



Sovereign Wealth Fund Investment Trends

Presented by

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1. SWF Overview

- Overall size, growth, funding sources and relevance
- What factors have driven their growth
- Mandates for the funds and asset allocation

2. Drivers of SWF Growth

- Global balance of payments imbalances
- Central Bank decision to transfers resources

3. Drivers of SWF Asset Allocation Decisions

- SWF investment mandate reflects contingent liabilities and liquidity premium
- SWF size, age and capacity are also important factors affecting asset allocation
- Inward vs. outward investment mandate

4. SWF Appetite for Real Estate Investments

- Which SWFs have the biggest current holdings and future appetite
- Strategy and regional preferences

5. Impact of the Current Economic Conditions

- Low oil prices; lower China growth, currency devaluation and stock market volatility

1. Sovereign Wealth Fund Overview

What are Sovereign Wealth Funds (SWFs)?

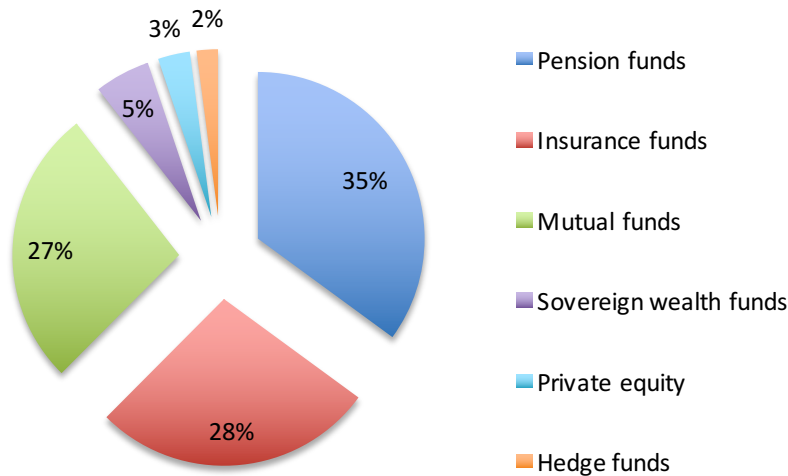
- **National (or sub) investment vehicles**
 - Sovereign is asset owner; Professional investment management – in-house and out-sourced
- Generally well-defined (if not transparent externally) **governance** structure
 - Central bank or finance ministry; Few or no explicit liabilities, with contingent liabilities
- **Source** of capital contributions
 - Commodity-based
 - Excess reserve – foreign exchange or budget
 - Other state owned or controlled real assets
- **Heterogeneous investment goals:** fiscal stabilization, inter-generation savings, pension / retirement, reserve management, and / or *development*

1. SWFs are a small component of global institutional investors

Global asset under management by institutional investors is around \$100 trillion

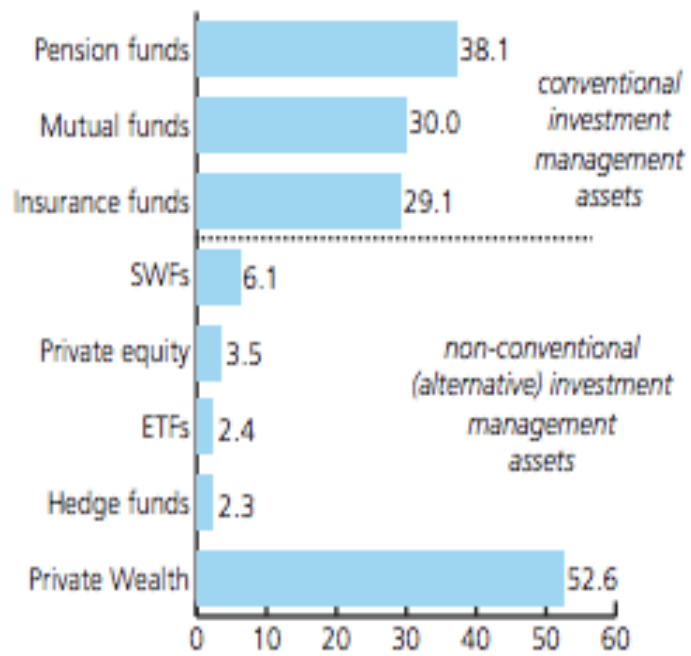
- of which SWFs are around 6 % of the total--some double counting and SWF transparency issues

Global Investor Allocation



GLOBAL FUND MANAGEMENT INDUSTRY

assets under management, \$ trillion, end-2013



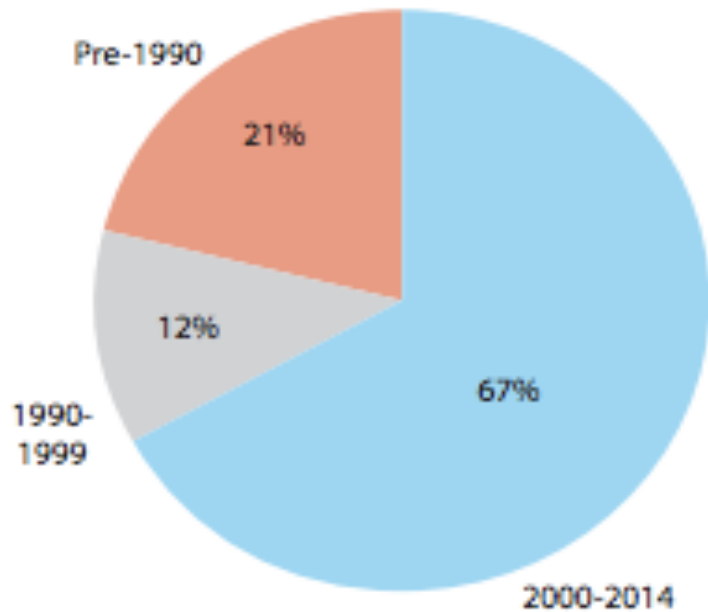
¹ Around one-third of private wealth is incorporated in conventional investment management
Source: TheCityUK Fund Management 2014 report

1. However, SWFs are growing quickly in number and relevance

SWFs are only 6% of total AUM of global institutional investors but growing quickly with majority established since 2000

