Sovereign Wealth Funds Quarterly Newsletter

From the collaboration between Bocconi's Sovereign Investment Lab and Boston Consulting Group

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BOSTON CONSULTING GROUP

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SIL Sovereign Investment Lab

Foreword

Global SWFs' activity in last semester shows remarkable signs of recovery. Investments surged, with more completed deals and a substantial increase in both average ticket size and total deal value. Driven by robust global growth and rising oil prices, SWF have come back strong after some years of reckoning and adjustment. As we approach end year, we expect a total value of direct equity investments for 2018 in the ballpark of $50 billion, marking the consolidation of a positive trend.

Yet a narrow focus on the most recent data masks some future challenges SWFs will face in the aftermath of events unfolding when this newsletter goes to press.
The oil price recovery is proving ephemeral, with Brent approaching again the $60 per barrel. Importantly, this new fall shows that the old methods of controlling prices by restricting production no longer work. A country such as Qatar with its tiny 5% of OPEC's production is certainly not the swing player in the crude oil market, but its recent decision to quit the OPEC next year reveals a fundamental change of strategy in some petro-states. Each country has to make the best use of its own resources, and revenues must be invested in the industries that can produce the jobs and the revenues in a future "beyond oil". Counting of high prices would just slow down the transition and this is why OPEC is no longer the power broker it once was.

By the same token, China SWF activity over the last two quarters has been nothing less than impressive, being the country the top target for SWF investment with landmark deals including the $14 billion Alibaba's spin-off of Ant Financial and CIC among the top three SWFs by investment value. However, the tensions between the US and China, slightly improved by the deal cut by Presidents Trump and Xi at the December G20 meeting, reignited after the arrest of Huawei's CFO for alleged violations of sanctions against Iran. The risk of an escalation of a cold war between two countries representing 40% of the global economy should not be underestimated, as long as its implications on international trade and capital flows. Indeed, new technologies are transforming the nature of products that are exchanged across borders and how trade is financed. Many of these disruptive digital ventures have been funded by SWFs, in a quest for better returns. National security concerns are now curbing the exports of these new products, depriving IT companies of a major market such as China. How can technology advance in a world of conflict and strategic confrontation between Washington and Beijing remains a moot point.

We are living testing times and future uncertainty looms large. We have probably reached the end of extrapolation, as the future of SWF cannot be drawn with lines from the past. Bocconi's SIL and BCG will strive to help our readers to chart this unexplored, fascinating territory.

Key facts and figures

15
active SWFs completing an acquisition in Q12017

108
completed SWF deals

$28.9 BN USD
total reported deal value in Q12017

37%
share of deal value of co-investments with private parties and/or other SWFs

58%
share of deal value in frontier or emerging markets

$6 BN USD
the largest SWF deal of the quarter is CIC Agri Bank of China

Global outlook for SWF investments

The global macroeconomic outlook has remained favorable to SWFs over the last quarter. The steady expansion under way since mid-2016 continues, with global growth for 2018–19 projected to remain at its 2017 level, at 3.7%. At the same time, however, the expansion has become less balanced and may have peaked in some major economies. In the United States, while momentum is still strong, recently announced trade measures, including the tariffs imposed on $200 billion of US imports from China, could hamper global growth prospects in two countries worth 40% of world GDP. Across emerging market and developing economies, medium-term prospects are mixed. Projections remain favorable for emerging Asia and emerging Europe, excluding Turkey, but are less so for Latin America, the Middle East, and sub-Saharan Africa, where—despite the ongoing recovery— the medium-term outlook for commodity exporters remains generally subdued, with a need for further economic diversification and fiscal adjustment.

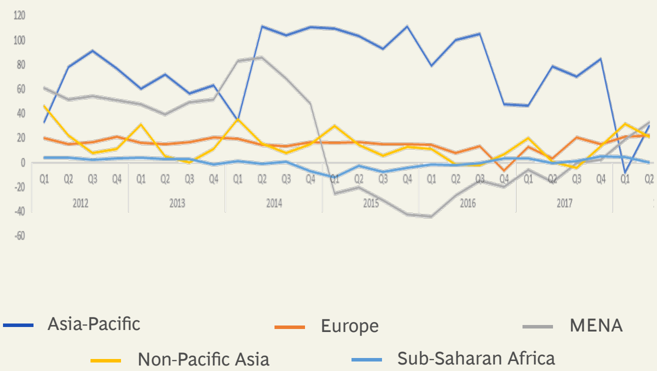
Oil and natural gas price continue to rise, relieving the public finances of producing nations. The run-up that started in the second half of 2017 gained momentum, with the price of the Brent barrel rising 17% between end-March and end-September 2018 to reach 83 $/b. The price movement was partially explained by President Trump decision to reintroduce the sanctions on Iran and by the chaos in Venezuela's oil industry, curbing supply. The new price scenario pushed the Organization of the Petroleum Exporting Countries (OPEC) and Russia to reach a deal to end the 18-months cut in production and increase production. The oil price rally gave commodity funded SWFs a long-awaited boost. Investments of commodity funded SWFs rose 69% compared to the previous semester, reaching $7.6 billion, the highest it has been in the last three semesters.

