Vietnam: A Case Study on Trade Liberalization And Economic Development

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Andrew Lewis
Katherine Lucas McKay
Patrick Wyatt
Sandra Zhao

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Executive Summary

This report analyzes the many variables — political, historical, cultural, and geographical — that enabled Vietnam's rapid economic development, with an eye towards lessons that may be utilized by African nations hoping to follow suit. In particular, it finds that Vietnam's ideal location, natural infrastructure, and stable governance made it uniquely well-positioned to integrate into the world economy shortly after its decision to liberalize in the late 1980's. Because these conditions do not offer much replicable insight for other nations, it further focuses on the similarities between pre-reform Vietnam and African nations seeking to develop. Vietnam's path to development was not without peril, and there is still work to be done to ensure its continued growth. As such, this report critically evaluates the preconditions and outcomes Vietnam's *Doi Moi* reforms of 1986, and how the sequence and timing of its subsequent actions fortified the ultimate success of its development. It also notes those areas of Vietnam's economy where it is in need of further reform.

The report is structured as followed. The introduction examines the political and economic context of Vietnam in the years leading up to *Doi Moi*. Next, it details the reforms that were implemented as a result of *Doi Moi*, and the changes they brought to Vietnam's economy. The third section focuses on changes to Vietnam's political structure in the 1990's, which make its path distinct from that of other development models, and prevented it from becoming mired in a partial reform trap. The fourth section further assesses the results of Vietnam's post-*Doi Moi* reforms, and their effects on its integration into the world economy. The fifth section looks at those geographical and cultural variables which make Vietnam unique — while the final section summarizes the similarities and differences between Vietnam and Africa, and the elements of Vietnam's development that are most pertinent to African nations. It concludes that, inasmuch as there are generalizable lessons from Vietnam's transition, its focus on substantially increasing agricultural productivity in the early years of reform is the most critical and applicable of these lessons for African nations to heed.

Introduction: Vietnam's Pre-*Doi Moi* Economic and Political State

In the decades that preceded reform, Vietnam was a classic centrally-planned economy. All firms, aside from the very smallest, family-owned firms, were owned by the state. The government administered physical inputs, output, and prices. There was nearly no business autonomy and factor markets were all but absent. Prior to reform, the only authorized independent businesses were small family owned enterprises that were not allowed to employ wage labor and had minimal economic impact (Hoang, 2011, p. 7). Vietnam's restrictive economic environment stagnated growth and suppressed efficiency in both the agricultural and industrial sectors of the economy.

The Vietnamese government took the first steps toward free-market reforms in 1981 (Hoang, 2011, p. 9). This early process, which included allowances for provincial governments to establish trading firms, and for farmers to retain and sell their surpluses, were precursors to the 1986 reforms known as *Doi Moi* (renovation). The earliest changes focused on establishing market-oriented principles within the state-owned enterprises (SOEs). SOEs began circulating and exchanging commodities among themselves. During the initial reform period from 1981 to 1985, industrial production increased at an annual rate of 9.5% and income per capita increased by 6.4% per annum (Hoang, 2011, p. 10).

However, these early reforms were not sufficient to overcome fundamental weaknesses in the Vietnamese economy. Prior to economic reforms, more than 80% of national income came from the agricultural sector, which was dominated by village-level collectives. This was not unique to agriculture, and small-scale production and low-labor productivity constrained growth in all industries. In addition, Vietnam faced high unemployment, shortfalls in raw materials for manufacturing, and technological failures. These market failures led to insufficient supplies of food and consumer goods. By the mid-1980s, growth ground to a halt as the Vietnamese economy began experiencing hyperinflation. The inflation rate peaked at more than 430% in 1986 (Hoang, 2011, p. 15).

Politics and Reform: The Political Context that Enabled *Doi Moi*:

Vietnam's success is not a story of opening to the world economy at one fell swoop. The rapidity and effectiveness of some of its reforms belies the gradual and unfinished nature of the entire process. In some ways, the sequence and timing of reforms indicate the presence of a cohesive vision for its future. A more telling narrative is one of episodic responses to current crises — each implemented in the context of a changing political climate. These political variables help to explain the many successes, and less numerous but critically important failures, of each of the reforms and Vietnam's overall economic transition, and what they portend for its future.

The first round of economic reforms was not coupled with intention to reform the political process. On the contrary, many party elites believed that the most critical condition for and desirable outcome of successful economic development was the continued strength of the VCP. In this way, Vietnam's early reforms consciously emulated those implemented in China at the end of the 1970's — which showed how to introduce some market orientation, without undermining the Communist party's rule.

However, Vietnam's divergence from the path that China set was among the most crucial of its decisions in the post-*Doi Moi* time period. The authority given to the Central Committee of Ministers (CCOM) — the more pluralistic of Vietnam's two representative bodies — in the revision of the Vietnamese Communist Party (VCP) statutes in 1992, coupled with the later segmentation of SOE-dominated provinces in 1996, ultimately allowed for reformers to seize political power. These changes saved Vietnam from the partial reform equilibrium (PRE) trap which it was beginning to fall into after *Doi Moi*. In the still-developing world, the PRE trap is the means by which the early promise of economic reforms is stymied. Essentially, from the first round of reforms a group of "early winners" emerges. As their interests become entrenched, and their lobbying power becomes concentrated, they oppose the adoption of any meaningful further reforms which may reduce their current success. The result is that states get stuck with an incoherent economic policy platform that could, at best, provide a temporary fix, but without additional reform, will do little to improve the lot of the country.

Most states that are able to avoid this trap have democratic, parliamentary-style governments (Malesky, 2009). The reason is that, with authoritarian regimes, there is only one entity that early winners need to lobby to shore up political support and maintain the status quo. When Vietnam reduced the power of its Politburo, and made the CCOM a *de facto* legislative branch, it became truly unique in that it was still very much a single-party ruled authoritarian state — yet, it was one with democratic tendencies, particularly with the selection of its representatives to the National Assembly, the legislative body that oversees the CCOM. This, as democracy often does, engendered "downward accountability" between representatives and their constituents in their home provinces or institutions. Moreover, the variety of opinions — with 3 major factions of conservative-, reform-, and military-minded legislators — precluded any one group from imposing its agenda, and led to compromise. Indeed, it was not that Vietnam lacked this contingency of "early winners" which enabled its success; rather, that it was able to form a coalition of potential-winners from later reforms to counterbalance it.

Still, though Vietnam — by virtue of its growth and development since *Doi Moi* — was able to avoid the PRE trap, many of the half-measures of its reforms created further problems that require policy interventions. The following analysis focuses on the political conditions at the time of each of Vietnam's major economic reforms, with an eye towards answering, as much as possible, the *how* and *why* of its success. Additionally, and of equal importance, it critically evaluates the way that these political conditions infused in those reforms the continuing legacy of the state-led growth model — a point that, even today, threatens to undermine their effectiveness.

Doi Moi: Economic Renovation Lays the Groundwork for a New Era of Growth

Doi Moi was passed as a reaction to the economic hardships of the late 1980's. Nominally, the reforms were aimed at transitioning Vietnam from a centrally-planned economy to a market-oriented-socialist economy. The initial changes sought to combat the current crises by alleviating regulations on farming collectives and instituting other market-style reforms, while maintaining the role of the VCP. Within a decade, the government had promulgated and implemented major reforms in agriculture, manufacturing and industrial development, trade policy, and education. Through *Doi Moi*, the VCP achieved its goal of transforming Vietnam's economy, catalyzing growth that, over the past 30 years, has transformed the nation as a whole.

This section offers an analysis of the political context that facilitated the reform process. It also provides details on specific reforms and basic outcomes in agriculture; manufacturing, services and other industry development; and education. Appendix A contains a timeline of reforms.

Political context for *Doi Moi:* State-led Reform and the Preservation of Party Power, 1986-1992:

The seemingly reactive steps taken by the VCP to restructure the economy during this period were not born of a prevailing will for political reform. In 1986, Vietnam faced a domestic agricultural crisis, the beginning of an inflationary period that would last into the early 1990's, and the cessation of aid from the Soviet Union. Because political capital was still firmly held by elites with entrenched interests in the preservation of state power, reform-minded leaders were forced to maneuver in a highly stifling system. It is in this pre-*Doi Moi* time period that the influence of China's reform bears the strongest influence on Vietnam. Malesky and London (2014), write that "conventional wisdom" holds Vietnam is always eight to ten years behind China on its reform trajectory. That the Vietnamese had, in their backyard, a model of how to embrace *some* liberalizing economic policies while maintaining the power of the authoritarian, single-party system is no doubt a major factor in how its leadership resolved to reform.

The view of Vietnam's reactive policies as solutions, in isolation, to particular sets of problems has garnered much support (Van Arkadie & Mallon, 2003; Kerkvliet 2005). This type of response, which lacks a unified long-term vision, is inherently unfit to solve future problems, and in many ways generates further challenges. For example, though — as seen in previous sections — Vietnam's opening to FDI in the period immediately following *Doi Moi* was unprecedentedly rapid, because of the heavy regulation on this inflow of capital, it was almost impossible for foreign businesses to enter Vietnam except through joint-ventures with SOEs. What one sees, then, is a corresponding increase in SOE activity during the period 1986-94 (Baccini et al, 2013). Thus, this ostensibly liberalizing feature of Vietnam's early reforms actually redoubled the dominance of the SOE sector, and further entrenched those with interest in maintaining it. These factors nearly led Vietnam into the PRE trap in the years immediately following *Doi Moi*.

Agrarian reforms:

Between reunification in 1976 and the commencement of *Doi Moi,* almost 95% of agrarian land was organized into low-productivity collectives (Ninh, 2003, p. 16). The government exercised total control over all production and distribution processes, and set prices substantially below market rates (p. 16). The results were disastrous: within a year of the 1976 reunification, for example, rice production shrank 11% (p. 16). The *ho khau* policy of household registration limited peoples' ability to move to another home or farming collective, resulting in an inflexible agricultural labor market (McCaig and Pavcnik, 2013). As the 1970s wore on, the Vietnamese agricultural sector continued to do poorly. Due to these problems and agriculture's significant role in the overall economy, it was a top priority of *Doi Moi*.

The Politburo published Resolution 10 in 1987, following the announcement of the *Doi Moi* reform process at the Sixth Party Congress. The resolution eased or eliminated the cooperatives' obligations to the central government. It granted farmers more autonomy and allowed them to keep their profits. For example, households were allowed to trade up to 40% of the food they produced (Ninh, 2003, p. 18). The reforms included relaxation of restrictions on the trade of agricultural goods and inputs, such as fertilizers. Reform also included gradual removal of price controls on agricultural products. This allowed the price of rice to appreciate roughly 30% in the following decade relative to the consumer price index (McCaig & Pavcnik, 2013, p. 11). Additionally, over the next several years, both international and domestic trade barriers were modified or lifted, sparking further increases in production. Furthermore, during this period, the government reformed its exchange rate policy, resulting in a severe devaluation of the dong. In concert with lifting price controls and engaging in trade, this move allowed Vietnamese agricultural commodities to become very competitively priced on world markets (McCaig & Pavcnik, 2013, p. 15).

Resolution 10 was one of the first official documents codifying the *Doi Moi* liberalization of private property rights (Son et al., p. 3). Land formerly worked as collectives was divided among farming households based on family size, to ensure that each household possessed enough land to meet its basic needs. Those households were provided with 15-year leases for their plots, were allowed to sell agricultural products at market prices, and were taxed on the land use rights. Notably, however, the resolution did not grant the farmers the right to trade their land titles. That did not come until 1993's Resolution 5-HNTW "reaffirm[ed] the unique role of households in agriculture production" and strengthened farming households' property rights (Ninh, 2003, p.19). Land tenure was increased to 20 years and households gained the right to exchange, transfer, lease, inherit and mortgage their land use rights. (McCaig and Pavcnik, 2013, p.10).

After Resolution 10 became effective in 1988, cooperatives disappeared and household farms became the primary agricultural producers. This development had important effects on Vietnamese households.

Prior to this point, most Vietnamese were essentially subsistence farmers; three-quarters of the total labor force worked in agriculture, as was needed to ensure the population's food security (McCaig and Pavcnik, 2013. p. 6). Allowing households to sell their surplus products at market prices, which were ten times the official procurement price in 1988 (Dollar and Litvack, 1998), boosted not only productivity, but also incomes and living standards.

Although Resolution 10 successfully increased agricultural production, especially in rice, and established private property rights, it had limitations. For example, devolving land to individual households created difficulty in irrigation, mechanization, specialization, and production procurement (Ninh, 2003, p. 19). Subsequent reforms in the early 1990s addressed these issues and further liberalized trade restrictions. Vietnam's agricultural productivity growth rate rose impressively throughout the 1990s. Rice production, for example, grew at an average 4.6% annual rate. Between 1992 and 1996, all regions of Vietnam experienced annual increases in agricultural output of ranging from 2.5% to 16% (Ninh, 2003, p. 18). Vietnam's agricultural industry successfully entered global markets, quickly making Vietnam the second largest rice exporter in the world.

An important consequence of the successful agrarian reforms is that they released significant quantities of agricultural labor, which became available to the manufacturing industry. By the end of 2008, the share of workers in agriculture industry had declined from nearly 73% to only 50% (McCaig and Pavcnik, 2013, p. 33). In fact, the primary objective for many of the agrarian reforms was to free up labor so that it could be directed to the nascent manufacturing industry. This adheres to the mold of a typical, Solowian-style growth path.

Industry Development:

<u>Enterprise reforms and economic growth</u>

Successful manufacturing development was driven by an overhaul of Vietnamese fiscal and monetary policy that ended the period of post-reform hyperinflation. Whereas Vietnamese monetary and fiscal policies of the 1980's drove hyperinflation before and into the *Doi Moi* period, the monetary policy reforms allowed Vietnam to overcome hyperinflation. Previously, Vietnamese government activities involved negative savings, a large deficit, and a heavy reliance on central bank financing to cover expenditures (Dollar, 1994. p. 365). From 1986-1990 the government relied on the State Central Bank to provide three percent or more of GDP in financing the national budget. From 1991-1992, the government decided to slash bank financing of the national budget to less than one percent of GDP, finally allowing them to get the inflation rate under control (p. 366). Government spending was curtailed through the demobilization of 500,000 Vietnamese military personnel and the shuttering of many SOEs, which laid off nearly 800,000 employees in three years (p. 361). Both of these activities had the dual effect of reducing spending while providing a large pool of labor to transition into the emerging private manufacturing sector.

