Globalization of Sovereign Wealth Funds: A Contemporary View of the Wealth, Comparative Advantage, and Competitiveness of Nations

K.S. Redding
School of Management
Xi'an Polytechnic University
No.19 Jinhua South Road
Xi'an, Shaanxi 710048, China.
**Corresponding author*, E-mail: ks.reddy@xpu.edu.cn

En Xie
School of Management
Xi'an Jiaotong University
28 West Xianning Road
Xi'an, Shaanxi 710049, China.
E-mail: xieen@mail.xjtu.edu.cn

Globalization of Sovereign Wealth Funds: A Contemporary View of the Wealth, Comparative Advantage, and Competitiveness of Nations

Abstract

Noticing the visible hand of state-controlled organizations in foreign direct investment projects, the study examines the internationalization strategy of sovereign wealth funds (SWFs) by leveraging insights from the wealth of nations, comparative advantage, and competitiveness. Drawing upon conventional political economy and international business literature, many studies have considered a 'single' perspective (the wealth of nations or comparative advantage) and a fewer extent studies have adopted 'two' perspectives (particularly, comparative advantage and competitiveness), though there is no study proposing an integrative framework of the three theoretical lenses. Theoretically, since the wealth is an important determinant of the comparative advantage of nations and the quantum of comparative advantage affects the degree of competitiveness of nations, it is logical to integrate the three economic lenses to explore the global diversification strategy of state capitalism. Based on an exploratory data analysis of the foreign direct investment and cross-border mergers and acquisitions by SWFs, we suggest that strategic growth choices and performance of state-controlled entities driven by institutional transitions, resource security, home market development and government legitimacy may contribute to the wealth, comparative advantage and competitiveness of the source country.

Keywords: *State-owned enterprises; Sovereign wealth funds; Globalization; Cross-border mergers and acquisitions; The wealth of nations; Comparative advantage; Competitiveness*

1. Introduction

Political economy is the science of the production, distribution, and exchange of wealth; or, the study of mankind in pursuit of wealth (Leacock, 1935, p. 42). Building on this, scholars propose that economic regulations, institutional framework, industry openness, and international relations significantly affect the market economy of the country (Stigler, 1971; Posner, 1974; North, 1991; Stiglitz, 2004). Thus, new market entry strategy of multinational enterprises (MNEs) is mainly grounded on the globalization of geopolitical economy literature (e.g., Markusen, 1995) and institutional development of emerging economies (Marquis and Raynard, 2015; Meyer and Peng, 2016; Peng, 2003). In particular, geography, political institutions, government legitimacy, and trade markets are driving forces of the *New World Business* (New Normal) since the epidemic of the 2007-2009 global financial crisis, in which the forces have significant impacts on the sustainable and inclusive growth of the economy (Stiglitz, 2016). According to the United Nations Conference on Trade and Development (UNCTAD), transnational corporations have contributed to the global production volume by nearly US$8 trillion, and their foreign subsidiaries have employed about 75 million people, as of 2014. Importantly, transnational corporations' contribution to government budgets has estimated to be approximate US$730 billion annually (WIR, 2015). They indeed account for more than 10% of global GDP and one-third of world exports (WIR, 2011). From the regional standpoint, the proportion of emerging economy enterprises, particularly from Asia has been increased significantly in recent years to the market for cross-border inbound (outbound) investments and acquisitions. It is highlighted that 'for the first time, developing and transition economies together attracted more than half of global foreign direct investment (FDI) flows' (WIR, 2011). In the case of entry method, MNEs have been preferred mergers and acquisitions (M&A) as a strategic growth choice than traditional greenfield investment over the past decade, particularly MNEs originating from developed economies (WIR, 2013).

Hence, a closer look at the post-crisis global FDI market reveals a new phenomenon of the globalization of state-owned enterprises. Although state-owned MNEs account for less than one percent of world MNEs, they contribute approximately 11% of global FDI flows. For example, there are at least 550 state-owned MNEs having 15000 foreign subsidiaries, holding foreign assets about US$2 trillion, and reporting global FDI flows by over US$160 billion, as of 2013 (WIR, 2014). Even more interesting, the top four enterprises in the *Forbes*

Global 2000 Public Corporations list are state-owned banks of China (ICBC, China Construction Bank, Agriculture Bank of China, and Bank of China), and also the eighth-ranked PetroChina is a state oil company (Forbes, 2015). Regarding State/Sovereign wealth funds, there are more than 100 SWFs from developed countries (e.g., Norway), emerging economies (e.g., China) and frontier markets (e.g., UAE), representing assets under management of US$7 trillion and accounting for 10% of world's total assets, have invested nearly US$16 billion in FDI, as of 2014 (WIR, 2015). These indicators unveil the burgeoning phenomenon of globalization of state capitalism. Given this fact, we wish to explore the geographic and industry dynamics of FDI deals initiated by SWFs.

The aftermath of the global financial crisis, there is a growing academic research interest toward government relations and state capitalism in the political economy and international business literature (Bruton et al., 2015; Cuervo-Cazurra et al., 2014; Musacchio and Lazzarini, 2014). Drawing on firm-level, multitheoretical frameworks, a handful collection of recent studies have examined the origin, investment strategies, performance and political and security concerns of SWFs. From the financial economics standpoint, studies have found that similar to institutional investors, SWFs tend to take a higher risk for maximizing short-term stock gains by diversifying their portfolio of stocks into blue-chip industries (Bertoni and Lugo, 2013; 2014; Bortolotti et al., 2015; Boubakri et al., 2016, 2017). International business and political relations literature has suggested that akin to state-owned enterprises such as oil, gas and mining companies, SWFs prefer to invest in overseas large-scale infrastructure projects to not only secure nature resources for their home country needs but also build a better cross-country relationship and part take in economic development of the host country (Aguilera et al., 2016; Aizenman and Glick, 2008; Bernstein et al., 2013; Ciarlone and Miceli, 2016; Götz and Jankowska, 2016; Martinez-Oviedo and Medda, 2017; Megginson et al., 2013; Murtinu and Scalera, 2016; Van Den Bremer et al., 2016). However, investment regulators and politicians in developed economies have raised numerous security issues including the transparency on the outbound investments by SWFs (Bahgat, 2008; Calluzzo et al., 2017; Cohen, 2009; De Bellis, 2011; Grigoryan, 2016; Monk, 2009; Rose, 2009; Wang and Li, 2016). Coupled with the two extant review articles on SWFs (Alhashel, 2015; Megginson and Fotak, 2015), a critical scrutiny of these recent studies calls for further research on whether SWFs national strategies such as foreign direct investment contribute to the wealth, comparative advantage, and competitiveness of their home country.

Although professional managers formulate and navigate state enterprises' strategic choices, they are greatly influenced by government legitimacy or ministerial orders (Li et al., 2014; Liang et al., 2015). It is because of state enterprises, by origin, are a public asset of the country. The accessible literature describes that governments not only create welfare policies and establish public organizations but also intervene in the trade market to correct market failures and demonstrate the public choice (Stigler, 1971; Posner, 1974; Putniņš, 2015). In the context, we argue that if state corporations are assets of the country and directed by government representatives, strategic investment choices and performance of state corporations may significantly affect the wealth of the country. Coupled with differences in factor market endowments, the wealth of the country may positively affect the comparative advantage of the country. In turn, it may boost the competitiveness of the country. Thus, we propose that the larger the resource wealth and higher the quantum of comparative advantage in factor markets, the more the competitiveness of the nation.

We, therefore, define our theoretical logic:

"*If strategic growth choices of state-controlled organizations are driven by government legitimacy, institutional transitions, resource security and home market development, the internationalization strategy of state-owned organizations will contribute to the wealth, the comparative advantage and the competitiveness of the home country*".