The oil-price rally allowed current account balances of several countries in the MENA region to recover from the deficits reported in the last two years. As of Q2 2018, SIL data shows that the current account surplus for the MENA region economies included in our study reached $33 billion, vs. a deficit of $16 billion one year prior. This has enabled key economies of the region to rebuild liquidity. Between September 2017 and August 2018, the stock of foreign reserves increased 5% for Saudi Arabia, to reach $509 billion and 14% for Kuwait, to reach $36 billion. A little over 15 months since the embargo, Qatar is also coming back strong, with reserves increasing almost 70% from $16 billion to $26 billion between September 2017 and

Chart 1. The oil price, 2014–Q32018 (USD BN)

Source: Bloomberg

Chart 2. The current account balance by region, 2012–2018 (USD BN)



Due to lack of data, the following countries have been excluded in Q2 2018 : Lybia, Oman, United Arab Emirates Bahrain and Palestine in the MENA region; Nigeria and Angola in the Sub-Saharan African region; Kiribati, Timor, Vietnam, Malaysia and Brunei in the Asia Pacific region

Source: IMF

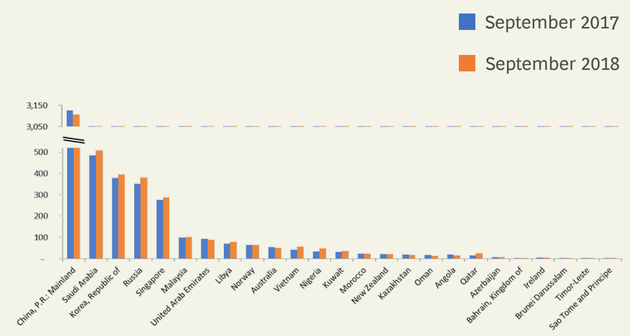
September 2018. In a Bloomberg interview, Qatari minister Sheikh Ahmed Bin Jassim Bin Mohammed Al Thani called the blockade a "blessing", saying exports have risen 19 percent. Qatar managed to establish new trade routes and to stabilize its banking system. QIA of course, contributed significantly in the adjustment process. The crisis in a way forced Qatar to make useful reforms for which political will might have been lacking before. The IMF said that the diplomatic rift acted as a catalyst for long-waited reforms, for enhancing domestic food production and reducing reliance on a small group of countries.

Looking forward, consensus forecasts suggest slower global growth and investors are adjusting to this new scenario. Dragging down output are potential trade wars and tightened financial conditions. In its latest report, the IMF reduced its growth forecast for 2019 from 3.9% to 3.7%. As we write, the G20 summit in Argentina is concluding and It may bring to a resolution to the tensions between the USA and China. Presidents Donald Trump and Xi Jinping agreed on a 90 day ceasefire on the tariffs on $200 billion worth of US imports from China that were initially expected to be implemented in January 2019, but the jury is out whether the two countries will manage to negotiate a deal in this time frame.

Chart 3. Global equity markets, Q32017–Q32018
S&P Global 1200 (USD)

Source: Factset

Chart 4. Foreign exchange reserves by selected countries hosting a SWF (USD BN)



Note: Latest available data
Source: IMF

Q2–Q3 2018 Deal Activity Summary

Activity

In the second and third quarter of 2018 we observed 16 SWFs out of the 37 included in the SIL database completing 108 direct equity investments with a total publicly reported value of $28.9 billion. Compared to the same period last year this represents a 6% increase in number of completed deals and substantial increases in both average ticket size and total deal value, which are 66% and 84% higher, respectively. Moreover, this semester recorded 11 deals with price tags equal to or larger than $1 billion, which is equivalent to the number of $1+ billion deals in the two previous semesters combined.

Oil price has increased around 50% over the last 12 months giving a boost to commodity funded SWFs, which invested more than double the value compared to Q2–Q3 2017. In the same time, SWFs agenda for diversifying their portfolios, developing a more prudent investment strategy and cost cutting might be starting to face headwinds imposed by the reality of private markets.

SWFs have pressured their PE partners for a deeper broader relationship as a way to deploy their capital more efficiently and attain more favorable fees in the process, some have even opted for direct participation on the market thus effectively avoiding fees entirely. However, with valuations near all-time highs and record levels of dry powder in private equity funds, worth $1.14tn in September 2018, competition for good deals is fierce across all target industries, putting pressure on buyers to raise their bids. More importantly, the industries which SWFs see as providing the largest diversification benefits, such as high-tech, are also high up on the agenda of all other investors, further increasing the competition for high quality assets.

Deal highlights

In July KIA's Wren House Infrastructure Management acquired North Sea Midstream Partners Ltd, a UK-based offshore pipelines operator, for approximately $1.7 billion. NSMP owns 67% of the SIRGE system pipeline that transports gas from the emerging West of Shetland frontier to the UK mainland market. It also owns St. Fergus Gas Terminal and Teesside Gas Processing Plan. Among other bidders for NSMP were global names such as JP Morgan, Blackstone and KKR, demonstrating the cut-throat competition SWFs are facing in their quest for high-quality assets.

