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Public Policy with Vietnamese Characteristics: The Case of the Motorcycle Industry

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Abstract

This paper analyses Vietnam's motorcycle industry, one of the industries earmarked for economic reform since the late 1980s. The paper argues that the Vietnamese state has nurtured its previously derelict motorcycle industry to one that is internationally competitive through the implementation of market-distorting policy measures as well as the selective co-optation of international capital. Nevertheless, there is a limit to Vietnam's policy manoeuvring amidst strong pressure from the international agencies and transnational corporations to liberalize the industry. Consequently, indigenous capability remains modest although some of the domestic firms are displaying signs of mastering the technical know-how introduced from abroad.

Keywords: good governance; public policy; reform; state-owned enterprise; transnational corporation; Vietnam

Introduction

In 1986, Vietnam launched the *doi moi* (renovation) program to reform its former command and control economy. Market forces were introduced while instruments of control were curtailed considerably under the broad heading of governance reforms modelled after the Washington Consensus (and/or iterative versions of it) (Vu 2015). Yet, governance reforms continue to be the subject of constant debate. International agencies as well as donors point out the uneven manners in which such reforms are implemented by the Vietnamese (see World Bank and Ministry of Planning and Investment of Vietnam 2016, International Monetary Fund 2016). Experts also note that Vietnam undertakes reform in a gradual and selective fashion, conforming only marginally to the good governance orthodoxy (Benedikter 2016, Fforde 2016). The process of marketization is further hampered by a series of problems, including but not limited to policy incoherence, lack of coordination, weak implementation, and occasional U-turns (Painter 2003). Indeed, Vietnam continues to rank poorly on conventional good governance indices such as anti-corruption, public administration performance, and the rule of law (see Benedikter 2016).

In comparison with governance reforms, Vietnamese economic performance is significantly rosier. The growth rate of its gross domestic product (GDP) per capita since the *doi moi* is laudable. It expanded by 5.10% per year (on average; constant 2010 USD) from 1986 to 2015. In particular, Vietnam's motorcycle industry has largely avoided the ills plaguing an import-substituting industry (ISI) transitioning into a more export-oriented one. From a marginal market that produced only about 62,000 units in 1995, the industry has grown exponentially to become the fourth largest in the world after China, India, and Indonesia (see Fujita 2013a). Vietnamese-owned component suppliers have also attained high levels of product quality and competitiveness. These domestic firms, in concert with the motorcycle transnational corporations (TNCs) and their cohort of foreign direct investment

(FDI) suppliers, cement Vietnam's standing as a prominent motorcycle manufacturing and export hub in Southeast Asia. This achievement is even more impressive because compared to China, India, and Indonesia, Vietnam is not only a latecomer economy, but also a much smaller country (in terms of population).

Notwithstanding the paradox illustrated above, research on governance reforms tends to be conducted in relative isolation, with moderate linkages to other fields of enquiry. Within the context of this paper, one is left speculating about indigenous technological development in a technologically backward state and its relationship with governance reforms. Both issues are typically studied apart from each other as the former tends to be the forte of political economists while the latter is dominated by public policy scholars. The paper fills this intellectual lacuna in its examination of the Vietnam's motorcycle industry, analysing the impacts of policy instruments utilized by the state to facilitate technological upgrading for its domestic firms. The state also has to simultaneously balance its commitment to international agencies that constantly cajoles it to adopt deeper forms of economic liberalization and governance reforms. The understanding of this interrelated issue is critical as there is no shortage of developing countries that have been swept aside by the rapid financial and trade flows resulting from their adoption of the reform and liberalization packages influenced by the Washington Consensus (Stiglitz 2016). This paper asks: How does Vietnam mediate the rapid cross-border capital flows and the economic prowess of international actors brought about by the *doi moi* in the context of its budding motorcycle industry? What types of instrument does the Vietnamese state deploy in the delicate task of liberalizing its economy while stimulating domestic upgrading? To answer these questions, the paper unpacks the development of the Vietnamese motorcycle industry since the *doi moi*, accounting for Vietnam's unique historical contexts as well as the pressure exerted by the international agencies and TNCs to force the Vietnamese state to conform to neoliberal governance reforms. The paper argues that Vietnam has rejuvenated its previously moribund motorcycle industry in a relatively short time. By making selective use of international economic forces (such as attracting investment from the major motorcycle TNCs), the domestic firms have absorbed the relevant know-how from the TNCs and their cohort of supplier firms. However, this success has some limits. The TNCs – in concert with their respective international agencies and manufacturing associations – are especially adept in organizing efforts to put pressure on the Vietnamese state. Their prowess limits the policy space from which Vietnam operates, complicating efforts to help domestic firms exploit the learning opportunities brought in by the TNCs. The general capability of the domestic firms remains mediocre although some of them – including but not limited to the state-owned enterprises (SOEs) – are showing encouraging signs of becoming important players in their respective niches.

The paper is based on research conducted in 2012 and 2013 in three Vietnamese municipalities (i.e. centrally governed cities): Hanoi, Can Tho, and Ho Chi Minh City. It draws principally on interviews with firms operating in the motorcycle industry, in addition to parties familiar with the industry, such as political and business analysts. Questions were asked about the firms' corporate strategies, their evolution over time, and about the business environment in general. To improve the reliability of the primary data provided by these parties, the data were cross-validated with relevant archival and secondary materials e.g. annual reports, company websites, and academic manuscripts.

This paper begins with a critique of the literature on governance reforms in Vietnam, focusing on the role of the state and the way it deals with international actors. The next section sheds light on the Vietnamese motorcycle industry, delineating its development in four stages: 1990-1999, 2000-2004, 2005-2008, and post-2008. It then assesses the manner in which the state dispenses market-distorting policy instruments while catering to the demands of the international actors. The paper concludes with a summary of the main argument, along with some policy advice.

Vietnam and Reform

Modern day Vietnam was reunited in 1975 following the conclusion of an intense battle of control in which the communist-led North Vietnam defeated the US-backed South Vietnam. Vietnam applied a strict interpretation of Stalinist ideology almost immediately after reunification. In 1976, the five year plan was unveiled in an attempt to convert the entire economy to state ownership, with the establishment of various SOEs. With market mechanism allowed to operate only in certain parts of the household and petty enterprise sectors, this five year plan was a failure as production plummeted and severe shortages developed throughout the country (Freeman 1996). The situation worsened as Vietnam invaded Cambodia in late 1978 to remove the Khmer Rouge regime from power, triggering a military response from China (the patron of the Khmer Rouge regime). Although the Chinese-Vietnamese conflict lasted only a few weeks in early 1979, it destroyed a significant portion of Vietnam's infrastructure along its northernmost provinces, weakening Vietnam's productive capacity (see also Lim 2016a). The Cambodian invasion also brought about an embargo from various countries and international agencies, further isolating Vietnam from the rest of the world.

Political isolation and economic hardship forced the Vietnamese leadership to rethink its ways. A blueprint called *doi moi* to renovate and reform the economy was subsequently launched in 1986, underlining a turning point in the history of Vietnam. The *doi moi* unleashed a spate of reforms, trade and investment liberalization, policy reversals, and backtracking on the disastrous measures of the post-reunification years, reshaping Vietnam into a 'market economy with a socialist orientation' (Sakata 2013). In addition, Vietnam withdrew its military from Cambodia and reengaged the international community.