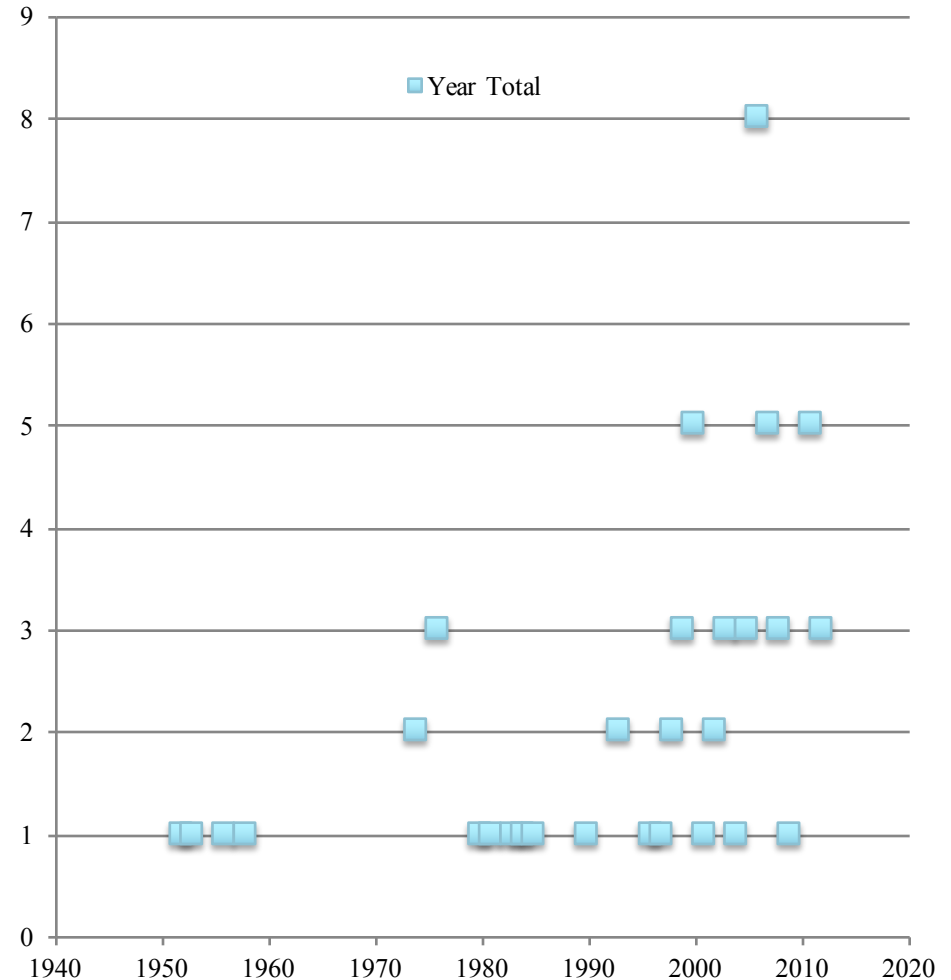
LAUNCH YEAR OF LARGEST SWFs

launch year of sovereign wealth funds, % share by number



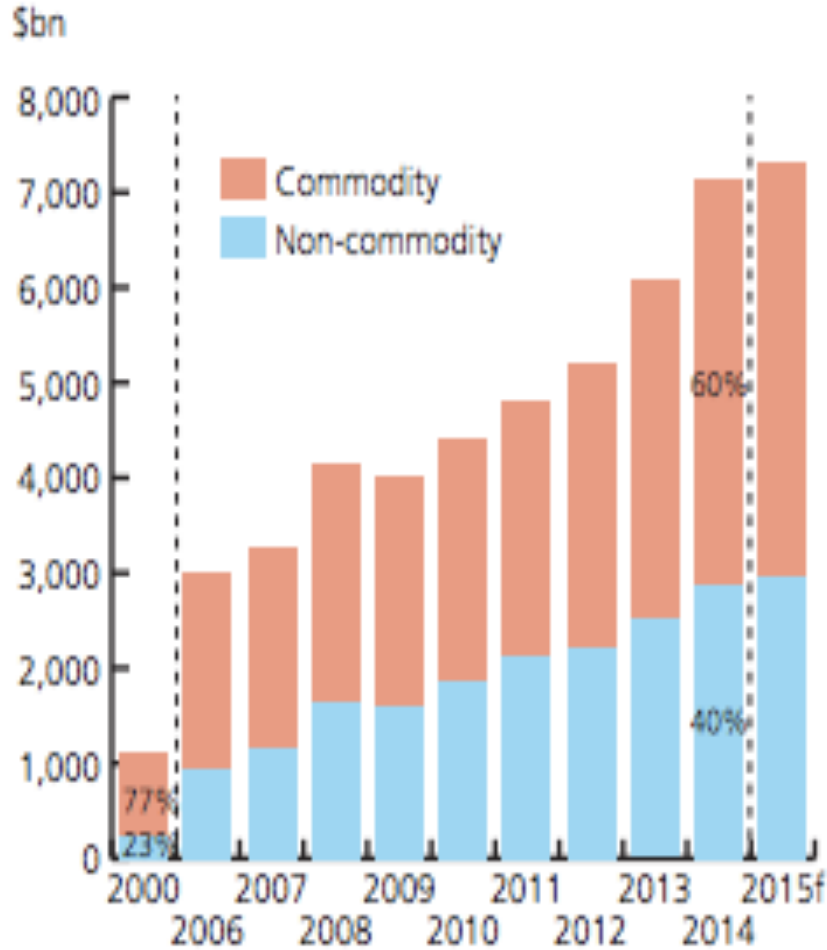
Source: TheCityUK calculations

Path of New SWFs

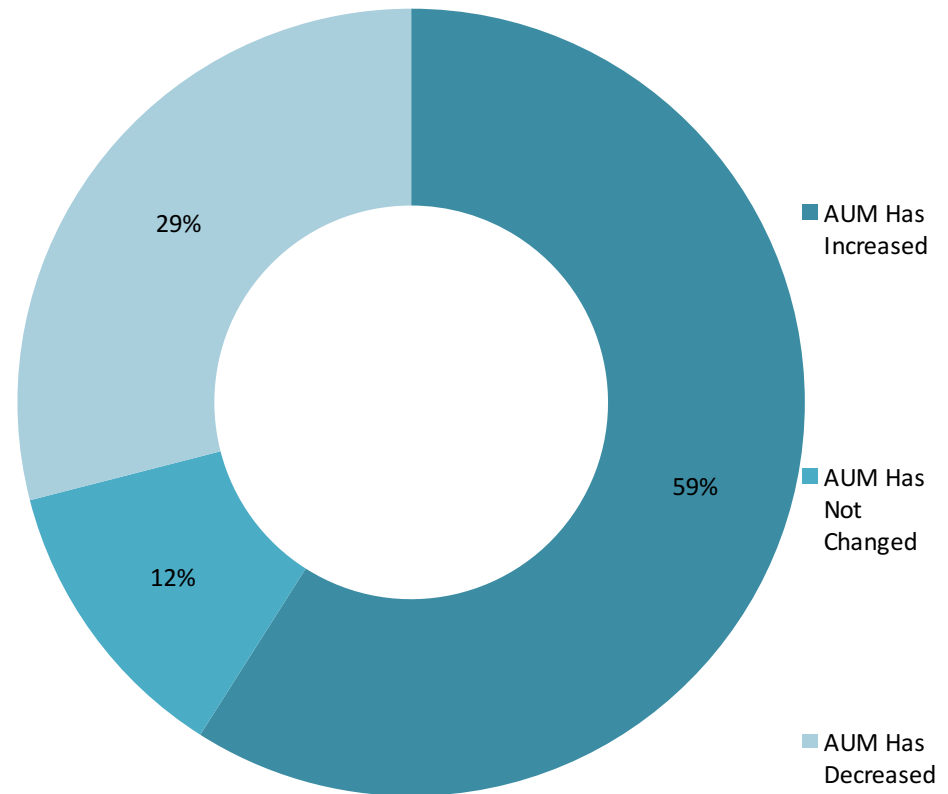


1. SWF's asset under management have grown by around 600% since 2000 (by \$6 trillion)

SWF's ASSETS UNDER MANAGEMENT



Change in Existing Sovereign Wealth Fund Assets, 2013 - 2015



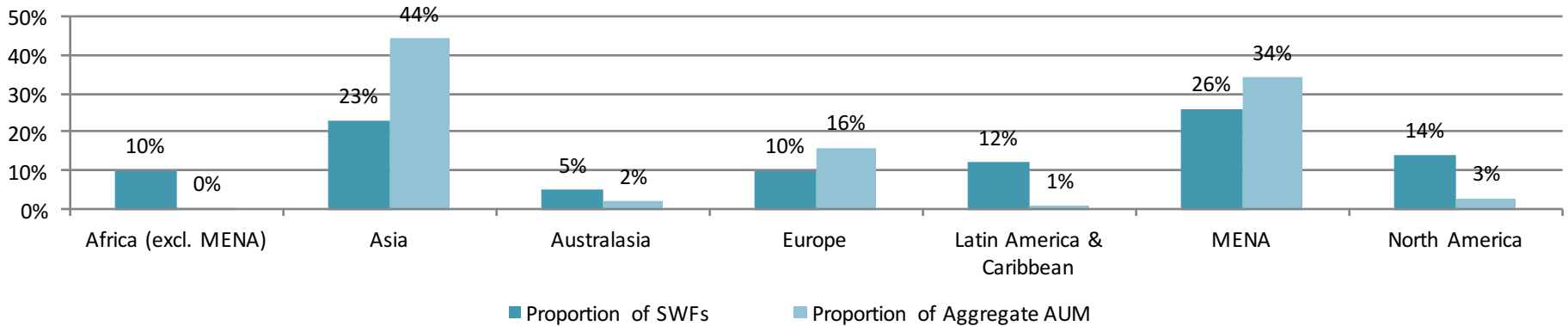
Source: SWF Institute; TheCityUK estimates

1. SWF assets are highly concentrated

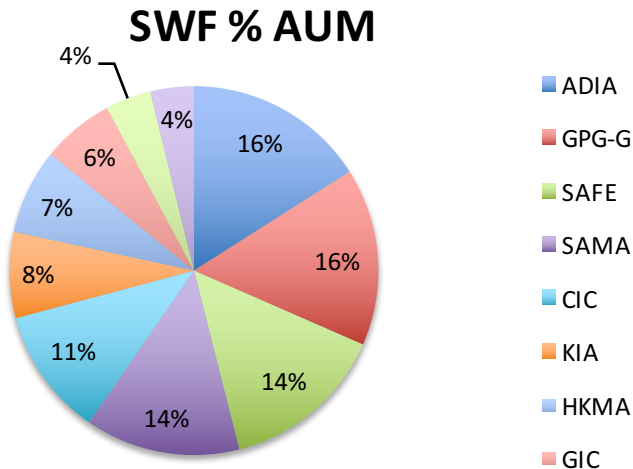
The top 10 SWFs hold 80% of total SWF assets under management:

- AUM concentration even greater by country, with several large SWFs in each of China, Singapore and UAE

Breakdown of Sovereign Wealth Funds by Region



SWF Concentration by 10 Largest



SWF Size and Scale as an Investor Class

1. SWFs have \$6-\$7 trillion in asset under management (not fully transparent)
2. Asset concentration is high with the top 10 funds holding almost 80% of total SWF AUM and the top 20 funds over 90 %
3. Among the top 10 funds 5 are from China and Singapore
4. 18 funds have assets in excess of \$50B

1. SWF assets are sourced from countries' commodity exports and overall balance of payments surpluses

SWF Specification by Source

LARGEST SWFs

end-2014	(\$bn) assets under management	Country	Inception year	Source
Government Pension Fund - Global	893	Norway	1990	Commodity
Abu Dhabi Investment Authority	773	UAE-Abu Dhabi	1976	Commodity
SAMA Foreign Holdings	757	Saudi Arabia	1952	Commodity
China Investment Corporation	653	China	2007	Non-Commodity
SAFE Investment Company	568	China	1997	Non-Commodity
Kuwait Investment Authority	548	Kuwait	1953	Commodity
Hong Kong Monetary Authority Investment Portfolio	400	China-Hong Kong	1993	Non-Commodity
Government of Singapore Investment Corporation	320	Singapore	1981	Non-Commodity
Qatar Investment Authority	256	Qatar	2005	Commodity
National Social Security Fund	240	China	2000	Non-Commodity
Temasek Holdings	177	Singapore	1974	Non-Commodity
Australian Future Fund	95	Australia	2006	Non-Commodity
Abu Dhabi Investment Council	90	UAE-Abu Dhabi	2007	Commodity
Reserve Fund	89	Russia	2008	Commodity
Korea Investment Corporation	85	South Korea	2005	Non-Commodity
National Welfare Fund	80	Russia	2008	Commodity
Samruk-Kazyna JSC	78	Kazakhstan	2008	Non-Commodity
Revenue Regulation Fund	77	Algeria	2000	Commodity
Kazakhstan National Fund	77	Kazakhstan	2000	Commodity
Investment Corporation of Dubai	70	UAE - Dubai	2006	Commodity

Source: SWF Institute, TheCityUK estimates

Growth of SWF Asset Under Management

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 1997-98 Emerging Market financial crises and
3. AUM of funds sourced by both have risen sharply since 2000 accentuated by: rise in commodity prices; build-up of forex reserves; increase in number of new funds

1. SWFs are not heterogeneous: purpose can vary greatly, affecting their investment mandate

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

Purposes of SWF

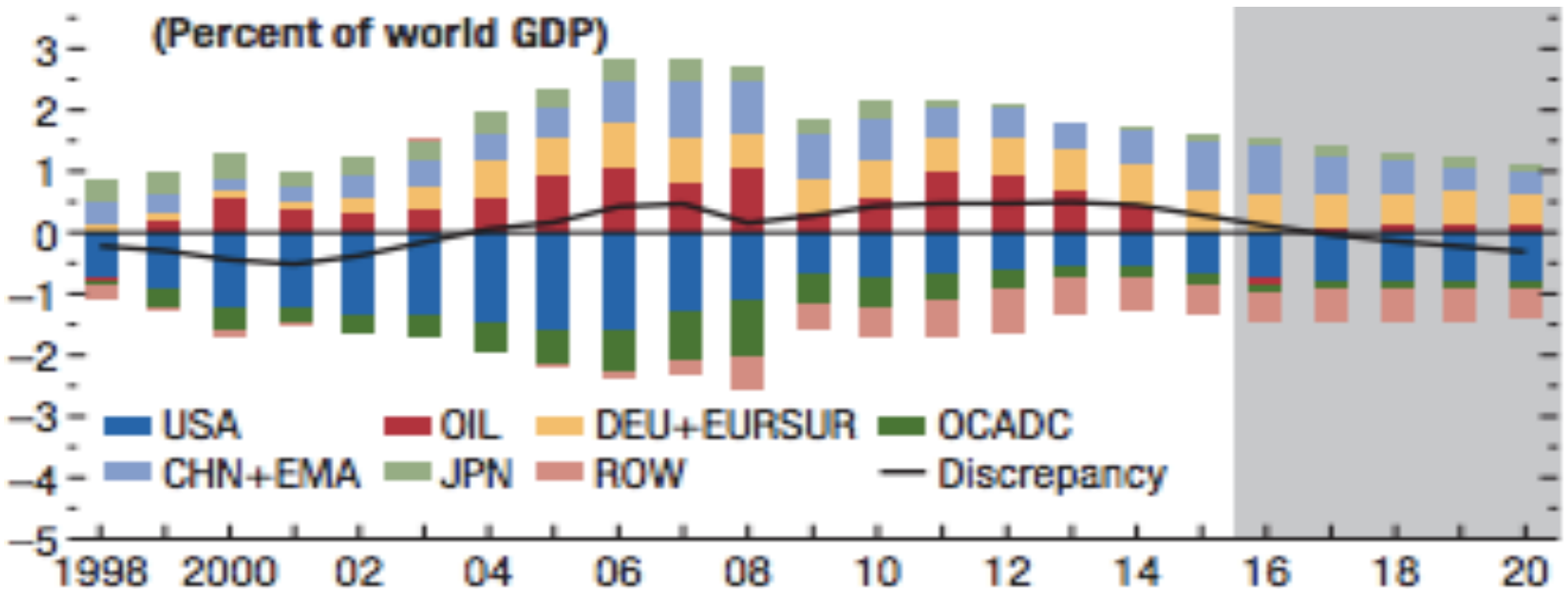
1. **Stabilization** - fiscal stabilization through the investment of excess budgetary reserves
2. **Savings** – wealth preservation, expansion, and inter-generational transfer
3. **Reserve Investment** – excess reserve management, beyond that required for stabilization or for direct monetary policy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

Implications for Investment

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

2. Global Imbalances are Drivers of SWF Growth

- *Massive global imbalances driven by high commodity prices and China balance of payments surpluses peaked in 2008 (the financial crisis)
- *Global imbalances have subsequently declined and are projected to decline further
- *Nevertheless, the projected balance of payments surpluses during 2016-20 are equivalent to an additional \$5 trillion held by surplus countries.



Global GDP around \$80 trillion so 1% surplus is \$0.8 trillion additional yearly potential source for investment vehicles

2. Governments have the choice of holding Central Bank reserves or transferring them to SWFs or other sovereign investment vehicles

- Growth of SWF assets paralleled growth of foreign exchange reserves and other sovereign investment vehicles

SOVEREIGN INVESTMENT VEHICLES

\$ trillion

	Sovereign wealth funds			Other sovereign investment vehicles	Official foreign exchange reserves not in SWFs
	Commodity funds	Non-commodity funds	Total assets		
2008	2.5	1.6	4.2	6.2	5.7
2009	2.4	1.6	4.0	6.5	6.6
2010	2.6	1.8	4.4	6.8	7.4
2011	2.7	2.1	4.8	7.2	8.1
2012	3.0	2.2	5.2	7.7	8.8
2013	3.6	2.5	6.1	8.7	9.2
2014	4.3	2.8	7.1	9.6	9.0

- Stabilisation funds
- Savings funds

- Reserve invest. corp.
- Development funds
- Pension reserve funds
- State-owned comp.

Central banks' official reserves

Source: TheCityUK estimates, OECD, IMF

3. SWF Asset Allocation Decisions

❖ Asset allocation decisions can reflect mandate, size, age and capacity

- SWFs have widely disparate mandates associated with different asset allocation strategies ranging from macro-stabilization to savings, pension and reserve asset mandates
- The two SWFs with stabilization mandates have short-term investment horizons and have no allocation to alternatives
- In contrast, savings funds, with inter-generational wealth transfer objectives, have long-term investment horizons and less-explicit liability structure; with significant allocation to alternative
- Notice, however, the low allocation to alternatives by the Norway Pension SWF—determined by internal political factors (and internal transparency)

3. SWF Asset Allocation Decisions

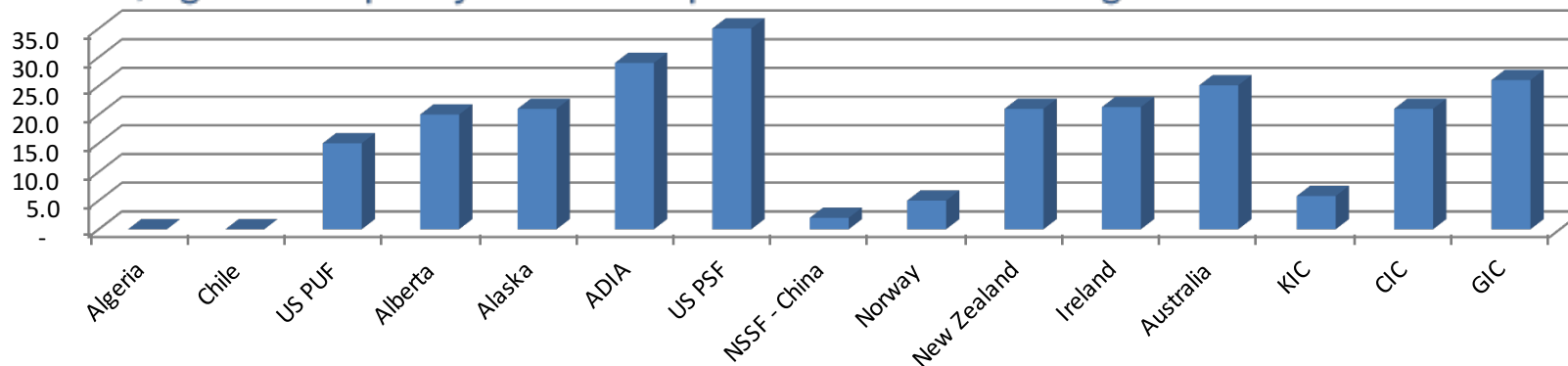
Investment Allocation of Selected SWFs

Country/Fund	% Alt	Type
Algeria	-	Stabilization
Chile	-	Stabilization
US PUF	15.0	Savings
Alberta	20.0	Savings
Alaska	21.0	Savings
ADIA	29.0	Savings
US PSF	35.0	Savings
NSSF - China	2.0	Pension
Norway	5.0	Pension
New Zealand	21.0	Pension
Ireland	21.3	Pension
Australia	25.1	Pension
KIC	5.8	Investment Reserve
CIC	21.0	Investment Reserve
GIC	26.0	Investment Reserve



