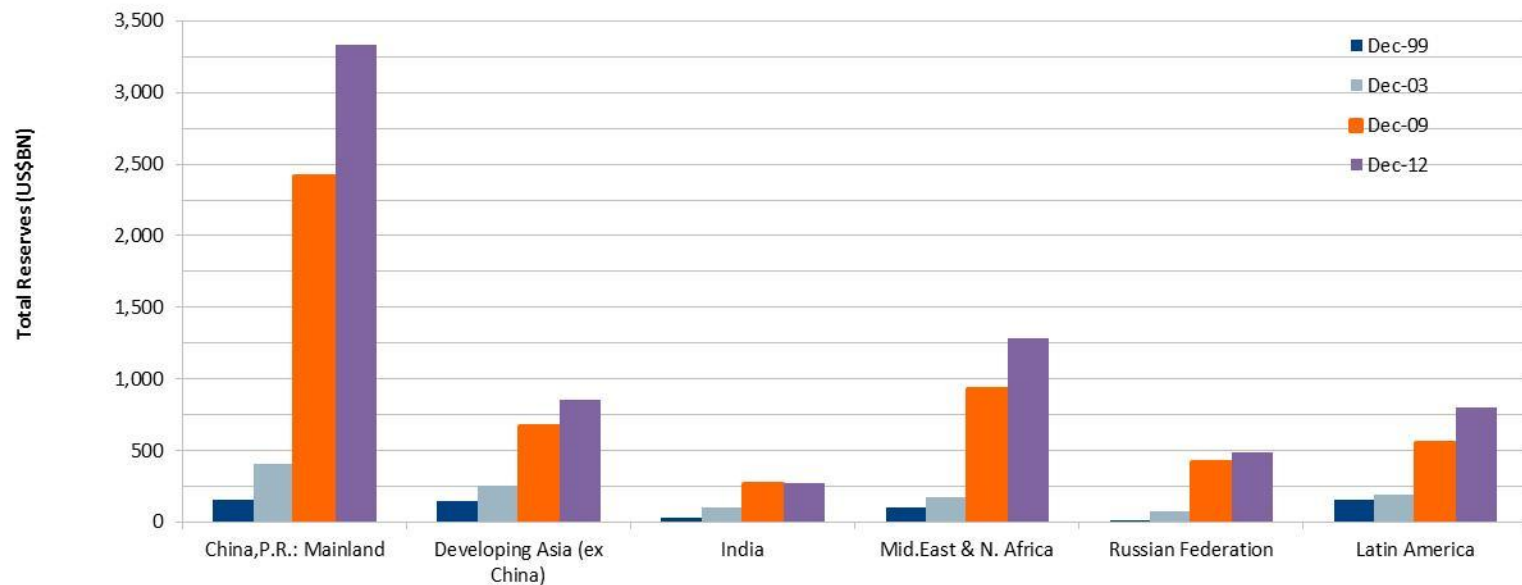


Trends and challenges in sovereign investment: the SWF discount

Bernardo Bortolotti
Sovereign Investment Lab, Università Bocconi

SWF macroeconomic drivers: FX reserves (US\$bn)