The *Doi Moi* process laid the foundation for three decades of growth in Vietnam's industrial sector. The removal of restrictions on private business and the aggressive effort to attract foreign direct investment led to quick growth in the industrial sector. By 1989, most forms of private economic activity were legal and price controls had been removed for almost all goods and services (Glewwe, 2004, p. 2). Reform decentralized decision making and provided enterprises autonomy over production, pricing, and trading. State owned enterprises started to operate subject to hard budget constraints and could no longer rely as heavily on export subsidies, and were thus forced to become more competitive. From 1991 to 1995 the average annual industry growth rate reached 13.7% (Anh, p.5). Remarkable growth was evident in all industrial products. Coal exploration, for example, topped 26.39 million tons, 5.7 times higher than in 1990; electricity production was 5.2 times greater, cement production ten times greater, and assembled television production 17.6 times greater (Anh, p.5). The proportion of agriculture in GDP sharply declined from nearly 40% in 1988 to around 20% in 2005, while concurrently vast improvements were made to increase production efficiency (Anh, p.6). The GDP share of industry increased from 21.6% to 41% in the same time period, while the service sector increased from 33.1% to 38.1% (Anh, p.6) (See Appendix B: Vietnamese Gross Domestic Product).

The liberalization of business ownership led to the establishment of more than 48,000 private businesses from 1990 to 1999 (Anh, p.6). During the majority of Vietnam's rapid growth, manufacturing has been the fastest growing sector of economy. Between 2001 and 2010, manufacturing increased as a percentage share of industrial outputs from 81.2% to 86.49% (Anh, p.7). Manufacturing growth can be directly linked to the availability of a large pool of agriculture and SOE workers freed up by reforms in both of those sectors. Early growth in manufacturing had an immediate impact on wages for skilled nonagricultural workers in Hanoi and Ho Chi Minh City. Manufacturing work in these cities has consistently grown faster than any other form of employment (Glewwe, 2004, p. 85). By the early 1990s workers in medium-size and large cities worked, on average, 50% more hours per year than rural wage laborers (Glewwe, 2004, p. 85). The transition to a manufacturing and service economy coincides with higher wages for nonagricultural employees in all the regions of the country (Glewwe, 2004, p. 85). Vietnam's manufacturing industry growth has been the primary driving force in the country's rapid economic growth over the last thirty years.

Establishment of Economic Process Zones and Industrial Zones

Relatively early in the *Doi Moi* process, Vietnam adopted the concept of Economic Process Zones (EPZs), which were first introduced to Asia in the mid-1960s. Under this model, developing countries with extensive trade protections create geographic zones in which market-oriented economic policies are implemented, in an attempt to generate foreign exchange, create employment, and transfer technologies. EPZs enable governments to partially open their markets while retaining domestic control. EPZs also provide an enclave for foreign investors, with plentiful access to low-cost labor and favorable tax benefits. South Korea, China, and Taiwan successfully implemented EPZs as part of transitions to market economies. It is also notable that those economies benefited from a combination of free market and industrial policies, and strong government support for their EPZs (Amirahmadi and Wu, 1995).

Vietnam established its first EPZ in Ho Chi Minh City in 1991, as a strategy to support the growth of manufacturing exports. At first, most Vietnamese EPZs were joint ventures of SOEs and foreign infrastructure investment partners. However, due to the lack of capacity to track FDI and efficiently move factories into the EPZs, infrastructure development and management changes lagged for years (Vo and Nguyen, 2012). Additionally, the party leadership did have some concerns about whether FDI would undermine the country's fragile industries, and it hedged against that risk by limiting its investment in EPZs. Those factors, combined with the general trend of decreasing FDI going into Asian economies (particularly during the late 90s financial crisis), hampered the success and ongoing development of EPZs (Vo and Nguyen, 2012).

Again seeking to expand its manufacturing sector, Vietnam shifted to development of Industrial Zone (IZs) instead of EPZs in the early 1990s. IZs differ from EPZs in that they are not only export-oriented, but also serve the domestic market. Vietnam's IZs allowed foreign investment in both international and national markets. The government also did not apply its export subsidy policies within the IZs, making them more flexible and better able to target local markets. The implementation of the IZ model opened new channels of FDI inflow and boosted domestic production. Today, Vietnam has 283 industrial zones, spread across 58 of Vietnam's 63 provinces, compared to just six EPZs (Vo and Nguyen, 2012, p. 146).

Development of Manufacturing

Prior to *Doi Moi*, SOEs were the dominant players in the manufacturing industry. According to Dodsworth, in 1989, SOE production accounted for about 50% of the overall manufacturing industry output and a significant proportion of services (McCaig and Pavcnik, 2013). SOE inefficiency was, and still is, a major limitation on growth. A Ministry of Finance report indicated that in 1997, 46% of the 5,800 SOEs had been operating at a loss (Hakkala, Kang, and Kokko, 2001). The inefficient firms made poor use of scant national resources. Despite those weaknesses, SOEs had priority access to inexpensive credit (McCaig and Pavcnik, 2013). As a result, the manufacturing industry was neither cost-competitive nor able to provide an adequate supply of goods to the market.

While the reform of SOEs has both symbolic and tangible importance in the transition from a socialist to market economy, Vietnam has been unable to undertake a meaningful process of SOE reform. One reason is that SOEs, especially the larger conglomerates, have substantial influence over the political process — and have consistently lobbied against the reform-coalition in Vietnam's legislature, except in those instances where reform equated to SOE expansion. Moreover, appointment of SOE heads are made by the Prime Minister, and thus, such appointments are a critical piece of the PM's power structure. This makes it difficult, even for reform-minded PM's, to fully commit to undertaking the painful task of SOE reform. Thus, the SOE reforms are always characterized as a 'gradualist approach', where drastic reform is not possible in the short term (Van Tho, 2013).

Through this gradualist approach, the government has attempted to bolster the private sector in order to reduce the economic importance of SOEs, rather than pursuing that aim through more direct reforms. Complicating this gradualist approach, VCP leaders held disparate views regarding the role of the state in economic affairs. More recently, the reform coalition has sought not only to improve conditions for private enterprises, but also to directly reduce the size of SOEs. However, conservative leaders view the state's active role in the economy as key to the success of the socialist model. Thus, while the state has taken some steps to better support the growth of private enterprises, greater efforts to reform SOEs have been stymied.

This is exemplified in the Vietnamese government's attempt to enlarge the indigenous private sector by passing the Law on Private Business in 1990. The law legalized the activity of private enterprises and was treated as a long-term strategy (Van Tho, 2009, p.86). The hope was, with the increased speed growth of the non-SOE sectors, the importance of SOE can be gradually reduced. However, due to the inequality in resource allocation and incomplete reform of the legal environment, the private sector was not able to achieve substantial growth.

By 1997, SOEs still accounted for almost 52% of the overall industrial production. The government controlled nearly 100% of important industries, such as machine production, and oil refinery. Since then, the proportion of GDP generated by SEOs has fallen to 41.2%, when accounting for joint ventures between foreign firms and the state or SEOs (Van Tho, 2009, p.88). At present, Vietnam still has not undertaken the final stage of SOE reform, which would entail further privatization and the complete cessation of preferential credit.

Development of Services

The Vietnamese government has taken important steps toward liberalizing its service sector, particularly tradable services (Breu et. al, 2012). Services now account for 37% of GDP (p. 13). Both tradable services and non-tradable services have grown considerably since the 1990s; high growth has continued throughout the most recent period, as the sector has grown, on average, eight percent annually since 2010 (p. 13). Services exports have grown strongly throughout this period, particularly in tourism, retail, and transportation (p. 12, p. 16). Still, as in other sectors, a potential risk for the continued growth of services exports is the role of SOEs, whose dominance in financial services, insurance, hospitality, and tourism are a drag on the industries' overall productivity (Matheson, 2013).

FDI has become an important driver of growth in service exports. Real estate alone represented about 20% of total FDI in 2009 (p. 14). In recent years, the Vietnamese government has named offshore IT services a high-potential industry for the country (p. 35). Indeed, several multinational companies in that industry have recently invested in Vietnam. McKinsey Global Institute concluded that Vietnam has "potential to become one of the top ten locations in the world for outsourced and offshore services," though goes on to note that success depends on improvements to the country's infrastructure and further support for an education system that produces more highly skilled and additional multilingual workers (p. 35).

Education Reforms:

In addition to agricultural, industrial, and market reforms, education reform was a core element of *Doi Moi*. Beginning in 1986, Vietnam took on a full renovation of its education system. At the outset of this process, educational access and quality were low, though decent compared to Vietnam's neighbors. But education became "the first national priority...the driving force and the basic condition in ensuring the realization of the [reforms'] socio-economic objectives" (Dang, 2008). Vietnam's strong performance over time required the Party's commitment to successive reforms, long-term investments, and effective implementation. Its success was also reliant on the lessons drawn from the VCP's previous, less successful experience attempting education reforms.

During the decade between reunification and the beginning of the *Doi Moi* era, Vietnam's education system underwent extensive, though ultimately unsustainable, reforms. After reunification, the government initiated efforts to integrate the Southern provinces' education system (World Bank, 2005). Schools were brought back under central control and gradually stripped of religious influence. It also attempted to upgrade educational quality and modernize the curriculum. For example, an ambitious plan implemented in 1982-1983 combined primary and lower-secondary schools and replaced textbooks at all levels.

Those reforms, however, required far more resources than were available after the war. Education was just one aspect of the reunification effort, competing with numerous other priorities. As education quality began to decrease, teachers abandoned schools and students were unable to find employment (World Bank, 2005). The combined schools divided and reverted to the original system. The central planning system was unable to prevent the reforms' failure.

Thus, in 1986, Vietnam's education system was still badly in need of reform. One of the most important early reforms took place outside of the formal school system. The government initiated a massive literacy campaign, particularly focused on reaching citizens between 12 and 15 years of age—those who were likeliest to participate in the workforce or enter it in the near future. Millions of Vietnamese between those ages were involved in the teaching and learning process. Astonishingly, by 1987, one million previously illiterate people had achieved literacy (World Bank, 2005).

With regard to schools, initial reforms concentrated on sustainably improving quality and expanding access and participation. Reflecting the country's Confucian tradition, which holds teachers in particularly high esteem, the government significantly raised teachers' wages in an effort to increase quality. Within a decade, teachers' wages represented almost 80% of all public education expenses (Dollar and Litvack, 1998, p. 204). Overall, government expenditures on education increased from just one percent of GDP in 1990 to 3.5% in 2000 (Education in Vietnam, 2005). The government allowed schools to supplement their funding—often necessary to operate sustainably—by allowing most educational institutions to charge and collect tuition fees, which were tied to the price of rice. Schools could not assess tuition on students attending grades one to three. Monthly fees increased based on the level of education provided. Grades four to five, for example, were equal to the value of one kilogram of rice per month, while fees for lower-secondary school were two kilograms of rice (Dollar and Litvack, 1998, p. 208). The government also started to permit privately-held kindergartens and authorized semi-public schools founded by individual citizens.

Perhaps due to the government's interest in how *Doi Moi* reforms impacted inequality, education reform included policies that supported widespread, equitably distributed access to decent quality education. The initial literacy campaign, for example, was implemented throughout rural regions and targeted the poorer Southern provinces. To ensure affordability, students from impoverished families, orphans, those with disabilities, and children from minority ethnic groups have been exempted from fees (Dollar and Litvack, 1998, p. 208). The government has also based fees on whether the school is located in one of the major cities or a rural area.

On the whole, the *Doi Moi* education reforms were more sustainable, better resourced, and better-implemented than those reforms made between 1976 and 1985. The education reforms led Vietnam to achieve impressive improvements to school participation rates and educational quality, and contributing to the country's inclusive economic development. In the 2004-2005 school year, 98% of primary school-age children participated in the education system (World Bank, 2005, p. 208). For all levels, the wealthiest students have the highest net attendance rates (above 95%), but participation rates remain high for many less advantaged groups (Dollar and Litvack, 1998). For example, the rural participation rate is, like the urban rate, above 95%. Similarly, female participation rates are above 90% (World Bank, 2005, p. 208).

By 2012, Vietnamese students demonstrated exceptional performance on the OECD's Programme for International Student Assessment (PISA). PISA assesses each country's education systems by testing 15 year-old students in reading, mathematics, and science, with an emphasis on assessing students' critical thinking skills and ability to apply knowledge learned in class to new situations. In 2012, Vietnam was among the 20 highest-scoring nations in each of the three subjects. Students did extremely well in science and ranked eighth within all 65 countries and regions (Schleiner, 2015).

Political Efforts to Maintain, Strengthen, and Expand on *Doi Moi* Reforms

Political Context for Post-*Doi Moi* Reforms:

Because of the divide that persisted in Vietnam's leadership after the passing of *Doi Moi*, the objective and scope of future reforms was unclear. As detailed above, the early reforms — particularly the foreign investment laws — largely complemented the state-led growth model, by increasing the role of SOEs in key sectors of the economy. Without reform of the SOE sector, Vietnam faced falling into a PRE trap. The divergent visions for Vietnam's future among its leaders can essentially be broken into two camps: traditionalists, who wanted to preserve or expand the state's role in economic affairs, and reformers, who sought to fortify the private sector, and further transition to a market economy.

As the two forces vied for political power in the subsequent decade, the success of Vietnam's economic future swung in the balance. That Vietnam was able to pass a series of reforms that allowed it to avoid a PRE trap is attributable to the following changes in its political structure.

Beginning of Political Reconfiguration, 1992-1996:

"Vietnam's political system is based on clientelism and factionalism and, hence, the leadership of the country really matters" (Abuza, 1998). Indeed, after the passing of *Doi Moi,* the Vietnamese government became ensnarled in a divisive fight between its reform-minded leaders, and those who advocated the traditional Communist platform. While *Doi Moi* had laid the foundation for economic success, without further reform, the country risked falling into the PRE trap, as detailed above.

The reform coalition in Vietnam was headed by Võ Văn Kiệt, who at the time of *Doi Moi* served as deputy Prime Minister and a member of the CCOM. Kiệt had earned his party credentials fighting in the First Indochina War, and serving as a commander of the Communist army in Saigon and the surrounding areas during the Second Indochina War. When the North Vietnamese took Saigon in 1975, he was appointed party chief. Kiệt's role in Saigon is critical to understanding his desire and ability to lead the reform movement. His exposure to the economic prosperity of Saigon under the South Vietnamese leadership had shown him the potential gains from capitalism, and he understood the benefit of incorporating some of those insights into the Party's platform. Yet, as a bona fide party insider, Kiệt was viewed as credible, and at the outset of his career, he deftly understood his boundaries and toed the party line (Malesky & London, 2014). This posture would change, though, as the conservative faction sought to impose its agenda and maintain the role of the state as the paramount economic force.