% Alternative Allocation

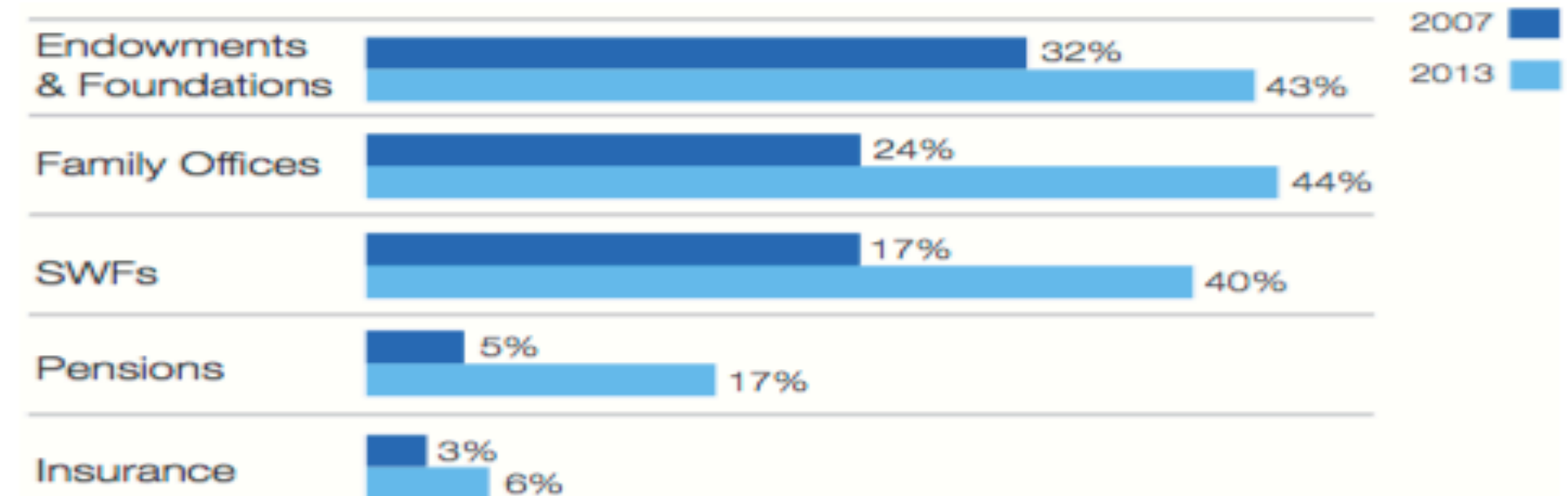
➤ SWF size, age and capacity are also important factors affecting asset allocation



3. SWFs increased allocation to alternatives has paralleled that of endowments and family offices

Pension fund and insurance company allocation to alternatives has also risen--but more moderately

Estimated allocation to alternative assets by investor type
2007 and 2013

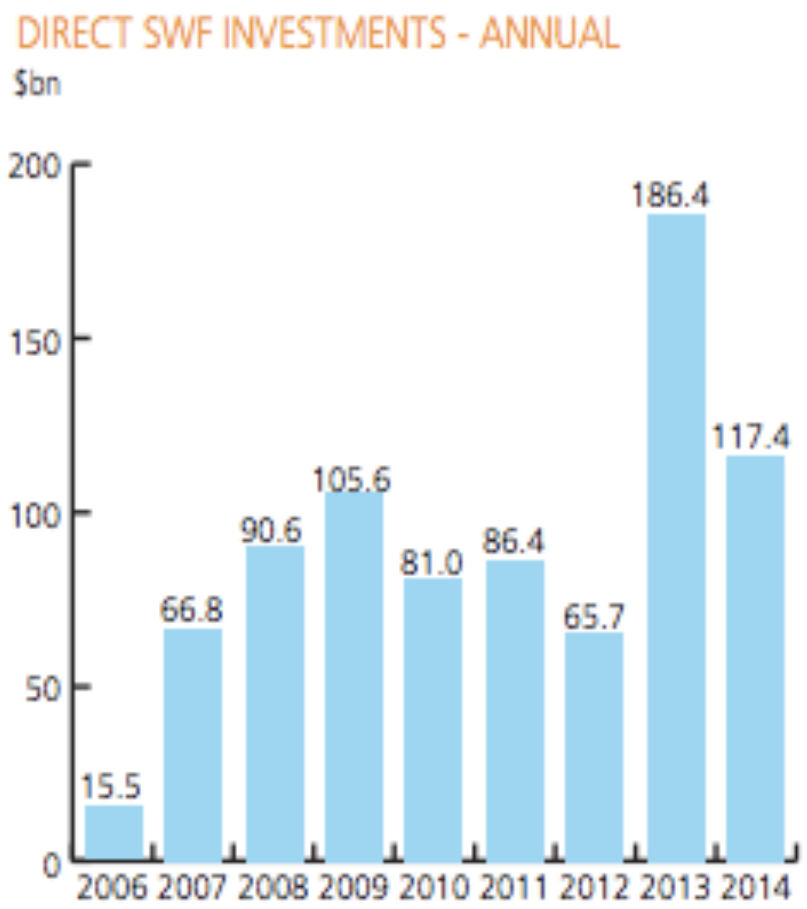


Sources: SWF Institute; NACUBO; 2012 Patpatia Insurance Survey; Towers Watson Global Pension asset study 2013; Somerset Capital Annual Survey of Family Offices; MSCI; Watson Wyatt; Mercer; IFI; CEA; Broker research; Bloomberg; 2012 Commonfund E&F study; 2012 Tower Watson Alternatives study; Russell Investments 2012 Global Survey on Alternative Investing; Oliver Wyman proprietary data and analysis.

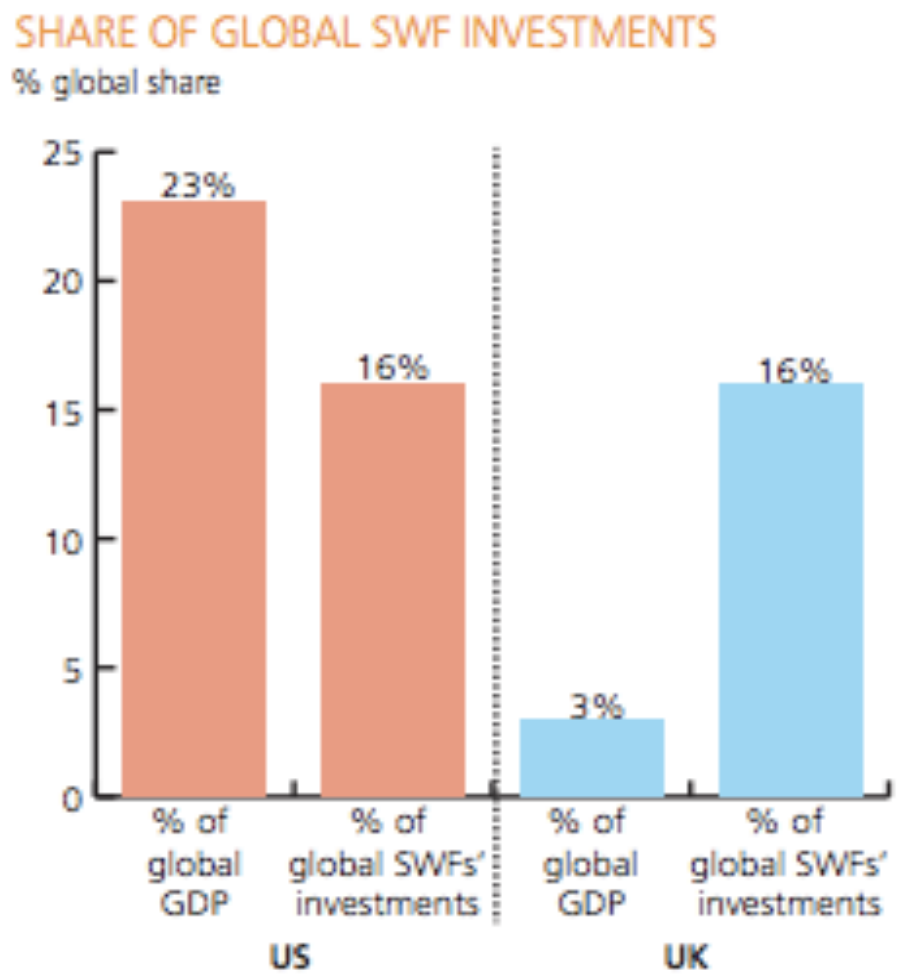
Note: Asset allocation for SWFs is as of 2011.

3. SWF direct investments totaled around \$800 billion since 2007

- SWFs acquired minority stakes in around two-thirds of these transactions; transactions where SWFs acquired a controlling stake were largely in emerging market companies.



Source: SWF Institute - Sovereign wealth fund transaction database



Source: SWF Institute - Sovereign wealth fund transaction database

3. SWF allocation also must determine whether there will be an outbound vs. inward investment mandate

Most SWFs have Outward Investment Mandates

- **SWF mandates:** Stabilization, inter-generational wealth preservation, pension and reserve investment management
 - Replace depleting natural resources with alternative sources of export proceeds
 - Investment diversification of Sovereign reserves with higher risk-adjusted returns
- **Investing abroad helps avoid Dutch Disease**
 - Capital inflows from resource sector can result in real appreciation of the country's exchange rate, reducing competitiveness of non-resource economy
 - Uneven or distorted sectoral development of local economy with loss of employment and sectoral diversification
 - Capture and manage accumulation of assets to reintegrate them into the domestic economy based on absorptive capacity

Internal Investment Mandate

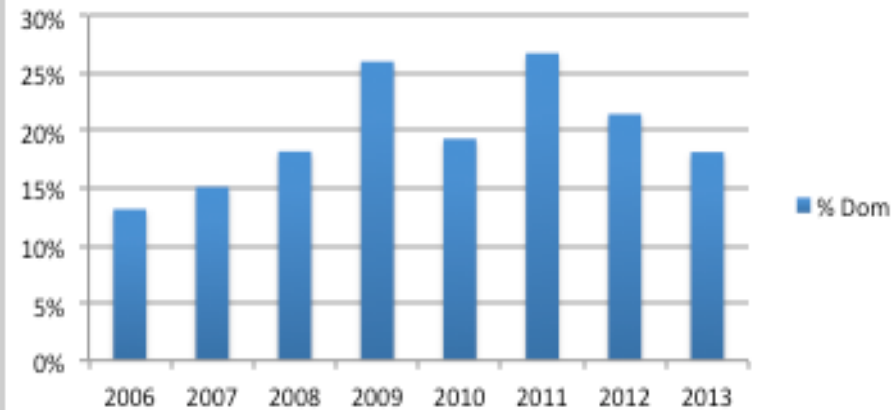
- ❖ Augment national development agenda; accelerate social and economic development through focused investment programs
- ❖ Attract complementary capital from the major external financial and strategic investors
- ❖ Catalyze external investment flows and knowledge transfer into key economic sectors