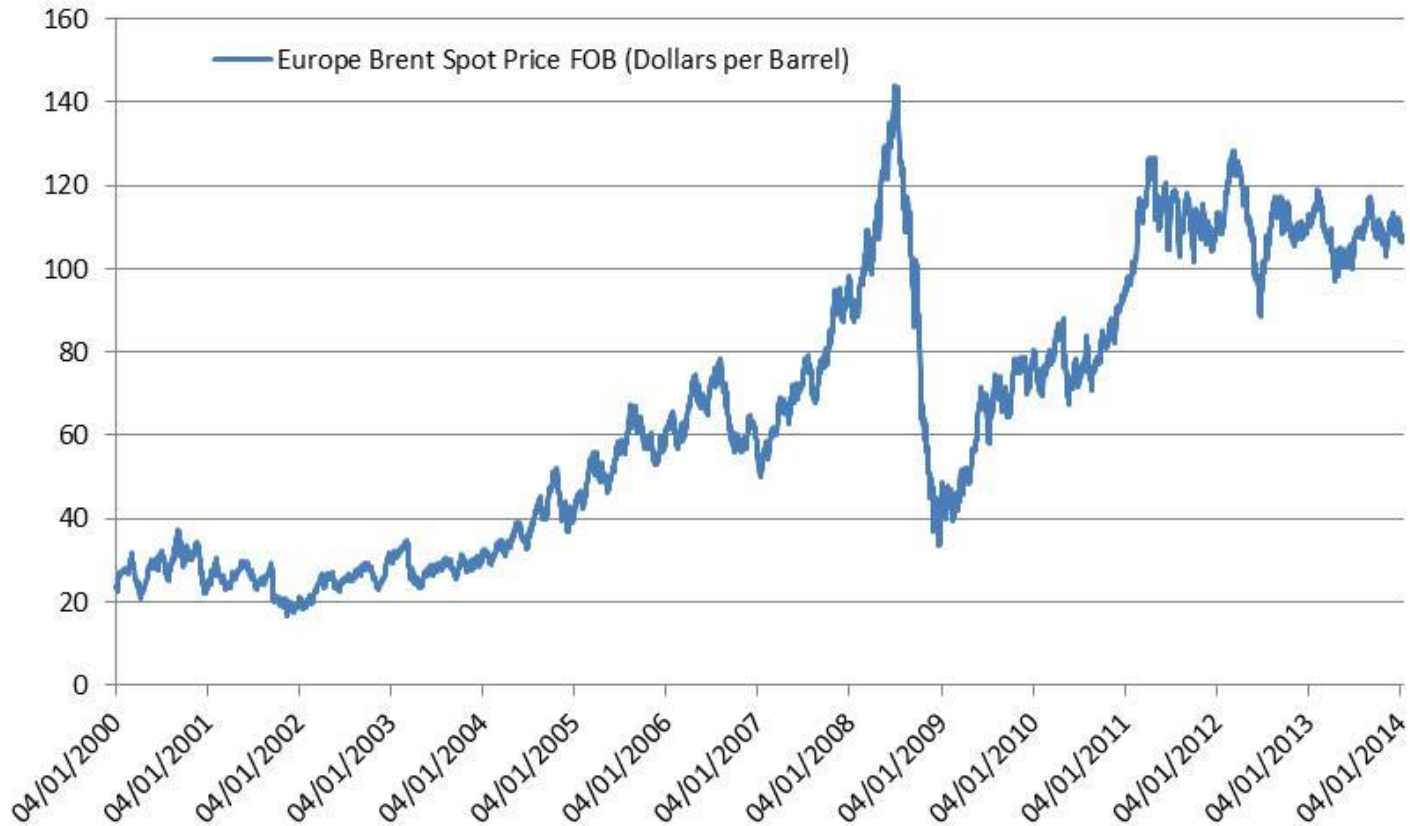


Source: IMF International Financial Statistics (IFS), 2013/3

- World FX reserves (as of 2012): US\$11,5trn; **EM US\$7,4trn (65%)**
- Spectacular growth: FX increased **6X** since 1999, primarily in China and MENA



SWF macroeconomic drivers: oil prices

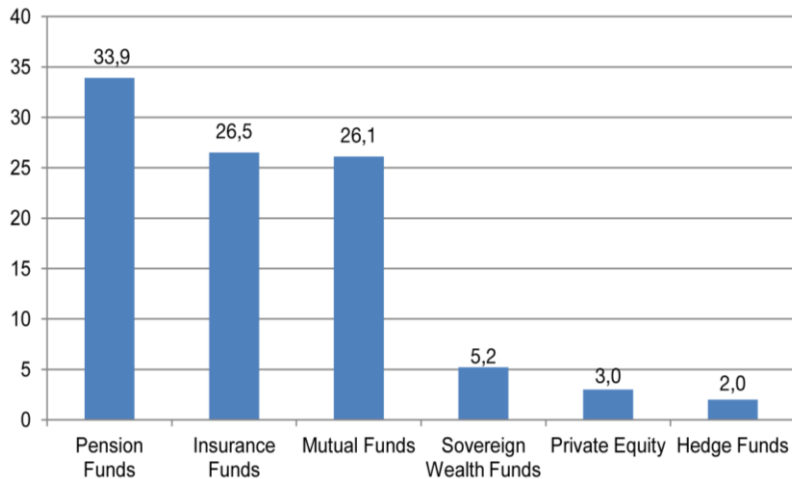


Source: Thomson Reuters



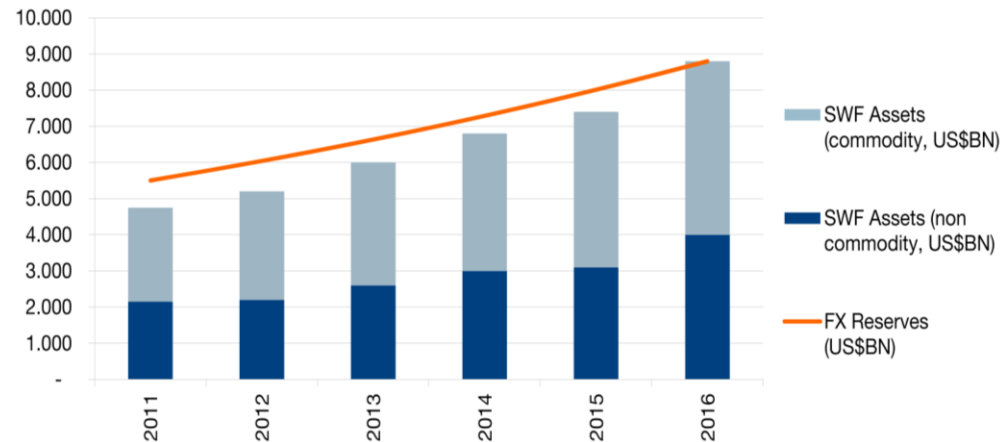
SWFs are here to stay...

Global AUM (US\$trn, 2012)



Source: CityUk

SWF's Assets Forecast (US\$ml, 2012)



Source: Castelli and Scacciavillani, 2012

- Fastest growing class of asset owners since 2010 (24%)
- Projected to exceed the \$8trn mark in 2016 by internal growth and transfers from current account surpluses



