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Sovereign Investment Lab



Università Commerciale
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The Sky Did Not Fall

Sovereign Wealth Fund
Annual Report 2015



Sovereign Investment Lab

Research and educational partner of



The Sovereign Investment Lab is a group of researchers brought together in the Baffi Carefin Centre For Applied Research on International Markets, Banking, Finance and Regulation at Bocconi University. The Lab tracks the trends of sovereign fund investment activity worldwide and conducts path-breaking research on the rise of the State as an investor in the global economy. Research output aims to meet the highest scientific standards, but also to be accessible for a variety of stakeholders also outside academia: institutional investors, policymakers, regulators, and the media.

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From the Editor

Oil prices have fallen, during 2015, with crude prices closing the year at \$35 per barrel, well below even the most pessimistic estimates. With roughly two-thirds of SWF assets originating from commodity revenues, this has had an impact on SWF funding. Yet, the sky is still up there—despite panicked reporting and predictions of their demise, our report documents that SWF AUM have actually slightly increased during the year, albeit at a slower pace than what we have been used to.

SWFs have always engendered strong feelings. Viewed first as foreign invaders in the early 2000s, to saviors of the Western financial sector in 2008-2010, these large and often opaque pools of assets have often been misunderstood and feared. The latest narrative identifies them as a new systemic risk factor, the smoking gun for the unprecedented positive correlation between falling oil prices and declining equity valuations observed over the past months. Yet, empirical evidence does not bear support for this story—while SWFs have been selling assets at a faster pace than we have seen in the past, their sales are still well eclipsed by their new investments. Even more, the trading activity we document points to sales that are more about rebalancing portfolios in a deliberate attempt at capturing long-term illiquidity premia in a world of low yields, rather than panicked divestments to support domestic budgets.

Yet, we should not conclude that the slowing accumulation of SWF AUM does not have an impact on global asset prices. Since the most recent financial crises, Western markets have come to rely on a SWF safety net, knowing that a large class of investors was on the prowl for cheap assets. That safety net has now been removed, exactly at the time quantitative tightening in the US is sending markets on a roller-coaster ride.

For the funds themselves, these are defining times. Clearly, oil exporting countries are now faced with conflicting demands on their funds. Domestic budget shortfalls lead to the temptation to divest some long-term foreign holdings to provide liquidity domestically. On the other side, the diversification mandate of SWFs is now more important than ever. With commodity prices more volatile than at any point over the past decades, economies trying to diversify away from oil—Saudi Arabia above all—have incentives to pour more assets into their SWFs, not less. Hence, individual countries must now decide whether the primary mission of their SWFs is short-term stabilization or long-term diversification, laying bare the inner contradictions of mandates that are often unclear.

As we document, most SWFs seems to be emphasizing long-term diversification, rebalancing portfolios towards illiquid assets, with a renewed emphasis on real-estate and a move away from the safe, but low-yield, US markets. So, the sky did not fall. But, once the next crisis hits, SWFs will pay with their quest for yields with portfolios carrying higher liquidity risk. At that point, we will be hoping that cool heads prevail once more—although we predict, with a high degree of confidence, that the media will be on a new witch hunt, finding some reason to fear the big, bad, opaque, SWFs.

We are glad to present our annual report on SWF investment in 2015. The reader will find here the usual high quality data and contributions by our distinguished fellows Massimiliano Castelli, Fabio Scacciavillani, Paul Rose, and Diego Lopez.

Finally, we are glad to announce that the Sovereign Investment Lab has been recently recognized “research and educational partner” of the International Forum of SWFs (IFSWF). We are honored and excited by this achievement, a tangible sign of our commitment to high-quality research and relevance to our stakeholders’ community.

Our main findings for 2015 can be summarized as follows:

- **More deals, but smaller on average:** in 2015, we observed 22 SWFs completing 186 investments with a total publicly reported value of \$48 billion. This represents a 40 percent increase in the number of transactions we reported in 2014, but a 30 percent decrease in aggregate investment value. Mega-deals have virtually disappeared. We saw no investments in the “over \$4 billion range” in 2015.
- **No portfolio disruption:** SWFs completed 70 divestments worth in total \$22.4 billion, implying a net investment value of \$25.5 billion in 2015. Contrary to conventional wisdom, we do not find evidence to outright liquidation of SWF’s asset for budgetary needs of oil producing nations.
- **Harvesting long-term liquidity premia:** with 48 deals worth \$27.5 billion, SWF investments in real estate, hotel and tourism facilities, infrastructure and utilities accounted for 56.9 percent of investment value and 25.8 percent of the number of deals. These assets offer long-term protection from raising interest rates and are contributing to safer, more diversified portfolios, albeit at the price of greater liquidity risk.

- **Finance comes back, with a twist:** we report a 28 acquisitions worth \$6.9 billion in the financial sector almost entirely completed in emerging markets, in order to gain exposure to the sector's recovery in countries with higher growth potential.
- **Sector reallocation underway:** with energy under the radar screen, SWFs are gradually increasing exposure to new sectors. The retail and healthcare industry have attracted \$4.6 and 2.6 billion, respectively, while IT-linked investment surged to all time hit of \$3.4 billion.
- **The rise of Sovereign-Private-Partnerships:** in 2015 co-investments with strategic, or financial private partners represent 50% of reported deals, and an aggregate value of \$24.4 billion.
- **Foreign investment galore:** we report an all-time record allocation to developed, OECD economies, with 71.9% of aggregate investment value allocated to this group of countries. Related, 94% of SWF investments during 2015 has been in foreign markets, a strategy consistent with the mission to preserve national wealth by global diversification of investments.
- **A geographical rebalancing:** with \$7.9 billion the USA is still the favorite country, but since 2014 its relative size has declined in favor of Europe, accounting for 33.8 percent of investments, and particularly of the eurozone, thanks to a strong currency depreciation.
- **A remarkable year for Singaporean funds:** GIC and Temasek jointly completed 76 deals worth \$13.2 billion, representing 40 and 27 percent of total deals and value, respectively.

Bernardo Bortolotti
Sovereign Investment Lab,
Director





Introducing Sovereign Wealth Funds

The term “sovereign wealth fund” has come to be used as a moniker for any state-owned investment vehicle funded from budget surpluses. In reality, the sovereign investment landscape is populated by a heterogeneous group of funds with distinctive features reflecting the structural and macroeconomic needs of individual countries. For example, resource-based economies, such as Chile, Mongolia, or Algeria, choose to establish stabilization funds to protect their currencies and budgets against excess volatility of the underlying commodity. Others like India, or Saudi Arabia, keep large surpluses in foreign exchange reserves due to the volatility of their income streams and structural deficits. The Japanese perceive that providing for their aging population is their most pressing priority, so they maintain their wealth in large pension funds. Oil-rich nations in the Persian Gulf region or Norway invest their oil revenue surpluses abroad to provide for future generations when their oil reserves will be depleted. Finally, windfall revenue from privatizations, or the need to boost long-term investment and spur economic growth lead to special development funds, like those operating in Ireland, Kazakhstan, or Morocco, owning stakes in companies deemed strategic for the national economy.

Sovereign investment vehicles have thus immensely diverse objectives and strategies, which in turn are reflected in their asset allocation and investment choices. If we examine their portfolios in terms of their exposure to financial risk, they can be loosely grouped into buckets along a spectrum of financial risk from central banks and stabilization funds (which hold the most-liquid and lowest-risk assets), pension and social security funds (also

SWFs are just one type of state-owned investment funds, and display unique characteristics

interested in seeking returns for their beneficiaries), to development funds (which have the riskiest and most-illiquid assets).

Sovereign wealth funds are just one type of sovereign investment vehicle and can be placed in the middle of this spectrum. SWFs have an independent corporate identity (they are not managed by a central bank or finance ministry) and invest for commercial return over the long term. Unlike central banks, stabilization funds, or public pension funds, SWFs have no explicit liabilities — i.e., their assets are not routinely called on for stabilization or pension contributions — so they can have a greater tolerance for risk and illiquid assets to generate superior returns. As such, these funds have a strategic asset allocation that can include equities, bonds, private equity, real estate, infrastructure, hedge funds, exchange-traded funds, futures contracts, commodities, etc., diversified by geographies and sectors to achieve the desired risk-return profile of the fund. Finally, due to both the need to diversify revenue streams often too dependent on a single commodity (oil, in many cases) and to the danger of “Dutch disease” by investing large quantities of foreign currency in often small domestic economies with poorly developed financial markets, SWFs invest a large portion of their portfolios abroad, unlike other sovereign investment vehicles.

Table 1: Sovereign Wealth Funds, Assets Under Management

Country	Fund Name	Inception Year	Source of Funds	AUM 2015 (US\$bn)
Norway	Government Pension Fund – Global [£]	1990	Commodity (Oil & Gas)	855.42
UAE-Abu Dhabi	Abu Dhabi Investment Authority [†]	1976	Commodity (Oil & Gas)	773.00
China	China Investment Corporation ^{**}	2007	Trade Surplus	746.73
Kuwait	Kuwait Investment Authority [†]	1953	Commodity (Oil & Gas)	592.00
Singapore	Government of Singapore Investment Corporation [†]	1981	Trade Surplus	344.00
Qatar	Qatar Investment Authority [†]	2005	Commodity (Oil & Gas)	256.00
China	National Social Security Fund [†]	2000	Trade Surplus	236.00
UAE - Dubai	Investment Corporation of Dubai ^{**}	2006	Commodity (Oil & Gas)	183.03
Singapore	Temasek Holdings [£]	1974	Trade Surplus	173.40
Russia	National Wealth Fund and Reserve Fund [£]	2008	Commodity (Oil & Gas)	123.78
Australia	Australian Future Fund [£]	2006	Non-Commodity	90.01
Republic of Korea	Korea Investment Corporation ^{**}	2005	Government-Linked Firms	84.70
Kazakhstan	Kazakhstan National Fund [†]	2000	Commodity (Oil & Gas)	77.00
UAE-Abu Dhabi	International Petroleum Investment Company [£]	1984	Commodity (Oil & Gas)	68.18
UAE-Abu Dhabi	Mubadala Development Company PJSC [¥]	2002	Commodity (Oil & Gas)	67.10
Libya	Libyan Investment Authority [†]	2006	Commodity (Oil & Gas)	66.00
Brunei	Brunei Investment Agency [†]	1983	Commodity (Oil & Gas)	40.00
Malaysia	Khazanah Nasional Berhad [£]	1993	Government-Linked Firms	34.93
Azerbaijan	State Oil Fund of Azerbaijan [£]	1999	Commodity (Oil & Gas)	34.25
New Zealand	New Zealand Superannuation Fund [£]	2001	Non-Commodity	20.49
East Timor	Timor-Leste Petroleum Fund [†]	2005	Commodity (Oil & Gas)	16.90
UAE	Emirates Investment Authority [†]	2007	Commodity (Oil & Gas)	15.00
UAE-Abu Dhabi	Abu Dhabi Investment Council [†]	2007	Commodity (Oil & Gas)	15.00
UAE - Dubai	Istithmar World [†]	2003	Government-Linked Firms	11.50
Bahrain	Mumtalakat Holding Company [£]	2006	Government-Linked Firms	11.14
UAE - Dubai	Dubai International Financial Center ^{**}	2002	Government-Linked Firms	10.40
Oman	State General Reserve Fund [†]	1980	Commodity (Oil & Gas)	9.15
Ireland	Ireland Strategic Investment Fund [¥]	2001	Non-Commodity	8.49
Oman	Oman Investment Fund [†]	2006	Commodity (Oil & Gas)	6.00
Angola	Fundo Soberano de Angola [£]	2012	Commodity (Oil & Gas)	4.88
UAE-Ras Al Khaimah	Ras Al Khaimah Investment Authority [†]	2005	Commodity (Oil)	1.20
Nigeria	Future Generations Fund [¥]	2012	Commodity (Oil & Gas)	1.07
Vietnam	State Capital Investment Corporation [¥]	2005	Government-Linked Firms	0.89
Kiribati	Revenue Equalization Reserve Fund [†]	1956	Commodity (Phosphates)	0.52
São Tomé & Príncipe	National Oil Account [†]	2004	Commodity (Oil & Gas)	< 0.01
			Total OIL & GAS	3,204.96
			TOTAL TRADE SURPLUS	1,500.13
			TOTAL OTHER	273.07
			TOTAL AUM	4,978.16

£ AUM as of March 31, 2016

† Estimate by SWF Institute as of 2 May 2016

** AUM as of 31 December 2014

£ AUM as of 30 June 2015

¥ AUM as of December 31, 2015

* Sovereign Investment Laboratory estimate of assets under management (AUM). SWFs of Morocco and Palestine have been added to the SIL list in 2015.

Against this background, a “Sovereign Wealth Fund” is an investment vehicle that is:

- 1 Owned directly by a sovereign government
- 2 Managed independently of other state financial and political institutions
- 3 Does not have predominant explicit current pension obligations
- 4 Invests in a diverse set of financial asset classes in pursuit of commercial returns
- 5 Has made a significant proportion of its publicly reported investments internationally

This is the definition that the Sovereign Investment Lab uses to identify the funds addressed in the body of this report and listed in *Table 1* on the left.

The SIL definition of SWF turned out being quite relevant this year. With the exception of the Russian National Wealth Fund, the 35 funds included in our list weathered the storm quite well, with their capital unscathed, or even increased, in spite of the headwinds and market turbulences of 2015. Indeed, our rather restrictive requirements on the structural characteristics of the funds identify those funds with a genuine penchant, and suitable governance, for inter-generational savings and long-term wealth accumulation, which is the qualifying feature of a SWF. We also claim, without scientific pretense, that the fund’s resilience is somehow endogenous to its structural characteristics. A large, independent, and professionally managed SWF will strengthen one country’s fiscal policy, allow a better diversification of its sources of revenues in case of a shock, and to tap more successfully (and less costly) financial markets in case of bond issuance. So paradoxically, in

case of a price slump, those countries with a full-fledged SWF are the least likely to divest the fund’s holdings to finance the domestic budget shortfalls.

The landscape of sovereign investment has changed in the last years as many countries have launched or proposed new funds. We follow closely these developments, as some of these new born sovereign investment funds (SIF) may graduate in the future as fully-fledged SWFs, and enter our radar screens. *Table 2* tracks the evolution of SWF projects announced since 2008, and lists the funds which came in operation, along with the missing requirements to qualify for inclusion in SIL’s SWF list.

Some of the most interesting developments in the sovereign investment landscape are taking place in Saudi Arabia. Notably, the national wealth of the country is the coffers of the central bank, the Saudi Arabia Monetary Agency, in the form of foreign-exchange reserves which have fallen to \$635.5 billion at the end of 2015, down 15% from a peak of \$746 billion in August 2014, in an effort to maintain the currency peg to the United States dollar. Also spurred by the crisis, a shift in power is taking place recently in Riyadh, with the 30-year-old deputy crown prince Mohammad bin Salman launching the Vision 2030 plan, an ambitious reform program aiming at weaning the Saudi population off oil and moving into diversified industries, in the process modernizing a state reliant on subsidies and patronage. The main dish of the program is the stock market floatation of Saudi Aramco, the national oil energy giant, that could value the business at as much as \$2 trillion, and that would provide the base for a big SWF which would drive the

Table 2: New Sovereign Investment Funds Launched or Proposed Since January 2008

Country	Date fund proposed officially	Rationale for Fund, funding source, and discussion	Status, as of May, 2016	SIL Definition Items				
				S	I	L	C	A
Australia	December 2012	Western Australia Future Fund was launched in December 2012. The purpose of this fund is to provide for the accumulation of a portion of the revenue from the State's mineral resources and other money for the benefit of future generations. The fund invests in overseas cash and bonds but not in equities. The AUM are USD 0.72 bn.		✗	✓	✓	✓	✗
Brazil	June 2008	Brazil established the Fundo Soberano do Brasil (FSB) in 2008 with the purpose to reduce inflationary impact of government spending, minimize real appreciation, and support Brazilian firms' foreign investment. It was funded with \$6.1bn initial capital and an additional government bond issue of \$5.9bn.	In September 2014 and December 2015, \$1.5bn and \$ 216ml withdrawn to finance the budget, respectively.	✓	✗	✓	✗	✗
Canada	2014	The provinces of British Columbia, Northwest Territories, Saskatchewan has set forth proposals to set up their SWFs.	Planned but not yet approved.					
Chad	November 2014	On 14 November 2014 the Government of Chad launched a call for proposal to support the establishment of a Sovereign Fund for the Strategic Investment in Chad.	Planned but not yet approved.					
France	2012	BPIFrance was launched in late 2012 by President Francois Hollande and formed following a merger between CDC Entreprises, the former "sovereign wealth fund" Fonds Strategique d'Investissement, and OSEO. It operates as a public investment bank designed to support small- and medium-sized businesses and provide seed capital to companies and industries with a high growth potential.	BPIFrance has \$25.8bn in assets under management and an established organizational structure. Unlikely to become a SWF.	✓	✓	✗	✓	✗
Gabon	February 2012	Fonds souverain de la République Gabonaise (FSRG), created by the law 005/2012, was established to assist Gabon in developing new industries capable of generating enough revenue to replace oil revenues. The main missions of the FGIS are to contribute to Gabon's economic development through the active management of the State's portfolio of investments, including disposal or consolidation of existing State investments, or stable equity investments in the capital of companies with strategic importance; to guarantee Gabon's financial independence and diversify its risks through the investment in capital of part of the State's surplus revenues, especially oil revenues; to encourage investment by domestic or foreign companies in the national economy's strategic sectors; and to enable equitable distribution of revenues from the exploitation of natural resources between the generations.		✓	✓	✓	✓	✗
Georgia	December 2013	The government of Georgia plans to establish 100% state-owned Sovereign Wealth Fund based on the Partnership Fund, created in 2011 to attract investments from abroad, and focus on co-financing projects in the energy agriculture, real estate, and industrial sectors. Revenues for the fund will come mainly from dividends from the state-owned rail, oil, electricity and gas businesses and profits of its own investments. Moreover, the Partnership Fund will be integrated into the Strategic Development Fund and will be a sister enterprise of the Sovereign Fund. The founders and 100% owners of the Strategic Development Fund will be part of the Sovereign Wealth Fund. According to the government, the acting structure and functions of the Partnership Fund does not comply with the practice and requirements of the similar types of international funds. Also, the shares of the state own companies are not protected from entrepreneurial risks.	Planned but not yet approved.					

Introducing Sovereign Wealth Funds

Country	Date fund proposed officially	Rationale for Fund, funding source, and discussion	Status, as of May, 2016	SIL Definition Items				
				S	I	L	C	A
Ghana	2010	In 2011 the government has launched two funds: Ghana Heritage Fund and the Ghana Stabilization Fund with a minimum of 30% of state's projected oil revenues to be allocated. Initially funded with \$69.2mn, by the end of 2013 the funds managed \$450mn.	Both funds have invested in fixed income securities. In April 2014, a debate ignited about the use of the funds to support the domestic economy.	✓	✓	✓	✓	✗
Hong Kong	January 2016	The Government of Hong Kong Special Administrative Region announced the establishment of the Future Fund with effect from January 1, 2016, with a view to securing higher investment returns for the fiscal reserves. "The Future Fund will be established administratively and will remain an integral part of the fiscal reserves. It will have an initial endowment of 219.7 billion HK dollars (28.35 billion US dollars) notionally held against the Land Fund. Thereafter, the government may provide periodic top-ups for the Future Fund," a government spokesman said.	Planned but not yet approved.					
India	2008	On October 2015, the Minister of Finance has approved setting up of the National Investment and Infrastructure Fund (NIIF).	The fund should be operational by 2016					
Iran	2010	The National Development Fund of Iran, established in 2011, has a dual mandate to serve as a quasi-development bank and save oil revenues for future generations. Since 2011, the Oil Stabilization Fund's mandate has been to stabilize the budget.	Currently NDFI has reported value of about \$35 bn	✓	✓	✓	✓	✗
Israel	January 2012	After two enormous natural gas fields were proven off Israel's coastline, the government proposed a new SWF to be funded from the state's future gas revenues invest in education and health and will help develop Israel's high-tech export industries. The Israeli Citizens Fund was approved by the Parliament on July 2014.	The fund should be operational by 2017					
Italy	2011	Italy launched the Fondo Strategico Italiano with a seed capital of euro 4.4bn. FIS's purpose is to acquire minority interests in promising, large Italian companies, strengthen infrastructure and strategic sectors for the national economy. Signed partnerships and JV with Qatar Holding, Russian Direct Investment Fund, Kuwait Investment Authority and Korea Investment. After the reorganization of Cdp, the fund changed name in Cdp Equity in 2016.	First investment in May 2012, total investment euro 1.3 bn	✓	✓	✓	✓	✗
Kenya	2014	In 2014 the Treasury drafted the National Sovereign Wealth Fund Bill indicating that dividend income from State corporations and proceeds from privatisation of government corporations would build the fund ahead of oil production. The cash was to help set up the fund whose operations were initially set to rely on revenues from oil that Tullow Oil Plc and Africa Oil expect to start pumping after seven years. The sovereign wealth fund will shield the economy from cyclical changes in commodity prices, build savings for future generations and be used to invest in infrastructure.	Planned but not yet approved.					
Luxembourg	April 2015	The European Investment Fund and the Société Nationale de Crédit et d'Investissement (SNCI) have set up the Luxembourg Future Fund (LFF). This EUR 150mn fund to which EIF contributes EUR 30m and SNCI EUR 120mn, will be deployed over a five year period and will focus on innovative European SMEs. LFF aims to stimulate the diversification and sustainable development of the Luxembourgish economy by attracting foreign entrepreneurs and early to later stage innovative businesses into Luxembourg.		✓	✓	✓	✓	✗

Country	Date fund proposed officially	Rationale for Fund, funding source, and discussion	Status, as of May, 2016	SIL Definition Items				
				S	I	L	C	A
Mongolia	June 2005	Government announced plans to use proceeds from mining vast newly-discovered mineral deposits to set up SWF with an initial \$600mn capitalization, but the struggle against declining mineral revenues and inflation has slowed down the process. In 2009 Parliament established the Human Development Fund.	A draft law on the proposed Future Heritage Fund was submitted by the President on 12 June, 2015.					
Morocco	November 2011	The Moroccan Fund for Touristic Development (FMDT) was established on November 11th, 2011 by the Moroccan government and supported by the Hassan II Fund for Economic and Social Development. As a strategic fund, FMDT is an instrument to mobilize national and international tourism investment. It has committed capital of 15 billion dirhams (1.8 billion USD). FMDT is capitalized two-thirds by government funds and one-third by the Hassan II Fund (100% owned by the State). By attracting investors and partners, structuring and executing investment transactions, and supporting and managing investments within its portfolio, it will consolidate the financing of the Moroccan tourism sector.		✓	✓	✓	✓	✗
Mozambique	2014	The creation of the Mozambique Sovereign Wealth Fund was announced in 2014. As a medium and long-term investment strategy, the establishment of a SWF is expected to increase the country's independence on international finance institutions.	Planned but not yet approved.					
Namibia	2015	The creation of the Namibian Sovereign Wealth Fund was announced in 2015. The Sovereign Wealth Fund could act as a facilitator of infrastructure financing with the target of a return on invested capital after the construction period. Preservation of fund capital in real terms (inflation based) should be the target investment return.	Planned but not yet approved.					
Panama	May 2012	Legislation passed to establish the Fondo de Ahorro de Panamá (FAP), a sovereign wealth and stabilization fund, to be funded through Panama Canal revenues in excess of 3.5% of GDP.	Launched in May 2014, FAP reported assets worth \$ 1,2 bn, primarily invested in fixed income securities.	✓	✓	✓	✓	✗
Papua New Guinea	February 2012	Prime Minister Peter O'Neill announced that one new liquefied natural gas (LNG) project would ultimately contribute over \$30bn (ten times the country's GNP) to a new SWF. The SWF bill was quickly approved unanimously by PNG's Parliament in February 2012.	The LNG project has started its first exports in 2014, but the launch of the SWF is still pending.					
Philippines	2013	With an improving fiscal situation, the national government was considering establishing a sovereign wealth fund that it can use for various investments, the profits of which can be tapped for various development projects.	Planned but not yet approved.					
Russia	2011	The Russian Direct Investment Fund (RDIF) is a \$10 billion fund established by the Russian government to make equity investments primarily in the Russian economy. In all of its investments, the fund is uniquely mandated to secure co-investment that as a minimum matches its commitment – thus acting as a catalyst for direct investment into Russia. RDIF has invested and committed for this purpose over RUB 760 billion, of which RDIF alone invested RUB 70 billion and over RUB 690 billion came from co-investors, partners and banks. RDIF also attracted over \$27 billion of foreign capital into the Russian economy through long-term strategic partnerships. The fund was created in 2011 under the leadership of the President and Prime Minister of the Russian Federation and is managed by a highly qualified team of private equity investment professionals with broad international and Russian experience.		✓	✓	✓	✓	✗

Introducing Sovereign Wealth Funds

Country	Date fund proposed officially	Rationale for Fund, funding source, and discussion	Status, as of May, 2016	SIL Definition Items				
				S	I	L	C	A
Rwanda	2012	The Agaciro Development Fund (AgDF), is a sovereign wealth fund launched in 2012 by President Paul Kagame. The government will annually be contributing Rwf 5 billion (currently \$6.7 million) from the national budget towards the sovereign wealth fund.		✓	✓	✓	✓	✗
Saudi Arabia	2016	In April 2016, Deputy Crown Prince Mohammad bin Salman launched the Vision 2030 plan including Saudi Arabia plans to create a new sovereign fund to manage part of its oil wealth and diversify its investments.	Operation should start after the IPO of Saudi Aramco, planned in 2017.					
Senegal	December 2012	The Sovereign Fund for Strategic Investment (FONSIS) was created by Law 2012-34, voted on December 27, 2012 by the National Assembly of Senegal and promulgated on December 31, 2012 by the President of the Republic of Senegal Mr. Macky Sall. FONSIS was incorporated on July 29, 2013 as a limited liability investment holding company with a board of directors. Its initial share capital of CFA francs 3 billion is wholly held by the State of Senegal. FONSIS officially launched its operations in October 2013 with the appointment of its CEO.		✓	✓	✓	✓	✗
Syria	January 2012	In 2012 Syria's Presidente announced his willness to establish a sovereign wealth fund called the "National Investment Fund". The objective of the fund is to support and stabilize the Syrian financial markets through a long-term investment policy.	Announced but not yet established or funded.					
Tanzania	September 2012	The Natural Gas Revenue Fund (NGRF) is the proposed sovereign wealth fund of Tanzania. It will manage the revenue accrued from the sale of its natural gas. The fund will be managed by the Bank of Tanzania.	Expected to be launched in 2015 after the enactment of a bill by the National Assembly.					
Uganda	October 2015	Earlier 2015, Ugandan President Yoweri Museveni signed the Public Finance Management Act (PRMA) 2015 into law and established a sovereign wealth fund—called the Petroleum Revenue Investment Reserve—to be managed by the Bank of Uganda.	Approved but still not operating.					
United Kingdom	December 2014	Chancellor of the Exchequer George Osborne confirmed plans for a new sovereign wealth fund for the North of England. The new fund would use tax receipts from the exploitation of shale gas reserves in the North of England to invest in economic development projects in the region.	Announced but not yet established or funded.					
Zambia	2014	Zambia plans to establish a sovereign wealth fund to spur investment outside the mining industry of Africa's biggest copper producer, President Michael Sata said. The fund will be set up through the Industrial Development Corp., which will oversee the southern African nation's state-owned companies. It will focus on stimulating investment in strategic non-mining industries among others, thereby expanding the country's investment portfolio and thus creating jobs.	Planned but not yet approved.					
Zimbabwe	November 2013	In Zimbabwe, the senate on 23 September 2014, passed the Sovereign Wealth Fund of Zimbabwe Bill (H.B. 6A, 2013) that will see the establishment of a Zimbabwean SWF. The proposed SWF will be funded from up to a quarter of mining royalties in respect of gold, diamonds, coal, coal-bed methane gas, nickel, chrome, platinum and such other mineral that may be specified, mineral dividends and government grants.	Planned but not yet approved.					