Geography

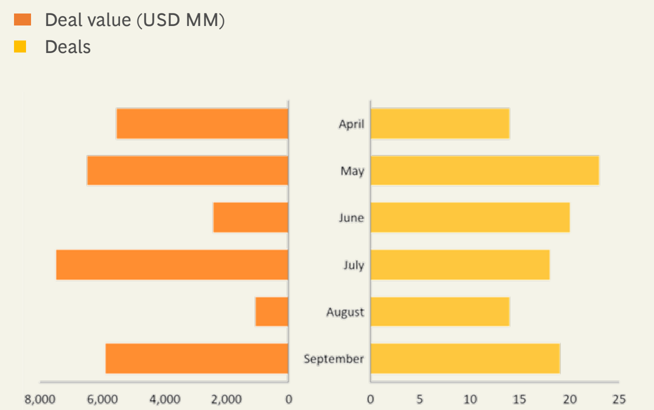
Emerging markets attracted record levels of investment in Q2 and Q3. With $16.6 billion of investment value executed through 59 deals they surpassed developed economies in both total investment value and number of transactions. The largest part of the investment value was directed to China, which ended the semester with a total of $11.3 billion worth of SWF investments, which accounts for an impressive 40% of overall SWF investment in the period. China was also the single most attractive country for SWFs in the semester leaving far behind Germany with $3.7 billion and USA with $3 billion in the second and third place, respectively. India and Vietnam were the other two emerging markets attracting a more substantial SWF investment, they respectively recorded $1.8 billion and $1.4 billion.

In Q4 2017 and Q1 2018 we noted a significant shift back to Europe after a couple of years of below average SWF interest for the region. This momentum keeps going, SWFs invested $8.1 billion or 28% of overall investment value in Europe this semester. This puts Europe second on the regional table, behind Asia-Pacific, which propelled by strong Chinese performance ended the semester with $14.1 billion worth of investment.

Deal highlights

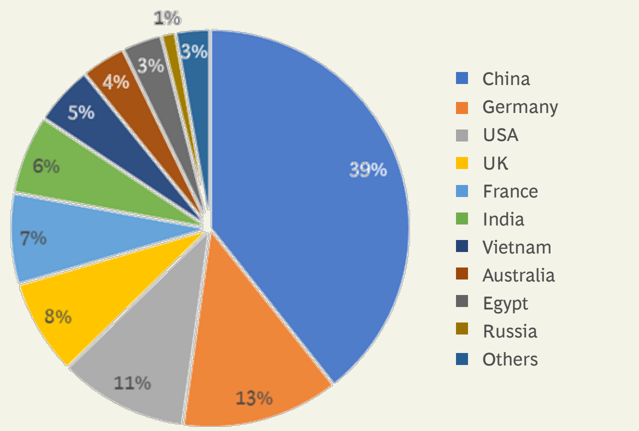
With 22 completed deals worth $11.3 billion China was a top destination for SWF investment in this semester. Several high-profile transactions contributed to this success. In one of the largest fundraising rounds the world has seen, Alibaba's spin-off company Ant Financial managed to rake up around $14 billion. The round included many big players, among which were three SWFs, Singapore's GIC and Temasek as well as Malaysian Khazanah. Another impressive transaction was Agricultural Bank of China raising $15.8 billion in a private placing, around $6 billion was provided by Central Huijin, the domestic arm of CIC. The money will be used to bulk up the bank's tier 1 capital after China's financial watchdog tightened regulation and urged banks to tackle non-performing loans.

Chart 5. SWF investments in Q2–Q3 2018



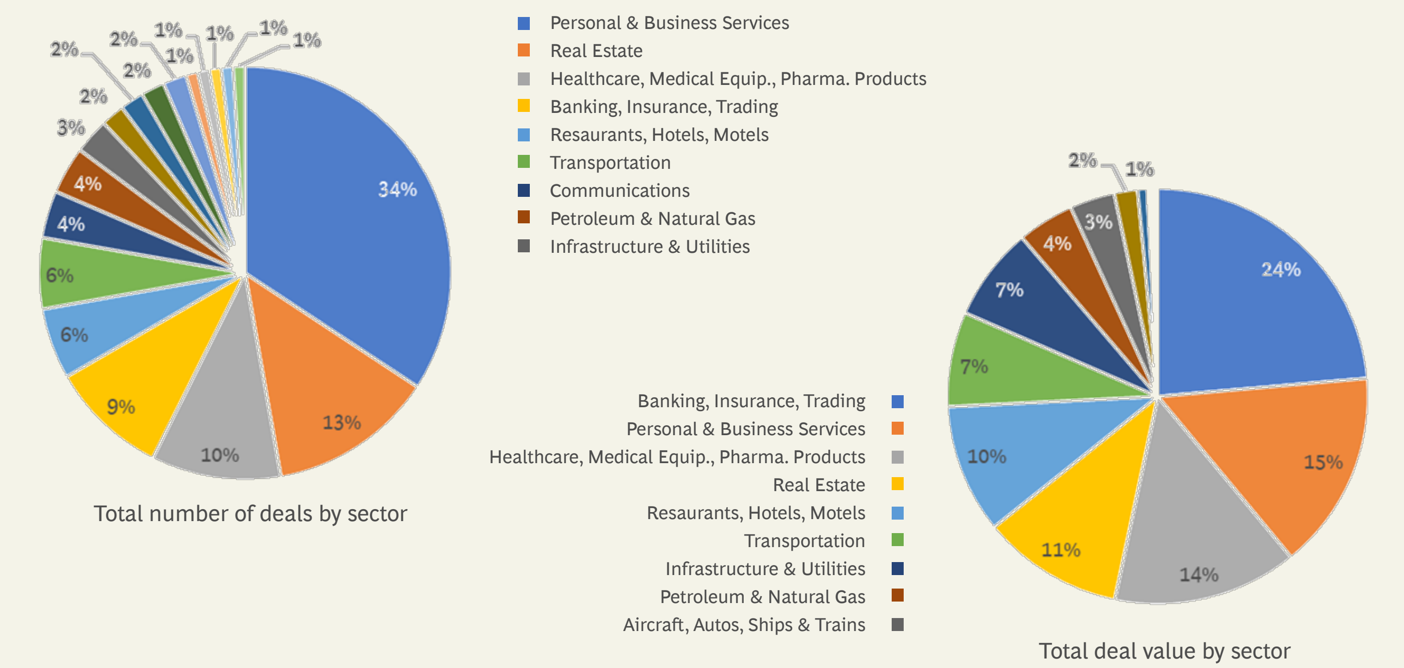
Source: Sovereign Investment Lab, Bocconi University