In the four years that followed the passing of *Doi Moi,* four of Vietnam's oldest and most experienced leaders in the Politburo passed away (Malesky et al., 2014). Unsurprisingly, these four members were deeply committed to the ideological principals of Vietnam's Communist past, and thus, represented a barrier to future reform. Their passing brought fresh, forward-minded voices of the emerging young elite to the Politburo. In 1991, Kiệt was elected Prime Minister, and pushed for the reformation of the legislative process which resulted in the aforementioned transfer of decision-making authority to the CCOM in 1992. This shift of power from the Politburo to the CCOM also altered the power structure by making the Prime Minister the most important political figure.

Though Kiệt and his coalition of reformers enjoyed early successes, they were still unable to usurp the power of the conservative faction. The emergence of a third faction of voters, interested in rebuilding the power of the military in political affairs, further split votes in the CCOM (Malesky et al., 2011). The military coalition, though sometimes split between the two, was mostly aligned with conservative traditionalists, which in some ways further impeded the progress of the reformers (Riedel & Turley, 1999). Yet, the third bloc of votes, not entirely beholden to either coalition, further added to the need for compromise. Between 1992 and 1996, the CCOM was divided between the disparate visions set forth by Kiệt and that of the conservative coalition, headed by then-Prime Minister Đỗ Mười.

In August 1995, Kiệt penned a memo to his colleagues in the CCOM — which was subsequently leaked and widely published in the media — stating in detail the differences between his conception of market-oriented-socialism, and that of the traditionalists. He argued that it was "totally wrong" to view the power of the state as a precondition and objective of socialism, which had been one of the tenets of the *Doi Moi* reforms. Kiệt decried the preeminence of the state sector, stating that the years prior to and since *Doi Moi* had shown that SOEs were unable to efficiently mobilize resources and provide jobs, and argued that the Party should create a "level playing field" between state and private actors (Riedel & Turley, 1999).

Giving voice to the conservative opposition, Đỗ Mười advocated gradualism in reform, and the continued dominance of the state in economic affairs. He contended that increased foreign presence would turn Vietnam into a "consumer market for foreign products and into a source of raw materials for foreign countries" (Riedel & Turley, 1999). Tapping further into the country's anxieties over foreign intervention, he argued that private- and foreign-sector growth made the country susceptible to "conspiracies" aimed at undermining the VCP. His conclusion was that the state sector must be strong enough to "serve as the backbone of the national economy" (Riedel & Turley, 1999).

Because the party statutes demand unanimity, and the CCOM was divided, the result was compromise between the factions. Yet, because the conservative coalition was steadfast in its resolve to continue the state-led growth model, and reformers could not impose their agenda, Vietnam was unable to garner the political will to take the painful step of reforming the SOE sector. This ultimately led to another series of half-measures which further entrenched the SOE sector, detailed below.

Merger and Consolidation of SOE Sector, 1995

Just as the nominal liberalization of FDI after *Doi Moi* led to the growth of the SOE sector, so did the "consolidation" of SOEs in 1995 have perverse effects. Despite its effective goal of reducing the size of the sector by halving the number of firms, the legislation simply created a smaller group of larger conglomerates, without affecting the economic significance of SOEs. This is a perfect example of the PRE trap in which Vietnam found itself before the segmentation of SOE-dominated provinces in the following year. The result was a more consolidated, and thus more politically powerful, group of SOE leaders, vying for the preservation of an increasingly inefficient and unproductive collection of companies.

Reformers Seize Power, 1996-Present:

Though the Eighth Party Congress in June 1996 exhibited the deep divides forming in Vietnam's leadership, the reform coalition was able gain more support in the CCOM, and ultimately seize a majority of votes in 2001. At least one major, behind-the-scenes maneuver allowed for the spread of political capital away from the entrenched elites. In a singular analysis of the process by which Vietnam selects its provincial leaders, Malesky (2009) explains how reform-minded politicians used territorial *gerrymandering* to achieve greater authority. As shown, the early-winners from *Doi Moi* — and indeed, the long-standing winners in Vietnamese society — were those with entrenched interests in the preservation of the SOE sector. Many of the provinces represented in Vietnam's political bodies were bifurcated areas, with one region dominated by SOEs and the other more rural, and in need of revenue. In a political maneuver of immeasurable effect, the reformers were able to split these provinces in two: one still SOE-dominated, the other not. This effectively doubled the number of potential winners from further economic reform. Of course, the next task was to combine these disparate interests into a cohesive unit, which could counter the strength of the conservative voting bloc in the CCOM.

As mentioned in a previous section, the Vietnamese government uses a series of transfers to combat inequality and poverty in provinces whose revenues cannot cover expenditures (See Appendix M: State Budget Expenditure Final Accounts). These transfers were a critical tool for "compensating" the provinces who were potential winners from future reforms, and from the period 2001-2006 averaged 6% of GDP (Malesky et al, 2011). The reformers, emboldened by their new bloc of votes, set out to reform the onerous legislation that constrained the private sector.

Asian Financial Crisis and Response, 1997

The Asian Financial Crisis of 1997 further emphasized the need for market reform and liberalization. At the time, 70% of Vietnam's trade was concentrated in Asia (Abuza, 1999). A report published by the World Bank in that year cited the regional financial crisis as one of the conditions that "clearly indicate the need for Vietnam to embark on a greatly deepened economic reform program and speed up…[its] difficult transition to a successful market economy" (World Bank, 1997).

In response to this economic reality, the reform coalition was able to garner support for private sector reforms, even before it had taken a majority of votes in the CCOM. The fact that the conservatives allowed for these changes, as before, does not indicate a shift in their ideology away from the state-led growth model. Instead, as *Doi Moi* had been a reactive solution to the crises of the 1980's, the conservatives' support for private sector reforms indicated the failure of Vietnam's current policies, which restricted its trade activity to its Asian counterparts. In order to attract the interest of the West, Vietnam clearly needed to further reform its private sector, and the means through which foreign enterprises could enter the economy. This economic reality led to the reforms detailed below.

Enterprise Law, 2000 & Unified Enterprise Law, 2005

The first incarnation of the enterprise reform law, in concert with its later expansion in 2005, was one of the biggest forces behind Vietnam's success since the turn of the century. The legislation made it dramatically easier to establish private businesses, by reducing the registration barriers and wait times to create new firms. From 1999-2000, the number of newly registered firms more than doubled from 3,601 to 8,785, and the gap between establishment and registration nearly halved (Baccini et al, 2013). In 2001, the reformers secured a majority of votes in the CCOM (Malesky, 2009). This allowed for the passing of the second enterprise law in 2005, which was meant to prepare Vietnam for entry into the WTO.

The 2005 law allowed firms to establish and register as a single step. The result was a near 20% increase in private sector investment as a percentage of total investment flows over the period 2000 to 2007, and a corresponding decline in SOE investment during the same period (Baccini et al, 2013).

Comparing *Doi Moi* and later reforms to the Chinese reform model of Deng Xiao-Ping:

It is easy to assume that the economic reform model so successfully implemented in Vietnam was a direct import from China, whose reform began in 1978. VCP leaders were well aware of the Chinese model, but in many ways forged their own path to economic liberalization. Still, there are a number of significant similarities between these two nations' reform policies. First, both China and Vietnam encouraged FDI on a larger-scale FDI than other Asian Tigers such as Taiwan and South Korea (Perkins, 2013). This investment supported rapid growth in manufacturing, especially in textiles and other light industry. In addition, both China and Vietnam were able to redeploy a significant proportion of the labor force from agriculture, following successful reforms, to serve the manufacturing sector. Finally, both countries implemented reforms that eliminated some state owned enterprises, but both nations still maintain a significant number of these operations that present a challenge to continued growth.

Though Vietnam utilized the Chinese model, its leadership adapted it to meet its unique economic and political situation. Vietnam faced two major problems that China did not: a large foreign trade deficit and a very high rate of inflation (Perkins, 2013). Vietnam had to quickly deal with the loss of Soviet subsidies in the late 1980's that eventually ceased in 1989. These subsidies financed a large amount of government spending (Glewwe, 2004, p. 22). These differences led to a very quick opening of the Vietnamese economy following 1986. A major difference in agrarian reform between each model is that China implemented gradual agriculture price deregulation while the Vietnamese almost immediately removed all internally set prices and began competing on the world market. The initial export markets of both countries differed with initial Vietnamese trade exports including a number of mineral rich items such petroleum, while the less mineral rich China almost immediately focused on manufacturing.

Another substantial difference between the two nations is highlighted in the structure and growth of their service sectors, where the Vietnamese government has implemented aggressive policies intended to accelerate the development of high-value-added services. This stands in contrast to China, whose government has focused more strongly on manufactured exports and maintaining barriers to trade and investment in services. Chinese services account for a smaller percentage of GDP than the global average for developing countries. Such divergences are evidence that, while both nations followed similar paths to economic success, Vietnam has set its own path to economic success.

Finally, Vietnam's political divergences from China have been critical in engendering downward accountability in its legislative bodies. While China has condensed its political decision-making apparatus into a subgroup within the Politburo, Vietnam transferred this authority largely to its CCOM in 1992, broadening the range of feasible policy opinions considerably. In many ways, this allowed Vietnam to continue on its path toward reform after the passing of *Doi Moi*.

IMPACTS OF DOI MOI REFORMS

Doi Moi was tremendously successful in enabling Vietnam to grow rapidly, succeed within the global economy, and foster a prosperous, well-educated society with decent employment opportunities, rising incomes, and widely shared prosperity. The following section provides analysis of the impact of *doi moi* on economic growth and trade agreements, employment, and poverty and inequality.

Trade Agreements and Economic Growth:

As its economy grew and became more productive, entering into new trade agreements became one of the government's primary strategies for entering new export markets. At the outset of *Doi Moi* ,the devaluation of the Dong contributed substantially to the feasibility and success of that strategy. Vietnam's first trade agreement, a preferential trade agreement with the European Economic Community that established quotas on the export of textiles and clothing to the EU and granted tariff preference to selected imports, was signed in 1992 (Abbott, 2007, p. 8). This agreement supported the rapid growth of the footwear and garment exports to the European Union (see Figures 13 and 15, Appendix I: Increasing Value of Export Products). Vietnamese exports following the agreement grew from less than $1 billion to more than $4 billion by the end of the decade (Abbott, 2007, p. 34). Subsequently, Vietnam initiated relations with the Association of Southeast Asian Nations, officially joining in 1995. Joining ASEAN opened Vietnamese products to a number of regional markets and signaled with a binding international statement that Vietnam was fully committed to opening its trade policies. Evening during the Asian financial crisis of the late 90's, Vietnamese trade increased significantly with its ASEAN partner nations (Abbott, 2007, p. 14).

In 1994, the United States ended its trade embargo on Vietnam, and, within a year, restored diplomatic ties with the country. These step set the groundwork for the eventually sizeable trade relationship between both nations. The next major development in the countries' trade relationship occurred in 2001, when Vietnam and the United States signed a wide ranging Bilateral Trade Agreement (Abbot, 2007, p.7). The agreement granted Vietnam conditional most favored nation trade relations status, and gave both nations access to import goods and services from one another (Abbot, 2007, p.7). Normalized trade relations resulted in greater US investment in Vietnam. The free trade agreement opened up a vast market for Vietnamese goods, and the United States quickly became the primary export destination for Vietnamese products. By 2003, Vietnam exported 22% of its gross export share, valued at just about $5 billion, to the United States (Simoes, 2015).

The bilateral agreement also set the stage for Vietnam to receive a designation as a permanent most favored nation with the United States in 2006, with an eye on World Trade Organization ascension shortly after (Abbot, 2007, p.7). In 2007, Vietnam gained WTO membership, which opened Vietnamese products to an even greater number of export markets with reduced or eliminated export tariffs. Since Vietnam's membership in the WTO, its already substantial economic relationship with the United States vastly improved with the value of its exports more than doubling between 2006 to 2013 from 9.2 billion to 24.5 billion (Simoes, 2015). Vietnam's participation in free trade agreements has been a substantial factor in growth by opening large markets to Vietnamese products responsible for its economic expansion. Additionally, these agreements have allowed the country to integrate into East Asian value chains, while signaling to foreign investors that the country was committed to open trade practices. Free trading agreements now only remove barriers to trade but have helped eliminate bureaucratic red tape and other institutional barriers that further inhibit trade (Khandelwal, 2013). Vietnam's manufacturing growth required the opening of new markets, especially in the United States, ASEAN nations, and China; free trade agreements successfully accomplished this key component to realizing export growth.

Two competing political interests underlie Vietnam's affinity for trade agreements. On the part of reformers, entering trade agreements has forced Vietnam to agree to reforms mandated by the negotiations. This external pressure has been critical in yielding some of the private-sector reforms, such as the Enterprise Law of 2000, that have been so critical to Vietnam's success. FDI inflows have allowed the economy to weather economic downturns, such as following the Asian financial crisis of the late 1990's. Yet, SOEs dominate many sectors which have received significant capital inflows investment from trade agreements. The flow of capital has fortified the entrenched-yet-inefficient SOE conglomerates, and even enabled them to expand out of their core competencies (Baccini et al, 2013). Once more, government action to systematically reduce the importance of SOEs in FDI-heavy industries, is a necessary next step to support further trade liberalization and enterprise reforms.

Employment:

The reforms have had profound impacts on employment in Vietnam. The labor force itself has grown at a 2.2% average annual rate since 1990 (McCaig and Pavcnik, 2013. p. 5). Internal migration, transformation in the agriculture sector, and the emergence of private enterprise and then foreign-invested firms all led to improvements in the number and quality of employment opportunities available. From the beginning, *Doi Moi* ushered in an era of greater labor mobility and intra-country migration. Through the early 1990s, the government initiated a number of mass-scale controlled migrations intended to support its economic development plans (Phan and Coxhead, 2007. p. 5). Most migration was from rural areas to other rural areas. For example, the government moved large numbers of people out of the Red River Delta region to the Central Highlands and the Southeast, in order to more efficiently allocate agricultural labor under the rapidly changing conditions of the transitioning economy. Government-mandated migration policies were generally unsuccessful; as many as half of all those moved to New Economic Zones, for example, resettled again (Phan and Coxhead, 2007. p. 6). Controlled migration efforts were abandoned by 1994.

