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## Pot the ball? Sovereign wealth funds' outward FDI in times of global financial market turbulence: A yield institutions-based view

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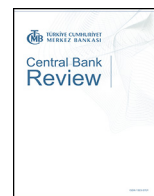
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# Pot the ball? Sovereign wealth funds' outward FDI in times of global financial market turbulence: A *yield* institutions-based view

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## ABSTRACT

Noticing the visible hand of state capitalism in global production and value chain system, this study examines the outward foreign direct investment strategy of sovereign wealth funds (SWFs). Leveraging theoretical insights from the conventional political economy and international business literature, the study first conceptualizes a *yield* institutions-based view—marketization to sustainable competitive advantage—to gain a better understanding of the main purposes and economic and institutional determinants of SWFs. Efforts have been made to deepen the institutions-based perspective of global strategy and introduce it into, establish its relevance to SWFs research. Second, the study presents SWFs' outward FDI patterns and acquisition deals in times of global financial market turbulence. Findings suggest that SWFs' outward FDI choices are primarily determined by institutional transitions, market development and government legitimacy in the home country, thus to invest globally, earn higher economic returns, and secure resources. These choices are firmly motivated toward advanced financial markets, and real estate and infrastructure sectors. Third and last, the study discusses several important implications for state capitalism, policymakers, and sustainable development.

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## 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). In view of this, scholars have proposed that economic regulations, institutional framework, industry openness and international relations significantly affect business enterprises and economic output of the country (Stigler, 1971; Posner, 1974; North, 1990). Specifically, geopolitical institutions, government legitimacy, and regional trade markets have become important driving forces of the New World Business (*New Normal*) since the epidemic of the 2007–2009 global financial crisis, in which these external forces have a huge impact on sustainable and inclusive growth of the economy (Stiglitz, 2016). According to the Financial Crises Inquiry Commission of the United States of America (FCIC, 2011), lack of transparency, risky investments, and excessive borrowing have largely polluted the banking and financial system

and fuelled the housing bubble eventually. At that time, market regulators have failed in their fiduciary duty to rein in risky home mortgage lending; the “misaligned incentives, fraud and a fragmented regulatory structure” (Thakor, 2015, p. 199). Several empirical researches report that because financial disturbances tend to spread from one country to others (contagion effect: Allen and Gale, 2000), the crises has had a serious effect on the global business environment as well as on capital flows across the world. These detrimental effects of the crises are similar to their ancestors in the U.S. economy (Shachmurove, 2011) and in various eras of the crises around the globe, for example, Spain in 1977 and Japan in 1992 (Reinhart and Rogoff, 2008). Nevertheless, the effects of the crises on development indicators differ from country to country due to the institutional emergency, crisis remedy assistance, government guarantees, and bailouts (see Adrian et al., 2018; Benmelech et al., 2019; King, 2019; Rao and Reddy, 2015; Yuksel, 2016).

The integration of regional financial markets, the connectivity and closeness between international banking and financial institutions (Bekaert and Mehli, 2019; Kenç et al., 2016; Warin and

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Sanger, 2018), bilateral trade agreements between large exporting and importing countries (Markusen, 1995), and the market-enabling institutional transitions in and favorable government support by emerging economies (Marquis and Raynard, 2015; Meyer and Peng, 2016; Peng, 2003) have influential ramifications for the foreign market entry strategy of multinational enterprises (MNEs; Xie et al., 2017). Per the United Nations Conference on Trade and Development, MNEs have substantially contributed to global production volume by nearly US\$8 trillion and their foreign subsidiaries have employed about 75 million people, as of 2014. Importantly, MNEs' contribution to government budgets was estimated to be US\$730 billion annually (WIR, 2015). These firms indeed account for more than 10% of global GDP and one-third of world exports (WIR, 2011).<sup>1</sup> To diversify internationally, MNEs have been chosen mergers and acquisitions (M&A) as a strategic growth option than traditional greenfield investment during the past decade, particularly those originating from emerging economies such as China, India, Russia, and Brazil (WIR, 2013; Reddy et al., 2016).

By corroborating with accessible literature on the motives and determinants of outward FDI and cross-border acquisitions by emerging economy MNEs, a closer look at these investment flows around the outbreak of the recent financial crisis tells a new, interesting phenomenon of the internationalization, that is, the visible hand of state capitalism in emerging and frontier markets—state-owned enterprises and sovereign wealth funds (The Economist, 2012; Bernstein et al., 2013; Bruton et al., 2015). In short, state-owned enterprises are wholly or partly set up by the government to accomplish business goals, fulfill market needs and correct market failures,<sup>2</sup> whereas sovereign wealth funds (SWFs) are special-purpose financial institutions created by the government from country's economic surpluses to manage the accumulated funds through investing in development projects at home and abroad, unlike banks, insurance, and mutual funds do. There are more than 100 SWFs from developed countries (e.g., Norway), emerging economies (e.g., China) and frontier markets (e.g., UAE) with more than US\$7 trillion worth of assets under management; accounted for 10% of world's total assets; invested nearly US\$16 billion in various outward FDI projects, as of 2014 (WIR, 2015). These numbers unveil the rise of state capitalism and hence, SWFs' outward FDI flows have significant impacts on the mechanism and governance of global financial markets.