The sovereign investment landscape

Official Reserves/ Central Bank <ul style="list-style-type: none"> External assets for directly financing international payment imbalances Highly liquid, often OECD government bonds 	Stabilization Funds <ul style="list-style-type: none"> Funds to insulate budget and economy from excess volatility, inflation, Dutch disease, & other macro-economic threats Low-risk, liquid assets: cash government bonds 	Pension Funds <ul style="list-style-type: none"> Investment vehicles to meet government's future pension obligations Funded and denominated in local currency Explicit liabilities 	Sovereign Wealth Funds <ul style="list-style-type: none"> Sovereign owned Independent Limited explicit liabilities Investing for commercial return Significant investment abroad 	Domestic Development Funds <ul style="list-style-type: none"> Owned by national or sub-national governments Focus on domestic investment Private equity style 	State Owned Enterprises <ul style="list-style-type: none"> Companies in which the state has significant control May make investments in foreign assets
<p>EXAMPLES</p> <ul style="list-style-type: none"> State Administration of Foreign Exchange (China) Saudi Arabia Monetary Agency 	<ul style="list-style-type: none"> Economic and social Stabilization Fund (Chile) Pula Fund (Botswana) Oil Stabilisation Fund (Iran) 	<ul style="list-style-type: none"> California Public Employees' Retirement System (US) National Pension Service (Korea) 	<ul style="list-style-type: none"> Abu Dhabi investment authority Government of Singapore Investment Corp. Qatar Investment Authority China Investment Corporation 	<ul style="list-style-type: none"> National Development Fund of Iran Russian Direct Investment Fund Fondo Strategico Italiano Samruk-Kazynu (Kazakhstan) 1Malaysia Development Fund 	<ul style="list-style-type: none"> CNOOC (China) Gazprom (Russia) SABIC (Saudi Arabia)

INVESTMENT RISK




Sovereign Wealth Funds AUM, 2012

Country	Fund Name	Inception Year	Source of Funds	AUM (US\$Bn)
Norway	Government Pension Fund – Global ²	1990	Commodity (Oil & Gas)	746.30
China	China Investment Corporation ⁷	1976	Trade Surplus	482.20
UAE-Abu Dhabi	Abu Dhabi Investment Authority ¹	1990	Commodity (Oil & Gas)	450.00
Kuwait	Kuwait Investment Authority ¹	2007	Commodity (Oil & Gas)	296.00
Singapore	Government of Singapore Investment Corporation ¹	1953	Trade Surplus	220.00
Russia	National Wealth Fund and Reserve Fund ⁴	2006	Commodity (Oil & Gas)	172.90
Singapore	Temasek Holdings ¹	1981	Trade Surplus	157.90
China	National Social Security Fund ⁷	2000	Trade Surplus	141.40
Qatar	Qatar Investment Authority ¹	1974	Commodity (Oil & Gas)	135.00
Australia	Australian Future Fund ⁴	2006	Non-Commodity	83.10
UAE - Dubai	Investment Corporation of Dubai ¹	2006	Commodity (Oil & Gas)	70.00
Libya	Libyan Investment Authority ¹	2003	Commodity (Oil & Gas)	64.20
UAE-Dubai	International Petroleum Investment Company ²	1984	Commodity (Oil & Gas)	60.00
UAE-Abu Dhabi	Mubadala Development Company PJSC ⁵	1993	Commodity (Oil & Gas)	55.00
Kazakhstan	Kazakhstan National Fund ¹	1983	Commodity (Oil & Gas)	52.30
Republic of Korea	Korea Investment Corporation ⁷	2006	Government-Linked Firms	43.00
Malaysia	Khazanah Nasional Berhad ⁴	2000	Government-Linked Firms	40.20
Brunei	Brunei Investment Agency ¹	1983	Commodity (Oil & Gas)	39.00
Azerbaijan	State Oil Fund of Azerbaijan ⁴	1999	Commodity (Oil & Gas)	34.30
Ireland	National Pension Reserve Fund ⁴	2001	Non-Commodity	19.60
New Zealand	New Zealand Superannuation Fund ⁴	2001	Non-Commodity	17.90
East Timor	Timor-Leste Petroleum Fund ⁴	2005	Commodity (Oil & Gas)	13.00
UAE - Dubai	Istithmar World ¹	2003	Government-Linked Firms	11.50
Bahrain	Mumtalakat Holding Company ⁷	2006	Government-Linked Firms	11.20
UAE	Emirates Investment Authority ¹	2007	Commodity (Oil & Gas)	10.00
UAE-Abu Dhabi	Abu Dhabi Investment Council ¹	2005	Commodity (Oil & Gas)	10.00
Oman	State General Reserve Fund ¹	1980	Commodity (Oil & Gas)	8.20
UAE-Ras Al Khaimah	Ras Al Khaimah Investment Authority ¹	2005	Commodity (Oil & Gas)	2.00
Vietnam	State Capital Investment Corporation ¹	2005	Government-Linked Firms	0.60
Kiribati	Revenue Equalization Reserve Fund ¹	1956	Commodity (Phosphates)	0.50
São Tomé & Príncipe	National Oil Account ¹	2004	Commodity (Oil & Gas)	< 0.01
Oman	Oman Investment Fund	2006	Commodity (Oil & Gas)	Unknown
UAE - Dubai	Dubai International Financial Center	2006	Government-Linked Firms	Unknown
			Total OIL & GAS	2,218.20
			TOTAL TRADE SURPLUS	1,001.50
			TOTAL OTHER	227.60
			TOTAL AUM	3,447.30

- **33** SWFs meeting the SIL definition
- Total AUM: **US\$ 3,447bn**
- Oil&Gas AUM: **US\$ 2,218bn**

£ AUM as of May 2013;

** AUM at the end of 2011;

6 AUM as of February 6, 2013;

§ AUM as of March 2012;

μ AUM as of March 2013;

¥ Estimate by SWF Institute;

£ AUM at the end of 2012;