After the early 1990s, migration became freer and more self-determined, despite the continuing *ho khau* policy. Rural-to-urban migration began to take off, as poor, rural Vietnamese laborers sought higher wages in the cities and regions with greater exposure to export markets. The largest rural-to-urban migration flows were from the Red River Delta to Hanoi and from the Southeast and the Mekong River Delta to Ho Chi Mihn City (Phan and Coxhead, 2007. p. 8). After decades of tightly controlled migration, between 1984 and 1989, almost five percent of Vietnamese changed residences, almost half of whom moved to different regions (Phan and Coxhead, 2007. p. 7). These trends have continued through the 2000s. One study concluded that migration is "high by the standards of low-income countries and represents a substantial reallocation of productive resources" (Phan and Coxhead, 2007. p. 7). Overall, both the policy and economic factors that boosted internal migration resulted in a greater variety of employment opportunities overall, new sectors, new firm types, and new regional opportunities. Today, labor mobility continues to be high, with one study concluding that "Vietnam also appears to have more flexible labor markets" than many other developing nations with similar characteristics (McCaig and Pavcnik, 2013. p. 26). The ability of workers in poorer areas to migrate to regions with more and better employment opportunities is an important source of popular support for reform efforts.

The transformation of the agricultural sector illustrates the growth in these new opportunities. Early *Doi Moi* reforms, particularly those concerning the rice markets, yielded an early explosion of productivity. Soon Vietnam became one of the largest rice exporters in the world. Rapid agricultural productivity growth continued for years, yielding 3.5% average annual growth between 1990 and 2008 (McCaig and Pavcnik, 2013. p. 2). Collective farms became household farms; eventually many of them registered as formal enterprises, and some began exporting, bringing productivity and wage gains with each new phase. As a result, the share of employment in agriculture dropped from 73% in 1990 to 54% in 2008; almost 30% of the agricultural workforce had found employment in other industries (p. 6).

And this pattern of structural change played out not just in agriculture, but also in manufacturing, and a variety of other industries (services is somewhat of an exception). McCaig and Pavcnik estimate that this structural change, across all industries, accounts for 38% of the growth in labor productivity, which averaged 5.1% per year from 1990-2008 (2014, p.27). Workers economy-wide moved "from less productive household businesses toward more productive registered firms in the enterprise sector, and from SEOs toward more productive private domestic and foreign-owned firms" (McCaig and Pavcnik, 2014. p. 27). The fact that the gains were achieved across a variety of sectors meant that "workers leaving agriculture and less productive employers are fairly quickly absorbed into more productive sectors and firms in manufacturing and services" (p. 25). This not only transformed employment but also potentially mitigated the growth of income inequality, as opportunities were widely available and accessible to broad swaths of the population. (See Appendix D: Shares of Employment by Sector).

Poverty and Inequality:

Vietnam's stable level of income inequality throughout two decades of reforms sets it apart from other fast-growing developing nations. One World Bank report dubbed Vietnam "a tremendous example of shared prosperity" (Dinh, Demombynes, and Badiani-Magnusson, 2014. p. 38), while another concluded that "growth has been broad-based and pro-poor" (Isik-Dikmelik, 2006. p. 28). Income inequality has grown slightly over the period, driven largely by the rapidly rising incomes of earners in the highest quintile. This trend has emerged recently and accelerated significantly since the early 2000s, with the highest earners experiencing "the largest absolute gains in living standards between 2004 and 2012" (p. 38).

An important outcome of reform efforts is the growth in incomes in the middle of the distribution. Dinh, Demombynes, and Badiani-Magnusson found that "between 1993 and 2012: incomes of the bottom 40 grew at an annual rate of 8.9%, exceeding the 7% growth rate of the top 60%" (p. 36). (See Appendix K: Income).

Although the incomes of the poorest have grown more slowly than those of higher earners, they have grown consistently, again providing a mitigating force to increasing inequality. Since reforms began, poverty has fallen from 58% to less than 15%. Almost half of the Vietnamese population has moved out of poverty since reforms began. By 2011, the poverty rate was just 12.6% (Dinh, Demombynes, and Badiani-Magnusson, 2014. p. 15). However, the Vietnamese government has adjusted the poverty level and updated its formula since 2010, under concern that it was underestimating poverty (Well Begun, Not Yet Done, 2012). Under the new measure, World Bank data reports that the poverty level was significantly higher in 2012 (17.2%), but fell to 13.5% by 2014[1] (See Appendix L: Inequality).

Vietnam's poor have also unquestionably experienced consistent increases in living standards. One useful composite measure, the United Nations Development Programme's (UNDP) Human Development Index (HDI), increased 19% between the early 1990s and 2008 ((Well Begun, Not Yet Done, 2012, p. 19). More specifically, more than 95% of the population has some access to electricity, for example ((Well Begun, Not Yet Done, 2012, p. 79). Particularly since the early 2000s, the poor have increased consumption of consumer durables, including motorbikes (owned by 51% of the poor in 2010, up from two percent in 1998) and rice cookers (46% owned a rice cooker or an electric stove in 2010, up from one percent in 1998) (p.79). On the whole, poverty reductions have been so successful that one report suggested that "the task [poverty reduction] may be finished in terms of meeting the most basic food, shelter, and clothing needs of Vietnamese citizens" (p. 20).

Dinh, Demombynes, and Badiani-Magnusson identify four reasons for Vietnam's widely shared prosperity (p. 37, Note 51):

1. The agriculture sector has continued to grow dependably for two decades, although at a slower rate recently than at the outset of reforms.
2. Growth has been relatively evenly distributed across regions; Vietnam's massive success in rice and other agricultural exports have supported rising incomes in rural regions even as manufacturing and FDI supported rising urban incomes.
3. The manufacturing sector has been able to absorb so many unskilled workers that they did not face unemployment.
4. Fourth, remittances have mitigated the growth in inequality.

Remittances are of particular importance in Vietnam. In 2014, remittances' share of GDP (6.4%) was the 11th highest in the world. Intra-country remittances from higher earning workers, mostly in cities, to lower-earning family and community members elsewhere) are important in reducing inequality as high

[1] See World Bank Data profile for Vietnam at: http://data.worldbank.org/country/vietnam.

earners voluntarily redistribute earnings to poorer relatives and community members. About 20% of households report receiving remittances, making it a critical source of household income. One survey of internal migrants found that 55% sent money or goods to relatives in other areas of Vietnam, and the average remittance was 17% of their income.

However, the relatively stable levels of inequality at the national level obscure existing disparities within Vietnam. From the outset of reforms, "the largest sources of inequality came from within-group inequality rather than between-group inequality (urban-rural, regions, ethnic groups, employer of the household head, occupation, sex and education of the household head)" (Hien, 2011. p. 7). Rural-urban inequality has always been a leading source, with 95% of the country's poor living in rural areas (Well Begun, Not Yet Done, 2012, p. 100). However, rural and urban incomes have moved slowly toward convergence, and the trend has continued throughout the 2000s. In 2002, urban households' income was 2.2 times higher than that of rural households, and by 2012 that disparity had shrunk to 1.8 times (figures calculated based on data from the General Statistics Office of Vietnam; see Appendix K: Income). Regionally, poverty has remained persistently high in the North West and North East regions, and decreased most in the Red River and Mekong Deltas (p. 98). The poorest areas tend to have the highest levels of intra-region inequality (p. 103). That said, as one academic noted, "it is rare for a country to see incomes almost double in 10 years with so little change in inequality" (McCaig et. al, 2015, p. 13).

"At least some of the increase in rural inequality can thus be pinned to the risking Kinh-minority income gap," the same researcher went on to conclude (McCaig et. al, 2015. p. 15). Ethnic differences are one of the most important sources of inequality in Vietnam. The Kinh, Vietnam's ethnic majority group, accounts for 85% of the country's population but just 40% of its poor; meanwhile, the 15% of ethnic minorities account for 60% of the poor and have a poverty rate of 66% (Well Begun, Not Yet Done, 2012, p. 70).

Since *Doi Moi,* Vietnam's central government also took an active approach to countering poverty and inequality through government programs and robust social spending—a trend that has continued into recent years. From 2001 (the first year that consistent data are available) to 2006, Vietnam expended an average of 28% of GDP on public spending initiatives (Malesky *et al*, 2011). In addition to this broad metric of spending, Vietnam uses two specific mechanisms to transfer money to poorer provinces that cannot raise sufficient revenues. The first of these programmatic transfers is the budget transfer, used for provinces that cannot meet their expenditure targets for education, health, infrastructure, and tax collection services. The second type, the block grant, is used to specifically address disparities in poverty, education, and health between provinces. During the 2001-2006 period, equalizing transfers to provinces averaged nearly 6% of GDP (Malesky *et al,* 2011). Malesky et al (2011) use sub-national data on Vietnam's 64 provinces to examine the extent to which patronage and corruption may divert these funds away from poverty and development efforts. What they find is that the poorest 60% of

Vietnamese provinces contribute only 13% of the country's provincially-collected tax revenue, but receive nearly 45% of public expenditures. This strongly supports the contention that a high priority of Vietnam's central government is mitigating the disparities between provinces, and making sure the poorest do not get left behind.

WHAT MAKES VIETNAM UNIQUE?

By almost any measure, Vietnam has had remarkable success over the past thirty years. Most economic reform efforts do not yield such transformational results. Vietnam's rapid economic success following the implementation of *Doi Moi* economic reform can be attributed to a number of factors. The country's natural geographic characteristics make it an excellent location for shipping and logistics operations. Vietnam's proximity China and South East Asia's manufacturing and shipping structure make it ideally suited for integration into the global economy. This location coupled with low-cost but relatively well-educated labor have made Vietnam a very attractive location for labor intensive and increasingly more skilled manufacturing operations. The large low cost labor force coupled with government deregulation strongly encouraged foreign direct investment that has further propelled Vietnamese growth.

Vietnam's political structure was well suited to facilitate sustained reforms and a stable transition. The party was able to avoid divisions that could have derailed trade liberalization and growth. Vietnam's long institutional history and strong and stable control of the Vietnamese Communist Party significantly eased complications that many economies in transition experience. Vietnam's derived almost immediate economic benefits and growth from market liberalization which coalesced into continued support for reforms. Moreover, overwhelming reduction in poverty, and broadly shared prosperity have contributed to social stability and public support for reforms.

Geographic Conditions, Location and Integration in Global Supply Chain:

Vietnam's rapid successful integration into the world economy has been a key component in its vast economic improvements over the last thirty years. What has made Vietnam so successful compared to the many other countries have tried and failed to rapid integrate in the world economy? Vietnam's geographic conditions and proximity to the global supply chain have the allowed the nation to rapidly integrate into manufacturing value chains and set the condition for rapid economic improvements. Vietnam's unique geographic conditions make it uniquely well suited for international trade compared to many similar low income countries in the 1990s.

Vietnam's natural geographic advantages for international trade include a large coast line greater than 1800 miles with multiple deep water ports including Ho Chi Minh City and Hanoi. Additionally, Vietnam has a massive inland water transportation system with more than 9000 miles of navigable rivers currently under Vietnamese Ministry of Transportation administration. Inland waterways include the

Red River Delta located in Northern Vietnam which gives Hanoi access to the coast and the Mekong Delta in Southern Vietnam that form west of Ho Chi Minh City and provides Southern Vietnam river access to the coast. Vietnam's largest manufacturing bases are located in proximity to these two major cities in large part due to each delta's ability to support a high volume of shipping operations. This massive network of rivers and delta allows for dispersion of manufacturing around these major deltas and high volume low cost shipping across much of Vietnam (Blancas, 2014. p.10). 193 million tons or 48.3% of Vietnam's inter provincial shipping volume in 2008 was by inland water transportation (p.14). Vietnam's vast natural transportation network strongly supported the countries quick growth in rice exports in the early 1990's. Farmers were able to easily and cheaply ship rice to major export hubs and allowed for a quick national integration into the global rice market. The ability for rural farmers to integrate into the country's trade system has ensured few parts of Vietnam are isolated from the benefits of economic growth. Vietnam is ideally suited to take advantage of the fact that economic activity is usually concentrated on coastlines and sea navigable rivers (p.10).

In addition to internal geographic advantages, Vietnam is ideally located within the nexus of global manufacturing and shipping that it has harnessed to achieve exceptional growth. The role of Vietnam's physical proximity to China, and many countries in Southeast Asia already integrated into global manufacturing, cannot be understated in understanding the country's economic success. Vietnam was able to easily integrate into global manufacturing trade due its location near Southeast Asia's massive import/export network. This proximity, along with a low cost of wages, has made Vietnam a very attractive location for foreign direct investment in the manufacturing sector. A good metric of a region's integration in international export trade is volume of twenty foot equivalent (TEU) containerized traffic import export volume. Containerized shipping is the primary means of transport for manufacturing goods, and unit volume delineates the size of import export trade volumes.

Vietnam's close proximity to the hub of the world manufacturing export market are clear. Twenty four of the 50 largest world ports by container shipment volume were in South East Asia and the surrounding region (IAHP, 2015) (See Appendix J: Top 50 Global Ports). The top fifty ports comprised nearly 64% of world shipment volume in 2014. Vietnam's Ho Chi Minh City ranks twenty third on world container volume list at a throughput of 6,390,000 containers in 2014 (IAHP, 2015). The 2014 volume is a 166% increase from volume throughput in 2010 and ranks as the fifth fastest growing port of this time period (IAHP, 2015). Ports locations in countries within close geographic proximity to Vietnam; China, Taiwan, Japan, Korea, Indonesia, Malaysia, Philippines, Singapore, and Thailand comprised 38% of global import and export shipping volume. This can be compared to one percent of global shipping volume in the two African ports ranked in the top 50. Both of these ports ranked below Ho Chi Minh City, with Morocco's Tanger Med ranked 46 at 3,080,000 containers and Egypt's Port Said ranked 34 at 3,959,000 containers in 2014 (IAHP, 2015). Vietnam's position in the heart of global shipping ensured very easy integration into the world economy.

Manufacturing operations in Vietnam owned by regional investors can be easily managed based on the country's convenient location. Vietnam's close proximity, low wages, and shipping cost make it an attractive partner for upstream manufacturing functions for a number of products. Countries outside of Southeast Asia's massive supply network are at a serious disadvantage to compete based on the convenience and price of shipping in Vietnam. Additionally, manufacturing in low income countries in more isolated regions such as sub-Saharan Africa cannot as cheaply or easily integrate into cross border value chains. This position next to the hub of global shipping provides Vietnam and inherent advantage in market integration to low income countries in many other parts of the world.