3. SWF direct investment by domestic or regional distribution

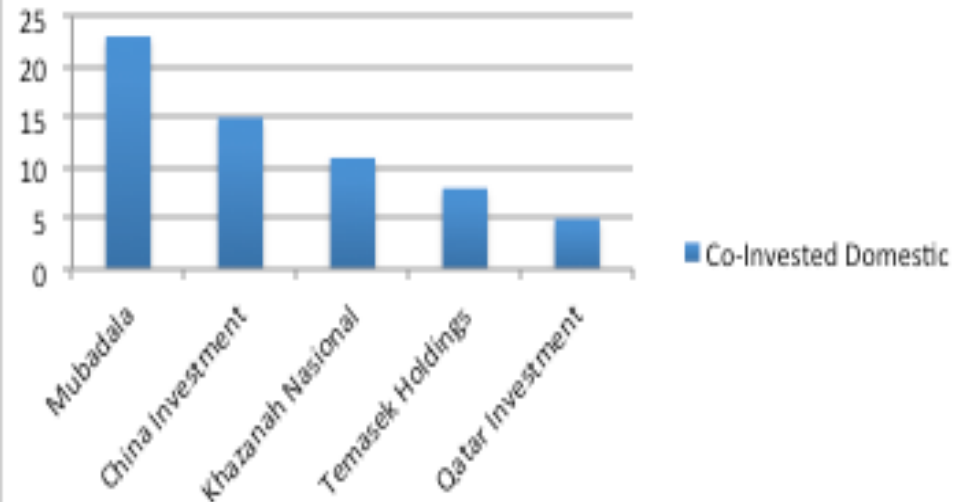
SWFs invest domestically

At present domestic transactions are concentrated

% Domestic SWF Transactions 2006-2013

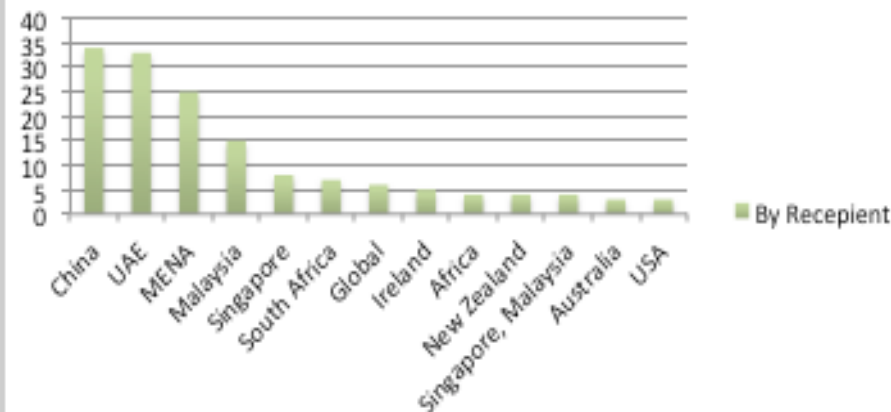


Top 5 Largest SWF by % Co-Invested Domestic Transactions



Distribution varies widely as does purpose

Domestic or Regional SWF Participation - 2006-2013



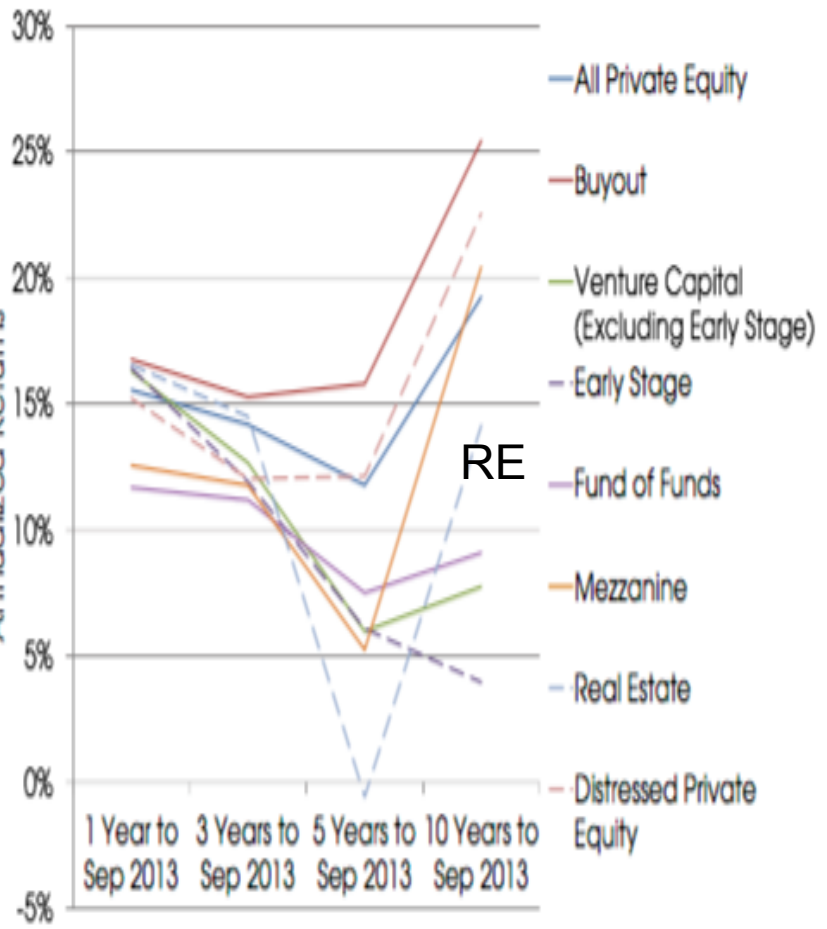
Observations...

1. Sample size of 895 deals; 178 domestic transactions; 39 discrete entities
2. Inward represent 20% of total sample reaching a high of 27% in 2011
3. Largest domestic investors remain development funds or their successors

4. SWF Appetite for Real Estate Investments

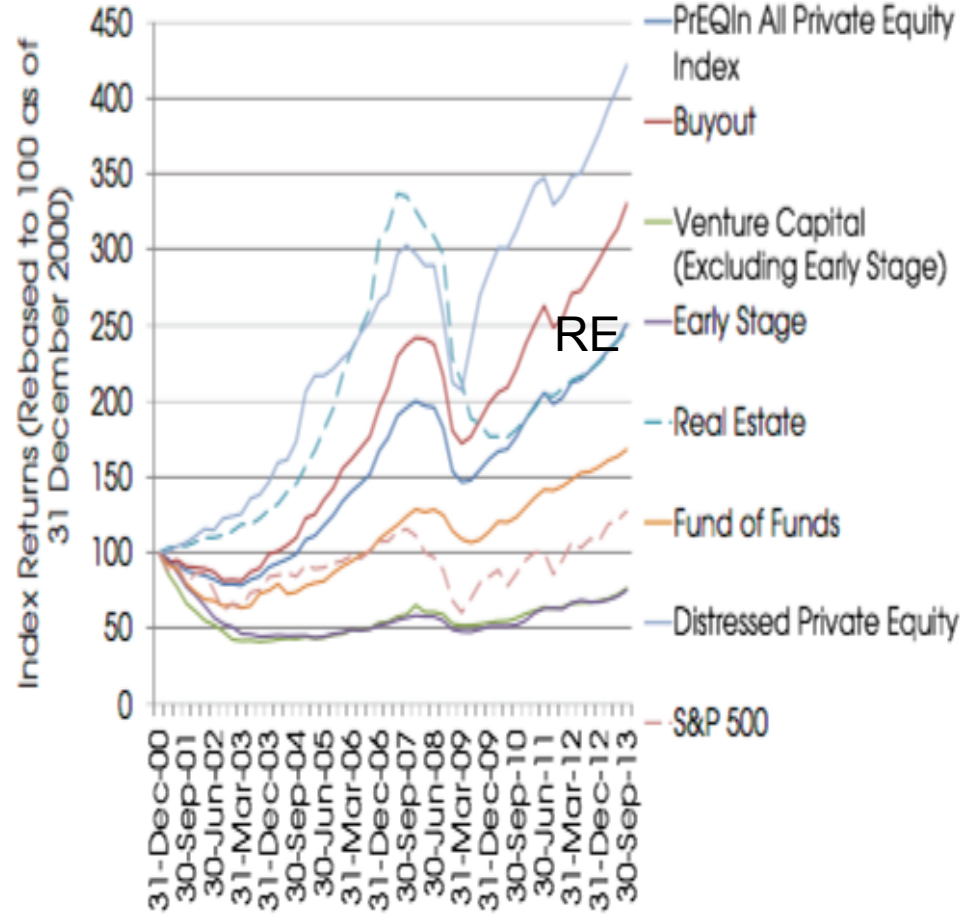
To state the obvious, real estate investments are part of a diversified alternatives strategy

Alternative Assets Horizon IRRs



Source: Preqin Performance Analyst

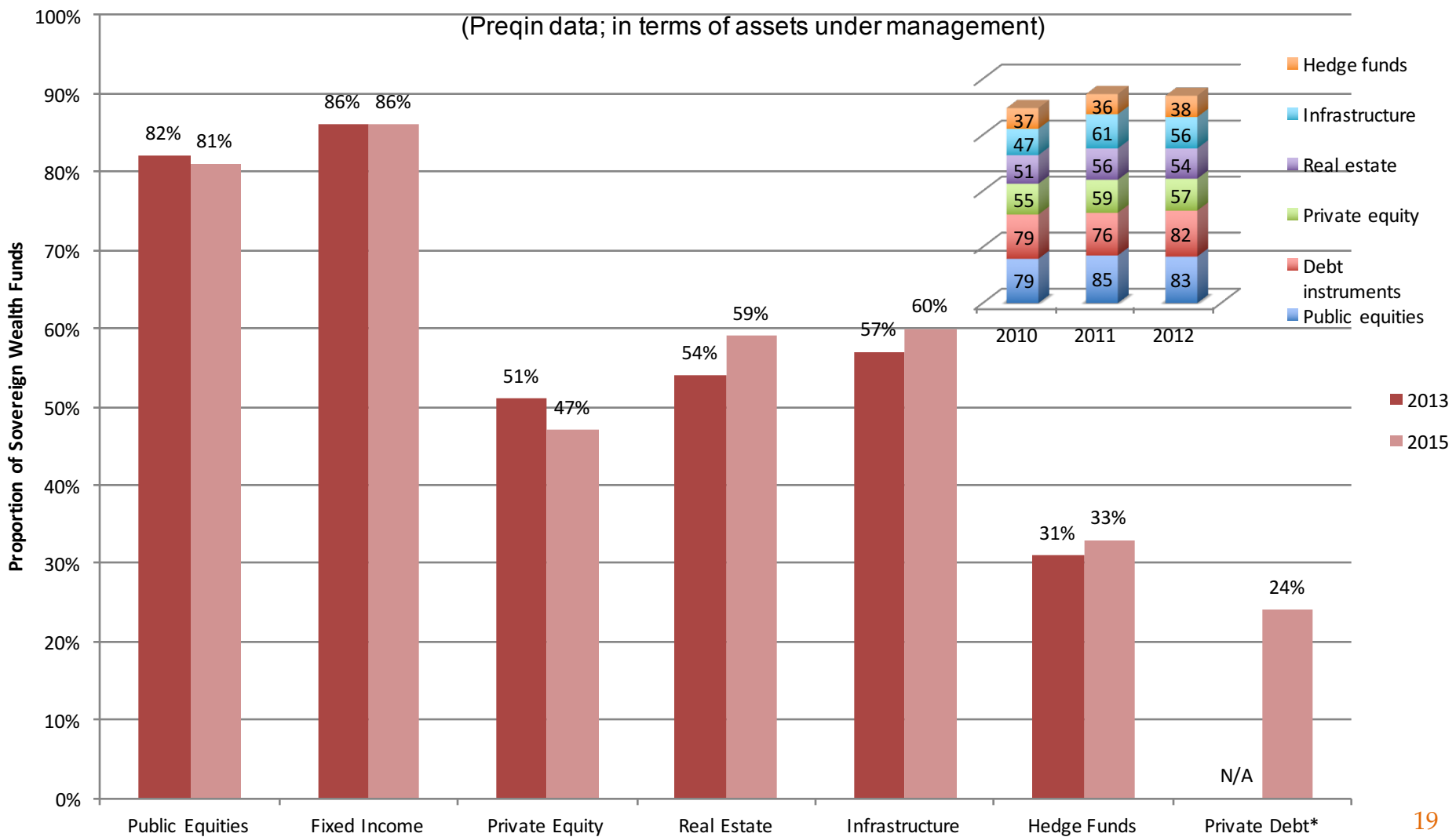
Quarterly Index by Fund Type



Source: Preqin Performance Analyst

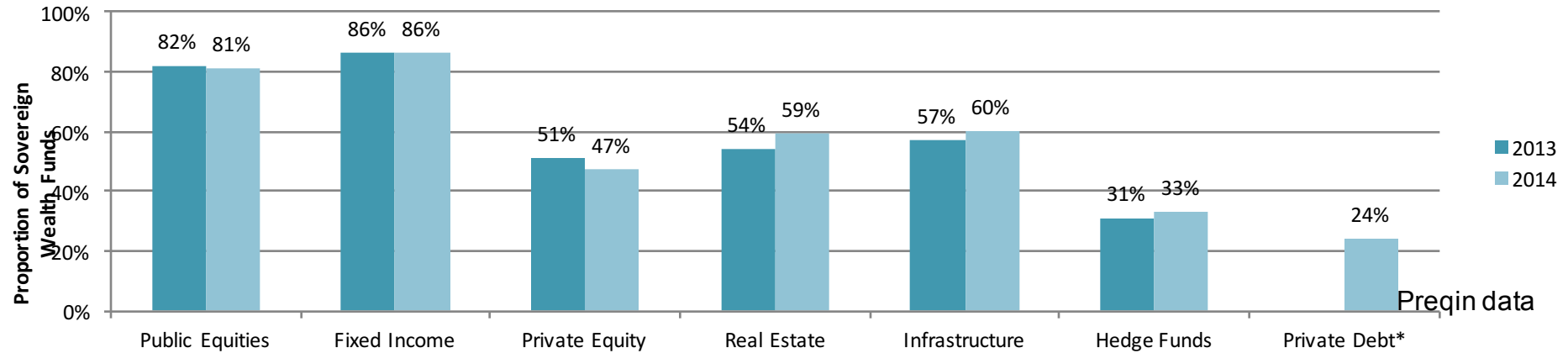
4. The proportion of SWFs investing in each asset class has broadly risen since 2010

