



# Different Twins and a Distant Cousin: Sovereign wealth funds in Hong Kong, Singapore and South Korea

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## 6. Different Twins and a Distant Cousin: Sovereign Wealth Funds in Hong Kong, Singapore and South Korea<sup>1</sup>

Hong Kong and Singapore have some of the oldest and largest SWFs. They are under the top 15 SWFs in terms of size and have become role models for other SWFs to follow. While most of the SWFs arise from commodity wealth, Hong Kong and Singapore's SWFs arose out from years of conservative fiscal policy resulting in fiscal surpluses, internal fund transfers, foreign exchange interventions.

Similar to Singapore, Hong Kong's government deposits its surpluses and reserves with its SWF, the Hong Kong Monetary Authority Exchange Fund. Also Hong Kong's monetary base is backed through foreign currency held by the Exchange Fund. In addition to that it also holds the assets of Hong Kong's former Land Fund. Between the mid 1980s and late 1990s half of the premiums generated in Hong Kong through the sale of land were allocated into the Land Fund.<sup>2</sup> The Land Fund grew especially during the property boom in the 1990s.<sup>3</sup>

A significant part of Singapore's sovereign wealth is attributable to its foreign exchange interventions. These took interventions took place via three channels: the balance of payments channel, the foreign investment channel, and the domestic saving channel.

Recurring balance of payments surpluses allows the accumulation of foreign exchange reserves. Foreign investors in Singapore convert their foreign currencies (e.g. US \$) into local currency (i.e. Singapore \$) through banks, which again exchange the foreign currency (e.g. US\$) with the Monetary Authority of Singapore (MAS) for domestic currency (i.e. Singapore \$). A strong foreign demand for Singapore \$ can add to a rapid and uncontrolled appreciation of the Singapore \$. To smoothen appreciation of the Singapore \$ the MAS can intervene by injecting Singapore \$ into the system through the purchase of foreign currencies (e.g. US \$). By doing this the MAS again acquires foreign exchange reserves. The final way through which Singapore accumulates foreign exchange reserves relates to its high saving policy and non-sterilised foreign exchange interventions. Through Singapore's high saving policy (i.e. Singapore's mandatory Pension Fund, and Singapore's public surpluses) liquidity is constantly withdrawn from the system and thereby putting constantly substantial pressure on the Singapore \$ to appreciate too erratic and too fast. To smoothen the appreciation of the Singapore \$ the MAS intervenes by selling Singapore \$ in exchange for foreign currency (e.g. US \$). Together these three processes "have led to a prodigious growth in Singapore's foreign reserve over time."<sup>4</sup>

Table 1

Sovereign Wealth Funds in Hong Kong and Singapore & country GDP

|             | SWF name                        | Type of SWF mandate  | Est. | Size of SWF in US\$bn | As part of country's GDP (PPP) in percentage |
|-------------|---------------------------------|----------------------|------|-----------------------|--|
| Singapore   | GIC Pte Ltd                     | Saving               | 1981 | 320                   | 70.7   |
|             | Temasek                         | Development          | 1974 | 167.4                 | 37.0   |
|             | Monetary Authority of Singapore | Stabilisation        | 1971 | 273*                  | 60.3   |
| Hong Kong   | Hong Kong Exchange Fund         | Saving/Stabilisation | 1935 | 414.6                 | 104.3  |
| South Korea | Korea Investment Corporation    | Saving/Development   | 2006 | 85                    | 4.7  |

Source: Calculation based on ESADEgeo (2015) and CIA Factbook (2015).

\* This amount refers to the official reserves.

<sup>1</sup> Because of their striking similarities in terms of history, economics Hong Kong and Singapore have been regularly described as twins or cousins.

<sup>2</sup> "The Land Fund was created in 1986 under a Sino-British arrangement that recognized Chinese worries that the British administration would sell too much land before the handover and divert funds to British interests. Therefore, whenever the colonial government sold property in the territory, proceeds would be split 50-50 between the government and the Land Fund, officially known as the Hong Kong Special Administrative Region Government Land Fund (Asian Wall Street Journal, 15 May 1997, p.8)."

<sup>3</sup> Dow Jones International Media, 30 Nov 1995

<sup>4</sup> MAS (2011) MAS 40th anniversary book, Monetary Authority of Singapore.

What is the special thing about SWFs in small open economies like in Hong Kong and Singapore, is these are the largest SWFs worldwide in terms of total asset size vis-à-vis domestic GDP. South Korea's KIC, for example, is much smaller in relative terms to South Korea's GDP.

Small open economies like Hong Kong and Singapore are highly exposed to international economic developments and their SWF adjust accordingly. Unlike larger economies, such as China, the option of reverting to domestic investments, without creating bubbles is limited for small open economies with SWFs. This makes international equity investments specifically attractive as a means of risk diversification for small open economies.

This article will briefly discuss the Hong Kong Monetary Authority and the Monetary Authority of Singapore – two large sovereign asset managers which have received little attention in the SWF debate. Then it focus on the Government Investment Corporation and Temasek and by looking at some of the recent developments, particularly with regard to Temasek's activity with startups and GIC's activity concerning real estate. Recent developments stand at the end of a long process. Therefore, it is useful to briefly map their past trajectory and analyze their overall asset portfolio today.

## Lineal ancestors: The Hong Kong Exchange Fund & the Monetary Authority of Singapore

### The Hong Kong Exchange Fund

The Hong Kong Exchange Fund and the Monetary Authority of Singapore are the earlier ancestors of the Hong Kong Monetary Authority (established in 1993) and the Government Investment Corporation of Singapore (established in 1981). Created in 1935 under the Hong Kong Exchange Fund Ordinance Cap 66 the Hong Kong Exchange Fund was originally an account of the government. In 1993 the Exchange Fund was reallocated under the auspices of the newly created Hong Kong Monetary Authority (HKMA). Interestingly, the HKMA refers to a person (i.e. the Chief Executive of the HKMA) and not to a corporation.<sup>5</sup> The HKMA is held responsible for the management of the Exchange Fund, and it is supported by the Exchange Fund Advisory Committee, which acts as a Board.