Based on this premise, the study discusses the cumulative market performance of global FDI projects undertaken by SWFs between 2005 and 2011, for two categories: host regions (6) and industry portfolio (7). To do so, we propose an integrated national-strategy framework by leveraging theoretical insights from the conventional economic theories such as Adam Smith's *The Wealth of Nations* (Smith, 1776), David Ricardo's *Comparative Advantage* theory (Ricardo, 1817), and modern economic theories such as Michael Porter's *Competitive Advantage* or *Competitiveness* theory (Porter, 1990; IMD, 2015; WEF, 2015). Our point is that in the literature, many studies have utilized a 'single' perspective (the wealth of nations [e.g., Wynne, 2005] or comparative advantage [e.g., Torstensson, 1998]) and a fewer extent studies have adopted 'two' perspectives (particularly, comparative advantage and competitiveness [e.g., Warr, 1994; Siggel, 2006]), though there is no study exploring the three theoretical ideas jointly. Then, we develop some propositions to further our understanding of the global investment strategy of SWFs. Drawing upon exploratory research, we discuss several findings based on data compiled from the UNCTADStat and other reliable

archival sources. The study highlights that while SWFs from Asia, the Middle East, and Europe have announced several diversified and sustainable FDI projects in both developed and developing economies. SWFs foreign market choices are motivated toward financial markets, real estate, and infrastructure projects. Independently, they continue to invest in public utility sectors such as electricity and water. In so doing, our study differs from and contributes to the political economy and international business literature, and offers some policy suggestions pertaining to the United Nations Sustainable Development Goals. We discuss them in more detail towards the end of the paper.

2. Background of the study

2.1. Formal institutions

First of all, state-owned enterprises dominating in the mining, oil and gas, heavy industries, public utilities and allied sectors are governed by a principle of objective-based legislation rather than a rule-based legislation in order to improve the economic and social welfare of the country (Dworkin, 1977). Extant literature has suggested a number of perspectives on the government powers and government interventions. The foremost principle is that government is a legal representative of the nation (Glassman, 1999). Some researchers mention that government itself is a body of economic and regulatory powers (Posner, 1974; Stigler, 1971). To our understating, the government is an independent statute, legal architecture, and public portico of national citizens, which naturally gained legitimacy through the public wisdom, thus to establish better welfare and prosperity. Importantly, government designs a formal institutional framework, which includes not only the rules of the game (North, 1990; Peng, 2003) but also the principles (Dworkin, 1977). The formal institutional rules either rule-based or objective-based around the world have been tremendously changed over the past two decades, particularly emerging market continents such as Asia, Latin America and Sub-Saharan Africa (World Bank, 2015; see Lin, 2016 for Chinese economy). Major factors affecting institutional development include “natural resource base; economic openness; colonial past, the slave trade, and pre-colonial governance structures; initial wealth and income inequality; ethnic structures, and ethnic fragmentation; past rulers; regional and international agreements and multilateral institutions” (Demir, 2016, p. 342).

Although public servants of the country oversee government policies, they are largely influenced by the ruling political party and some large corporate conglomerates. If

government determinations are welfare society such as job creation and market corrections such as subsidies, it is a strategic choice to be a public entrepreneur by establishing and managing business organizations (Bernier, 2014; Putniņš, 2015). In the context, it not only coordinates and controls market functioning activities but also improves the economic performance of the country. Note that unless holding a majority or minority ownership in business organizations, it is intricate to assess the real performance of the product or industry, and correct any market failures in the long-run. It is because direct control or direct participation in market functioning activities provides a centralistic, real-world experience of the industry. Besides meeting social goals of the community, these direct business experiences would help the government to corporatize large-scale government corporations in order to gain economic benefits from both domestic and international markets (Aivazian et al., 2005). In the era of globalization, governments are actively involving in cross-border trade and capital flows and promoting local firms through capacity-building, technical assistance, and investment backing schemes with a view to enhance the quality of large-scale investments (WIR, 2012). Therefore, it is important to explore the globalization strategies of state-controlled entities.

2.2. Sovereign wealth funds and internationalization

Typically, federal banks manage the foreign exchange reserves and balance of payments. Depending on the economic conditions, some countries have created various pension, social security, and special purpose funds to look after the economic and social development. Thus, the special funds are SWFs – "a by-product of national budget surpluses, accumulated over the years due to favorable macroeconomic, trade and fiscal positions, coupled with long-term budget planning and spending restraint" (Rozanov, 2005, p. 52). According to *Sovereign Wealth Fund Institute*, SWF is "a state-owned investment fund or entity that is commonly established from balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports" (SWFI, 2017). They are mainly created through two financial channels such as commodities (e.g. oil exports) and non-commodities (e.g., foreign exchange reserves). Their purpose is to correct currency fluctuation, build up savings for future generations, sustain macroeconomic stability, hedge against severe climate changes, establish cross-country geopolitical relations, etc. They tend to take a higher risk by diversifying the portfolio both locally and internationally, and expect higher short-term

returns than traditional sovereign investments such as money market instruments do (WIR, 2008, 2013). All in all, their fundamental objective is to invest in large-scale, long-term projects such as natural resources, real estate, transportation and utilities (Aguilera et al., 2016; Alhashel, 2015).

Given the amount of resource dependence and major oil exporting regions, Gulf countries (e.g., UAE) and Western European countries (e.g., Norway) have established a few SWFs in the 20th century. For example, Kuwait created the Kuwait Investment Authority in 1953, UAE started the Abu Dhabi Investment Authority (ADIA) in 1976, and Norway found the Government Pension Fund Global in 1990. Through the economic policy reforms of globalization and knowledge transfer, some emerging economies such as China have created a number of public funds in 2000s, thus to manage foreign exchange reserves and investments in the welfare development. For instance, SAFE Investment Company and China Investment Corporation (CIC) found in 1997 and 2007, respectively. In 2010 alone, at least 20 countries have considered to establish an SWF, particularly African and Eurasian nations. To note, Angola, Nigeria and Ghana have initiated an SWF with oil proceeds of US$5 billion, US$1 billion, and US$500 million, respectively during 2012-2013 (WIR, 2014). Even more interestingly, SWFs assets under management have been markedly increased by 59% during the period 2008-2012 and at least 40 new funds have been initiated. With regard to sources of finance, 57% of the assets under management come from oil and gas origin SWFs and the remaining 43% of the assets come from non-commodity origin SWFs (SWFI, 2017).

Based on market value of assets under management, SWFs from Middle East (UAE, Saudi Arabia, Kuwait), and Asia (China, Singapore, Korea) account for 40% of world share each, then Europe 13% (see Figure 1). Table 1 shows the asset position of the top 20 largest SWFs around the world. Norway's Government Pension Fund Global, an oil-origin fund is the largest SWF having an asset value of US$922 billion, as of March 2017, in which the asset value has increased at a ten-year compound growth rate of 147% from US$373 billion in 2007. Then, UAE's ADIA, an oil-based fund is the second largest fund with assets under management of US$828 billion; Chinese CIC, a non-commodity SWF, has been moved up from ninth position in 2007 to third in 2017, in which the assets under management have been skyrocketed at a ten-year compound growth rate of 307%, from US$200 billion to US$814 billion. It is also the youngest SWF of the top 10 largest funds in the world. Notably,

China represents four SWFs of the top 10 funds; Asia represents seven SWFs of the top 20 funds; the combined asset value of the top 10 funds is being US$5.5 trillion.

Insert Figure 1 about here

Insert Table 1 about here

In our research context, SWFs are now a visible source of global FDI outflows, especially large-scale infrastructure development projects in developed economies around the financial crisis. For instance, SWFs have injected a considerable capital of US$40 billion into various troubled financial institutions in the United States during the early stages of the 2007-09 global financial crisis (Alhashel, 2015; Ciarlone and Miceli, 2016). Surprisingly, SWFs that invest mainly in debt instruments (e.g., government bonds) have not significantly affected by the financial crisis. For example, 'SWFs asset value has increased at an annual rate of 10%, compared with a 4% decline in the global banking assets' (WIR, 2012). At that time, they are a key financial source of large-scale cross-border M&A deals, particularly in the banking and financial sector in developed economies. The number of cross-border M&A transactions undertaken by SWFs has markedly increased from one in 1987 to 30 in 2007 (WIR, 2008). For instance, Singapore's GIC bought some equity stake in UBS (Switzerland) for US$9.8 billion, ADIA acquired some equity control in American Citigroup for US$7.5 billion, CIC invested nearly US$5 billion in Morgan Stanley, and Korean and Kuwait Investment Funds jointly invested about US$5.4 billion in Merrill Lynch, to cite a few (see also Table 4 below). A major shift is that SWFs have acquired some equity control in private equity and hedge funds around the crisis (Bertoni and Lugo, 2014; Johan et al., 2013). To note, CIC bought 9.9% of equity stake in Blackstone, and ADIA acquired 9% of equity in Apollo. In recent years, SWFs are actively working with private equity firms to improve greater fund returns and secure managerial expertise as well.

