(d) Does the SWF have a policy on the use of leverage?

(e) Does the SWF have a policy on the use of derivatives?

Table 5A.1 Scoreboard for sovereign wealth funds

		Structure								
						Fiscal treatment				
		1	2	3	4	5	6	7	8	
Country	Fund	Objective stated	Legal framework	Changing the structure	Investment strategy	Source of funding	Use of fund earnings	Integrated with policies	Separate from international reserves	Sub-total
Algeria	Revenue Regulation Fund	1	1	1	0	1	0.5	0	1	**5.5**
Australia	*Future Fund (PR)*	1	1	1	1	1	1	0.5	0.5	**7**
Azerbaijan	State Oil Fund	1	1	1	0.5	1	1	1	1	**7.5**
Bahrain	Mumtalakat Holding Company	1	0	0	1	1	0	0	0	**3**
Botswana	Pula Fund	1	1	0	1	0.5	1	1	0	**5.5**
Brunei	Brunei Investment Agency	1	1	1	0	0.5	0	0	0	**3.5**
Canada	Alberta Heritage Savings Trust Fund	1	1	1	1	1	1	1	0.5	**7.5**
	Caisse de dépôt et placement du Québec (P)	1	1	1	1	1	1	0.5	0.5	**7**
	Canada Pension Plan (P)	1	1	1	1	1	1	0.5	0.5	**7**
	Ontario Teachers' Pension Plan (P)	1	1	1	1	1	1	0.5	0.5	**7**
Chile	Economic and Social Stabilization Fund	1	1	1	0.5	1	1	1	1	**7.5**
	Pension Reserve Fund (PR)	1	1	1	0.5	1	1	0.5	0.5	**6.5**
China	China Investment Corporation	1	0	0	1	1	1	1	1	**6**
	National Social Security Fund (P)	1	1	0.5	1	1	1	0.5	0.5	**6.5**
France	*Fonds de réserve pour les retraites (P)*	1	1	1	1	1	1	0.5	0.5	**7**
Hong Kong	Exchange Fund	1	1	1	1	1	1	1	0	**7**
Iran	Oil Stabilization Fund	1	1	0.5	0	1	0.5	0	1	**5**
Ireland	*National Pensions Reserve Fund (PR)*	1	1	1	1	1	1	0.5	0.5	**7**
Japan	*Government Pension Investment Fund (P)*	1	1	1	1	1	1	0.5	0.5	**7**

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Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

		Structure								
						Fiscal treatment				
		1	2	3	4	5	6	7	8	
Country	Fund	Objective stated	Legal framework	Changing the structure	Investment strategy	Source of funding	Use of fund earnings	Integrated with policies	Separate from international reserves	Sub-total
Kazakhstan	National Fund	1	1	0.5	1	1	1	1	1	**7.5**
Kiribati	Revenue Equalization Reserve Fund	1	1	1	0.5	1	1	1	0	**6.5**
Korea	Korea Investment Corporation	1	1	1	1	1	0	1	0	**6**
Kuwait	Kuwait Investment Authority	1	1	1	1	1	0	1	1	**7**
Malaysia	Khazanah Nasional	1	1	0	0.5	1	0	0	1	**4.5**
Mexico	Oil Income Stabilization Fund	1	1	0.5	0.5	1	0.5	1	1	**6.5**
Netherlands	*Stichting Pensioenfonds ABP (P)*	1	1	1	1	1	1	0.5	0.5	**7**
New Zealand	*Superannuation Fund (PR)*	1	1	1	1	1	1	0.5	0.5	**7**
Nigeria	Excess Crude Account	1	1	1	0	1	1	0	0	**5**
Norway	Government Pension Fund – Global	1	1	1	1	1	1	1	1	**8**
Oman	State General Reserve Fund	0.5	1	0.5	0	1	0.5	0.5	1	**5**
Qatar	Qatar Investment Authority	1	1	0.5	0.25	0	0	0	1	**3.75**
Russia	Reserve Fund and National Wealth Fund	1	1	1	1	1	0.5	1	0	**6.5**
São Tomé & Príncipe	National Oil Account	1	1	1	1	1	1	1	1	**8**
Singapore	Government of Singapore Investment Corporation	1	1	1	1	0.5	1	1	0	**6.5**
	Temasek Holdings	1	1	1	1	1	0	1	1	**7**
Sudan	Oil Revenue Stabilization Account	0.5	0	0	0	1	0.5	1	1	**4**
Thailand	*Government Pension Fund (P)*	1	1	1	1	1	1	0.5	0.5	**7**
Timor-Leste	Petroleum Fund	1	1	1	1	1	1	1	1	**8**