(S) Owned directly by a sovereign government

(I) Managed independently of other state financial and political institutions

(L) Does not have predominant explicit current liabilities

(C) Invests in a diverse set of financial asset classes in pursuit of commercial returns

(A) Has made a significant proportion of its publicly reported investments abroad

Source: Sovereign Investment Lab

reinvigoration of the Saudi economy. A likely destination of this asset base is the Public Investment Fund (PIF), established in 1971 to finance domestic development projects, to acquire stakes in state-owned enterprises and in a number of bilateral and Pan Arab corporations. While a \$2 trillion SWF (more than double the size of largest in operation, Norway's GPF) looks definitely a long shot, the new fund could change the way tens of billions of dollars are invested and affect some of the world's leading financial institutions, particularly in the United States, where the bulk of Saudi Arabia's foreign assets are managed.

In a similar vein, the government of Hong Kong in December 2015 has announced the establishment of the Future Fund with effect with the goal to secure higher investment returns for the fiscal reserves until then conservatively managed by the Hong Kong Monetary Authority. However, the Future Fund, which starts with an initial endowment of 219.7 billion HK dollars, will most likely enjoy limited independence and remain tightly controlled by the Treasury.

India has been taking seriously the issue of establishing a SWF for a long time. In 2008, a government-appointed panel of experts recommended setting up a SWF to earn higher returns on India's \$300 billion foreign reserves. However, the proposal did not fly due to opposition by India's central bank. In late 2013, the government proposed the floating of a new company — the India Overseas Investment

Corp Ltd (INOIC) — investing in natural resources overseas to create long-term resource security without drawing on the forex reserves that will continue to be managed by the Reserve Bank of India. During October 2015, the investment division of the finance ministry finally approved setting up of the National Investment and Infrastructure Fund (NIIF), born to fill the glaring infrastructure gap in part by attracting foreign investors. The fund, which is likely to become operational during 2016, will receive an initial allocation of \$300 as seed money, which, in turn, will be used to lend equity/quasi-equity/debt support to commercially viable green-field and brown-field infrastructure projects, including some stalled ones. The fund is also mandated to provide equity/quasi-equity support to non-banking finance companies and financial institutions involved in infrastructure financing, and to nationally important projects in core sectors.

We do not record new entries in the SIL list. The funds that became fully operational in 2015, such as the Luxemburg Future Fund, the NIIF, and the Uganda Petroleum Revenue Investment Reserve, do not meet our requirements. While we observe some recent announcements in Chad, Kenya, Mozambique, Namibia, Tanzania, and Zambia, we notice also that projects to launch a SWF in Sierra Leone, Slovenia, South Africa, and Greenland have been kept in cold storage as their governments have so far failed to either provide funding, or signal a serious commitment to the funds' long-term development and survival.

SWF Investment in 2015

Bernardo Bortolotti, SIL, Bocconi University, and Università di Torino
Veljko Fotak, SIL, Bocconi University, and Buffalo University
Giacomo Loss, SIL, Bocconi University

Activity

In 2015, we observed 22 SWFs completing 186 equity investments with a total publicly reported value of \$48 billion. This represents a 40 percent increase in the number of transactions we reported in 2014 and a 30 percent decrease in investment value. The decline in aggregate investment value is economically meaningful: the total value of reported investments for 2015 is the lowest since 2010. Indeed, last year's headwinds severely affected the global economy, swaying but not halting sovereign investment.

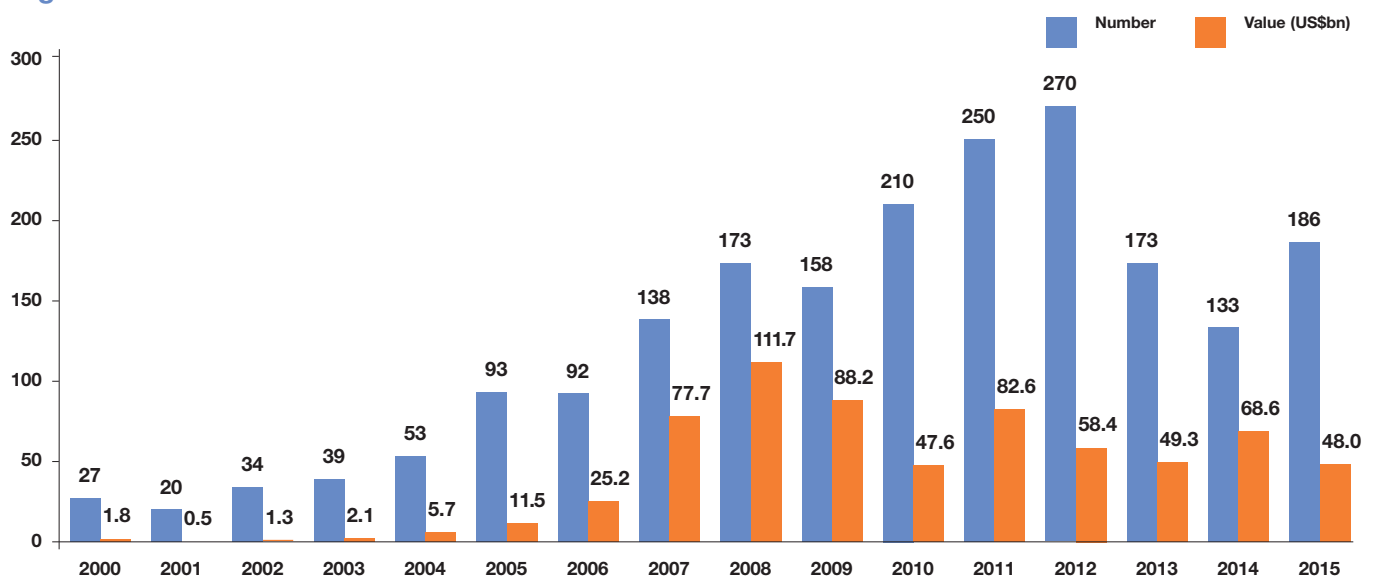
The oil crash certainly wins the prize for the most important event of 2015 affecting SWF investment trends. After the initial price shock that started by mid-2014, crude oil continued to slide, reaching historical lows by the end of 2015. Prices saw a continuing pressure driven both by supply- and demand-side shocks. A shift in consumption patterns and energy efficiency is affecting demand, while supply has increased both due to the “shale revolution”, the lifting of sanctions on Iran, and OPEC's failed attempts to discourage competition. At the time of writing, oil prices have somewhat recovered — and future markets are currently suggesting a moderate increase in prices for 2016 and 2017. Nevertheless, a wide consensus is emerging that the global economy is entering a new age of excess supply in hydrocarbon markets.

The new energy price scenario worsened the macroeconomic outlook of producing countries across the board. The Gulf Cooperation Council (GCC) predicted fiscal surplus turned into a \$162 billion deficit in 2016, or 10 percent of the region's

Despite the oil crash, SWFs' equity investment continued, albeit at lower pace, with more, but smaller deals on average

gross domestic output. Pressed by tighter public finance conditions, many countries (notably, Saudi Arabia, Qatar, and Oman) launched contractionary fiscal policies of spending cuts (primarily subsidized energy) and tax increases. However, austerity measures typically undermine political consensus, and therefore some governments opted to issue public debt to soften budget constraints. Across the Middle East, high credit ratings, low levels of outstanding debt, and low interest rates allowed debt issuance in international and domestic (primarily sukuk) markets.

Last in the pecking order of fiscal policy tools, governments tapped sovereign assets, raising revenues by privatizing firms, using foreign exchange reserves and sovereign wealth funds, broadly defined. Stabilization, “rainy days” funds explicitly designed to isolate the budget from commodity price volatility provided a first buffer. For example, the Russian Reserve Fund, in the course of 2015, liquidated assets worth more than \$20 billion to cover the budget, and, reportedly, it runs the risk of complete exhaustion in a few years if oil prices remain at the current levels. The drop in revenue

Figure 1: Direct SWF Investments Since 2000

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

for oil producing countries is revealing that all government funds have a stabilization mandate, if not as an explicit primary objective, at least as a secondary goal. In a few cases, cash-constrained governments called in the assets of sovereign wealth fund, i.e. the fund preserving the wealth of the nation for future generations over and above short-term stabilization needs. SWFs are indeed the liquidity providers of last resort, as the outright divestiture of a portfolio designed with a long horizon may entail capital losses. However, during 2015, Qatar, a country lacking a full-fledged stabilization fund, divested some stakes as part of a portfolio reshuffle driven by oil concerns. Most notable were two divestments from construction firms, the German Hochtief and the French Vinci SA, and property sales in London for an aggregate value exceeding \$1.5 billion. QIA did not disclose

the effect of these sales on fund's balance sheet, but they could have a bearing on a difficult year already marked by the abysmal losses in Volkswagen and Glencore. Norway is another example of a country with a commodity-based sovereign wealth fund and without a proper stabilization fund, but the fiscal rules of its GPF allow redemptions to absorb negative price shocks. In October 2015, the Norwegian government announced that, for the first time, it would withdraw \$25.2 billion cash from its sovereign wealth fund to cover budget holes and to stimulate growth. Algeria exemplifies a different approach, as it has prudently made fiscal stabilization the main goal of its \$50 billion Fonds de Regulation des Recettes, directly managed by the central bank, and has apparently weathered the storm better than most of its peers.

Did SWFs Sell Off in 2015?

The media is full of reports suggesting that SWFs are dumping assets to meet their budgetary needs, and that this is hurting markets. Estimates and projections abound, but real data are scant. Given the relevance of the issue, this year we have decided to track both partial and complete direct equity divestments by SWFs. We find 70 transactions in 2015 involving a sale of a stake by a SWF, for a total of \$22.46 billion. Somehow, surprisingly, we find that less than half of divestments by value (approximately \$9 billion) originates from commodity-funded SWFs; most redemptions, by value, originate from Singapore and China. Amongst oil-based economies, Kazakhstan pulled significant resources out of its SWF.

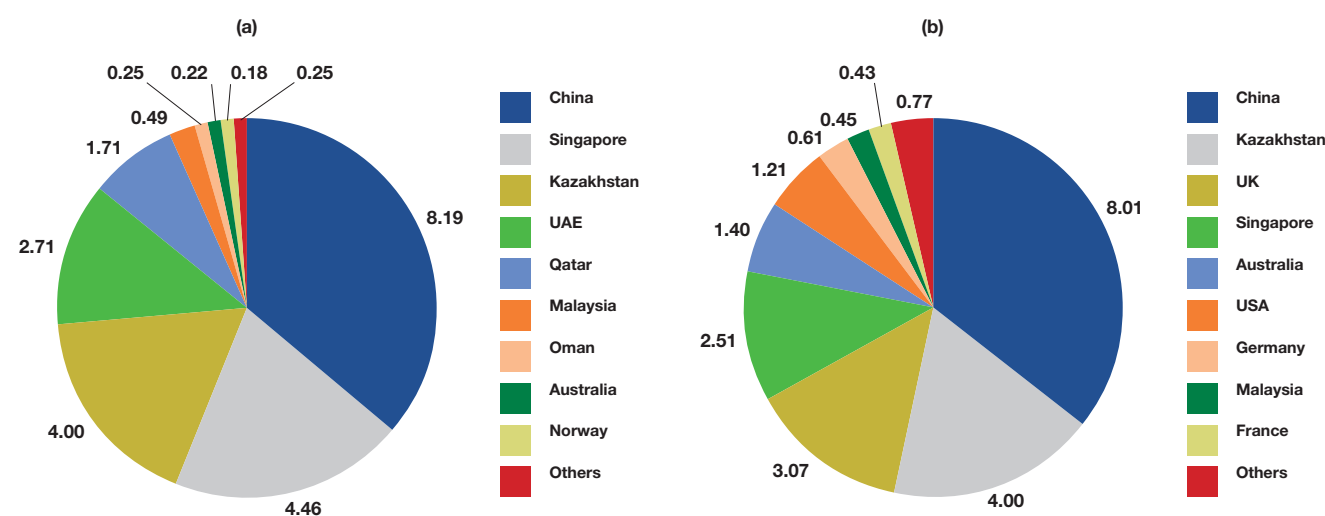
In terms of sectors, divestments are mostly concentrated in the financial and real estate segments, which have seen the bulk of SWF activities over the previous years. Of those, 14 divestments worth \$10.2 billion are from financials. A portion of those (5 divestments worth \$7.3 billion) are due to the China Investment Corporation selling stakes in domestic financial institutions. Somehow puzzling, while CIC is selling stakes in domestic financial

institutions, we have seen some large investments in the domestic financial sector by its subsidiary Central Huijin. One possible interpretation is that of a lack of coordination between funds that used to operate independently and that have recently been integrated. More likely, it is a sign of China's government using the funds as providers of liquidity for financial firms that have been recently partially-privatized, in a deliberate attempt to provide critical trading volume and jump-start the development of financial markets. The remaining divestments from the financial sector are due to various funds selling foreign stakes, presumably in an attempt to diversify further their portfolio allocations.

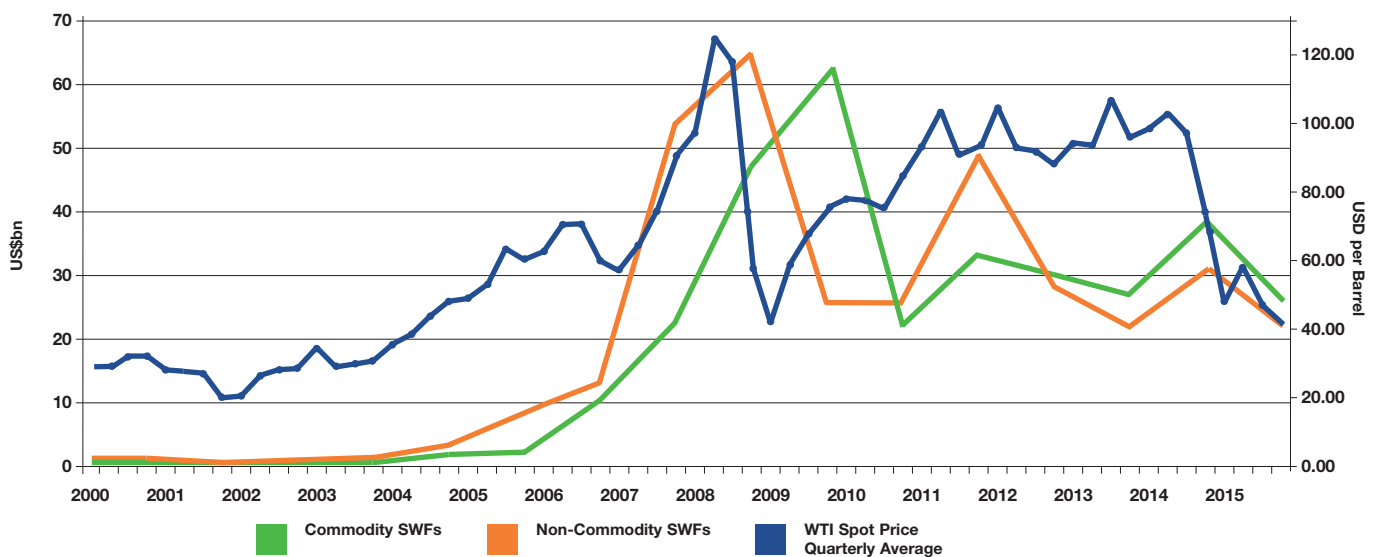
The two funds from Singapore, GIC and Temasek, have sold stakes from 17 firms, for an aggregate value exceeding \$4.4 billion.

In general, the divestments we observe seem to indicate more a tendency to rebalance and diversify portfolios that, over the years, have become over-reliant on financials and real estate, rather than an attempt by SWFs constrained by low commodity prices to divest holdings to create liquidity to support domestic budget deficits.

Figure 2: SWF Disinvestments by Home (a) and Target (b) Country, 2015 (US\$bn)



Source: Sovereign Investment Lab, Bocconi University

Figure 3: SWF Investments by Source and the Price of Oil, 2000 - 2015

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

The effect of the oil price shock on SWF behaviour has thus been significant, but indirect. The low price scenario is a sea change for producing countries, and they reacted using the entire spectrum of policy tools to stabilize their resource-dependent economies, including SWFs. Investment flows are adapting to this new regime, where a lower value of exports reduces the pace of accumulation of foreign exchange reserves, capital allocations to the funds, and ultimately equity investments at home and abroad. The sizable reduction of SWF investment observed in 2015 is thus an economic consequence of the oil shock.

Yet, largely, the reaction by SWFs has been more muted than most observers had expected. While the value of SWF investments has declined, the deal flow has not dried up. Total assets under manage-

ment, meanwhile, have actually increased, albeit at a much slower pace than what we have been used to. In some respect, host countries have shown restraint by not treating SWFs as pure rainy-day funds. While domestic budget smoothing is certainly one of the objective of most, if not all, SWFs, another primary function of SWFs is to provide a source of diversified revenues for countries overly dependent on commodity-based income. At this time of turmoil, all commodity producers are seeking ways to diversify their revenue stream — see, for example, the attempts of Saudi Arabia to reduce its dependency on oil exports. Selling off the diversified assets managed by a domestic SWF would have the opposite effect, by increasing dependence on commodities. Tellingly, Saudi Arabia's plan to diversify income streams includes, amongst other provisions, plans to privatize a stake of its national

oil company Saudi Aramco, and to use the proceeds to establish a new SWF with the mandate to invest proceeds to diversify revenue streams. Hence, paradoxically, lower commodity prices in the most oil-dependent economy are leading to an increase in assets under management by a SWF, in contrast to most predictions.

Interestingly, the new “age of plenty” in commodities markets could have redistributive effects between exporting and importing nations, and different implications for commodity as opposed to surplus, non-commodity SWFs. While low prices strain the fiscal position of exporters and their growth prospects, they lower energy costs for countries that are net importers, strengthening the competitive position of local businesses. One would expect a boost in exports for large energy consumers especially amongst emerging countries, leading to significant accumulation of reserves, and an increase in the pace of sovereign investment.

Yet, investment flows in 2015 do not support this view. As *Figure 3* shows, commodity and non-commodity SWFs moved in tandem, both reducing their equity investments by about 10 per cent relative to the previous year. Most likely, the ongoing disruption occurring in emerging markets, notably China, where growth continues to decelerate, dwarfed the positive effect of a reduced energy bill.

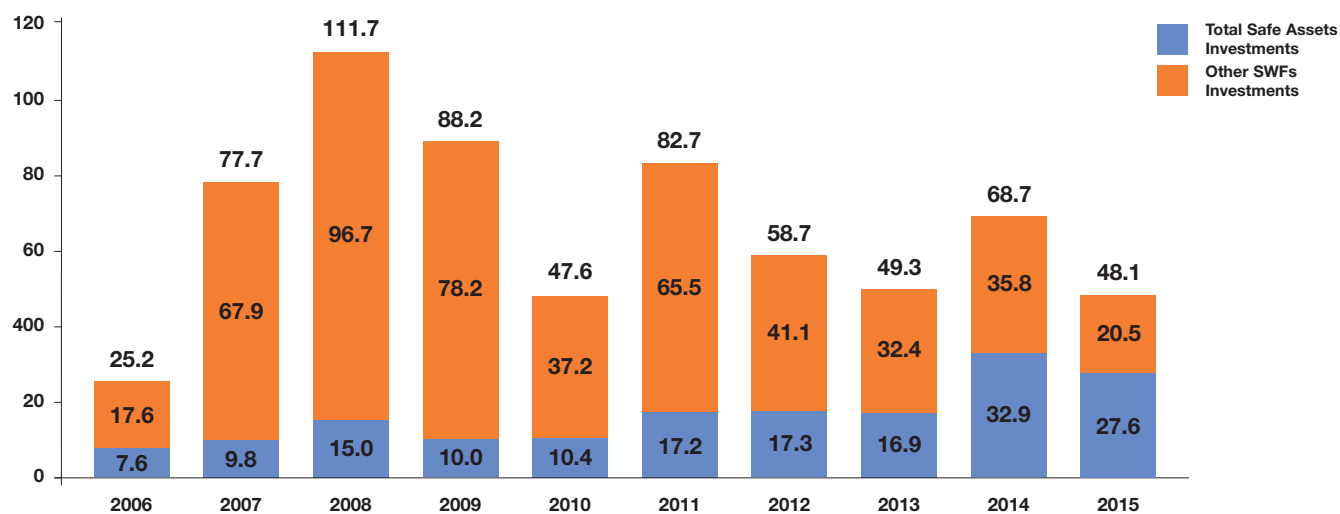
In nutshell, 2015 SWF investment data are fundamentally the outcome of the two big and related features of the regime often referred to as the “new normal”: the combination of subdued global economic growth and low energy prices.

Despite the oil price collapse and adverse economic conditions in emerging countries, the number of SWF deals surged, even if investment value declined. Consequently, relative to 2014, we report a dramatic decrease in the average deal size, reaching \$355.3 million this year.

Largely, this drop in average deal size is due to the paucity of “mega-deals”. While 2014 saw several deals exceeding \$4 billion in size, we document no investments in the “over \$4 billion” range in 2015. The scarcity of large deals and the drop in average deal size might be related to the decline SWF investments in the real estate sector, which traditionally has accounted for a large portion of the deals exceeding \$1 billion in value. But it also witnesses a shift towards a more conservative strategy, mitigating investment risks by diversification, co-investments, and careful sectoral allocation.