The *doi moi* has since been hailed as one of the most successful economic reform undertaken by a transition economy. It is especially remarkable given the socioeconomic collapse which took place in various centrally planned economies in the years after the dissolution of the former Soviet Union (see Beattie 2010). Key economic indicators such as food production, inflation rate, and GDP all showed visible improvement in the years following the *doi moi* (Vu 2015). Vietnam's open stance is also welcomed by international investors (Lim 2017). Figure 1 shows, despite some occasional slowing down, the high levels of FDI (measured in percentages of gross fixed capital formation and GDP) flowing into the country since the *doi moi*.

Insert Figure 1: Vietnam's Inward Flow of Foreign Direct Investment as a Percentage of Gross Fixed Capital Formation and Gross Domestic Product, 1986-2015

Notwithstanding the general picture of success illustrated above, public policy scholars covering Vietnamese governance reforms stress the need to understand this issue with greater attention to local political and cultural variables. Although the *doi moi* reforms have clearly been influenced by the multitude of international agencies which promote the Washington Consensus, these public policy scholars assert that the Vietnamese state retains considerable autonomy in selecting as well as implementing donor-funded projects (Painter 2003, Painter 2014, Yeo and Painter 2011, Gainsborough 2010). Put another way, the state has successfully managed the politics and intricacies of domestic economic restructuring in tandem with international engagement, directing growth in unorthodox yet surprisingly effective ways (Beeson and Pham 2012, Gainsborough 2010). Using the example of international aid, Painter (2005) argues that resources and ideas from powerful development agencies like the World Bank are appropriated by the Vietnamese elites whenever expedient, supporting their own top-down attempts at restructuring while helping them exercise control over the peripheral political actors. The international agencies have also found it challenging to impose more radical reforms on Vietnam. Referring to the demands of the international agencies in attaching more stringent prerequisites to a loan package in 1999, the then Minister of Planning and Investment, Tran Xuan Gia, responded: '[Y]ou cannot buy reforms with money… no one is going to bombard Vietnam into acting' (Painter 2005, p.274). Another noteworthy example is the high profile SOE reform programs jointly organized by the state, World Bank, and International Monetary Fund (IMF) that aim to more effectively discipline the SOEs through market forces (such as equitization). In spite of a steep reduction in their numbers and the state's seeming preference for indirect, market-friendly policy instruments over the intrusive, direct types utilized in the past, Figure 2 shows that the SOEs have generated at least 30% of GDP for most of the period from 1990 to 2014. Lim (2016b) also expects Vietnam's reliance on the SOEs to persist because of their key role in driving the country's industrial policy, which is loosely modelled after the Japanese and the Korean ones, especially in strategic sectors such as telecommunication (see also Pincus 2015). Overall, these studies illustrate that Vietnam's governance reforms, while seemingly conforming to international norms such as the New Public Management, ultimately enhances state hegemony and helps it achieve key political goals (e.g. dismantling old power structures and re-regulating market players) (see also Cheung 2013). Vietnam's experience thus far reflects the broader argument of Grindle (2011), underlining the need to question, prioritize, and make relevant governance interventions with reference to the conditions of individual countries.

Insert Figure 2: Share of Economic Output of State-Owned Enterprises, 1990-2014

Accounting for the dynamics of local contexts, the above perspective goes against western-centric scholarship which emphasizes the inevitable extension of neoliberal economic logic closely associated with the Washington Consensus as well as its longevity in the face of repeated crises (see, for example, Peck and Tickell 2002, Aalbers 2013, Stiglitz

2016). Nevertheless, it must be stated that the studies illustrated above have chiefly been concentrated in the realm of public policy, especially public service delivery (e.g. Yeo and Painter 2011, Painter 2014, Benedikter 2016) and SOE equitization (e.g. Painter 2003, Painter 2005, Vu 2015). More specifically, there is a lack of research on how governance reforms relate to the growth of an industrial sector, particularly one (such as the motorcycle industry) which is highly integrated into the existing regional and global production networks. In this context, it is crucial to analyse the efficacy of policies in attracting FDI from the motorcycle TNCs because the latter is the conduit facilitating the exchange of resources between Vietnam and the developed countries.

It is also fruitful to analyse the state-induced cooperation and rivalry between the TNCs and the domestic firms, balancing its contradiction against the market-oriented approach favoured by the international agencies. These issues are predominantly pursued by political economists, but their works have mostly depicted the experience of Asia’s earlier batch of latecomer economies such as Korea (e.g. Kim 2013, Amsden 2003, Harris 2008) and Thailand (e.g. Doner 2009). In other words, comparable research on Vietnam is lacking. Even for studies that are specific to the Vietnamese motorcycle industry, much of them are somewhat dated and can potentially benefit from cross-fertilization with other bodies of research such as those related to governance reforms (see, for example, Intarakumnerd and Fujita 2008, Fujita 2013a, Fujita 2013b, Nguyen 2007a, Nguyen 2007b, Nguyen Thi and Ho 2013). To contribute to this knowledge gap, this paper shall unpack the Vietnamese motorcycle industry in the following section. In so doing, it promotes the exchange of ideas between the fields of public policy and political economy, integrating the research on governance reforms and technological catching-up.

The Making of Asia's Latest Motorcycle Hub

By the 1980s, it became clear that the Vietnamese motorcycle industry was suffering from the typical problems of an ISI e.g. obsolete manufacturing methods and uncompetitive products. Following the *doi moi*, a number of motorcycle TNCs took advantage of the opening up of the Vietnamese economy by establishing their production facilities in the country. Table 1 highlights the TNCs that have invested into Vietnam as well as their domestic collaborators (primarily the Vietnamese SOEs).

Insert Table 1: Major Motorcycle Transnational Corporations in Vietnam

In spite of the entrance of the TNCs, the market remained small and backward as the few TNCs were effectively operating an oligopoly, taking advantage of their market power and the high tariff barriers. The quantity as well as quality of the motorcycles produced in Vietnam only began to improve dramatically by the late 1990s. Vietnam then displaced more mature motorcycle producing countries in the ensuing years, transforming into an important motorcycle manufacturing and export hub. One of its more notable achievements is the 2006 usurping of Thailand, the regional manufacturing lynchpin often nicknamed the 'Detroit of Southeast Asia'. The latest available industrial data shows that the Vietnamese motorcycle industry is the fourth largest in the world (see Table 2). Apart from China and India (two of the largest countries in the world in terms of population size), Vietnam is only surpassed by Indonesia (the fourth most populous country globally and the most populous in Southeast Asia). To make sense of the transformation, this section will examine the Vietnamese motorcycle industry in four stages: 1990-1999, 2000-2004, 2005-2008, and post-2008. It unearths the emergence of key events during these four stages and how they evolve over time. Particular spotlight will be shone on the relationship between policy measures, international agencies, TNCs, and domestic firms.

Insert Table 2: Top Five Motorcycle Producing Countries, 2014

Experimenting with Market Forces: 1990-1999

To attract motorcycle TNCs into the country, Vietnam in the 1990s disbursed a rather generous package – offering incentives (e.g. tax breaks and subsidized land) as well as erecting high import barriers. For the latter, Vietnam prohibited the importation of completely built units (CBUs), introduced tariffs for imported components, and imposed localization requirements.[1] The localization policy meant that motorcycle TNCs had to pay a high import tax if the proportional local content ratio was low, and vice versa (Ngo 2017).

Such policies yielded some success as Vietnam brought in its first motorcycle TNC in 1992 – Taiwan's Vietnam Manufacture and Export Processing Co. Ltd. (VMEP), the producer of SYM motorcycles (see Table 1). Three of the Japanese 'big four' motorcycle TNCs invested into Vietnam in the subsequent years. Suzuki, Honda, and Yamaha entered the Vietnamese market in 1995, 1996, and 1998 respectively.[2] Apart from the VMEP which invested in a fully-owned subsidiary, all three Japanese motorcycle TNCs opted for joint ventures with the SOEs. Ensuring that their SOE partners kept only 30% of their investment, the motorcycle TNCs retained overall equity control of their joint ventures.