Trinidad & Tobago	Heritage and Stabilization Fund	1	1	1	1	1	1	1	1	**8**
UAE	Abu Dhabi Investment Authority	0.5	0	0	1	0	0	0	0.5	**2**
	Dubai International Capital	1	0	1	1	0.5	1	1	0.5	**6**
	International Petroleum Investment Company	1	0	1	0	1	0	0	0.5	**3.5**
	Investment Corporation of Dubai	1	1	0	0	1	0	0	0.5	**3.5**
	Istithmar World	1	0	0	0.5	0.5	0	0	0.5	**2.5**
	Mubadala Development Company	1	1	0.5	1	1	0	0	0.5	**5**
United States	Alabama Trust Fund	1	1	1	1	1	1	1	0.5	**7.5**
	Alaska Permanent Fund	1	1	1	1	1	1	1	0.5	**7.5**
	California Public Employees' Retirement System (P)	1	1	1	1	1	1	0.5	0.5	**7**
	New Mexico Severance Tax Permanent Fund	1	1	1	1	1	1	1	0.5	**7.5**
	Wyoming Permanent Mineral Trust Fund	1	1	1	1	1	1	1	0.5	**7.5**
Venezuela	Macroeconomic Stabilization Fund	1	1	1	0.5	1	0	0	1	**5.5**
	National Development Fund	0.5	1	1	0	0.5	0	0	1	**4**
Vietnam	State Capital Investment Corporation	1	1	1	1	1	0.5	0	1	**6.5**
Nonpension total[a]		38	33	29	26.75	35	22.5	24.5	25.5	**5.86**
Pension total[a]		13	13	12.5	12.5	13	13	6.5	6.5	**6.92**
SWFs total[a]		51	46	41.5	39.25	48	35.5	31	32	**6.12**
Memorandum										
United Kingdom	Terra Firma	1	1	1	1	1	1	0.5	0.5	**7**
United States	Harvard University Endowment	1	1	1	1	1	1	0.5	0.5	**7**
	TIAA-CREF	1	1	1	1	1	1	0.5	0.5	**7**
	Blackstone	1	1	1	1	1	1	0.5	0.5	**7**
Total[a]		4	4	4	4	4	4	2	2	**7**

a. For each element, the total is the sum for the relevant funds. For the subtotals category and the grand total, the figures are for the individual fund.

(continued on next page)

Note: Pension funds (P) and reserve pension funds (PR) shown in italics.

Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

Country	Fund	Governance							
		9 Role of government	10 Role of governing body	11 Role of managers	12 Decisions made by managers	13 Internal ethical standards	14 Guidelines for corporate responsibility	15 Ethical investment guidelines	Sub-total
Algeria	Revenue Regulation Fund	1	0	1	0	0	0	0	**2**
Australia	*Future Fund (PR)*	1	1	1	1	1	1	0	**6**
Azerbaijan	State Oil Fund	1	1	1	1	0	0	0	**4**
Bahrain	Mumtalakat Holding Company	0	1	0	0	0	0	0	**1**
Botswana	Pula Fund	1	1	1	1	0	0	0	**4**
Brunei	Brunei Investment Agency	0	0	0	0	0	0	0	**0**
Canada	Alberta Heritage Savings Trust Fund	1	1	1	1	0	0	0	**4**
	Caisse de dépôt et placement du Québec (P)	1	1	1	1	1	1	1	**7**
	Canada Pension Plan (P)	1	1	1	1	1	1	1	**7**
	Ontario Teachers' Pension Plan (P)	1	1	1	1	0	1	1	**6**
Chile	Economic and Social Stabilization Fund	1	1	1	1	0	0	0	**4**
	Pension Reserve Fund (PR)	1	1	1	1	0	0	0	**4**
China	China Investment Corporation	1	1	1	0	0	0.5	0	**3.5**
	National Social Security Fund (P)	1	1	1	0	0	0	0	**3**
France	*Fonds de réserve pour les retraites (P)*	1	1	1	1	1	1	1	**7**
Hong Kong	Exchange Fund	1	1	1	0	0	0	0	**3**
Iran	Oil Stabilization Fund	0.5	1	0.5	0	0	0	0	**2**
Ireland	*National Pensions Reserve Fund (PR)*	1	1	1	1	1	1	1	**7**
Japan	*Government Pension Investment Fund (P)*	1	1	1	1	1	1	0.5	**6.5**
Kazakhstan	National Fund	1	1	1	1	0	0	0	**4**

Kiribati	Revenue Equalization Reserve Fund	1	1	1	1	0	0	0	**4**
Korea	Korea Investment Corporation	1	1	1	1	1	0	0	**5**
Kuwait	Kuwait Investment Authority	1	1	1	1	1	0	1	**6**
Malaysia	Khazanah Nasional	0.5	1	1	0.5	0	0.5	0	**3.5**
Mexico	Oil Income Stabilization Fund	0.5	0	0.5	0	0	0	0	**1**
Netherlands	*Stichting Pensioenfonds ABP (P)*	1	1	1	1	0	1	1	**6**
New Zealand	*Superannuation Fund (PR)*	1	1	1	1	1	1	1	**7**
Nigeria	Excess Crude Account	0.5	1	1	0	0	0	0	**2.5**
Norway	Government Pension Fund – Global	1	1	1	1	1	1	1	**7**
Oman	State General Reserve Fund	0	0	0	0	0	0	0	**0**
Qatar	Qatar Investment Authority	0	1	0	0	0	0	0	**1**
Russia	Reserve Fund and National Wealth Fund	1	0	1	0	0	0	0	**2**
São Tomé & Príncipe	National Oil Account	1	1	1	1	0	0	0	**4**
Singapore	Government of Singapore Investment Corporation	1	1	1	1	1	0	0	**5**
	Temasek Holdings	1	1	1	1	1	0.5	0	**5.5**
Sudan	Oil Revenue Stabilization Account	0	0	0	0	0	0	0	**0**
Thailand	*Government Pension Fund (P)*	1	1	1	1	0	1	1	**6**
Timor-Leste	Petroleum Fund	1	1	1	0	0	0	0	**3**
Trinidad & Tobago	Heritage and Stabilization Fund	1	1	1	1	0.5	0	0	**4.5**
UAE	Abu Dhabi Investment Authority	0	1	0	0	0	0	0	**1**
	Dubai International Capital	1	1	1	0	1	1	1	**6**
	International Petroleum Investment Company	0.5	0.5	1	0	0	0	0	**2**
	Investment Corporation of Dubai	0.5	0	0	0	0	0	0	**0.5**

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Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