Sectors

Call it an insatiable appetite for safe assets. With 53 publicly reported deals worth \$27.5 billion, SWF investment in real estate, hotels and tourism facilities, infrastructure, and utilities accounted for 57 per cent of investment value and 28.5 per cent of total investments. As *Figure 4* shows, the share of acquisitions in safe assets has steadily increased during the last decade to become the sector of choice. Why is this asset class the place to be for SWFs in 2015? Cheap valuation in developed economies, the desire to substitute zero-yield sovereign debt with low risk assets, inflation hedging in a QE environment, and simply portfolio diversification are all contributing factors, with special reference to real estate.

Figure 4: SWF Investments in Safe Assets,* 2006 - 2015

* Safe Assets category includes Infrastructure & Utilities, Real Estate and Restaurants, Hotels, Motels sectors.

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Exposure to real estate has been a widely researched topic recently and most academic studies conclude that adding real estate improves the risk-return profile of a mixed-asset portfolio. Real estate returns are also a natural inflation hedge, as rents tend to be linked to inflation. Even if estimates of optimal allocations vary strongly, a consensus is pointing at an optimal allocation around 15 percent of total portfolio value, with a preference afforded to direct ownership of buildings, and non-listed real estate funds, displaying lower correlation with returns of equities and bonds. The diversification potential of real estate is therefore large, and several SWF's are gradually adjusting their exposure to this asset class. The long-term danger, of course, lies in the lower liquidity of real estate assets — as the next, inevitable, crisis might yet reveal. But, for now, SWFs are following the herd.

Indeed, since the financial crisis, we have observed an increasing interest in real estate by SWFs and last year was not an exception. With 31 publicly reported deals worth \$23.44 billion, real estate represents 23 percent of transactions and 39 percent of total reported investment value in 2014, winning the prize for the most attractive sector for SWFs by both measures of activity. The aggregate value of investments in brick-and-mortar slid significantly relative to last years' all-time high, even if we report a 20 per cent increase in the number of deals.

The noteworthy features of 2014 real estate deals by SWFs are confirmed also this year: a high concentration of large acquisitions in commercial property in developed countries, primarily United Kingdom, USA, and Australia, and declining appetite — with

few exceptions — for greenfield projects in emerging economies. The total amounts invested in the US and the United Kingdom markets are \$7.3 and \$3.6 billion, respectively, accounting for more than a half of the total investment flows in the sector. Vibrant cities with a diversified economy, economic powerhouses hosting high growth firms and the most creative entrepreneurs are in high-demand, especially for the hefty returns in the office and commercial property segment of the industry. As we will see, Milan and the most attractive Australian big cities entered the SWFs' radar screen in 2015.

As in previous years, investment activity is highly skewed by a few, hyperactive funds. The usual suspects, GIC, QIA, and Norway's GPFG, account for 60 per cent of deal value. GIC wins the prize for the largest real estate investor in 2015, with a twist: while maintaining a strong focus on developed economies, GIC also diversified geographically its portfolio by investing in some development projects in emerging markets. GIC completed the \$3.6 billion acquisition — already announced last year — of IndCor, a Chicago-based company owning and operating 117 million square feet of high-quality industrial properties in key markets in the US, from the private equity firm Blackstone, closing one of the largest property deal in the history of SWF investments. In developed markets, GIC partnered with the Exeter Property group for joint investments in logistics properties in key European distribution hubs. As to emerging markets, GIC reached into India. First, it launched a joint-venture with DFL Ltd., a premier Indian real estate company, for two home development projects in Central Delhi. Second, it acquired a 50 per cent stake in Tishman Speyer's WaveRock office project in

Low-yields pushed investment in safe assets, primarily in real estate in developed economies

Hyderabad, a vibrant new city and a destination of choice of global brands, as exemplified by Google building its largest foreign facility. Finally, GIC partnered with Brigade in a joint venture for the development project in Whitehead, one of Bangalore's major IT hubs. GIC's rejuvenated interest towards emerging markets is also witnessed by the acquisition of a large stake in Franshion Properties, a developer whose bulk of business is in mainland China.

QIA, after the real estate binge in 2014, scaled down significantly its new investments in property to a total of \$4.4 billion, but it maintained its penchant for trophy properties, snapping a handful of high profile deals. With an additional investment of \$2.8 billion, QIA completed the acquisition of Canary Wharf, the East London skyscraper cluster, home of one of the world's leading financial districts. In late 2014, QIA joined forces with a strategic partner, Brookfield Property Partners, a Canadian fund manager, to launch a successful takeover bid of Songbird, the majority owner of Canary Wharf. In 2015, this joint venture squeezed out the remaining shareholders and on April 23 all Songbird shares were delisted from the London Stock Exchange. With a total amount invested of \$10.9 billion, the acquisition of Canary Warf is the largest deal in the history of the United Kingdom property market.

Thanks to another landmark two-stage buy-out, QIA became the sole proprietor of Porta Nuova, one of the most prestigious city-center, mixed-use developments located in Milan, Italy. In May 2013, QIA, through its wholly-owned subsidiary Qatar Diar, acquired a 40 percent interest in the investment funds which own the Porta Nuova development. In February 2015, QIA increased its participation to 100 percent, after reaching an agreement with the initial investors that started the development of the project with an estimated market value of \$2 billion. Last year's investments were not confined to developed markets as QIA also entered a joint venture with Singapore-based The Ascott, one of the world's largest international serviced residence owner-operator. The new \$600 million fund will invest with a focus on Europe and Asia-Pacific, expanding presence in key gateways cities.

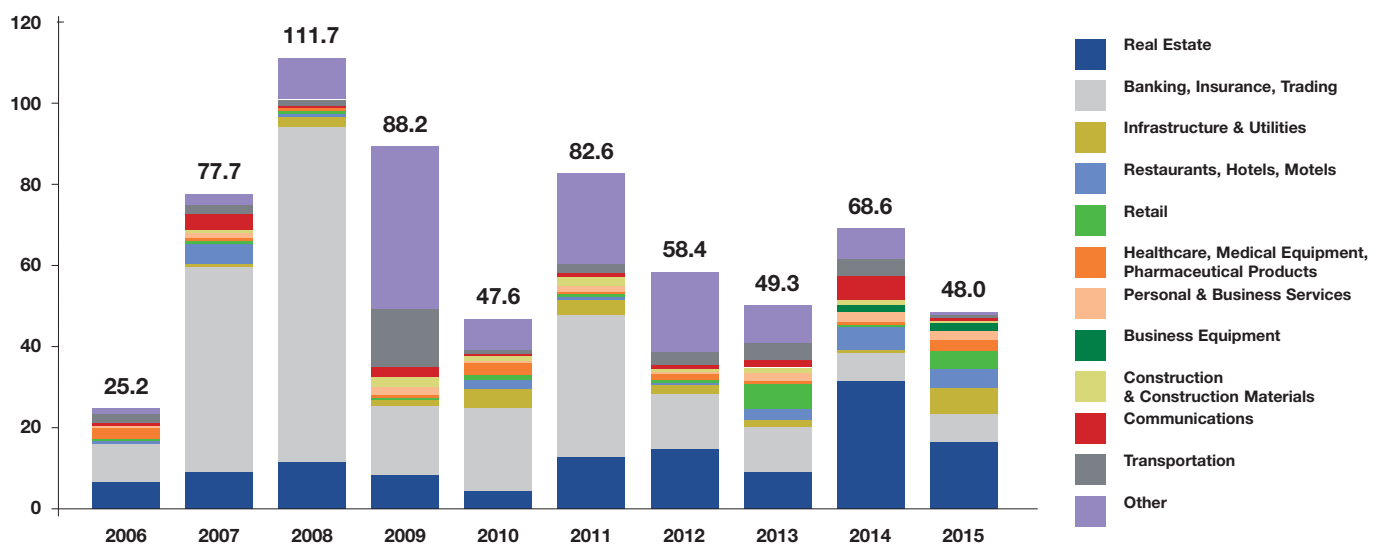
The Norwegian GPFG, the largest SWF in the world, started to invest in real estate in 2010, and gradually built up a portfolio of property worth \$25 billion in late 2015. In December 2014, the Ministry of Finance announced plans to review its rules imposing an upper limit of 5 percent, and in late 2015 Norges Bank recommended to raise the target for real estate investments in the GPFG to 10 percent. Given the current assets under management, this would imply a target real estate portfolio of \$90 billion, that will be gradually reached by divesting its fixed income portfolio. GPFG invested \$5.3 billion in real estate this year, primarily in the US and the United Kingdom. In the US, the largest investment was a \$1.56 billion acquisition of eleven properties in New York near Hudson Square, Midtown South from Trinity Wall Street Episcopal

Church, owning 215 acres in Manhattan since 1705, and the acquisition of a 45 percent stake in 11 Times Square. GPFG also tapped commercial property located in Brannan 888 in San Francisco in partnership with TIAA-CREF, and in London Queensberry House at 39 Old Burlington Street in London.

According to recent official statements, CIC is also changing strategy, diversifying foreign investments away from stocks and bonds and into assets including infrastructure and property to fit its long-term investment horizon. In 2015, the third-largest fund by assets stepped up direct equity investments in real estate in advanced economies. CIC International, the manager of the overseas assets of the fund, acquired trophy assets in Australia worth \$1.8 billion from Investa, the Morgan Stanley Real Estate investment platform. On the property front, CIC in one swoop has become a major investor in the Australian office market, buying stakes in nine buildings across Sydney, Melbourne, and Brisbane. In Europe, CIC launched a winning joint bid with Paris based AEW Europe for a portfolio of ten shopping malls in France and Belgium sold by US commercial real estate group CBRE Global Investors.

Finally, in one of the largest industrial real estate transactions of the year, a joint venture of ADIA and the PSP Investments, one of the largest public Canadian pension investment managers, closed on the acquisition of a 58 million square foot portfolio of core industrial properties owned and managed by industrial property specialist Exeter Property Group for \$3.15 billion.

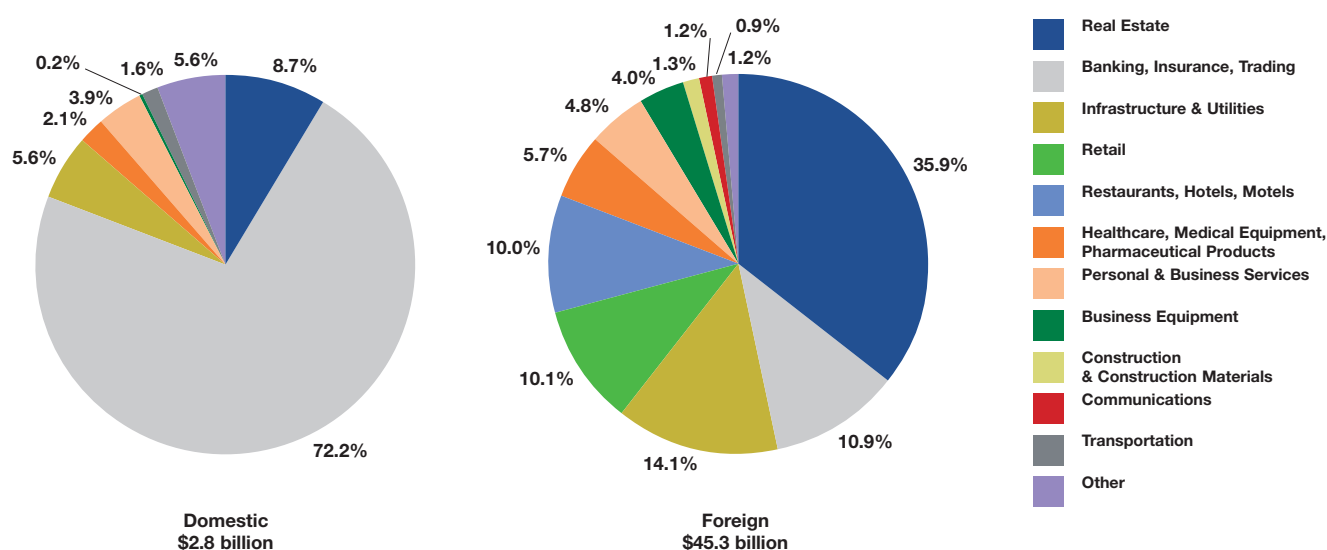
Figure 5: Value of SWF Investments by Target Sector, 2006 - 2015 (US\$bn)



Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Hotel and tourism facilities have peculiar characteristics, but still share some risk-return properties of real estate, so it makes sense to include them in the same bucket of safe assets. After a quiet 2014, last deal flow in hotels resumed strongly, with 12 reported acquisitions for a total investment value of \$4.5 billion. Interestingly, SWF investment in tourism facilities is frequently a tale of two funds, QIA and ADIA, and 2015 was not an exception. In fact, QIA added to its collection of London luxury hotels Claridge's, The Berkeley, and the Connaught from Barclay brothers, whose exit from the business comes after four years of legal wrangles. Constellations Hotels Holding, the specialized arm of QIA, in a sequence of bold moves, took control of Coroin, an Irish based company set up in 2004 to buy hotel trophy assets with cheap debt, involving also Colony Capital, a US investment firm with

strong relations and co-investments with QIA, including the Fairmont Raffles Hotel, and Miramax, the Hollywood film studio. The other specialized QIA's subsidiary, Katara Hospitality, after inking in 2014 the deal for The Saint Regis' in Rome, marked another landmark acquisition in the eternal city with the purchase of the world famous Westin Excelsior. ADIA, a usual heavy spender in luxury hotels, paid \$1.2 billion to acquire a 50 percent stake in Hong Kong Grand Hyatt, Renaissance Harbour View, and Hyatt Regency Tsim Sha Tsui from New World Development, a Hong Kong listed firm owned by millionaire Cheng Yu-tung, putting an end to his attempts to arrange an IPO, aborted due to weak market conditions. Taking advantage of the strong depreciation of the local currency, ADIA snapped another deal in the sector by joining forces with Brazil's Iron House Real Estate, owned

Figure 6: SWF Investments by Sector in Domestic and Foreign Markets, 2015

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

by the family-owned company Grupo Cornelio Brennand, to invest in the first Four Season hotel in the country, said to open in 2017 in Sao Paulo's key business district. Finally, after placing to ADIA London Edition property in 2014 the next year Marriot International sold to the Abu Dhabi fund the Miami Beach Edition hotel for \$230 million.

In relative terms, 2015 is a record year in infrastructure investment, as SWFs completed 12 sizable deals worth \$6.6 billion. The amount invested in infrastructure increased eleven times with respect to 2014, reaching an all-time high. Why have SWFs become recently so bullish on infrastructure? The most convincing answer is that all the largest funds are progressively broadening their mandate to invest in alternative asset classes, shifting allocation from low yield (in some case zero or even negative) gov-

ernment bonds to safe assets, including infrastructure. A long-term horizon, a high tolerance for illiquidity, a preference for stability in cash flow make SWFs (together with pension funds) the most suitable investor type for this asset class. Indeed, the combination of lower expected returns (due to lower systemic risk) and higher dividend growth rates is a clear driver of SWFs' demand for this asset class, and of the consequent rise of infrastructure asset valuation.

Infrastructure investment is certainly not risk free, especially in not-listed targets. In addition to conventional operational, market and financial risk, SWF would face idiosyncratic political risks (e.g., changes in government policies, political backlash against privatization), regulatory risks (e.g., changing regulatory or PPP legal framework), and man-

agement and governance risk (e.g., corruption or outright expropriation). Yet, the most severe risk lying in wait is that of low liquidity, especially during market downturns. These risks matter in explaining why institutional investors have allocated less than one percent of their portfolio to infrastructure, an asset class valued approximately \$20 trillion globally.

Another challenge is to find investable projects of sufficient quality and scale, but in 2015 SWFs found in Australia a deal cut out for them. A consortium involving the specialized infrastructure arms of ADIA and KIA, Tawreed Investment and Wren House Infrastructure, respectively, along with the Canadian Pension Fund CDPQ and local infrastructure management companies, won a bid for a 99-year lease of TransGrid, a large part of New South Wales electricity network. Reportedly, the race was tight, and the consortium placed a winning bid of \$7.44 billion against the Chinese State Grid, the leading contender. The NSW premier Mike Baird announced that every dollar raised would be reinvested in greenfield infrastructure, stretching from road, to hospital, schools, and cultural facilities. We conjecture that we will see more privatization transaction of this sort, with cash-stripped governments selling highly priced concessions to raise revenues to finance a new cycle of long-term investment projects. SWFs, co-investing with strategic partners and like-minded investor, will leverage up their financial power, mitigate political and regulatory risks, and harness stable returns.

A quite similar deal in another hemisphere is the \$2.7 billion acquisition of E.ON's Spanish and

Once the white knights of Western financial institutions, SWFs are today heavily investing in banks of emerging economies

Portuguese integrated energy business by a consortium made of the above-mentioned KIA's Wren House and Macquarie. Aiming to cut its debt load and to rake cash for new investment projects, E.ON retreated from southern Europe, passing the torch to specialized funds lured by the guaranteed cash flows regulated business offer in times of zero-interest rates. This acquisition did not satiate KIA's appetite towards Spanish utilities. In a somewhat related move, Wren House teamed up with former state monopoly Gas Natural subscribing \$550 million capital increase at Global Power Generation, a subsidiary planning to build generation capacity in Latin America and Asia.

Indeed, emerging market infrastructure is in high demand, and QIA took the opportunity to build a large stake in HK Electric Investment, the local power utility operated by Power Assets Holding, owned by Hong Kong richest man, Li Ka-shing. In spite of the great deceleration, global investors including SWF are still eyeing investment opportunities in the higher growth spots in Asia.

Since the financial crisis, investments in the financial sector have progressively lost momentum, both in absolute and relative terms. After last year's record

low, deal flow in 2015 has reached a plateau. The total reported investment value in the sector is \$6.9 billion thanks to 28 acquisitions almost entirely completed in emerging markets. In relative terms, we observe a slight increase of activity, with an uptick from 10 to 15 percent by value and number of deals. However, we believe that the overall consolidation of this trend suggests that a long-played game is over. SWFs have ceased being the white knights of struggled Western financial institutions, and used their muted allocation to the financial sector to invest in banks of emerging economies, in order to gain exposure to the sector's recovery in countries with higher growth potential.

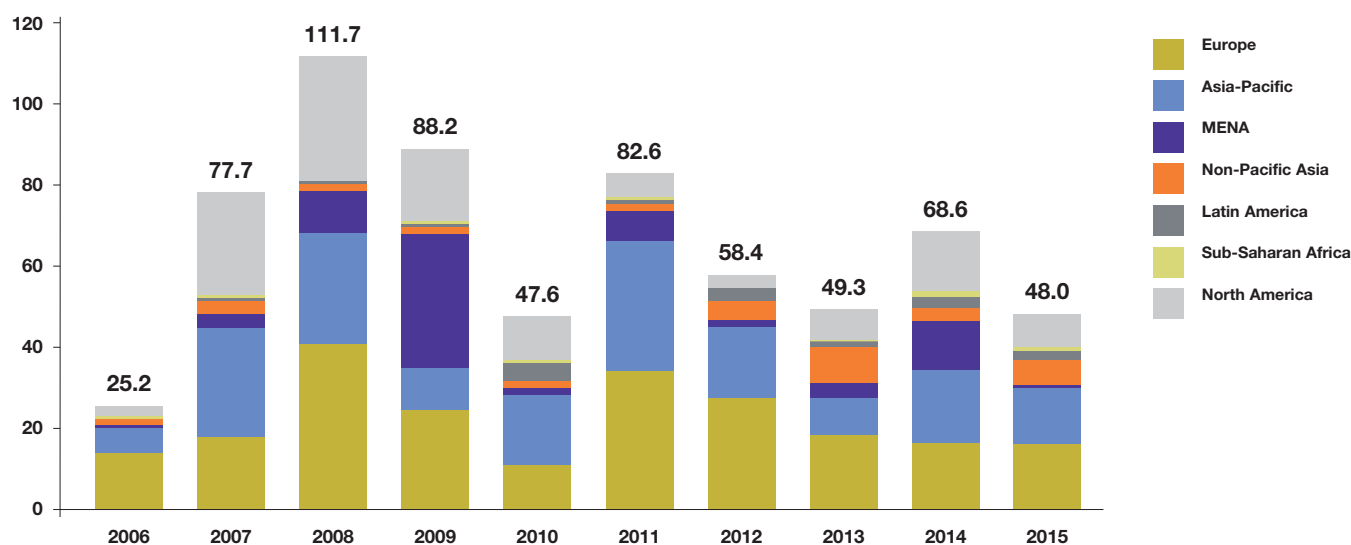
The declining interest towards banks is a revealing feature of the headwinds affecting the sector. Under the bail-in regime prevailing in Europe and developed countries, it is much less likely that if bank shares slump, government would be willing to be the investor of last resort and rescue them again if fresh capital is needed. This is a key difference between now and the financial crisis era. Indeed, if private sector involvement is the norm, then SWFs are no longer willing to holding the bag alone, especially at times of tight budget constraints.

In 2015, target countries of choice, notably Turkey, China, and India, account for 90 percent of investment value, a revealing figure of SWF's appetite towards the financial sector of emerging countries. The largest deal of the year, the \$2.9 billion acquisition of Turkish Finansbank by Qatar National Bank (QNB) from the National Bank of Greece warrants attention for its implications on European financial stability. In official statements,

QNB, half-owned by QIA, has declared its ambitions to become the largest bank by asset in the Middle East and Africa by 2017, and then a global banking icon by 2030. After snapping a sequence of acquisitions in the region, including Societe Generale's Egyptian business and pan-African lender Ecobank International, in late 2015 QNB launched a successful bid for Finansbank, the fifth largest Turkish bank by assets. National Bank of Greece, required to plug a capital shortfall after last ECB stress test, will use the proceeds to pay back 2 billion euros of aid it received from Greece's bank rescue fund by issuing contingent convertible bonds, saving about 150 million euros annually. The deal ultimately benefits a heavily distressed European institution with a similar effect to an old-style bailout, but the logic of the deal is completely different. By acquiring a foreign subsidiary, Qatari investors are betting on an emerging country, while providing badly needed liquidity to a Greek institution. A win-win solution, and a proof of the stabilization role that sovereign investor are still playing in testing times.

Another landmark — and with hindsight — controversial deal in emerging markets is the sale of 1.1 billion new Hong Kong-listed shares of CITIC, China's largest brokerage house, to a consortium of ten investors, including KIA, Temasek, GIC, and Malaysia's Khazanah Nasional Bhd. Pushed by the stock market boom, Chinese brokerages have rushed out glowing results, and attracted investors. A few weeks before the August crash, CITIC placed shares at a 19 percent discount to a large group of domestic investors, and to the above-mentioned pool of SWFs, committing a total of \$1.3 billion for

Figure 7: Value of SWF Investments by Target Region, 2006 - 2015 (US\$bn)

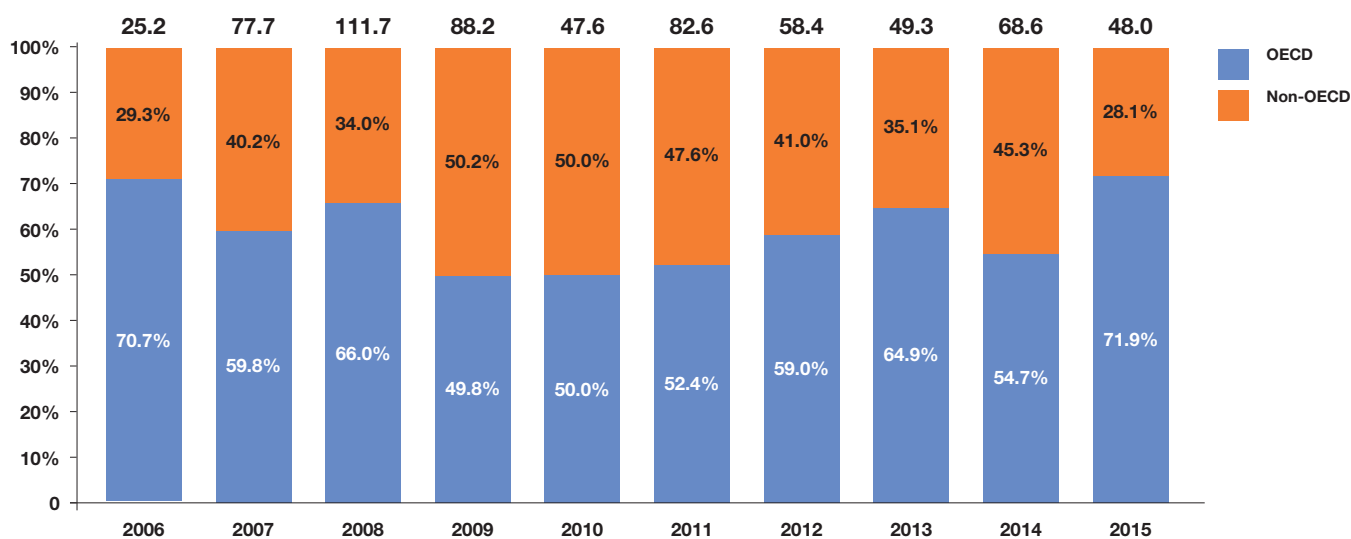


Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

a combined stake of 3.3 percent. CITIC said that it planned to use the money “to develop margin financing, securities lending, equity and fixed income derivatives, forex and commodities products”, but market disruption that followed took the company by surprise. The stock market crash had a dramatic impact on the CITIC’s share that lost 40 percent of value and as we write looks far away from recovery. Apparently, sophisticated investors such as SWFs burned their fingers not differently from the millions of Chinese small, retail investors who recently opened their trading accounts.