3. Theoretical Framework

To deepen our understanding of the globalization of state and capital, the study conceptually establishes an integrated framework by leveraging theoretical insights from the deep-rooted economic theories such as the wealth of nations, comparative advantage, and competitiveness (Figure 2). An important premise of our theoretical logic is that if geography is a binocular of the world literature, political science is the critical lens of the world economy. In the scenario of government legitimacy driven by institutional development and trade market integration,

globalization strategy of government-controlled organizations will have significant impacts on the wealth of the country. In turn, it may have a shadow (positive) effect on both comparative advantage and competitiveness of the country. Although scholars have examined the three theoretical perspectives individually and a less extent two jointly, we argue that strategic choices and firm performance of government-controlled entities will distinctly contribute to not only the wealth, comparative advantage and competitiveness of the source country but also the public choice theory of the welfare economics. Since the wealth is an important determinant of the comparative advantage of nations and the quantum of comparative advantage in factor markets affects the degree of competitiveness of nations, it is theoretically logical to integrate the three economic lenses to explore the global strategy of state capitalism.

Insert Figure 2 about here

3.1. The Wealth of Nations

The wealth of nations' perspective is a fundamental, grand theory in the economics literature. Scottish economist, Adam Smith originally proposed this theory in his collection of a five series book – *An Inquiry into the Nature and Causes of the Wealth of Nations* – published in 1776. A central premise of his thesis argues what builds nation's wealth, that is, to study the production of national wealth. Note that each serious of his collection describes various factor level determinants of the modern economic trade. For instance, in his first collection, Smith developed the idea of factor endowments such as the division of labor, the rent of land, the wages of labor, the profits of stock, and the social justice, suggesting that the division of labor is limited by the extent of the market. Importantly, Smith postulated that economic system of the country is an 'invisible hand' because it is an automatic function driven by the free trade and economic regulations (Smith, 1776). Standing by his noble thoughts on the constituents of national wealth, we understand that if labor, land, technology, and resources are factor endowments of commerce and trade, the dignity of the sovereign is a crucial factor in creating the wealth of the country. It is because governments not only impose trade regulations but also act as a medium of exchange in the international trade environment. Although his work has received criticism from several scholars (e.g., Leacock, 1935), Smith's collection of ideas are fundamental metaphors of the industrial revolution occurred in the Western and Southern spheres.

In the modern era of globalization, several scholars describe that central bank reserves (Rozanov, 2005), net foreign assets (Lane and Milesi-Ferretti, 2001, 2007), science and technology (Ayres, 1988), and culture (Pagel and Mace, 2004; Gorodnichenko and Roland, 2010) are components of the wealth of the nation. For financial analysts, wealth is a 'real sustainable spending' (Arnott, 2006). In the context, we argue that because state-controlled entities are visible market functioning of national governments and influenced by bureaucratic administration powers, SWFs' globalization strategies may directly contribute to the national wealth. It is suggested that global strategies such as greenfield investments and acquisitions not only improve financial performance and geographic diversification of the firm but also bring advanced technology, resources, and global brands to the home country (Xie et al., 2017). Thus, we have:

Proposition 1: State-controlled enterprises' internationalization strategy and their performance (e.g., foreign profits, foreign assets, advanced technology) contribute to the wealth of their home country.

3.2. Comparative Advantage of Nations

The law of comparative advantage is one of the oldest theories in the international trade literature, developed by David Ricardo in 1817. He primarily concerned two products, one factor of production (labor), and two countries to explain the differences in the causes of exports and imports of the country. The central premise of his theory is that a country that produces the same product at low cost using labor as a factor endowment may gain comparative advantage over other countries that produce the similar product at high cost, relative to international prices (Ricardo, 1817). It puts forth the limitation that labor factor is constant across the world economy, where a producing country or exporting one has advantage over that specific product due to differences in the effective matrix of factor endowments such as labor and natural resources, and also due to relative prices of factors in the universal domain. In other words, "a producer has comparative advantage if his/her production costs in terms of equilibrium factor prices are lower than those of an international competitor, irrespective of what the sources of the cost advantage are" (Siggel, 2006, p. 139). Typically, the law of comparative advantage is a study of an efficient allocation of resources. Several scholars have attacked on the applicability of Ricardo's theory in the 20th century. Yet, it mostly remains as salient as ever for the national economic performance (Warr, 1994; Ruffin, 2002). Since the law of comparative advantage is based on real factor endowments,

Balassa (1965) proposes the index of revealed comparative advantage. Note that comparative advantage changes with the structural transitions of economies that drives industrialization and globalization of local enterprises (Siggel, 2006).

At the national level, country size, geographic location (Torstensson, 1998), and the amount of natural resources (Gunton, 2003) affect the comparative advantage of international trade. Some economic scholars also argue that comparative advantage arises not only from the efficient use of resources and labor in a given time but also due to changes in technology and the amount of differences in the wealth of the country. For example, Wynne (2005) describes that national wealth is a key determinant of comparative advantage, because 'wealth alleviates financial imperfections in labor-intensive sectors of wealthier countries'. While capital is an effective mix of natural resources, machinery, human capital and production know-how, Dollar (1993) postulates that the amount of technological and knowledge differences enhances the comparative advantage of the nation. It is because knowledge is like a public good, can be delivered to additional production units at very low cost (Markusen, 1995; Eaton and Kortum, 2002). While comparative advantage explains that international trade matrix and trade liberalization trigger cross-border capital flows, Neary (2007) suggests cross-border merger and acquisition choice as a key instrument of the source country's comparative advantage. Note that acquisition method provides immediate control over target firm resources and capabilities (Weston et al., 1990). Neary (2007) also illustrates that cross-country differences in technology generate incentives for bilateral mergers under Cournot competition. Drawing upon these views, we argue that factor endowments such as country size, natural resources, wealth, human capital, and science and technology may affect the comparative advantage of the nation. Because strategic choices of state-controlled entities are driven by national factor components and government legitimacy, SWFs' global diversification strategy may enhance the comparative advantage of the country. Hence:

Proposition 2: State-controlled entities' internationalization strategy and their performance (e.g., foreign resources, trained human capital, advanced production technology, global brands) contribute to the comparative advantage of their home country.

3.3. Competitiveness of Nations

In the modern political economy literature, Michael Porter suggests that the number of market participants, demand and supply conditions, entry barriers, and government regulations of the country trigger 'competition' (Porter, 1980). Broadly, competition arises when several entrepreneurs endeavor to make a profit by fulfilling the same product demand (Feurer and Chaharbaghi, 1994). In turn, competition significantly affects organizational performance. On the other hand, governments view competition as an efficient allocation of resources of the country (Putniņš, 2015). In this scenario, we wish to know what factors prepare organizations or nations to compete in the global market landscape. Extant literature suggest that national level factor endowments, including natural resources, labor, production function, and technology affect the outcome of the firm or country, such as productivity and quality (Barney, 1991; Grant, 1991; Peteraf, 1993; Siggel, 2006). For instance, Hunt and Morgan (1995) propose a comparative advantage theory of competition, suggesting that the amount of resources exerts comparative advantage while market position gives competitive advantage, together may drive superior financial performance of the firm, and superior quality, efficiency and innovation. Thus, the quantum of differences in comparative advantage of the resources and capabilities raises the visibility of a specific firm or nation, which emerged as 'competitive advantage' or 'comparative advantage over the rivals'. It means that the amount of comparative advantage in factor endowments enhances the degree of competitive advantage. Peteraf (1993) describes that superior resources, ex-post limits to competition, imperfect resource mobility, and ex-ante limits to competition affect the sustained competitive advantage. Moreover, competitive advantage deals with the factors influencing the commercial performance of entrepreneurs (Warr, 1994), is rooted in the cost competitiveness and economies of scale (Siggel, 2006). Overall, competitiveness includes both the efficiency (reaching goals at the least possible cost), and effectiveness (having the right goals) (Buckley *et al.*, 1988, p. 195).