Country	Fund	Governance: 9 Role of government	10 Role of governing body	11 Role of managers	12 Decisions made by managers	13 Internal ethical standards	14 Guidelines for corporate responsibility	15 Ethical investment guidelines	Subtotal
	Istithmar World	0	1	0.5	0	0	0	0	**1.5**
	Mubadala Development Company	1	1	1	0	1	0	0	**4**
United States	Alabama Trust Fund	1	1	1	1	0	0	0	**4**
	Alaska Permanent Fund	1	1	1	1	1	1	0	**6**
	California Public Employees' Retirement System (P)	1	1	1	1	1	1	1	**7**
	New Mexico Severance Tax Permanent Fund	1	1	1	0.5	0	0	0	**3.5**
	Wyoming Permanent Mineral Trust Fund	1	1	1	1	1	0.5	1	**6.5**
Venezuela	Macroeconomic Stabilization Fund	0	1	0	0	0	0	0	**1**
	National Development Fund	0	1	0	0	0	0	0	**1**
Vietnam	State Capital Investment Corporation	1	1	1	1	0	0	0	**4**
Nonpension total[a]		28	32.5	29.5	18	9.5	5	4	**3.16**
Pension total[a]		13	13	13	12	8	11	9.5	**6.12**
SWFs total[a]		41	45.5	42.5	30	17.5	16	13.5	**3.89**
Memorandum									
United Kingdom	Terra Firma	0.5	1	1	1	0	0.25	1	**4.75**
United States	Harvard University Endowment	0.5	1	1	1	0	1	0	**4.5**
	TIAA-CREF	0.5	1	1	1	1	1	0.25	**5.75**
	Blackstone	0.5	1	1	1	0	0	0	**3.5**
Total[a]		2	4	4	4	1	2.25	1.25	**4.625**

a. For each element, the total is the sum for the relevant funds. For the subtotals category and the grand total, the figures are for the individual fund.

Note: Pension funds (P) and reserve pension funds (PR) shown in italics.

Country	Fund	Accountability and transparency										
		Investment strategy implementation				Investment activities					Reports	
		16 Categories	17 Benchmarks	18 Credit ratings	19 Mandates	20 Size	21 Returns	22 Location	23 Specific investments	24 Currency composition	25 Annual	26 Quarterly
Algeria	Revenue Regulation Fund	0.5	0	0	1	0.5	0	0	0	0	0	0
Australia	*Future Fund (PR)*	1	1	0.5	1	1	1	0	0	0	1	1
Azerbaijan	State Oil Fund	1	1	1	1	1	1	0.5	0	1	1	1
Bahrain	Mumtalakat Holding Company	1	0	0	0	1	1	1	1	0	1	0
Botswana	Pula Fund	1	1	1	0	1	0	0	0	0.5	1	0.5
Brunei	Brunei Investment Agency	0	0	0	1	0	0	0	0	0	0.5	0
Canada	Alberta Heritage Savings Trust Fund	1	1	0.5	0	1	1	1	0	0.5	1	1
	Caisse de dépôt et placement du Québec (P)	1	1	0.5	1	1	1	1	1	1	1	0
	Canada Pension Plan (P)	1	1	1	1	1	1	0.5	1	1	1	1
	Ontario Teachers' Pension Plan (P)	1	1	1	0.5	1	1	0.5	1	1	1	0.5
Chile	Economic and Social Stabilization Fund	1	1	1	1	1	1	1	1	1	1	1
	Pension Reserve Fund (PR)	1	1	1	1	1	1	1	1	1	1	1
China	China Investment Corporation	1	0.5	0	0	1	1	0	0.75	0	1	0
	National Social Security Fund (P)	1	1	1	1	1	1	0.5	0	0	1	1
France	*Fonds de réserve pour les retraites (P)*	1	1	1	1	1	1	0.5	0	1	1	1
Hong Kong	Exchange Fund	1	1	1	0	1	1	0.5	0	0.5	1	1
Iran	Oil Stabilization Fund	0	0	0	1	0.5	0.5	0	0	0	0.5	0
Ireland	*National Pensions Reserve Fund (PR)*	1	1	0	1	1	1	1	1	0	1	1
Japan	*Government Pension Investment Fund (P)*	1	1	1	1	1	1	0.25	0	0	1	1
Kazakhstan	National Fund	0.5	1	1	0	1	1	0.25	0	0.25	0.5	0.5
Kiribati	Revenue Equalization Reserve Fund	0	0	0	0	0	0	0	0	0	0.5	0.5

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Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