With slowing GDP growth, shrinking bank profits due to bad loans, and a stock slump erasing in a few months \$5 trillion, a revival of China Investment Corporation (CIC)’s activism in the domestic banking industry is far from surprising. After a quiet

2014, CIC’s domestic arm, Central Huijin, came back strongly to strengthen all “Big Four” state-owned banks also as a strategy to prop up the domestic stock markets of “A-shares”. Reportedly, the fund invested \$3.8 billion in acquisitions involving the Industrial and Commercial Bank of China (ICBC), the Bank of China, the Agricultural Bank of China, the China Construction Bank (CCB), and the China Everbright Bank. As in 2013, Temasek followed suit, by raising its stake in ICBC to 10 percent of capital. By amassing stakes worth almost \$18 billion in Big Four, Temasek is the biggest foreign investor in Chinese banks, a risky strategy that in 2015 severely dented its portfolio performance. Central Huijin provided additional support to Shenwan Hongyuan, another large domestic asset manager in doldrums. With this additional round of acquisition, CIC has further strengthened its posi-

Figure 8: SWF Investments in OECD and Non-OECD Markets, 2006 - 2015 (US\$bn)

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

tion of largest shareholder in Chinese banking system. CIC's financial investments abroad are limited the partnership with the Italian F2i, a private equity fund specialized in infrastructure.

At a broad level, recent SWF investment trends suggest that a significant sectoral portfolio reallocation is underway. While — unsurprisingly — not a single dollar is invested in the energy sector and safe assets gain ground, new sectors enter the radar screen. The semiconductor industry has seen a lot of merger and acquisition activity over the past 12 months, as a once high-growth sector is coming to terms with the need to boost growth and cut costs. CIC, with its subsidiary Jian Guang Asset Management, seized investment opportunities in this consolidation process by acquiring control of the radio-frequency, power amplifier subsidiary of NXP Semiconductor,

the Dutch chip maker, forced to divest partly its holding for antitrust reasons after the takeover of the US chip manufacturer FreeScale. The number of Chinese buyers participation in IT auctions is staggering, and CIC snapped one of its largest deal in this sector, in the wake of a renewed interest by SWFs of all stripes (see article page 61).

In a similar vein, innovation and on-line shopping are reshaping the retail industry, and companies are struggling to cut costs with targeted investments generating economies of scale. This restructuring process is attracting interest by SWFs and like-minded investors. Temasek, a limited partner of MBK, one of the largest north Asia focused private equity group, joined forces with two large Canadian and Korean public pension funds, with MBK acting as the managing partner and investor,

in a winning bid for Homeplus, Tesco's Korean discount retail chain. The \$6.4 billion acquisition will grant control and allow pushing the needed big changes in the Korean retail market, de facto a duopoly with E-Mart. Interestingly, this consortium outbid other competitors including Carlyle, which had teamed with GIC. The big Singaporean SWFs apparently do not hesitate to compete with no holds barred, even if in most cases they operate as partners. In the high end of the retail markets, GIC, Temasek and QIA jointly invested \$1.4 billion in Dufry, one of the primary airport retailers, supporting the company in the planned acquisition of Benetton's family World Duty Free aimed at forming an industry leader controlling 25 percent of the market. Finally, lured by attractive valuations and a weak euro, Infinity Investments, the subsidiary of ADIA specialized in infrastructure investments, joined a consortium led by the German insurer Allianz Capital Partners GmbH, and including Borealis Infrastructure Management, and Munich Re asset manager, to acquire Autobahn Tank & Rast, the German service station chain with \$ 3.8 billion bid. The company, which also manages several concession contracts in the German highway network, is a perfect target for long-term shareholder seeking stable and predictable returns.

Demographic transitions, breakthrough innovations, and the rise in life expectancy are global megatrends shaping today the healthcare industry, and companies are struggling to find new business opportunities in a rapidly changing environment. Fiscal distress and high debt are curbing social

spending in advanced economies, whereas a rising middle class in emerging markets is ready to fill the gap in global demand for healthcare. These transitions are triggering a hectic deal-making in the sector which has seen more than \$250 billion of investment in 2015, up nearly two-thirds relative to previous year. In 2015 SWFs have also expanded their interest in the sector by completing 14 acquisitions worth a total of \$2.6 billion, the highest value since 2010. Hospitals located in emerging markets have been the target of choice. Indeed, the largest reported deal in the sector is the GIC's acquisition of 15 percent capital of Rede d'Or Sao Luiz, the largest independent hospital operator in Brazil. The company's founding Moll family and the investment bank BTG Pactual sold equal stake for \$1 billion. The positive prospects of the Indian economy, and the rising needs for quality private healthcare have attracted significant investment by SWFs, completing 6 several sizable deals in hospital and pharmaceutical companies. Gleneagles Development, a subsidiary of Malaysia's Kazanah Nasional Bhd bought Global Hospital, operating a chain of five hospitals in main cities. The largest acquisition in India is, however, the joint bid by Temasek and GIC for the block of shares of Sun Pharmaceutical Industries, one of the largest drug-maker, divested by Japanese Daiichi Sankyo, making a final exit after the company run into troubles with US regulators. Temasek's appetite in healthcare did not satiate in emerging economies. Joining forces with the European private equity fund CVC, the hyperactive Singaporean fund bought a large stake of the fast-growing, Luxemburg-based pharmaceutical company Alvogen.

The Rise of Sovereign Private Partnerships (SPP)

Over the past year, SWFs have displayed an increasing desire and ability to team up and find opportunities for co-investments with other SWFs or other financial investors and through joint-ventures. This trend is related to SWFs moving away from expensive — and not always effective — external fund management and towards more internal portfolio management. As SWFs attempt to manage a larger portion of their funds in-house, collaboration is a way to leverage limited human-resources, to learn from their investment partners, and to spread risks. The rationale is very simple: sharing information, generating economies of scale, leverage up control power while maintaining portfolio diversification.

This trend is gaining momentum. In 2015, co-investments represent almost 50% of the reported deals, and they are worth in total \$24.4 billion. In the 2008-2014 time-span, they accounted on average only 22 percent.

In the last years, these partnerships have typically taken the form of direct equity co-investments in the same target, epitomized by 2015 high mark acquisition of the Swiss-based Dufry AG, one of the largest airport retailers, by the pooled resources of QIA, Temasek, and GIC. But the most recent trends reveal a change in strategy. Rather than teaming up among themselves, SWF engage in deal making with private partners.

Last year, 93 percent of co-investments by value

have been made in collaboration with a private partner, either a strategic partner, or financial institution. Amongst co-investors, strategic partners represent the most sought-for type, due industry know-how, operational capabilities, and track record, qualities SWFs in some sectors might be short of. In 2015, examples of this type of SPP are GIC's alliances with Exeter Property in the UK, DFL Ltd and Brigade in India, or QIA's partnership with Brookfields Property Partners in real estate, or the ADIA, KIA joint-venture with local infrastructure companies in the \$10 billion acquisition of the Australian New South Wales electricity network.

Another frequent type of co-investment involves instead a financial institution, such as like-minded investor (typically a pension fund) or a private-equity, venture capital fund. It has become more frequent to observe SWF as LPs in private equity funds to co-invest target companies with other financial investors. For example, Temasek, a limited partner of MBK, one of the largest north Asia focused private equity group, joined forces with two large public pension funds to acquire Homeplus, the Korean retailer. SWF investments in IT-related industries are typically executed in partnership with VC funds, as it happened with the \$2 billion acquisition of Didi Kuaidi, an Über rival prospective unicorn, by Temasek, and CIC, supported by the local expertise of Ping Ang Ventures.

Figure 9: Co-Investment Partner by Deal Value, 2015

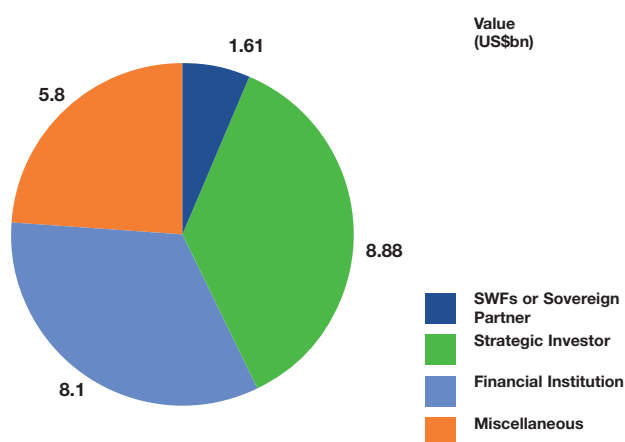
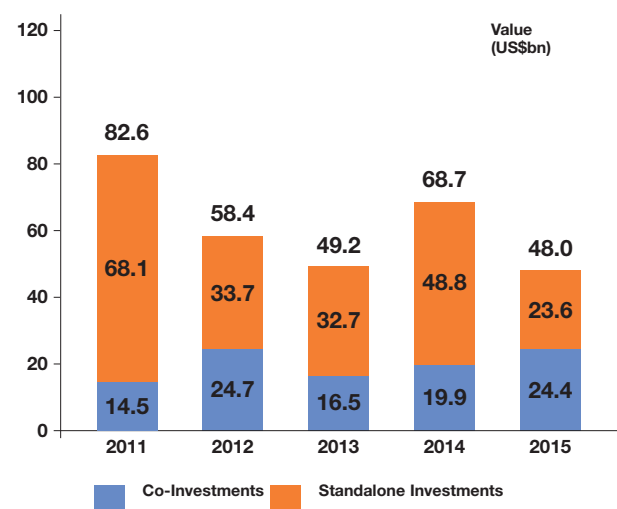
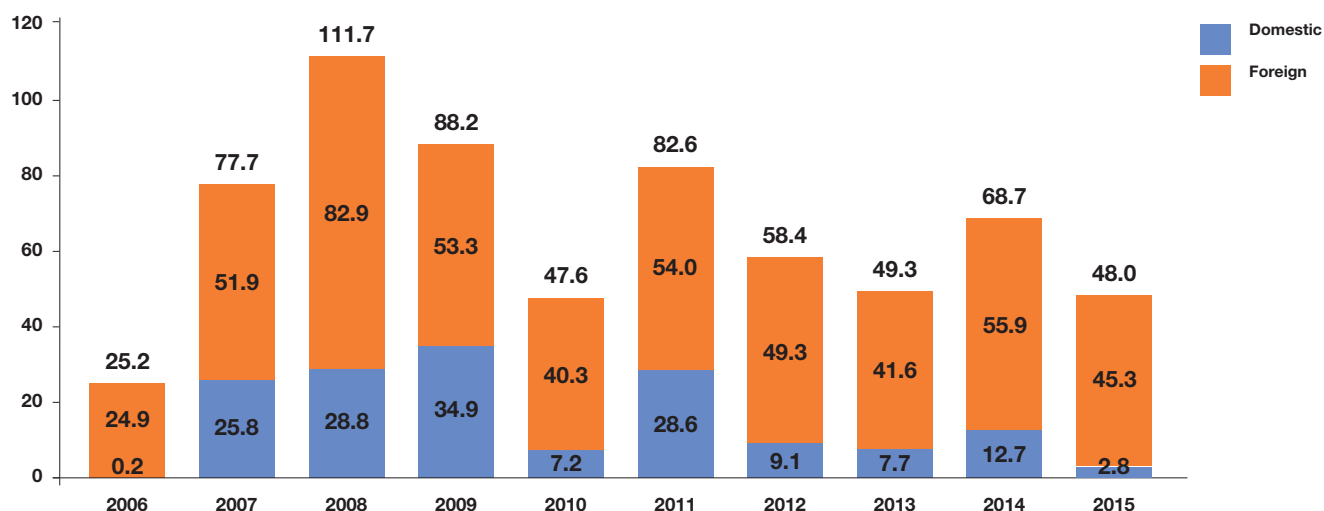


Figure 10: Distribution of Standalone and Co-Investments by Deal Value, 2008-2015



Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Figure 11: SWF investments in Domestic and Foreign Markets, 2006 - 2015 (US\$bn)

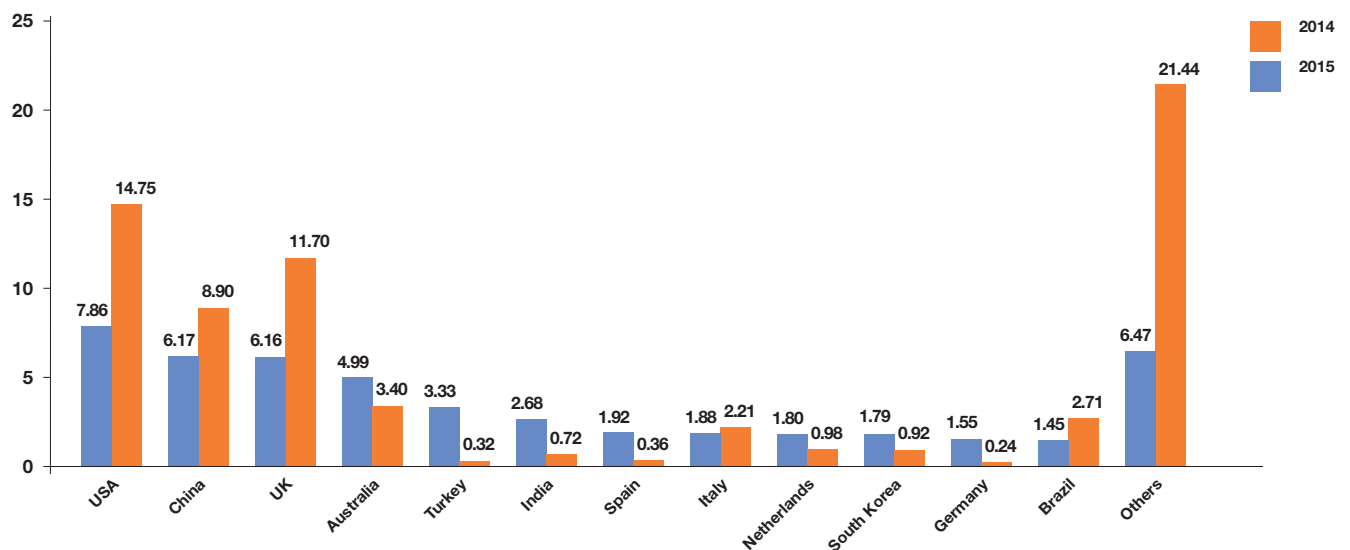


Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Geography

The geographical breakdown of SWF direct equity investments has always shown a strong preference for developed economies. Even more, the proportion of SWF investments allocated to OECD countries has been steadily growing since 2009. We saw an inversion in this trend in 2014, as the SWF investments in OECD countries declined from 64.9% of the total deal value in 2013 to 54.7% in 2014. This reallocation was due, in part, to a desire to diversify away from North American and, largely, to a domestic retreat: SWFs originating from commodity-producing economies were investing more domestically to help revitalize struggling domestic markets. In 2015, we see a return to the pre-2014 trend, with allocation to OECD market increasing to an all-time record of 71.9 percent. Interestingly, SWF shied away from their domestic

economies, by investing a stellar 94 percent abroad. The increase in the international exposure is noteworthy. In the past, we have often seen SWF called in to invest at home especially when the national economy required support, and expanding abroad in “good times”. In 2015, one of the worst years in recent history for oil producing nations, but also for the emerging economies battered by the retrenchment of global trade, SWF changed strategy and focused on their long-term mission, i.e. preserving national wealth for future generations by a global diversification of investments. Even if China did not follow in this wake, the increase in the share of international investment, which is also affecting emerging markets as targets for portfolio diversification, is an important trend to keep track of in the next years.

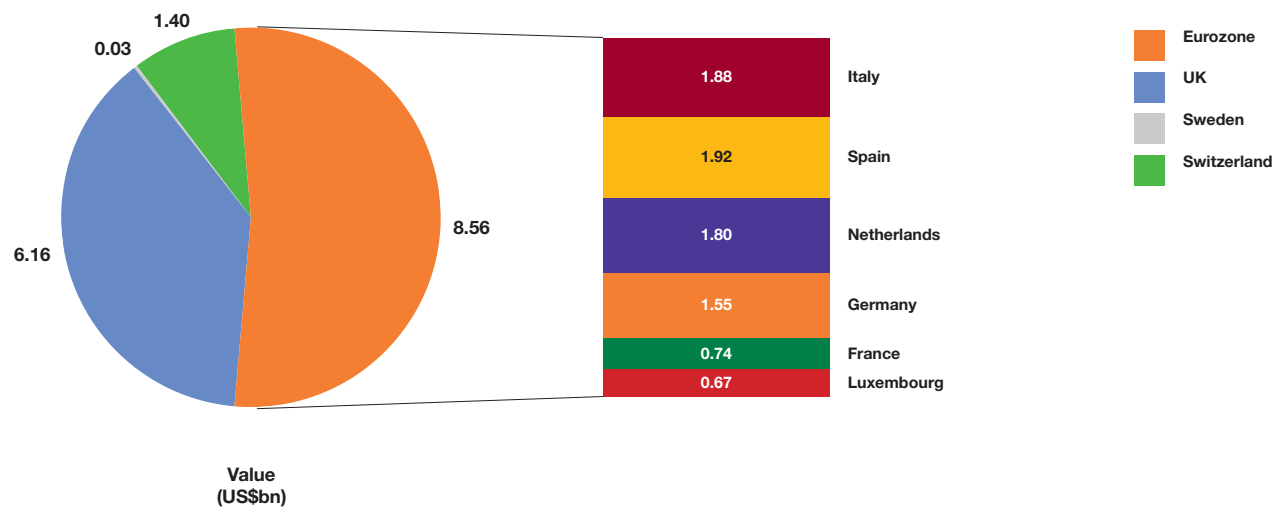
Figure 12: SWF Investments by Target Country in 2014 and 2015 (US\$bn)

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

At an aggregate value of \$16.2 billion for 39 deals, inflows into Europe show a very slight decline from the 2014 value of \$16.5 billion. Yet, the relative size of inflows into Europe has grown, accounting for approximately one-third (33.77%) of total investments. We saw a more market decline in Asia-Pacific, with aggregate investments of \$13.9 billion (relative to a 2014 total of \$18.1 billion), or approximately 29% of total investments. The decline was even more marked in North America, with investments dropping from \$14.7 billion in 2014 to \$8 billion in 2015 (16.63% of total). Yet, it was the MENA region that showed the steepest decline, with investments virtually disappearing, from an aggregate \$12.1 billion in 2014 to approximately \$500 million in 2015. The only region to record an increase was Non-Pacific Asia, which received \$3 billion in investments in 2014 and \$6.1 billion in 2015.

Despite the increased reallocation away from North America, the USA is still the favourite country for SWF investments, accounting for \$7.86 billion of deal flow. Virtually all of the investments in the USA were in the real estate sector: if we include investments in hospitality (restaurants, hotels, and motels), the sector accounted for \$7.56 billion in investments. The second most popular destination for SWF deals in 2015 is China, with \$6.17 billion, a country also showing a marked decline in attractiveness relative to previous year. Yet, the lion's share of most investments are domestic bailouts in the financial sector, and most deals are acquisitions by Singaporean Temasek, and to lesser extent GIC. Indeed, the only significant operations by foreign SWFs are the co-investments by KIA and Kazanah Nasional Bhd mostly on financials (notably in the asset manager CITIC), but with significant and

Figure 13: Foreign SWF Investments in Europe, 2015



Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

growing allocations to infrastructure and transportation.

Within the Asia-Pacific region, the main beneficiary of last year’s reallocation has been Australia, an economy still transitioning from a reliance on the mining investment boom for growth to a broader range of economic activity. In spite of present difficulties, safe assets in Australia remained a very attractive asset class for SWFs in 2015. Temasek, CIC, KIA, and ADIA, a fund already quite exposed to the country, poured an additional \$4.9 billion in acquisitions in real estate and infrastructure.

As already mentioned, the real winner in the geographical re-allocation taking place in 2015 is Non Pacific Asia, with a two-fold increase in deal values in absolute and relative terms. SWF acquisitions by

SWFs surpassed the \$6 billion mark, with an exclusive focus on two countries, India and Turkey. With 36 completed deals, India wins the prize for the most attractive target country of 2015 by number of operations. The \$2.6 billion raised are not a stellar amount, but the broad diversification of investments across sectors is a definite sign of economic vitality. A young population, a slight increase in income inequality – a promising sign of a rising middle class –, and a business friendly, new leader are contributing factor for an increased attractiveness of foreign investments. We also report a staggering \$3 billion year-over-year increase in deal value in Turkey, primarily thanks to the QIA acquisition of Finansbank. SWFs’ appetite for Turkish assets can be traced back to socio-economic features, including a young, dynamic population, a large domestic market, and a strategic location,

In 2015, a weak euro pushed strongly SWF investments in the eurozone, surpassing the United Kingdom as target area

combined with strong infrastructure and much improved public services. However, Turkey has been vulnerable to changes in investor sentiment and, together with other emerging markets, has experienced significant currency and financial market volatility during the last years. Only time will tell if this investment trend will gain momentum and consolidate, given the economic and geopolitical challenges the country is facing.

Europe has always been a premier destination for SWFs and last year was not an exception. European targets attracted the largest share of total investment, marking a 10 percent increase with respect to previous year. The continent continues to attract significant cross-border investment, but about last year activity also witness a SWFs' significant shift in focus across countries. The UK is still the largest market, but total deal value cut in a half to \$6.1 billion, and its share over total European investment shrunk from 70 to 37 percent. Interestingly, the Eurozone boasts the majority of SWF investments in the region by value. Since the announcement in January 2015 of quantitative easing by the ECB, the euro strongly depreciated against all major currencies, and SWFs took advantage of favorable terms of trade by chasing investment opportunities

across the board in the Eurozone. The relative decline of the UK can also be traced back to the current outlook in (primary London) real estate market. Whether a boom or a bubble it is hard to say, however, London property have added double the value of the average in Britain, which in turn outpaced the USA market since the financial crisis. The fact that the market shrugged off the bubble-burst of 2008 suggests it has strong fundamentals. Yet, with prices at record high, and the acquisition binge round the corner, a slowing down of investments in London property is far from surprising, and the fact that in 2015 SWF put \$6.1 billion in this single basket reveal how eager they still are to invest in this market.

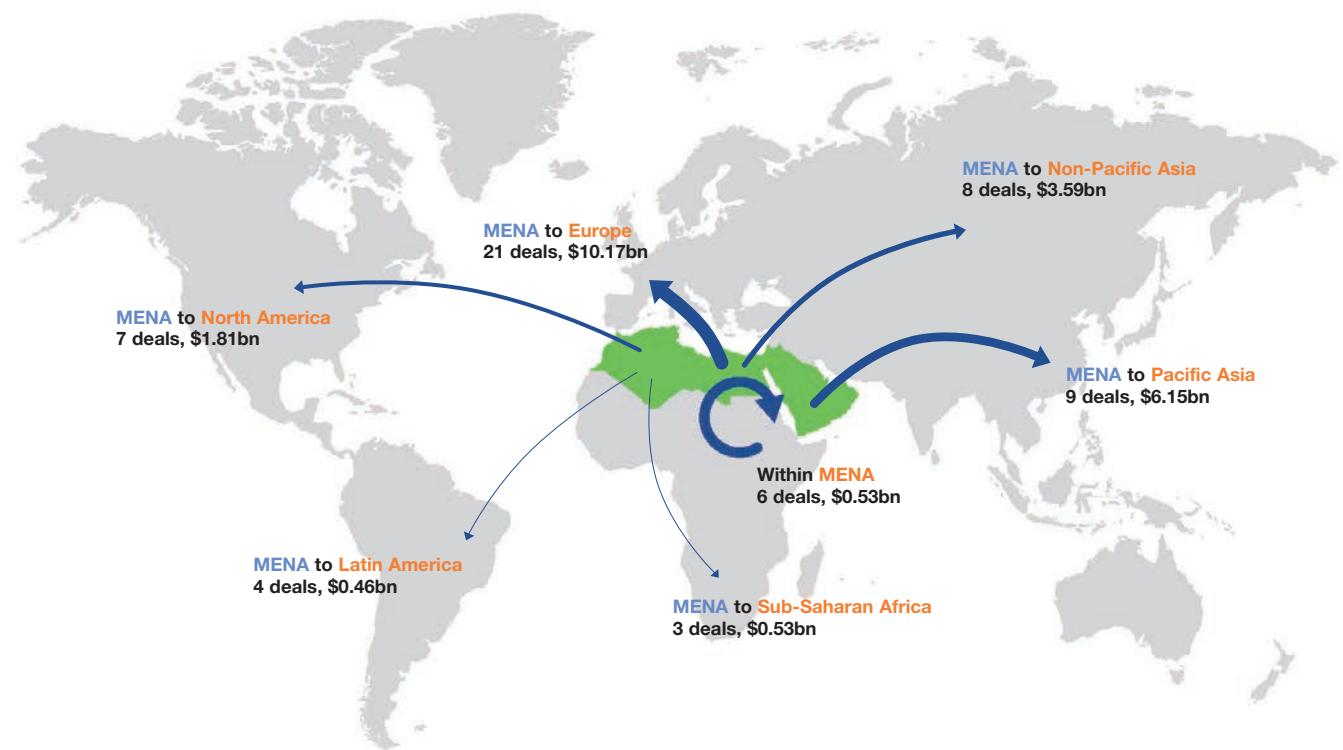
Within the Eurozone, four core countries are under the spotlight this year: Spain, Italy, the Netherlands and Germany. Total investments in Spain climbed to \$1.9 billion in 2015, a rather spectacular increase with respect to 2014 thanks to large acquisitions in energy infrastructure and utilities. After several years of efforts, the broad and deep electricity market reform is starting to pay off also in terms of attracting foreign investments, and SWFs are first in the line when safe infrastructure assets are up for grabs.