Overall, this period was notorious for its oligopolistic nature as these TNCs were able to corner the market and reap huge profit margins. The high price of their motorcycles also meant that the total size of the market remained small. Figure 3 shows that there was little expansion in the motorcycle market of Vietnam from 1992 to 1999. Technological evolution also progressed slowly. According to Nguyen (2007a), the CKD motorcycles composed primarily of imported engines and critical components. In other words, the CKD units of this

[1] A CBU is a motorcycle fully assembled abroad and subsequently imported to Vietnam as a complete unit. The CBU directly contrasts the completely knockdown (CKD) motorcycles as the latter is a kit containing some pre-manufactured components needed to assemble a complete motorcycle. The CKD is usually only assembled at the final destination as TNCs typically sell CKD units to their foreign affiliates or licensees to avoid import taxes or reap other incentives.

[2] In addition, this period saw the entry of the GMN Automobile and Motorcycle Parts Manufacture Joint Venture Co. Ltd., a Thai-led joint venture which left the market after a few years. Sufat, a Vietnamese private firm, also emerged during this period.

era contained a high foreign content value as the domestic suppliers can only supply the TNCs with relatively simple components such as tyres and lights. Without the proper technology and experience, the domestic suppliers were largely bypassed as they struggled to meet the TNCs' cost, quality, and delivery requirements. Their inability to tap into the supplier network of the motorcycle TNCs created a vicious cycle in which domestic capability remained backward as they cannot improve their know-how without prior business exposure to the TNCs.

Insert Figure 3: Sales of Motorcycles in Vietnam, 1992-2014

Dealing with Disruption: 2000-2004

The oligopoly enjoyed by the TNCs attracted the attention of Vietnamese assemblers who were keen to partake in the market. The vast majority of these Vietnamese motorcycle assemblers were provincial level SOEs engaged in trading or service activities, possessing minimal manufacturing experience (Fujita 2013b). These assemblers took advantage of their privileged access to import quotas (courtesy of their ties to the state) and the lax China-Vietnam border and customs control, importing large quantities of competitively priced Chinese motorcycle kits into the country. According to Fujita (2013b), these Chinese motorcycles were essentially imitation or slightly modified versions of Japanese models (especially those of Honda). Some of these Chinese motorcycle kits were de facto CBUs, but the domestic traders and/or assemblers had artificially declared them as CKDs because Vietnam had already prohibited the import of CBUs in 1998. Moreover, these firms also claimed marked-up local content ratios to access preferential import tariffs (Intarakumnerd and Fujita 2008). With prices as low as one-fourth to one-third of their Japanese rivals, the Chinese motorcycles penetrated the hitherto underserved low and medium income market segments (Fujita 2013b). This 'China shock' (both in terms of a large increase in the number of available motorcycles and a huge price differential) led to a rapid market expansion. Between 1999 and 2002, the annual sales more than quadrupled (see Figure 3).

The China shock reshaped the oligopolistic nature of the industry. The cosy position enjoyed by the three Japanese TNCs and VMEP was disrupted following the introduction of the Chinese motorcycles. Figure 4 displays such a scenario – in spite of an overall increase in the total sales, the motorcycle TNCs did not expand their market share as significantly as the Chinese motorcycles and other smaller players. From controlling a mere 26% of the market in 1999, the Vietnamese assemblers (and other smaller players) garnered a staggering 76% of market share in 2000 with their Chinese motorcycles. Their market share then reached a peak of 82% in 2001 before declining in the subsequent years.

Insert Figure 4: Market Share of the Vietnamese Motorcycle Industry, 1998-2014

Three major issues resulted from the China shock. Firstly, the sudden increase in the number of Vietnamese assemblers and their motorcycles lead to the mushrooming of a cohort of domestic component suppliers eager to tap into the business opportunities created by the enlarged market. This event promoted considerable technological deepening as the less demanding production processes from China were more suitable to the low-technology Vietnamese firms (Nguyen 2007b). The owner of a motorcycle component supplier shares his insights on the differences between the Vietnamese assemblers (as well as their Chinese partners) and Japanese motorcycle TNCs: ‘They are not as rigid as the Japanese when they work with us... The Japanese are more concerned about quality and are always very worried about us hurting their brand name. For the Chinese, their main concern is the price of the components and the services. As long as the price we offer is good, they would be happy to engage us’ (personal communication, Ho Chi Minh City, 28 January 2013). One of the most direct methods to measure domestic technological progress is to calculate the local content of the motorcycles. Table 3 shows the progress between 2001 and 2005. From a mere 38% in 2001, the localization rate shot up to 79% in 2004 before settling at 66% in 2005.

Insert Table 3: Localization of the Vietnamese Motorcycle Industry, 2001-2005

Secondly, the success of the Vietnamese assemblers and their Chinese motorcycles provoked a strong reaction from the Japanese motorcycle TNCs. They began to roll out low cost models while emphasizing their superior branding, design, and quality. For Honda, it also launched the Honda Wave in Thailand, a more mature Southeast Asian market, to pre-empt the threat of the Chinese motorcycles (Intarakumnerd and Fujita 2008). Their strategy worked well as they recovered some market share in the subsequent years (see Figure 4).

Thirdly, the Japanese TNCs organized a well-coordinated lobbying effort to influence key Vietnamese policymakers to restrict smuggled motorcycles and components from China. They were supported by several Japanese agencies (such as the Japan International Cooperation Agency and Japan External Trade Organization), in addition to their own manufacturing associations (Fujita 2013a, Ngo 2017). A policy was soon enacted in 2000, requiring all countries exporting motorcycle components to Vietnam to submit quality certificates from their respective countries to prevent inferior quality motorcycle component imports into Vietnam. In tandem with this directive was the local content policy, originally introduced at the end of 1998 but only came into effect at the beginning of 2001.[3] The accounts of the Vietnamese and Chinese assemblers were also scrutinized to prevent false declaration and tax evasion. This regulatory pressure, combined with the success of the motorcycle TNCs in launching coordinated efforts to recapture the market share, led to a decline of the Vietnamese assemblers (see Figure 4).

[3] The motorcycle assemblers are expected to maintain at least 60% of local content in their production.

Moving towards a Freer Market: 2005-2008

This period was notable for it was one of the fastest-growing periods in Vietnam, partly driven by a huge surge in FDI (see Figure 1). The buoyant economy stoked demand for motorcycles. According to Figure 3, the size of the motorcycle market grew from 1.64 million in 2005 to 2.58 million in 2008, which translates to a compounded annual growth rate of 16%.This growth rate was also more well balanced compared to that of the China shock period.

At an industrial level, one witnesses the almost complete comeback and dominance of the Japanese motorcycle TNCs. In particular, Honda regained its number one position in the Vietnamese motorcycle industry (see Figure 4). Taiwan's VMEP, in spite of its status as the first FDI motorcycle TNC in Vietnam, could only maintain its market share at about 8%. For the Vietnamese assemblers, their market share began to shrink terminally. Of the 51 firms that were in operation as of 2002, 35 had abandoned motorcycle assembly by 2006 (Fujita 2013b). A significant portion of the Vietnamese assemblers moved upstream in the value chain, providing components to the motorcycle TNCs and the latter's first-tier suppliers (see Intarakumnerd and Fujita 2008). Their upstream evolution to become component suppliers benefited the motorcycle TNCs as the latter absorbed them into their supplier network, expanding accessibility to low price domestic components. Only a relatively small number of the assemblers remained as they invested in more asset-specific machineries to produce motorcycles with more fashionable designs and better quality components.