Vietnam's manufacturing growth has been coupled with a rapid increase in shipping volume. The country has grown very quickly in global shipping volume even compared to other growing manufacturing economies. Vietnam's location in South East Asia allows for easy global trade integration and avoids market isolation due to geographic conditions that lead to high shipping cost and difficult obstacles to developing logistics infrastructure suffered by many developing countries. Vietnam's proximity to South East Asia's massive export economies has made its integration into the global value chain considerably easier than many developing countries. The volume of trade in Southeast Asia has improved shipping infrastructure and driven down shipping cost. Shipping cost and large scale manufacturing have allowed product value chains to extend between regional economies. Vietnam's integration into regional value chains is displayed by its increased volume of more complex manufacturing components and products. Vietnam has progressed from the predominantly garment and footwear manufacturing of the 1990s to higher end products in the last eight years (Simoes, 2015).

In 2013, the two largest exports of Vietnam by value were broadcast equipment and computers. Broadcast equipment valued at 23.3 billion dollars comprised of 16% of Vietnamese exports and computers valued at 7.78 billion comprised 5.4% (Simoes, 2015). Television and radio transmitter exports in 2014 even matched China's volume of exports in this product group (see Figure 23, Appendix I: Increasing Value of Export Products) (WITS, 2015). China's share of this product has been declining steady as Vietnam's share has risen, a sign that manufacturing chains once centered in China have begun to move to cheaper Vietnamese production. Vietnamese growth in telecommunications and recording equipment exports, especially to Europe, coincides with the trend of Asian Tigers offloading manufacturing of these products while Vietnam concurrently assumes market share (see Figures 21 and 22, Appendix I) (WITS, 2015). In 2009, Vietnam was a very minor producer of these electronics products, but by 2014, Vietnam's quick expansion into electronics manufacturing was an important contributor to increases in its export production (WITS, 2015).

The shift in manufacturing from other Southeast Asian economies to Vietnam can be clearly identified in export trends since the 1990s. Vietnam's rapid increase in clothing exports to the European Union occur currently to the rapid decline of Hong Kong's clothing exports to the EU. In 1997, Hong Kong's exported more than $2.6 billion of clothing to the EU compared to $4.3 billion by Vietnam (see Figure 15,

Appendix I) (WITS, 2016). By 2007, Vietnamese clothing exports to the European Union equaled Hong Kong's at 1.5 billion. Hong Kong rapidly moved out of the clothing export industry and by 2012 exported only $14 million of exports to the EU compared to the $2.5 billion exported by Vietnam (WITS, 2016). The adjustments of clothing exports from Hong Kong and Vietnam follow a similar pattern when studying exports to the United States. Vietnamese clothing exports overtook Hong Kong in 2006 with $ 3 billion in exports compared to $ 2.6 billion (WITS 2016). This exchange was followed by massive increase in Vietnamese exports to the United States, and a precipitous drop in exports from Hong Kong. Vietnam has also successfully and quickly seized considerable market shares of other light industry products such as sporting goods in the 2000s (see Figures 19 and 20, Appendix I) (WITS, 2015). Vietnam's location in Southeast Asia has allowed it to seize market shares in light industry and increasingly complex value chains.

A useful metric to measure Vietnam's integration into the global value chain is The World Bank's Logistics Performance Index (LPI). The LPI assesses how countries rank compared to each other based on managerial and physical effectiveness in logistics operations vital for international trade. The logistics performance is a useful metric to evaluate a country's integration into global value chains (for additional details, see Appendix E: About the World Bank Logistics Performance Index) (Rodrigue, 2013). The LPI rates performance on a one lowest to five greatest scale. Economies well integrated into the global economy and shipping operations ranked high on the LPI with Germany scoring 4.12 and Singapore scoring 4.0 ranked one and five respectively in 2014 (LPI, 2016). Vietnam's strong position in global value chains is displayed by its performance on the LPI especially when compared to other countries within similar income and development levels.

Vietnam's logistics performance ranking improved from 53 globally since the World Bank began tracking the data in 2007 to 48 in 2014 (LPI, 2016). The country improved from a score of 2.89 in 2007 to 3.15 in 2014. To place this in perspective, Vietnam's logistic performance in 2014 outranked major economies including Mexico (50), Brazil (65), and Russia (90) (LPI, 2016). All metrics of logistics performance from infrastructure capacity to timeliness improved within the tracked time frame for Vietnam. In 2007, the World Bank still ranked Vietnam as a low income country, and it outranked all other low income countries performances (LPI, 2016). In 2014, Vietnam was listed as a low-middle income country, and outpaced the average performance for this income group as well. Vietnam's performance also outpaced the Asian/Pacific regional average in all years. Vietnam greatly outpaces all low and low middle countries in Africa. The cross section of LPI clearly displays that Vietnam has been successful in integrating into global logistics operations in a little more than 25 years. Not only has Vietnam integrated, but its location coupled with infrastructure and administrative improvements have made it more efficient than many larger world economies. This integration has allowed Vietnam to become a value chain integrated manufacturing center that has attracted regional and global foreign direct investment.

Vietnam's integration into global value chains can be clearly displayed by its steady trend of increasing exports of value added products. These value added products consist of components upstream in value chains integrated into the production of final products in other countries. According to the Organization for Economic Cooperation and Development's database of trade in value added content, Vietnam has taken huge steps integrating to global value chains. In 1995, Vietnam created 3.5 billion dollars in intermediate exports to be integrated into a global value chain (OECD, 2016) (see Appendix H: Gross Intermediate Product Exports). By 2011, Vietnam had massively increased its quantity of intermediate products exports to 52.56 billion dollars (OECD, 2016). During the same time Vietnam's exports of final products increased from 3.2 billion in 1995 to 42.3 billion in 2011 (OECD, 2016) (see Appendix G: Gross Final Product Exports). Vietnam's growth, especially during the last decade, has been linked to its increased integration into manufacturing value chains. The majority of Vietnamese intermediate exports are directed to other Southeast Asian economies, further signifying that its close proximity to strong Asian Tiger economies and China's manufacturing hub have greatly strengthened Vietnam's economic growth.

Another significant piece of information strengthening the argument that a good deal of Vietnamese success is due to its location involves intermediate products relationship to foreign direct investment. The vast majority of intermediate exports were directed to the counties that most heavily invested in Vietnam (Duong, 2012. p.14). Initial intermediate product exports in the 1990s were directed to Taiwan, Singapore, Korea, and Japan (see Appendix H) (OECD, 2016). These same countries were the primary sources of foreign direct investment during this time period (GSO, 2016) (see Appendix F: Sources and Levels of Foreign Direct Investment). These countries continue to be major export destination for intermediate Vietnamese export products. However, they are now outpaced by intermediate and total exports to China. The 1990's saw limited growth in intermediate product exports from Vietnam to China prior to the year 2000. However, intermediate product exports increased dramatically from 926.5 million in the year 2000 to 14.68 billion in 2011 (OECD, 2016). These large increases coincide with large scale Chinese foreign direct investment (GSO, 2016). At each stage of its market and manufacturing growth, regional investors have supported Vietnamese exports often directed back to the investing nation in the form of intermediate products. Vietnam's proximity to a number of economies that have advanced export packages of complicated products further upstream in regional value chain have made Vietnam an excellent location for the production of lower end intermediate goods.

Vietnam's extraordinary economic growth is in large part due to its favorable geographic conditions and its location to the global export supply chain in East Asia. Vietnam's location combined with the country's relatively skilled labor compared to other low-income countries has made Vietnam an attractive location for manufacturing investment (Duong, 2012. p. 4). This investment has increasingly integrated production of intermediate product within global value chains (Duong, 2012. p. 4). Investors, especially from the high-income Asian economies, find Vietnam an ideal place to relocate manufacturing operations that has been priced out of local markets by rising wages. Vietnam's location allows for easy administrative control of foreign manufacturing due to its proximity to major investors. Additionally, Vietnam is located closely to its primary destination markets for both final and intermediate products, ensuring low cost and minimal time to market of products (Duong, 2012, p. 25). Vietnam's location advantage is clearly articulated by the destination countries of its gross exports over the last twenty-five years.

Foreign Direct Investment:

Since the initiation of *Doi Moi* reforms, Vietnam has attracted investment by drastically relaxing restrictions on foreign trade, modernizing regulations on trade and investment registration, liberalizing foreign access to land purchases, and initiating tax incentives to promote foreign-invested enterprises (Glewwe, 2004. p. 3). All of these improvements coincided with a consistently improving business environment. Many early barriers to investment had been removed by 1989, when the exchange rate was unified and then devalued, further encouraging increased foreign investment (Glewwe, 2004. p. 3). Barriers to exports and imports were removed, and SOEs lost their monopoly on foreign trade (Glewwe, 2004. p. 3). By 2003, import quotas existed for only two items, sugar and petroleum products, and quantitative restrictions on exports applied to only a few items. Import tariffs gradually decreased, with the average tariff falling from 12.7% in 1996 to 9.3% in 2003 (Glewwe. 2004, p. 3). The reduction of tariffs and export restrictions further opened the Vietnamese economy and encouraged more investment in industries beyond textiles, garments, and footwear. The reduction of trade and investment barriers have resulted in massive investment in Vietnam valued at $252.71 billion comprising 17,768 government licensed projects as of 2014 (see Appendix F) (GSO, 2016).

This consistent and substantial foreign direct investment has been a strong component of growth in Vietnam. Vietnam's accumulated foreign direct investment as of 2014 strongly correlates to countries in Southeast Asia, with which Vietnam shares product value chains. The Republic of Korea leads total accumulated FDI in Vietnam at $37.72 billion, followed closely by Japan at $37.33 billion (see Appendix F) (GSO, 2016). Korea and Japan were the second and third largest destination for Vietnamese intermediate products at $7.89 and $5.5 billion in 2011 respectively (see Appendix H) (OECD, 2016). Vietnam's success is in part due to its ability to leverage its proximity to the Asian Tiger economies in the time since it began to substantially opened its economy in the early 1990s. Since the 2000s, Vietnam has increasingly leveraged its proximity to China for investment, and as a destination for exports. In 2013, China became the largest export location in Asia for Vietnamese good at 14.4% of gross exports valued at $14.3 billion dollars (Simoes, 2016). This only trailed Vietnamese gross exports to the United States. Chinese foreign direct investment has also corresponded to a period in which it has become the largest destination for Vietnamese intermediate products (see Appendix H) (OECD, 2016).

As touched on previously, Vietnam's primary partners have been the Asian Tiger economies and China. The biggest early sources of investment since reform have been Japan, South Korea, Taiwan, Singapore, and Malaysia. More recently China and the United States have begun to invest heavily. The manufacturing and processing sector attracted the lion's share of foreign investment accounting for about 67% of the nation's total foreign investment. Foreign owned or backed companies in 2001 contributed to 13.3% of GDP, 35% of industrial output, 23% of exports, and 25% of total state budget revenues — though this latter figure includes those foreign enterprises that operate in joint agreements with SOEs. The Vietnamese labor market coupled with its' location and government deregulation have made it an attractive investment location as wages rise in other nations such as China (Duong, 2012. p.9). Vietnam's economic success is in no small part a result of its close investing and manufacturing linkages within South East Asia.

Shared prosperity:

The poor may not benefit disproportionately from Vietnam's economic success (their incomes have grown slower than the average rate, particularly in recent years). However, they have benefitted substantially, enough so that income inequality has not been a source of political strife or social unrest.

A combination of wise policy choices, geographic, demographic, and geopolitical characteristics enabled Vietnam to grow without experiencing the skyrocketing inequality that many other rapidly-growing developing nations experience. The poorest 40% of Vietnamese workers were able to continuously, incrementally increase their productivity, wages, and standard of living because the growing economy continued to add new types of employment available to low-skilled workers. In the late 1980s and early 90s, workers moved from impoverished, often subsistence-level agricultural collectives to relatively more productive household farms. As SEOs began engaging with the world economy following the earliest trade liberalization measures, some workers were also able move to these firms, which are in turn relatively more productive than household farms. During the 1990s and early 2000s, economic growth spurred the creation of more new labor market opportunities for low-skilled workers, including working for non-farm household businesses, registered private businesses, and foreign-invested firms. These jobs emerged in relatively quick succession over a period of 20 years, offering millions of low-skilled Vietnamese workers the ability to steadily increase their wages and standards of living over time.

Politics and Reform: Political Power and VCP Party Structure

One cannot overlook the fact that, though deeply flawed, the political institutions of Communist Vietnam were both stable and high functioning. The country's long history of cultural and political organization satisfied one of the pre-conditions to development that eludes so many countries hoping for economic reform — namely, effective institutions. This meant that, rather than having to create a new process, Vietnamese reformers simply had to alter and make use of the one that already existed.

The series of reforms since *Doi Moi* have largely succeeded in enabling Vietnam to avoid the PRE trap, and continue its path towards development. In this way, the political ingenuity of its leaders offer lessons on how to coalesce a group of potential winners from reform against a current of opposition and early setbacks. Though the Vietnamese leadership lacked a singular vision for its future, the reform coalition was steadfast in its conception of progress as policies that allow the benefits of growth to be broadly enjoyed.

However, Vietnam's inability to reform of its SOE sector is the biggest threat to its current success. SOEs remain remarkably unproductive in relation to the private sector, and this becomes glaringly true when one considers the preferential treatment that these companies have enjoyed. In addition to those already named, there are two major reasons that SOE reform has not happened. One of these impediments is that the appointment of SOE heads is a critical piece of the Prime Minister's political patronage and power network. Thus, even for reform-minded PM's, undertaking SOE reform is a difficult task. The second is that, because of the structural entrenchment of SOEs in key industries, Vietnam is severely dependent on SOE (and SOE-foreign joint venture) taxes as a source of revenue (See Appendix C: Tax Revenues by Sector). Malesky and London (2014) show that the greatest periods of growth and poverty reduction occurred when the SOE sector was at its weakest, such as during the boom of private-sector investment between 2001 and 2006. Yet, the formal private sector is still small in its contribution to overall GDP, is unable to compete with the dominant SOEs in key sectors, and is mostly comprised of household firms (See Appendix B: Vietnamese Gross Domestic Product). In many ways, this has depressed the overall process of economic transformation by crowding out more skill-intensive forms of private sector growth (Phan & Coxhead, 2013).