Real estate has risen from 51% TO 59%; infrastructure increased from 47% to 60%; fixed income increased from 79% to 86%; private equity and hedge fund investment declined

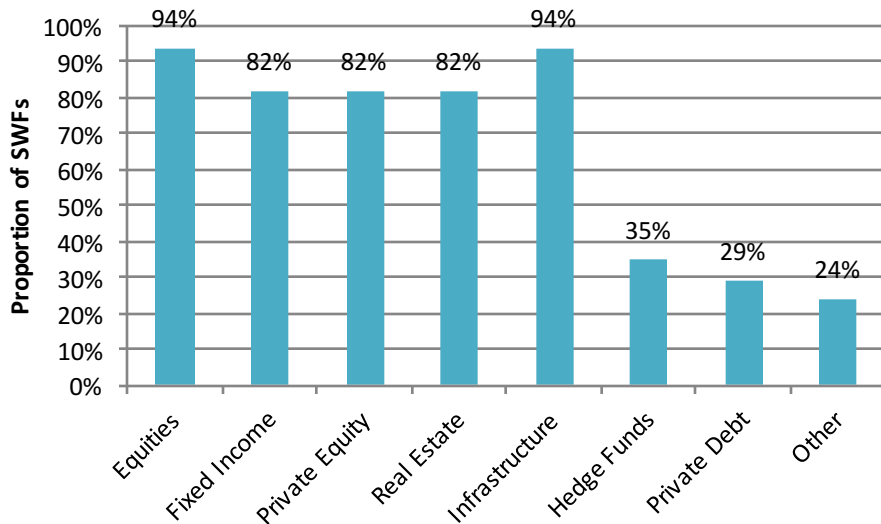


4. Proportion of SWFs investing in each asset class by geographic region

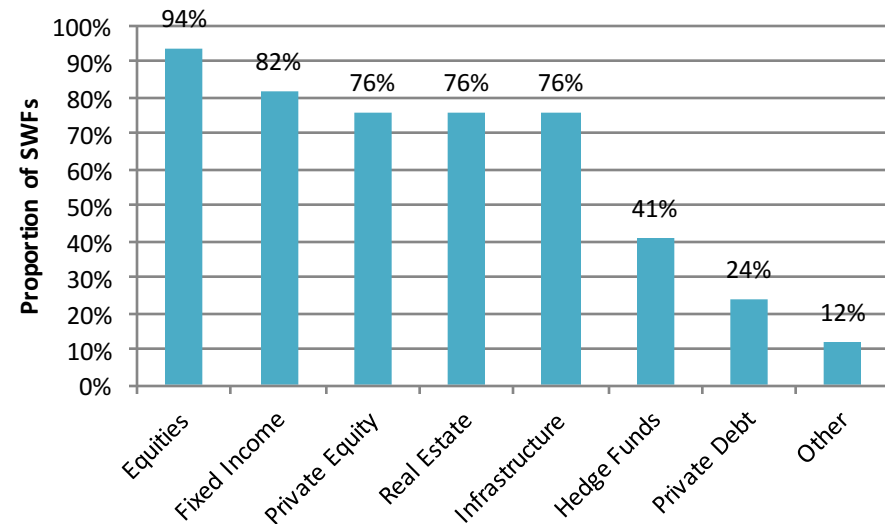
The larger SWFs in **Asia and Middle East** tend to have a higher appetite for real estate and infrastructure, with their longer time horizon and larger capacity (for asset diversification and alternatives)



Middle Eastern SWFs



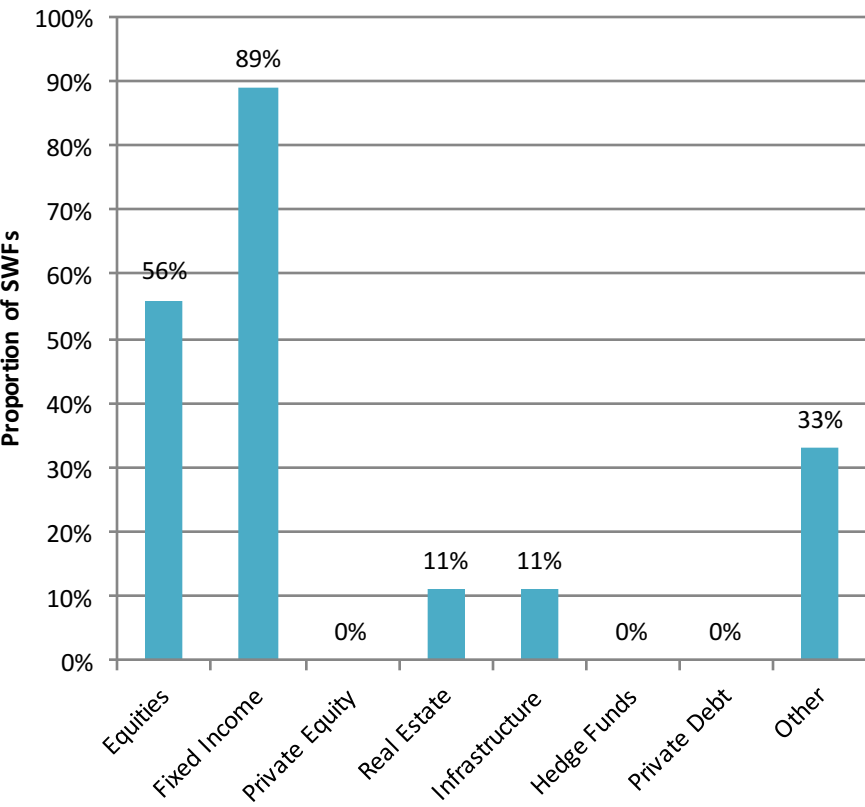
Asian SWFs



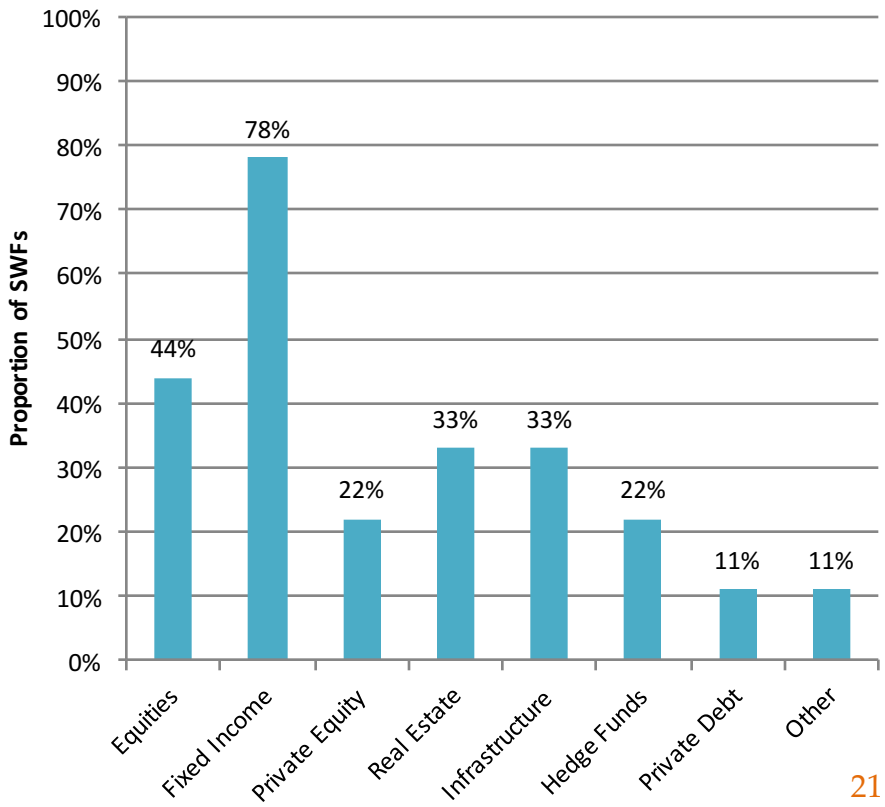
4. Proportion of SWFs investing in each asset class by geographic region

The small SWFs in **Africa and Latin America** tend to have a lower appetite for real estate and infrastructure, with shorter time horizon and lower capacity for asset diversification and alternatives

Latin American and Caribbean Sovereign Wealth Funds I



African Sovereign Wealth Funds Investing in Each Asset Class

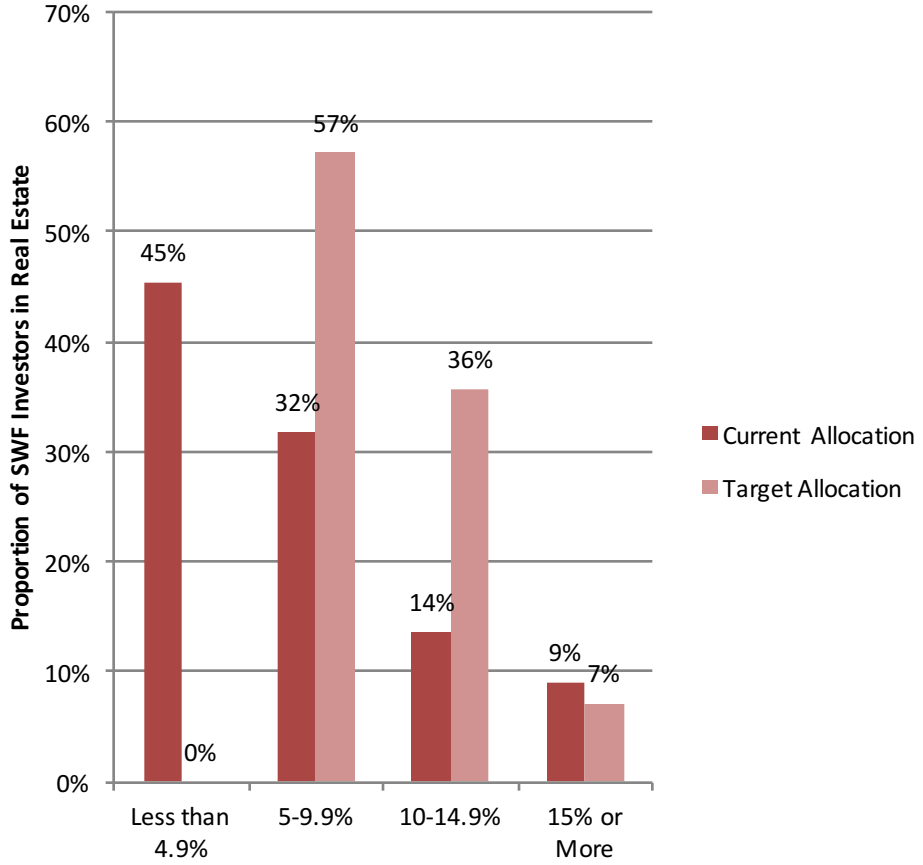


4. Size affects SWF appetite for real estate investment; target allocation to real estate ranges between 10-15%

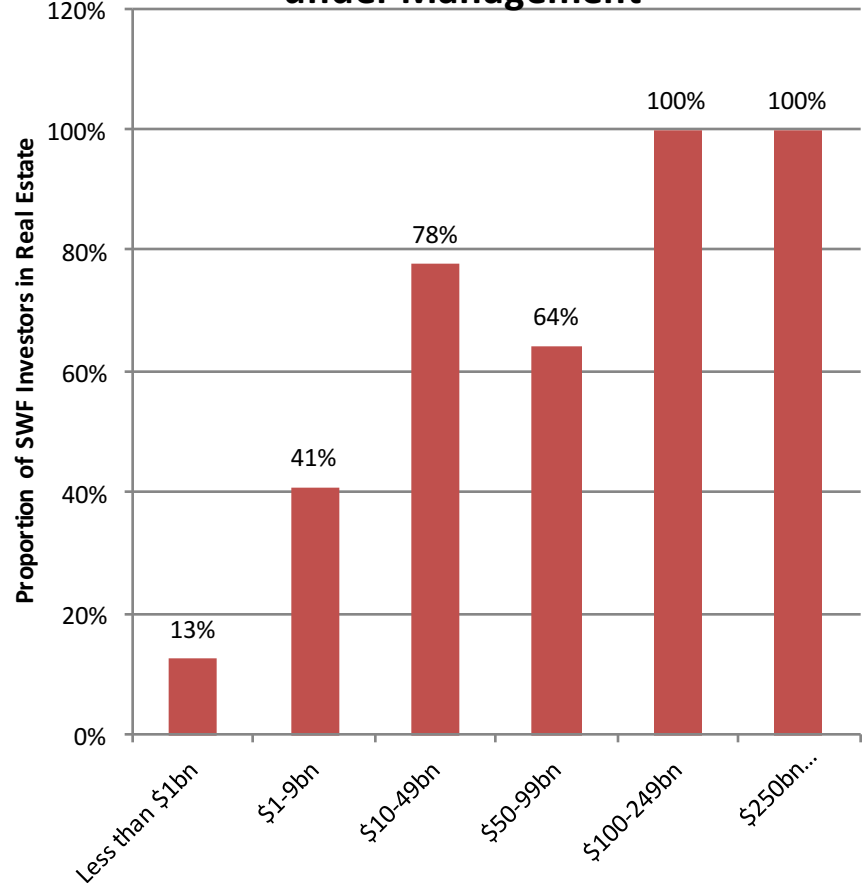
*Larger SWFs have greater likelihood of investing in real estate