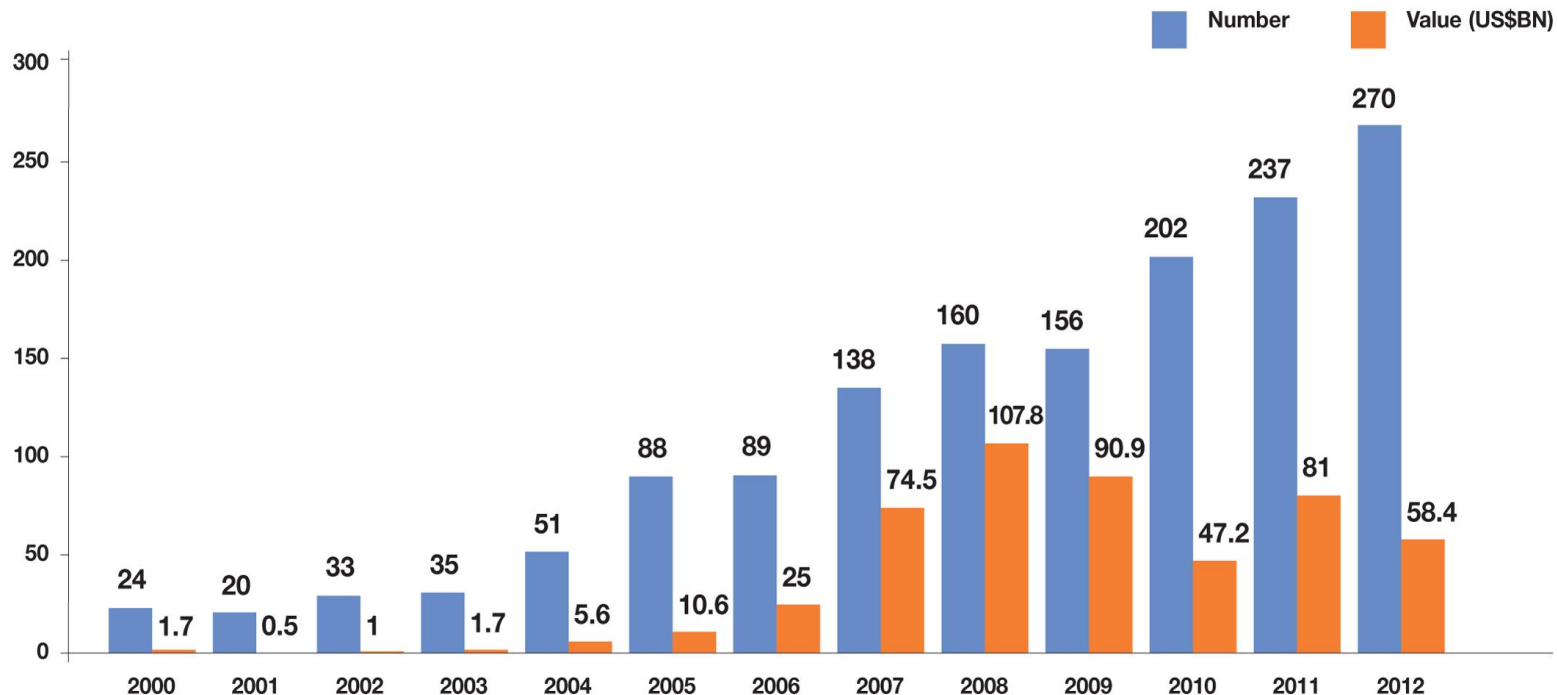
† Sovereign Investment Laboratory estimate of assets under management (AUM).

Source: Sovereign Investment Lab, Università Bocconi



Trends and cycles

Direct SWF Investments since 2000



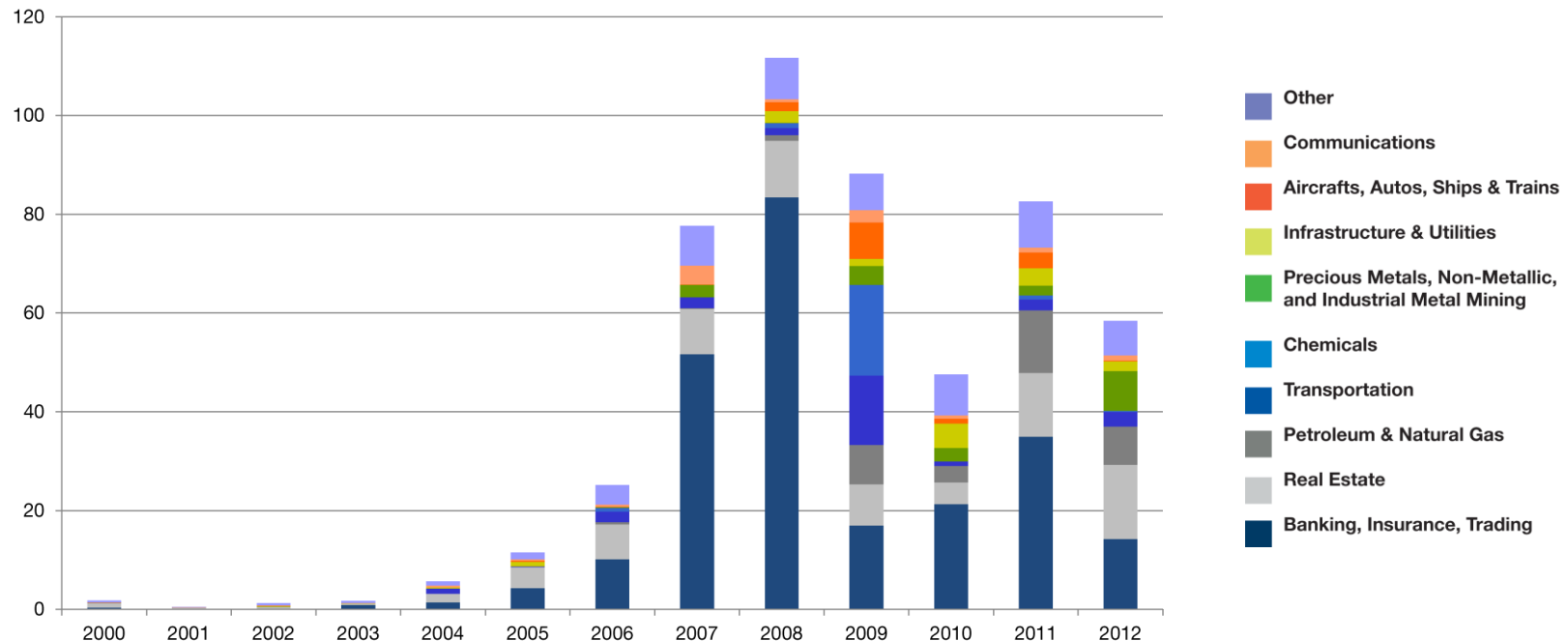
Source: Sovereign Investment Lab, Università Bocconi