Its purpose was to safeguard the exchange value of the Hong Kong Dollar through foreign currency backing. Later it became central in sustaining the integrity of the monetary and financial system in Hong Kong. It was regularly used to build confidence by supporting Hong Kong's stock exchange during banking and stock market crisis. For example, in the mid 1980s banking crises the Hong Kong authorities drew on the Exchange Fund to bail out domestic banks. Likewise during Asian Financial Crisis 1997 and the Financial Crisis 2007/2008 the Exchange Fund was used for acquiring substantial parts of the domestic equity market in order to avoid a collapse of the Hong Kong stock market. For example, on the 7th of Sept 2007 the Hong Kong Exchange Fund expanded its share from 2.5% to 5.9% at costs of HK\$313 million converting itself in a minority controller of the Hong Kong Stock exchange.<sup>6</sup> Following the large-scale interventions in 1997 and 2007/2008 the Hong Kong government created investment corporations in order to liquidate the equity stakes of the Exchange Funds in an orderly fashion.

Over the years the volume of the Exchange Fund has grown beyond what was needed to cover the value of the Hong Kong \$ in foreign currency.<sup>7</sup> For example, as of February 2015 Hong Kong has foreign currency reserves of US\$332.5 billion, which is equivalent to seven times the currency in circulation.<sup>8</sup> In order to manage such a huge amount of international reserves, Hong Kong has historically relied in both internal and external managers. Internal managers comprises HKMA staff in the Reserve Management Department managed in 2010 around 80% of the Exchange Fund's assets internally whereas in 2013 this decreased to 75% (including the "backing portfolio" and part of the "investment portfolio").<sup>9</sup> This suggests that the HKMA is gradually outsourcing investment responsibilities to external managers.<sup>10</sup> Appointing external managers with good track records allows the HKMA to benefit from different investment expertise, knowledge transfer, and information from market to in-house professionals.<sup>11</sup>

<sup>5</sup> See Exchange Fund Ordinance, Chap 66/Section 5A Appointment of Monetary Authority

<sup>6</sup> Available: <https://www.hkex.com.hk/eng/exchange/invest/mc.htm>

<sup>7</sup> Assets held by the Government's general reserve account as well as the assets of Hong Kong's Coinage Fund and later also the Hong Kong's Land Fund were placed into Exchange Fund.

<sup>8</sup> Available: <http://www.hkma.gov.hk/eng/key-information/press-releases/2015/20150306-3.shtml>

<sup>9</sup> HKMA Annual Report 2013

<sup>10</sup> HKMA Annual Report 2010

<sup>11</sup> Ibid

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The assets of the Exchange Fund are managed as four portfolios: the Investment Portfolio, the Long-Term Growth Portfolio, the Strategic Portfolio and the Backing Portfolio. Ensuring the coverage of the monetary base the Backing Portfolio holds highly liquid US \$ denominated securities of the highest credit.<sup>12</sup> The Strategic Portfolio was created in 2007 with the purpose of holding the Exchange Funds shares in the Hong Kong Exchange and Clearing Ltd.<sup>13</sup> Preserving the long term purchasing power of a part of the reserves the Investment Portfolio is invested primarily in the bond and equity markets of OECD countries.<sup>14</sup> Increasing the Exchange Fund's exposure to alternative asset classes the long term growth portfolio holds its assets in private equity and real estate assets. The market value of assets under the long term growth portfolio has grown by one third from US\$ 11.4 billion to US\$ 14.9 billion between the end of 2013 and the end of 2014. This mirrors an increase in the Exchange Fund's private equity exposure from US\$ 8.3 billion to US\$ 10.4 billion, and a rise of its real estate exposure from US\$ 3.1 billion to US\$4.5 billion over the same period.<sup>15</sup>

Table 2

### Hong Kong Monetary Authority Exchange Fund: Portfolios

| Portfolio                         | Goals   |
|-----------------------------------|---|
| Investment Portfolio              | Emerging market and Mainland bonds and equities.  |
| Long-Term Growth Portfolio (LTGP) | Private equity and real estate investments. The cap for the net asset value of the LTGP is maintained at one-third of the Accumulated Surplus of the Exchange Fund. |
| Strategic Portfolio               | Shares in Hong Kong exchanges and Clearing limited that were acquired by the government for the account of the Exchange Fund for strategic purposes.                |
| Backing Portfolio                 | Highly liquid US dollar-denominated assets to provide full backing to the Monetary Base as required under the Currency Board arrangements.                          |

Source: Hong Kong Monetary Authority Annual Reports.

Confronted with declining return on traditional assets, they decide to enter new asset classes with the aim of increasing returns.<sup>16</sup> Since mid 1998 diversification has been growing, including emerging market bonds and equities, private equity, RMB denominated assets, real estate; diversification takes place primarily in "investment portfolio." At the end of 2011 HKMA started to shift into riskier assets, at the end of 2011 US\$ 10.8 billion were invested in new asset classes; one third of that amount was PE; and remaining in emerging market bonds and shares, RMB denominated assets in China, or property-related investments.<sup>17</sup> Via a number of fully owned investment subsidiaries, such as the Real Horizon Investment Ltd., Real Gate Investment Company Ltd., Real Summit Investment Company Ltd., the Exchange Fund has direct exposure to the real estate sector.<sup>18</sup>