		Accountability and transparency										
		Investment strategy implementation				Investment activities					Reports	
Country	Fund	16 Categories	17 Benchmarks	18 Credit ratings	19 Mandates	20 Size	21 Returns	22 Location	23 Specific investments	24 Currency composition	25 Annual	26 Quarterly
Korea	Korea Investment Corporation	0.5	0.5	1	0	1	0.25	0	0	0	0.5	0
Kuwait	Kuwait Investment Authority	1	0.5	1	0	1	0.5	0.25	0	0	0.5	0
Malaysia	Khazanah Nasional	0.5	1	0	0	1	1	1	0.5	0	0.5	0
Mexico	Oil Income Stabilization Fund	0	0	0	0	1	1	0	0	1	0.5	0.5
Netherlands	*Stichting Pensioenfonds ABP (P)*	1	1	1	0	1	1	0.5	1	1	1	0.5
New Zealand	*Superannuation Fund (PR)*	1	1	1	1	1	1	1	1	1	1	1
Nigeria	Excess Crude Account	0	0	0	1	0.5	0	0	0	0.5	0	0
Norway	Government Pension Fund – Global	1	1	1	1	1	1	1	1	1	1	1
Oman	State General Reserve Fund	0	0	0	0	0	0	0	0	0	0.5	0
Qatar	Qatar Investment Authority	0	0	0	0	0	0	0	0	0.25	0	0
Russia	Reserve Fund and National Wealth Fund	1	0	1	1	1	0.5	0.5	0	1	0.5	0.5
São Tomé & Príncipe	National Oil Account	0.5	0	0	1	0.5	0	0	0	0	0	0
Singapore	Government of Singapore Investment Corporation	1	1	0.5	0	0	0.5	1	0	0	1	0.5
	Temasek Holdings	1	0.5	0	0.5	1	1	1	0.5	0	1	0
Sudan	Oil Revenue Stabilization Account	0	0	0	1	1	0	0	0	0	0	0
Thailand	*Government Pension Fund (P)*	1	1	1	1	1	1	0.25	1	0	1	1
Timor-Leste	Petroleum Fund	1	1	1	1	1	1	1	1	1	1	1
Trinidad & Tobago	Heritage and Stabilization Fund	1	1	1	1	1	1	1	0	1	1	1
UAE	Abu Dhabi Investment Authority	0.25	0.25	0	0	0	0	0	0	0	0	0

	Dubai International Capital	1	0	0	0.5	1	0	1	1	0	0.5	0
	International Petroleum Investment Company	1	0	0	0.5	0.5	0	0	1	0	0	0
	Investment Corporation of Dubai	1	0	0	0	0	0	1	1	0	0	0
	Istithmar World	0.25	0	0	0	0.5	0	0.25	0	0	0	0
	Mubadala Development Company	1	0.5	0	0.5	1	1	1	0.5	0	1	0
United States	Alabama Trust Fund	1	1	1	0	1	1	0	0	0	1	0
	Alaska Permanent Fund	1	1	1	1	1	1	1	1	1	1	1
	California Public Employees' Retirement System (P)	1	1	1	1	1	1	0.5	1	1	1	1
	New Mexico Severance Tax Permanent Fund	1	1	1	1	1	1	0.5	0	1	1	1
	Wyoming Permanent Mineral Trust Fund	1	1	1	1	1	1	0.5	0	0.5	1	1
Venezuela	Macroeconomic Stabilization Fund	0.5	0	0	1	1	0	0	0	0	0	0
	National Development Fund	0.25	0	0	0	1	0	0	0	0	1	0.5
Vietnam	State Capital Investment Corporation	1	0	0	0	0	0	0	0	0	0	0
Nonpension total[a]		26.75	17.75	16	18	29	20.25	16.25	10.25	12	23.5	13.5
Pension total[a]		13	13	11	11.5	13	13	7.5	9	8	13	11
SWFs total[a]		39.75	30.75	27	29.5	42	33.25	23.75	19.25	20	36.5	24.5
Memorandum												
United Kingdom	Terra Firma	1	0	0	0.5	1	1	1	1	1	1	0.5
United States	Harvard University Endowment	1	1	1	0	1	1	0.25	0	0	1	0
	TIAA-CREF	1	1	1	0	1	1	1	1	0	1	1
	Blackstone	1	0	0	0.5	1	1	1	0.5	0.5	1	1
Total[a]		4	2	2	1	4	4	3.25	2.5	1.5	4	2.5

a. For each element, the total is the sum for the relevant funds. For the subtotals category and the grand total, the figures are for the individual fund.