Relative to the previous periods (especially that of 1990-1999), the Japanese TNCs engaged the domestic suppliers more frequently. This was largely because of two reasons – to more effectively fulfil the local content policy; and, to reduce production cost in their bid to counter the Chinese motorcycles. Using the example of Honda, Nguyen (2007b) reveals that the TNC began its localization process by outsourcing goods and services to the Vietnamese suppliers. One of the main things undertaken was to support Vietnamese suppliers to develop their own capabilities.

In the policy arena, the Vietnamese state began to loosen its grip on the industry as it was in the final years leading up to its official membership in the World Trade Organization (WTO). Direct policy tools such as the local content rule, ban on CBU, legislation limiting motorcycle registration to one vehicle per person, and the administration restriction that had prevented FDI motorcycle manufacturers from investing in additional production capacity were all removed during this period. Tariffs for imported components were also reduced (Fujita 2013a). Representing a break from the past, Vietnam can no longer intervene directly in the industry because it has to rely on broad based policies (rather than highly specific ones) and embrace the non-discrimination principle of the WTO. The key document that outlines such a vision is the ‘Master Plan for the Development of Vietnam’s Motorcycle Industry in the Period of 2006-2015, with a Vision to 2020’ published by the Ministry of Industry (2007), referred to in this paper as ‘Master Plan for the Development of Vietnam’s Motorcycle Industry’.

Reaching the Peak: Post-2008

This period is conspicuous for both the motorcycle industry’s initial exuberance and subsequent maturity. Figure 3 shows the industry capitalizing on the momentum of the previous period, with total sales increasing from 2.67 million units in 2009 to 3.67 million units in 2011. However, this growth began to taper off after 2011, with annual sales of motorcycles decreasing to 2.91 million units in 2014.

The deceleration of the Vietnamese motorcycle market was driven by market realities and state policies. For the former, the swift scaling up of motorcycle production since the early 2000s implies that motorcycle ownership per capita has probably reached its peak and will not grow significantly in the coming years. At the end of 2014, roughly one in every two

Vietnamese owns a motorcycle, a very high ownership ratio (Indolino 2016). In terms of policy, the Prime Minister in 2009 approved the ‘Adjustments to the Transport Development Strategy up to 2020 with a Vision toward 2030’ (Decision No. 35/2009/QD-TTg dated 3 March 2009), referred to in this paper as ‘Transport Strategy 2020’. It primarily aims to uplift the country’s derelict public transportation system (see Asian Development Bank 2012). Amongst other issues, there is a need to trim the number of motorcycles on the road to ameliorate traffic congestion and environmental pollution, especially in large cities.

Nevertheless, Vietnam has built up a considerable motorcycle industry foundation by this stage. Its exuberant growth since the early 2000s has cultivated a sufficiently large and skilled agglomeration of component suppliers, extending the competitive advantage of the motorcycle TNCs and to a lesser extent the more marginal players (e.g. Vietnamese assemblers). This is reflected in the post-2008 localization rate of the entire motorcycle industry, which has attained an extremely high rate of at least 90% (see Business Monitor International 2015, Nguyen Thi and Ho 2013). The high localization rate not only lowers the cost of production, but also advances the overall know-how of the domestic industrial ecosystem.

The transformation of the Vietnamese motorcycle industry, while to a large extent catalysed by FDI, has helped propel some of the better-managed domestic firms. Some of these Vietnamese firms have carved out a niche for themselves and look set to prosper in the near to medium term. This scenario is observable amongst the domestic suppliers of the motorcycle TNCs. Many of these domestic firms have acquired the capability to produce products with incrementally higher value after gaining some skills through their business interactions with the TNCs. Some of them have even exported their goods and services in the post-2008 era. For example, Vietnam Engine and Agricultural Machinery Corp. (VEAM), the SOE partner of Honda Vietnam, has utilized its various subsidiaries to tap into the Japanese

TNC's expertise. One of such subsidiaries is Machinery Spare Parts Joint Stock Company 1 (Futu1), which has invested in advanced machineries and met strict quality standards set by Honda for its cohort of suppliers. From supplying Honda with relatively simple metal components, Futu1 has deepened its skillsets to produce more complex components such as precision mechanical parts used in the manufacture of motorcycles, automobiles, and agricultural equipment (see Vietnam Investment Review 2013).

Discussion

This paper argues that the Vietnamese state is adept in attracting the investment dollars of the motorcycle TNCs and their cohort of suppliers, but is only moderately successful in implementing policies to diffuse the relevant foreign know-how. It began the liberalization process in the late 1980s using direct policy measures – tariffs for imported components, local content policy, import restrictions on CBUs, and some incentives such as tax breaks and subsidized land. These policies were appealing to the motorcycle TNCs as a number of them established their operations in Vietnam during this period. However, it was ineffectual in stimulating the broader industry as the motorcycle TNCs can still obviate the domestic component suppliers with ease. The above impasse was only broken by the China shock which took place from 2000 to 2004 (i.e. the second stage). The China shock altered the previously oligopolistic nature of the market as it greatly increased the number of domestic assemblers, which brought in large numbers of illegal motorcycles from China. In terms of component suppliers, the China shock encouraged the formation of a vast number of domestic players to service both the TNCs and the Vietnamese assemblers (and their Chinese partners). Although the latter has since lost ground in the Vietnamese market, the competition induced created ample opportunities for the integration of domestic component suppliers into the supply network of the Japanese TNCs (see Ministry of Industry 2007). Many of these firms, while initially inexperienced, benefited from their businesses interactions with first the domestic assemblers then the Japanese motorcycle TNCs as they gained exposure to advanced manufacturing and management techniques.

Ironically, the China shock was precipitated by the state's failure in monitoring its borders. More specifically, it failed in preventing illegal Chinese motorcycle kits from entering its borders and in auditing the financial accounts of the domestic assemblers and traders, which smuggled these kits into Vietnam. In spite of the learning opportunities triggered by the China shock, the Vietnamese state proceeded to enforce a series of policy to rationalize the market, chief amongst them the 2001 local content directive. This policy disjuncture is rather perplexing because it cut short the learning momentum of the domestic firms, while pandering to the interests of the TNCs. The disjuncture both conforms to and defies the existing literature on governance reforms in Vietnam. Firstly, the policy incoherence and haphazard governance observed here reinforces the thesis made by Painter (2003) that Vietnam's liberalization efforts since the *doi moi* are problematic in nature, characterized by weak implementation and lack of coordination. Much like the research of Benedikter (2016) and Fforde (2016), this paper illustrates the Vietnamese state's weak conformance to the good governance orthodoxy in its attempt to facilitate the growth of the motorcycle industry. While the broad intention to deepen technological expertise can be discerned over the four stages, the on-the-ground policy execution is not nearly effective enough.