After a quite spectacular 2014, Italy has lost some momentum and reported a slight decline in deal value. However, with to \$1.9 billion of SWF investments, the country remains the second most important target of the Eurozone, retaining also a rather broad diversification of investments across sectors. Qatar Holding, a subsidiary of QIA, acquired full control of new business and residential district Porta

Table 3: SWF Investments of Over US\$1 Billion, 2015

Fund	Target Name	Target Country	Sector	Deal Size (Value US\$bn)
GIC Pte Ltd	IndCor Properties Inc	USA	Real Estate	3.65
Qatar Investment Authority (QIA)	Finansbank AS	Turkey	Banking, Insurance, Trading	2.95
Qatar Investment Authority (QIA)	Coroin Ltd	UK	Restaurants, Hotels, Motels	2.40
Qatar Investment Authority (QIA)	Songbird Estates PLC	UK	Real Estate	1.94
China Investment Corporation (CIC)	Portfolio of office tower assets being sold by the Investa Property Group	Australia	Real Estate	1.82
China Investment Corporation (CIC)	NXP Semiconductors-RF Business	Netherlands	Business Equipment	1.80
Temasek Holdings Pte Ltd	Homeplus Co. Ltd.	South Korea	Retail	1.60
Abu Dhabi Investment Authority (ADIA)	58 million square foot portfolio of industrial properties	USA	Real Estate	1.58
Government Pension Fund - Global	Trinity Wall St-Hudson Sq	USA	Real Estate	1.56
Kuwait Investment Authority (KIA)	E ON Espana SL	Spain	Infrastructure & Utilities	1.37
Qatar Investment Authority (QIA)	Hines Italia SGR SpA-Porta	Italy	Real Estate	1.30
Abu Dhabi Investment Authority (ADIA)	3 Hong Kong hotels	Hong Kong	Restaurants, Hotels, Motels	1.20
GIC Pte Ltd	Rede D'Or Sao Luiz SA	Brazil	Healthcare, Medical Equipment, Pharmaceutical Products	1.01

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Figure 14: Investment Flows from Middle East & North Africa SWFs, 2015

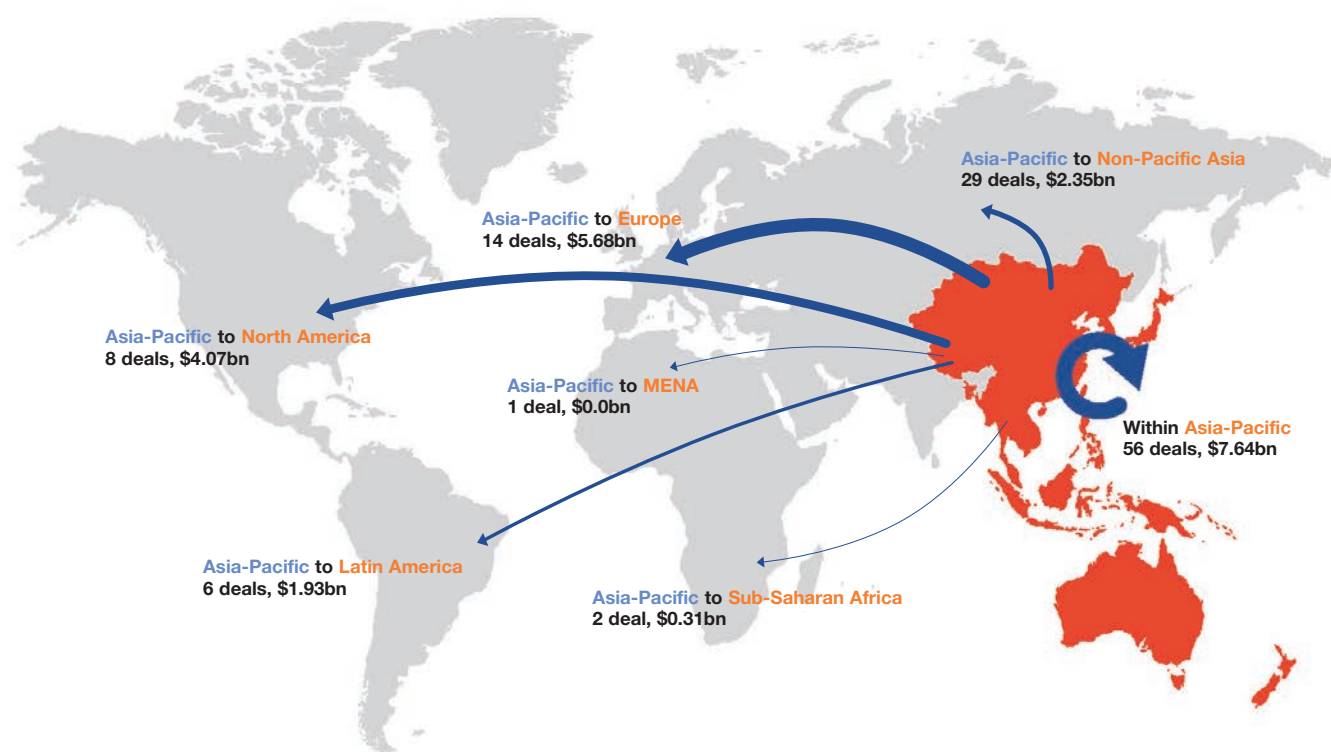
Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Nuova, after the initial acquisition of a 40 percent stake in 2013. Another noteworthy real estate deal is the sale of iconic Westin Hotel Excelsior in Rome to Katara, a specialized subsidiary of QIA. This year marks also the entry of CIC in the Italian market with the investment the private equity, infrastructure fund F2i Sgr, a tangible sign of commitment. The Netherlands and Germany are visible thanks to single, landmark acquisitions, namely the NXP Semiconductor and Autobahn Tank & Rast we already commented in the sector analysis. The rest of Europe did not appear on SWF radar screens in 2015.

Funds

2015 was again a remarkable year for the two Singaporean funds, namely GIC and Temasek, which jointly completed 76 deals worth \$13.2 billion, representing 40 and 27 percent of total investments and value, respectively. Last year's Temasek record has been particularly impressive, winning the prize of the most active fund with 48 completed deals. The year of the country's 50th anniversary of independence, also marked by the passing away of the founding prime minister, Lee Kuan Yew, was the most spectacular since the global

Figure 15: Investment Flows from Asia-Pacific SWFs, 2015



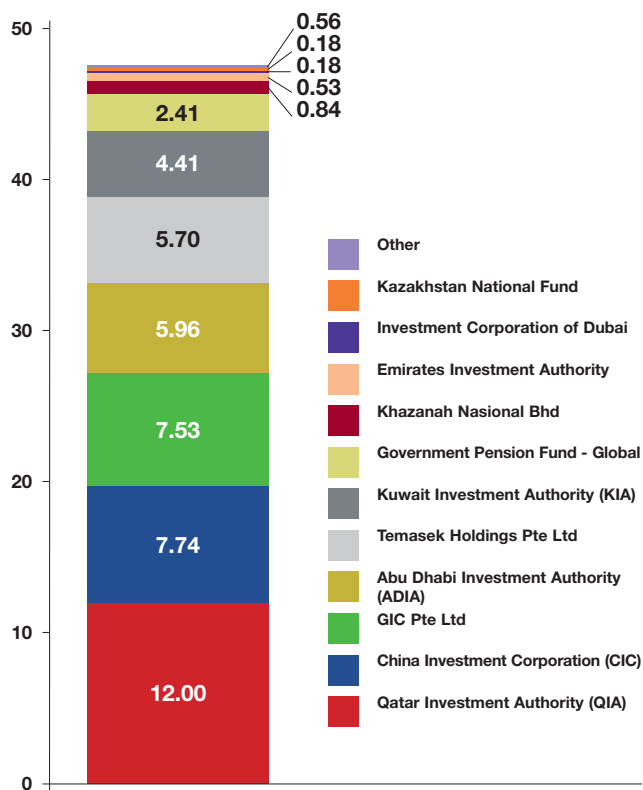
Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

financial crisis in terms of investment activities, reflecting optimism about the global economy over the next few years. The top three sectors for investments during the year were consumer, financial services, and life sciences and agriculture, broadly in line with the investment themes characterizing the current strategy. This year's investments could also be a reflection of the constitutional change passed on July 2015 making Temasek a bigger contributor to the public finances. As of 2017, government may spend up to half of the expected long-term returns of Temasek's portfolio, rather than up

to half of the dividends that the Minister for Finance receives from Temasek to make investments in healthcare, human capital and transport infrastructure in the coming years. This expanded role of Temasek in fiscal policy may tilt strategies in favour of more liquid assets and broad diversification across countries and sectors, already visible in 2015 activity.

Over the past years, we have become used to report on QIA's prominence as one of the most active investor in direct equity, and last year was

Figure 16: Value of Investments by Top Spending SWFs, 2015 (US\$bn)



Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

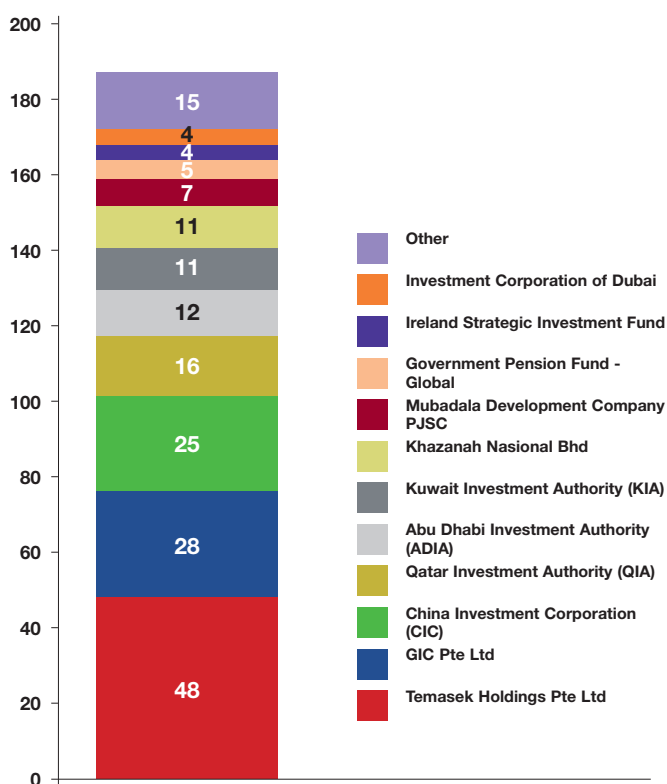
not an exception. In 2015, QIA ranked first by deal value and fourth by number of deals, with 16 acquisitions worth \$12 billion, with the usual penchant for trophy assets in real estate. In September 2015, QIA opened a new office in New York. According to a statement by its CEO Sheikh Abdullah bin Mohamed bin Saud al-Thani, this move, an unambiguous sign of confidence in the world's largest economy, should allow the fund to

expand internationally and to better manage its growing portfolio. Following the changeover which brought at the helm of the fund royal family member Sheikh Abdullah bin Mohamed bin Saud al Thani, QIA's management has reviewed shareholdings and reorganized the internal structure by separating domestic and international investments in different portfolios. QIA's management has further pledged to rein in its penchant to trophy assets, but, so far, there seems to be little evidence of real change.

CIC, the third SWF by assets, boasts also a third position in the 2015 ranking by deals and investment value. Last year's activity particularly pronounced in some core European countries, Australia with a strong focus on the domestic economy, battered by the stock market crash and capital outflows. The fund took recently two steps which may be relevant for its future investments, i.e. the launch of CIC Capital, a unit specialized in direct equity investment in less liquid assets, including real estate and infrastructure, and the moving from Toronto to New York of its North American headquarters, in order to tap opportunities in the US markets and globally.

Amongst emerging SWFs, Malaysia's Khazanah Nasional Behrad consolidated its position as a key player in Southern Asia. In 2015, the fund entered in the top ten list thanks to 11 sizable deals for a total of \$1 billion primarily focused in the region. However, the recent launch of Khazanah Europe Investment Limited based in London suggests that the fund's expansion into the European continent is part of its larger strat-

Figure 17: Number of Investments by Top Spending SWFs, 2015



Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

egy to become more global in scope, leveraging on a strong position in its home region.

The Sky Did Not Fall

In last year's report, we concluded that SWFs were entering a "new normal" phase, one triggered by low commodity prices and slowing growth in emerging markets. This year shows that funds are

settling into this new environment with different levels of success. The need to provide more domestic support, which became evident over the past two years, is leading some funds to more explicitly clarify their stabilization mandates. Evidence of this trend are new rules for withdrawals and fiscal support in Norway and Singapore. On the other side, the crisis is laying bare the vulnerabilities of funds that are not protected by a strong governance rules — hence the shrinking of the Russian Reserve Fund. The Russian experience, incidentally, is providing interesting food for thought: does the accumulation of assets into a sovereign wealth fund or stabilization fund insulate not only citizens from short-term volatility in commodity prices, but also ruling parties and individual politicians from market-induced discipline?

Yet, overall, this year in SWFs is remarkable for what did not happen. Oil prices have dropped below most commentators' wildest predictions, yet the sky did not fall. SWF assets under management actually increased, albeit at a slower pace. We have seen evidence of divestments, but most of those seem to be more directly caused by a desire to rebalance portfolios overly-reliant on the North American — and, to a smaller extent, Western European — financial sectors, rather than by the need to finance domestic budgets. Further, despite commentary in the media, there is little evidence that SWF divestments contributed to poor performance of global equity markets in 2015. Yet, one possible hint at the impact of SWFs lies in the unprecedented positive correlation between oil prices and stock markets in 2015. While, historically, oil prices and equity valuations have tended to move in oppo-

site directions, we have witnessed a simultaneous decline in both during 2015 — could SWFs have acted as conduit by which oil prices have led to an unprecedented impact on equity valuations, as echoed in the media? Back-of-the-envelope computations suggest that is unlikely to be the case, as, for all their growth, SWFs still account for a small fraction of worldwide market capitalization. It is, however, an intriguing hypothesis that deserves formal investigation over the years to come.

Moving forward, we believe that the shock to SWF portfolios and investment models will be more modest than what has been widely reported and forecasted over the past months. Partially, that is due to the paradox laid bare by the Saudi experience. For commodity-based economies, low commodity prices are, on one side, inducing budget shortfalls, which tempt politicians to withdraw assets from domestic SWFs. On the other side, low commodity prices are a reminder of the dangers of relying on undiversified revenue streams and, as such, of the need of the diversification that SWFs provide. Hence, Saudi Arabia, in the midst of a dramatic budget shortfall, has actually been planning to privatize its domestic oil operations and use part of the proceeds to establish a new SWF. Perhaps, ultimately, volatility in energy markets might actually increase SWF assets, as governments scramble to diversify revenue sources.





Beyond the Petrodollar Put: Future Trends in Sovereign Wealth Management

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The rapid accumulation of foreign exchange (FX) reserves over the last fifteen years has been an uncommon phenomenon from a historical point of view. Since the early 2000s, sovereign wealth – the sum of reserves held by central banks and assets managed by so-called Sovereign Wealth Funds (SWFs) primarily in emerging countries – but also in some developed countries such as Norway, Singapore or Switzerland – had skyrocketed. Over the last decade sovereign wealth grew by more than 10 per cent per year and by the end of 2014 it had reached an all-time-high of USD 17.3 trillion. Central banks and SWFs have become one of the largest and most active segment of the institutional investors' community and their investment behavior has become as relevant for global capital markets as that of pension and insurance funds.

Such spectacular rise in the assets under management (AUM) by central banks and SWFs set off profound repercussions in global markets. The growing reserves managed by central banks in emerging markets and largely invested into fixed income assets have – according to a widespread view – contributed to a global savings glut thereby depressing long-term interest rates.

But of course the impact was felt also on the equity markets and its magnitude turned out to be much larger than widely perceived. One of the most interesting analyses was written in 2006, by Kevin Harrington Head of Research at Clarium Capital Management LLC: in essence, the investment of windfall export revenues was equivalent to a “Petrodollar Put”. “Any time the markets started to correct, huge petrodollar flows seeking better entry points put a strong bid underneath the markets, cushioning the decline, and eventually re-igniting the advance [...]”.

The Petrodollar Put, according to Harrington, was a derivative more complex than a plain vanilla European option (which gives the right to sell a stock at a predetermined strike price on a future date). “[...] it is a cross-asset, multidimensional option. Bullish equity investors are thus implicitly long a put option on equity markets but [at the same time] long a call option on oil prices”. In simpler terms, the value of the Petrodollar Put depends on two underlying assets: a global stock market index and the oil price. When stock markets fall because skittish and short term investors dump shares, SWFs – which are driven by long term strategies and must deploy their new inflows every month – will be on

the buyer's side, thereby holding up valuations. Such effect will be all the more powerful the higher the price of oil (and of commodities in general).

Harrington presciently warned that "Once the incipient US housing sector decline becomes serious enough to destroy the creditworthiness of a substantial number of borrowers, the ability of the petrodollars to be recycled back into the economy via the consumer credit channel will certainly be impaired".

Furthermore, petrodollars and sovereign wealth in general embody a flow of "real money" by patient long term investors. In a highly leveraged financial system their impact is magnified, because they supply to marginal borrowers, such as hedge funds, high yield bonds issuers, real estate developers or private equities, additional capital to sustain credit expansion. Stated differently, the petrodollars exert downward pressure on risk premia, lifting the value of collateral while hedging against crushing losses and bouts of volatility.

The orders of magnitude were already substantial: the Bank for International Settlements estimated conservatively that in 2005 net oil revenues in oil exporting countries had reached \$650 bn. Such figure was much larger than the total net issuance of emerging market bonds (\$116.8 bn in 2005) or net purchases of US mutual fund shares (\$260.3 bn), and was close to US non-financial business borrowing (\$611 bn). In the subsequent decade, as we pointed out, they acquired an increasing prominence.

With the plunge in fixed income yields and anaemic growth in developed economies, sovereign institutions have diversified their assets across regions and asset

classes with an increasing share going into equities and emerging assets. The proliferation in the number of SWFs, and the rapid growth in their AUM boosted the flow of funds into alternative asset classes such as private equity, real estate and infrastructure.

Lately, SWFs are increasingly collaborating with pension funds and other institutional investors to undertake strategic investments in listed and unlisted corporations or major infrastructure projects.

In 2015 Sovereign Wealth Fall by USD 1.3 Trillion

In 2015, the rapid accumulation of sovereign wealth came to a halt. According to our estimates AUM by central banks and SWFs fell by 7.5% or USD 1.3 trillion. Much of the 2015's drop is accounted for by FX reserves while the drop in assets managed by SWFs has been muted, also reflecting relatively lower returns on accumulated assets when compare to previous years.

The fall was spurred by two intertwined factors: the dramatic fall in commodity prices and the decline in FX reserves managed by China and a few other emerging market economies.

The fall in energy prices decimated revenues and annihilated current account surpluses in commodity exporting economies, leading to much smaller contributions to reserve funds managed by SWFs and central banks or even outright asset sales.

According to the IMF, with oil prices averaging current levels or slightly higher, Middle Eastern oil-

exporting economies will managed to barely maintain a balanced current account for the rest of this decade, a dramatic reversal from the massive surpluses experienced in the previous decade. Some countries will have to tap into accumulated wealth in order to fill their budgets' shortfall, as currently being shown by the rapid depletion of reserves accumulated by Russia and the notable drop in Saudi FX reserves. SAMA's reserves, which had reached an all-time high of almost \$750 billion in August of 2014, declined to \$610 bn in December 2015 and \$576 billion in March 2016. In January, the Norwegian pension fund transferred \$781 million dollars to the government -- the first such transfer since the fund's inception in 1996, according to the country's Ministry of Finance.

The decline in Chinese FX reserves and other emerging markets has been determined by the deterioration in the economic outlook of these economies, which translated into persistent capital outflows and a weakening of their currencies. Since early 2000s, the accumulation of FX reserves in emerging markets has largely been a by-product of their intervention in the FX markets to keep their currencies competitive in the face of massive capital inflows. In 2015, for the first time in many years, net capital flows into emerging markets turned negative as growth prospects in these economies deteriorated (excluding China, emerging markets are currently growing at slower pace than advanced ones). Their central banks were forced to liquidate FX reserves in order to stem currencies devaluation and avoid a balance of payments crisis.

The decline in Chinese FX reserves has in fact coincided with the downward pressure on the RMB,

which started in mid-2015. The PBOC reserves dropped from a peak of almost \$4 tn in 2014 to \$3.3 tn in December 2015 and then to \$3.2 tn in March 2016. The Chinese authorities did not hesitate in using their AUM to sustain their currency, as the IMF was contemplating the inclusion of the RMB in the SDR basket. The internationalization of the RMB and its inclusion in the elite club of reserve currencies are strategic policy objectives for the Chinese authorities and the stability of the RMB was a necessary condition to have a favourable decision by the IMF. The strategy worked out and in fact late last year the RMB was welcomed in the SDR basket with a share of nearly 10 per cent.

Will the Drop in Sovereign Wealth Continue?

The future growth in FX reserves and assets managed by SWFs will largely depend on the future level of oil prices and how China and other emerging markets will perform over the next few years.

With regards to oil prices, a recovery is very possible as supply – particularly with regards to the most expensive oil production such as the shale oil in US is pushed out of the market. However, a return to a level of oil prices consistent with large current account surpluses as it was the case until two years ago appears unlikely. It is true that oil exporting economies are consolidating expenditures and raise taxes to reduce the oil fiscal break-even price. However, given the massive increase in public expenditure experienced over the last decade across the Middle East and other commodity exporting economies, this fiscal adjustment is unlikely to be

sufficient to generate sizeable surpluses over the next few years. In the future, they will need to rely on a combination of debt and assets drawdown to fund their fiscal deficits.

China and other emerging markets are in the middle of a transition from an export-led growth model to one much more reliant on domestic consumption. This transition is going to be a long process and will inevitably lead to a periods of slow growth and in many cases painful structural reforms. The catching up of the income per head in emerging economies with advanced economies is still happening and we believe it will continue in the future. However, it will be weaker than in the past two decades and will be characterised by lower capital inflows in these economies. Furthermore, as China continues on the path of financial reforms and opening of its capital account, it is very likely that its future will be characterised by persistent capital outflows translating into a lower or even negative accumulation of FX reserves.

All in all, we believe that over 2015-20 sovereign wealth will grow by about 5 per cent. Most of this growth will be generated by returns rather than new inflows. From this point of view, the ability of these institutions to generate adequate returns will become even more important. Given the massive accumulation experienced over the last decade, an adequate return could be enough in many GCC economies to cover the fiscal gap while leaving the AUM constant. This will undoubtedly be a challenge given the uncertain horizon as monetary policy stabilizes and central banks remove their support to risky assets.

Will Lower Reserve Accumulation Lead to Higher Long-Term Interest Rates?

The savings glut has been a popular theory behind the historical decline in long-term bond yields. And, as we experience a weakening in the current and capital accounts of emerging markets, resulting in slower growth or even falling FX reserves, many are arguing for an increase in long-term interest rates as central banks sell US and other advanced economies' bonds. According to some, this effect would be so significant as to eventually wipe out the impact of quantitative easing on long-term interest rates being undertaken in Europe and Japan. Some have already labelled this new trend as "quantitative tightening".