At the national level, Porter (1990) postulates that competitive advantage is impelled by two fundamental factors, namely, cost-leadership strategy and product-differentiation strategy. While cost-based idea explains low cost of the production in a specific industry with standardized products, product-based idea discusses differentiated products through the effective mix of resources and technology. Scott and Lodge (1985) define that national competitiveness is a country's ability to create, produce, and distribute products in international trade while earning rising returns on its resources. It is important to remind that 'national competitiveness is not what we own that counts; it is what we do' (Reich, 1991, p.

199). According to *World Competitiveness Year Book*, competitiveness is the "ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people" (IMD, 2015). For *World Economic Forum's Global Competitiveness Annual Report*, competitiveness as the "set of institutions, policies, and factors that determine the level of productivity of an economy, which in turn sets the level of prosperity that the country can earn" (WEF, 2015, p. 4). The Forum has developed the Global Competitiveness Index (GCI) based on 114 indicators to capture the national productivity. These indicators are grouped into 12 pillars of three fundamental themes: *factor driven* – basic requirements (institutions, infrastructure, macroeconomic environment, health and primary education), *efficiency driven* – efficiency enhancers (higher education and training, goods market efficiency, labor market efficiency, financial market development, technological readiness, market size), and *innovation driven* – innovation and sophistication factors (business sophistication, and innovation). Many empirical studies have utilized the GCI in the political economy and international business literature.

To improve competitiveness in the globalization environment, both government-controlled organizations and private enterprises tend to adopt strategic growth choices such as mergers and acquisitions. It is because acquisitions facilitate immediate ownership control over the resources of the target firm (Weston *et al.,* 1990). For example, several Chinese SOEs have participated in international deals to not only secure scarce natural resources for their home country but also acquire industry-specific strategic assets such as advanced technology, access to larger markets, and global brands (Xie et al., 2017). Since acquisitions help firms to sustain a higher competitive advantage over their global rivals, they in turn contribute to the competitiveness of their home country. On the other hand, institutional spillovers driven by internationalization of state-owned enterprises help to improve and harmonize institutional environment in their home country so as to strengthen their competitiveness (Demir, 2016). Therefore, we understand that internationalization strategy improves firm level competitive advantage as well as contributes to the national competitiveness in terms of total factor productivity, as measured by GCI. Thus:

Proposition 3: State-controlled organizations' internationalization strategy and comparative advantage rooted in their resources and capabilities (e.g., advanced technology, global brands) contribute to the competitiveness of their home country.

4. FDI by SWFs: analysis and discussion

Data pertaining to the FDI by SWFs compiled from the UNCTAD's FDI Stat and World Investment Reports released during the period 1991-2017. Some essential market data on SWFs collected from the Sovereign Wealth Fund Institute (SWFI, 2017).

Sovereign controlled funds such as pension funds, social security funds, and wealth funds are products of the monetary policy. Given the dynamics of global financial markets integration and diversified investment risk strategies, several SWFs have expanded into developed and developing countries through greenfield investment and acquisition methods. Thus, we show the market patterns of FDI by SWFs from two standpoints, namely, host-region and industry portfolio (Table 2-3). Data analysis is cumulatively stretched from 2005 through 2011, leading to 7 regions and 8 industries. By 2011, the world economy has recorded a cumulative FDI of US$125 billion. A quick observation of the host-region FDI flows indicates that developed economies have been hosted highest FDI projects by US$84 billion, leading to 67% of world economy. While developing economies have received nearly US$36 billion (28% of global share), transition economies have hardly hosted about US$4 billion (3%). On region level, comparatively, European countries have hosted significant FDI projects by US$53 billion (43% of world share), and other regions such as Americas (U.S.), Africa, East and South-East Asia and West Asia have received an average investment of US$10 billion each. On sector level, cumulatively, services sector has received a large amount of FDI by US$82 billion (65% of world share), while manufacturing and primary sectors have hosted about US$31 billion and US$12 billion, respectively. With regard to industry portfolio, we find that SWFs global strategy drives considerable investment in banking and financial sector, and sustainable infrastructure development projects. For instance, industries such as *Finance* has recorded a total investment of US$20 billion (16% of global share), followed by *Real estate* US$14 billion (11%), *Construction* and *Coke, petroleum and nuclear fuel* over US$13 billion each (10%), and *Mining, quarrying and petroleum* over US$11 billion (9%). Additionally, Table 4 shows selected large- and medium-scale FDI/M&A deals announced by SWFs. Akin to the above market patterns, it is found that a large proportion of FDI has been flooded into developed economies, and mining, infrastructure development and financial sectors.

Insert Table 2-4 about here

From the above market tendencies, we can draw at least two remarkable contributions. First, SWFs from developing economies have been a major source of several large-scale FDI projects in the western countries. It is because SWFs have taken advantage of the lower asset valuation of resource assets on the one hand, and rescued further crisis corollary by acquiring significant equity stakes in troubled financial institutions in the United States on the other. For instance, China's CIC invested about US$5 billion in Morgan Stanley, and UAE's ADIA invested about US$7.5 billion in Citigroup, among others. Hence, some SWFs that invest in equity instruments have incurred a considerable loss on asset sales around the economic downturn in 2008 and 2009, compared with SWFs that invest in fixed-income and money market instruments (WIR, 2010). In the aftermath of the financial crisis, SWFs assets have markedly increased than any other corporate investors like private equity and hedge funds. For example, 15-25% of European listed firms constitute SWFs as shareholders on their corporate boards (WIR, 2014). Specifically, the investment strategy of SWFs has dramatically changed from a traditional portfolio of home country to an international diversification investments of sustainable FDI projects with a view to not only minimize the equity portfolio risk but also improve the long-term sovereign returns and build geopolitical relations with host countries (see, for instance, Chinese SWFs in the energy sector: Kamiński, 2017; Liedtke, 2017; Sun et al., 2014; Thomas and Chen, 2011).

Second, although SWFs are typically created by monetary authorities to look after the home country developmental projects, they have substantially diversified their investment portfolio through greenfield investment and acquisition methods. Interestingly, cross-border M&A by SWFs accounts for over 80% of global FDI outflows during the period 2003-2014 (see Table 4). For example, in 2014, Singapore-based Temasek Holdings acquired 25% of equity ownership in AS Watson Holdings (Hong Kong) for US$5.7 billion, UAEs' ADIA and Singapore's GIC jointly bought an office building in New York for US$1.3 billion, China's CIC purchased an office area in London for over US$1 billion. In 2013, Singapore's GIC and Kuwait's government company jointly bought some office buildings in London for approximately US$2.5 billion, and CIC bought 13% of equity stake in Russia's industrial chemicals company Uralkaliy for US$2 billion. Besides investing in low risk, high return overseas projects, some Asian SWFs have invested in high-risk FDI projects in African region. For instance, CIC bought 25% of equity control in Shanduka Group (South Africa) for US$250 million in 2011, and Temasek Holdings bought 20% of equity stake in gas fields in Tanzania for US$1.3 billion in 2013 (compiled from WIR, 2013, 2014, 2015).

The above case examples reveal that Singapore's GIC, China's CIC, Norway's Government Pension Fund Global, UAE's ADIA, and Kuwait Investment Authority are vigorously participating in real estate, infrastructure projects, resource sectors, and also investing some portion in private equity firms (Johan et al., 2013). Further, they follow an effective investment risk strategy by allocating significant funds to diversified sectors, such as real estate, banking and finance, infrastructure development, oil and gas, and coal mining. Therefore, we suggest that SWFs global strategic choices not only facilitate home and host country development but also contribute to the wealth, comparative advantage, and competitiveness of their source countries.