### The Monetary Authority of Singapore

Unnoticed by the wider world public, the Monetary Authority of Singapore (MAS) is Singapore's third large sovereign assets manager. The MAS was established with the MAS Act 42 of 1970 as a corporation, and it empowers the MAS to establish agencies and satellite offices outside Singapore for carrying out businesses.<sup>19</sup> This has been untypical for a traditional Central Bank. Two of its core functions relate to the development of Singapore into an international financial centre and to manage Singapore's official reserves. This converted the MAS into the government's key financial agent. If taken up in SWF rankings the MAS would probably rank among the largest in terms of assets size. Singapore's official foreign reserves which in 2013 stood around are around US\$340 billion (excluding special drawing rights and reserve position in the IMF).<sup>20</sup>

For managing these reserves the MAS also employs external fund managers which contribute to knowledge transfer for the in-house fund managers.<sup>21</sup> Although its investments are primarily in highly liquid and secure assets, such as gold coin/bullion, notes, coins, money at call, treasury bills, its legal scope is larger, allowing also for alternative investments, notably securities and financial instruments and investments approved by the board (MAS ACT Chapter 186/ Part IV, 24). The MAS is allowed 'at least in theory' to invest into equity and other alternative assets. For example in the 1980s the MAS made an investment into London's property sector (BT 28 Feb 1981).

<sup>16</sup> Total portfolio in 2011 returned only 1.1% in the year (HKMA Annual Report 2012; EIU, 2012).

<sup>17</sup> EIU (2012) Hong Kong's Exchange Fund achieves poor returns, June 11th

<sup>18</sup> HKMA Annual Report 2013

<sup>19</sup> This included the opening of a MAS office in London (MAS Annual Report 2011).

<sup>20</sup> Available: <http://www.mas.gov.sg/Statistics/Reserve-Statistics/Official-Foreign-Reserves.aspx>

<sup>21</sup> Straits Times, 33 Jul 2004

<sup>12</sup> Ibid

<sup>13</sup> Ibid

<sup>14</sup> Ibid

<sup>15</sup> HKMA Annual Report 2014; HKMA announcement of Exchange Fund's investment results for 2013.

In early 1980s, senior policy makers in Singapore were looking for alternatives, getting higher return on Singapore's increasing levels of reserves.<sup>22</sup> Singapore's leadership wanted to take the advantage of emerging international investment opportunities, and thereby securing Singapore's future purchasing power.

At the beginning of 2012, Singapore's government has officially deposited about \$113 billion into the MAS.<sup>23</sup> But due to the lack of data it is difficult to estimate how much of these assets are allocated by the MAS to the GIC for management.

### The GIC Private Limited

The creation of the Government Investment Corporation (GIC) in 1981 was the first step to improve the return on a part of Singapore's reserves and savings, which had largely been managed by the MAS. The GIC received its first capital through a transfer of a part of reserves managed previously by the MAS. The GIC does not own the funds that it manages. It also manages a part of the proceeds from Special Singapore Government Securities (SSGS) that are issued and guaranteed by the government.<sup>24</sup> The major purchaser of SSGS is the Central Provident Fund – Singapore's large and mandatory social security system.

The GIC's assets under management increased from approximately US\$10 billion in 1981 to about US\$320 billion, and thereby making it in 2014 to the eight largest SWF worldwide.<sup>25</sup> It has evolved from a conservative stance in the 1980s and the 1990s to an endowment approach in 2000s to an opportunity-based approach from 2012 onwards. This suggests that GIC's in-house investment capacity building process – from treasury bonds to equities and alternative assets – has taken place over a period of more than three decades. During this period the GIC has built significant in-house investment capacity across different asset classes, ranging from securities and equities to alternative investment classes. Mirroring this process, GIC's publicly available performance benchmarks have also changed.<sup>26</sup>

It started its operations in the early 1980s – an era of high uncertainty in international finance and hiking interest rates. These made it lucrative to invest in US debt at that time. Dr. Goh Keng Swee – GIC architect and former Finance Minister of Singapore – highlighted that, as of August 1981 “the GIC [kept] 90 per cent of funds in cash and short-term assets” primarily in US dollars and treasury bonds.<sup>27</sup>

In the late 1980s and early 1990s the GIC made its first publicly known equity investments. These included co-investments with Temasek into Chun King food – a large US based food conglomerate – and into into a New Zealand Investment Trust and a hotel chain.<sup>28</sup> Simultaneously GIC started to enter partnerships with well-established private investment firms in the US in an environment of large scale corporate restructuring.<sup>29</sup> Its focus was on in-house capacity building through co-investments and strategic partnerships with the aim of getting exposure to specialist market expertise.<sup>30</sup>

Between 2007-2014 GIC's portfolio shows an OECD bias with about 75% of its total investments allocated in Europe, United Kingdom, United States and Japan. Despite the financial crisis 2007/08 the exposure to OECD has remained stable over this period. Nevertheless there are nuanced adjustments taking place with increasing share of Asia at the costs of Europe.

Likewise, in terms of asset classes there was a clear bias towards developed market equities and bonds. These made over 60% of GIC's total portfolio. But again alignments took place. While in 2008 developed market equities, bonds cash and others accounted for about 69%, four years later, in 2012/2013 this was down to 61%. This decline in 2012/2013 correlates with a decrease in GIC's overall exposure to Europe due to the Euro crisis. Simultaneously, this period saw a solid increase in emerging market equities from 10% in 2008 to 20% in 2014, and in Private Equity from 11% to 15% over the same period.

<sup>22</sup> This was highlighted in a number of newspapers (The Straits Times 28 Feb 1981, p.1; Business Times, 28 Feb 1981, p.1)

<sup>23</sup> Available: <http://www.gov.sg/government/web/content/govsg/classic/factly/factly-041012-Is-theresomethingwrongwithourReserves>

<sup>24</sup> Available: <http://www.mof.gov.sg/Policies/Our-Nations-Reserves/Section-IV-Is-our-CPF-money-safe-Can-the-Government-pay-all-its-debt-obligations>

<sup>25</sup> ESADEGeo (2014), Lee Kuan Yew (2006) Keynote Address by Minister Mentor Lee Kuan Yew, Chairman, GIC, at the GIC 25th Anniversary Dinner, 11 July, available: GIC Homepage.