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Note: Pension funds (P) and reserve pension funds (PR) shown in italics.

Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

		Accountability and transparency *(continued)*				Behavior					
		Audits									
		27	28	29		30	31	32	33		
Country	Fund	Regular	Published	Independent	Subtotal	Risk management policy	Policy on leverage	Policy on derivatives	Portfolio adjustment	Subtotal	Grand total
Algeria	Revenue Regulation Fund	0	0	0	**2**	0	0	0	0	**0**	**9.5**
Australia	*Future Fund (PR)*	1	1	1	**10.5**	1	1	1	0	**3**	**26.5**
Azerbaijan	State Oil Fund	1	1	1	**12.5**	0	0	1	0	**1**	**25**
Bahrain	Mumtalakat Holding Company	0	0	0	**6**	0	0	0	0	**0**	**10**
Botswana	Pula Fund	1	0	1	**8**	0	0	1	0	**1**	**18.5**
Brunei	Brunei Investment Agency	1	0	1	**3.5**	0	0	0	0	**0**	**7**
Canada	Alberta Heritage Savings Trust Fund	1	1	1	**11**	0	1	1	0	**2**	**24.5**
	Caisse de dépôt et placement du Québec (P)	1	1	1	**12.5**	1	1	1	0	**3**	**29.5**
	Canada Pension Plan (P)	1	1	1	**13.5**	1	1	1	0	**3**	**30.5**
	Ontario Teachers' Pension Plan (P)	1	1	1	**12.5**	1	0	1	0	**2**	**27.5**
Chile	Economic and Social Stabilization Fund	0.5	0	0.5	**12**	0	0	0	0	**0**	**23.5**
	Pension Reserve Fund (PR)	0.5	0	0.5	**12**	0	0	0	0	**0**	**22.5**
China	China Investment Corporation	1	1	1	**8.25**	1	0	0	0	**1**	**18.75**
	National Social Security Fund (P)	1	1	1	**11.5**	1	0	1	0	**2**	**23**
France	*Fonds de réserve pour les retraites (P)*	1	1	1	**12.5**	1	0	1	1	**3**	**29.5**
Hong Kong	Exchange Fund	1	1	1	**11**	1	0	1	0	**2**	**23**
Iran	Oil Stabilization Fund	0	0	0	**2.5**	0	0	0	0	**0**	**9.5**
Ireland	*National Pensions Reserve Fund (PR)*	1	1	1	**12**	1	0	1	0.5	**2.5**	**28.5**
Japan	*Government Pension Investment Fund (P)*	1	1	1	**11.25**	1	0	1	1	**3**	**27.75**
Kazakhstan	National Fund	1	1	1	**9**	0	0	1	0	**1**	**21.5**