Insert Table 4 about here

5. Contributions and Policy Implications

Drawing on political economy and international business literature, the study makes two contributions to the burgeoning phenomenon of global strategy of government corporations. First, leveraging theoretical insights from the wealth of nations, comparative advantage and competitiveness, we conceptually propose an integrated national framework to explore the outward FDI strategy of SWFs. We suggest that geography size, the amount of natural resources, economic performance, technological advantage, and population factors directly contribute to the wealth of the country. In the scenario of international trade and differences in factor market endowments, the wealth of resources provides significant comparative advantages to the source country. In turn, the quantum of comparative advantage may affect the degree of source country competitiveness.

Second, we highlight that SWFs have been a major driving force of global FDI market since the epidemic of financial crisis. Our analysis reveals that several SWFs from emerging economies have invested in large FDI projects hosted by developed economies of Europe and Americas. While home country government supports SWFs, they have taken advantage of the lower asset valuation of target firms around the financial crisis, and rescued several weak financial institutions in the western sphere. With regard to sectoral diversification, SWFs have adopted an effective risk strategy by investing in both high volatile and low volatile sectors. Thus, SWFs have largely targeted the finance, real estate, and sustainable infrastructure projects. SWFs foreign market choices are motivated toward financial markets, real estate and infrastructure projects. Standing by our contributions, we

determine that internationalization strategy of state capitalism directly contributes to the wealth, comparative advantage and competitiveness of the source country.

The study also offers some implications for policymakers and state-controlled organizations. Because institutional transitions and market development influence organizational strategies in the global market landscape, the government may view state-owned corporations as a springboard to build better geopolitical relations with other developed and emerging countries. Owing to United Nations Sustainable Development Goals, emerging market (e.g. China) and frontier market governments (e.g. UAE) may take further initiatives to provide basic living needs such as water, housing, health and education, and promote balanced economic development in poor, low-income developing countries. Unlike multinational corporations and non-government organizations, SWFs investments in large-scale projects of low-income countries not only promote social life and security in host countries but also establish good cross-country relations. We anticipate that SWFs will soon set a new momentum in the global financial markets and the market for corporate acquisitions through collaborating with private equity, M&A advisors, and investment bankers. Yet it is a learning race and challenging task for SWFs to maintain stable fund returns in the current volatile financial markets and the low oil price environment.

6. Conclusion

The global investment strategy of government-controlled organizations has received a considerable attention in the academic research and the popular press as well. While institutional policy development plans are heightened in emerging economies on the one hand, and global markets are flattering integrated on the other, we explore the internationalization strategy of SWFs to further our understanding of the country portfolio and investment risk strategy. We conclude that SWFs from emerging economies and frontier markets are intensely pursuing FDI strategies propelled by their home country government, in order to secure natural resources and acquire advanced technologies, expand into foreign markets, and also develop effective geopolitical relations to combat any security, crisis, health or global social issues. All in all, SWFs FDI strategies have a great impact on the wealth, comparative advantage and competitiveness of the source country. Notwithstanding the academic debates on state capitalism and host country concerns, we view that SWFs strategy cannot be seen from the direct government standpoint, but they are firmly turnaround wisdom of the 21st century global financial crisis and new driving partners of the world economic integration.

Because the inadequate access to a commercial database on SWFs FDI projects is a major limitation of the paper, our conclusions cannot be generalized to a large extent. Hence, our conceptual framework and theoretical constructs may provide better assistance in future research on the diversity of state capitalism in emerging and developed economies.

References

Aguilera, R. V., Capapé, J., & Santiso, J. (2016). Sovereign wealth funds: A strategic governance view. *Academy of Management Perspectives*, *30*(1), 5-23.

Aivazian, V. A., Ge, Y., & Qiu, J. (2005). Can corporatization improve the performance of state-owned enterprises even without privatization?. *Journal of Corporate Finance*, *11*(5), 791-808.

Aizenman, J., & Glick, R. (2008). *Sovereign wealth funds: stylized facts about their determinants and governance*. NBER Working Papers, No. 14562, Cambridge, MA: NBER.

Alhashel, B. (2015). Sovereign Wealth Funds: a literature review. *Journal of Economics and Business*, *78*, 1-13.

Amighini, A., Rabellotti, R., & Sanfilippo, M. (2013). Do Chinese state-owned and private enterprises differ in their internationalisation strategies?. *China Economic Review*, *27*, 312-325.

Arnott, R. D. (2006). Editor's corner: what is wealth?. *Financial Analyst Journal*, *62*(5), 6-9.

ARWU (2015). Academic Ranking of World Universities of Shanghai Jiao Tong University, 2015. <http://www.shanghairanking.com>

Ayres, R. U. (1988). Technology: the wealth of nations. *Technological Forecasting and Social Change*, *33*(3), 189-201.

Bahgat, G. (2008). Sovereign wealth funds: dangers and opportunities. *International Affairs*, *84*(6), 1189-1204.

Balassa, B. (1965). Trade liberalisation and "revealed" comparative advantage. *The Manchester School*, *33*(2), 99-123.

Barney, J. (1991). Firm resources and sustainable competitive advantage. *Journal of Management*, *17*(1), 99-120.

Bernier, L. (2014). Public enterprises as policy instruments: the importance of public entrepreneurship. *Journal of Economic Policy Reform*, *17*(3), 253-266.

Bernstein, S., Lerner, J., & Schoar, A. (2013). The investment strategies of sovereign wealth funds. *Journal of Economic Perspectives*, *27*(2), 219-238.

Bertoni, F., & Lugo, S. (2013). Testing the strategic asset allocation of stabilization sovereign wealth funds. *International Finance*, *16*(1), 95-119.

Bertoni, F., & Lugo, S. (2014). The effect of sovereign wealth funds on the credit risk of their portfolio companies. *Journal of Corporate Finance*, *27*, 21-35.

Bortolotti, B., Fotak, V., & Megginson, W. L. (2015). The sovereign wealth fund discount: evidence from public equity investments. *Review of Financial Studies*, *28*(11), 2993-3035..

Boubakri, N., Cosset, J. C., & Grira, J. (2016). Sovereign wealth funds targets selection: A comparison with pension funds. *Journal of International Financial Markets, Institutions and Money*, *42*, 60-76.

Boubakri, N., Cosset, J. C., & Grira, J. (2017). Sovereign wealth funds investment effects on target firms' competitors. *Emerging Markets Review*, *30*, 96-112.

Bruton, G. D., Peng, M. W., Ahlstrom, D., Stan, C., & Xu, K. (2015). State-owned enterprises around the world as hybrid organizations. *Academy of Management Perspectives*, *29*(1), 92-114.

Buckley, P. J., Pass, C. L., & Prescott, K. (1988). Measures of international competitiveness: A critical survey. *Journal of Marketing Management*, *4*(2), 175-200.

Calluzzo, P., Dong, G. N., & Godsell, D. (2017). Sovereign wealth fund investments and the US political process. *Journal of International Business Studies*, *48*(2), 222-243.

Ciarlone, A., & Miceli, V. (2016). Escaping financial crises? Macro evidence from sovereign wealth funds' investment behaviour. *Emerging Markets Review*, *27*, 169-196.