In recent years, there is growing academic research interest in government relations, state capitalism and globalization (e.g., Bruton et al., 2015; Clark et al., 2013; Eldredge, 2019; Musacchio and Lazzarini, 2014). A critical survey of these studies, including the suggestions discussed by literature reviews of cross-border M&As (Xie et al., 2017) as well as SWFs (Alhashel, 2015; Megginson and Fotak, 2015; Cumming et al., 2017), which calls for the advancement of theory-driven research in SWFs' outward investments and performance. In light of the above considerations, Fig. 1 encapsulates research direction of the study and research phenomenon of SWFs.

<sup>1</sup> It is noticed that 'for the first time, developing and transition economies together attracted more than half of global foreign direct investment flows' (WIR, 2011), and their share to be a 57% in 2018 (calculated from WIR, 2019).

<sup>2</sup> Though state-owned MNEs account for less than one percent of world MNEs, they still contribute approximately 11% of global FDI flows. As of 2013, there are at least 550 state-owned MNEs with more than 15000 foreign subsidiaries operations, with roughly US\$2 trillion worth of foreign assets and with more than US\$160 billion worth of global FDI flows (WIR, 2014). Remarkably, four of the top ten 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; Forbes, 2019).

If SWFs' outward FDI had remained an astute manager's strategy (pot the ball) in times of global financial market turbulence and is, therefore, a central question in the research context. Drawing upon theoretical insights from the political economy and international business literature, this study proposes a *yield* institutions-based view to further academic knowledge on the global investment strategy of SWFs. Then, it 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, data relating to foreign investment deals were collected from the UNCTADStat and other reliable archival sources. Findings underline that SWFs from Asia, the Middle East, and Europe have announced several diversified and sustainable FDI projects in both developed and developing economies. SWFs' foreign investment choices are firmly motivated toward developed financial markets, real estate, and infrastructure sectors. These funds continue to invest in public utility projects such as electricity and water. In so doing, this study fairly differs from extant researches on SWFs (e.g., Clark et al., 2013; Cumming et al., 2017) and contributes to the contemporary institutions-based view literature on state capitalism and the determinants of outward FDI, and offers a number of suggestions for government and fund managers. These implications are discussed in more detail towards the end of the paper.

## 2. Theoretical background and conceptualization

### 2.1. The nature of the organization and institutional theory

Theoretical foundations of the firm are established in the economics literature. According to Coase (1937, p. 398), "a firm is legally existed based on formal relationship ... centralization of deciding and controlling functions with regard to production volumes ... based on two assumptions, namely resources are allocated by means of the price mechanism and the resources allocation is dependent on entrepreneur". These are primarily grounded in the industrial organization theory, which emphasizes the production function in order to maintain efficiency and productivity using basic resources such as land, labor, capital, and machine (Vernon, 1966). Through the industrial revolution and global economic integration, both the quantity and quality of the production function have been greatly shaped by firm-level and country-level factors. Given the nature of capital flows across borders, Hymer (1976) argues that "direct investment belongs more to the theory of industrial organization than to the theory of capital movements" (cf. Wilkins, 2015). Although direct investment in a foreign firm relates to the industrial organization, it has considerable effects on the balance of payments theory (Caves, 1971).

According to institutional economics and sociology literature, both the formal (book of the law, i.e., regulative) and informal institutions (normative and cognitive) 'structure human interaction' (North, 1990), and 'offer stability and meaning to social life' (Scott, 2001). Thus, it is a vibrant, popular, and powerful theory to study both individual and organizational results (Dacin et al., 2002). By integrating resource-based theory (Barney, 1991: the possession of resources and capabilities can enable the focal firm to earn super-normal profits and gain a sustained competitive advantage) and institutional theory, Oliver (1997) suggests the institutional context of resource decisions affect the likelihood of firms' economic rents and competitive advantage. Taking it forward, Peng et al. (2008) propose the institutions-based view of international business organizations—three dimensions of the institutional framework, together with resource-based and industry-based views influence the firm's strategic choices and performance.