The ultimate take-away is that any state-led development inevitably leads to difficulty implementing further reform, even with a formidable coalition — and Vietnam may not offer a clear model for countries to emulate.

LESSONS FOR AFRICA: SIMILAR OBSTACLES AND OPPORTUNITIES?

Vietnam, as part of the Asian supply chain, successfully escaped the absolute poverty trap. Though the Vietnamese experience can shed some light on the path to development in African countries, its development model is not a universal solution. A thorough analysis of African countries highlights stark differences with Vietnam that undermine Africa's growth potential and capacity to duplicate Vietnam's model for growth. The differences between Vietnamese and African growth factors include the regions' respective history, geography, governance, education, resources endowment, and regional integration. Based on these factor differences, it is clear there are serious impediments to African countries achieving growth commensurate with Vietnam. However, there are key tenants driving Vietnamese growth that are transferable and vital for African countries to undertake to achieve economic success. This section identifies the factors that will constrain African growth and the universal reform principles that can be learned from the Vietnamese experience.

History, Conflict, and Governance:

The first serious obstacle for African countries to successfully implement the Vietnamese growth model is the continent's history. Both Vietnam and African countries possess long histories of war, internal conflict, and periods of foreign dominance. Vietnam has been governed by several foreign authorities over the centuries, including almost one thousand years as a Chinese vassal state. It was held as a French colony for more than 100 years. More recently, Vietnam has been affected by or drawn into wars with Netherlands, France, and America. In this sense, it is quite similar to the many African countries that also experienced long periods of colonial rule under the British, French, Dutch, German and other western powers. Yet, Vietnam's nearly two thousand-year history as an organized and unified entity is a key advantage that has supported the success of its current period of unification, and the country's rapid and equitably shared growth since its reforms.

The colonial history had a much greater impact on Africa compared to its influence on Vietnam. The Vietnamese suffered substantially under the ruling of the French authority. However, Vietnamese people steadily rejected the colonial expansion and gained independence in 1945. Whereas Vietnam was relatively successful at maintaining its cultural and institutional identity during its periods of colonization, many African societies were deeply disrupted by colonial rule. African peoples' history of abduction and enslavement is also a complicating factor, as it tore at the social fabric and wrought economic devastation. Africa's history of colonization and slavery illustrate how substantially foreign powers' interference and plunder of the continent's human and natural resources disrupted the economic development of the continent.

Furthermore, while much of the world has long established and adjusted borders based on ethnic, linguistic, and natural geographic divides, the current borders of African nations were decided by European powers in the 19th and 20th countries. As they changed national borders, the Europeans gave little consideration to the people's needs, nor the potential consequences of ignoring the continent's many deep-rooted ethnic and religious conflicts. Instead, lines were drawn the based on the economic and political interests of the colonizers (Fisher, 2012). Thus, many African nations have faced difficult, long-term challenges in democratizing their political systems and establishing autonomy. The history of many African nations makes the creation of stable and effective governance difficult and as such, a serious impediment to economic growth.

The inability of many African countries to institute effective governance is undoubtedly linked with the continent's contentious history. Peace and government stability were essential building blocks for Vietnamese reform. The single-party, socialist republic framework in Vietnam has created a steady political environment for the *Doi Moi* reform and long-term economic development. The system allowed the government to pool resources to address major problems, while insulating the government from short-term political pressure. Additionally, rapid Vietnamese economic growth occurred during a period absent of any extensive internal or external conflict.

Unfortunately, many African countries face divisive political climates that have often resulted in destructive internal conflicts. Political stability has actually been declining in many African countries during the last decade. Several African countries are currently experiencing significant internal conflict, including Egypt, Sudan, Libya, Morocco, Somalia, Uganda, Nigeria, and the Democratic Republic of Congo. Many of these internal conflicts spill over into neighboring countries, such as the conflict in Northern Nigeria between the government and the Islamic militant group Boko Haram. This conflict has seen the militant group launch serious attacks in countries neighboring Nigeria, including Cameroon, Niger, and Chad. Internal and external conflicts do not only stop economic growth, but in many cases actually reverse it. The negative impacts of conflicts on growth are far ranging from the destruction of productive assets to the diversion of state resources from economic growth to military production. African countries experiencing substantial conflict are generally unattractive to foreign investors, a key driver in successful Vietnamese growth. Accordingly, FDI flows into Africa decreased from 1.47 trillion to 1.23 trillion in 2014 (World Investment Report 2015). Conflict, and the instability it creates, is a massive obstacle to reform capable of achieving sustained economic growth.

Even in nations that are not currently marred by conflict face substantial governance obstacles to implementing broad based economic reform. Sub-Saharan countries rank low on government effectiveness, which fundamentally undermines their ability to organize and execute economic reforms similar to *Doi Moi*. Worldwide Governance Indicator Data reveal that Vietnam's government out performs Sub-Saharan Africa countries in many categories, and has only continued to improve over the last decade (Kaufmann, Kraay, and Mastruzzi, 2010). In terms of Political Stability and Absence of Violence, Government Effectiveness, and Rule of Law, Vietnam is within the top half of the distribution. The governance index was created from surveys from the business sector, think tanks, experts, and citizens. It attempts to illuminate the actual intra-country political situation, including attitudes towards and confidence in the government. Vietnam has also improved its ratings substantially in terms of control of corruption (Kaufmann, Kraay and Mastruzzi, 2010). Stable governance advancing the rule of law is essential for economic growth and is also a vital factor in attracting foreign direct investment that stimulates greater manufacturing production. A comparison of Worldwide Governance Indicators for Vietnam and sub-Saharan Africa is included in Appendix N.

One important indicator is corruption, which remains a major problem for governments across the African continent. In the current context, corruption can actually be an unintended result of foreign aid. For instance, when donor countries have tried to coordinate and harmonize their aid delivery, they have sometimes shifted to more general support, which is easier for corrupt officials to manipulate. In Tanzania, the effort to deliver more aid in the form of General Budget Support, which was controlled by the president and the minister of finance, increased their ability to use the resources to enhance their power (Stewart, 2013).

Finally, reform in Vietnam and many other Asian countries have generally been top down. Reforms were promoted by influential figures in central governments in response to severe domestic economic considerations. Vietnam's strong central government had the political power to push through reforms and hedge against short-term risks that might appear during the implementation phase. African governments with weaker governance power or those facing serious challenges to domestic stability, have a much more difficult path to implementing unified reform. Thus, top down reform may not be best suited for Africa. Instead, a community-led, innovative approach may better benefit many African countries. Another advantage of Vietnam's stable government and top-down reform model is that the government has opportunities to adjust policies according to the process and outcomes of reform. Instead, state instability in Africa often limits government capacity to respond to deficiencies and make improvements.

Labor Force:

The flexibility, skill, and size of the Vietnamese labor force have been a critical driver of sustained growth. Substantial differences exist between the Vietnamese labor force and those of most African countries. First, the labor force in Vietnam has greater flexibility to move across industries and regions. As discussed previously, the labor force in Vietnam has shifted dramatically away from agriculture to the manufacturing industry. The transition has contributed to increasing urbanization. Furthermore, the relatively low inequality rate supported the flexibility of the labor force, as even most poor households have been able to move to across regions and industries. Vietnam's long history of cultural fusion, a consistent language, education, and values eased the immigration of workers across regions. Even though Vietnam's 53 ethnic minority groups have not experienced the same gains as the Kinh majority, they have still achieved meaningful growth. Of course, in Africa, there are thousands of ethnic groups, which often undermines national cohesiveness. In Nigeria alone, there are 250 distinct ethnic groups. Moreover, many African countries followed a colonial administrative system where different ethnic groups were assigned to different classes by the colonists. As a result, historic ethnic divides across the continent, such as those in Rwanda and Burundi, have sometimes led to irreconcilable conflicts and inter-group animus that continue today.

Another critical difference when attempting to apply Vietnamese reforms to Africa is that the quality of education in Vietnam vastly surpasses that of much of the continent. *Doi Moi* liberalized the education market and provided ample resources to create a more consistent and high-quality system of education across the country. According to the OECD PISA test conducted in 2012, Vietnam students ranked highly on the list with top 20 for all subjects and top 10 for science (Schleiner, 2015). The illiteracy rate in Vietnam is extremely low, with less than three percent of its young population illiterate (World Bank, 2005). In stark contrast, African nations generally suffer from a low literacy rate, with only 22% of the Sub-Saharan population attaining literacy (Adult and Youth Literacy: UIS Fact Sheet, 2012). There is also a great disparity in literacy rate between genders. In Somalia, almost 50% of the adult male population is literate, while only 25.8% of adult women are literate. The low level of educational attainment in Africa is a major barrier to its successful integration into even low-end manufacturing. Vietnam's educational quality has been a major driver of growth and African countries would do well to follow its example of investing heavily in advancing human capital.

Resource Endowment and Agriculture Reform:

Vietnam's unique transition benefited greatly from its agrarian reform. Strong agricultural productivity growth met its domestic demand, and quickly shifted Vietnam from a rice importer to a rice exporter. The productivity growth further freed labor from agriculture and made it available for the development of the manufacturing sector. Since agriculture employs roughly 65 percent of the labor force in Africa, agricultural reform is a key sector to compare with the success of Vietnam (World Bank, 2016). Though the farming conditions of arable land in Africa differ greatly from Vietnam, its efforts at agricultural reform still provides a salient lesson for achieving growth. Vietnam underscores the priority of agrarian reform, the productivity increases triggered by the wide use of fertilizers, and the need to empower local people and utilize proper management authority.

The *Doi Moi* reform process was so successful because of the sequencing of reforms initiated in the agricultural sector. Similar to Africa, Vietnam's pre-reform employment was primarily concentrated in agriculture. Reforms within the agricultural sector generate a wide impact across many local communities. The experience of Vietnam underscores the importance of increasing the productivity level of crops for achieving agricultural reform. Since 2000, Vietnam has experienced a significant 25% growth in rice paddy yields, even while the area used to produce rice has declined in recent years. In this time period, yield increases have been the main factor leading to rice production improvement. The removal of agricultural input tariffs largely reduced the price of imported fertilizers, incentivizing their wider utilization throughout Vietnam. Within the 595 farms sub-sampled from Vietnam Household Living Standard Survey 2003-2004, 36.1% of the overall expenditure for rice farming is spent on fertilizers, making it the largest expenditure. The combination of pesticides and fertilizers comprise more than 47.5 percent of total spending for Vietnamese farmers (Vu, 2006). From the Vietnamese Agriculture and Rural Development Ministry data, during 1986-1990, only 13-15 tons of pesticides were used annually. In the 1990, the use of pesticides increased dramatically to 33 thousand tons (Dung, 2015). This number coincides with an increased productivity development rate during the first year when Vietnam became a rice exporter. Vietnam highlights the significant role played by fertilizer and pesticides in agricultural development.

Improving crop yield is a key component of achieving agriculture growth similar to Vietnam. However, African countries' yield productivity rates have been declining over the last decade. Southern Asia cereal farming yield surpassed 2.0 tons per hectare in the 1990s, and as of 2016, meets a yield threshold of 3.0 tons. Comparatively, African countries currently average a yield of 1.0 tons per hectare, and that figure has not improved over the last four decades (Dung, 2015). In order for African countries to achieve meaningful agricultural reform similar to Vietnam, this stagnant development trend must be improved. Information tracked by the UN Comprehensive Africa Agriculture Development Programme outlines that African countries have an extremely low average usage of farming fertilizers, at 21 kilograms per hectare. Fertilizer use in Sub-Saharan African is even lower, at 9 kg per hectare. In comparison, the average for East & Southeast Asian countries is 206 kg/hectare (UN, 2003). Increased use of fertilizers can have a substantial impact on African crop yield.

Research by the Aboul Latin Jameel Poverty Action lab has pinpointed the yield benefits of increased fertilizer usage in Kenya. The research discovered that, while farmers in Kenya don't always invest in fertilizers, with small timed discounts to incentivize purchasing behavior, crop yield results improved with fertilizer use (Duflo, Kremer and Robinson, 2011). Attempts to raise African fertilizer use, such as The Millennium Villages Project which provided fertilizers to local farmers, have at times yielded mixed results. Factors that disrupted the expected increased crop yield included poor communication between farmers and agriculture experts initiating the program. The second major issue undermining these programs' success have been failures to address storage problems created with increased output (Fry, 2013). These factors underscore a recurrent problem in African reform efforts, which is that they are often not well planned or coordinated by a strong government entity.

A substantial obstacle to African nations hoping to follow the Vietnamese reform model is the difficulties to increase crop growth that satisfies the continents primary agricultural export partner. Africa has abundant arable land that is suitable but not ideal for agricultural production. Much of Africa, especially in the Sub-Sahara, is food instable, in large part due to the unique difficulties for successful crop growth. Obstacles to crop growth in Sub Saharan include diseases of viral/fungal origin, poor soil, and difficult climatic conditions that include persistent droughts (Mbofung, 2010, p. 49). The best solution to overcome these difficult conditions is implementation of genetically modified crops that are resistant to many of the factors contributing to poor crop yields. However, there is a major obstacle to African export-led growth through agriculture goods similar to the early path of Vietnam when utilizing genetically modified crops. Africa is highly dependent on European nations, especially in Western Europe, as its natural primary agriculture export market (Nielsen, 2000, p. 2) — and Western European countries have placed extremely strong political and economic barriers to importing genetically modified foods (Mbofung, 2010, p. 19).

In much of Western Europe, public support strongly opposes GMO crops, and European politicians have supported this public sentiment by creating a difficult path to licensing in the European Council of

Agriculture (p. 20). Public sentiment and legal restrictions have closed Africa's primary export market to GMO's, the only means to generate significant crop growth to overcome food insecurity and provide a surplus for exports. This confluence of difficult growth conditions and a closed European market make the path to economic growth through agriculture reforms similar to Vietnam's a difficult proposition for African nations. Without improved crop yield, African nations will not be able to easily free up a large pool of labor to enter manufacturing or service jobs, similar to Vietnam. If African growth does not reform based on an initial strong agriculture export market similar to rice exports in Vietnam, it is unlikely that economic growth will be as evenly distributed among the large population of subsistence farmers. Fundamentally, Vietnam saw quick returns on trade liberalization because the world gladly welcomed its exports, whereas African export markets may have severely constrained export markets.