Chart 6. Deal value by target country, Q2–Q3 2018



Source: Sovereign Investment Lab, Bocconi University

Chart 7. SWF investments by sector, Q2–Q3 2018



Source: Sovereign Investment Lab, Bocconi University

Sectors

Recent years have seen the rise of SWF investment in Despite the challenging environment and the difficulty of finding high-quality assets without having to overpay them, SWFs love affair with “safe assets”, the class bunching alternatives such as real estate assets and infrastructure, remains strong. In this semester, SWFs completed 23 transactions jointly worth $8.1 billion, a 39% increase in investment value compared to the previous semester. Real estate and Hotels as subgroups both recorded a number of large deals and attracted an almost equal amount of investment. Infrastructure was less interesting, and the only major deal was the above-mentioned acquisition of NSMP by KIA.

Deal highlights

At the end of May, a consortium of institutional investors led by Singapore’s GIC and Saudi Arabia’s PIF acquired a 57.8% stake in AccorHotels. AccorHotels is the world leader in hotel real estate with a current portfolio of 891 hotels. The majority of its hotels are located in Europe, in the economy and midscale segments. The consortium paid around $5.3 billion for the acquired stake.

Digital ventures continue to be a top priority in SWFs’ agendas. Although businesses we label as IT-linked or high-tech are usually positioned in the Personal & Business Services sector due to the classification method used, they are not constrained only to this sector. Thus, this semester investments in high-tech businesses are higher than the services sector itself and stand at $5.9 billion.

The Healthcare and Banking sectors both recorded a significant amount of investment this semester, however, in both sectors the majority of investment value comes from one mega deal. In Banking, 88% of the total investment comes from the Agricultural Bank of China deal, and in Healthcare, 90% of the value is due to Temasek buying 3.60% of German drug maker Bayer AG.

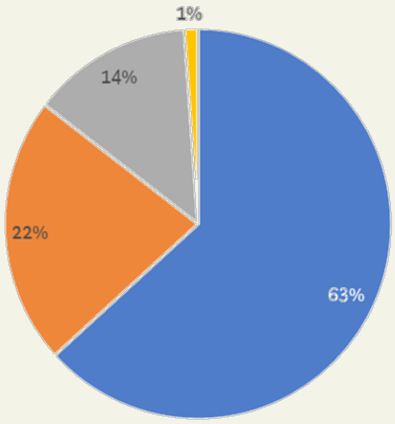
Co-investments

SWFs have continued to show their appetite for exposure to direct investments by co-investing alongside other traditional players such as strategic and PE investors. As much as 37% of the total SWF deal value can be attributed to co-investments, with the most desired partners being a combination of other SWFs and private investors (22%). It seems that investments alongside other SWFs alone are not as attractive, accounting for only 1% of the total deal value. This could be explained with the notion that private partners, be it PE or strategic investors, can bring along a different set of capabilities such as, for example, deep sector and operational expertise.

Deal highlights

GIC remained very active with several significant co-investments. Among them is the $5.3B acquisition of a 57.8% stake in AccorInvesto, alongside Saudi Arabia's PIF, institutional investors incl. Colony North Star, Credit Agricole Assurances, Amundi, and other private investors. In addition, GIC participated in Ant Financial's approx. $14B Series C equity financing round. Other investors included Khazanah, Warburg Pincus, CPPIB, Silver Lake, and General Atlantic.

Chart 8. SWF investments by type, Q2–Q3 2018

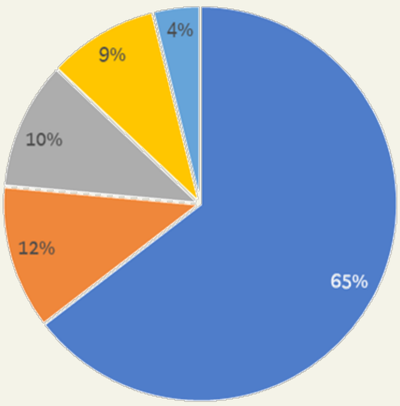


- Standalone investments
- Investments with only SWFs and private investors
- Investments with only private partners
- Investments with only SWFs or other sovereign entities

% refer to deal value

Source: Sovereign Investment Lab, Bocconi University

Chart 9. Type of co-investor, Q2–Q3 2018



- Misc.
- Strategic investors
- Other financial investors
- Private equity funds
- Pension funds

% refer to deal value

Source: Sovereign Investment Lab, Bocconi University

Funds

Non-commodity SWFs dominate their commodity funded counterparts in this semester as well. With 77 completed transactions worth $21.2 billion they account for 71% of all deals in the semester and 73% of total invested value. Both figures are down from the previous semester, in which trade surplus SWFs completed 112 transactions worth $28 billion, however, it should be noted that almost half of the investment value in the previous semester came from CIC's massive $14 billion acquisition of Logicor. Temasek was the most active fund in the semester, it completed 41 transactions with a total value of $7.2 billion. Singapore's other fund, GIC, was second in terms of number of deals closed with 24 deals jointly worth $6.3 billion. Together, Singapore's funds account for 47% of overall investment value and 60% on total transactions. GIC was particularly active in the Real Estate space, where it directed around one third of its investments. China's CIC completes the top 3 this semester, although majority of its investment is related to the Agricultural Bank of China capital raise.