Another strand of studies describes that governments not only

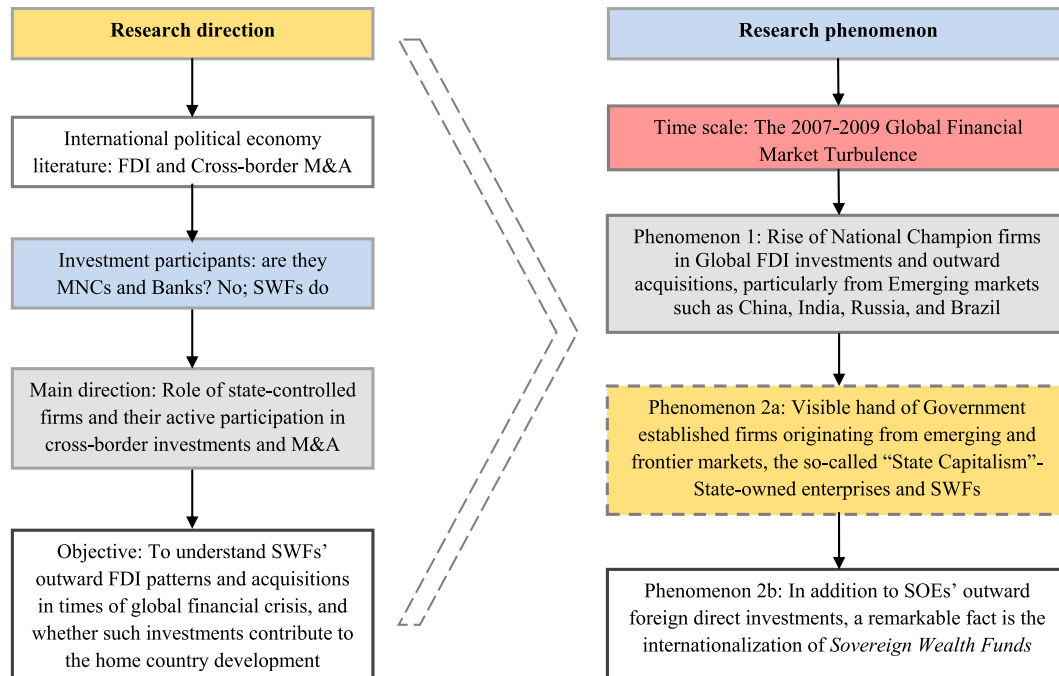


Fig. 1. Research direction of the study and research phenomenon of SWFs.

create welfare policies and establish public organizations but also intervene in the trade to correct market failures and demonstrate the public choice (Stigler, 1971; Posner, 1974; Putniņš, 2015). In the era of globalization, governments are actively engaging in cross-border trade and capital flows and promoting local firms through capacity-building, technical assistance, and investment backing schemes to enhance the quality of large-scale investments (WIR, 2012). Therefore, it is important to understand the factors influencing SWFs' outward FDI strategy.

## 2.2. Formal institutions and state-owned enterprises

First of all, state-owned enterprises, by origin, are public assets of the country. Firms dominate in the mining, oil and gas, heavy industries, public utilities, and defense sectors are mainly governed by the principle of objective-based legislation rather than rule-based legislation, in order to improve the economic result and social welfare of the country (Dworkin, 1977). Extant literature suggests different perspectives on the government's powers and interventions. The foremost principle, the government is a legal representative of the nation (Glassman, 1999). In other words, the government itself is a constitutional body for administering the economic and regulatory powers (Posner, 1974; Stigler, 1971). More pragmatically,

the government is an independent statute, legal architecture, and public portico of national citizens, which ultimately gained legitimacy through achieving national goals such as general public welfare and prosperity.<sup>3</sup>

Thus, the government defines and enacts the formal institutional framework, which includes not only the rules of the game (North, 1990; Peng, 2003) but also the principles of the administration (Dworkin, 1977). 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; Keç et al., 2016; see Chinese economy by Lin, 2016; Allen et al., 2017; Bruton et al., 2019). Major factors affecting the institutional development of the economy 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).

To maintain the open economic system and balanced economic growth in emerging economies such as China, regulatory agencies often intervene in the business and industry to solve not just trade market problems through policy remedies but also provide timely assistance to entrepreneurs in achieving national aspirations such as outward FDI strategy (Reddy and Xie, 2017; Xie et al., 2017). Therefore, the country's political systems and formal institutional guidelines encompassing the rules, regulations, and principles have greater impacts on SWFs' strategic investment choices in domestic and international markets.

## 2.3. The changing role of government: marketization to sustainable competitive advantage

Because state-owned enterprises are created by the formal institutional system of the country, public officials appointed by the government, therefore, have powers vested to manage government budgets which allocated to these enterprises (Bruton et al., 2015; Clark et al., 2013). If government purposes 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 (Putniņš, 2015). In the context, the government not only coordinates and controls the market functioning activities but also achieves the economic performance of the country. Note that unless holding a majority or minority ownership in business organizations, it is intricate to assess the

<sup>3</sup> Author's emphasis.

actual performance of the product or industry and correct any market failures in the long-run. It is because of the fact that direct control or involvement in the market functioning activities provides the government with a centralistic model of the real-world business experience. Besides accomplishing the general welfare and social goals, these operational experiences would help the government to corporatize large-scale public firms in order to gain higher economic returns from local and global markets (Aivazian et al., 2005). However, although bureaucrats and professional managers formulate and navigate state-owned enterprises' strategic choices, they are greatly influenced by government legitimacy or ruling political party ministerial orders (Li et al., 2014).

