



Sovereign Wealth Funds

From Investment Goals to Asset Allocation Models

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Patrick J. Schena, PhD

patrick.schena@tufts.edu

Adj Asst Professor

Co-Head, Sovereign Wealth Fund Initiative

The Fletcher School, Tufts University

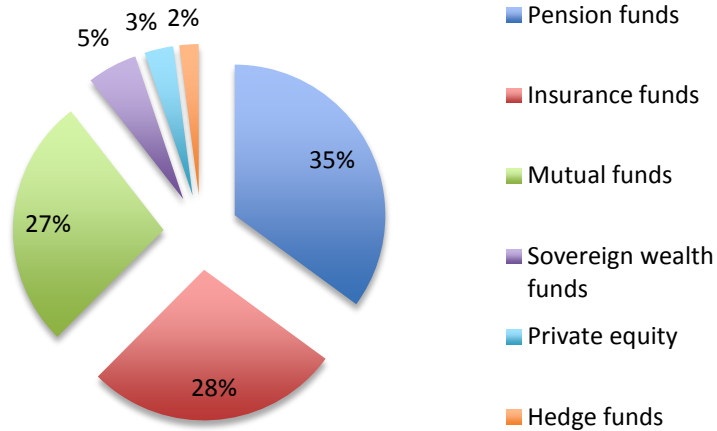
Agenda

1. Sovereign Wealth Fund 2.0 – Toward A Definition
2. Surveying the Landscape
3. Investment Goals
4. Diverse Mandates
5. Selected Case Studies in Asset Allocation
 1. Chile
 2. Norway
 3. New Zealand
 4. GIC
6. Key Trends and Take-aways

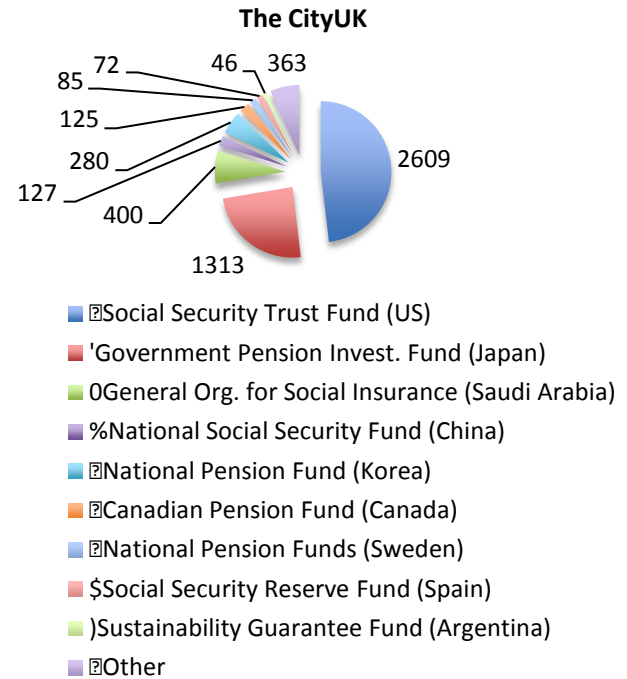
Sovereign Wealth Funds 2.0

- **National (or sub)** investment vehicles (vs State-Owned Operating Firms)
 - Sovereign is asset owner or asset manager
 - Professional investment management – in-house and out-sourced
- Fixed, generally well-defined (if not transparent externally) **governance** structures
 - Shareholder(s) and governing bodies
 - Central bank or finance ministry; aligned at ministerial level
 - Economic or development ministries
 - Systematic performance monitoring and reporting (internally)
 - Generally have few or no explicit liabilities, but may have sizable **contingent liabilities**
- Source of capital contributions
 - **Commodity-based**
 - **Excess reserve** – foreign exchange or budget
 - Other state owned or controlled real assets
- **Investment goals** centered on fiscal stabilization, inter-generation savings, pension/retirement, reserve management...*and development*
- Widely **heterogeneous** in age, size, scale, mandate