- **270 deals** worth **\$58.4bn** in 2012
- **14% increase in number of deals** and **30% decrease in value** since 2011
- Smaller deals on average: better disclosure, in-house management, better diversification



In quest of diversification

Direct SWF Foreign Investments by Target Sector, 2012



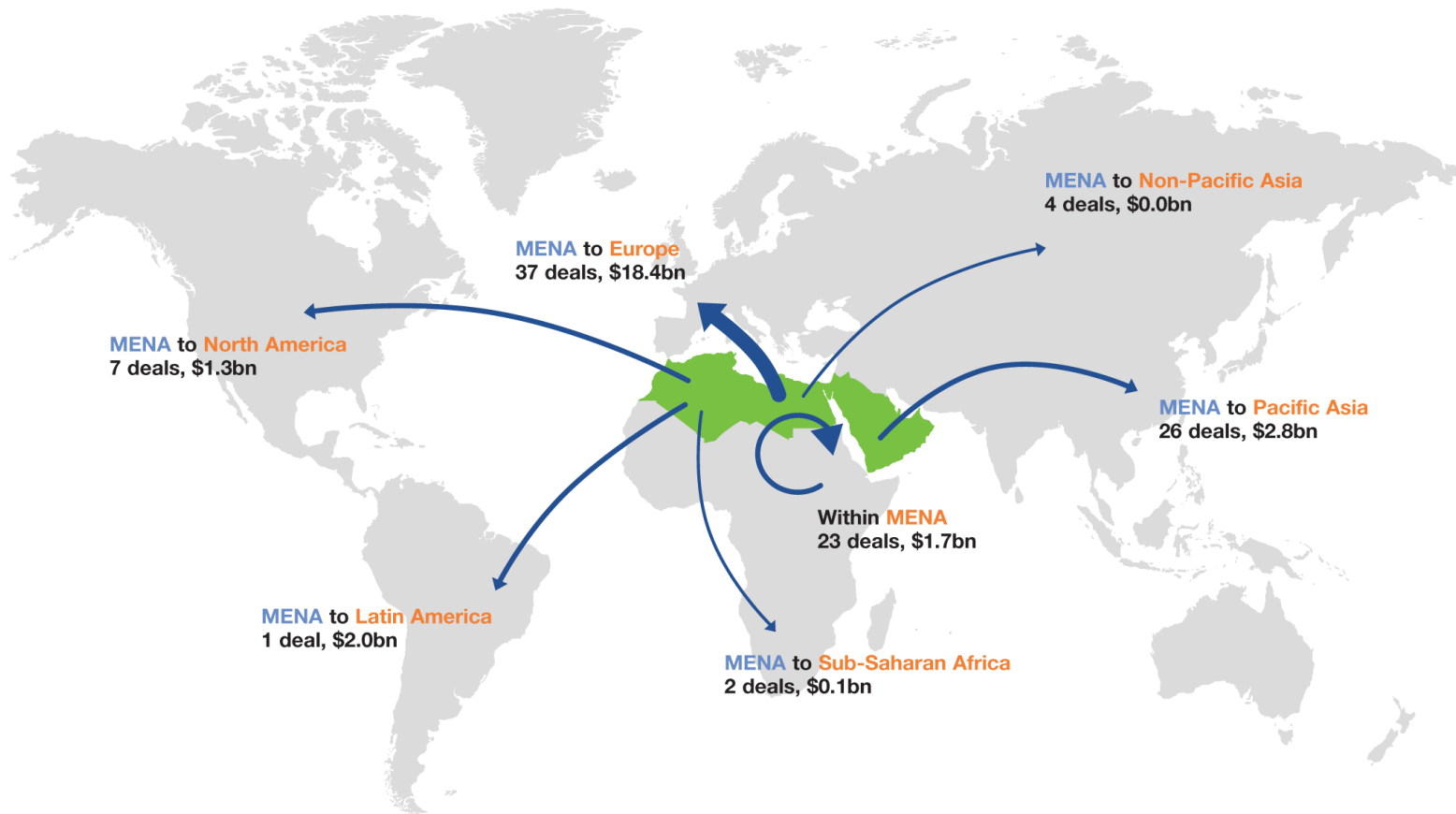
Source: Sovereign Investment Lab, Università Bocconi

- Boom in **Real Estate**: **\$15bn** and **26%** of total investment (**50%** annual increase), both in trophy assets (mainly London) and development (M+S Pte Ltd)
- Surge in **commodities** (including O&G) and associated processing industries: \$15.8bn invested (Xstrata and Total deals worth \$11.5bn)



Crossing Mare Nostrum...