Secondly, and more importantly, this paper depicts the weakness of the Vietnamese state vis-à-vis international actors. In particular, the local content policy was scrapped merely two years after its implementation following strong complaints from the TNCs. The Ministry of Industry (2007) outlines the tremendous pressure facing Vietnam then. It highlights the double standards involved, arguing that Thailand and Indonesia were given 26 and 22 years respectively in their time request for local content policy during their industrialization process, a leeway not given to Vietnam. Indeed, the Japanese TNCs, eager to recoup their lost market shares, skilfully applied pressure on the Vietnamese state. They did so through lobbying efforts supported by various Japanese agencies and their own manufacturing associations. In the face of the market power of the motorcycle TNCs and the organizational abilities of the Japanese agencies, Vietnam wilted under pressure. It also eschewed policies that are perceived to be too protectionist, eager to avoid high profile disputes pitting it against prominent TNCs for fear that they might jeopardize its WTO membership. While Vietnam eventually joined the WTO in 2007, the overall political context of that era meant that it was extremely difficult for the Vietnamese state to implement policies that ensured domestic firms captured more value from the opportunities opened up by the China shock. Such an observation challenges the research of Beeson and Pham (2012), Gainsborough (2010), and Painter (2005, 2014), who portray the resilience of the Vietnamese state in resisting foreign pressure to further its own economic agenda. As far as expediting technological progress for its domestic firms is concerned, the state did succumb to the neoliberal demands of the Japanese TNC-agency complex and the WTO. This finding also supports Aalbers (2013) and Stiglitz (2016) in unearthing the inability of states (especially a developing one like Vietnam) to forge an independent growth trajectory. While Vietnam did not voluntarily give up its autonomy to draft and implement policies, the constraint imposed by the TNCs and international agencies has certainly limited its degree of policy freedom.

Despite such setbacks, Vietnam went on to enjoy robust economic growth between 2005 and 2008 (i.e. the third stage), partly because of the hike in market sentiment in the run-up to its WTO membership. The motorcycle TNCs and their goods and service suppliers committed more FDI to Vietnam as they were encouraged by the removal of various prohibitions on the motorcycle industry as well as the prospect of a more affluent Vietnamese economy post-WTO. This influx of FDI deepened the domestic agglomeration of firms and reinforced their know-how, creating a virtuous cycle in which even more FDI is drawn into the industry. The state did not completely give up its custodian role, however. In 2007, the Ministry of Industry published the Master Plan for the Development of Vietnam's Motorcycle Industry, outlining the planned trajectory of the industry until 2020. Unfortunately, it came rather late, arguably when the industry has already taken on a somewhat concrete structure with limited room for policy manoeuvring. Moreover, Vietnam's commitment to international and regional bodies such as the WTO and Association of Southeast Asian Nations (ASEAN) limits its support policies towards the domestic firms, forcing it to rely on more general policy measures without favouring particular firms.

Yet, by the fourth stage (post-2008) of the motorcycle industry's development, a significant portion of the targets laid out in the Master Plan for the Development of Vietnam's Motorcycle Industry has materialized. In particular, the localization rate has grown from a measly 38% in 2001 to exceeding 90% in the post-2008 era. This improvement in domestic capability is driven by the greatly increased linkages interconnecting the domestic component suppliers and the motorcycle TNCs. The sophistication of its motorcycle industrial base has also enabled the motorcycle TNCs (and the domestic firms, to a smaller extent) to utilize Vietnam as a platform to enter other regional markets. However, one of the metrics in which Vietnam has done only moderately well is the cultivation of Vietnamese-owned motorcycle TNCs. While there have been firms which upgraded their skills and developed original brand name (OBM) motorcycles, they are relatively rare.

Some of the Vietnamese SOEs have also established a mutually beneficial relationship with the TNCs. Such a role is primarily undertaken by the SOE joint venture partners of the motorcycle TNCs courtesy of their unique corporate structure as well as close relationship to the Vietnamese state (see Table 1). Firstly, take the aforementioned VEAM (the SOE joint venture partner of Honda Vietnam) for instance. It was established in 1990 by the Ministry of Industry to undertake industrialization, modernize agriculture, and develop the rural area. Because of this wide mandate, it was given the opportunity to take part in projects deemed strategic by the state such as motorcycle manufacturing. Through collaboration with TNCs in industrial products such as motorcycles, trucks, and agricultural equipment, it has accumulated a wealth of experience in engineering and production. Furthermore, it has benefited from cross-subsidization amongst its various subsidiaries and developed forward and backward linkages in core and related industries. In motorcycle manufacturing, this translates to learning how to manufacture key motorcycle components needed by Honda as well as other types of vehicles and equipment. VEAM has also deepened its competitiveness by pursuing product upgrading (such as through Futu1 in the manufacturing of precision mechanical parts). In addition, VEAM exports a sizeable portion of its goods, reducing its reliance on a rather captive domestic market (see Vietnam Investment Review 2013). VEAM's success in acquiring foreign technology supports Lim's (2016b) argument on Vietnam's continued reliance on the SOEs, especially in high-technology ventures. VEAM's experience can be directly traced to the state's adoption of pro-market reform measures in the post-*doi moi* era. By inducing cooperation between VEAM and Honda, Vietnam has uplifted its national engineering prowess. This finding thus fills a gap in contemporary public policy research (e.g. Vu 2015, Yeo and Painter 2011), which has largely neglected the relationship between economic governance reforms and domestic capability building. As discussed in the previous sections, it also promotes cross-fertilization of knowledge between public policy scholars and their political economy counterparts.

Lastly, similar to the point elaborated above, this paper unearths a distinct (albeit diminishing) overall presence of the SOEs in the Vietnamese motorcycle industry. In spite of a fairly open official stance to international investors which grew even stronger in the latter stages of modernization, it must be stressed that a large portion of the Vietnamese motorcycle assemblers which emerged during the China shock era were provincial level SOEs bringing in Chinese motorcycle kits through the loosely monitored China-Vietnam border. Following the dwindling down of their enterprises, some of them took on a different role in the industry, functioning as the component suppliers of the motorcycle TNCs as well as the latter's first-tier suppliers. As the Japanese motorcycle TNCs adopted a more open attitude towards the domestic suppliers in the aftermath of the China shock period, various SOEs (in addition to the private firms) took part in programs orchestrated by the TNCs. Through such exchange, some of the SOEs have honed the necessary skills in their respective areas of business, graduating to the level of export-oriented suppliers. This case study highlights the wisdom of Grindle's (2011) 'good enough governance' proposition, emphasizing the need to be sensitive to the socio-political context for change. It also supports Cheung's (2013) thesis that backward Asian economies often lack the capacity to transplant orthodox models in a wholesale manner, but have still found creative ways to incorporate some features of such models to generate growth while preserving some pre-existing institutional baggage (i.e. Vietnam's fairly resilient SOEs).

Conclusion

Focusing on the formerly ailing motorcycle industry, this paper has illustrated the ways in which the Vietnamese state has rolled out policies that are moderately in-line with the Washington Consensus, relying occasionally on international capital to drive growth. Vietnamese industrial policy, pervasive initially and progressively reduced, has been somewhat effective. Yet, it is marked by coordination feebleness as well as the state's inability to extract more development opportunities from foreign private capital and international institutions. Firstly, by attracting FDI from the motorcycle TNCs and their goods and service suppliers (e.g. first-tier suppliers) and promoting interaction between them and the domestic firms, the industry was modernized in a relatively short period. However, technology diffusion did not occur widely, at least not during the early stages when the motorcycle TNCs were able to evade the state directive. Indeed, it took a fortuitous opening in the early 2000s (i.e. China shock) for the domestic firms to be given sufficiently ample opportunities to acquire skills and knowledge from the TNCs. The initiative then shifted away from Vietnam as the Japanese TNCs, supported by their manufacturing associations and multiple Tokyo-centred aid agencies, organized a well-coordinated lobbying effort to limit Vietnam's intervention in the industry. Pressured by the Japanese TNC-agency complex as well as other international agencies (particularly the WTO), Vietnam eventually yielded to such requests. Consequently, the general capability of the domestic firms remain modest as they were deprived of more direct forms of state support in upgrading their productive function. While the industry did take on a more market-oriented approach favoured by the international agencies and TNCs since Vietnam's accession to the WTO in 2007, the state did not cede control entirely. It has deployed a cohort of SOEs in the development of the motorcycle industry, allowing it to exert some influence over the industrialization process. Some of these SOEs, in addition to several private firms, are exhibiting signs of technological deepening.