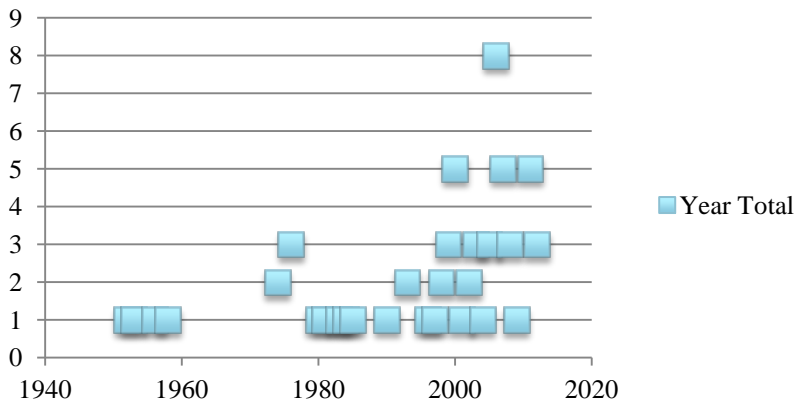
Global Investor Allocation



Public Pension Reserve Funds



SWF Path to Development



SWF as Global Investors...

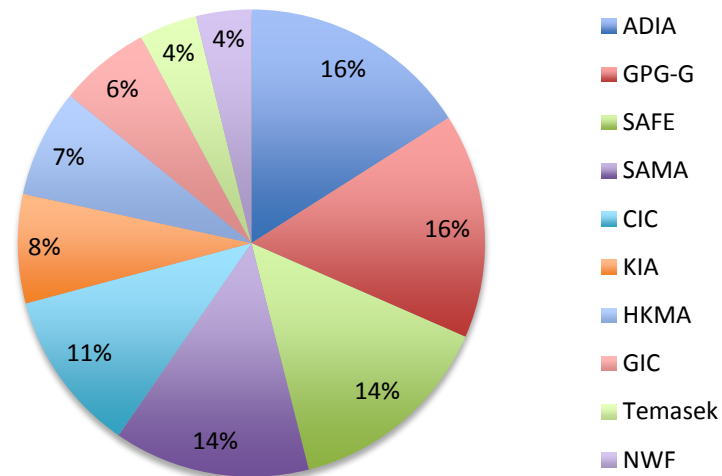
1. Sector proportionately small on global scale
2. Without explicit liabilities of large pension reserve funds
3. Predominantly established since 1980, overwhelmingly emerging economies to sterilize large capital inflows
4. Over 60% of SWF established since 2000

2012 Sovereign Wealth Fund By AUM (SWF Institute)

Country	Fund	Assets	Inception
UAE	ADIA	\$627.00	1976
Norway	GPG-G	\$611.00	1990
China	SAFE	\$567.90	1997
Saudi	SAMA	\$532.80	1952
China	CIC	\$439.60	2007
Kuwait	KIA	\$296.00	1953
China	HKMA	\$293.30	1993
Singapore	GIC	\$247.50	1981
Singapore	Temasek	\$157.20	1974
Russia	NWF	\$149.70	2008
China	NSSF	\$134.50	2000
Qatar	QIA	\$100.00	2005
Australia	AFF	\$80.00	2006
UAE	ICD	\$70.00	2006
Libya	LIA	\$65.00	2006
Kazakhstan	Kaz Natl Fund	\$58.20	2000
UAE	IPIC	\$58.00	1984
Algeria	Rev Reg Fund	\$56.70	2000
UAE	Mubadala	\$48.20	2002
Korea	KIC	\$43.00	2005
US	AK Per Fund	\$40.30	1976
Malaysia	Khazanah	\$36.80	1993
Azerbaijan	State Oil Fund	\$30.20	1999
Ireland	NPRF	\$30.00	2001
Brunei	Brunei Inv Agency	\$30.00	1983
France	Strg Inv Fund	\$28.00	2008
US	Texas Per School	\$24.40	1854
Iran	Oil Stab Fund	\$23.00	1999
NZ	NZ Super Fund	\$15.90	2003
Canada	AB Heritage Fund	\$15.10	1976
Chile	Soc & Eco Stab Fund	\$15.00	2007
US	NM St Inv Council	\$14.30	1958
Brazil	Sov Fund	\$11.30	2008
East Timor	Timor-Leste	\$9.90	2005
Bahrain	Mumtalakat	\$9.10	2006
Oman	Gen Res Fund	\$8.20	1980
		\$4,977.10	