Investment Flows from Middle East & North Africa SWFs, 2012

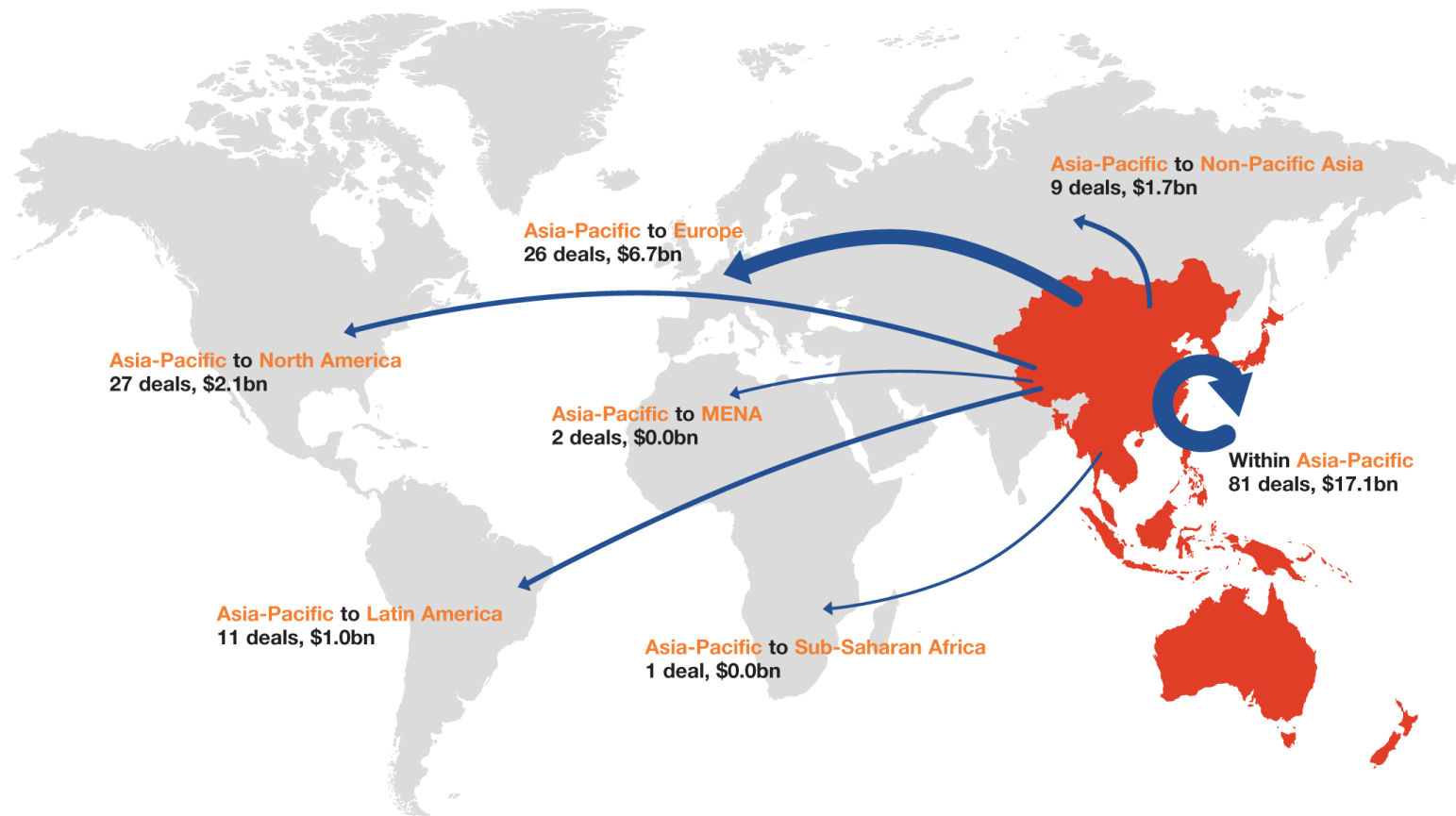


Source: Sovereign Investment Lab, Università Bocconi



The Asian Home Bias

Investment Flows from Asia-Pacific SWFs, 2012



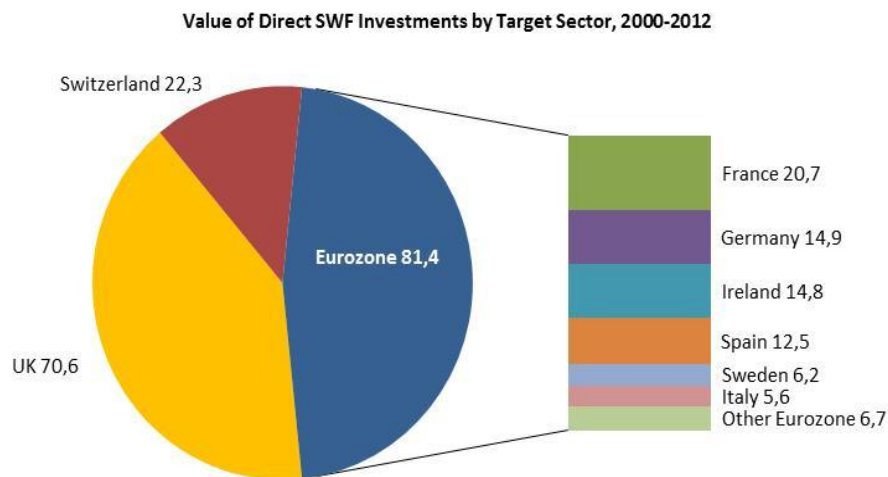
Source: Sovereign Investment Lab, Università Bocconi