Nevertheless, the long term development of these indigenous firms and the entire industry is unclear at this juncture. With a narrowing margin for state intervention and a more competitive regional market environment likely to be brought about by the impending Regional Comprehensive Economic Partnership (RCEP), policy measures will have to be a lot more impactful than they were. This brings up a related dilemma – what role does the state envision for the SOEs in the motorcycle industry? Does it push them to export more of their products and to upgrade their command of technology? Or does it provide a more level playing field to the budding private firms? Pursuing the former will most likely violate the present market-oriented agenda and jeopardize Vietnam's relationship with international agencies and TNCs. Yet, doing the latter risks bypassing its SOE-centric industrial policy in such a critical industry. There is also a fear that the fledgling private firms, lacking resources to match the SOEs and the TNCs, will falter in a more liberalized market space. This outcome is undesirable for it might reverse the economic and technological progress attained since the modernisation of the industry.

Notwithstanding some lingering concerns about the durability of the governance reforms instituted and its future trajectory, the motorcycle industry represents one of several former ISI that has successfully achieved international competitiveness in the post-*doi moi* era. Despite some deficiencies, the state has been a pivotal actor in this transition, successfully adapting the Washington Consensus-themed governance reforms to domestic conditions. More generally, Vietnam's rapid transformation of its motorcycle industry holds a wider comparative significance for other developing countries aspiring to catch-up to the rest of the industrialized world. Even accounting for its specific set of historical circumstances which require some careful contextualization, the modernization of the Vietnamese motorcycle industry suggests that there is still some merit in deploying policy instruments to mediate cross-border capital flows and to extract much sought after resources. Vietnam's cultivation of its motorcycle industry also mirrors the more generalized pattern of state-led development in Asia's earlier batch of latecomer economies. Taken together, this paper highlights the need for developing countries to implement policy tools compatible with their particular socioeconomic conditions, while learning from the experience of countries such as Vietnam (and the latecomer economies that preceded it).

References

Aalbers, M. 2013. Neoliberalism is Dead … Long Live Neoliberalism! *International Journal of Urban and Regional Research*, 37(3), 1083-1090.

Amsden, A., 2003. *The Rise of 'The Rest': Challenges to the West from Late-Industrializing Economies.* New York: Oxford University Press.

Asian Development Bank, 2012. *Vietnam: Transport Sector Assessment, Strategy, and Road Map.* Manila: Asian Development Bank.

Beattie, A., 2010. *False Economy: A Surprising Economic History of the World.* London: Penguin.

Beeson, M. and Pham, H. H. 2012. Developmentalism with Vietnamese Characteristics: The Persistence of State-led Development in East Asia. *Journal of Contemporary Asia,* 42(4), 539-559.

Benedikter, S. 2016. Bureaucratisation and the State Revisited: Critical Reflections on Administrative Reforms in Post-Renovation Vietnam. *International Journal of Asia Pacific Studies*, 12(1), 1-40.

Business Monitor International, 2015. *Asia Pacific Automotives: Insight.* London: Business Monitor International.

Cheung, A. B. L. 2013. Can there be an Asian Model of Public Administration? *Public Administration and Development*, 33(4), 249-261.

Doner, R., 2009. *The Politics of Uneven Development: Thailand's Economic Growth in Comparative Perspective.* Cambridge: Cambridge University Press.

Fforde, A. 2016. Vietnam: Economic Strategy and Economic Reality. *Journal of Current Southeast Asian Affairs*, 35(2), 3-30.

Freeman, D. 1996. Doi Moi Policy and the Small-Enterprise Boom in Ho Chi Minh City, Vietnam. *Geographical Review,* 86(2), 178-197.

Fujita, M., 2013a. *Exploiting Linkages for Building Technological Capabilities: Vietnam's Motorcycle Component Suppliers under Japanese and Chinese Influence*. Tokyo: Springer.

Fujita, M., 2013b. The Rise of Local Assemblers in the Vietnamese Motorcycle Industry: The Dynamics and Diversity of Industrial Organization. *In:* Sakata, S. ed. *Vietnam's Economic Entities in Transition.* Basingstoke: Palgrave Macmillan, 146-166.

Gainsborough, M. 2010. Present but not Powerful: Neoliberalism, the State, and Development in Vietnam. *Globalizations,* 7(4), 475-488.

General Statistics Office, 2015. *Statistical Handbook of Vietnam 2014.* Hanoi: Statistical Publishing House.

General Statistics Office, 2016. *Efficiency of Business of Domestic Enterprises in the Period 2005-2014.* Hanoi: Statistical Publishing House.

Grindle, M. 2011. Good Enough Governance Revisited. *Development Policy Review,* 29(S1), s199-s221.

Harris, S. 2008. Financial Governance and Policy Learning in Korea: Analysing the Post-Crisis Experience. *Journal of Asian Public Policy,* 1(3), 267-289.

Indolino, E., 2016. Easy Riding - Investment Opportunities in Vietnam's Motorcycle Industry. *Dezan Shira & Associates,* 07 January, p.

Intarakumnerd, P. and Fujita, M. 2008. Coping with a Giant: Challenges and Opportunities for Thai and Vietnamese Motorcycle Industry from China. *Science, Technology & Society*, 13(1), 35-60.