*Target RE allocation ranges between 10-15% of AUM

Breakdown of Sovereign Wealth Funds' Current and Target Allocations to Real Estate by Proportion of Total Assets



Proportion of Sovereign Wealth Funds Investing in Real Estate by Total Assets under Management

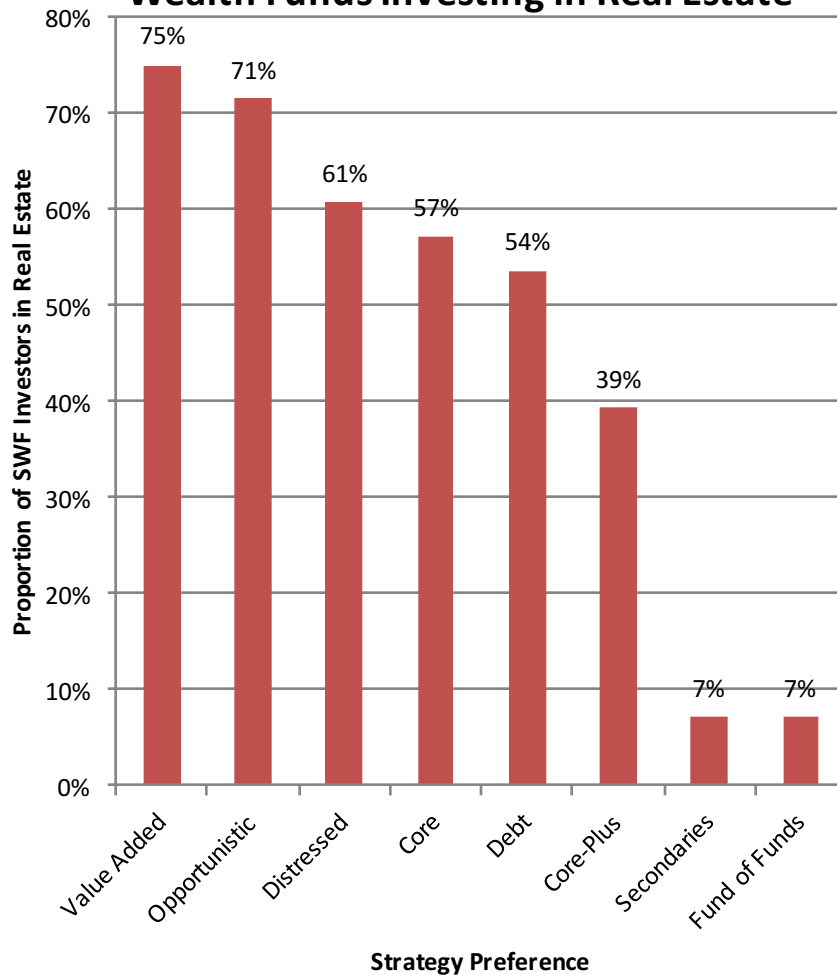


Prequin data

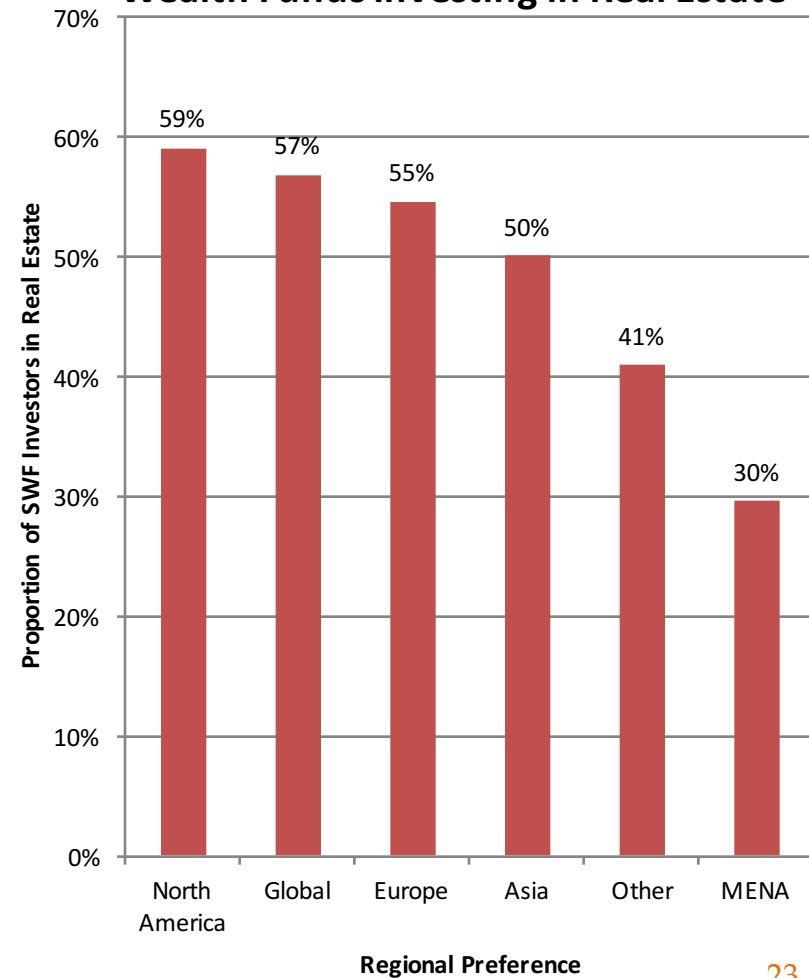
4. SWFs have broad RE strategy and geographic region preferences

- SWF's do not favor core-plus, secondaries and fund of funds
- geographic focus on N. America, Europe and Asia

Strategy Preferences of Sovereign Wealth Funds Investing in Real Estate



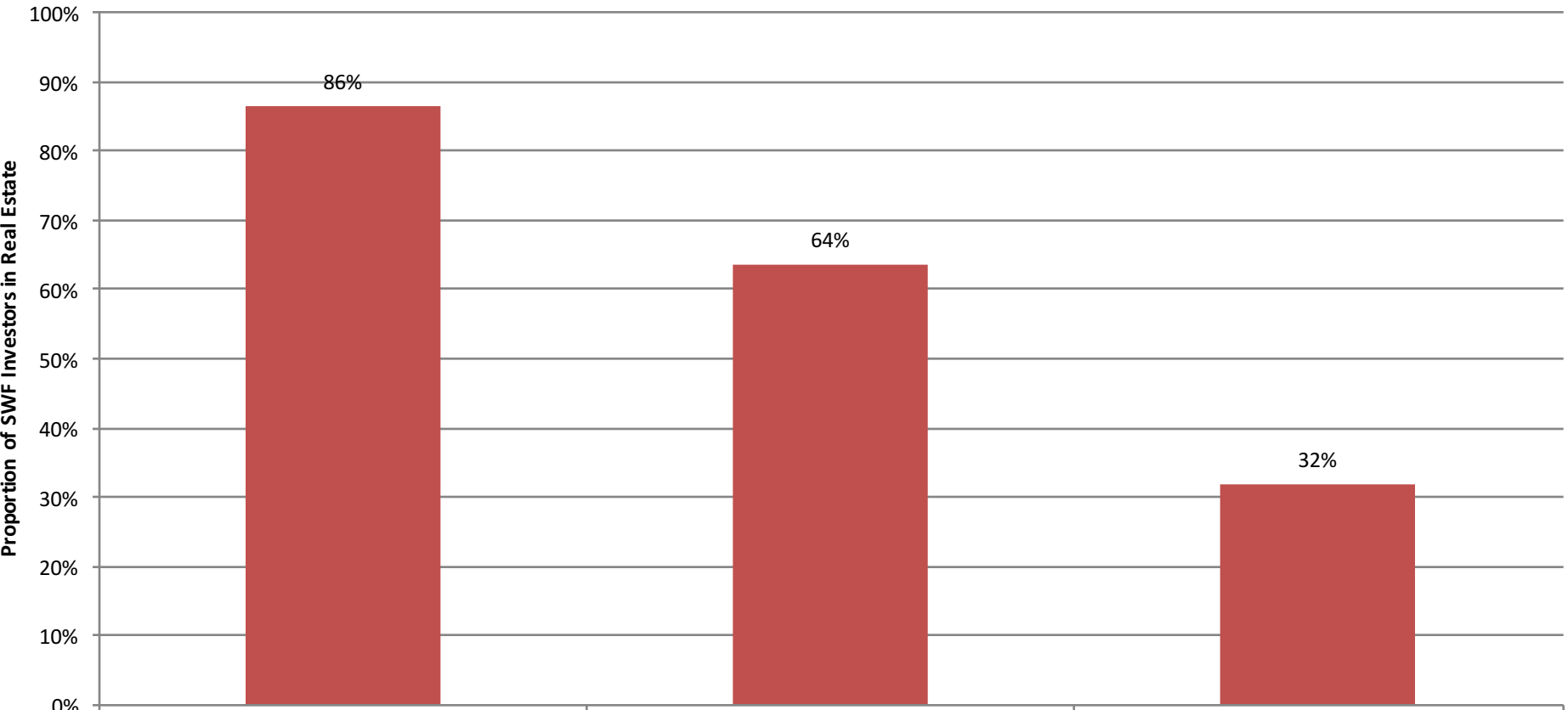
Regional Preferences of Sovereign Wealth Funds Investing in Real Estate



4. SWFs favor investing in real estate directly or through private funds

- These preferences can be seen by looking at SWF-specific real estate transactions
- Large funds with long time horizons and sufficient in-house capacity maintain direct investment programs

Proportion of Sovereign Wealth Funds Investing Directly in Real Estate, in Private Real Estate and in Listed Real Estate



4. Notable SWF investors in real estate are the large SWFs from Asia and the Middle East

This Prequin data shows broad SWF interest in direct, private and listed funds.

	Investor	Assets Under Management (US\$ billions)	Location	Route(s) to Market
Government Pension Fund Global	Norway	817,957	Global	Direct
Abu Dhabi Investment Authority	United Arab Emirates	773,000	Global	Direct, Listed, Private Real Estate Funds
China Investment Corporation	China	650,000	Global	Direct, Listed, Private Real Estate Funds
State Administration of Foreign Exchange	China	567,900	Global	Direct, Private Real Estate Funds
Kuwait Investment Authority	Kuwait	548,000	Global	Direct, Listed, Private Real Estate Funds
Hong Kong Monetary Authority	Hong Kong	414,661	Asia, Australasia	Direct, Private Real Estate Funds
GIC	Singapore	320,000	Global	Direct, Listed, Private Real Estate Funds
Qatar Investment Authority	Qatar	304,000	Global	Direct, Private Real Estate Funds
National Social Security Fund - China	China	247,866	Greater China	Listed

4. SWF RE investments; additional detail on years, target countries and investment type

SovereignNET recorded 129 RE transactions for these SWFs, of which 12 were through Funds and 117 were property purchases or development

Sovereign Wealth Fund and Country of Origin	Years	Number of Trans.	Target Countries	Type of Investment
Abu Dhabi Investment Authority (ADIA)	2013-14	6	1 US, 5 Asia	Primary, Secondary, Jt Venture
ADIC (UAE-Abu Dhabi)	2007-09	4	1 UK, 1 US, 1 Austr, 1Russia	2 Secondary, 2 Jt Venture
China Investment Corporation (CIC)	2010-13	4	UK, US, Australia	Secondary, Jt Venture, Primary
Government of Singapore Investment Corporation (GIC)	2006-14	28	6 EU, 6 UK, 2 US, 10 Asia, 4 Austr.	23 Secondary, 2 Jt Venture, 2 Primary, 1 Direct
KIA (Kuwait)	2013	2	US, UK	2 Secondary
Norway Government Pension Fund	2011-14	24	10 US, 9 EU, 5 UK, 1 Japan	22 Secondaries, 1 Direct , 1 Jt Venture
UAE Isthithmar (Dubai)	2006-13	13	4 US, 2 UK, 5 Africa, 1 Asia, 1 UAE	7 Secondary; 4 Jt Venture, 2 Primary
Khazanah (Malaysia)	2011-13	7	3 Singapore, 4 Malaysia	4 Direct, 2 Jt Venture, 1 Primary
Mubadala (UAE)	2007-11	6	3 Malaysia, 2 UAE, 1 Maldives	6 Direct
Qatar Investment Authority (QIA)	2008-14	22	4 EU, 1 US, 3 UK, 5 ME, 5 Africa, 5 Asia	22 Direct
Temasek (Singapore)	2010-14	13	13 Asia	5 Jt Venture, 3 Primary, 5 Direct

Secondary is purchase of property from an existing owner; direct is development project; primary is through a fund