The Top Receptient Countries

Country ranking by total SWF Investment, 2000-2012

Target Country	Ranking	Total Value (US\$BN)	%
China	1	97.9	19.1%
US	2	85.0	16.5%
UK	3	70.6	13.7%
UAE	4	31.6	6.2%
Switzerland	5	22.3	4.3%
France	6	20.7	4.0%
Qatar	7	16.6	3.2%
Germany	8	14.9	2.9%
Ireland	9	14.8	2.9%
Singapore	10	14.8	2.9%
Spain	11	12.5	2.4%
Canada	12	12.2	2.4%
India	13	10.6	2.1%
Australia	14	9.4	1.8%
Brazil	15	7.7	1.5%
Malaysia	16	7.6	1.5%
Japan	17	7.0	1.4%
Indonesia	18	6.4	1.2%
Sweden	19	6.2	1.2%
Italy	20	5.6	1.1%
Kuwait	21	4.3	0.8%
Korea	22	3.4	0.7%
Total		513.7	



Source: Sovereign Investment Lab, Università Bocconi

Friends or Foes?

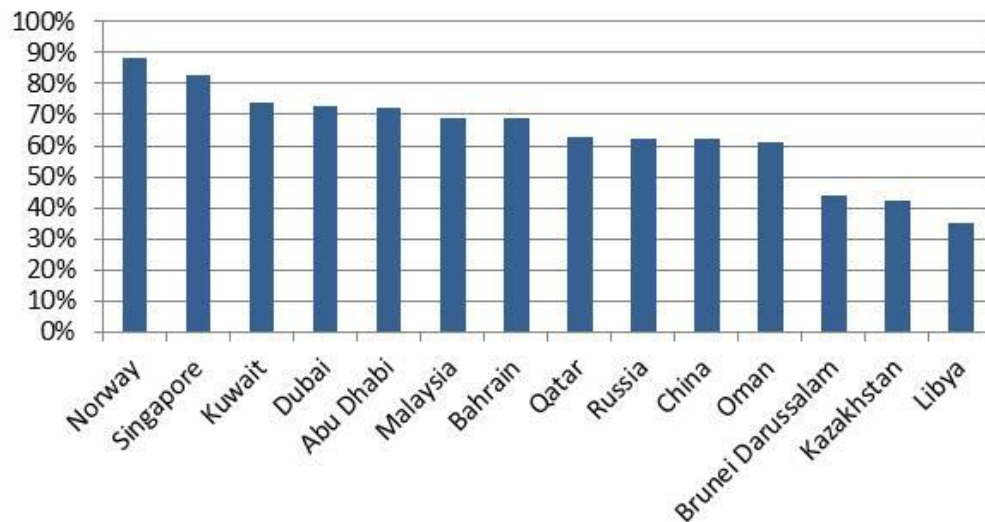
SWF impact on target firms



Invasion of the sovereign-wealth funds



Extent of SWFs investment approval by home country



- Are SWFs long-term investors boosting firm value or politically motivated agents of emerging superpowers?
- SWFs come in all stripes: do fund types and their governance matter in valuation and performance?



The SWF Discount

Preliminary Evidence

The Short-term Market Reaction to Announcement of SWF Investment

Interval	N	Mean Cumulative Abnormal Return	Bootstrapped, Skewness-Adjusted <i>t</i>	Median Cumulative Abnormal Return	Generalized Sign <i>z</i>
Panel A. All Sovereign Wealth Fund investments					
(0,0)	795	0.89%	3.48 ***	0.15%	3.51 ***
(-1,+1)	796	0.89%	2.48 ***	0.25%	2.98 ***
Panel B. Sovereign Wealth Fund investments, excluding Norway					
(0,0)	399	1.90%	4.07 ***	0.24%	3.72 ***
(-1,+1)	400	2.45%	4.37 ***	0.60%	3.97 ***
Panel C. Sovereign Wealth Fund investments, foreign targets					
(0,0)	706	0.90%	3.04 ***	0.11%	2.85 ***
(-1,+1)	707	0.75%	1.78 **	0.24%	2.59 ***
Panel E. Benchmark investments (private financial acquirors, SWF's home countries and target countries)					
(0,0)	4823	2.56%	17.54 ***	0.22%	13.86 ***
(-1,+1)	4830	5.02%	26.16 ***	1.29%	20.9 ***

Source: Bernardo Bortolotti, Veljko Fotak, and William Megginson, "The Sovereign Wealth Fund Discount: Evidence from Public Equity Investments", Baffi Center Working Paper Series, 2013



The SWF Discount

Propensity Score Matching (PSM)

SWF investments differ dramatically from private sector acquisitions (target size, target country, momentum, deal size, etc.)