International Monetary Fund, 2016. *Vietnam: Country Report No. 16/240.* Washington, DC: International Monetary Fund.
Japan Automobile Manufacturers Association, 2016. *The Motor Industry of Japan 2016.* Tokyo: Japan Automobile Manufacturers Association.
Kim, S.-Y. 2013. The Rise of East Asia's Global Companies. *Global Policy*, 4(2), 184-193.
Lim, G. 2016a. Firm Entry Modes and Chinese Business Networks: Malaysian Investments in Vietnam. *Singapore Journal of Tropical Geography*, 37(2), 176-194.
Lim, G. 2016b. Managing Technological Development: A Study of Vietnam's Telecommunication Goods Industry. *Journal of Comparative Asian Development*, 15(2), 276-299.
Lim, G. 2017. What Do Malaysian Firms Seek in Vietnam? *Journal of Asia-Pacific Business*, 18(2), 131-150.
Ministry of Industry, 2007. *Master Plan for the Development of Vietnam's Motorcycle Industry in the Period of 2006-2015, with a Vision to 2020.* Hanoi: Ministry of Industry.
Ngo, C. N. 2017. Local Value Chain Development in Vietnam: Motorcycles, Technical Learning and Rents Management. *Journal of Contemporary Asia*, 47(1), 1-26.
Nguyen, D. T. 2007a. Building External Manufacturing Capability in Emerging Markets: Honda's Knowledge Transfer and the Role of Local Suppliers' Responsiveness. *Journal of Asia-Pacific Business,* 7(4), 77-95.
Nguyen, D. T. 2007b. The Honda Motorcycle Business in the Vietnamese Emerging Market. *International Journal of Emerging Markets,* 2(3), 298-309.
Nguyen Thi, T. H. and Ho, C., 2013. Localization Strategy of Motorcycle Industry in Vietnam. *International Conference on Social Science and Business.* Taipei.
Painter, M. 2003. The Politics of Economic Restructuring in Vietnam: The Case of State-Owned Enterprise 'Reform'. *Contemporary Southeast Asia*, 25(1), 20-43.
Painter, M. 2005. The Politics of State Sector Reforms in Vietnam: Contested Agendas and Uncertain Trajectories. *Journal of Development Studies*, 41(2), 261-283.
Painter, M. 2014. Governance Reforms in China and Vietnam: Marketisation, Leapfrogging and Retro-Fitting. *Journal of Contemporary Asia*, 44(2), 204-220.
Peck, J. and Tickell, A. 2002. Neoliberalizing Space. *Antipode*, 34(3), 380-404.
Pincus, J. 2015. Why Doesn't Vietnam Grow Faster? State Fragmentation and the Limits of Vent for Surplus Growth. *Journal of Southeast Asian Economies,* 32(1), 26-51.
Sakata, S., 2013. Introduction: The Changing Status of Economic Entities in Vietnam. *In:* Sakata, S. ed. *Vietnam's Economic Entities in Transition.* Basingstoke: Palgrave Macmillan, 1-22.
Stiglitz, J., 2016. *Globalization and its New Discontents* [online]. Prague: Project Syndicate. Available from: https://www.project-syndicate.org/commentary/globalization-new-discontents-by-joseph-e--stiglitz-2016-08 [Accessed 06/02/2017].
Vietnam Investment Review, 2013. Bike Brands Hitting the Fast Lane. *Vietnam Investment Review*, 28 January, p.
Vu, M. K. 2015. Can Vietnam Achieve More Robust Economic Growth? Insights from a Comparative Analysis of Economic Reforms in Vietnam and China. *Journal of Southeast Asian Economies*, 32(1), 52-83.
World Bank and Ministry of Planning and Investment of Vietnam, 2016. *Vietnam 2035 : Toward Prosperity, Creativity, Equity, and Democracy.* Washington, DC: World Bank.

Yeo, Y. and Painter, M. 2011. Diffusion, Transmutation, and Regulatory Regime in Socialist Market Economies: Telecoms Reform in China and Vietnam. *The Pacific Review,* 24(4), 375-395.

Table 1: Major Motorcycle Transnational Corporations in Vietnam

Name of Firm	Year of License	Ownership Structure
Vietnam Manufacture and Export Processing Co. Ltd. (VMEP)	1992	Chinfon Group, producer of SYM motorcycles (Taiwan, 100%)
GMN Automobile and Motorcycle Parts Manufacture Joint Venture Co. Ltd.[a]	1995	Chaikomol Business (Thailand, 30%), SKB (Thailand, 10%), New Chip Xeng (Laos, 30%), General Export-Import Co. (Vietnam, 30%)
Vietnam Suzuki Corp.	1995	Suzuki Corp. (Japan, 35%), Sojitz (Japan, 35%), Vikyno: Southern Agricultural Machine Corp. (Vietnam, 30%)
Honda Vietnam Co. Ltd.	1996	Honda Motor Co. Ltd. (Japan, 42%), Asian Honda Motors (Thailand, 28%), Vietnam Engine and Agricultural Machinery Corp. (VEAM) (Vietnam, 30%)
Sufat Vietnam Corp.	1996	Sufat (Vietnam, 100%)
Yamaha Vietnam Co. Ltd.	1998	Yamaha Motors (Japan, 46%), Hong Leong Industries (Malaysia, 24%), Vietnam Forestry Corp. (Vietnam, 30%)
Lifan Motorcycle Manufacturing Joint Venture Co.	2002	Chongqing Lifan (China, 70%), Vietnam Import-Export Technology Development Co. (Vietnam, 30%)
Kymco Vietnam[b]	2005	Kymco (Taiwan, 100%)
Piaggio Vietnam	2009	Piaggio Group (Italy, 100%)

a This firm stopped operating in 2004.
b The Vietnamese joint venture partner of Kymco Vietnam, Hoa Lam Group, exited the industry in 2008.
Source: Fujita (2013a) and Ngo (2017).

Table 2: Top Five Motorcycle Producing Countries, 2014

Rank	Country	Motorcycles Produced (Vehicle Units)	Global Market Share (%)
1	China	21,267,823	38.2
2	India	18,499,970	33.2
3	Indonesia	7,926,104	14.2
4	Vietnam	3,333,000	6.0
5	Thailand	1,816,545	3.3
6	Others	2,838,977	5.1

Source: Japan Automobile Manufacturers Association (2016) and motorcycle manufacturers' associations of respective countries.

Table 3: Localization of the Vietnamese Motorcycle Industry, 2001-2005

	2001	2002	2003	2004	2005
Total Sales (Million USD)	1,310	1,336	957	1,410	1,208
Total Import Value (Million USD)	808	707	457	297	405
Total Domestic Production Value (Million USD)	502	629	500	1,113	803
Localization Rate (%)	38	47	52	79	66

Source: Ministry of Industry (2007).

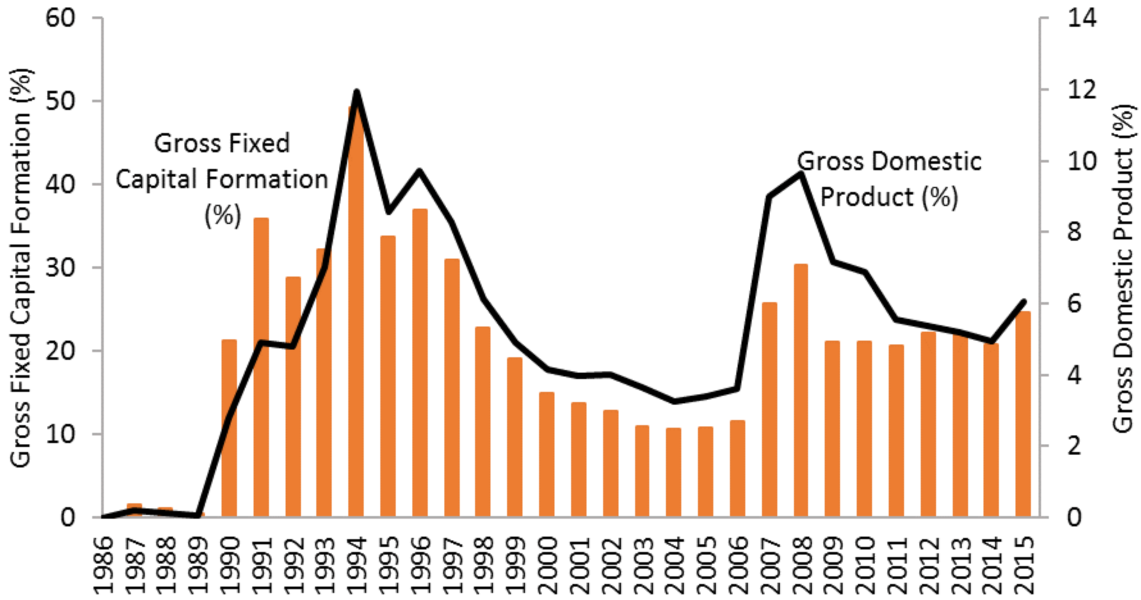

Figure 1: Vietnam's Inward Flow of Foreign Direct Investment as a Percentage of Gross Fixed Capital Formation and Gross Domestic Product, 1986-2015
Source: United Nations Conference on Trade and Development.