The oil price rally gave commodity funded SWFs a long-awaited boost. They invested $7.6 billion in this semester, this represents a 69% increase compared to the previous semester. For the first time in a while we record several commodity funds surpassing the one billion mark in investments.

Table 1. Ranking of active SWFs by deal value, Q2–Q3 2018 (USD MM)

Temasek Holdings Pte Ltd	7,236
China Investment Corporation (CIC)	6,449
GIC Pte Ltd	6,355
Public Investment Fund (PIF)	2,073
Kuwait Investment Authority (KIA)	1,700
Mubadala Investment Company PJSC	1,264
Khazanah Nasional Bhd	1,077
Abu Dhabi Investment Authority (ADIA)	944
Government Pension Fund—Global	778
Qatar Investment Authority (QIA)	750
Future Fund	67
New Zealand Superannuation Fund	65
Investment Corporation of Dubai	63
Russian Direct Investment Fund (RDIF)	34
Brunei Investment Agency (BIA)	23
Russian Direct Investment Fund	1
Total	**28,880**

Source: Sovereign Investment Lab, Bocconi University

Table 2. Top 5 deals by value

Fund	Target name	Target country	Sector	Deal size (USD MM)	Stake
China Investment Corporation (CIC)	Agriculteral Bank of China Ltd	China	Banking, Insurance, Trading	6,002.96	2.88%
Temasek Holdings Pte Ltd	Bayer AG	Germany	Healthcare, Medical Equipment, Pharmaceutical Products	3,700.00	3.60%
Kuwait Investment Authority (KIA)	Noth Sea Midstream Partners Ltd	UK	Infrastructure & Utilities	1,700.30	100.00%
GIC Pte Ltd	Vingroup	Vietnam	Real Estate	1,300.00	-
GIC Pte Ltd, Khazanah Nasional Bhd, Temasek Holdings Pte Ltd	ANT Financial Services Group	China	Personal & Business Services	14,000.00*	-

**Total value of funding round*
Source: Sovereign Investment Lab, Bocconi University

The Leviathan Corner

A new era for SWFs?

Bernardo Bortolotti, SIL Director

SWF have never managed as much money as they do today. In a relatively short time span, SWF have gained magnitude, power, and reputation. All that is undeniable but the big question before us today hints at something more transformative. Have we entered a new era of sovereign wealth? Are the new global macroeconomic fundamentals and political climate challenging the conventional models of sovereign wealth management?
If so, how should SWF adjust behavior and strategies in order to thrive and prosper in the 21st century?

There is no "one true answer" to these questions but we can confidently claim that the end of extrapolation has been reached: the outlook of sovereign wealth cannot be drawn with lines from the past.

The rapid accumulation of foreign exchange reserves over the last two decades has been an uncommon phenomenon from a historical point of view. Since the early 2000s, 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. SWFs account for 15 percent of the global fund management industry, closing quickly the gap with other institutional investors such as pension funds, mutual funds or insurers.

But in 2014, a tipping point was reached, associated with a structural break in the dynamics of sovereign wealth accumulation. Two related factors triggered this change, derailing the heavy train. First, the oil shock and the slowing down of global trade turned the two engines of SWF growth into a spent force. Second, governments started to tap assets to equalize lost revenues and to stabilize their domestic economies, scathing sovereign wealth for the first time in recent history.

These shocks were not short-term cyclical phenomena to be quickly absorbed. In fact, they proved being structural issues, which are still looming large today. Let us start with oil. After reaching a historical low in mid 2015, oil prices have stabilized, but absent major geopolitical events, supply and demand arguments suggest at high level of confidence that oil prices will remain reasonably low in the foreseeable future.

But it is not just the commodity supercycle being over: global trade is also going south, and at a quite rapid pace. According to a recent WTO release dated August 9, trade expansion is slowing and will likely slow further as we reach the end of 2018. This loss of momentum reflects weakness in export orders and automobile production and sales, which may be responding to the ratcheting up of trade tensions.

Let us now turn to the second critical (related) factor. The terms of trade shock curbed revenues and swept current account surpluses in commodity exporting economies. With oil prices averaging current levels or slightly higher, Middle Eastern oil-exporting economies will strive to maintain a balanced budget for the rest of this decade. Some countries had and will have to tap into sovereign wealth in order to fill their budgets' shortfall.

What happened in the Gulf occurred to some extent also in China and Asian emerging markets.
In 2015, for the first time in many years, central banks liquidated FX reserves in order to stem currencies devaluation and avoid a balance of payments crisis.
The data speak for themselves: from the all-time high recorded in 2014, today global foreign exchange reserves are worth 11.8 US trillion. For some countries, the drop has been dramatic: Saudi Arabia is down 33%, Qatar almost 40%, China 21%, Russia 15%.

These new economic fundamentals set off profound, structural, and long lasting repercussions in the SWF community, and that is why I claimed that we reached the end of extrapolation. The future will not be as we thought it could be.