State-owned enterprises and private enterprises tend to adopt various investment strategies in order to achieve government budget estimations and shareholders expectations, respectively. As comparative economics perspective explains that international trade matrix and trade liberalization trigger the amount of foreign exchange reserves and cross-border capital flows, Neary (2007) suggests cross-border merger/acquisition choice will act as an important economic instrument of the home country's competitive advantage. A merger/acquisition not only offers immediate ownership control over the resources of the target firm and improve acquiring firm's financial performance and degree of geographic diversification but also bring advanced technology, resources, and global brands to the home country (Peng, 2017; Xie et al., 2017). For example, state-owned enterprises of China have engaged in outward FDI deals to not only secure scarce natural resources for their home country but also acquire industry-specific strategic assets like advanced technology and access to developed financial markets (Amighini et al., 2013; Reddy et al., 2016). Since acquisitions help firms to achieve a higher competitive advantage over their rivals, they, in turn, contribute to the home country's competitiveness (Porter, 1990), such as total factor productivity measured by global competitiveness index of the World Economic Forum (WEF, 2015). In addition, cross-country differences in technology generate incentives for bilateral mergers under Cournot competition (Neary, 2007), and institutional spillovers cultivated through the globalization of state-owned enterprises may help the government to improve and harmonize the institutional environment in the home country so as to strengthen the competitiveness (Demir, 2016).

#### 2.4. A brief summary of the literature on SWFs

Using firm-level, multitheoretical frameworks, a handful collection of recent studies, including journal articles and handbooks have examined 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). Akin to state-owned enterprises of the oil, gas and mining industry, SWFs tend to make investments in target countries that possess developed capital markets, higher levels of economic freedom and higher degrees of investor protection, and prefer to invest in large-scale infrastructure projects to not only procure natural resources for fulfilling their home country demands but also build better cross-country relations with and engage in the economic development of the host country (e.g., Aguilera et al., 2016; Aizenman and Glick, 2008; Bernstein et al., 2013; Ciarlone and Miceli, 2016; Martinez-Oviedo and Medda, 2017; Megginson et al., 2013; Van Den Bremer et al., 2016).

From the political science and international relations lens, scholars have debated what are political concerns, governance

issues, and transparency of the outward investment deals announced by state-owned MNEs and SWFs and hence, the views are mixed (e.g., Calluzzo et al., 2017; De Bellis, 2011; Hooijmaaijers, 2019; Monk, 2009; Tingley et al., 2015; Wang and Li, 2016).<sup>4</sup>

#### 2.5. A yield institutions-based view of SWFs' outward FDI strategy

In the spirit of learning from all of the above researches, the study goes one step further from the point where the existing literature on SWFs is (e.g., Cumming et al., 2017;<sup>5</sup> Eldredge, 2019; Megginson and Gao, 2019), and suggests a *yield* institutions-based view<sup>6</sup> of SWFs' global strategy to deepen the knowledge on the formal institutions, changing role of government, state capitalism, outward investments, and national competitive advantage (see Fig. 2). The original perspective of Peng's institutions-based view (Peng et al., 2008) has widely been considered to examine diverse areas of strategic management and international business, including the emerging market multinationals and state-owned MNEs (Bruton et al., 2015). Inspired by theorists, this study attempts to extend Peng's view (broadly institutional theory) and make it relevant to examine the SWF's strategies and performance.

There are two important aspects to this *yield* institutions-based view, namely influencing and resulting factors.

##### 2.5.1. Influencing factors

- Geopolitical systems and country-owned natural resources guide national governments to craft development strategies.
- Institutional funding such as economic surpluses that result from commodity exports and foreign exchange reserves and national reserves drive national governments to establish a special-purpose country fund, i.e., SWF.
- Through understanding domestic competitive forces that stem from the activities of local and foreign corporates/private equity funds in the home country, SWF leaders and managers may prefer to target not just domestic development projects but also short-term financial markets for extra margins, thus to raise overall fund performance.
- Institutional development that emerges from a series of progressive changes in financial markets and banking regulations, improved business conditions, and increasing levels of demand in the home country, coupled with institutional diplomacy such as cross-country relations are likely to encourage national governments and SWFs leaders to make long-term, large-scale investments in foreign countries, that is, SWFs' outward FDI strategy.

##### 2.5.2. Resulting factors

Because strategic choices of state-owned enterprises such as SWFs are mainly driven by factor market endowments and government legitimacy in the home country, SWFs' outward investments may likely help their home country government to *yield* the following benefits under a risk-free environment.

- (i) *Economic motives*. Earn higher economic returns through diversifying funds. This includes mainly objective goals, for example, the accumulated value of assets under management; fund performance; sequential investments.

<sup>4</sup> See also related studies on SWFs that cited in section 4 and section 5 of the paper.

<sup>5</sup> Many thanks are given to the referee for suggesting this reference.

<sup>6</sup> From the investment lens, the term '*yield*' is added (author's emphasis).