In reality, the saving glut is only one of many factors behind the historical decline in long-term interest rates, and not necessarily the most important one. This is partly proven by the fact that despite the decline in account balances of emerging economies over the last two years, long-term investment rates have continued to fall. Other factors, such as ageing populations, falling productivity, falling investment and banks deleveraging, appear to be playing an important role as well. Most of these factors are structural rather cyclical and some of them were already at play well before the launch of quantitative easing. It is, in particular, the combination of lower productivity and lower population growth which points to a lowering of the equilibrium interest rate: this would be happening regardless of quantitative easing.

A further important factor which points to a relatively low impact of falling FX reserves on long-

term interest rates in advanced economies concerns the composition of FX reserves. While it is true that over the last decade FX reserves have been diversified across a wider range of asset classes and regions, the bulk of the reserves are still invested in cash or short-duration government bonds from advanced economies: the sale of these holdings by central banks is therefore unlikely to impact the far end of the yield curve.

When it comes to the impact on EM interest rates, it is true that each time an emerging market central bank sells US dollar-denominated holdings for local currency, domestic money supply in local currency shrinks, a problematic effect in the current environment which therefore has been discussed as a big risk coming with large-scale sales of FX reserves. However, this "quantitative tightening" effect is probably much less dramatic than thought and can be countered with various tools, e.g. a reduction of the reserve requirement ratio in the case of the PBoC to keep banking sector liquidity unaffected.

Are Listed Equities Affected by the Drawdown of Sovereign Wealth?

Until the sharp drop in oil prices in late 2014, SWF – broadly defined - continued to accumulate assets. Prequin in a June 2015 report estimated that from December 2012 to March 2015 these funds added almost one trillion dollar to their assets (in new inflows plus returns on past investments). Barclays in an October 2015 report remarked that between 2010 and 2014 the estimated petrodollar investments into the financial markets exceeded USD2 trillion, roughly equal to the Fed's Quantitative

Easing over the same period and comparable to the USD3 trillion of additional US household savings. Furthermore Barclays underscored that at the critical juncture in 2012, the boost by petrodollars to the financial system was circa half a trillion dollar, while the Fed's balance sheet was slightly declining.

To understand the impact of such shift we need to ask "What happens when the Petrodollar Put expires"? The mechanism starts working in reverse with securities prices under pressure and a rebalancing towards less risky asset classes. So did the plunge in oil prices trigger the stock market hiccups since last summer and is there a risk of an unravelling of the bull market as the bulls run out of money?

So far the outflow has been relatively limited and, more importantly, has involved mostly government bonds. It is true that the current account surpluses of the EMEA oil exporters shrank from a peak of USD 652 billion in 2011 to USD 342 billion in 2014, turning slightly negative in 2015 to an estimated –USD 19 billion. Moreover the current account surpluses of emerging markets has shrank from USD 681 billion in 2008 to USD 158 billion in 2014 and to an estimated deficit of USD 24 billion in 2015.

Nevertheless such U-turn has hit primarily the foreign reserve assets held by central banks, not so much the AUM by SWFs. Central bank reserves are typically held in highly rated government bonds and other high quality fixed income securities, hence this withdrawal has been absorbed easily by markets awash with central bank liquidity (in fact yields since 2014 have dropped, in many cases below

zero). Based on a typical asset allocation structure, we estimate that in 2015 SWFs sold USD 50 billion of equities and central banks sold equities worth USD 150 billion, which accounts for 0.13% and 0.40% of total trading volume (according to the World Federation of Exchanges).

Essentially oil exporters are filling the fiscal gap by selling some of the reserve prudently accumulated during the good times in central bank (and in Treasury-controlled bank accounts), but are preserving the assets managed by SWFs that pursue more sophisticated (and lucrative) strategies, although the inflow into these funds have dried out.

These figures are corroborated by a report by ABN Amro: between 2010 and the first half of 2014, the assets of SWFs were rising by USD 50 billion per month (including the effects of fluctuations in asset prices). Afterwards they have been declining by USD 5 billion on average per month. The order of magnitude is in the ball park of the QE tapering by the Fed which over one year declined from USD 85 billion per month to zero over the course of a year. Barclays estimates that incremental annual demand in the region of USD 400 billion was withdrawn as a result of lower oil prices.

In conclusion selling by SWFs and central banks certainly was not the main cause of the equity rollercoaster. However the expiration of the Petrodollar Put paves the way to a new environment in global capital markets where a patient class of investors with a long term investment horizon and the ability to deploy assets when other investors are forced to sell will play a less pervasive role.

Will Falling FX Reserves Be Bullish or Bearish for the USD?

Over the last fifteen years, central banks have not only increased diversification across asset classes but also across currencies. Most of the exports receipts of Asian manufactured good exporters or oil-commodity exporters are accounted in USD and large current account surplus translated into a growing USD share in their reserves. Central banks have been diversifying USD reserves into other currencies such as euro, Australian dollar, Norwegian krone and a few other secondary reserve currencies in order to prevent the USD share of total reserves from rising too much. Through this recycling of USD reserves, in the past, rising FX reserves have often been associated with a weakening USD as indeed this has been the case for the greenback for many years before the change in this trend started in the middle of last year.

The ongoing reversal of accumulated QE-related inflows into EM as well as uncertainties about EM growth and EM currency weakening coupled with expectations of raising interest rates in the US are now pushing EM FX reserves down. Central banks are now selling USD denominated bonds to support their currencies and this translates into a falling share of USD assets in their reserves. In terms of flows, therefore, falling FX reserves are often associated with a rising USD or with a lower demand by central banks for non-USD reserves as the previous need for reserve diversification away from the USD is weakened. We are already seeing some evidence that waning demand for secondary reserve currencies is pushing down e.g. the Australian dollar or the Norwegian krone.

A further implication of the slowing down in FX reserve currency diversification away from the USD as FX reserve fall could be a lower demand for RMB and other EM currencies. Over the last few years we witnessed a growing demand by CBs for exposure to EM currencies reflecting both economic (i.e. having a currency composition of FX reserves more in line with the trade composition of these economies) and investment factors (i.e. taking advantage of higher interest rates in local currency emerging market debt and the secular appreciating trends in their respective currencies). This has been particularly true for the RMB which has been gradually rising to reserve currency status thanks to the growing role as a trade currency and its inclusion in the SDR basket. The unexpected summer's devaluation has made the investment case for the RMB weaker because the Chinese exchange rate is no longer a one way bet. It will be interesting to see whether the growing demand for RMB exposure by official institutions will eventually weaken as a result of recent events or whether it will remain unaffected should the uncertainty over the RMB exchange rate policy dissipate in the future.

Will the Asset Diversification Trend Among SWFs Continue?

Central banks used to invest only in cash, bank deposits and highly rated government bonds of the US and a few other advanced economies. Nowadays, it is not unusual for central banks to invest in a wider range of fixed income asset classes including corporate bonds and emerging market bonds. More recently, central banks have also started to invest in equities, an asset class which was virtually absent in the portfolio of these institutions just a few years back.

In the medium term, SWFs' assets will grow by about 5 percent, mainly driven by returns, not inflows

Will the investment behavior of central banks and SWFs change as a result of the slowdown, or even reversal, in asset accumulation? Will SWFs eventually reduce their exposure to risky assets as a result? For instance, by increasing exposure to more liquid and less volatile asset classes such as fixed income?

This is unlikely to be the case, for several reasons. First of all, while it is true that assets held by SWFs are likely to grow more slowly than in the past, SWFs still sit on large amounts of wealth accumulated during the boom time. For most countries with SWFs, this level of assets is well in excess of what might be considered necessary for precautionary motives (i.e. fiscal stabilization), thus leaving ample room for an asset allocation more skewed towards risky assets with the potential of providing higher returns over the medium-to-long term.

Secondly, whilst the era of ultra-low yields might end with the expected rise in US interest rates, globally, monetary conditions are likely to remain very loose for a prolonged period of time, and quantitative easing in Europe has only just started. While the rise in the US interest rates appears more likely in the second half of 2016, the increase is unlikely to be very large from an historical perspective and as

the expansion in the US reaches maturity it is not unlikely that over the medium term US interest rates will eventually start falling once again. Therefore, the search for yield among SWFs is likely to continue as these institutions try to protect the real value of their accumulated wealth.

Thirdly, in a scenario of rising interest rates, the losses experienced on fixed income assets could be substantial. Assuming a gentle increase in global interest rates over the next five years – a mild tightening according to historical standards – the return on global government bonds of advanced economies will be close to zero or slightly negative over that period. From a portfolio point of view, protection in such an environment comes from diversification away from fixed income assets towards equities and, more importantly, illiquid asset classes such as real estate, private equity and infrastructure.

With regards to SWFs in particular, in an environment characterised by lower inflows or even outflows should energy prices remain depressed for long, the return on accumulated wealth can be an important source of funding for the sponsoring governments dealing with rising fiscal deficits. Given the low yield in fixed income and the lower expected returns on listed liquidity, SWFs are very likely to continue relying on illiquid assets classes such as private equity, real estate and infrastructure to generate adequate returns and on strategic direct investments to capture above market returns. According to the latest data available on SWFs investment included in this report, during 2015 SWFs direct investments increased in terms of number of deals but decreased in value. This partly

reflects the funding pressure faced by these institutions and partly the uncertainty in global capital markets in terms of future returns on risky assets. However, direct investments, through smaller in scale and with a higher degree of risk diversification across regions and markets, are likely to remain an important pillar in the investment strategy of these institutions

Finally, the changed conditions in the global financial sector, with commercial banks less willing to take long-term risk because of more stringent regulations, are opening up new investment opportunities for long-term investors such as SWFs. For instance, the infrastructure sector is evolving fast under the impulse of policy makers eager to attract more non-public funds into this sector. Given the right conditions, SWFs are likely to embrace these opportunities by pouring money into real assets, which have the capacity to deliver returns above those achievable in public markets, such as fixed income and equity. SWFs have established themselves as highly active investors in global capital markets over the last decade; this is unlikely to change as a result of the slow-down in the growth of their assets.

However, should oil price remain at current level for a prolonged period of time SWFs might be forced in the future to dispose some of their illiquid investments into alternative asset classes and direct investments into listed and unlisted securities as political pressure from their sponsoring governments increase. This could reduce the future flow of SWFs investments into advanced economies which have been the major beneficiaries of these investments.

Sovereign Fund Selling, Market Volatility and Systemic Risk: Connections and Regulatory Possibilities

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Sovereign wealth funds (SWF) have largely proven to be the gentle giants of the financial markets; they tend to be relatively patient, passive shareholders. In contrast to other activist hedge funds, when SWFs do engage with companies, they tend to work behind the scenes to maximize value for the long term.

And yet, because they are funds owned by a sovereign, they often receive significant scrutiny, especially in developed markets, whenever they invest. To date, most of this scrutiny has occurred on the front end of investments, as host-country politicians and regulators question the motives of SWF investment in their markets. In some cases this scrutiny proves to be strict enough to encourage SWFs to look for other opportunities in other markets. As SWFs have continued to invest responsibly and regulators have become increasingly comfortable with SWF investment, the fear-mongering associated with SWF investment has decreased.

Now, however, concerns have arisen not over how SWFs invest, but how they divest. Indeed, some reports seem to attribute depressed stock market prices and general market volatility to SWF divestment. A headline in Barron's, for example, claimed that "Selling by sovereign wealth funds is a huge headwind for stocks,"¹ and a headline for an arti-

cle in the Financial Times declared that "Sovereign wealth funds drive turbulent trading."² Undoubtedly withdrawals from some SWFs—particularly Gulf SWFs—have had an impact on the markets, and particularly on stocks in which SWFs tend to overweight in their portfolios, such as stock in financial firms and some consumer goods companies. Perhaps the biggest impact has been felt by asset managers, which have seen their AUM deteriorate as SWFs withdraw funds.

But how significant are SWF withdrawals from markets? Put in a slightly more pointed way, do SWF withdrawals create systemic risk for the markets? And if they do, what could be done about it? This brief analysis attempts to work towards an answer to those questions, and in doing so, also attempts to provide some perspective on the larger debate in the appropriate role of SWFs in global capital markets.

¹ Chris Dieterich, *Selling By Sovereign Wealth Funds is a Huge Headwind for Stocks*, Barron's (February 1, 2016), available at <http://blogs.barrons.com/focusonfunds/2016/02/01/selling-by-sovereign-wealth-funds-is-a-huge-headwind-for-stocks/tab/print/>

² Attracta Mooney, *Sovereign wealth funds drive turbulent trading*, Financial Times (February 1, 2016), available at <http://www.ft.com/intl/cms/s/0/55470a6c-c68f-11e5-808f-8231cd71622e.html?siteedition=intl#axzz46xPnssFH>.

Oil Prices and Forced Selling

As oil prices have declined dramatically since mid-2014, oil-dependent economies have faced difficult choices about how to fund normal government functions. Saudi Arabia, for example, withdrew some \$70 billion from the markets to help fund its economy.

To make things more difficult for oil-dependent economies, stock market movements may positively correlate with the oil markets. Ben Bernanke notes, for example, that the S&P 500 and the West Texas spot crude price show a positive 0.39 correlation, and correlate even more strongly, to 0.48, when isolating demand-related changes in oil prices.³ So, as oil prices drop lower, sovereign funds that must cash out tend to be selling into a lower market.

The argument that SWFs can create volatility in financial markets is apparent just from the size of assets under management alone. The Sovereign Investment Lab (SIL) estimates that SWFs hold roughly 4.7 trillion in assets, while Boston Consulting Group estimates that the global value of all professionally managed assets was around \$74 trillion. If asset managers owning 6.4% of a market decide to divest, certainly the markets would be impacted. In perhaps the most extensive and sophisticated analysis of SWF asset sales, JP Morgan's Nikolaos Panigirtzoglou estimates that in 2015, oil-producing countries (though not specifically their SWFs) sold approximately \$90 billion of government bonds, \$50 billion of public equities, \$7 billion

of corporate bonds, and \$15 billion of cash instruments.⁴ For 2016, he estimates that oil producing countries will sell \$100 billion of government bonds, \$27 billion of public equities, \$8 billion of corporate bonds and \$16 billion of cash instruments, and thus that "SWF selling of equities for the remainder of the year will be a fraction of the equities they sold last year or earlier this year."

Some SWF sponsor countries have deep pockets (especially relative to their GDP), and for most oil-linked SWFs, some continued selling should be expected.

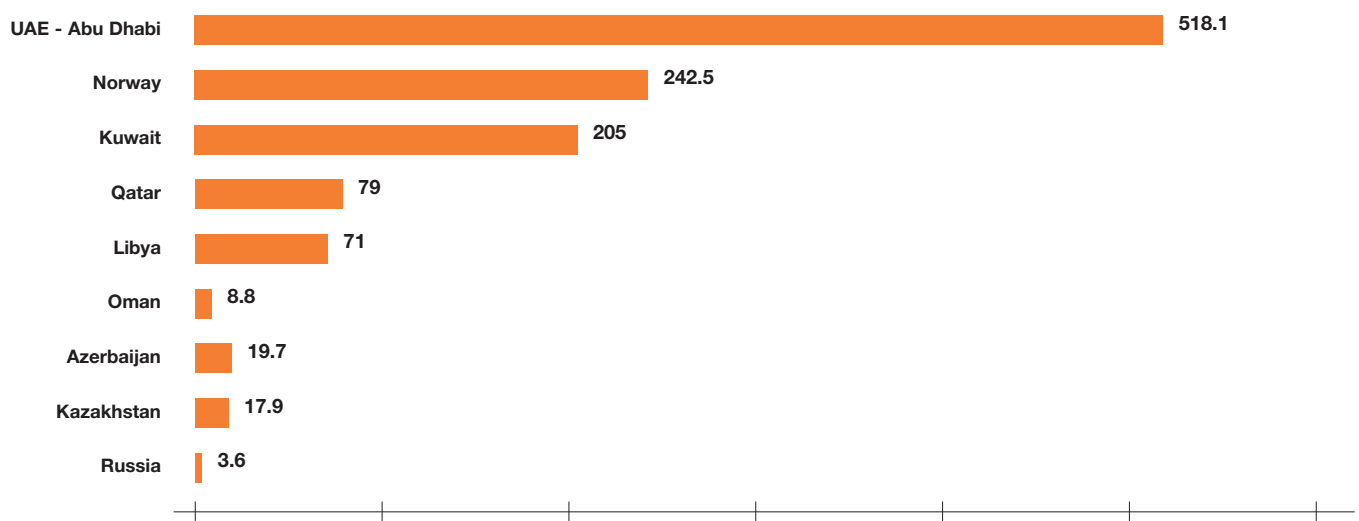
Despite legitimate concerns about market volatility, a few caveats help to temper concern over forced selling by SWFs. First, not all SWFs are commodity-funded SWFs, and the economies to which these non-commodity SWFs are linked typically are not dependent on oil revenues for their governmental budgets. Of the 35 SWFs listed in SIL's 2014 Sovereign Wealth Fund Annual Report, 19 are not oil and gas-funded SWFs.⁵ In terms of assets under management, oil and gas funded SWFs manage about \$3.1 trillion, while other types of funds manage about \$1.6 trillion. Further, low oil prices have not forced every country that has created an oil- or gas-funded SWF to drain assets from its SWF in order to support the national budget; Norway, for example, which manages over \$850 billion out of the \$3.1 trillion managed by oil

³ Ben S. Bernanke, The relationship between stocks and oil prices, Ben Bernanke's Blog, Brookings (February 19, 2016), available at <http://www.brookings.edu/blogs/ben-bernanke/posts/2016/02/19-stocks-and-oil-prices>.

⁴ Nikolaos Panigirtzoglou et al., Flows & Liquidity: Chasing Performance, JP Morgan Global Asset Allocation report (April 22, 2016).

⁵ Sovereign Investment Lab, Towards a New Normal: Sovereign Wealth Fund Annual Report 2014, available at https://www.unibocconi.it/wps/wcm/connect/83cfaeaa-d5fd-4021-8021-15104503a863/SIL_Report_2015.pdf?MOD=AJPERES.

Figure 18: Assets of Select SWFs as Percentage of GDP (PPP)



SWF asset values were derived from the Sovereign Wealth Center, "Fund Profiles", available at <http://www.sovereignwealthcenter.com/fund-profiles.html>. Abu Dhabi data from the Brookings Institution (2014). All other GDP data from the CIA World Factbook (2016).

and gas-linked funds, has specifically stated that it "has not been participating in the selling," and doesn't foresee changing its strategy.⁶

A second and related point is that SWFs (and their external managers) are sophisticated market actors. Even when some SWFs are forced to sell, they will, for their own benefit, attempt to do so in an orderly fashion that minimizes negative price impact. They will likely also tend to sell relatively liquid assets, again to minimize price impacts, and will probably avoid selling less liquid alternative investments.⁷ And while many governments are under pressure from deeply lower oil prices, a fire sale is not the only way (and is perhaps the worst way) of filling budget gaps. Other governments under strain have resorted to the debt markets to help support the budget, such as

Abu Dhabi's sale of \$5 billion in sovereign bonds and Qatar's planned sale of \$5 billion in bonds.

Third, observers of SWF investment trends will note that the withdrawal of funds from assets managers does not necessarily imply that the SWFs are cashing out of the market entirely, but may represent SWFs either shifting funds to other, more productive asset classes, or, as is increasingly the case, with-

⁶ Mikael Holter & Saleha Mohsin, Norway Wealth Fund Isn't Joining Global Stock Selloff, CEO Says, Bloomberg (March 9, 2016), available at <http://www.bloomberg.com/news/articles/2016-03-09/norway-wealth-fund-gains-39-billion-in-2015-as-stocks-recover>.

⁷ Many SWFs are increasingly divesting from private equity funds and hedge funds, but this may not be the result of forced selling as much as poor returns from private funds or planned disintermediation by SWFs.

drawing funds from asset managers and redeploying the funds through their own internal management teams, often in the same markets in which the asset managers were investing. In such a case there may be some short-term effects from the withdrawals, but any long-term harm is restricted to the particular asset manager, who now no longer enjoys the SWF's asset management fees. Overall, the redeployment through in-house teams does not create systemic risks to the financial markets, and may even alleviate some risk by deconcentrating investments.

Fourth, a focus on sovereign wealth fund sell-offs as a source of systemic risk and market volatility is at once over-inclusive and under-inclusive. It is over-inclusive because, as noted above, many sovereign wealth funds sponsor governments are not facing oil and gas-related budget shortfalls, and are not under significant pressure to sell assets. Even those governments with budget shortfalls may find other ways to fill the gap than through a distressed sale. The focus on SWF asset sales is under-inclusive because it ignores the fact that many other large, government or government-sponsored entities may also be selling significant amounts of assets, and a focus on SWFs as the sole or even primary culprit distorts the true picture. Central bank reserves, which control roughly double the assets held by SWFs, have increasingly invested in equities in recent years.⁸ Because central banks are secretive about their market activities—more so than SWFs, whose activity has been the subject of considerably more press scrutiny—it is difficult to estimate the extent of their equity holdings. Truman notes, as reported by the *Financial Times*, that “[r]eforms are urgently needed to enhance the domestic and international transparency and accountability for this activi-

ty – in the interests of a better-functioning world economy.”⁹ If there is a systemic risk to SWF asset sales, that risk is also present with central bank asset sales.

Furthermore, other market factors present a far more compelling case for market turbulence than SWFs. Even though the amount of funds being withdrawn from the markets is significant—such as the tens of billions of dollars’ worth of assets sold by Saudi Arabia’s Sama in 2015—the amount of funds flowing through the markets on any given day is tremendous; average daily equities trading volume for the NYSE Group alone amounted to a daily average of over \$45 billion over the first quarter of 2016.¹⁰ While SWF selling may create localized turbulence for particular assets,¹¹ it is difficult to imagine them as a primary driver for global volatility and systemic risk when so many other factors have deeper and wider impacts on the market. Aside from general market concerns, such as slowing growth in China or the impact of a Brexit, other market factors have proven to have very important effects on market turbulence. Significantly, algorithmic trading has had a

⁸ Ralph Atkins, Central banks shift into shares as low rates hit revenues, *Financial Times* (June 15, 2014), available at <http://www.ft.com/intl/cms/s/0/d9dfad02-f462-11e3-a143-00144feabdc0.html?siteedition=intl#axzz34ktExR6g>. Oil-dependent countries hold reserves of slightly less than \$2 trillion. See Country Comparison: Reserve of Foreign Exchange and Gold, CIA World Factbook, available at <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2188rank.html>.

⁹ Id., citing The Official Monetary and Financial Institutions Forum’s 2014 Global Public Investor survey.

¹⁰ New York Stock Exchange, Daily NYSE Group Volume in NYSE Listed, 2016, available at http://www.nyxdata.com/nyxdata/asp/factbook/viewer_edition.asp?mode=table&key=3141&category=3.

pronounced impact on markets in recent years. Boehmer, Fong and Wu's 2015 analysis of the effect of algorithmic trading on global markets, for example, concludes that, consistently across the 42 markets in their sample, algorithmic trading improves liquidity, improves price discovery, but also increases volatility.¹² The study also finds that algorithmic trading has systematically negative effects on the liquidity of small or low-priced stocks, and that it has a greater volatility effect on those stocks.

While it is clear that SWFs are significant market players, and will likely increase in their importance to the markets over the coming years, it is not clear that SWF selling has had a significant, negative impact on asset markets. Absent specific evidence of the harm that SWF selling has caused, the speculation thus far seems to be based less on fact than on decade-old fears of SWFs as shadowy, unpredictable forces. In the next section, however, we will assume for the sake of argument that SWFs are, or at least could be, significant contributors to systemic risk in capital markets. If SWFs do present such risks, what can be done about it?

¹¹ Admittedly, this can be a serious problem in many markets; although there is significant trading volume in asset markets—and more markets in which to trade, thanks to peer-to-peer trading networks—the decrease in the use of market makers and specialists on exchanges like the NYSE have reduced liquidity in the markets, making some markets more volatile. See, e.g., Gavin Jackson, *Why market volatility is growing more intense*, Financial Times (September 14, 2015), available at <http://www.ft.com/intl/cms/s/0/8b88b8a0-5ace-11e5-9846-de406ccb37f2.html#axzz3n2iaQny>.

¹² Ekkehart Boehmer, Kingsley Fong & Julie Wu, *International Evidence on Algorithmic Trading*, AFA 2013 San Diego Meetings Paper. available at <http://ssrn.com/abstract=2022034>.