Cohen, B. J. (2009). Sovereign wealth funds and national security: the Great Tradeoff. *International Affairs*, *85*(4), 713-731.
Cuervo-Cazurra, A., Inkpen, A., Musacchio, A., & Ramaswamy, K. (2014). Governments as owners: State-owned multinational companies. *Journal of International Business Studies*, *45*(8), 919-942.
De Bellis, M. (2011). Global Standards for Sovereign Wealth Funds: The Quest for Transparency. *Asian Journal of International Law*, *1*(2), 349-382.
Demir, F. (2016). Effects of FDI flows on institutional development: does it matter where the investors are from?. *World Development*, *78*, 341-359.
Dollar, D. (1993). Technological differences as a source of comparative advantage. *American Economic Review*, *83*(2), 431-435.
Dworkin, R. (1977). *Taking Rights Seriously*. Connecticut: Harvard University Press.
Eaton, J., & Kortum, S. (2002). Technology, geography, and trade. *Econometrica*, *70*(5), 1741-1779.
Feurer, R., & Chaharbaghi, K. (1994). Defining competitiveness: a holistic approach. *Management Decision*, *32*(2), 49-58.
Forbes (2015). Forbes Global 2000 Public Corporations 2015. <http://www.forbes.com/global2000>
Glassman, J. (1999). State power beyond the 'territorial trap': the internationalization of the state. *Political Geography*, *18*(6), 669-696.
Gorodnichenko, Y., & Roland, G. (2010). Culture, institutions and the wealth of nations. NBER Working Papers, No. 16368, Cambridge, MA: NBER.
Götz, M., & Jankowska, B. (2016). Internationalization by state-owned enterprises (SOEs) and sovereign wealth funds (SWFs) after the 2008 crisis. Looking for generalizations. *International Journal of Management and Economics*, *50*(1), 63-81.
Grant, R. M. (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *Knowledge and Strategy*, *33*(3), 3-23.
Grigoryan, A. (2016). The ruling bargain: sovereign wealth funds in elite-dominated societies. *Economics of Governance*, *17*(2), 165-184.
Gunton, T. (2003). Natural resources and regional development: an assessment of dependency and comparative advantage paradigms. *Economic Geography*, *79*(1), 67-94.
Hunt, D. S., & Morgan, R. M. (1995). The comparative advantage theory of competition. *Journal of Marketing*, *59*(2), 1-15.
IMD (2015). IMD World Competitiveness Center. <http://www.imd.org/wcc/>
Johan, S. A., Knill, A., & Mauck, N. (2013). Determinants of sovereign wealth fund investment in private equity vs public equity. *Journal of International Business Studies*, *44*(2), 155–172.
Kamiński, T. (2017). Sovereign Wealth Fund investments in Europe as an instrument of Chinese energy policy. *Energy Policy*, *101*, 733-739.
Lane, P. R., & Milesi-Ferretti, G. M. (2001). The external wealth of nations: measures of foreign assets and liabilities for industrial and developing countries. *Journal of International Economics*, *55*(2), 263-294.
Lane, P. R., & Milesi-Ferretti, G. M. (2007). The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970-2004. *Journal of International Economics*, *73*(2), 223-250.
Leacock, S. (1935). What is left of Adam Smith?. *Canadian Journal of Economics and Political Science*, *1*(1), 41-51.
Li, M. H., Cui, L., & Lu, J. (2014). Varieties in state capitalism: Outward FDI strategies of central and local state-owned enterprises from emerging economy countries. *Journal of International Business Studies*, *45*(8), 980-1004.
Lin, J. Y. (2016). Will china continue to be the engine of growth in the world. *Journal of Policy Modeling*, *38*(4), 683-692.
Liang, H., Ren, B., & Sun, S. L. (2015). An anatomy of state control in the globalization of state-owned enterprises. *Journal of International Business Studies*, *46*(2), 223-240.
Liedtke, S. (2017). Chinese energy investments in Europe: An analysis of policy drivers and approaches. *Energy Policy*, *101*, 659-669.
Markusen, J. R. (1995). The boundaries of multinational enterprises and the theory of international trade. *Journal of Economic Perspectives*, *9*(2), 169-189.

Marquis, C., & Raynard, M. (2015). Institutional strategies in emerging markets. *Academy of Management Annals*, *9*(1), 291-335.
Martinez-Oviedo, R., & Medda, F. (2017). Assessing the effects of adding timberland and farmland into resource-based Sovereign Wealth Fund portfolios. *Journal of Economics and Business*, *91*, 24-40.
Megginson, W. L., & Fotak, V. (2015). Rise of the fiduciary state: A survey of sovereign wealth fund research. *Journal of Economic Surveys*, *29*(4), 733-778.
Megginson, W. L., You, M., & Han, L. (2013). Determinants of sovereign wealth fund cross-border investments. *Financial Review*, *48*(4), 539-572.
Meyer, K. E., & Peng, M. W. (2016). Theoretical foundations of emerging economy business research. *Journal of International Business Studies*, *47*(1), 3-22.
Monk, A. (2009). Recasting the sovereign wealth fund debate: trust, legitimacy, and governance. *New Political Economy*, *14*(4), 451-468.
Murtinu, S., & Scalera, V. G. (2016). Sovereign wealth funds' internationalization strategies: the use of investment vehicles. *Journal of International Management*, *22*(3), 249-264.
Musacchio, A., & Lazzarini, S. G. (2014). *Reinventing State Capitalism*. Cambridge, MA: Harvard University Press.
Neary, J. P. (2007). Cross-border mergers as instruments of comparative advantage. *Review of Economic Studies*, *74*(4), 1229-1257.
North, D. C. (1991). Institutions. *Journal of Economic Perspectives*, *5*(1), 97-112.
Pagel, M., & Mace, R. (2004). The cultural wealth of nations. *Nature*, *428*(6980), 275-278.
Peng, M. W. (2003). Institutional transitions and strategic choices. *Academy of Management Review*, *28*(2), 275-296.
Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. *Strategic Management Journal*, *14*(3), 179-191.
Porter, M. E. (1980). *Competitive Strategy*. New York: The Free Press.
Porter, M. E. (1990). *The Competitive Advantage of Nations*. London: Macmillan.
Posner, R. A. (1974). Theories of economic regulation. *Bell Journal of Economics and Management Science*, *5*(2), 335-358.
Putniņš, T. J. (2015). Economics of state-owned enterprises. *International Journal of Public Administration*, *38*(11), 815-832.
Reich, R. B. (1991). What is a nation?. *Political Science Quarterly*, *106*(2), 193-209.
Ricardo, D. (1973) [1817]. *Principles of Political Economy and Taxation*. London: Dent.
Rose, P. (2009). Sovereign wealth fund investment in the shadow of regulation and politics. *Georgetown Journal of International Law*, *40*(4), 1207–1239.
Rozanov, A. (2005). Who holds the wealth of nations. *Central Banking Journal*, *15*(4), 52-57.
Ruffin, R. (2002). David Ricardo's discovery of comparative advantage. *History of Political Economy*, *34*(4), 727-748.
Siggel, E. (2006). International competitiveness and comparative advantage: a survey and a proposal for measurement. *Journal of Industry, Competition and Trade*, *6*(2), 137-159.
Smith, A. (1976) [1776]. *An Inquiry into the Nature and Causes of the Wealth of Nations*. In: R. H. Campbell, A. S. Skinner, & W. B. Todd (Eds), Volume II of The Glasgow Edition of the Works and Correspondence of Adam Smith. Oxford: Clarendon Press/OUP.
Stigler, G. J. (1971). The theory of economic regulation. *Bell Journal of Economics and Management Science*, *2*(1), 3-21.
Stiglitz, J. E. (2004). Globalization and growth in emerging markets. *Journal of Policy Modeling*, *26*(4), 465-484.
Stiglitz, J. E. (2016). An agenda for sustainable and inclusive growth for emerging markets. *Journal of Policy Modeling*, *38*(4), 693-710.
Sun, X., Li, J., Wang, Y., & Clark, W. W. (2014). China's Sovereign Wealth Fund Investments in overseas energy: The energy security perspective. *Energy Policy*, *65*, 654-661.
SWFI (2017). Sovereign Wealth Fund Institute. <http://www.swfinstitute.org/>
Thomas, S., & Chen, J. (2011). China's Sovereign Wealth Funds: origins, development, and future roles. *Journal of Contemporary China*, 20(70), 467-478.