<sup>26</sup> Publicly available performance benchmarks are useful indicators for estimating the level of in-house investment capacity building among SWFs.

<sup>27</sup> *Straits Times*, 1 August 1982, p.14

<sup>28</sup> Braunstein, 2015, Sovereign Wealth Funds and the building of in-house investment capacity: the Government Investment Corporation of Singapore (1980s-2000s), Working Paper, The Fletcher School, SovereignNet, pp1-7

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

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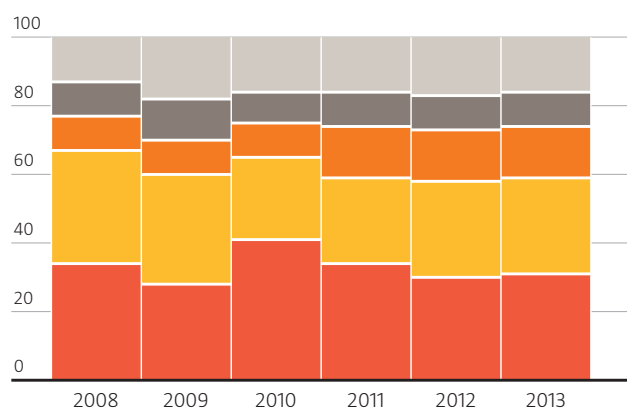
Despite the dominant position of developed market equities and bonds GIC's exposure to the real estate sector has experienced a clear increase from 10% to 13%. Given that the GIC manages around US\$320 billion, this would make GIC's real estate exposure even bigger than the Hong Kong's Henderson Land Co Ltd. which is with US\$39.2 billion assets the world's 14th largest publicly traded real estate company.<sup>31</sup> A growing part of GIC's portfolio is allocated to the real estate sector in emerging economies, which reflects an overall trend among large institutional investors.<sup>32</sup>

Chart 1

### GIC's Portfolio (2008-2013)

Sector distribution

- Developed Markets Equities
- Emerging Markets Equities
- Bonds, Cash & Others
- Real Estate
- Private Equity, Absolute Return & Natural Resources



Source: Author's elaboration from GIC Annual Reports.

GIC has gained exposure to the real estate sector via its real estate arm (i.e. GIC Real Estate Pte Ltd) and a number of other channels, such as real estate funds. For example, most of GIC's exposure to China's real estate market is via a complex network of subsidiaries. In the centre of this web is Recosia Pte Ltd, which is a fully owned subsidiary of GIC Real Estate Pte Ltd. It was created in 1994 as an asset management holding company. Recosia owns China-based Recosia China Pte Ltd, which offers property investment services.<sup>33</sup> And Recosia China Pte Ltd holds 19.6% in Global Logistics Properties Limited, which is a global provider of logistics facilities, with a focus on China, Japan and Brazil, and it manages property portfolio of 272 million square feet across 63 cities and supply chain infrastructure.<sup>34</sup> Reco Shine Pte Ltd is with nearly one third of ownership the largest stakeholder in Yangguang Co. Ltd. Yangguang's focus is on commercial real estate, such as shopping centres and urban complexes, with focus on Beijing Tianjin and Shanghai.<sup>35</sup>

Between 2006 and 2013 most of GIC's direct deals took place in OECD countries. For example, in 2007 out of GIC's eight largest publicized deals four took place in the UK, when GIC acquired Chapterhouse Holdings Ltd, shopping mall CSC Metro Centre (Dunston), Merrill Lynch Financial Centre and West Quay Shopping Center (Southampton). Following the 2008 property crash, the GIC refrained from large real estate deals in the UK. It was only until December 2013 when the GIC acquired Broadgate Office Complex, which was one of the biggest real estate deals in Europe following the financial crisis.

More recently, in December 2014, GIC made a deal with Mumbai-based real estate developer Nirlon Ltd acquiring more than 60% stake for US\$200 million.<sup>36</sup> Other recent examples of GIC's entrance into India's real estate sector include the joint venture between GIC and Ascendas Pte to allocate around US\$483 million in Indian commercial property, and the partnership between GIC and KKR & Co – a US-based private equity fund – for structured lending in India.<sup>37</sup> Another noteworthy transaction was the entry of GIC of Singapore as a shareholder in GMP, a Spanish real estate investment company now converted into a SOCIMI (REIT), paying €200 million for a 30% stake in the private family-held group.

<sup>33</sup> See Orbis BvD database.

<sup>34</sup> Ibid.

<sup>35</sup> Ibid.

<sup>36</sup> *The Wall Street Journal*, 24 Dec 2014.

<sup>37</sup> Available: [http://ir.kkr.com/kkr\\_ir/kkr\\_releasedetail.cfm?ReleaseID=890227](http://ir.kkr.com/kkr_ir/kkr_releasedetail.cfm?ReleaseID=890227)  
<http://www.bloomberg.com/news/articles/2013-11-19/gic-ascendas-to-invest-up-to-s-600-million-in-indian-property>

<sup>31</sup> *Forbes 2000*. Available: <http://www.forbes.com/global2000/>.

<sup>32</sup> See Invesco Global Sovereign Asset Management Study (2014) and ESADEgeo (2014).