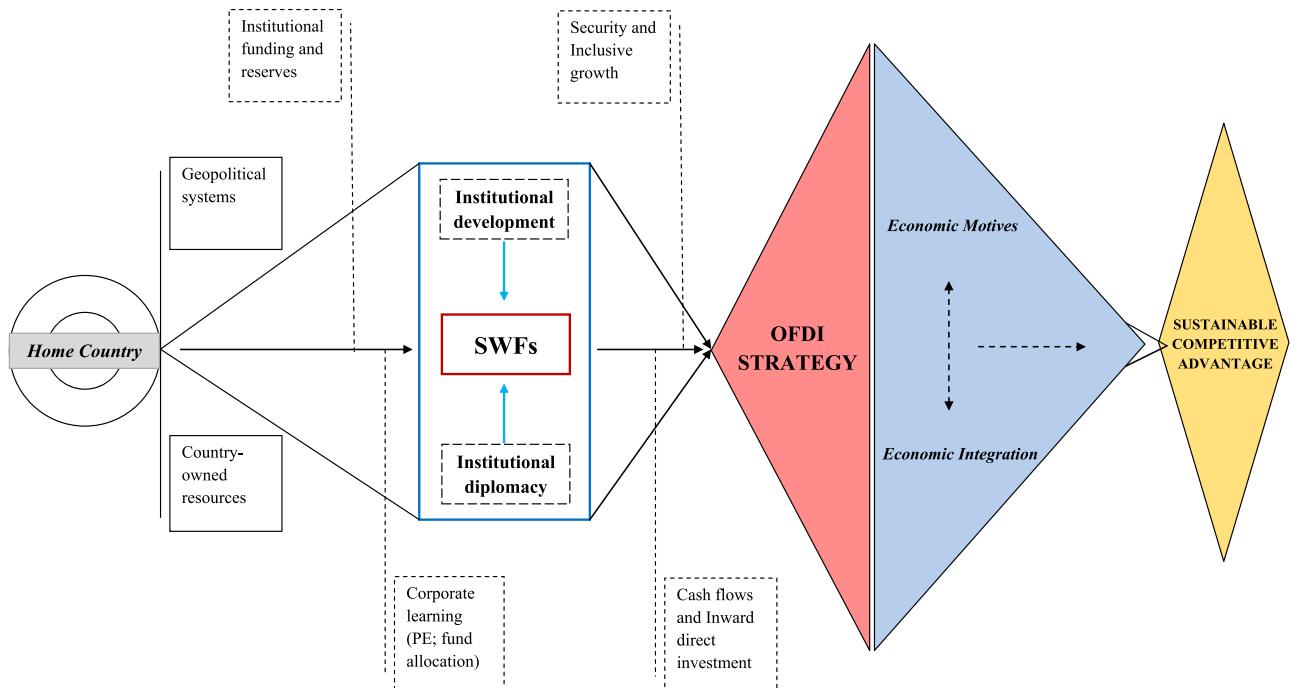


Fig. 2. A yield institutions-based view of SWFs' outward FDI strategy: marketization to sustainable competitive advantage.

- (ii) *Economic integration.* Promote bilateral trade relations and strategic partnerships with host countries. This includes both objective and subjective goals, for instance, China's Belt and Road Initiative; China's infrastructure development projects in Africa and Eurasia; preferential agreements; reciprocity.
- (iii) *Sustainable competitive advantage.* Gain competitive advantage economically, politically, and institutionally. This includes subjective as well as objective goals, for example, secure natural resources to meet home country demand; stable economic growth; competitiveness of the country; institutional progress; the political image of the country.

### 3. Sovereign wealth funds

#### 3.1. The purpose of establishing SWFs

Typically, federal banks manage the foreign exchange reserves and balance of payments. Depending on the economic conditions, several countries have created pension, social security and special-purpose funds to achieve economic and social development.

For Rozanov (2005, p. 52), an SWF is “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.”

According to *Sovereign Wealth Fund Institute (SWFI, 2017)*, an SWF is “a state-owned investment fund or entity that is commonly established from the balance of payments surpluses, official foreign currency operations, the proceeds of privatizations, governmental transfer payments, fiscal surpluses, and/or receipts resulting from resource exports”.

These funds 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 abnormal climate changes, establish cross-country geopolitical relations, etc. [Clark et al. \(2013\)](#)

describe that SWFs help the government to promote balanced and sustainable economic development by investing the country's surplus funds in both national and international asset portfolios. SWFs tend to take a higher risk by diversifying their portfolios 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](#)).