5. Impact of the Current Economic Conditions: Energy and China

IMF: World Economic Outlook, October 2015

- **Activity in emerging market economies is projected to slow** for the fifth year in a row
- In an environment of declining commodity prices, reduced capital flows to emerging markets and pressure on their currencies, and increasing financial market volatility, **downside risks to the outlook have risen**
- The weak commodity price outlook is estimated to **subtract over percentage points annually from the average rate of economic growth in energy exporters** over 2015–17
- In China, banks have only recently begun to address the growing asset quality challenges associated with **rising weaknesses in key areas of the corporate sector**.
- **Pressures on sovereign ratings could intensify if contingent liabilities of state-owned enterprises** have to be assumed by the sovereign, for example, from firms in the energy sector

Bottom Line

- ❖ Continued low energy prices and weakening financial conditions would increase pressure on energy-exporting countries to reduce transfers to SWFs or, in some cases, use SWF resources for inward budgetary financing.
- ❖ Energy-importing EM countries may also face financial pressures that could, to the smaller extent, affect the extent of their SWF investments

5. How long will financial buffers last in the face of low oil prices? Not forever.....

--Oil price decline will turn the large surplus in current account of oil exporters into deficit in 2015 (from \$330 bil in 2014 into zero to -\$10 bil)

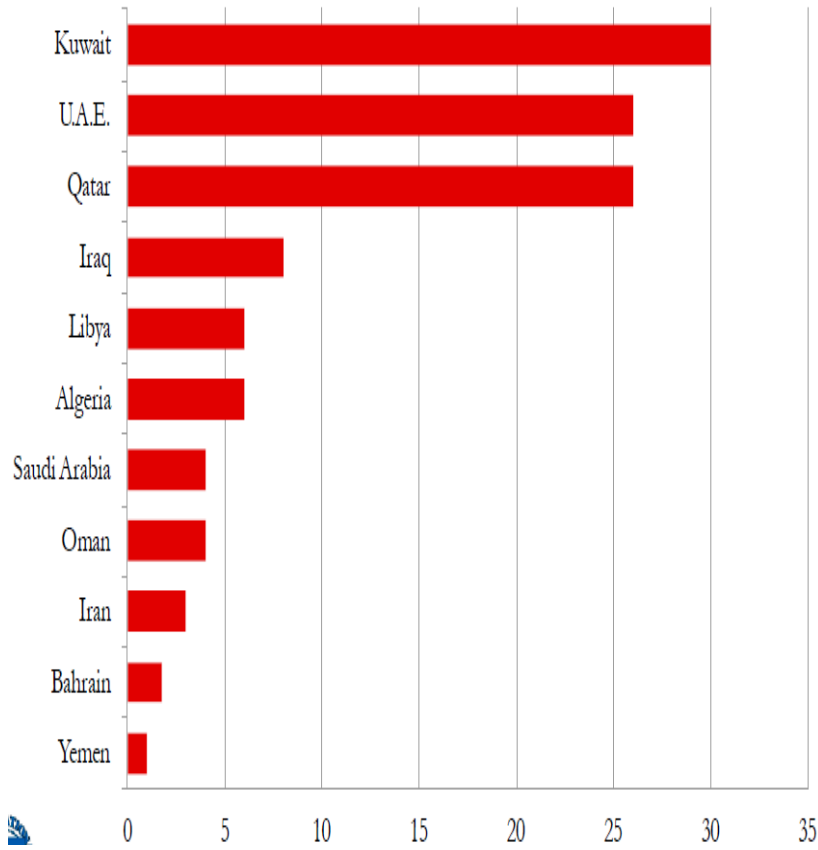
-- GCC's longstanding CA surplus expected to decline sharply: from \$272 bil to \$40 bil In 2015.

-- Fiscal balances are also severely affected. For oil exporters in MNA region, overall fiscal surplus of 5% of GDP in 2013 expected to turn into -8.5% deficit.

-- GCC's combined budget surplus of \$76 bil in 2014 is to turn into deficit of \$113 bil in 2015.

- How many years international reserves will last if oil prices remain low?

Number of Years Financial Reserves Will Last



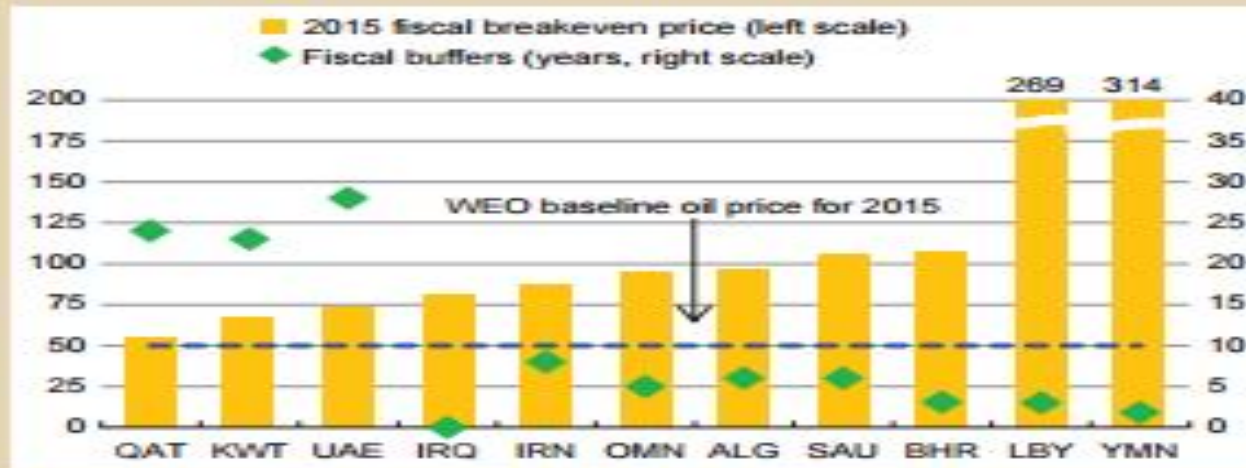
5. Low oil prices will require offsetting measures by oil exporters

Adjustment to low oil prices can come from:

- Lower fiscal expenditure
- Lower international reserve
- Domestic financing from the SWF

Fiscal Buffers and Breakeven Oil Prices, 2015

(Years and U.S. dollars per barrel)



Sources: National authorities; and IMF staff calculations.

Note: Years of buffers are calculated with the assumption of no extra debt buildup (that is only running down assets). Country abbreviations are International Organization for Standardization (ISO) country codes.

Fiscal Break-Even Prices for Major Oil Exporters (U.S. dollars/barrel)

Country	Break-even prices	Country	Break-even prices	Country	Break-even prices
Algeria	\$111.10	Libya	\$215.00	Saudi Arabia	\$103.00
Iran	\$92.50	Nigeria	\$87.90	U.A.E.	\$73.10
Iraq	\$70.90	Qatar	\$59.10	Venezuela	\$89.00
Kuwait	\$47.10	Russia	\$78.00		

Source: International Monetary Fund and Deutsche Bank.

5. The fiscal “breakeven” oil prices (for balancing budgets) have risen sharply

Though there are widely differing estimates of the breakeven oil price and little understanding of the expected government policy reaction

Fiscal Breakeven Brent Oil Prices

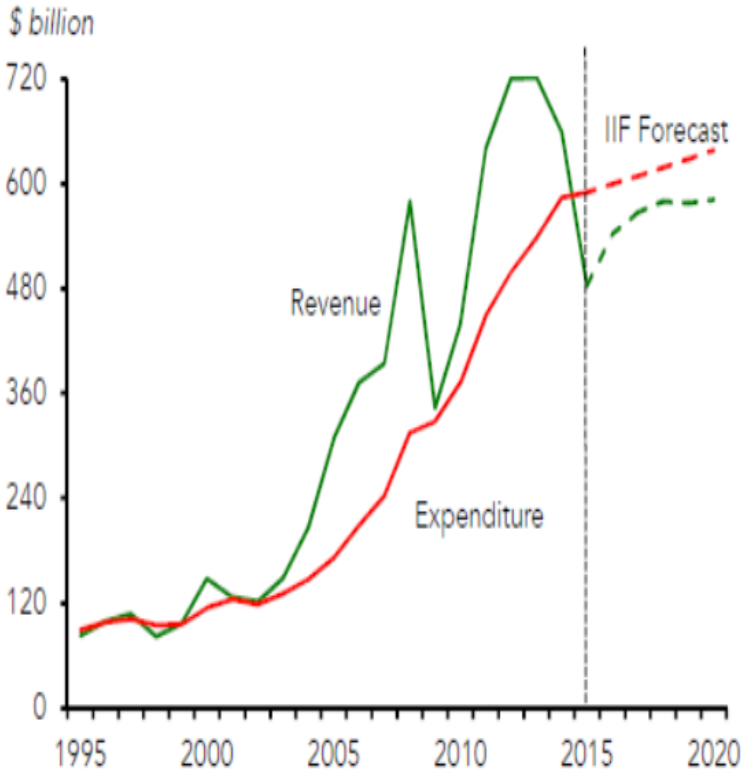
Brent, \$ per barrel

	2009	2010	2011	2012	2013	2014	2015
Kuwait	29.4	31.6	36.4	45.5	51.6	56.4	62.8
Qatar	29.4	44.6	43.8	44.9	54.2	58.5	65.3
UAE	66.2	69.5	65.9	63.7	68.2	74.5	78.2
Saudi Arabia	65.2	66.8	83.4	77.7	92.8	98.9	104.6
Oman	65.8	71.4	92.7	97.2	103.8	107.5	113.2
Bahrain	82.9	101.3	112.3	121.4	119.4	126.4	130.2
Libya	43.6	62.5	160.3	87.9	110.5	185.6	165.0
Iraq	78.3	97.6	102.5	103.4	117.2	108.3	97.7
Algeria	81.3	83.6	108.4	124.2	109.2	128.5	132.6
Iran	66.8	73.5	85.7	120.4	128.3	136.3	137.2

Source: IIF.

- ...at low oil prices, even GCC countries are expected to run budget deficits (-7.9% according to IMF)....

GCC: Consolidated Fiscal Accounts



Source: National Sources, IIF.

5. Continued low oil prices will cause a number of countries to exhaust their “fiscal buffers” without offsetting measures

- **The low price environment is likely to test the relationship between governments in oil-exporting countries and their sovereign wealth funds.**
- Absent cuts in public expenditures, governments will likely be transferring less revenue than before to these funds. At the same time, **pressures to draw down on sovereign wealth funds’ assets will probably rise.**
- Among Middle East oil exporters, only the United Arab Emirates, Qatar, and Kuwait’s fiscal buffers will last for over 25 years on current fiscal plans and oil price projections, according to our estimates.
- **Bahrain and Yemen will exhaust them in the next two years, while most other countries will run out of buffers in four to seven years.**
- This year, **Saudi Arabia has already drawn \$80 billion from its international reserves, including the sovereign fund.**
- **Russia's cushion is thinner still.** At the current rate, its Reserve Fund and National Welfare Fund may be gone by 2018, first deputy finance minister Tatyana Nesterenko said this month.

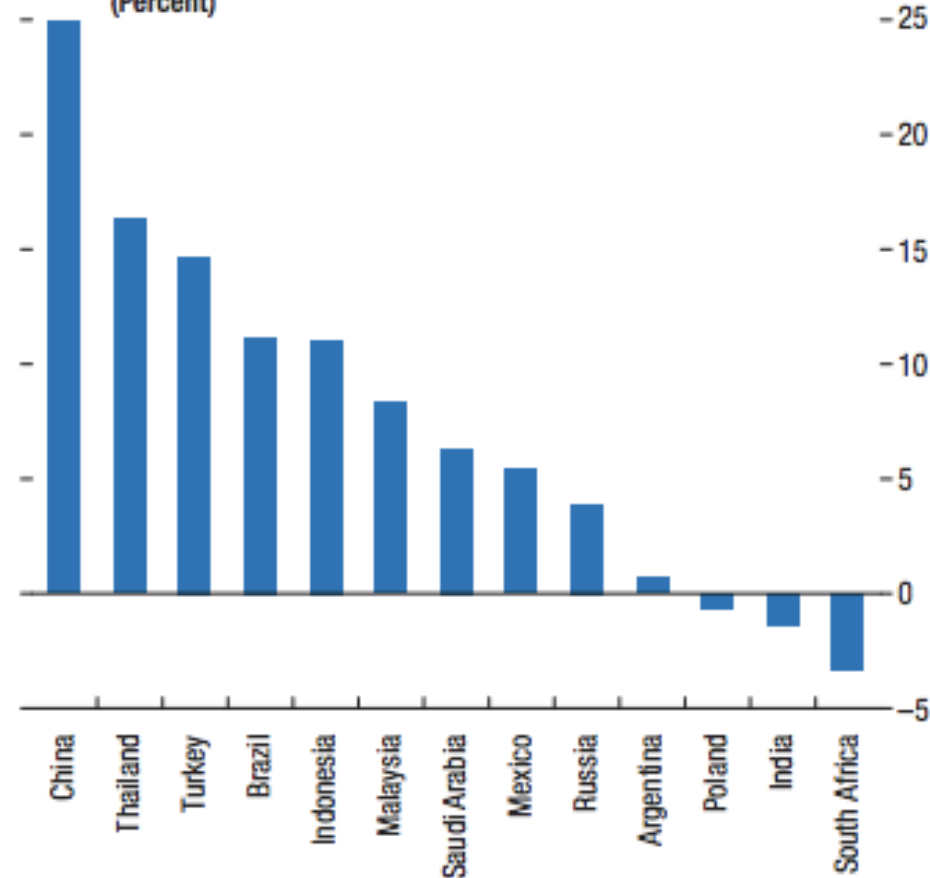
5. Economic and financial weakening in China

- The slowdown in the **Chinese economy** is a factor **affecting commodity prices**
- China's move from export-led to consumption-led economy, if not handled well, is a process that could **lead to further moderation of economic growth, depreciation of the renminbi and destabilize markets further**

2. Corporate Debt to EBITDA
(Times)



2. Credit Gap: Deviation of Credit-to-GDP Ratio from Trend,
as of End-2014
(Percent)



Sources: Standard & Poor's Capital IQ; and IMF staff calculations.