Table 3

## Selected Real Estate Deals by GIC (2006-13)

| Name of Subsidiary              | Target Name   | Target Location | Type Specialization               | Announced Year | SWF Share in deal<br>(local currency)* | SWF Share in deal<br>(%) |
|---------------------------------|---|-----------------|-----------------------------------|----------------|--|--------------------------|
| GIC Real Estate                 | Hines-Office Properties   | Germany         | Building                          | 2006           | S\$ 607                                | 100                      |
| GIC Real Estate                 | Property in Nanjing, China  | China           | Land                              | 2006           |  | n.a                      |
| GIC                             | Chapterhouse Holdings Ltd   | UK              | Building                          | 2007           | GBP 480                                | 100                      |
| GIC Real Estate                 | CSC-MetroCentre   | UK              | Shopping Malls                    | 2007           | GBP 426                                | 100                      |
| GIC Real Estate                 | Hawks Town Corp   | Japan           | Shopping Malls                    | 2007           | Yen 100 (bn)                           | 100                      |
| GIC Real Estate                 | Lasalle-Kungshuset Office   | Sweeden         | Building                          | 2007           | €123                                   | 100                      |
| GIC Real Estate                 | Merrill Lynch Financial Centre                                    | UK              | Building                          | 2007           | €710                                   | n.a                      |
| GIC Special Investments Pte Ltd | Shapoorji Pallonji & Co., Ltd's<br>Special Purpose Vehicle        | India           | Township                          | 2007           | US\$ 160                               | 50                       |
| GIC                             | Westfield Parramatta  | Australia       | Shopping Malls                    | 2007           | US\$ 593                               | 100                      |
| GIC Real Estate                 | WestQuay Shopping Center  | UK              | Shopping Malls                    | 2007           | GBP 299                                | 100                      |
| GIC Real Estate                 | Iso Omena   | Finland         | Shopping Malls                    | 2008           | 52.64                                  | 40                       |
| GIC Real Estate                 | Mexico Retail Property  | Mexico          | Shopping Centres                  | 2008           | n.a.                                   | n.a                      |
| GIC Real Estate                 | Township in Mytischki   | Russia          | Township                          | 2008           | US\$ 233                               | n.a                      |
| GIC                             | E-Land-Shopping Outlet Bldg(2)                                    | South Korea     | Shopping Malls                    | 2009           | US\$ 177                               | 100                      |
| GIC Real Estate                 | Westfield Whitford  | Australia       | Shopping Complex                  | 2009           | n.a.                                   | n.a                      |
| GIC Real Estate                 | Operturm Tower Frankfurt  | Germany         | Building                          | 2010           |  |                          |
| GIC Real Estate Pte Ltd         | Salta Properties portfolio<br>of industrial properties            | Australia       | Land                              | 2010           | Aus\$ 220                              | 100                      |
| GIC                             | Brisbane Radius Industrial Park                                   | Australia       | Buildings Office Complex          | 2011           | Aus\$ 20                               | 100                      |
| GIC                             | Home Plus Facilities and Land<br>Located at Hyoja-dong, Jeonju-si | South Korea     | Property                          | 2011           |  |                          |
| GIC                             | HUL Brigade Road  | India           | Building                          | 2012           |  |                          |
| GIC                             | Broadgate Office Complex  | UK              |                                   | 2013           | S\$ 3.4 (bn)                           | 100                      |
| GIC                             | Time Warner Building  | USA             | Building                          | 2013           |  |                          |
| GIC                             | Time Warner, Columbus Circle                                      | USA             | Building/Office<br>Complex/Retail | 2013           | US\$ 300                               | 23                       |
| GIC                             | Office Tower, Jakarta   | Indonesia       |                                   | 2013           | US\$ 350                               | 100                      |

Source: Fletcher, SovereignNET database (2015).

\* Figures in millions.



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### Temasek

Temasek was created under the Singapore Companies Act in 1974 as a private exempt company. As such it has been released from filing reports and accounts with the Registrar of Companies and it was exempted from the public budget. Also, it was allowed to expand into different economic sectors.<sup>38</sup>

Initially it held and managed a portfolio of S\$345 million invested into 36 companies. That was done transferring shares of public enterprises previously held by the Ministry of Finance. These included blue chip companies of strategic importance, such as Singapore Airlines, Keppel Shipyard, Development Bank of Singapore and Sembawang Holdings.<sup>39</sup>

In the late 1970s Temasek adopted a more active approach towards its companies, by providing more focus and direction in terms of identifying new investment opportunities as well as considering mergers with other profitable companies.<sup>40</sup> Temasek's gross assets in the late 1970s were estimated to more than S\$3.5 billion making it to the largest conglomerate in Singapore.<sup>41</sup>

Over the years Temasek has become the majority owner in former statutory boards which were corporatized in the 1990s. These including Sing Tel (1992) Singapore Power (1995), Post Office Savings Bank (1998), the second biggest global port operator Port of Singapore International (1997). Singapore Broadcasting Corporation (1994) was corporatized as Telegroup Corporation and lately renamed as Media Corporation Group (owned by Temasek). Public Works Department was corporatized as CPG Corporation in 1999 (under Temasek) and one year later it became a part of Australia Downer EDI Group. On its side, Commercial and Industrial Security Corporation used to be a statutory board, but since 2005 it's owned by Temasek.

During the 1980s and especially in the 1990s Temasek's focus shifted from domestic to international markets.<sup>42</sup> It started to embark on overseas investments, with an eye on technology and skills transfer as well as market access.<sup>43</sup> Temasek's emphasis was on 'building world-class companies' by setting performance benchmarks and through the hiring of talent and the acquisition of technology.<sup>44</sup>

<sup>38</sup> *Straits Times*, 16 Feb 1977

<sup>39</sup> *Ibid.*

<sup>40</sup> *Straits Times*, 25 June 1999, p.74

<sup>41</sup> *Business Times*, 8 Aug 1978, p.40

<sup>42</sup> *Asian Business*, June 1990.