The fundamental regime change is the collapse of the belief the SWF being "liability free" economic entity. Amongst practitioners but also in the academic literature, SWF were often referred to as funds without any explicit liability stream to cover, as opposed to pension funds or insurance companies.

In the last years, implicit liabilities (a.k.a. distressed governments' request to become lender of last resort) abruptly materialized, causing painful portfolio adjustment and capital impairment. Furthermore, some funds have started to issue plain debt, or sophisticated debt instruments. Nigeria Sovereign Investment Authority Infrastructure-related bonds are a case in point.

So how will the new era of sovereign wealth look like? More precisely, how can our fellow SWF thrive and prosper in this new, challenging scenario?

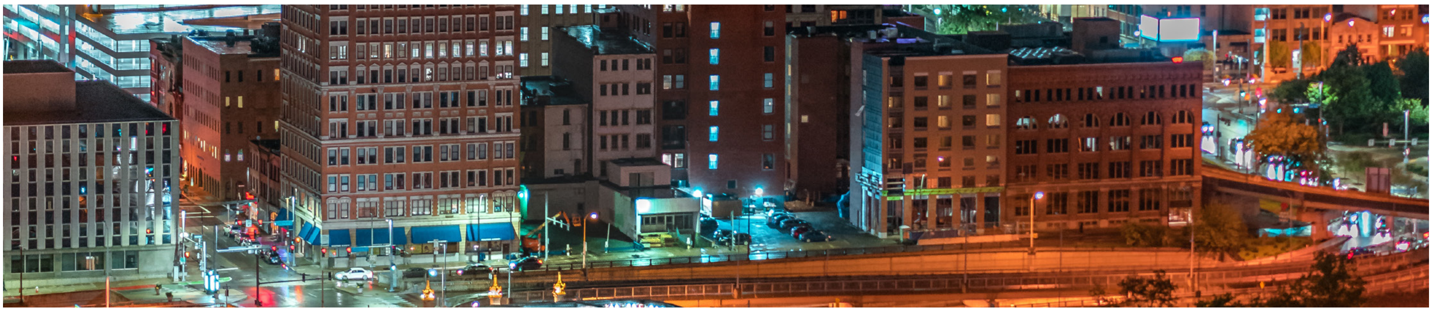
Up to now, the SWF community showed an impressive degree of resilience. With a few exceptions, SWFs weathered the storm quite well, with their capital unscathed, or even increased, in spite of the recent headwinds.

I see three main possible directions of change regarding i) risk management, ii) investment strategy, and iii) investment governance.

Most funds have made great progress in risk management recently, SWF may think about embracing strategic sovereign asset and liability frameworks (SSAL), endowing the organization with state-of-the-art risk management tools, and streamlining mandates within funds, central banks and other state entities to ensure better macro-fiscal policy coordination. In some cases, reorganization and restructuring may be required, and I see progress in some funds that have recently chosen to merge to fulfil better their mission.

Second, SWFs should seek internal growth leveraging upon their quintessential features of long-term, patient investors. In an environment characterised by lower inflows or even outflows, the return on accumulated wealth can be an important source of funding for the sponsoring government. SWFs should rely on illiquid assets classes and strategic direct investments to capture long term, above market returns. The enhanced focus on developmental aspects and investment to address market failures will be a key feature of the new strategy.

Third, and finally, SWFs should leverage upon one special characteristic, which is genuinely unique in the institutional investor industry. SWFs are a very small group of players relative to the size of the assets they manage. This massive concentration of financial wealth allows unprecedented direction and coordination of investments. By teaming up with fellow SWFs and engaging private partners, they can develop transformative coinvestment projects across the board. Importantly, these ventures will deepen gov-to-gov relations, strengthen economic diplomacy, and promote international capital mobility against the mounting protectionism tide.



News from the market

Key trends from the industry

Climate change:
Although there is still a long way to go, in recent years environmentally friendly investment practices have come into the spotlight of many institutional investors. The major SWFs are also becoming increasing involved with the topic, either by reshaping their equity portfolio's asset allocation towards companies following environmental best practices or by directly investing in assets focused on solving the climate change problem.

Environmentally friendly investment practices have come into the spotlight of many institutional investors

Multiple SWFs have already showed their commitment, with examples including New Zealand's NZ Super diverting NZ$ 950M from 297 companies with high exposure to carbon, Norway's GPFG dropping 52 coal-related companies from its portfolio and Italy's CDP signing a new collaborative agreement with EBRD aimed at facilitating joint investments related to climate change. Perhaps the most significant commitment occurred in the recent One Planet Summit in Paris, where representatives of SWFs, who collectively govern over US$ 2 trillion, met and discussed ways to mobilize capital for environmentally friendly investments.

By design, SWFs tend to be one of the most potent investors in combating climate change. Their large capital pools and long-term horizon allows them to invest in projects that might take more time to reach the desired outcome.

Focus on domestic economic development:
In recent months, we have observed how several large SWFs have started to focus on domestic economic development, aimed to build vibrant and well-diversified economies that are not reliant on volatile oil and commodity prices. The traditional route that funds are taking is to increase their asset allocation towards direct and indirect investments at home. However, there have been several more innovative and indirect approaches as well. One example is Mubadala's plan to launch a European fund to invest in technology ventures. Apart from providing capital, the fund is aiming to act as a bridge between exceptional European tech companies and Abu Dhabi, by helping the companies enter the market and establish local operations.