Kiribati	Revenue Equalization Reserve Fund	0	0	0	**1**	0	0	0	0	**0**	**11.5**
Korea	Korea Investment Corporation	1	0.5	1	**6.25**	1	0	1	0.5	**2.5**	**19.75**
Kuwait	Kuwait Investment Authority	1	0	1	**6.75**	0	1	0	0	**1**	**20.75**
Malaysia	Khazanah Nasional	1	0	0	**6.5**	0	0	0	0	**0**	**14.5**
Mexico	Oil Income Stabilization Fund	0.5	0.5	1	**6**	0	0	1	0	**1**	**14.5**
Netherlands	*Stichting Pensioenfonds ABP (P)*	1	1	1	**12**	1	0	1	1	**3**	**28**
New Zealand	*Superannuation Fund (PR)*	1	1	1	**14**	1	1	1	0	**3**	**31**
Nigeria	Excess Crude Account	0	0	0	**2**	0	0	0	0	**0**	**9.5**
Norway	Government Pension Fund – Global	1	1	1	**14**	1	0.5	0.5	1	**3**	**32**
Oman	State General Reserve Fund	1	0	1	**2.5**	0	0	0	0	**0**	**7.5**
Qatar	Qatar Investment Authority	0	0	0	**0.25**	0	0	0	0	**0**	**5**
Russia	Reserve Fund and National Wealth Fund	0	0	0	**7**	0	0	1	0	**1**	**16.5**
São Tomé & Príncipe	National Oil Account	1	0	1	**4**	0	0	0	0	**0**	**16**
Singapore	Government of Singapore Investment Corporation	1	1	1	**8.5**	1	0	0.5	0	**1.5**	**21.5**
	Temasek Holdings	1	1	1	**9.5**	1	0	1	0	**2**	**24**
Sudan	Oil Revenue Stabilization Account	0	0	0	**2**	0	0	0	0	**0**	**6**
Thailand	*Government Pension Fund (P)*	1	1	1	**12.25**	0	0	0.5	0	**0.5**	**25.75**
Timor-Leste	Petroleum Fund	1	1	1	**14**	1	0	1	1	**3**	**28**
Trinidad & Tobago	Heritage and Stabilization Fund	1	1	1	**13**	1	0	0	1	**2**	**27.5**
UAE	Abu Dhabi Investment Authority	0	0	0	**0.5**	0	0	0	0	**0**	**3.5**
	Dubai International Capital	0	0	0	**5**	1	0	0	0	**1**	**18**
	International Petroleum Investment Company	0	0	0	**3**	0	0	0	0	**0**	**8.5**
	Investment Corporation of Dubai	0	0	0	**3**	0	0	0	0	**0**	**7**
	Istithmar World	0	0	0	**1**	0	0	0	0	**0**	**5**

(continued on next page)

Table 5A.1 Scoreboard for sovereign wealth funds *(continued)*

		Accountability and transparency *(continued)*				Behavior					
		Audits									
		27	28	29		30	31	32	33		
Country	Fund	Regular	Published	Independent	Subtotal	Risk management policy	Policy on leverage	Policy on derivatives	Portfolio adjustment	Subtotal	Grand total
	Mubadala Development Company	1	1	1	**9.5**	1	0	0	0	**1**	**19.5**
United States	Alabama Trust Fund	1	1	1	**9**	0	1	1	0	**2**	**22.5**
	Alaska Permanent Fund	1	1	1	**14**	1	1	1	0	**3**	**30.5**
	California Public Employees' Retirement System (P)	1	1	1	**13.5**	1	1	1	1	**4**	**31.5**
	New Mexico Severance Tax Permanent Fund	1	1	1	**12.5**	0	1	1	1	**3**	**26.5**
	Wyoming Permanent Mineral Trust Fund	1	1	1	**12**	1	1	1	1	**4**	**30**
Venezuela	Macroeconomic Stabilization Fund	0	0	0	**2.5**	0	0	0	0	**0**	**9**
	National Development Fund	1	0	0	**3.75**	0	0	0	0	**0**	**8.75**
Vietnam	State Capital Investment Corporation	0	0	0	**1**	0	0	0	0	**0**	**11.5**
Nonpension total[a]		24	16	22.5	**6.64**	12	6.5	15	5.5	**0.98**	**16.64**
Pension total[a]		12.5	12	12.5	**12.31**	11	5	11.5	4.5	**2.46**	**27.81**
SWFs total[a]		36.5	28	35	**8.03**	23	11.5	26.5	10	**1.34**	**19.38**
Memorandum											
United Kingdom	Terra Firma	1	1	1	**11**	1	0	0.5	0.5	**2**	**24.75**
United States	Harvard University Endowment	1	1	1	**9.25**	1	0	1	0	**2**	**22.75**
	TIAA-CREF	1	1	1	**12**	1	1	1	0	**3**	**27.75**
	Blackstone	1	1	1	**10.5**	1	0	1	0	**2**	**23**
Total[a]		4	4	4	**10.69**	4	1	3.5	0.5	**2.25**	**24.56**

a. For each element, the total is the sum for the relevant funds. For the subtotals category and the grand total, the figures are for the individual fund.

Note: Pension funds (P) and reserve pension funds (PR) shown in italics.