<sup>43</sup> *Straits Times*, 25 June 1999, p.74

<sup>44</sup> *Ibid.*

Supporting the regionalization of Singaporean and multinational companies Temasek started regional infrastructure projects, such as industrial parks in neighbouring countries. Therefore government linked companies got an official waiver from their original charter, which spells out their scope of activity. This gave them further flexibility to seize market opportunities. As a consequence, they started to internationalise beyond ASEAN countries into the Chinese market, New Zealand, Great Britain, the US, and neighbouring countries. Singapore started to foster co-operation with neighbouring countries, notably Malaysia, Indonesia and Thailand. These economies at that time implemented dynamic liberalisation reforms and experienced high levels of growth. Singapore's plan was to outsource labour-, water-, and land intensive production and industry to neighbouring Batam (Indonesia) and Johor (Malaysia), while retaining high productive business and high value added activities, such as R&D and financial services in Singapore (Business Times, 24 July 1990; Far Eastern Economic Review, 3 Jan 1991). The strategy of the growth triangle (i.e. Batam-Johor-Singapore) targeted specifically multinational companies to retain or establish operational headquarter in Singapore, while taking advantage of regional division of labour.

### Temasek overall Portfolio, and trends between 2007-2014

Between 2007-2014 Temasek's portfolio shows an Asia bias with about 70% of its total portfolio allocated in Asia (including Singapore). Following the Financial Crisis 2007/08 Temasek's exposure to OECD countries has increased from 20% in 2007 to 24% in 2014.

Shortly after Temasek's loss in US financial firms, finance as overall part of Temasek's portfolio decreased from 38% in 2007 to 30% in 2014. According to commentators within three months between January and March 2009 "Temasek lost about US\$4.6 billion from its original investment in Merrill [Lynch]" (Wall Street Journal, 18 May & 29 May 2009). Transport /Logistics experienced slight increase from 18% to 20%. Energy remained same with 6%, and also telecom and media, most dynamic growth in relative and absolute terms live science 10-14% and technology from 5 to 7%.

From 2007 onwards Temasek expanded its exposure to the technology, the media, and the life science sectors – increasingly through unconventional means notably venture capital. Venture capital investment in Singapore's high tech sector has increased to US\$1.71 billion in 2013 – which is equivalent to a 60 fold gain from 2011 – making Singapore the leader in venture capital funding in Asia, just behind China.<sup>45</sup>

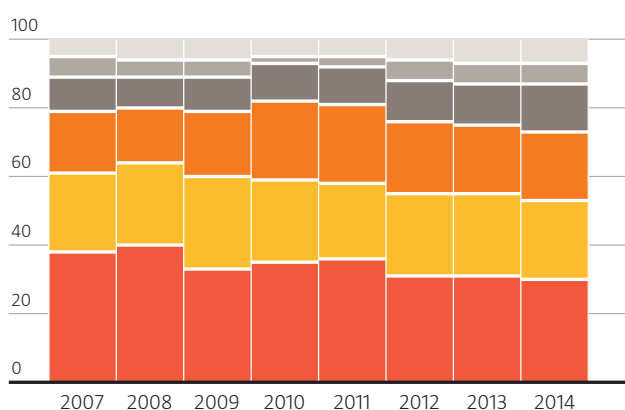
<sup>45</sup> Future Tense (2014, p.68). Available: <http://www.mti.gov.sg/ResearchRoom/Pages/Future-Tense-July-2014.aspx>.

Chart 2

### Temasek's Portfolio (2007-2014)

Sector distribution

- Finance
- Transport, Logistics, Industrials, Engineering
- Telecom & Media
- Life Sciences & Real estate
- Energy & Resources
- Technology & Others



Source: Author's elaboration from Temasek Annual Reports.

Increasing the exposure to venture capital comes along with Singapore's strategic long term plan to establish Singapore as a startup financing and technology hub in Asia. Temasek has its own venture capital arms, notably Vertex (est. in 1988). Vertex plays an important role for Temasek for getting exposure to growth sectors across countries. It has a total deployed capital in excess of US\$1.2 billion and presence in Singapore, Beijing, Shanghai, Taipei, Bangalore and Silicon Valley.<sup>46</sup>

Drawing on publicly available information together with the Orbis database on ownership structure this paper compiled a sample of 82 discrete investments. Thereby it is able to identify some interesting investment patterns in terms of sectors and countries.

With regard to its presence in Singapore, Vertex has a focus on financing growth through specialist venture funds, such as Vertex Asia Fund Pte. Ltd, Vertex China Chemicals, Vertex Technology Fund (III) Ltd. Thereby Vertex contributes to Singapore's role as the regional hub for startup financing and financing the regional expansion of home-grown companies.<sup>47</sup> Investments focusing on software, internet and media sector include firms such as eG Innovations, GrabTaxi, muvee Technologies, or Paktor.

In line with its focus on financing Singaporean high-growth companies Temasek created more recently Clifford Capital and Heliconia Capital Management Pte Ltd, which has a mandate of at least investing 50% in Singapore companies. In addition to that Temasek has established in 2013 the Enterprise Development Group with a mandate of seeding and developing new business opportunities, such as clean energy.<sup>48</sup>

Over the last decade Singapore has already established itself as an international research hub, with world class homegrown universities (e.g. the National University of Singapore is regularly ranked as number one university in Asia) and numerous partnerships, with world leading institutions, such as Yale, ETH Zurich, Johns Hopkins, Duke, INSEAD, and MIT. Surprisingly, thus far little focus has been placed on the commercialization of R&D.

With an eye on developments in the United States and Israel, Singapore's SWFs are entering into pre-seeding and seed financing in areas, that are specific promising for growth. Drawing on successful examples, such as Seattle-based Accelerator Corp, Singapore is to become Asia's future "Silicon Valley".<sup>49</sup> Via its subsidiaries Temasek increases its exposure to firms with high growth potential in niche markets. In 2011 the National University of Singapore Enterprise in cooperation between Singtel Innov 8 – a Temasek subsidiary – and the Media Development Authority started the incubation programme Block 71. It has been quoted as the 'heart of Singapore's start-up ecosystem' and it accommodates more than 100 startups, including venture capital firms and tech incubators.<sup>50</sup>

<sup>46</sup> Vertex [Homepage]. Available: <http://vertexmgt.com>.