Another lesson that African countries can draw from Vietnam relates to land reform more generally. At the beginning of *Doi Moi*, large swathes of land were reallocated. Land reform was essential to Vietnam's sustained increase in productivity. In Africa, land is a primary asset for survival and development. Tanzania, for example, shares similar characteristics with Vietnam pre-reform. All land belongs to the state, and the state allocates land use rights and tenure to individual farmers. However, in Tanzania, there have been numerous and significant conflicts in rural areas (Mugabi, 2013), which may make it more difficult to implement wide-scale land reforms. Moreover, national and multinational corporations have begun to accumulate significant amounts of land throughout Africa. That limits the ability of land reform to be a catalyst for broad-based economic development and growth. Also, in several African countries today, poor planning and land utilization is decreasing agricultural efficiency (Mugabi, 2013). One report suggests that African countries can mitigate these issues through land policy reforms, such as limiting reliance on cooperative farming and devolving land rights to individual households, or capping the amount of land a single entity may own (Mugabi, 2013).

Despite those challenges, African countries still have many advantages in their possession of large scale natural resources. Many African countries are rich in natural resources such as oil, copper, and gas. African nations are better endowed with mining commodities and have greater access to export markets for these products than in the agriculture sector of their economies (See Appendix O: African Natural Resources). These resource endowments seem like the logical place to facilitate growth through trade. However, many mineral extraction dependent economies have consistently failed to achieve stability and meaningful growth for a number of reasons. Problems associated with commodity dependence for African nations include an extreme sensitivity to commodity price shocks, a strong trend of associated poor governance, and a higher propensity for civil war (Collier, 2002, p.1). Rents generated from mineral extraction economies are typically not equally distributed across the populations of commodity dependent nations, and result in unequal growth with a larger number of economic losers across the society, increasing political instability (p.5). This form of commodity dependence has been associated with weakened rule of law due to the propensity for illegal asset seizures of commodities by many governments (p.5). The combination of poor governance and unequal distribution of benefits across societies creates a climate with a higher rate of conflict. The governance issues associated with mineral extraction commodities are a major roadblock to accomplishing reforms comparable to Vietnam.

Geography, Trade Integration, and Growth Expectations:

African geographic, resource endowment, and political circumstances vary greatly from Vietnam, but there are many lessons to be learned from the country's reform experience. Vietnam highlights the vital importance of geographic location and logistics in the integration into global supply chains. Most African countries, especially those in the Sub-Sahara, are distant from Asian, European, and North American markets, and are far from the major shipping routes (Mbekeani, 2013. p.19). This is reflected in the cost of exporting or importing containers. According to the World Bank Trade Across Borders 2010 survey, on average it costs sub-Saharan Africa $1,961 to export a container compared to $890 in East Asia and $1,228 in Latin America and the Caribbean (p. 19). Although many Sub Saharan African countries are not located next to the world's export and manufacturing centers, improved logistics operations can increase export volume and growth. Transportation is one of the most important infrastructure barriers to trade in most African countries (p. 23). Transportation costs are a major determinant of the competitiveness of firms on export markets and all forms of transportation are generally costly in Africa (p. 23). High transport costs to isolated markets reduce economies of scale and raise export costs (p. 23). In the predominantly agricultural economies of sub-Saharan Africa, production is dominated by small sized farmers and the future of market development depends critically on the extent to which farm households are integrated into the national economy. Currently, African low income countries rate poorly on the World Bank's logistics performance index, and the effects on trade are substantial. Improvement in the full range of logistics support operations can drive down export cost and will allow products to reach market quickly and at more competitive prices.

The World Bank estimates that each one day delay in African inland transit times reduces export values by about seven percent (Freund, 2010. P. 7). The negative impact on exports is even more pronounced for time-sensitive goods such as agricultural products (p. 7). The most statistically significant export reducing effect is not based on only port to inland destination, but also the distance and the type of road on which goods are being transported (p. 7). Dirt roads significantly constrained the time to market and export value of African products. For countries that lack Vietnam's natural logistics network of rivers and deltas, economic growth will require investment in improving transportation infrastructure. However, infrastructure is not the only driver of inland transportation delays, and evidence suggests that other factors such as road conditions, roads blocks, and border wait times are also driving high transportation times (p. 13). Reducing transportation delays by one day in Sub Saharan African countries, particularly those that are landlocked, can have a remarkable effect on the ability to bring export products to market. Research suggests this is not simply an infrastructure problem but a transportation administrative problem. Improving African nations' abilities to regulate inland travel, reduce customs delays, and improve border management can have a positive impact on economic capacity.

Working to improve transportation and cross-border trade management issues can improve African intraregional trade. Africa currently has the lowest degree of market integration among major economic regions, with only 11.7% of countries' exports destined for other nations on the continent (p. 12). The dearth of inter-regional trade is exacerbated by complex and time consuming procedures regulating business activity; complex customs arrangements; restrictive rules of origin; and limited regional consistency of trade regulations and procedures (p. 28). Regional trade agreements and integration are especially important to the economic success of Africa's fifteen landlocked countries (p. 19). Improving regional trade agreements that streamline cross-border trade procedures can reduce transportation delays and make African exports more competitive within the world market, while providing more isolated countries increased market access.

Realistic expectations for growth in the majority of African countries must be constrained in relation to Vietnam. African nations are not located in a global export production and shipping center like Vietnam, and cannot be expected to integrate as cheaply or as easily into global values chains. African countries predominantly lack the geographic endowments for easy transportation integration of inland markets into the national economy, and will require extensive infrastructure investment to increase capacity and drive down prices. Africa can, however, achieve meaningful growth by increasing regional trade facilitation and improving logistics performance. African nations can follow the example of the Vietnamese experience by furthering the purview of regional trade agreements that currently create barriers to exports and hinder market access. The timing of Vietnamese market liberalization corresponded to the movement of low end manufacturing jobs from a number from the Asian Tigers and China in response to increased labor cost. This timing allowed the newly opened Vietnam to quickly seize substantial market share in a number of light manufacturing industries. Unfortunately, African nations are not located next to economies quickly ascending to more complex product value chains, and cannot be expected to as easily seize substantial market share of low value products. The location, logistics, governance barriers, and political instability have constrained substantial foreign direct investment in African manufacturing.

CONCLUSION:

Vietnam has experienced exponential economic growth since the initiation of *Doi Moi* in 1986. Vietnam's reforms and subsequent growth serve as an excellent example of the benefits of trade liberalization. Low-income African countries can look to Vietnam's unique growth and recognize a number of universally salient lessons. These lessons include the value of stable government institutions and the need to remove government interference in economic activity. Coupled with political stability are the benefits of an equitable distribution of trade benefits, which reinforces popular support for economic reform. Furthermore, Vietnam underscores the importance of instituting regional trade agreements that reduce trade barriers and create regional economic interdependence. African nations can leverage trade agreements as a signal to global investors of their commitment to improved business environments, thus attracting greater foreign direct investment, a vital part in expanding Vietnamese manufacturing capacity. Vietnam's transition also demonstrates the importance of advancing human capital through education, and its substantial benefits to growth. All of these lessons can be significant factors in expanding economic growth in African countries.

Despite the lessons learned from Vietnam, practically, African nations' paths to growth will have to be vastly different. Vietnamese reforms have been far from perfect, and the economic and political power of state owned enterprises seriously threaten Vietnam's continued economic expansion. Still, Vietnam's unique global position has allowed it to expand in spite of this serious reform failure. Vietnam's geographic conditions and location in South East Asia have allowed it to seamlessly integrate into the world economy. These natural advantages and the timing of reforms have allowed Vietnam to successfully integrate into regional value chains. The combination of these natural advantages and the effects of its substantial reforms has generated unique growth. Low income countries in Africa unfortunately lack many of the natural advantages that have been so crucial in Vietnam's success.

African countries cannot realistically anticipate growth commensurate with Vietnam, but can use lessons learned from Vietnam to forge their own meaningful growth. African countries can improve upon some of the efforts of Vietnamese reforms by further reducing government interference in the economy through inefficient state owned enterprises. African nations have serious obstacles to following the economic reform model of improving agricultural efficiency to free labor which can then assume manufacturing or service jobs. Without the use of genetically modified crops, many African countries cannot generate the quantity of crops to move the population away from subsistence farming. Western Europe's strong opposition to the consumption of genetically modified crops severely limits Africa's ability to export agriculture products. Additionally, African countries are less attractive locations for integrating into manufacturing value chains, due to its location distant from the world manufacturing epicenter of East Asia. To overcome these obstacles, African nations may need to attempt to bypass substantial agricultural growth and attempt to leverage other factors such as mineral commodities or low wages to seize market share of low value manufacturing goods.

Vietnam serves as a strong case study of the power of economic reform, but other low-income countries growth expectations must be tempered in comparison. Vietnam's colossal improvements are due in large part to advantageous trade circumstances that most other low income countries cannot expect to replicate. Low income countries such as those in Africa can learn from the Vietnamese experience to achieve meaningful growth based their own trade circumstances.

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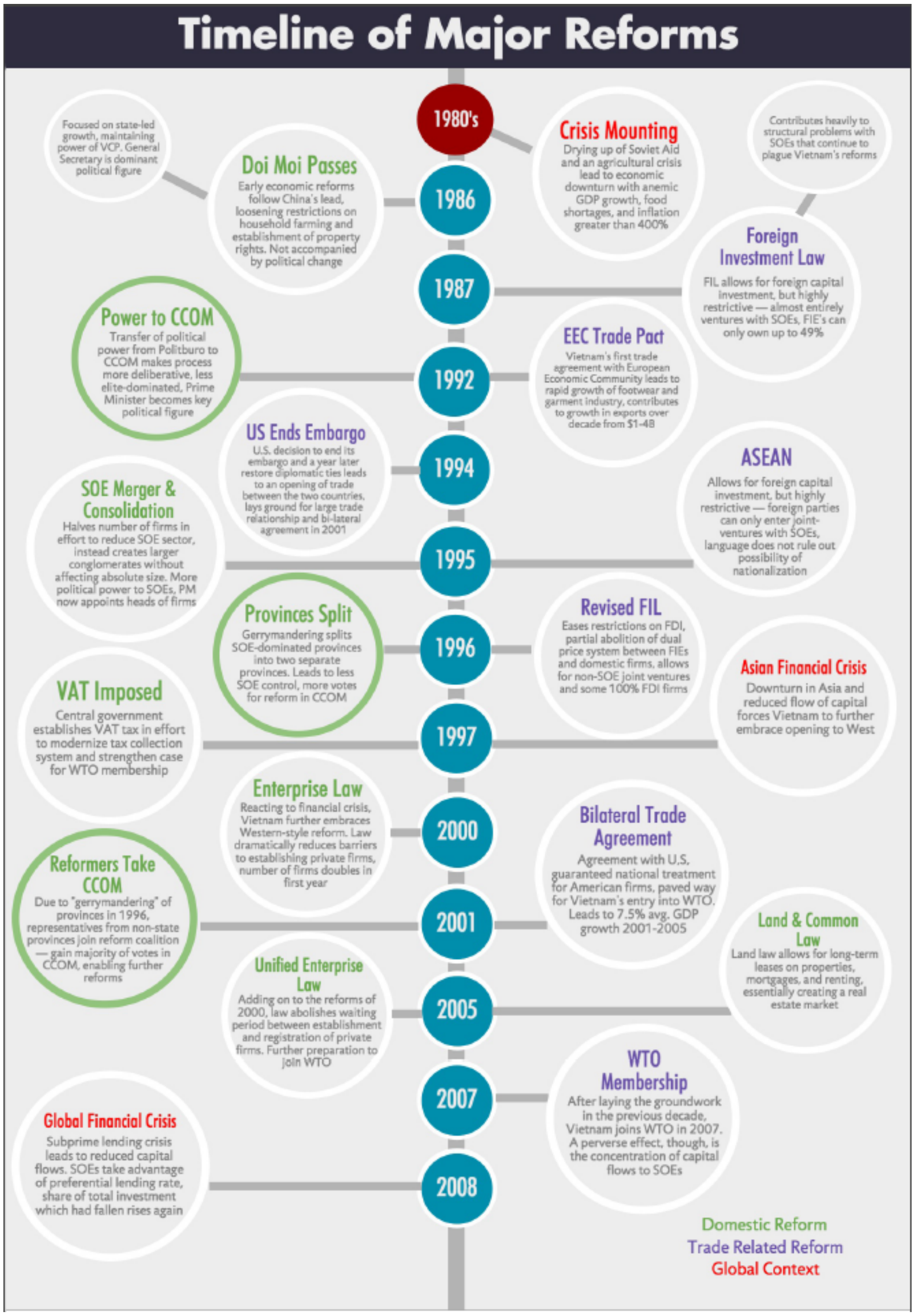
Appendices

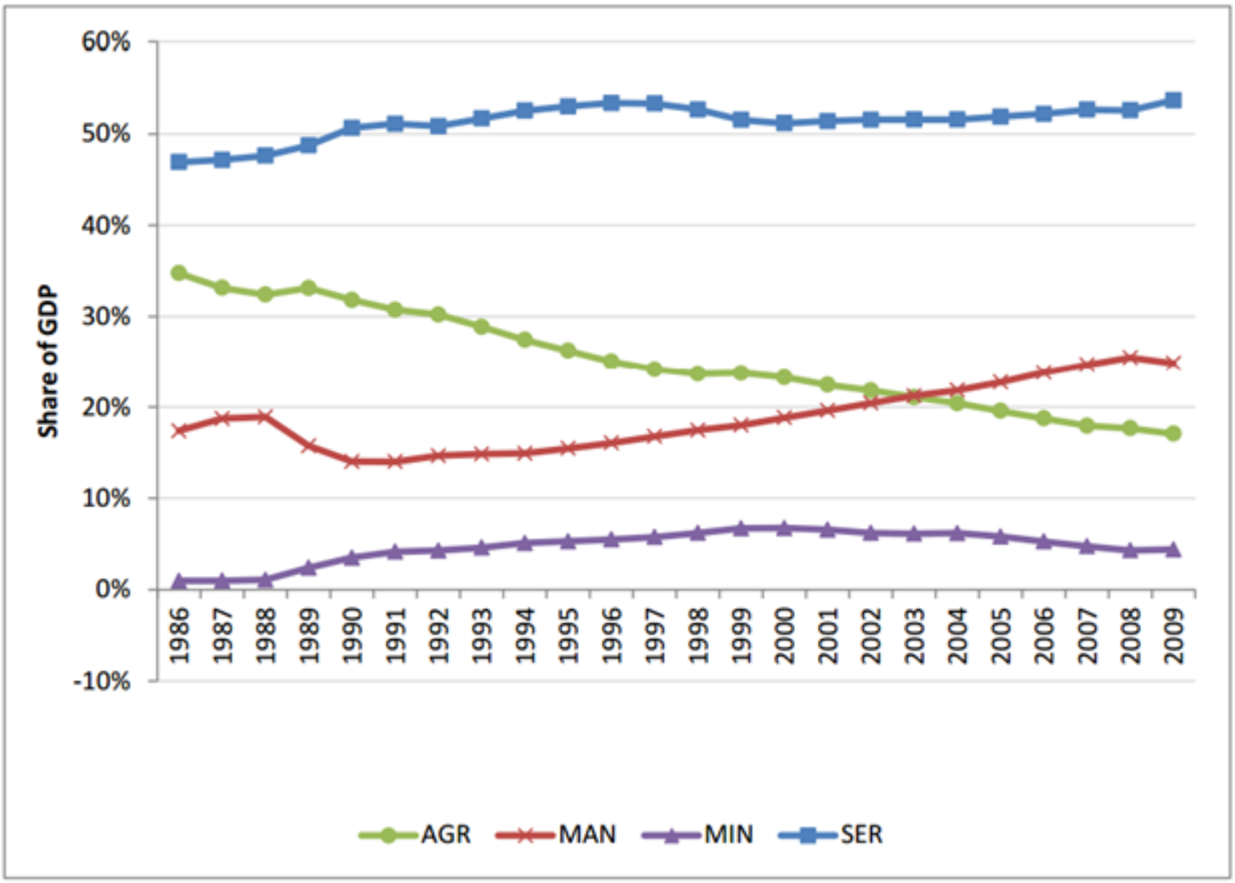
Appendix A: Timeline of Vietnam's Reforms

Figure 1. Timeline of Vietnam's Reforms:



Appendix B: Vietnamese Gross Domestic Product

Figure 2. GDP Shares by Sector, 1986-2009:



Notes: Authors' own calculations based on data from the GSO. AGR denotes agriculture, MAN manufacturing, MIN mining, and SER services.