PIF will invest another $45B in the second Vision Fund

Another prominent example is Saudi Arabia's PIF. The fund has built ties with Softbank and its CEO Masayoshi Son by investing $45B in the first Vision Fund and recently declaring that it will invest another $45B in the second fund. In turn, Masayoshi Son and Crown Prince Mohammed bin Salman jointly announced a massive $200B solar energy project in Saudi Arabia. In addition, Vision Fund investments in the Neom City project and portfolio companies starting operations in Saudi Arabia are also in the planning. All of these moves are aimed at diversifying the Kingdom's economy away from oil and moving it towards the announced 2030 vision.

Private Infrastructure:
SWF's recent shift towards a domestic economic development focus means an increased allocation to private infrastructure. Given that, most SWFs are based in developing countries, the demand for and subsequently impact of infrastructure projects on their local economies can be tremendous. In addition, the long-term horizon and stable cash flows of infrastructure investments are very well aligned with the mandate of SWFs. Thus, it is not surprising that in a survey of SWFs, endowments and pension plans by SWFI conducted in September, 40% of the participants noted that they will increase their asset allocation to the asset class. More than any other asset class.

40% of SWFs will increase their asset allocation to private infrastructure

Here SWFs will be faced with the challenge of creating a well-integrated organization, where expertise and information flow freely between the different asset classes teams (specifically real estate, private equity, private infrastructure and private debt) and avoid a siloed mentality. If this is achieved, SWFs may reap the synergies that established diversified alternative asset managers such as Oaktree, Bain, Blackstone, Carlyle and Ares Management have been reaping.

Trade Wars:
Since his election in 2016, President Trump has shaken global geopolitical relations. One of his most controversial moves has been imposing trade tariffs on the EU, Canada, Mexico and China. This has led to retaliations from the affected country, resulting in a volatile and unpredictable global trade landscape.

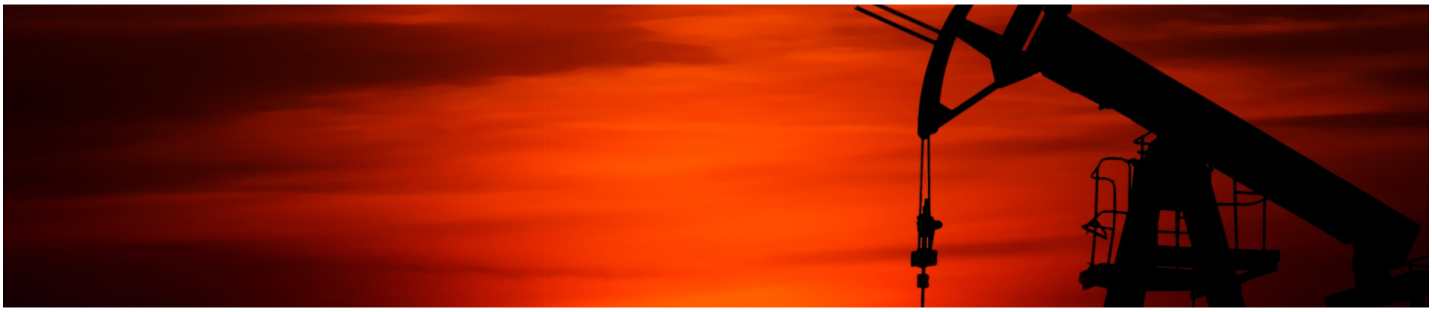
40% of SWFs consider trade wars as being the most significant tail risk for their portfolios

The recent SWFI survey showed that nearly 40% of the participants considers trade wars as being the most significant tail risk for their portfolios. This view has been reiterated by several high-ranking SWF executives including Trond Grande (deputy CEO of NBIM), Tu Guangshao (president of the CIC), and Heenam Choi (CEO of the KIC).

Many of the world's largest SWFs are invested in countries that are likely to be influenced by trade wars. This poses the question of how their investments would be influenced by trade tensions. In addition, some of the largest funds such as CIC are based in countries involved in these disputes, which may limit their flexibility to freely invest abroad and especially in the US.

Changing regulatory landscape:
Sovereign wealth funds are currently facing a dynamic regulatory landscape that can directly influence their capability to invest abroad and efficiently diversify their holdings. One recent example of this is the FIRRMA act from August 2018. It extends CFIUS' the (Committee on Foreign Investment in the United States) authority to review inbound controlling and non-controlling stake foreign investments in certain areas (critical technology, infrastructure and sensitive personal information). The act is intended to reform the review and monitoring process of FDIs and is motivated in part by a desire to address particular concerns relating to Chinese inbound investments. As a result, SWF investments in the US will now face increased scrutiny, leading to a more time-consuming and costly investment process, potentially with a higher chance of failing to pass the requirements of US authorities.