<sup>47</sup> Future Tense (2014)

<sup>48</sup> Available: <http://www.temasekreview.com.sg/en/institution/seeding-future-enterprises.html>

<sup>49</sup> Report of the Economic Strategies Committee (2010), Future Tense (2014)

<sup>50</sup> Straits Times 7 Jan 2014

## 6. Different Twins and a Distant Cousin: Sovereign Wealth Funds in Hong Kong, Singapore and South Korea

Table 4

Vertex discrete investments (cross-sector & cross-country)

| Country\Sector | Software/<br>Internet/Media | Healthcare | Clean Technology | Telecommunications | Electronic &<br>Semiconductor | Funds | Others |
|----------------|-----------------------------|------------|------------------|--------------------|-------------------------------|-------|--------|
| China          | 20                          | 2          | 0                | 1                  | 5                             | 0     | 5      |
| India          | 8                           | 0          | 0                | 0                  | 0                             | 0     | 0      |
| Singapore      | 4                           | 0          | 0                | 0                  | 0                             | 5     | 0      |
| Asia Others    | 4                           | 0          | 2                | 0                  | 4                             | 0     | 0      |
| US             | 2                           | 5          | 2                | 2                  | 0                             | 1     | 0      |
| UK             | 2                           | 0          | 0                | 0                  | 0                             | 0     | 1      |
| Europe         | 5                           | 1          | 0                | 0                  | 0                             | 0     | 1      |

Source: Author's elaboration from Vertex, Orbis BvD database

Concerning developed markets Vertex concentrates on investments in early stage firms with high growth potential in the life sciences and clean technology sector. Particularly in the US Vertex's focus is on health care firms, such as Holaira – a company focusing on the development of systems that make breathing easier for patients suffering from obstructive lung diseases. Other examples include Ivantis Inc, which provides innovative solutions for glaucoma treatment, and Visterra, a biotech company focusing on infectious diseases through novel applications of modern data processing. More recently, in 2015 Vertex established a new US-based company Vertex Ventures US to focus on enterprise apps and web infrastructure. Vertex Ventures US was launched with Jonathan Heiliger, former general partner of North Bridge Venture Partners and In Sik Rhee, former general partner with Rembrandt Venture Partners.<sup>51</sup>

In large emerging markets, such as China and India, Vertex targets specifically firms in consumer technology, digital and interactive media sectors. In India, for example, Vertex has invested in firms providing travel, hotel and holiday booking services, such as Travel Guru PVT Ltd, Yatra Online Private Ltd. and Magic Rooms Solutions India (P) Ltd. In a similar fashion, Vertex has made investments in China's emerging online travel industry, including Shanshui Holiday Travel Agency, Breadtrip – a travel recommendations and sharing app. Likewise Vertex has invested in China's and India's online baby and kids retail platforms, notably Babycare (China) and FirstCry

(India). Because of SWFs long term return perspective it is easier for them to relate their investments to anticipated long term changes and trends.

### The Korean Investment Corporation

Emulating the success of Singapore's SWFs, specifically that of the GIC Pte Ltd, South Korea established in 2005 its own SWF. The Korea Investment Corporation (KIC) was created with a mandate of maximising the return on South Korea's reserves through international investments, and thereby developing the domestic financial industry. Similar to the GIC Pte Ltd, the KIC does not own the assets that it manages. It manages assets on behalf of the government, notably the Ministry of Finance and the Bank of Korea, and receives a management fee.<sup>52</sup>

Initially endowed with US \$ 1billion in 2005, the AUM of the KIC grew to US \$ 21.6bn in 2008 and reached US \$ 85 billion by the end of 2014.<sup>53</sup> Similar to Singapore's GIC Pte. Ltd., the KIC's initial investments focus was on traditional asset classes, notably equities and bonds mainly in OECD countries. But over the period between 2005 to 2014 the KIC broadened its investment spectrum, and included private equity, real estate, commodities, and hedge funds. From 2010 onwards KIC has also been increasing its investment exposure to emerging markets.<sup>54</sup>

<sup>52</sup> KIC Annual Report 2007

<sup>53</sup> KIC Annual Report 2014

<sup>54</sup> KIC Annual Report 2013

<sup>51</sup> Fortune 13 Jan 2015

The KIC has offices in New York and London, and considers the creation of additional offices in Asia and the Middle East.<sup>55</sup> This reflects the KIC's recent efforts of in-house capacity building, which included in 2014 the creation of a research centre. It focuses on macro and sectorial analysis, such as energy, telecom media technology, healthcare and consumer markets.

### Portfolio Trends between 2007 -2014

Over this period some noteworthy portfolio alignments took place. In terms of asset classes over the period 2007-2014 the KIC's portfolio shows a clear bias towards developed market equities and bonds. The KIC's portfolio in 2010 shows an OECD bias with about ¾ of its total investments allocated in, Europe, UK, US and Japan.<sup>56</sup> Developed market equities and bonds made over 80% of the KIC's total portfolio. Fixed income as an asset category saw a relative decline as a percentage of total AUM over this period, whereas other asset classes gained importance, notably equities, real estate, hedge funds, private equity and special investments.<sup>57</sup> Alternatives as an asset class experienced the strongest growth from just 1.7% in 2009, reaching 8% of the KIC's total portfolio in 2014 which is equivalent to about US \$ 6.8 billion.<sup>58</sup>

The KIC invests directly and indirectly via external asset managers. Like Singapore's GIC Ptl. Ltd., it seeks alpha through external managers with good track records, and expertise in sectors and areas in which the KIC has little in-house investment capacity.<sup>59</sup>