Possibilities for Regulation

Unilateral Regulation

The use of the word “sovereign” in the label “sovereign wealth fund” reflects a crucial legal and political reality: SWFs are owned by sovereign political entities, which practically means that they are not regulated in the same way that a domestic fund or even a foreign private fund might be regulated by a host country. In some cases SWFs face heightened scrutiny, such as when they invest in assets that may implicate the strategic or national security interests of the host country. For example, US law requires that the Committee on Foreign Investment in the United States (CFIUS) investigate certain investments in US assets by state-controlled entities, including SWFs. On the other hand, SWFs do not seem to be held to the same securities law disclosure standards as private funds. Under US law, any institutional investment manager exercising investment discretion over \$100 million or more in Section 13(f) securities—generally, equity securities that trade on a US exchange, certain equity options and warrants, shares of closed-end investment companies, and certain convertible debt securities—must report its holdings on Form 13F with the Securities and Exchange Commission (SEC). Some SWFs do make such filings; for instance, Norges Bank, the beneficial owner of securities managed by Norway's Government Pension Fund-Global, reported over \$200 billion in 13(f) securities investments as of the end of 2015. Other SWFs do not appear to have made the required disclosures, however. For instance, China Investment Corporation (CIC) last filed a Form 13F as of the end of 2009, at which time it reported nearly \$10 billion in 13(f) securities; it is hard to imagine that CIC reduced its holdings in

subsequent years below \$100 million in 13(f) securities. Other SWFs also appear to not be in compliance with 13(f). It is unlikely that a non-sovereign entity could decline to provide this information without subjecting itself to an enforcement action by the SEC. However, sovereign funds are different in this respect, reflecting a difficulty with using standard enforcement procedures against sovereign entities generally.

As a threshold question, one might reasonably ask whether SWF trading activity—outside of clearly illegal activity or activity that threatens the national security of another sovereign—could be regulated at all. Under international law, state immunity protects sovereign political entities from suits in the courts of other states. There are, however, numerous exceptions to this rule, particularly as it applies to sovereigns operating in commercial spheres. Bassan notes that SWFs lie in an indeterminate place in the law—are they more like state-owned enterprises, which typically do not enjoy state immunity?¹³ Or, are they more like central banks, which generally do enjoy state immunity? The answer, he suggests, depends on several factors, including the SWF's legal structure, governance and accountability, the purposes of the SWF itself, how the SWF is financed, whether its investments are commercial in nature, and the purposes of SWF assets.

If we assume, for purposes of argument, that an SWF is found to be operating in a commercial manner such that regulating it as one would regulate a private actor is appropriate, we must then consider whether

SWF asset sales would be in violation of any applicable law. The answer to this question is usually quite simple: absent any explicit agreement to hold the securities for a time (such as a lock-up agreement, which is often used to prevent insiders and venture capitalists from selling their shares for a period of time following an initial public offering of stock), in most established markets an investor is generally free to sell its assets in the time and manner of its choosing.¹⁴ In the cases in which SWFs have sold assets to help fill a gap in its sovereign sponsor's budget, there has been no suggestion that any SWF has engaged in any market manipulation during its sales; it is in the SWFs' interests to sell only what they must as deliberately and carefully as possible. From a legal perspective, in the absence of any evidence of market manipulation, SWF selling behavior is no different from (and no more actionable, from an enforcement perspective, than) asset sales by other fund managers who face redemptions from their investors.

Even where there exists no illegal action by a market participant, however, market regulators can stop trading in a market in the event of unusual activity. For example, the New York Stock Exchange's Rule 80B allows the exchange to halt trading in all stocks in the event of extraordinary market volatility. With respect to a single stock, a security exchange may call a trading halt or a delay; this sometimes occurs around the time a company releases highly material

¹³ Fabio Bassan, *THE LAW OF SOVEREIGN WEALTH FUNDS* (Edward Elgar, 2011), pp 89-115.

¹⁴ A prominent exception to this general practice is China's 2015 attempt to curb trading to limit losses in Chinese stock markets. See Ye Xie and Belinda Cao, *China Bans Stock Sales by Major Shareholders for Six Months* (July 8, 2015), available at <http://www.bloomberg.com/news/articles/2015-07-08/china-bans-stock-sales-by-major-shareholders-for-six-months>.

information, or if there is a significant imbalance between buy and sell orders. Also, securities regulators may suspend trading in a security if there is a particular problem with disclosure by the issuer of a security. Regulators might also suspend trading because of questionable trading activity. The SEC, for example, may suspend trading if there are questions about “trading in the stock, including trading by insiders, potential market manipulation, and the ability to clear and settle transactions in the stock.”¹⁵ There is no evidence that SWFs have been associated with any trading curbs, halts or suspensions.

Regulation through Multilateral Treaties

Although as yet there has been no justification for a unilateral action by a host state against a SWF for selling activity—any SWFs which have been selling are generally entitled to do so, and seem to have been doing so, in the same manner as a private market participant would—some might argue that because SWFs might own a large amount of shares in any given company, there still exists the possibility that a SWF divestment could create significant downward pressure on a particular asset’s value. Although these effects may not justify a trading curb, halt or suspension, in the aggregate SWF selling by many SWFs across many assets could create the general market “headwinds” feared by market observers. Because this could (again, arguably) heighten volatility in the markets and generally depress prices across markets, perhaps a broad, multilateral approach could be considered. There are two possibilities for multilat-

eral regulation: first, SWF investment activity could be regulated through “hard law,” such as by amending the existing WTO framework. Second, they could be, and already are, as discussed below, self-regulated through multilateral “soft law” standards, such as the Santiago Principles.

As it currently stands, the World Trade Organization (WTO) regime does not serve as a reliable regulatory instrument for SWF investments. Most importantly, the WTO regulates general issues of trade, and is not well-suited to regulating systemic risks created by SWF portfolio investments. While the General Agreement on Trade in Services (GATS) possibly covers SWF transactions—although perhaps only in cases in which the SWF controls the company¹⁶—GATS would be of less help in regulating portfolio investments, which make up the bulk of SWF investments in established markets. However, GATS could be amended to include more specific provisions on SWF investment activity, as Subramanian and Mattoo have argued.¹⁷

¹⁶ Under Art.I.2(c), GATS applies, *inter alia*, when there is a supply of a service through “commercial presence in the territory of any other Member.”

A commercial presence is defined in Art. XXVIII(d)(i) “any type of business or professional establishment, including through ... the constitution, acquisition or maintenance of a juridical person.” A “juridical person” includes an entity “owned or controlled by” persons or entities in the Member state; “controlled” is defined as having “the power to name a majority of its directors or otherwise to legally direct its actions.” Arts. XXVIII(m)(ii), XXVIII(n)(i). For a thorough discussion of the application of the WTO regime, see Bassan, *supra* note 14, at 55-62.

¹⁷ Aaditya Mattoo & Arvind Subramanian, *Currency Undervaluation and Sovereign Wealth Funds: A New Role for the World Trade Organization*, Peterson Institute for International Economics Working Paper 08-2 (January 2008), available at <https://piie.com/sites/default/files/publications/wp/wp08-2.pdf>.

¹⁵ United States Securities & Exchange Commission, *Investor Bulletin: Trading Suspensions*, available at <http://www.sec.gov/investor/alerts/tradingsuspensions.pdf>.

They suggest that GATS could include provisions relating to SWF objectives and investment strategy, corporate governance, transparency, and behavior, which would create binding obligations out of many of the voluntary principles set out in the Santiago Principles.

Even if SWFs were to be regulated through the WTO, it is unlikely that the particular concerns created by recent SWF sales would be addressed. It is difficult to imagine any investor, and particularly a sovereign investor facing a budget crisis, agreeing to limit its own liquidity without compensation. Such a limitation would also violate the spirit of the WTO, which was created in part to reduce barriers to the free flow of goods and capital.

SWFs were regulated to some extent in the recently negotiated Trans-Pacific Partnership (TPP) treaty.¹⁸ The focus of the relevant TPP provisions, however, is on the discipline of state-owned enterprises that are controlled by an SWF (as opposed to portfolio companies in which the SWF may be invested, but does not control).¹⁹ The focus of the TPP, then, is to regulate competitive distortions that may be caused by state-owned enterprises, rather than regulate systemic risk from SWF portfolio investment.

¹⁸ The signatories to the treaty include Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, United States, Singapore, Vietnam. See Office of the United States Trade Representative, The Trans-Pacific Partnership, available at <https://ustr.gov/tpp/>.

¹⁹ See, e.g., Edward C. Miller, U.S. Clarifies Treatment of Sovereign Wealth Fund Investment In TPP, Trans-Pacific Partnership News (October 2, 2012), available at <https://tppnews.wordpress.com/2012/10/02/u-s-clarifies-treatment-of-sovereign-wealth-fund-investment-in-tpp/>.

A softer form of multilateral regulation, the Santiago Principles, was created specifically to manage the particular concerns created by SWF investment. Some of the Generally Accepted Principles and Practices (GAPP) of the Santiago Principles relate to market activity, including:

GAPP 4: There should be clear and publicly disclosed policies, rules, procedures, or arrangements in relation to the SWF's general approach to funding, withdrawal, and spending operations; **GAPP 4.2.** Subprinciple: The general approach to withdrawals from the SWF and spending on behalf of the government should be publicly disclosed;

GAPP 15: SWF operations and activities in host countries should be conducted in compliance with all applicable regulatory and disclosure requirements of the countries in which they operate;

GAPP 17: Relevant financial information regarding the SWF should be publicly disclosed to demonstrate its economic and financial orientation, so as to contribute to stability in international financial markets and enhance trust in recipient countries.

None of the GAPPs require SWFs to lock up their assets or specifically limit market impacts associated with their investment activity, although they do suggest that SWFs disclose their withdrawal policies—referring to withdrawals by the sovereign from the SWF, not to withdrawals by the SWF in the markets in which it has invested—and relevant financial data and act in compliance with host country laws. Although many SWFs are not very transparent with respect to their withdrawal policies, selling activities

by SWFs sponsored by oil-dependent countries should come as no surprise to the market. Indeed, many SWFs were purposely created to stabilize commodity-dependent economies.

A potential amendment to the Santiago Principles could suggest that SWF investment activities should be conducted so as to limit negative market impacts. For the same reasons noted with respect to WTO regulation, it is unlikely that SWFs would go further than this. As with the WTO itself, stricter regulation that sought to limit liquidity for SWFs would seem to go against the spirit of the Santiago Principles, which were designed to encourage SWFs to act and be treated like other financially-focused investors. SWFs are in many ways ideal investors. As the Santiago Principles note, many SWFs, by the nature of their mandate, “take a long-term view in their investments and ride out business cycles [bringing] important diversity to the global financial markets, which can be extremely beneficial, particularly during periods of financial turmoil or macroeconomic stress.”²⁰ To label SWFs as major contributors to market volatility is to ignore the fact that most SWFs are not selling, and contribute to stability as steady, long-term investors.

Regulation through Bi-lateral Investment Treaties

A final possibility is to use bi-lateral investment treaties (BIT) to help manage the risk associated with sovereign investment. Such investment treaties

are essentially contracts between two countries. If treaties are used as contracts, one can imagine that an important term of a contract involving SWFs would be to regulate capital inflows and outflows. Inflows, as we have already noted, are already highly regulated by many host countries. In the United States, for example, the CFIUS process regulates investments in US assets—particularly assets that relate to US national security—by scrutinizing investments in which a foreign entity, including a SWF, may exercise control over a domestic entity.

SWFs have not been the subject of BITs, but there is no reason why they could not.²¹ A BIT could, in theory, provide a clear mechanism for allocating risk associated with not just investments in a country but divestments from a country as well.

BITs, as contracts between countries (and particularly regarding the risks associated with SWFs to the host country and the risks that are designed to be mitigated by the SWF in the sponsor country), will be necessarily incomplete. As Choi, Gulati and Posner argue, “[b]ecause governments cannot commit themselves to comply with contracts, we assume that there is reputational cost from defaulting.”²² Using sovereign debt contracts as an example of

²⁰ The International Working Group of Sovereign Wealth Funds, *Sovereign Wealth Funds: Generally Accepted Principles and Practices “Santiago Principles”* (October 2008), available at <http://www.iwg-swf.org/pubs/eng/santiagoprinciples.pdf>.

²¹ See, e.g., David G. Fromm, *Regime Changer? Sovereign Wealth Funds and the International Investment System*, available at http://fletcher.tufts.edu/~media/Fletcher/Microsites/swfi/pdfs/2012/Fromm%20Paper_FINAL.pdf.

²² Choi, Stephen J. and Gulati, G. Mitu and Posner, Eric A., *Political Risk and Sovereign Debt Contracts* (November 21, 2011). University of Chicago Institute for Law & Economics Olin Research Paper No. 583; U of Chicago, Public Law Working Paper No. 370. Available at SSRN: <http://ssrn.com/abstract=1962788> or <http://dx.doi.org/10.2139/ssrn.1962788>.

inter-country and investor-country contracts, they note that “[i]nvestors and countries design sovereign debt contracts so as to increase the cost for the country of defaulting in the good state and minimize the cost to creditors from default in the bad state.”²³

Just as a good sovereign debt helps to effectively allocate risk, a well-crafted bi-lateral investment treaty BIT could help reduce risks from SWF investment. As with any contract, sufficient consideration must be offered in order to induce the parties to bind themselves. In the case of the SWF, such consideration might include preferential, fast-track review of SWF investment by host country regulators. For the host country, the SWF might consent to certain commitments regarding investment duration and withdrawal procedures. No SWF would consent to “Hotel California” risk—where host countries receive, but SWFs can never leave—but they may be willing to limit the rate at which they withdraw investments from that particular market.

A difficulty presented by using BITs to mitigate such risks is that no sovereign is going to bind itself when serious political risks are at stake. So, for example, the 2012 US Model BIT already states that

“Nothing in this Treaty shall be construed ... to require a Party to furnish or allow access to any information the disclosure of which it determines to be contrary to its essential security interests; or ... to preclude a Party from applying measures that it considers necessary for the fulfillment of its obligations

*with respect to the maintenance or restoration of international peace or security, or the protection of its own essential security interests.”*²⁴

While a BIT may be able to help govern asset sales in periods of stress, it will be less useful in times of severe crisis, when a country is facing serious domestic risks if it does not shore up its finances.

Conclusion

It is well documented that some sovereign funds sponsored by oil-dependent countries have engaged in significant selling over the past two years. What is less certain is whether this has any significant effect on market volatility and systemic risk. But even if we assume there are significant effects, there are few regulatory options that could minimize any risk or market volatility from SWF divestment other than protectionist responses to SWF investment. Put simply, most cures would be worse than the disease.

Of the options described in this article, the most likely to be implemented is a GAPP in an updated Santiago Principles (which are due to be revisited, as markets and governance principles evolve) that advises funds to consideration of volatility, market risk and other market effects that may arise from sovereign investment and divestment. A more ambitious response would be a bi-lateral investment treaty between a host country and a SWF sponsor country. The advantage of such a treaty is that it should provide a benefit to the SWF—such as favored regulatory treatment—in exchange for the relative illiquidity the SWF would accept.

²³ Id.

²⁴ <http://www.state.gov/documents/organization/188371.pdf>.

The Rise of Sovereign Venture Funds

Diego Lopez

PwC

and SIL, Bocconi University

The corporate atmosphere of RocketSpace's offices in Central San Francisco is exhilarating. The \$5bn+ incubator prides itself with having hosted 13 companies that have reached a valuation of \$1 billion –commonly known as Unicorns, including Uber and Spotify. But this not the only digital businesses accelerator in sunny California.

Technological breakthroughs, defined as one of PwC's five global megatrends,¹ are changing the world. Leaving social media aside, a number of digital companies have disrupted the most traditional industries: Amazon.com and Alibaba (Retail), Airbnb (Hospitality), Yelp (Restaurants), YouTube (Media), Uber (Transportation), PayPal (FinTech) and Tesla Motors (Automotive), to name a few. These are among the fastest growing companies in history and everyone fights to imitate them, or to invest in them.

Silicon Valley is a self-reinforcing ecosystem of innovation and it continues to be the “place to be” when it comes to start-ups. There are over 400,000 high-tech workers based in the Bay Area, who leverage its world-class academic and R&D resources. Of today's 158 Unicorns, 100 are headquartered in the US, and most of these, in the Valley.² There are talks about parallel “Silicons” in Tel Aviv, Dublin,

Bangalore and Beijing, but the reality is that most of the Venture Capital (VC) fundraising still passes through California.

At the same time, institutional investors continue to seek alpha and adapt to the “new normal” of lower interest rates and dividend yields. Sovereign Wealth and Pension Funds are a heterogeneous breed of investors, with very different investment and risk profiles, maturities and targeted returns. Several funds have already started investing in a number of sectors within Private Equities, in search for diversification and higher returns, but only a handful of them are ready to invest in venture capital and digital start-ups. No other asset class and sector is able to offer returns over 20% at the moment.

At the end of 2012, Singapore's GIC bought alongside Hong Kong's HKMA the 92% of an office tower in San Francisco City Centre from Nippon Life Insurance and Hines for \$860 million. GIC had opened its offices in the Bay Area long before that, and knew that more investors would come. A year later, they were welcoming a new tenant into 101 California St. – Khazanah Americas, who has the mandate of helping the Malaysian fund “to better evaluate investment opportunities in the innovation and technology sectors”. Temasek has gone a step further by creating a Venture Capital arm, Vertex Ventures, with investment managers in Palo Alto,

¹ <http://www.pwc.com/gx/en/issues/megatrends.html>

² <http://techcrunch.com/unicorn-leaderboard/>

Table 4: SWF Investments in IT-linked Sectors of Over US\$100 million, 2008 - 2015

Parent Entity Name	Target Name	Target Country	Year	Deal Size (US\$m)
China Investment Corporation (CIC)	NXP Semiconductors-RF Business	Netherlands	2015	\$1,800.00
GIC Pte Ltd	BMC Software Inc	USA	2013	\$1,677.53
Mubadala Development Company PJSC	IBM's Microelectronics Business	USA	2014	\$1,500.00
Temasek Holdings Pte Ltd	AsialInfo.Linkage Inc	China	2014	\$437.42
Temasek Holdings Pte Ltd	Alibaba Group Holding Ltd	China	2011	\$400.00
GIC Pte Ltd	iParadigms LLC	USA	2014	\$376.00
GIC Pte Ltd	Kronos Inc	USA	2014	\$375.00
Qatar Investment Authority (QIA)	Samsung Electronics Co. Ltd	South Korea	2013	\$300.00
Qatar Investment Authority (QIA)	BlackBerry Ltd	Canada	2013	\$200.00
GIC Pte Ltd	Genpact Limited	India	2012	\$150.00
New Zealand Superannuation Fund	Datacom Group Ltd	New Zealand	2013	\$142.00
Temasek Holdings Pte Ltd	Dianping Holdings Ltd	China	2015	\$141.67
Mubadala Development Company PJSC	Advanced Micro Devices Inc	USA	2009	\$125.00
China Investment Corporation (CIC)	Grabtaxi Holdings Pte Ltd	Singapore	2015	\$116.67
Temasek Holdings Pte Ltd	Clouday Corp	China	2013	\$110.00
GIC Pte Ltd	KKBox Inc	Taiwan	2014	\$104.00

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Bangalore, Tel Aviv, Beijing and Taiwan, besides Singapore. The next SWF could be Kazakhstan's Samruk-Kazyna, who plans to open a California-based subsidiary, Samruk Innovation.³

The human capital continues to be determinant though, and one key concerns of investors entering into Venture Capital is the ability of investment managers, whether in-house or external, to identify the opportunities and manage the start-ups through

their maturity. GIC, Khazanah (through Khazanah Americas Inc.) and Temasek (through Vertex) have now over 50 professionals based in San Francisco, who understand the digital drivers and have close relationships with the main players. Others Funds have formed specialized Venture Capital teams within their Private Equity departments back home, with a different investment-risk profile and targets, and sometimes, a separate allocation.

As it is normally the case with new or unknown grounds, Sovereign Investors have started investing in start-ups by leveraging the knowledge and foot-

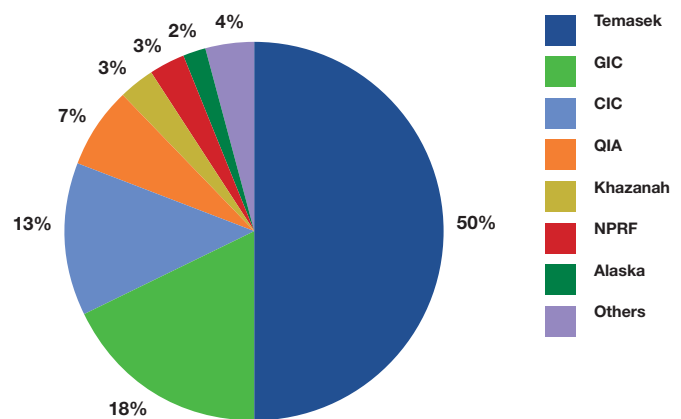
³ <http://en.tengrinews.kz/companies/Samruk-Kazyna-mulls-opening-subsi-dary-in-Silicon-Valley-259813/>

print of specialized General Partners (GPs) with a contrasted track record, that can filter the opportunities on the ground, and give enough guarantee to the Limited Partner. Some of the leading Venture Capital firms of the Bay Area include Sequoia Capital (early investor in Yahoo, Apple and PayPal), Kleiner Perkins, Caulfield & Byer, also known as KPCB (early investors in Amazon, Google and Genentech) and Benchmark (early investors in eBay, Twitter and Yelp).

Some of the major institutional investors have used these three VC firms often to get their feet into Palo Alto. Abu Dhabi Investment Council (ADIC) has reportedly co-invested with Sequoia Capital in few start-ups including Whatsapp and MongoDB, while KPCB has partnered with Abu Dhabi Investment Authority (ADIA), Alberta Investment Management Corporation (AIMCo) and Qatar Investment Authority (QIA) in different funding rounds. Most of the investors entering VC do not have the scale to do so on their own.

Temasek however, seems to be flying alone. The Singaporean company has acted as Lead Investor in the financing rounds of seven Unicorns, among many other digital investments. These have generally been late rounds (Series D to G), right before IPO or acquisition, and with slightly lesser risk, but we would not be surprised to see them moving to earlier rounds (Series A to C) in the next few years, as they specialize and continue to leverage Vertex Ventures' platform. GIC is also comfortable in this space, and has led some financing rounds like the Series E of Square, which went into market at \$3.6 billion in Nov 2015.⁴

Figure 19: Distribution of IT-linked Investment Value by SWFs



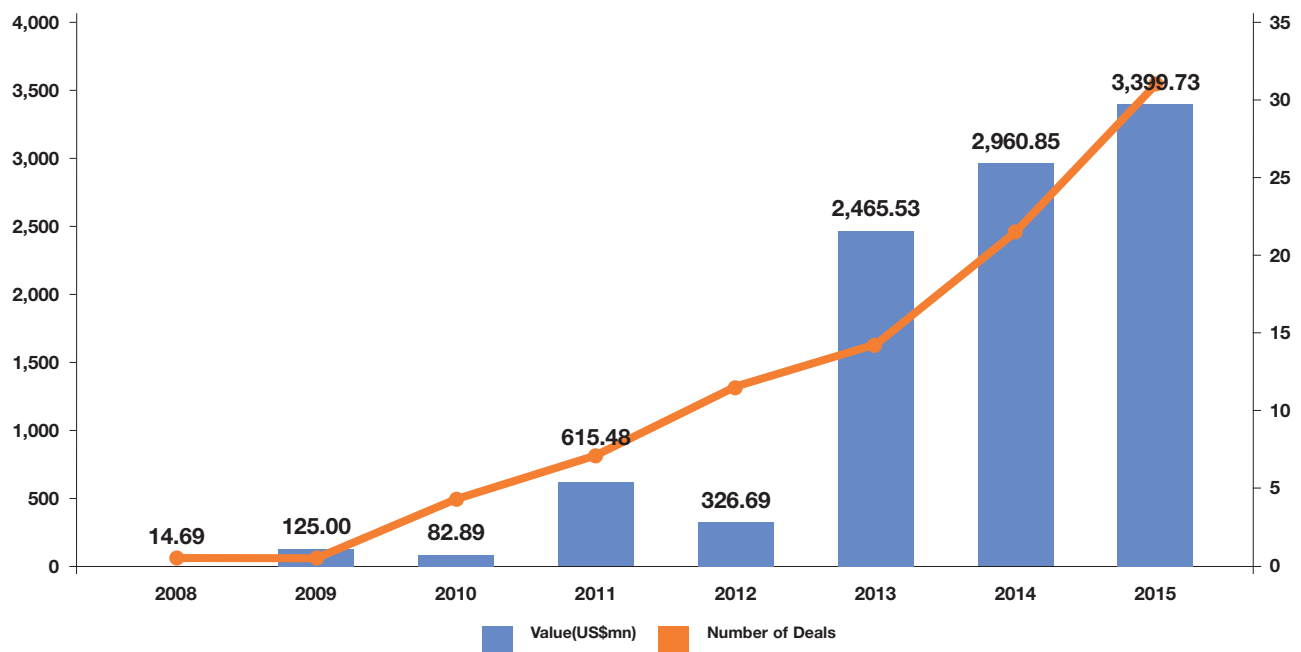
Source: Sovereign Investment Lab, Bocconi University

The most active Sovereign Wealth Funds betting on innovation and technology – also known as Sovereign Venture Funds as coined by Javier Santiso⁵ – are those of Singapore or Malaysia, but they are not the only ones. In September 2012, China Investment Corporation (CIC) funded Alibaba's share buyback from Yahoo!, along with Temasek and CITIC Capital among others. The estimated stake of CIC in Alibaba was \$2 billion.⁶ During 2015, the Chinese SWF also participated in the late investment round of two start-ups, Didi Kuadi and GrabTaxi, the smartphone apps hailing taxis in China and Singapore respectively.