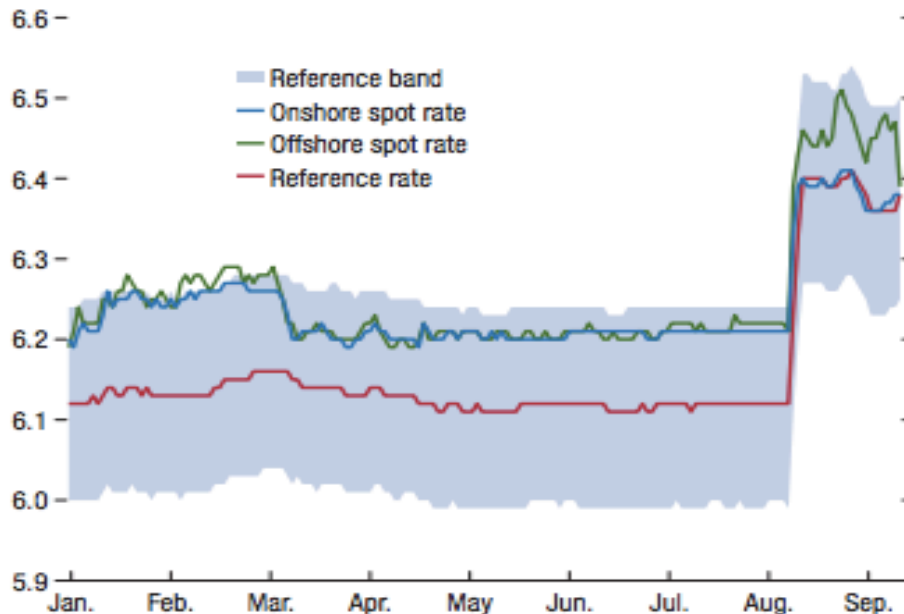
Note: EBITDA = earnings before interest, taxes, depreciation, and amortization.

5. The impact of Chinese exchange rate depreciation on other EM countries has been sizable

- The depreciation of the renminbi affects other countries' exchange rates leaving US currency even more appreciated than when just looking at dollar/ EU rate—that is, weighted average exchange rate is even more appreciated.
- The appreciation of the U.S. dollar, in and of itself, contributes to the decline in the US\$ price of oil.

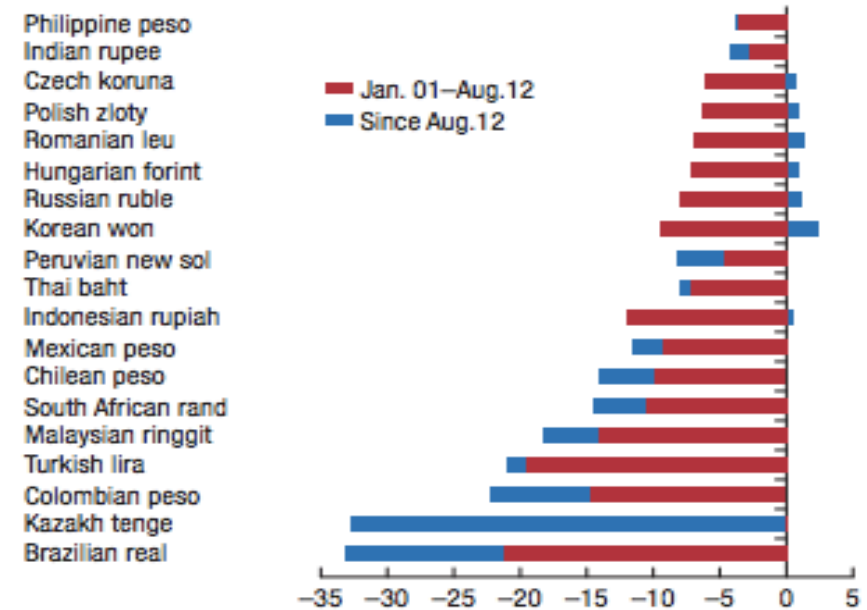
Figure 1.14. Chinese Exchange Rate Movements and Effect on Emerging Market Currencies

1. Chinese Renminbi Onshore and Offshore Spot Rates, 2015 (Per U.S. dollar)



Sources: Bloomberg, L.P.; and IMF staff calculations.

2. Emerging Market Currencies Affected by the Renminbi Move, 2015 (Percent change versus the U.S. dollar)



Sources: Bloomberg, L.P.; and IMF staff calculations.

Concluding Thoughts

1. This was a pessimistic ending to a story that is basically optimistic; SWFs are increasingly looked to for meeting national and global policy needs
2. SWFs are more important than their size: they are growing quickly; heterogeneous—able to meet many differing purposes internal and external; they are long-term investors to meet countries' long-term needs
3. SWFs are likely to continue to grow, but at a slower pace; the list of countries with SWFs will also grow, with countries such as Bolivia, Japan, Taiwan, Thailand, UK and Israel added to the list.
4. SWFs are ideally placed to invest in real estate with their international investment mandates and long-term horizons. Larger SWFs with inter-generational (savings) mandates (ie. ADIA, Qatar, GIC, Alaska) are ideally suited for real estate investments.

Appendix

Country	Sovereign Wealth Fund Name	Assets USD-Bil	Inception	Origin	<i>Linaburg-Maduell Transparency Index</i>
Norway	Government Pension Fund – Global	824.9	1990	Oil	10
UAE – Abu Dhabi	Abu Dhabi Investment Authority	773	1976	Oil	6
China	China Investment Corporation	746.7	2007	Non-Commodity	8
Saudi Arabia	SAMA Foreign Holdings	668.6	n/a	Oil	4
Kuwait	Kuwait Investment Authority	592	1953	Oil	6
China	SAFE Investment Company	547**	1997	Non-Commodity	4
China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	417.9	1993	Non-Commodity	8
Singapore	Government of Singapore Investment Corporation	344	1981	Non-Commodity	6
Qatar	Qatar Investment Authority	256	2005	Oil & Gas	5

China	National Social Security Fund	236	2000	Non-Commodity	5
Singapore	Temasek Holdings	193.6	1974	Non-Commodity	10
UAE – Dubai	Investment Corporation of Dubai	183	2006	Non-Commodity	5
UAE – Abu Dhabi	Abu Dhabi Investment Council	110	2007	Oil	n/a
Australia	Australian Future Fund	95	2006	Non-Commodity	10
Kazakhstan	Samruk-Kazyna JSC	85.1	2008	Non-Commodity	n/a
South Korea	Korea Investment Corporation	84.7	2005	Non-Commodity	9
Kazakhstan	Kazakhstan National Fund	77	2000	Oil	2
Russia	National Welfare Fund	73.5	2008	Oil	5
UAE – Abu Dhabi	International Petroleum Investment Company	66.3	1984	Oil	9
UAE – Abu Dhabi	Mubadala Development Company	66.3	2002	Oil	10
Libya	Libyan Investment Authority	66	2006	Oil	1
Russia	Reserve Fund	65.7	2008	Oil	5
Iran	National Development Fund of Iran	62	2011	Oil & Gas	5
US – Alaska	Alaska Permanent Fund	53.9	1976	Oil	10

Algeria	Revenue Regulation Fund	50	2000	Oil & Gas	1
Malaysia	Khazanah Nasional	41.6	1993	Non-Commodity	9
Brunei	Brunei Investment Agency	40	1983	Oil	1
US – Texas	Texas Permanent School Fund	37.7	1854	Oil & Other	9
Azerbaijan	State Oil Fund	37.3	1999	Oil	10
France	Strategic Investment Fund	25.5	2008	Non-Commodity	9
Ireland	Ireland Strategic Investment Fund	23.5	2001	Non-Commodity	10
New Zealand	New Zealand Superannuation Fund	20.2	2003	Non-Commodity	10
US – New Mexico	New Mexico State Investment Council	19.8	1958	Oil & Gas	9
Canada	Alberta's Heritage Fund	17.5	1976	Oil	9
US – Texas	Permanent University Fund	17.2	1876	Oil & Gas	n/a
East Timor	Timor-Leste Petroleum Fund	16.9	2005	Oil & Gas	8
Chile	Social and Economic Stabilization Fund	15.2	2007	Copper	10
UAE – Federal	Emirates Investment Authority	15	2007	Oil	3

Russia	Russian Direct Investment Fund	13	2011	Non-Commodity	n/a
Oman	State General Reserve Fund	13	1980	Oil & Gas	4
Bahrain	Mumtalakat Holding Company	11.1	2006	Non-Commodity	10
Peru	Fiscal Stabilization Fund	9.2	1999	Non-Commodity	n/a
Chile	Pension Reserve Fund	7.9	2006	Copper	10
Mexico	Oil Revenues Stabilization Fund of Mexico	6.0	2000	Oil	4
Oman	Oman Investment Fund	6.0	2006	Oil	4
Italy	Italian Strategic Fund	6.0	2011	Non-Commodity	n/a
Botswana	Pula Fund	5.7	1994	Diamonds & Minerals	6
US – Wyoming	Permanent Wyoming Mineral Trust Fund	5.6	1974	Minerals	9
Trinidad & Tobago	Heritage and Stabilization Fund	5.5	2000	Oil	8
Brazil	Sovereign Fund of Brazil	5.3	2008	Non-Commodity	9
Saudi Arabia	Public Investment Fund	5.3	2008	Oil	4
China	China-Africa Development Fund	5.0	2007	Non-Commodity	5
Angola	Fundo Soberano de Angola	5.0	2012	Oil	8

US – North Dakota	North Dakota Legacy Fund	3.2	2011	Oil & Gas	n/a
US – Alabama	Alabama Trust Fund	2.5	1985	Oil & Gas	9
Kazakhstan	National Investment Corporation	2	2012	Oil	n/a
Nigeria – Bayelsa	Bayelsa Development and Investment Corporation	1.5	2012	Non-Commodity	N/A
Nigeria	Nigerian Sovereign Investment Authority	1.4	2012	Oil	9
US – Louisiana	Louisiana Education Quality Trust Fund	1.3	1986	Oil & Gas	n/a
Panama	Fondo de Ahorro de Panamá	1.2	2012	Non-Commodity	n/a
UAE – Ras Al Khaimah	RAK Investment Authority	1.2	2005	Oil	3
Bolivia	FINPRO	1.2	2012	Non-Commodity	n/a
Senegal	Senegal FONSI	1	2012	Non-Commodity	n/a
Iraq	Development Fund for Iraq	0.9	2003	Oil	n/a
Palestine	Palestine Investment Fund	0.8	2003	Non-Commodity	n/a

Venezuela	FEM	0.8	1998	Oil	1
Kiribati	Revenue Equalization Reserve Fund	0.6	1956	Phosphates	1
Vietnam	State Capital Investment Corporation	0.5	2006	Non-Commodity	4
Gabon	Gabon Sovereign Wealth Fund	0.4	1998	Oil	n/a
Ghana	Ghana Petroleum Funds	0.45	2011	Oil	n/a
Indonesia	Government Investment Unit	0.3	2006	Non-Commodity	n/a
Mauritania	National Fund for Hydrocarbon Reserves	0.3	2006	Oil & Gas	1
Australia	Western Australian Future Fund	0.3	2012	Minerals	n/a
Mongolia	Fiscal Stability Fund	0.3	2011	Minerals	n/a
Equatorial Guinea	Fund for Future Generations	0.08	2002	Oil	n/a
Papua New Guinea	Papua New Guinea Sovereign Wealth Fund	n/a	2011	Gas	n/a
Turkmenistan	Turkmenistan Stabilization Fund	n/a	2008	Oil & Gas	n/a
US – West Virginia	West Virginia Future Fund	n/a	2014	Oil & Gas	n/a

Mexico	Fondo Mexicano del Petroleo	n/a	2014	Oil & Gas	n/a
	Total Oil & Gas Related	\$4,057.7			
	Total Other	\$3,135.5			
	TOTAL	\$7,193.2			

**This number is a best guess estimation.

Source: Sovereign Wealth Fund Institute

***All figures quoted are from official sources, or, where the institutions concerned do not issue statistics of their assets, from other publicly available sources. Some of these figures are best estimates as market values change day to day. Total figures are rounded to the nearest tenth.

Updated December 2015