SWF Concentration by 10 Largest

SWF % AUM



SWF Size and Scale as an Investor Class

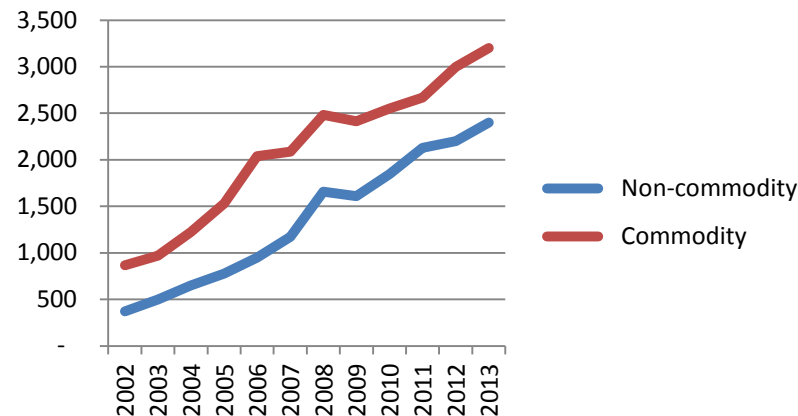
1. SWFs have approximately \$5T in asset under management
2. Asset concentration is high with the top 10 funds holding 78.8% of total SWF AUM and the top 20 funds 93.1 %
3. Among the top 10 funds 5 are from China or Singapore
4. 18 funds have assets in excess of \$50B

SWF Specification by Source (SWF Institute)

Country	Fund	Source
Kazakhstan	Kaz Natl Fund	Oil
Algeria	Rev Reg Fund	Oil
Iran	Oil Stab Fund	Oil
Singapore	Temasek	Non-commodity
US-NM	NM St Inv Council	Non-commodity
Brazil	Sov Fund	Non-commodity
UAE	ADIA	Oil
Kuwait	KIA	Oil
Qatar	QIA	Oil
UAE	ICD	Oil
Libya	LIA	Oil
UAE	IPIC	Oil
US	AK Per Fund	Oil
Brunei	Brunei Inv Agency	Oil
US	Texas Per School	Oil
Canada	AB Heritage Fund	Oil
Oman	Gen Res Fund	Oil & Gas
China	SAFE	Non-commodity
China	CIC	Non-commodity
China	HKMA	Non-commodity
Singapore	GIC	Non-commodity
Korea	KIC	Non-commodity
Saudi Arabia	SAMA	Oil
China	NSSF	Non-commodity
Australia	AFF	Non-commodity
Ireland	NPRF	Non-commodity
New Zealand	NZ Super Fund	Non-commodity
Russia	NWF	Oil
Norway	GPG-G	Oil
Azerbaijan	State Oil Fund	Oil
East Timor	Tiimor-Leste	Oil & Gas
Chile	Soc & Eco Stab Fund	Copper
Malaysia	Khazanah	Non-commodity
Bahrain	Mumtalakat	Non-commodity
UAE	Mubadala	Oil
France	Strg Inv Fund	Non-commodity

Growth of AUM by Source

SWF by Source of Capital



Fund Purpose, Mandate, and Asset Allocation

1. The source of SWF capital can be primarily segmented by commodity (oil, gas, other metals) and non-commodity or excess reserve
2. Consistent with structural shifts in global capital flows, especially since 1997-1998 financial crises
3. AUM of funds sourced by both have risen sharply since 2000 accentuated by rise in commodity prices and build-up of forex reserves and increase in number of new funds