Torstensson, J. (1998). Country size and comparative advantage: an empirical study. *Weltwirtschaftliches Archiv, 134*(4), 590-611.
Van Den Bremer, T., van der Ploeg, F., & Wills, S. (2016). The elephant in the ground: managing oil and sovereign wealth. *European Economic Review*, *82*, 113-131.
Wang, D., & Li, Q. (2016). Democracy, Veto Player, and Institutionalization of Sovereign Wealth Funds. *International Interactions*, *42*(3), 377-400.
Warr, P. G. (1994). Comparative and competitive advantage. *Asian-Pacific Economic Literature*, *8*(2), 1-14.
WEF (2015). *The Global Competitiveness Report 2015-2016*. The World Economic Forum, Geneva, Switzerland. <http://www.weforum.org/gcr>
Weston, J. F., Chung, K. S., & Hoag, S. E. (1990). *Mergers, Restructuring and Corporate Control*. New Jersey: Prentice-Hall.
WIR (2008). *World Investment Report: Transnational Corporations and the Infrastructure Challenge*. New York and Geneva: United Nations Publications.
WIR (2010). *World Investment Report: Investing in Low-carbon Economy*. New York and Geneva: United Nations Publications.
WIR (2011). *World Investment Report: Non-Equity Modes of International Production and Development*. New York and Geneva: United Nations Publications.
WIR (2012). *World Investment Report: Towards A New Generation of Investment Policies*. New York and Geneva: United Nations Publications.
WIR (2013). *World Investment Report: Global Value Chains – Investment and Trade for Development*. New York and Geneva: United Nations Publications.
WIR (2014). *World Investment Report: Investing in the SDGs: An Action Plan*. New York and Geneva: United Nations Publications.
WIR (2015). *World Investment Report: Reforming International Investment Governance*. New York and Geneva: United Nations Publications.
World Bank (2015). *Doing Business Report 2016*. Washington D.C.: The World Bank Publication.
Wynne, J. (2005). Wealth as a determinant of comparative advantage. *American Economic Review*, *95*(1), 226-254.
Xie, E., Reddy, K. S., & Liang, J. (2017). Country-specific determinants of cross-border mergers and acquisitions: A comprehensive review and future research directions. *Journal of World Business*, *52*(2), 127-183.

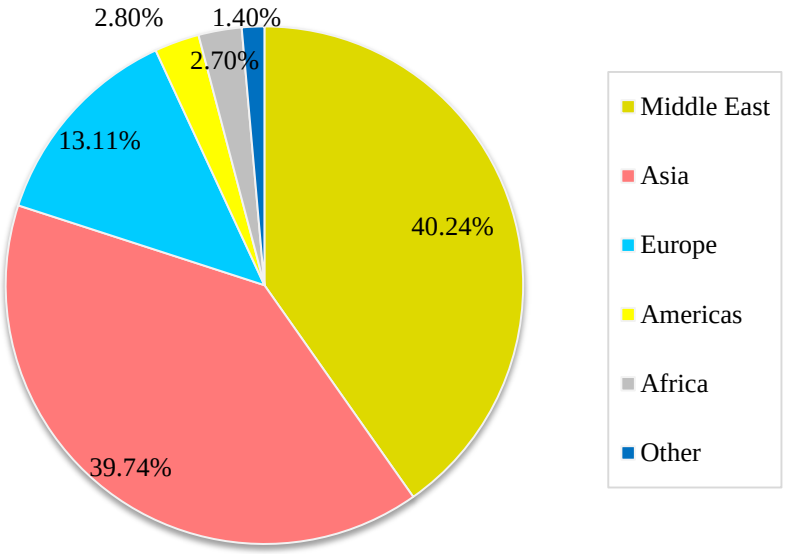

Figure 1. The market for sovereign wealth funds: proportion of source regions
Source: Authors draw based on data accessed from the SWFI (as of June 2015).

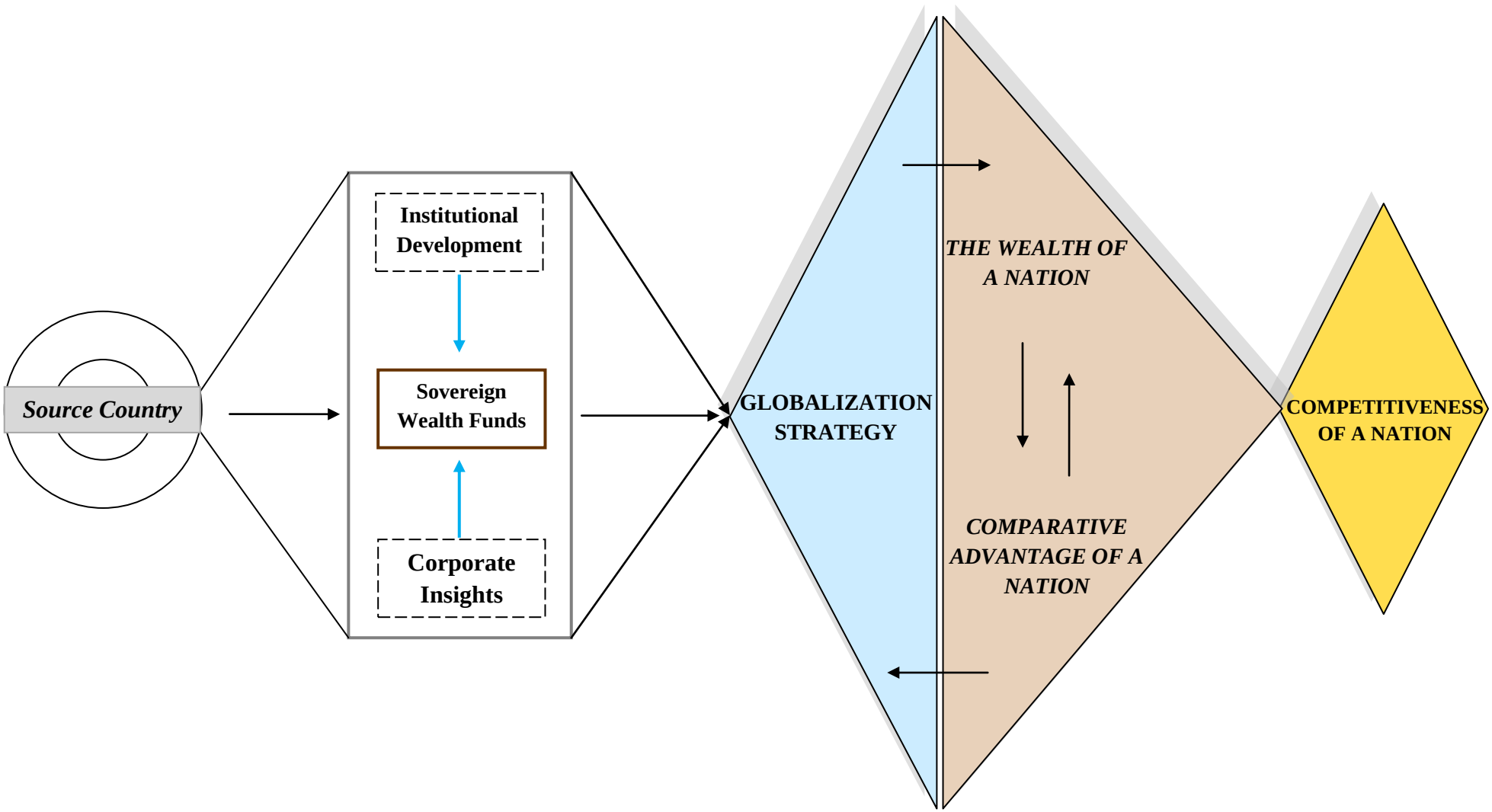

Figure 2. A contemporary view of the globalization of SWFs

Table 1. Top 20 largest SWFs in the world, position in 2007 and 2017

Position in 2017	Position in 2007	Fund	Home country	Origin	Establishment	Assets Under Management in 2007 (US$ billion)	Assets Under Management in 2017 (US$ billion)
1	2	Government Pension Fund-Global (GPF-G)	Norway	Oil	1990	373	922.11
2	1	Abu Dhabi Investment Authority (ADIA)	UAE	Oil	1976	500-875	828
3	9	China Investment Corporation (CIC)	China	Non-Commodity	2007	200	813.8
4	7	Kuwait Investment Authority (KIA)	Kuwait	Oil	1953	250	592
5	4	Saudi Arabia Monetary Authority foreign holdings	Saudi Arabia	Oil	1952	327	514
6	10	Hong Kong Monetary Authority (HKMA)-Exchange Fund	Hong Kong, China	Non-Commodity	1993	163	456.6
7	6	State Administration of Foreign Exchange (SAFE)	China	Non-Commodity	1997	311	441
8	3	Government of Singapore Investment Corporation (GIC)	Singapore	Non-Commodity	1981	330	350
9	-	Qatar Investment Authority	Qatar	Oil	2005	-	335
10	-	National Social Security Fund	China	Non-Commodity	2000	-	295
11	15	Investment Corporation of Dubai	UAE	Non-Commodity	2006	82	200.5
12	11	Temasek Holdings	Singapore	Non-Commodity	1974	160	180
13	-	Public Investment Fund	Saudi Arabia	Oil	2008	-	183
14	-	Mubadala Investment Company	UAE	Oil	2002	-	125
15	-	Abu Dhabi Investment Council	UAE	Oil	2007	-	110
16	-	Korea Investment Corporation	South Korea	Non-Commodity	2005	-	108
17	-	Australian Future Fund	Australia	Non-Commodity	2006	-	91.1
18	-	National Welfare Fund	Russia	Oil	2008	-	72.2
19	-	Libyan Investment Authority	Libya	Oil	2006	-	66
20	-	Kazakhstan National Fund	Kazakhstan	Oil	2000	-	64.7

Source: Authors compiled from WIR (2008) and SWFI (as of March 2017; accessed 20 April 2017).