⁴ <https://www.crunchbase.com/organization/square#/entity>

⁵ Forthcoming, Cambridge University Press. Javier Santiso is the Head of IE's SWLab

⁶ <http://www.ibtimes.co.uk/alibaba-com-group-ecommerce-share-buy-back-345228>

Figure 20: SWF Investments in IT-linked Sectors, 2008 - 2015

Publicly available data for direct SWF equity & real estate deals, joint ventures and capital injections. Source: Sovereign Investment Lab, Bocconi University

Middle Eastern Funds are also bullish on technology – QIA has been one of the several investors in Uber, after injecting an estimated \$1.2 billion in the Series E financing. The American Unicorn is currently valued at \$51 billion after 14 rounds of funding and is arguably the world’s largest non-listed start-up. Its Middle Eastern version, Careem, has also been successful in raising funds from Sovereigns, after the Kuwait Investment Authority (KIA) contributed with \$10 million in the Series C funding round led by Dubai-based private equity firm Abraaj Group. Other ME SWF investing into VC include Oman’s State General Reserve Fund (SGRF), ADIA, ADIC, Mubadala and International Petroleum Investment Corporation (IPIC), who

invested through its subsidiary Aabar into Tesla Motors before its IPO.

Beyond South East Asia and the Middle East, New Zealand Superannuation Fund (NZ Super), has invested over \$200 million in two energy-related investments – through the “Innovation Alliance” established with ADIA and AIMCo, and in a clean technology business called View. Alaska Permanent Fund, who has traditionally been a Private Equity player with a third of its funds allocated to the alternative portfolio, has invested c.\$200 million in three digital healthcare business in the past two years. Lastly, the Ireland Strategic Investment Fund (ISIF) manages a portfolio of over \$500 million in com-

mitments to Venture Capital funds, both domestically (“Silicon Docks”) and internationally⁷.

The Internet of Things (IoT) is everywhere, and VC investments may involve a number of industry sectors, from e-commerce to education and healthcare, generally with a strong technological component. One of the hottest areas during the past two years has been FinTech, i.e. companies linking financial services and payments with technology. Besides Square, a number of incipient payment technologies like Ardyen and Funding Circle have been funded by institutional investors in the last year. We would not be surprised to see them financing of others bitcoins or cryptocurrency exchange businesses⁸ in the next few years.

All in all, Sovereigns have deployed c. \$10 billion in 93 technological investments in VC and Start-Ups – 63% of it during the last two years, according to data from Sovereign Investment Lab.

This is not an industry exempt of question marks though, and many analysts question the momentum of the digital sector – including concerns over expected down rounds for several Unicorns during 2016. The number of the \$1bn+ start-ups has doubled in the last year and a half, and its abundance is a worrying similarity to the dot.com bubble, although experts insist in the decrease in IPOs (which was the ultimate trigger of the burst back then) and in the revenue creation of many digital companies these days. Valuations are a very subjec-

tive art when it comes to Venture Capital, and multiples are certainly at the high end, but the partners on the ground assure they have learned the lesson, and put the right structures in place to make sure their Limited Partners do get their money back even in case of default.

In the meanwhile, the base of investors continues to evolve, and analysts expect new ways of financing including Corporate Development, Crowdfunding, Syndicates, Super Angels and Co-Investor Networks. Most importantly, some institutional investors are growing a “fear of missing out” the digital train.

Sovereigns focusing on technology have a number of options, from fund investing to direct and co-investment, across all stages of venture, growth and buy-out capital. The first signs of 2016 continue to be positive, and we expect to see a number of Investors exploring these grounds in the next couple of years, as they diversify their Private Equities portfolio and increase their exposure into the digital sector.

⁷ <http://www.nprf.ie/Publications/2015/ISIFEEventPresentation.pdf>

⁸ <http://www.strategy-business.com/article/A-Strategists-Guide-to-Blockchain>



SWFs are finally considered
a distinct type of institutional investor,
inspiring a flourishing research
and a vibrant debate amongst
practitioners and policymakers

Spotlights on research

In this section, we attempt to collect the most interesting studies pertaining SWFs that have been published (or that have made public) in 2015 and at the beginning of 2016. Our selection is by design limited, with the goal of identifying a roadmap to the most debated topics and the most influential works.

General Perspective

William L. Megginson, Veljko Fotak. 2015. “Rise of the Fiduciary State: a Survey of Sovereign Wealth Fund Research”. *Journal of Economic Surveys* Volume 29, Issue 4, September 2015, Pages 733–778

We survey the literature documenting the rise of sovereign wealth funds (SWFs), which, with assets under management of over \$5.4 trillion at year-end 2014, are a major force in global finance. Research papers have analyzed the evolution of SWFs from stabilization funds to stand-alone wealth management funds; we both survey this research and show that more than 25 countries have launched or proposed new SWFs since January 2008. The most salient and controversial feature of SWFs is that they are state-owned; we survey the existing literature on state ownership and discuss what this predicts about the efficiency and beneficence of government control of SWF assets. We discuss the documented importance of SWF funding sources (oil sales revenues versus excess reserves from export earnings) and survey the normative literature describing how SWFs should allocate funds. We then summarize the empirical literature studying how SWFs actually do allocate funds—across asset classes, geographically, and across industries. We document that most SWF equity investments in publicly traded firms involve cross-border purchases of sizeable minority stakes (median around 20%) in target firms, with a strong preference for investments in the financial sector. Next, we assess empirical studies examining the impact of SWF stock investments on target firm financial and operating performance, and find universal support for a positive announcement period stock price increase of 1–3%. This, however, is significantly

lower than the 5% abnormal return documented for stock purchases by comparable privately owned financial investors in recent studies, indicating a “sovereign wealth fund discount.” We conclude by summarizing the lessons of SWF research and pointing out unresolved issues.

Bader Alhashel. 2015. “Sovereign Wealth Funds: A literature review”. *Journal of Economics and Business* 78 (2015) 1–13

This paper reviews the research on the \$6.65 trillion dollar Sovereign Wealth Funds (SWF). The literature, which has only appeared in the last few years, focuses for the most part on the investment behavior of SWFs, especially in light of calls for the regulation of these financial entities. The literature exhibits strong support for the idea that the motives of SWFs are economic, rather than political, as their opponents would claim. There appears to be conflicting evidence as to whether SWFs increase value.

Locknie Hsu. 2015. “Sovereign Wealth Funds: Investors in search of an identity in the twenty-first century”. *International Review of Law* 2015:swf.6.

Sovereign Wealth Funds (SWFs), as they have come to be known, are a hybrid type of foreign investor. They invest beyond their own borders with an aim to maximize returns as a foreign investor is expected to. At the same time, they are closely associated with governments, by ownership, source of funding, and/or investment objectives. Even as within this group, individual SWFs take various forms and may have divergent investment priorities and risk approaches. There is not even a universal definition

of SWFs. As a result, they are often not viewed as typical foreign investors. The association of a SWF with a foreign government has raised various issues such as national security, trade protectionism and nationalism in the recipient countries. At the same time, due to the government ownership of some SWFs, they may fall into the group of business entities known as state-owned enterprises (SOEs). Given that SOEs are highly influential in some states, some recipient states have sought to subject SOEs to greater disciplines, such as in ensuring competition law and transparency principles apply to them, in order to level the playing field for other enterprises. Such disciplines have begun to appear in trade and investment treaties, and are coupled with the usual broad definitions of "investor" in such treaties. It is perhaps too early to state that there is a trend of greater legal and cross-border scrutiny over SOEs, and along with them, SWFs, in treaties. The Trans-Pacific Partnership Agreement that is under negotiation is an example of a potentially game-changing treaty which could affect SWFs qua SOEs. The challenge for SWFs is to carve a distinct identity in the twenty-first century, as more treaties that impose binding requirements arise. This article examines some recent developments, how SWFs may need to forge a unique identity and challenges of recipient states in balancing investment openness and the above concerns.

Asset Allocation and Investment Strategy

Samuele Murtinu, Vittoria Giada Scalera. 2016. "Sovereign Wealth Funds' Internationalization Strategies: The Use of Investment Vehicles". *Journal*

of International Management, Forthcoming.

In this work, we study the strategies driving cross-border sovereign wealth fund (SWF) investments worldwide. In particular, we investigate how SWFs internationalize their activities, studying whether the use of investment vehicles as signal of passive investment approach to access foreign markets is influenced by SWF- and deal-specific characteristics and the presence of bilateral trade agreements between the SWF's and the target country. We use a new dataset on SWF investments, whose size is comparable with the datasets used in the most popular SWF studies. Our probit and multinomial logit estimates show that fund opacity, fund politicization, strategic industry targets, and majority ownership choices lead to a more likely use of vehicles, while bilateral trade agreements negatively affect such investment strategy. When we disentangle the different types of vehicles and their geographical location, we find that fund opacity increases the likelihood to use SWF-controlled vehicles, while fund politicization, strategic industry targets, and majority ownership choices increase the likelihood to use a corporate vehicle. While, bilateral trade agreements reduce the use of corporate vehicles. As to the geographic location of the vehicle, politicized foreign SWFs are more likely to invest through vehicles located in third countries. Instead, targeting strategic industries leads to invest in vehicles located in the target country. Our results control for SWFs' strategic goals, SWF experience (reliance on external managers or advisors, fund size), type of funding sources, crisis period, deal-specific effects, and legal and institutional differences across countries and over time.

Snorre Lindset, Knut Anton Mork. 2016. “Investing it, spending it: Interactions between Spending and Investment Decisions with a Sovereign Wealth Fund”. Working Paper No. 1/2016 Department of Economics NTNU.

The emergence of sizeable Sovereign Wealth Funds (SWF) in recent years has raised important questions of how such funds should be managed and how the proceeds should be spent. This paper takes a fresh look at these issues in view of modern finance literature. The most important finding is that investment management and spending decisions should not be separated because the preferred way of spending carries implications for the investment strategy. This result becomes particularly apparent if the SWF, like Norway’s GPF, is intended to finance a smooth stream of government spending, which we model as saving and investment with internal habit formation. The desire for backward as well as forward smoothing has implications for both portfolio rebalancing and overall risk taking, both of which should be limited. We furthermore find that short-run smoothing raises the long-term variability of spending because short-run smoothing affects the fund’s principal value. The paper also studies the effects of time-varying risk-free rates and finds that optimal spending should respond to such variations, though only partially. Lastly, we point out that a spending rule based on the fund’s annuity value should adjust the normal rate of return for risk. For the case of the Norwegian GPF, the risk adjustment could reduce the optimal annual draw on the fund by an amount corresponding to as much as 3% of mainland GDP. However, a rule based on preferences among generations may be equally rational as a rule based on the annuity value.

John Hassler, Per Krusell, Abdulaziz Shifa, Daniel Spiro. 2015. “Sovereign wealth funds and spending constraints in resource rich developing countries – the case of Uganda”.

A large increase in government spending following resource discoveries often entails political risks, inefficient investments and increased volatility. Setting up a sovereign wealth fund with a clear spending constraint may decrease these risks. On the other hand, in a developing economy with limited access to international borrowing, such a spending constraint may lower welfare by reducing domestic capital accumulation and hindering consumption increases for the currently poor. These two contradicting considerations pose a dilemma for policy makers in deciding whether to set up a sovereign wealth fund. Using Uganda’s recent oil discovery as a case study, this paper presents a quantitative macroeconomic analysis and examines the potential loss of constraining spending through a sovereign wealth fund with a simple spending rule. We find that the loss is relatively low suggesting that such a spending structure seems well warranted.

Mark Mietzner, Dirk Schiereck, Denis Schweize. 2015. “The role of sovereign wealth funds as activist or passive fund managers”. *Journal of Asset Management* (2015) 16, 303–315.

Sovereign wealth funds (SWF) have attracted a lot of media attention with recent investments in publicly listed companies. Repeatedly, concerns have been raised, such as the fear of industrial espionage or geopolitical threats. We analyze whether SWF managers acquire stakes in foreign publicly listed firms (1) to play an active role that would support con-

cerns or (2) passively select investments to increase the portfolio diversification, for instance. We find that SWF target firms are more profitable, pay higher dividends and have a higher financial stability than their industry peers. This is in line with SWF managers passively seeking for further portfolio diversification in foreign public equity markets. We cannot find an improvement in operating or market performance after the engagement of SWF. Overall, our results indicate strong evidence that SWF managers primarily act as passive investors instead of pursuing activism strategies like private equity funds.

Financial Markets and SWFs

Bernardo Bortolotti, Veljko Fotak, William M. Megginson. 2015. “The Sovereign Wealth Fund Discount: Evidence from Public Equity Investments”. *The Review of Financial Studies* (2015).

Thanks to their long investment horizons, ability to acquire large stakes, and lack of explicit liabilities, Sovereign Wealth Funds (SWFs) have the potential to increase firm value by being the ideal monitoring shareholders. Yet, SWFs might function as conduits of political objectives inconsistent with shareholder wealth maximization. We find that announcement-period abnormal returns of SWF equity investments in publicly traded firms are positive, but lower than those of comparable private investments, indicative of a “SWF discount.” Further, SWF investment targets suffer from a decline in return on assets and sales growth over the following three years. Our results are robust to adjustments for target and deal characteristics and are not driven by SWF target selection crite-

ria. Larger discounts are associated with SWFs taking seats on boards of directors and with greater stakes acquired by SWFs under strict government control, supporting the hypothesis that political influence negatively affects firm value and performance.

Ton van den Bremer, Frederick van der Ploeg, Samuel Wills. 2016. “The Elephant In The Ground: Managing Oil And Sovereign Wealth”. *European Economic Review* 82 (2016) 113–131.

One of the most important developments in international finance and resource economics in the past twenty years is the rapid and widespread emergence of the \$6 trillion sovereign wealth fund industry. Oil exporters typically ignore below-ground assets when allocating these funds, and ignore above-ground assets when extracting oil. We present a unified stylized framework for considering both. Subsoil oil should alter a fund’s portfolio through additional leverage and hedging. First-best spending should be a share of total wealth, and any unhedgeable volatility must be managed by precautionary savings. If oil prices are pro-cyclical, oil should be extracted faster than the Hotelling rule to generate a risk premium on oil wealth. Finally, we discuss how our analysis could improve the management of Norway’s fund in practice.

Narjess Boubakri, Jean-Claude Cosset, Jocelyn Grira. 2016. “Sovereign wealth funds targets selection: A comparison with pension funds”. *Journal of International Financial Markets, Institutions & Money* 42 (2016) 60–76.

This paper investigates the determinants of sover-

eign wealth funds' (SWFs) decisions to invest in publicly traded firms in comparison to pension funds. Using a sample of 344 firms targeted by SWFs over the 1991–2011 period and a control sample of 663 firms targeted by pension funds, we find that SWFs, in comparison to pension funds, are more likely to invest in firms operating in strategic industries as defined by Fama and French (1997) (financial sector, natural resources, mining, transportation, telecommunication and utilities) and in countries with sustainable economic growth and weak legal and institutional environment. Our findings are robust to disproportional size of some SWFs, their financing sources, their transparency level and acquisition activities during the recent financial crisis.

Transparency, Legal and Political Issues

Di Wanga, Quan Lib. 2016. "Democracy, Veto Player, and Institutionalization of Sovereign Wealth Funds". *International Interactions: Empirical and Theoretical Research in International Relations* Volume 42, Issue 3, 2016.

Sovereign Wealth Funds (SWFs) have become important and controversial in global economy. We analyze why some SWFs have more encompassing and clearly specified governance rules than others. We argue that SWF institutionalization is structurally rooted in a country's regime type and number of veto players in public policymaking. Democracy promotes SWF institutionalization by its need for strong rule of law, voters trying to constrain opportunistic behaviors of politicians, and the free flow of

information. In contrast, the number of veto players has a curvilinear effect. When the number of veto players is very small, institutionalization is too rigid, constraining, and not preferred; when the number of veto players is moderate, it is optimal for veto players to manage their conflict over SWF governance in a more routine and institutionalized fashion; and when the number of veto players grows above a threshold, it becomes too costly to coordinate and produce mutually agreeable institutional rules. Our empirical analysis of 46 SWFs in 30 countries from 2007 to 2009 provides robust confirming evidence. SWF governance is more institutionalized and transparent in democracies and in countries with four veto players. Our research has important theoretical and policy implications for the ongoing debate over SWF.

Edwin M. Truman. 2015. "Sovereign Wealth Fund Special Issue Guest Foreword from Edwin M. Truman". *International Review of Law: Vol. 2015, Special Issue on Sovereign Wealth Funds*, 1.

Sovereign Wealth Funds (SWFs) burst on the international financial scene a decade ago. At the time, there was not a full consensus on how SWFs should be defined and the term SWF was not yet fully attached to them, despite the fact that they had been around for more than 50 years. Their number and their assets (foreign and domestic) under management were growing rapidly. That spectacular growth was projected to continue, which it did not, but their strong growth in number and assets has continued along with a host of associated issues. SWFs are fascinating to researchers and practitioners precisely because

they raise so many interesting and important issues of public policy, attracting experts and pontificators with a range of specializations and promoting a healthy amount of intellectual cross-fertilization. Economists and financial experts study and write about SWFs while invading the turf of the political scientists and lawyers. Political scientists, including specialists in public administration and international relations, study and write about SWFs while invading the turf of the economists and lawyers. Lawyers with a wide range of expertise study and write about them while invading the domains of political scientists and economists. This special issue of *International Review of Law* falls into the third category. It is an excellent example of the breadth of legal and public policy issues raised by SWFs. A SWF is special because, unlike most other forms of asset management, the owner of the fund is the government on behalf of its citizens. As a result, the managers of the SWF have special fiduciary responsibilities, and the operations of the SWF are subject to a high degree of scrutiny at home and abroad, the latter in connection with national security and other potential concerns. Because SWFs are governmental entities, their governance receives special attention, again, at home and abroad. This has led to self-governance initiatives like the Santiago Principles, which were inspired at least in part by my SWF scoreboard. SWFs also involve a wide range of public policy issues ranging from their tax treatment to their coverage in trade agreements, bilateral and multilateral. Attention also focuses on SWF objectives and associated investment strategies. Topics include the extent to which SWFs should pursue short-term stabilization strategies or longer-term

development strategies onshore or offshore. This issue of *International Review of Law* touches on most of these SWF topics and many more. It should prove to be informative reading for anyone interested in being brought up to date on a range of legal aspects of SWFs, including the inevitable interdisciplinary overlap.

Georges Kratsas, Jon Truby. 2015. "Regulating Sovereign Wealth Funds to Avoid Investment Protectionism". *Journal of Financial Regulation*, 2015, 00, 1–40.

Chinese and Emirati purchases of US companies have collapsed because of suspicions that their Sovereign Wealth Fund (SWF) status is a disguise for political ambitions. SWFs have grown in size and number, drawing the attention of many government officials because of their non-transparent nature and expansionary investment policies. Their government-controlled status and non-transparent nature have raised fears among governments of political rather than economic investment motivations. SWFs may use their economic influence to obtain critical information, transfer jobs abroad, or compromise the operation of strategically important companies. Such concerns have led to proposals for national measures to regulate investments of foreign SWFs with a view to controlling their economic and security impact. This article questions whether the existence of SWFs justifies the adoption a particular set of national or international foreign investment regulations. It offers an assessment of competing models from the viewpoint of theory, costs, and implementation. It also examines the alternative model of international self-regulation.

Larry Catà Backer. 2015. “International Financial Institutions (IFIs) and Sovereign Wealth Funds (SWFs) as instruments to combat corruption and enhance fiscal discipline in Developing States”. *International Review of Law* 2015:swf.5.

Especially since the start of the second decade of the twenty-first century, once more we have seen more focused interest in the use of SWFs by home states-less as a means of projecting sovereign financial power outwards and more as a means of internal financial management, and development. What makes this interesting from the perspective of SWF development is the role of International Financial Institutions (IFIs) in SWF development. This article takes a first look at the way in which IFIs have also begun to use SWFs in their interactions, with a emphasis on developing states. A review of some recent efforts to establish SWFs with a stabilization or development focus suggests the way in which these funds now may better serve the project of fiscal and governance internationalization, and the development of global policy coherence around the fiscal ideologies of IFIs, rather than as an instrument of national policy. Part II briefly sketches the IFI's interest in and approach to SWFs as a part of their investment, capacity building and rule of law toolkits. Part III then reviews the manifestation of this approach in the development of SWFs in a number of developing states. The article suggests ways in which stabilization and development SWFs may better serve financial globalization than the particular interest of states establishing them precisely by transposing global standards of fiscal and governance behavior into the internal workings of states. In this sense, development and stabilization SWFs serve as an instrument of globalization from

the top down (through IFI policy operationalization) perhaps as effectively as SWFs that seek to project national financial power through private market investments abroad. But it also creates the possibility of divergence in SWF character as the consequences of the use of SWFs as governance devices may produce substantial deviation from the traditional organizational parameters of SWFs as instruments of macroeconomic policy.

Afshin Mehrpouya. 2015. “Instituting a transnational accountability regime: The case of Sovereign Wealth Funds and “GAPP””. *Accounting, Organizations and Society* 44 (2015) 15–36.

This paper analyses the development of a transnational accountability regime, – the Generally Accepted Principles and Practices (GAPP), introduced in 2008 for sovereign wealth funds. Facilitated by the International Monetary Fund, the regime aimed to improve the transparency, governance and accountability of these government-owned investment funds that originate primarily from the Middle East and Asia. I focus here on the struggles leading to the establishment of the boundaries of the GAPP accountability regime by diagnosing the accountability problem, determining the providers and the imagined users of the accounts and defining the appropriate course of action. I then analyse the struggles involved in negotiating the process and technologies used to establish the accountability relationship including the role of standards in accounting, audit and risk management, as well as transparency and compliance pressures. In each case I identify the different ideas or templates that emerged during the negotiations and

how consensus was achieved through careful steering by a core coalition comprising the US Treasury and the largest, most legitimate funds. I highlight the need to go beyond typical fault lines in debates surrounding the origins of global governance regimes (e.g. local vs. global, western vs. non-western, core vs. peripheral) by focusing on emerging coalitions of local/global and western/non-western actors that increasingly drive such regimes. I show how the disproportionate representation of financial actors in such coalitions leads to less attention to questions of public accountability, and instead focusing such regimes on financial accountability. I further elaborate on the implications of the fall-back to transparency in transnational accountability regimes as a last resort and the types of resistance emerging against it.

Appendix

Methodology

Our data research methodology focuses on two main objectives: comprehensiveness of research and accuracy of information. To ensure comprehensiveness, we survey multiple sources, primarily relying on established business and financial databases but employing also press releases, published news, fund annual reports and many other data sources. To ensure accuracy, we follow a strict process for capturing deal information and we establish a clear hierarchy of sources, based on our estimate of reliability:

- 1 Financial transaction databases: Bloomberg, Thomson One, Zephyr (we have also used Datamonitor and Dealogic in the past).
- 2 Database for target firm information: DataStream.
- 3 Sovereign Fund disclosures, including annual reports, press releases and other information contained on their websites.
- 4 Target and vendor company disclosures: press releases and other information contained on their websites.
- 5 Regulatory disclosures: stock exchange filings for publicly listed companies; Regulators; SEC 13D and 13G Filings; Land Registries; Competition Commissions, and Bond/IPO prospectuses etc.
- 6 Service provider disclosures: such as lawyers, investment banks, and project financiers working with the SWFs.
- 7 Information aggregators: LexisNexis and Factiva. Those include news reported by newswires (Dow Jones, Reuters, Business Wire, Associated Press and others) and national news agencies (KUNA, Xinhua, WAM etc.) numerous well-regarded selected newspapers (e.g. *The Wall Street Journal*, *Financial Times*, *New York Times*), and their regional equivalents (e.g. *Economic Times*, *China Daily*, *The National*), and the local trade press.
- 8 Other websites, including Zawya.com, Google Finance, Yahoo! Finance, AME Info, BBC News and others. Most of the deals are amassed and consolidated from the financial transaction databases, while the other sources are mostly used for corroboration where necessary. At least one high-quality source is captured for each data point, and, where possible, multiple sources are identified. News items from information aggregators such as LexisNexis are carefully examined to ascertain the reliability of the original source.