SWF Specification by Purpose and Investment Goal

Country	Fund	Purpose
Kazakhstan	Kaz Natl Fund	Stabilization
Algeria	Rev Reg Fund	Stabilization
Iran	Oil Stab Fund	Stabilization
Singapore	Temasek	Savings
US-NM	NM St Inv Council	Savings
Brazil	Sov Fund	Savings
UAE	ADIA	Savings
Kuwait	KIA	Savings
Qatar	QIA	Savings
UAE	ICD	Savings
Libya	LIA	Savings
UAE	IPIC	Savings
US	AK Per Fund	Savings
Brunei	Brunei Inv Agency	Savings
US	Texas Per School	Savings
Canada	AB Heritage Fund	Savings
Oman	Gen Res Fund	Savings
China	SAFE	Reserve Investment
China	CIC	Reserve Investment
China	HKMA	Reserve Investment
Singapore	GIC	Reserve Investment
Korea	KIC	Reserve Investment
Saudi Arabia	SAMA	Reserve Investment
China	NSSF	Pension Reserve
Australia	AFF	Pension Reserve
Ireland	NPRF	Pension Reserve
New Zealand	NZ Super Fund	Pension Reserve
Russia	NWF	Pension Reserve
Norway	GPG-G	Stab/Savings/Pension
Azerbaijan	State Oil Fund	Stab/Savings
East Timor	Tiimor-Leste	Stab/Savings
Chile	Soc & Eco Stab Fund	Stab/Pension
Malaysia	Khazanah	Sov Dev
Bahrain	Mumtalakat	Sov Dev
UAE	Mubadala	Sov Dev
France	Strg Inv Fund	National Strategic

Major Purposes of SWF

1. **Stabilization** - fiscal stabilization through the investment of excess budgetary reserves
2. **Savings** – wealth preservation, expansion, and inter-generational transfer
3. **Reserve Investment** – excess reserve management, beyond that required for stabilization or for direct monetary policy support
4. **Pension Reserve** – national pension reserve management
5. **Development** – strategic asset management, including privatization

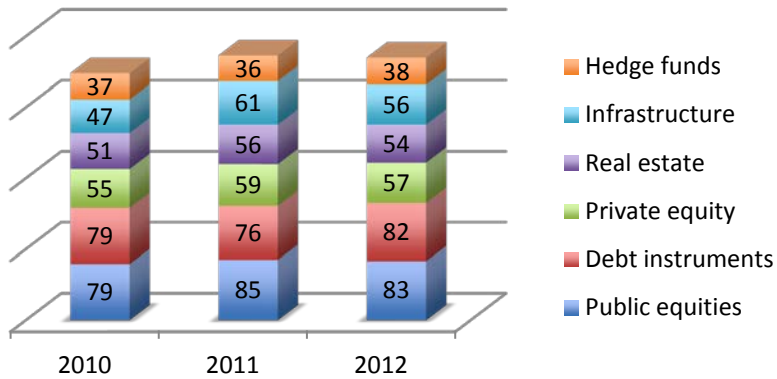
Implications for Investment Strategy

1. Fund purpose generally reflects liability structure and informs investment horizon
2. Diversify of purposes implies dispersion of investment objectives and mandates
3. Asset allocation strategies conform to primary goals, but remain varied as a function of risk profile and mandate