Table 2. FDI by SWFs (cumulative flows): Host region share

Region/country	2005 (US$ bn)	2006 (US$ bn)	2007 (US$ bn)	2008 (US$ bn)	2009 (US$ bn)	2010 (US$ bn)	2011 (US$ bn)	Share (%)	Post-crisis effect (2011-2006) (US$ bn)
World	11.19	19.01	39.67	63.09	93.48	106.53	125.15	-	106.15
Developed economies	5.74	12.58	26.57	38.35	62.02	71.72	84.35	67.39	71.76
Europe	4.39	9.44	17.78	23.43	39.08	42.15	53.14	42.46	43.71
USA	0.13	1.93	5.79	10.21	10.34	12.01	14.03	11.21	12.10
Developing economies	5.45	6.42	12.93	23.54	29.28	31.21	35.87	28.66	29.45
Africa	0.90	0.90	1.30	7.56	7.56	8.97	11.42	9.12	10.52
Latin America and the Caribbean	0.23	0.23	1.15	1.22	1.29	1.70	3.12	2.49	2.89
East and South-East Asia	4.28	5.04	5.27	7.37	9.85	9.93	10.72	8.57	5.68
South Asia	0.04	0.14	1.09	1.21	1.24	1.27	1.27	1.01	1.13
West Asia	-	0.11	4.11	6.19	9.34	9.34	9.34	7.47	9.23
Transition economies	-	-	0.17	1.19	2.18	3.60	3.94	3.15	3.94

Source: Authors compiled from the UNCTAD's FDI Stat/WIRs.

Table 3. FDI by SWFs (cumulative flows): Industry portfolio

Sector/Industry	2005 (US$ bn)	2006 (US$ bn)	2007 (US$ bn)	2008 (US$ bn)	2009 (US$ bn)	2010 (US$ bn)	2011 (US$ bn)	Share (%)	Post-crisis effect (2011-2006) (US$ bn)
Total industry	11.19	19.01	39.67	63.09	93.48	106.53	125.15	-	106.15
Primary	1.17	1.51	1.68	3.06	9.65	10.95	11.90	9.51	10.39
Manufacturing	3.11	4.37	10.68	16.36	30.12	31.47	31.59	25.24	27.23
Services	6.90	13.12	27.32	43.67	53.71	64.12	81.66	65.25	68.54
Mining, quarrying and petroleum	1.17	1.51	1.51	2.89	9.48	10.78	11.73	9.37	10.22
Coke, petroleum and nuclear fuel	0.00	0.00	5.15	10.25	13.45	13.46	13.46	10.75	13.46
Chemicals and chemical products	2.80	2.80	2.80	2.80	3.30	4.64	4.77	3.81	1.97
Electricity, gas and water	1.40	1.40	2.32	2.32	2.53	4.11	8.79	7.02	7.39
Construction	0.02	0.02	0.02	2.74	3.99	5.23	13.08	10.45	13.06
Transport, storage and communications	0.01	0.30	3.20	3.50	3.65	4.53	6.28	5.02	5.98
Finance	0.75	1.30	4.17	14.88	15.20	18.67	19.60	15.66	18.30
Real estate	2.70	5.99	8.87	9.98	12.00	12.29	13.89	11.10	7.90

Source: Authors compiled from the UNCTAD's FDI Stat/WIRs.

Table 4. Selected large- and medium-scale FDI deals by SWFs

Fund	Home country	Target firm/asset	Host country	Industry	Value (US$ billion)	Year
Queensland Investment Corp	Australia	Merry Hill	UK	Operators of non-residential buildings	1.03	2006
Canada Pension Plan Investment Board	Canada	Intoll Group	Australia	Finance	3.09	2010
		407 ETR Concession	Canada	Transport, storage and communications	0.88	2010
Ontario Teachers' Pension Plan	Canada	Camelot Group PLC	UK	Community, social and personal service activities	0.58	2010
China Investment Corporation (CIC)	China	AES Corp	USA	Electricity, gas and water	1.58	2010
		Penn West Energy Trust	Canada	Mining, quarrying and petroleum	0.80	2010
Qatar Holding LLC	Qatar	Harrods	UK	Retail	2.23	2010
Government of Singapore Investment Corporation (GIC)	Singapore	Chapterhouse Holdings Ltd	UK	Real estate investment trusts	0.95	2007
		Hawks Town Corp	Japan	Department stores	0.86	2007
		Capital Shopping Centres	UK	Operators of non-residential buildings	0.82	2007
		WestQuay Shopping Center	UK	Operators of non-residential buildings	0.61	2007
		Westfield Parramatta	Australia	Operators of non-residential buildings	0.60	2007
		Bluewater Shopping Centre	UK	Operators of non-residential buildings	0.59	2005
		30 Gresham Street	UK	Operators of apartment buildings	0.52	2005
		InterContinental Chicago	USA	Hotels and motels	0.45	2007
		Seoul Finance Centre(Yoojin Tourist)	Korea	Operators of non-residential buildings	0.40	2000
Temasek Holdings	Singapore	E Sun Financial Holding Co Ltd	Taiwan	Banks	0.40	2006
		Odebrecht Oleo & Gas SA	Brazil	Mining, quarrying and petroleum	0.40	2010
International Petroleum Investment Corporation (IPIC)	UAE	Kuokwang Petrochemical	Taiwan	Industrial organic chemicals	2.36	2005
Investment Corporation of Dubai	UAE	Tunisie-Telecoms	Tunisia	Telephone communications	2.31	2006
Abu Dhabi Investment Authority (ADIA)	UAE	Borealis A/S	Denmark	Plastics materials and synthetic resins	1.69	2005
Dubai International Capital LLC	UAE	Tussauds Group Ltd	UK	Amusement and recreation services	1.49	2005
		Travelodge Hotels	UK	Hotels and motels	1.27	2006
		Doncasters PLC	UK	Aircraft parts, equipment	1.24	2006
		Mauser AG	Germany	Plastic foam products	1.16	2007
Dubai Ports International	UAE	CSX World Terminals LLC	USA	Marine cargo handling	1.22	2005
Istithmar PJSC	UAE	280 Park Ave,New	USA	Operators of non-	1.20	2006

		York,NY		residential buildings		
		Barneys New York	USA	Men's and boys' clothing and accessory stores	0.94	2007
		Adelphi	UK	Operators of non-residential buildings	0.59	2006
		Undisclosed Business Parks	UK	Real estate agents and managers	0.39	2007
Dubai Financial LLC	UAE	Bank Muscat	Oman	Banks	0.62	2007
		Marfin Investment Group Holdings	Greece	Security brokers, dealers and flotation companies	0.49	2006
DIFC Investments LLC	UAE	SmartStream Technologies Ltd	UK	Prepackaged software	0.41	2007
Dubai Drydocks World LLC	UAE	Pan-United Marine Ltd	Singapore	Shipbuilding and repair	0.39	2007

Source: Authors compiled from UNCTAD's FDI Stat and WIRs released in various years.