Based on high degrees of the trade and capital openness ([Eldredge, 2019](#)), large resource territories and oil-exporting regions such as the Gulf countries (e.g., UAE) and Western European countries (e.g., Norway) 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 instituted the Government Pension Fund Global in 1990. Through economic policy reforms of the globalization and knowledge transfer, emerging economies like China created several public funds in the 2000s to manage the country's foreign exchange reserves and domestic and foreign investments. For instance, SAFE Investment Company and China Investment Corporation (CIC) founded in 1997 and 2007, respectively. In 2010 alone, at least 20 countries considered to establish an SWF, particularly African and Eurasian nations. To note, Angola, Nigeria, and Ghana initiated an SWF with oil proceeds of US\$5 billion, US\$1 billion, and US\$500 million, respectively during 2012–2013 ([WIR, 2014](#)). According to SWFI, more than 40 new funds commenced during the period 2008–2012. With regard to the sources of finance, 57% of the assets under management emanate from oil and gas source SWFs and the remaining 43% of the assets come from non-commodity source SWFs ([SWFI, 2017](#)).

#### 3.2. The top 20 largest SWFs' by assets under management in 2007 and 2017

With respect to the total 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, followed by Europe to be 13% (see Fig. 3). 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 with US\$922 billion worth of assets under management, as of March 2017, in which the value of the assets 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 the ninth position in 2007 to the third position in 2017, in which the value of assets under management has 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 to be US\$5.5 trillion. Over the period 2008–2012, SWFs' total value of assets under management has been markedly increased by 59%.

#### 4. SWFs' outward FDI in times of global financial crisis

##### 4.1. Patterns of the outward FDI: host region and industry portfolio

Data pertaining to SWFs' outward FDI flows and case examples were compiled from the UNCTAD's FDI Stat and World Investment Reports released during the period 1991–2017.

Sovereign funds such as pension funds, social security funds, and wealth funds are products of the monetary policy. Because the magnitude of the global financial markets integration influences fund managers' investment portfolio diversification strategies, several SWFs have been expanded into developed and developing countries through greenfield investment and acquisition methods. Thus, this section shows the market patterns of SWF's FDI from two standpoints, namely the host region and industry portfolio (Tables 2 and 3). Data analysis is being cumulatively presented from 2005 through 2011, leading to 7 regions and 8 industries. By 2011, the world economy has recorded the cumulative FDI of US\$125 billion. A quick observation for the host-region FDI flows indicates that developed economies have attracted the highest value of FDI projects by

US\$84 billion, leading to 67% of the world economy, while developing economies have received nearly US\$36 billion (28%) and transition economies have received US\$4 billion (3%). At the region level, comparatively, European countries have attracted a large number of 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 the average investment of US\$10 billion each.

The services sector has received the large amount of FDI by US\$82 billion (65% of world share cumulatively), while manufacturing and primary sectors to be US\$31 billion and US\$12 billion, respectively. With regard to the industry, SWFs have made substantial investments in the banking and financial sector as well as in sustainable infrastructure development projects. For instance, industries such as *Finance* recorded the 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* more than US\$13 billion each (10%), and *Mining, quarrying and petroleum* over US\$11 billion (9%).

##### 4.2. Large- and medium-scale outward FDI/cross-border acquisitions

As interpreted in the previous section, SWFs are now the visible source of global FDI outflows, especially targeting the financial sector and large-scale infrastructure projects in advanced economies. Table 4 shows several large- and medium-scale FDI/M&A deals announced by SWFs. These funds have injected a considerable capital of US\$40 billion into various bankrupt and distressed financial institutions in the United States during the early stages of the financial crisis (Alhashel, 2015; Ciarlone and Miceli, 2016). 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, UAE's ADIA acquired some equity control in America's Citigroup for US\$7.5 billion, China's 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 (see also Table 4). Surprisingly, SWFs also have acquired some equity control in private equity and hedge funds in times of financial crisis (Bertoni and Lugo, 2014; Johan et al., 2013). To note, CIC bought a 9.9% equity stake in Blackstone, and ADIA acquired a 9% equity interest in Apollo. But despite heavy losses for other institutional investors around the crisis, SWFs that invest mainly in debt instruments (e.g., government bonds) have not significantly affected by the credit market defaults. It is found that 'SWFs asset value increased at an annual rate of 10%, compared with a 4% decline in the global banking assets' (WIR, 2012).

Notably, in 2014, Singapore-based Temasek Holdings acquired a 25% equity ownership in AS Watson Holdings (Hong Kong) for US\$5.7 billion, ADIA and GIC jointly bought office buildings in New York for US\$1.3 billion, and CIC purchased commercial places in London for more than US\$1 billion. In 2013, GIC and Kuwait's government company jointly bought several office buildings in London for approximately US\$2.5 billion, and CIC bought a 13% equity interest in Russia's industrial chemicals company Uralkaliy for US\$2 billion. Besides targeting low-risk, high-yield overseas projects, Asian SWFs also have invested in high-risk FDI projects in the African region. For instance, CIC acquired a 25% equity control in Shanduka Group (South Africa) for US\$250 million in 2011, and Temasek Holdings bought a 20% equity stake in gas fields in Tanzania for US\$1.3 billion in 2013 (compiled from WIR, 2013, 2014, 2015).