SWF Participation by Asset Class

Proportion of SWF in Asset Class

The CityUK

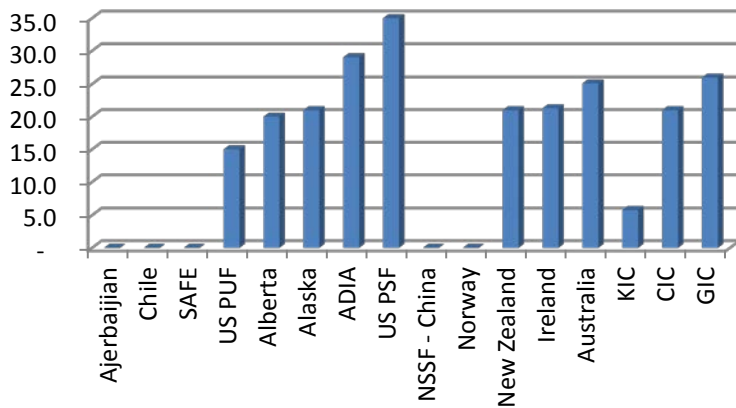


2010 Asset Allocation by Select SWF

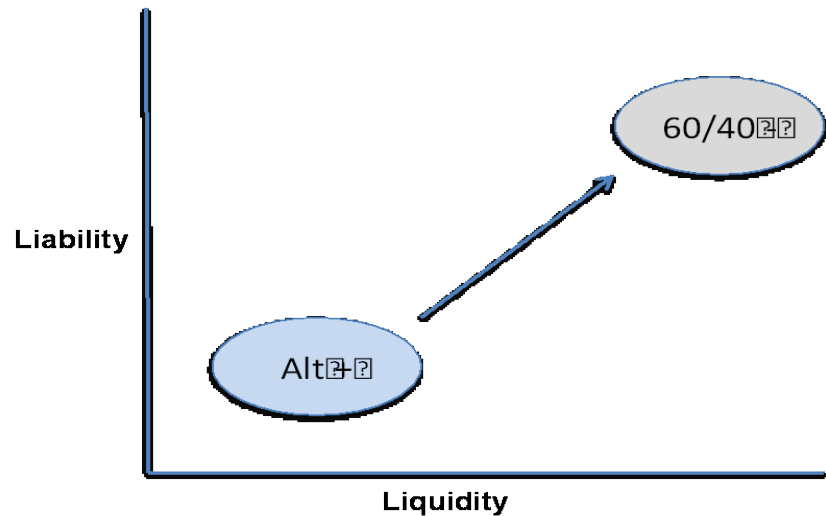
1. Asset allocation is generally consistent with investment objectives of fund
2. Fund mandates that support longer horizons and require lower levels of liquidity permit greater use of alternative assets
3. Large funds with long investment horizons and sufficient in-house capacity maintain direct investment programs
4. Highest allocations to alternatives among savings, pension, and excess reserve funds

Exposure to Alternative Asset Classes

% Alternative Allocation



Liability/Liquidity Nexus

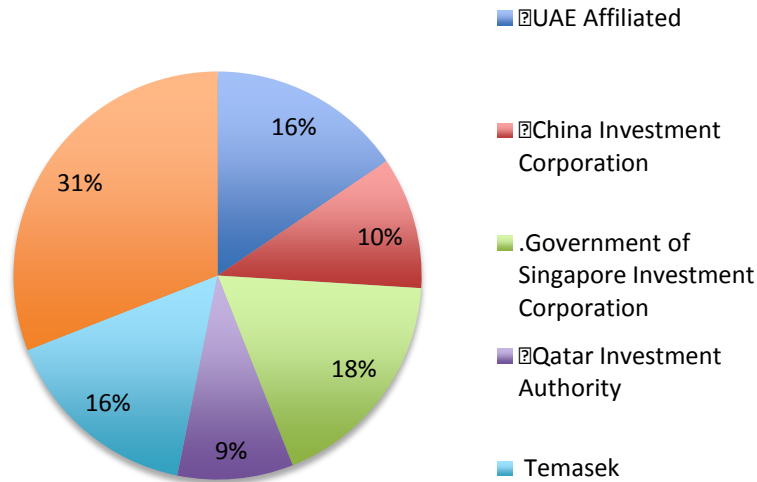


Scale of Direct Investment by SWF

1. According to UNCTAD, SWF DFI reach nearly \$130B by the end of 2011
2. SWF DFI by transaction count is heavily concentrated – also 70% - among five large SWF
3. SWF DFI is also concentrated by sector with well-over 50% of all transactions in finance, banking, real estate or a commodities of other nature resource sector

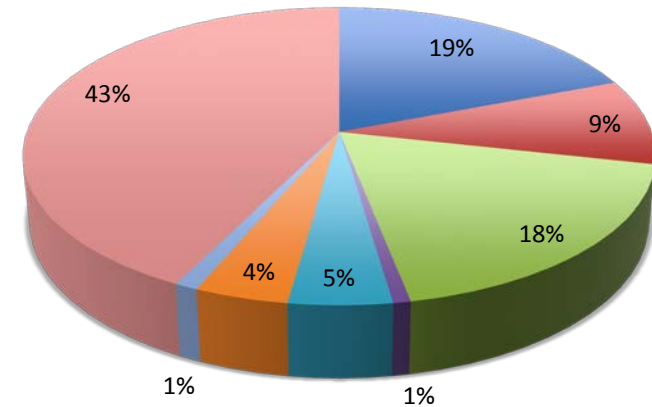
Fund Concentration of DFI from 2007-2012 (Monitor SWF)

2007-2012 Transactions by Fund



Sector Concentration of DFI from 2007-2012 (Monitor SWF)