At the end of 2007 out of the KIC's total AUM US\$ 14.8bn, about US \$ 10.8bn was invested in bonds, and out of the total bond investment only US \$ 2.3 bn were managed internally while the remaining US \$ 8.5bn entrusted to external managers.<sup>60</sup> In stark contrast, at the end of 2010 approximately 70% of KIC's traditional portfolio was managed internally and about 30% was managed by external managers.<sup>61</sup> The trend towards inhouse capacity building was reflected by a high level KIC official who highlighted the need for capacity building and reduce KIC's reliance on private research firms.<sup>62</sup>

<sup>55</sup> *Pensions & Investments*, 26 Mar 2015

<sup>56</sup> KIC Annual Report 2010

<sup>57</sup> Special investments referring to companies engaged in the energy and natural resources development sectors (KIC Annual Report 2010)

<sup>58</sup> KIC Annual Report, 2013, 2014

<sup>59</sup> KIC Annual Report 2013

<sup>60</sup> KIC Annual Report 2007, p.23

<sup>61</sup> KIC Annual Report 2010, p.4

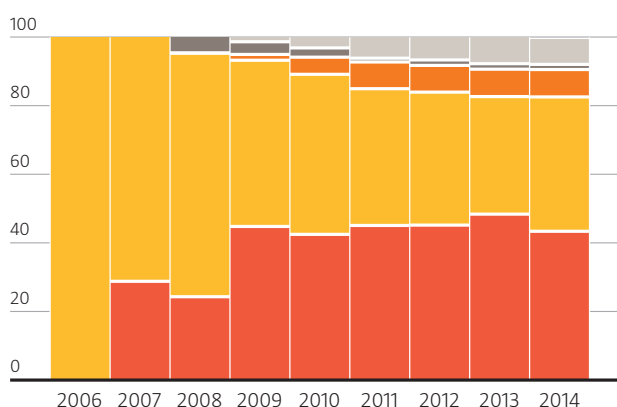
<sup>62</sup> *The Korea Times*, 17 Dec 2013

Chart 3

### KIC's Portfolio (2006-2014)

Sector distribution

● Equities ● Asset allocation ● Others  
● Fixed Income ● Special Investments



Source: Author's elaboration from KIC Annual Reports.

### Recent Developments

Following an ambitious start it was reported that the KIC experienced "disappointingly lower returns" on its direct investments and especially poor return on direct deals in the energy sector, partly due to lack of experience.<sup>63</sup>

Responding to this KIC's CEO announced in late 2014 a strategy of fostering partnerships and co-investments with other SWFs and Pension Funds.<sup>64</sup>

Under the KIC's leadership the Co-investment Roundtable of SWFs – a co-investment platform – was established in 2014, with the purpose of fostering co-operation and co-investments among large institutional investors and SWFs.<sup>65</sup> That was followed by the formation of a number of strategic partnerships and the creation of bilateral funds.

<sup>63</sup> *The Wallstreet Journal*, 22 Oct 2014

<sup>64</sup> Ibid.

<sup>65</sup> Available: <http://www.crosapf-summit.org/sub1.html>

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Shortly after, in November 2014 the KIC signed a memorandum of understanding with the Qatar Investment Authority to create a US \$ 2bn joint investment fund.<sup>66</sup> Following this, in early March 2015 the KIC entered a strategic partnership in the private equity sector with the Kingdom Holding Company (Saudi Arabia) and the Investment Corporation of Dubai.<sup>67</sup>

### Conclusion

Singapore's Government Investment Corporation introduced in April 2013 a new governance framework targeting a more active management away from a traditional endowment model towards an opportunistic investment model. This model follows the Canadian Pension Fund and has a particular focus on equities in emerging markets and real estate. With regard to real estate GIC's investments follow the broader among SWFs to invest in 'real assets', but it also pioneers into new markets, notably the property sector in India.

In the meantime also Singapore's other SWF Temasek is recalibrating its investment style by including start ups with high potential in dynamic sectors, such as consumer software, internet, healthcare and clean technology. Supporting the establishment of Singapore as 'Silicon Valley of Asia', Temasek increasingly starts to compete with other investment firms on an international level for the best startups.

Following in Singapore's footsteps, notably that of the GIC Pte. Ltd., the KIC has increased its exposure to alternative asset classes, and increasingly focuses on inhouse capacity building, co-investments and joint ventures with other large institutional investors and SWFs.

Largely unnoticed by the public the HKMA and the MAS, have a great the potential to shift a significant amount of assets into alternative asset classes. According to market observers also Hong Kong has started a more active management of its reserves from 2012 onwards in order to improve its overall return. At the end of 2011 the Hong Kong Monetary Authority started to shift into riskier assets, at end of 2011 10.8US\$bn invested in new asset classes; one third in PE; and remaining in emerging market bonds and shares, RMB denominated assets in China, property-related investments.<sup>68</sup>

KIC, on its part, has initiated a new promising strategy helping SWFs to co-invest through an innovative platform. Through co-investments and cooperation, SWFs benefit from shared search and execution costs, save expertise external management fees and might enter into more complex and profitable businesses. Co-investment among SWFs and with public pension funds might lead to a new paradigm where public money is wisely spread all over the geographies and asset classes. The state capitalism is taking steps towards new and innovative ways to interact with the old capitalism as we already know it.

Common to all is a trend towards diversification and sophistication, through a variety of means, such as outsourcing, co-investing, and partnerships.

<sup>66</sup> *Business Korea*, 6 Nov 2014

<sup>67</sup> *Saudi Gazette*, 5 Mar 2015, *The National* 4 Mar 2015

<sup>68</sup> EIU (2012) Hong Kong's Exchange Fund achieves poor returns, June 11th