PSM Benchmarking controlling for target and deal characteristics

Cumulative Abnormal Returns (3-day windows)

Variable	N	Mean	t Value	Pr > t
SWF	744	0,37%	1,49	0,1374
PSM Benchmark	844	1,94% ***	4,56	<.0001
SWF Discount	702	-1,64% ***	-3,54	0,0004



Explaining the SWF Discount

SWF Types

SWF	Presence in BoD	Independent Management	Type	N	Mean Stake
Abu Dhabi Investment Authority (ADIA)	N	N	Passive	25	8,89%
Brunei Investment Agency (BIA)	Y	N	Political	3	25,20%
China Investment Corporation (CIC)	N	N	Passive	38	12,25%
Dubai International Financial Centre (DIFC)	N	N	Passive	7	19,61%
Government of Singapore Investment Corporation (GIC)	N	Y	Passive	92	7,16%
Government Pension Fund Global (GPF)	N	Y	Passive	391	0,34%
International Petroleum Investment Company (IPIC)	Y	N	Political	23	21,51%
Investment Corporation of Dubai	Y	N	Political	1	0,03%
Istithmar	Y	N	Political	14	35,89%
Khazanah Nasional Bhd	Y	Y	Active	30	19,44%
Korea Investment Corporation (KIC)	N	Y	Passive	2	NA
Kuwait Investment Authority (KIA)	N	Y	Passive	20	6,44%
Libyan Investment Authority (LIA)	Y	N	Political	20	14,96%
Mubadala Development Company	Y	N	Political	15	33,84%
Mumtalakat Holding Company	N	N	Passive	1	6,67%
Oman Investment Fund	N	N	Passive	8	12,80%
Qatar Investment Authority (QIA)	N	N	Passive	49	12,72%
Temasek Holdings	Y	Y	Active	167	20,59%
Australian Future Fund	N	Y	Passive	2	1,74%



Explaining the SWF Discount

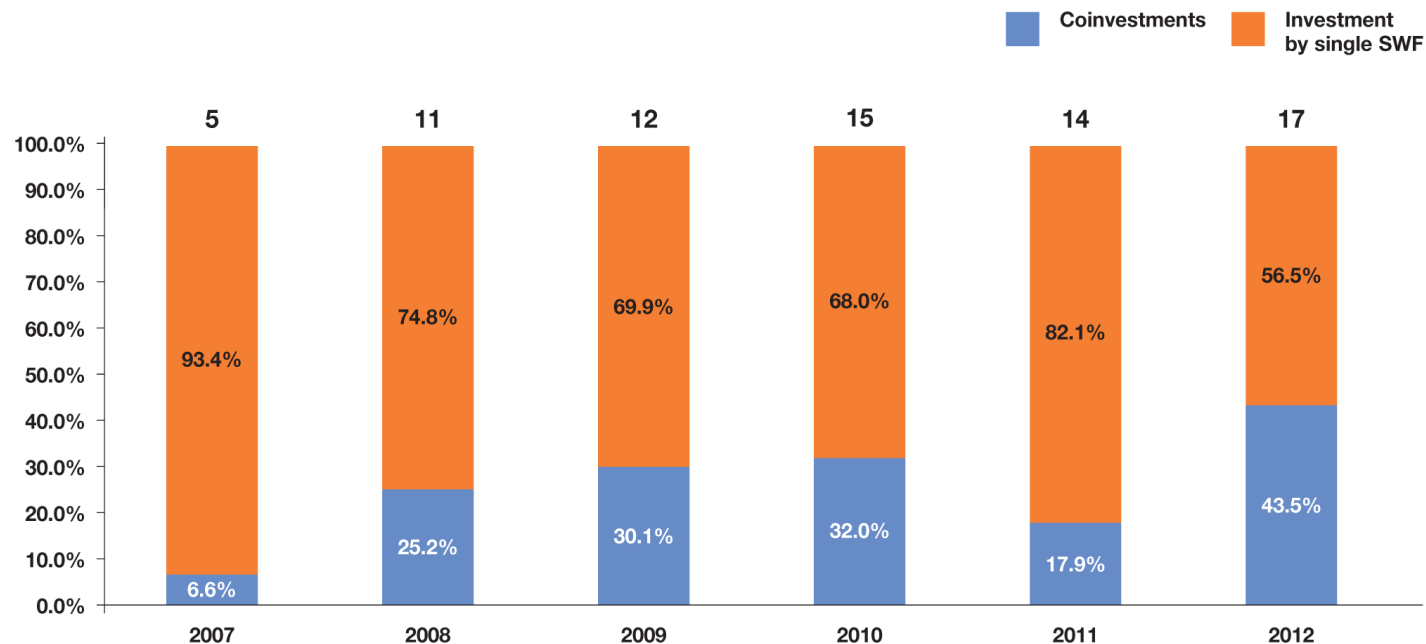
Discount by SWF Types (against PSM benchmarks)

Sample	N	Mean	t Value	Pr > t
All SWFs	702	-1,64% ***	-3,54	0,0004
Active	125	-2,50% **	-2,09	0,0394
Passive	167	-2,20% **	-1,97	0,0503
Political	33	-4,31% **	-2,21	0,0361
Norway	377	-0,88%	-1,3	0,1948
Active; Stake =>1%	95	-1,49%	-1,18	0,2434
Passive; Stake =>1%	126	-1,67%	-1,34	0,1837
Political; Stake =>1%	25	-3,80% *	-1,83	0,0820
Active; Stake =>3%	89	-1,73%	-1,29	0,2013
Passive; Stake =>3%	106	-1,21%	-0,86	0,3905
Political; Stake =>3%	20	-4,85% *	-1,91	0,0727



Teaming up?

Coinvestments by SWFs (% of total value in US\$ and # of targets)



- In 2012, **41 co-investments** (2 or more SWFs on the same target) on 17 targets worth **\$24,7bn**, 44 % of total deal value
- Treble dividend: improved diversification, cost savings, **mitigation of political concerns**



Conclusion



SWF are key actors in the new global financial landscape:

- They have resources and skills to foster long-term investment and sustainable growth
- But still affected by “stigma” generating discounts
- Governance of SWF is key

Thank you