Sector Concentration



■ Banking, Insurance, Trading

■ Finance

■ Real Estate

■ Coal

■ Natural Resources

■ Petroleum and Natural Gas

■ Precious Metals, Non-Metallic, and Industrial Metal Mining

■ Other

Social and Economic and Stabilization Fund - Chile

- Established in 2007 with an initial contribution of US\$2.58 billion
- Allows financing of fiscal deficits and amortization of public debt
- *Stabilize national budget by reducing exposure to global business cycle and revenue volatility due to fluctuations in copper prices*
- Receives annual positive balance between effective fiscal surplus after contributions to the Pension Reserve Fund and to the Central Bank of Chile and payments on public debt

Strategic Asset Allocation

	2011	2010	2009	2008
Equity (domestic and international)				
<i>of which domestic</i>				
<i>of which international</i>				
FI	70%	70%	70%	70.6%
<i>of which corporate</i>				
<i>of which government</i>	70%	70%	70%	70.6%
Cash / MMF	30%	30%	30%	29.4%
Alternatives				
<i>of which Real Estate</i>				
<i>of which Private Equity</i>				
<i>of which Hedge Funds/Absolute Return</i>				
<i>of which Infrastructure</i>				
<i>of which Distressed debt</i>				
<i>of which Commodities</i>				
Total	100%	100%	100%	100%

2013 Holdings by Asset Class and Type

As of January 2013

Investments and duration by credit exposure:

Sector	Market Value (US\$ MM)	Duration (years)	% Fund
Agencies	USD 0.0	0.00	0.00%
Banks	USD 1,142.8	0.18	15.05%
	EUR 891.0		
	JPY 228.0		
Sovereigns	USD 6,347.9	2.97	84.95%
	EUR 5,155.8		
	JPY 1,266.8		
Supranational	USD 0.0	0.00	0.00%
	EUR 0.0		
	JPY 0.0		
Total	15,032.36	2.53	100.00%

Government Pension Fund Global – Norway

- Set up in 1990 as fiscal policy tool to support management of petroleum revenue
- Integrated into state budget; receives surplus transfers of petroleum revenues; invested abroad to avoid overheating local economy and to shield it from oil price fluctuations
- *Long-term secondary role saving government revenue to finance expected increases in future public pension costs*
- Fund has no formal pension liabilities; no decision on timing.

Strategic Asset Allocation

	2011	2010	2009	2008
Equity (domestic and international)	58.7%	60%	60%	60%
<i>of which domestic (European)</i>				30%
<i>of which international</i>				30%
FI	40.9%	40%	40%	40%
<i>of which corporate</i>	10%			
<i>of which government</i>	30.9%			
Cash / MMF	0%	0%	0%	0%
Alternatives	0.3%	0%	0%	0%
<i>of which Real Estate</i>	0.3%			
<i>of which Private Equity</i>				
<i>of which Hedge Funds/Absolute Return</i>				
<i>of which Infrastructure</i>				
<i>of which Distressed debt</i>				
<i>of which Commodities</i>				
Total	100%	100%	100%	100%

External Mandates

1. NBIM – manager - uses external managers for some equity and fixed-income investments mandates
2. Awarded based on specialist expertise in defined investment areas
3. Generally in markets and segments where not expedient to build internal capacity, but where opportunity to generate an excess return is considerable - SME and EM
4. End of 2011 4.4% AUM under external management; 52 external mandates managed by 45 different organizations, 51 of which were equity mandates.

Superannuation Fund – New Zealand

- Set up in 2001 to help *address the increased cost of future retirement entitlements; reduce the tax burden on future New Zealanders of providing retirement benefits*
- Define Reference Portfolio – global equity (70%), NZ equity (5%), global real listed property (5%), fixed income (20%); build actual portfolio based on manager discretion
- Invests based upon 3 themes: resource sustainability, emerging market segmentation, and evolving demand patterns, based upon broad demographic shifts