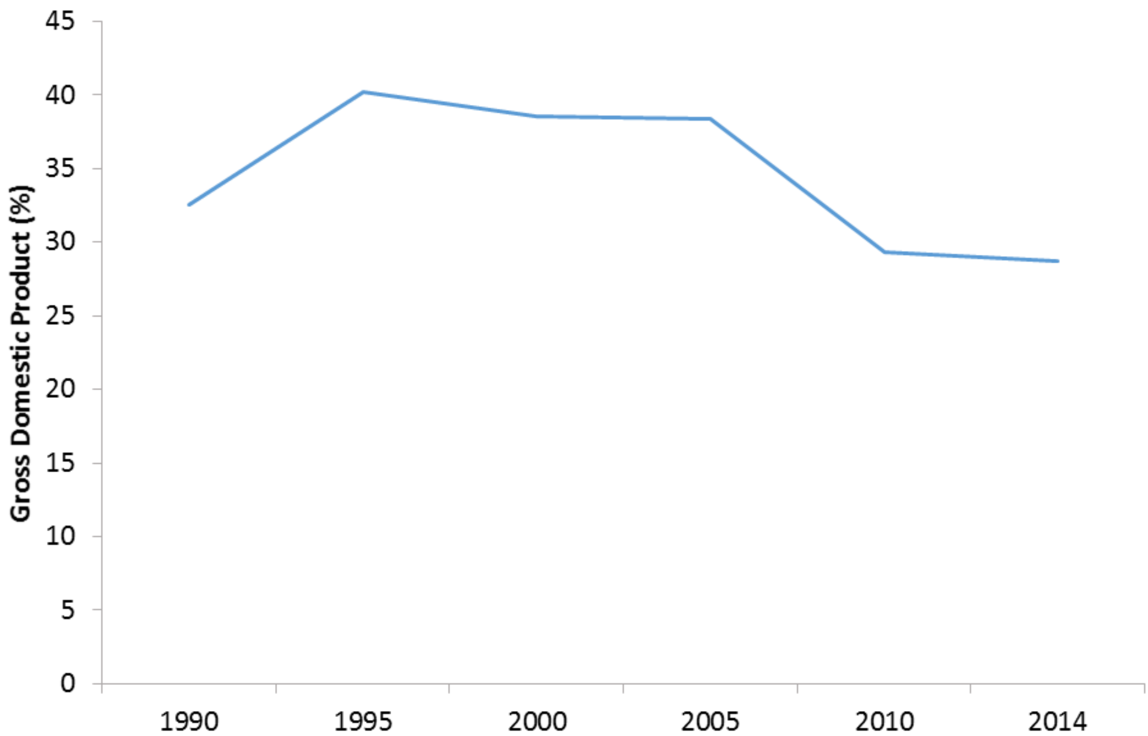

Figure 2: Share of Economic Output of State-Owned Enterprises, 1990-2014
Source: Sakata (2013); Pincus (2015); General Statistics Office (2016); General Statistics Office (2015).

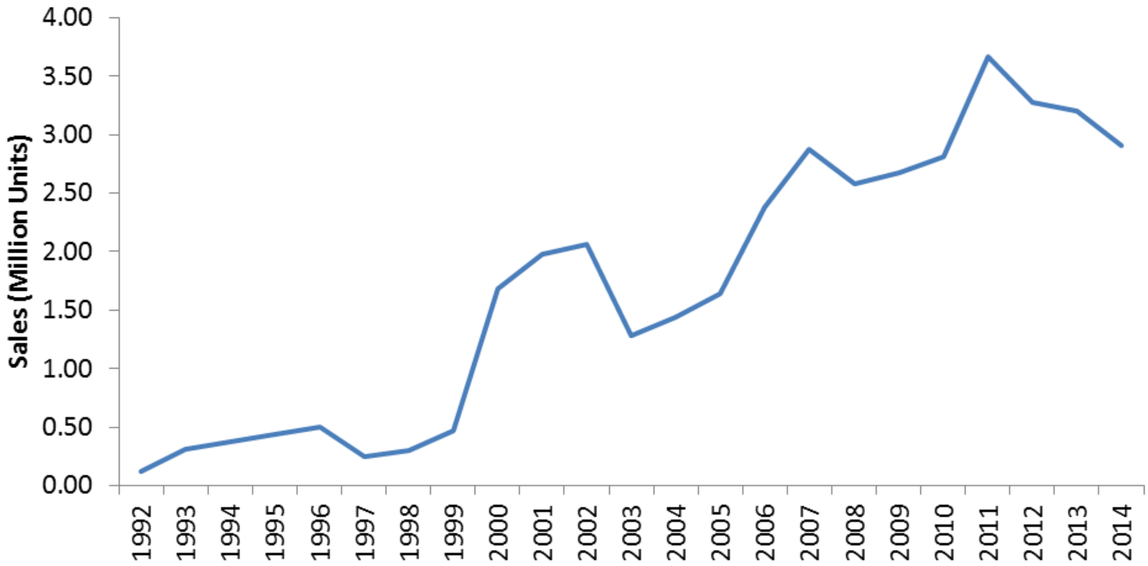

Figure 3: Sales of Motorcycles in Vietnam, 1992-2014
Source: General Statistics Office of Vietnam; Fujita (2013b); Ministry of Industry (2007); Nguyen Thi and Ho (2013); Estimation by the author.

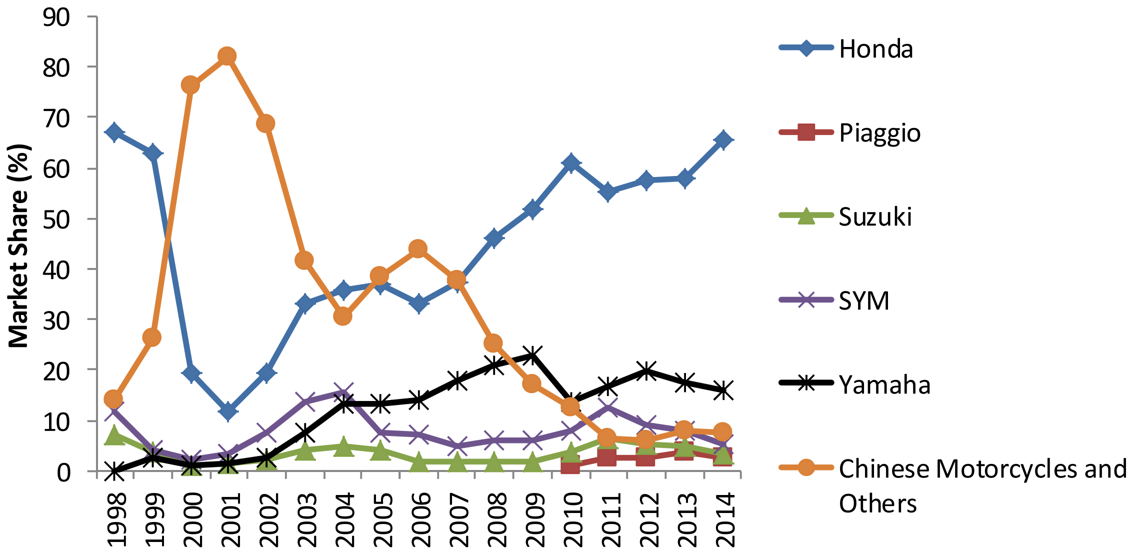

Figure 4: Market Share of the Vietnamese Motorcycle Industry, 1998-2014
Source: General Statistics Office of Vietnam; Fujita (2013b); Ministry of Industry (2007); Nguyen Thi and Ho (2013); Estimation by the author.