SWF investments in the US will now face increased scrutiny



Tracked funds

Country	Fund Name	Inception Year	Source of Funds	AUM 2018 (USD BN)
Norway	Government Pension Fund – Global[£]	1990	Commodity (Oil & Gas)	**1,053.60**
China	China Investment Corporation[ß]	2007	Trade Surplus	**941.42**
UAE-Abu Dhabi	Abu Dhabi Investment Authority[†]	1976	Commodity (Oil & Gas)	**683.00**
Kuwait	Kuwait Investment Authority[†]	1953	Commodity (Oil & Gas)	**592.00**
Singapore	Government of Singapore Investment Corporation[†]	1981	Trade Surplus	**390.00**
Saudi Arabia	Public Investment Fund[†]	1971	Commodity (Oil & Gas)	**360.00**
Qatar	Qatar Investment Authority[†]	2005	Commodity (Oil & Gas)	**320.00**
China	National Social Security Fund[†]	2000	Trade Surplus	**295.00**
Singapore	Temasek Holdings[µ]	1974	Trade Surplus	**235.11**
UAE - Dubai	Investment Corporation of Dubai[ß]	2006	Commodity (Oil & Gas)	**230.05**
UAE-Abu Dhabi	Mubadala Investment Company PJSC[ß]	2017	Commodity (Oil & Gas)	**226.00**
Republic of Korea	Korea Investment Corporation**	2005	Government-Linked Firms	**134.10**
Australia	Australian Future Fund[£]	2006	Non-Commodity	**107.21**
Russia	National Wealth Fund and Reserve Fund[66]	2008	Commodity (Oil & Gas)	**77.10**
Libya	Libyan Investment Authority[†]	2006	Commodity (Oil & Gas)	**66.00**
Kazakhstan	Kazakhstan National Fund[†]	2000	Commodity (Oil & Gas)	**60.90**
Brunei	Brunei Investment Agency[†]	1983	Commodity (Oil & Gas)	**60.00**
Turkey	Turkey Wealth Fund[†]	2016	Non-Commodity	**40.00**
Malaysia	Khazanah Nasional Berhard[ß]	1993	Government-Linked Firms	**38.85**
Azerbaijan	State Oil Fund of Azerbaijan***	1999	Commodity (Oil & Gas)	**35.81**
UAE	Emirates Investment Authority[†]	2007	Commodity (Oil & Gas)	**34.00**
New Zealand	New Zealand Superannuation Fund[¥]	2001	Non-Commodity	**27.20**
Ireland	Ireland Strategic Investment Fund[6]	2001	Non-Commodity	**22.48**
East Timor	Timor-Leste Petroleum Fund[†]	2005	Commodity (Oil & Gas)	**16.60**
Bahrain	Mumtalakat Holding Company[ß]	2006	Government-Linked Firms	**15.30**

Country	Fund Name	Inception Year	Source of Funds	AUM 2018 (USD BN)
Russia	Russian Direct Investment Fund[†]	2011	Non-Commodity	**13.00**
UAE - Dubai	Istithmar World*	2003	Government-Linked Firms	**11.50**
Oman	State General Reserve Fund*	1980	Commodity (Oil & Gas)	**9.15**
Oman	Oman Investment Fund[†]	2006	Commodity (Oil & Gas)	**6.00**
Angola	Fundo Soberano de Angola[†]	2012	Commodity (Oil & Gas)	**4.60**
Nigeria	Future Generations Fund**	2012	Commodity (Oil & Gas)	**1.38**
Panama	Fondo de Ahorro de Panama[ß]	2012	Non-Commodity	**1.37**
Palestine	Palestine Investment Fund[ß]	2003	Non-Commodity	**0.99**
Kiribati	Revenue Equalization Reserve Fund*	1956	Commodity (Phosphates)	**0.65**
Vietnam	State Capital Investment Corporatiod[†]	2005	Government-Linked Firms	**0.50**
Kingdom of Morocco	Fonds Marocain de Développement Touris-tique[§]	2011	Government-Linked Firms	**0.20**
São Tomé & Principe	National Oil Account*	2004	Commodity (Oil & Gas)	**<0.01**

Total Oil & Gas	3,836.19
Total Trade Surplus	1,861.53
Total Other	413.36
Total AUM	**6,111.08**

[£] AUM as of 30th June 2018
[†] Estimate by SWF Institute as of August 2018
** AUM as of 11st June 2018
[¥] AUM as of 30st September 2018
[µ] AUM as of 31 March 2018. For Temasek, the net portfolio value is reported
[▯] AUM as of 30th June 2017
* Sovereign Investment Laboratory estimate of assets under management (AUM) as of December 2016
[66] As of 1st July 2018. The Russian Reserve Fund is as of 1st January 2018 exhausted
*** As of 1st April 2018
[ß] AUM as of 31.12.2017
[§] AUM as of 31st December 2016
SWFs of Morocco and Palestine have been added to the SIL list in 2015. Public Investment Fund has been added to the SIL list in 2016. Turkey Wealth Fund and Fondo de Ahorro de Panama have been added in 2018.
Abu Dhabi Investment Council joined Mubadala as of March 2018.

Team & Contacts

Bernardo Bortolotti
Director
Sovereign Investment Lab
Bocconi University

Markus Massi
Senior Partner & MD
Boston Consulting Group

Alessandro Scortecci
Principal
Boston Consulting Group

Raphael Mimoun
Junior Researcher
Sovereign Investment Lab
Bocconi University

Giacomo Loss
Senior Researcher
Sovereign Investment Lab
Bocconi University

Nikola Trajkov
Junior Researcher
Sovereign Investment Lab
Bocconi University

For enquiries

Sovereign Investment Lab,
Bocconi University
Via G. Roentgen, 1
20136 Milano

tel. +39.02 58365306
fax +39.02 58365343
e-mail: bernardo.bortolotti@unibocconi.it

Boston Consulting Group
The Offices 3 at One Central Dubai
Level 7, P.O. BOX 32257
Dubai, United Arab Emirates

tel. +971 44480300
fax +971 44480333
e-mail: scortecci.alessandro@bcg.com

BOSTON CONSULTING GROUP

Università Bocconi

BAFFI CAREFIN CENTER

SIL Sovereign Investment Lab