Strategic Asset Allocation

	2011	2010	2009	2008
Equity (domestic and international)	45%	45%	58%	53%
<i>of which domestic</i>	8%	8%	8%	7%
<i>of which international</i>	37%	37%	51%	46%
FI	24%	33%	25%	19%
<i>of which corporate</i>				
<i>of which government</i>				
Cash / MMF				
Alternatives	31%	21%	17%	28%
<i>of which Collective Investment Funds</i>	11%	13%		
<i>of which Private Equity</i>	6%	3%		13%
<i>of which Equity Linked Notes</i>	4%	0%		
<i>of which reverse repo agreements</i>	5%	0%		
<i>of which insurance linked bonds</i>	2%	1%		
<i>of which unlisted unit trusts</i>	2%	2%		
<i>of which agricultural securities</i>	1%	1%		
<i>of which property</i>			5%	9%
<i>of which commodities</i>			12%	5%
Total	100%	100%	100%	100%

External Mandates

- Guardians – manager - works with a large number of third parties globally to execute strategies
- Managers appointed after formal selection process that evaluates their investment philosophy, how they apply their philosophy, their insight, the quality of their investment management team, and their overall fit with the objectives of the Fund
- Currently the Fund uses over 40 external managers, most with extended tenors
- These include mandates across assets classes and strategies

Government Investment Corp - Singapore

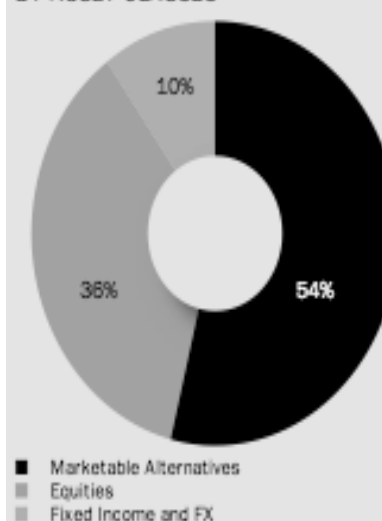
- Incorporated in 1981; wholly owned by the Government of Singapore
- *Purpose is to preserve and enhance Singapore's reserves as a source of income to be spent or invested for the benefit of present and future generations*
- Capital sources include sustained balance of payments surpluses and accumulated national savings
- Investment objective to achieve a *reasonable risk-adjusted rate* above global inflation over a 20-year investment horizon

Strategic Asset Allocation

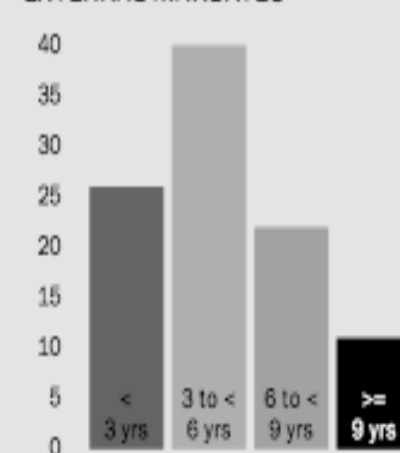
	2011	2010	2009	2008
Equity (domestic and international)	45%	49%	51%	38%
<i>of which domestic</i>				
<i>of which international</i>				
FI	17%	22%	20%	24%
<i>of which corporate</i>				
<i>of which government</i>				
Cash / MMF	11%	3%	4%	8%
Alternatives	27%	26%	25%	30%
<i>of which Real Estate</i>	10%	10%	9%	12%
<i>of which Private Equity (2)</i>	11%	10%	10%	11%
<i>of which Hedge Funds/Absolute Return</i>	3%	3%	3%	3%
<i>of which Infrastructure</i>				
<i>of which Distressed debt</i>				
<i>of which Commodities</i>	3%	3%	3%	4%
Total	100%	100%	100%	100%

External Mandates

NUMBER OF EXTERNAL MANDATES BY ASSET CLASSES



BREAKDOWN BY LENGTH OF EXTERNAL MANDATES



Key Themes and Take-aways

1. Key trending themes...

1. Intellectual appeal of factor-based models
2. Increasingly holistic and integrated approach to liability and liquidity management
3. Capacity-building and means to effect knowledge transfer important

2. Take-ways...

1. Not all SWF created equal
2. Investment goals constrained by purpose of fund and mandate
3. Strategic asset allocation defined by mandate and not sovereign status
4. Performance matters
5. Leverage external managers for unique investment skills in select markets and strategies

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