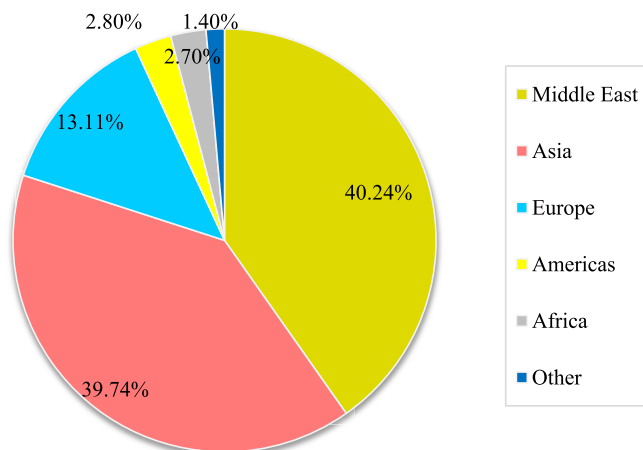


Fig. 3. The market for sovereign wealth funds: the proportion of source regions. Source: Drawn based on data accessed from the SWFI (as of June 2015; accessed 20 April 2017).

**Table 1**  
Top 20 largest SWFs in the world economy, positions 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 (SAMA) 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: Compiled/merged 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: Compiled from the UNCTAD's FDI Stat/WIRs; the last two columns were computed.

**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	–	–	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: Compiled from the UNCTAD's FDI Stat/WIRs; the last two columns were computed.



**Table 4**  
A few 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
Isthithar PJSC	UAE	280 Park Ave, New York, NY	USA	Operators of non-residential buildings	1.20	2006
		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
Dubai Financial LLC	UAE	Undisclosed Business Parks	UK	Real estate agents and managers	0.39	2007
		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: Compiled/merged from the UNCTAD's FDI Stat/WIRs.

## 5. Discussion and policy implications

### 5.1. Managerial interpretations

The study highlights key findings and offers some ideas for managers. First, although SWFs are typically created by monetary authorities to execute home country developmental projects, they have substantially diversified their investment portfolio by making a strategic entry into foreign markets through greenfield investment and acquisition methods. To note, the market for cross-border M&A deals by SWFs accounts for more than 80% of global FDI outflows during the period 2003–2014 (see also Table 4). The analysis reveals that a large proportion of the FDI has been flooded into developed economies, and mining, infrastructure, finance, and real estate sectors. Specifically, case examples underscore that Singapore's GIC, China's CIC, Norway's Government Pension Fund Global, UAE's ADIA, and Kuwait Investment Authority are vigorously investing in real estate, infrastructure projects, and natural resources sectors. Emerging economies' SWFs have been a major source of several large-scale FDI projects in the Americas and Europe. It is because of the fact that SWFs have taken advantage of the lower asset valuation of the target resources on the one hand, and rescued the effects of the crisis by acquiring significant equity stakes in financially distressed institutions in the United States on the other. By contrast, SWFs that invest in equity instruments have also incurred a considerable loss on the value of asset sales around

the economic recession in 2008 and 2009, compared with SWFs that invest in fixed-income and money market instruments (WIR, 2010). Therefore, SWFs tend to choose effective risk management strategies by allocating significant funds to developed financial markets as well as to diversified sectors such as real estate, banking and finance, infrastructure development, oil and gas, and coal mining.

Second, to establish better regulation and governance practices in banking and financial markets and enhance the competitiveness of the economy in a changing dynamics of the global business environment, emerging economy governments are now closely working with and learning from private enterprises, foreign investment banks, and private equity investors. Hence, SWFs have invested some proportion of their assets under management in private equity firms (Johan et al., 2013). In fact, 15–25% of European listed firms constitute SWFs as shareholders on their corporate boards (WIR, 2014). These corporate experiences will help SWFs to gain greater fund returns and acquire managerial expertise as well. As a result, in recent years SWFs' fund managers have been dramatically changed their traditional portfolio of the home country to international diversification investments of the sustainable FDI projects, with a view to not only minimize the equity portfolio risk but also improve the long-term sovereign returns and promote lasting international relations (see, for instance, Chinese SWFs' investments in the energy sector: Kamiński, 2017; Sun et al., 2014).

Third, the home country government supports and prior experience in overseas settings helps SWFs in their subsequent deals, though a master plan should be prepared to gain insight into host country's determinants, such as political, economic and institutional systems, geographical and resource security concerns, capital markets development, government intervention, and corporate involvement. Having a thorough knowledge of the demand-supply dynamics in the target industry and determinants of the foreign exchange market could ease the valuation of the target firm or target resource. This evaluation will help fund managers to minimize the valuation risk that may stem from the information asymmetry between the SWF and target firm. It is, therefore, anticipated that SWFs will soon set a new momentum in the global financial markets and the market for corporate acquisitions through collaborating with private equity investors, 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.

## 5.2. Policy recommendations

The study discusses several important implications for state capitalism and sustainable development. First, in the recent past, regulatory agencies and politicians of developed economies have raised numerous security issues, such as transparency and political influence on the fund management, fund returns and fund reporting of SWFs (Bahgat, 2008; Calluzzo et al., 2017; Cohen, 2009; De Bellis, 2011; Grigoryan, 2016; Hooijmaaijers, 2019; Monk, 2009; Rose, 2009; Wang and Li, 2016). It is because of the fact that state-owned enterprises including SWFs and government policies such as raw material and funds allocation are largely influenced by ruling political party representatives and large private conglomerates. This is generally true in the case of democratic countries like India (Li et al., 2014; Reddy et al., 2016). However, SWFs' globalization strategy cannot be simply seen from the direct government standpoint. Bernstein et al. (2013) report that, based on an analysis of 2662 transactions completed by 29 SWFs, 28% of the funds are managed by professional investment managers and only 24% of the funds have politicians on the board and hence, funds with professional investment managers tend to make larger investments outside the home country while funds with political leaders on the board tend to focus on projects within the home country. Recent studies also highlight the lack of explicit evidence on the policy debates that SWFs' exert political influence on host countries through their cross-border investments; SWFs' managers are putting efforts to improve information transparency and governance mechanisms (Cumming et al., 2017; Megginson and Gao, 2019).

Yet, notwithstanding the national security and political concerns raised by bureaucrats and market regulators of the host country (Calluzzo et al., 2017; Rose, 2009; Tingley et al., 2015), it can fairly be comprehended that SWFs' outward FDI is timely in the event of financial turbulence not just because of the lower valuation of the target assets but also the fact that SWFs are turnaround-masters of the major parts of the world economy and new driving forces of the global banking and financial markets in the 21st century (e.g., contrarian investment behavior: Ciarlone and Miceli, 2016). Therefore, because SWFs' portfolio assets are primarily managed by professional investment managers who possess international education and multinational experience (Bernstein et al., 2013), host country governments may allow higher levels of inward FDI for achieving regional development and economic integration with the global economy.

Second, given that institutional transitions and market development influence the firm's strategies in a rapidly changing global

business landscape, the government may view state-owned enterprises such as SWFs as a spring-boarding to create lasting geopolitical relations with other developed and emerging countries. Owing to the UN's Sustainable Development Goals, emerging market (e.g., China) and frontier market governments (e.g., UAE) may take further initiatives to invest in basic living needs projects such as water, housing, health, and education so as to promote balanced economic development in poor, low-income developing countries. Unlike multinational corporations and non-government organizations, SWFs' outward investments in large-scale projects of low-income countries may not only create the job market and assure better social life and security but also establish the long-term bilateral trade relations and strategic partnerships between the home and host country. These long-term projects may also strengthen the cooperation between the home and host country to take necessary measures against the effects of the global concerns such as health emergencies, food crisis, hurricanes and cyclones, and terrorism and violence.

Third, take into account of the fact that credit market irregularities and low oil prices negatively impact the asset valuations (e.g., oil and gas industry: Reddy and Xie, 2017), SWFs may consider investing some proportion of their assets under management in home country's financially weak state-owned downstream oil firms in order to stabilize the oil prices and consumer spending in the domestic market. Alternatively, with a long-term approach, SWFs may finance renewable energy projects not just for creating jobs but also for instituting and fostering the sustainable and green environment.

Fourth, taking inspiration from neighboring countries' ambitious policies (e.g., China's go global, wealth funds), since India is the fourth-largest economy, showing a significant growth of economic development indicators during the past decade (e.g., Reddy et al., 2016; Saikia and Borbora, 2018), the central bank and policymakers may plan to institute at least one sovereign fund for promoting the general welfare and social security within home country. Subsequently, the government may focus on regional and global markets to achieve higher economic returns and build strategic trade partnerships.

## 6. Conclusion

The global investment strategy of state-owned enterprises such as SWFs has received considerable attention from scholars as well as from the popular press. While institutional policy development plans are heightened in emerging economies on the one hand, and global markets are flattering integrated on the other, this paper examined SWFs' outward FDI patterns to further scholarly literature on the determinants and motives of the cross-border investment portfolio strategy. Through proposing a *yield* institutions-based view, the study emphasized that SWFs from emerging economies and frontier markets are firmly planning outward FDI projects—greenfield and acquisition—propelled by their home country government, in order to earn higher economic yields, secure natural resources, expand into foreign markets, promote friendly cross-border business partnerships, and gain sustainable competitive advantage. The study concluded that yes, SWFs' outward FDI is timely around the 2007–2009 global banking and financial markets crises.

Theoretically, the study made efforts to advance the institutions-based view of international business strategy and establish its relevance to SWFs research. Because inadequate access to commercial database sources on SWFs' investments is a major limitation of the paper, the conclusions cannot be generalized to larger empirical estimations. Hence, the proposed framework and interpretations offer some useful guidance in future research on the

diversity of state capitalism and institutional environment in emerging and developed economies. For instance, case study research on specialized wealth funds and their degree of funds allocation to a particular sector or geographic location would bring adequate practical knowledge into academic debates.

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