Image source: McCaig and Pavcnik, 2013, p. 33.

Figure 3. GDP Shares by Firm Ownership Type, 2005-2014:

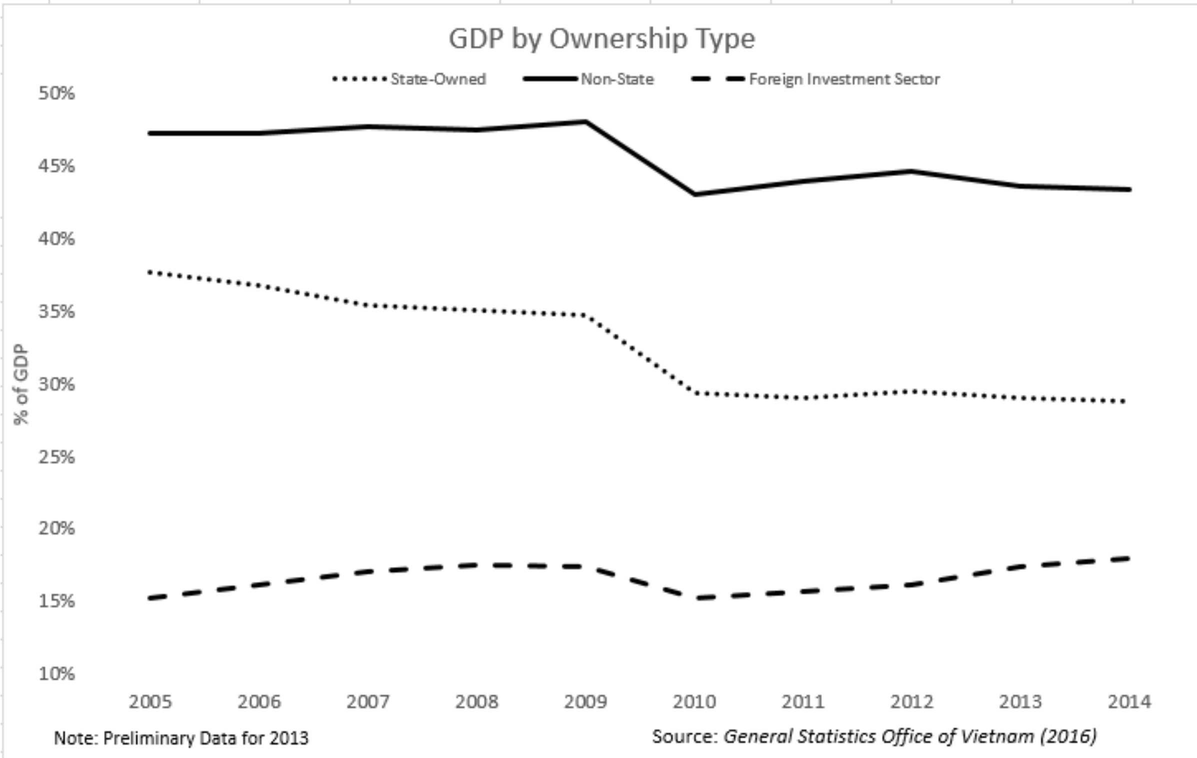
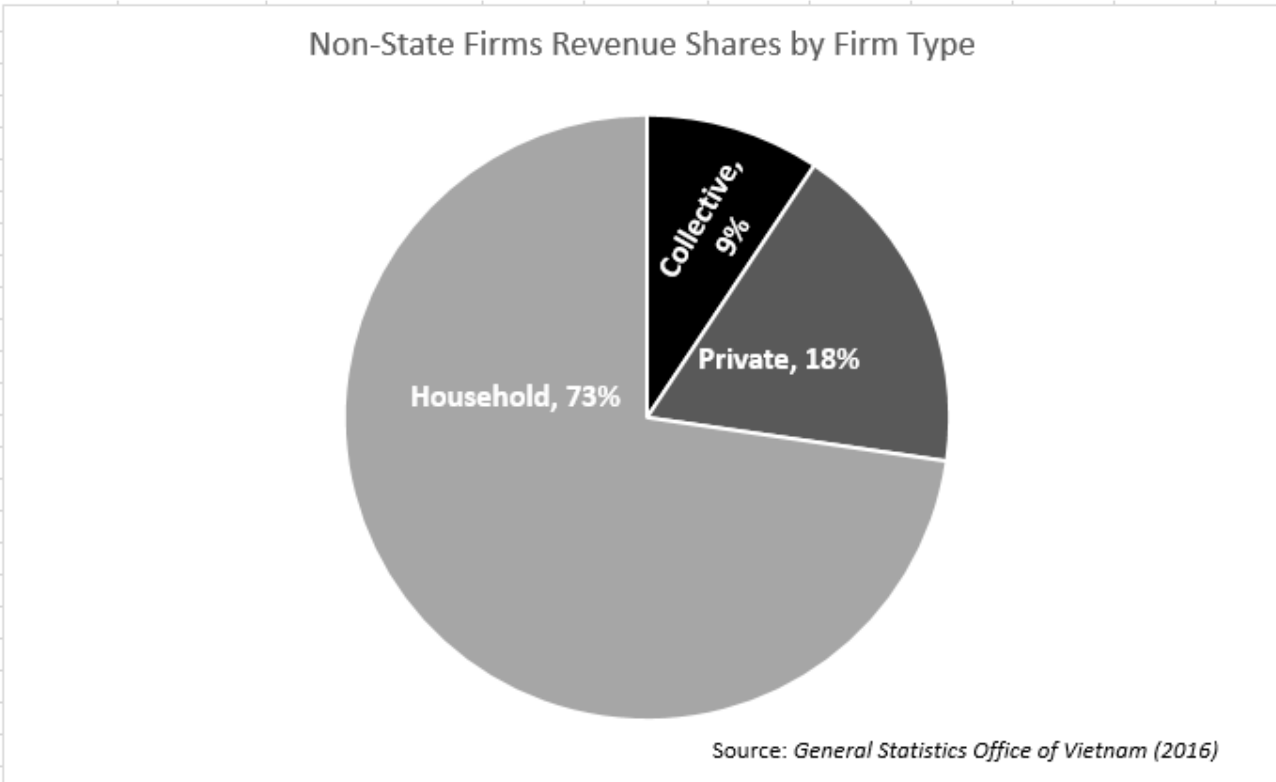
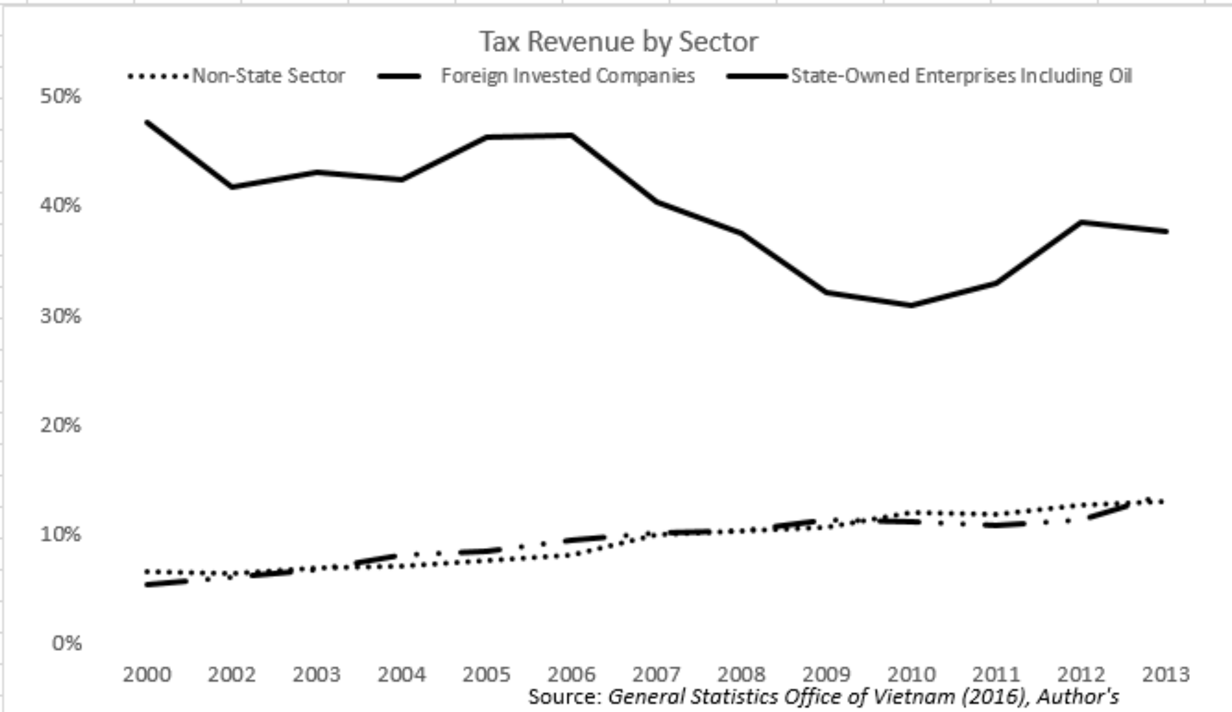


Figure 4. Non-State Firms Revenue Shares by Firm Type:



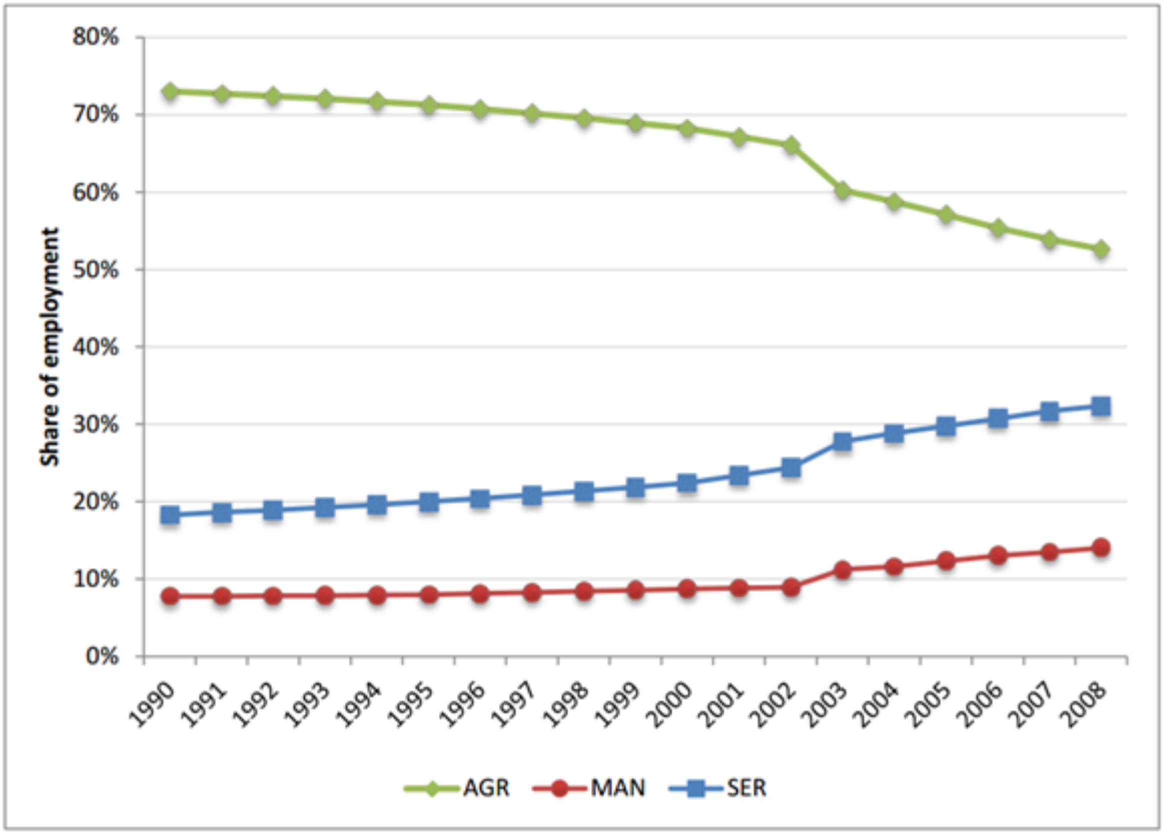
Appendix C: Tax Revenue by Sector

Figure 5. Tax Revenue by Sector, 2000-2013:



Appendix D: Shares of Employment by Sector

Figure 6. Shares of Employment by Sector, 1990-2008:



Note: Authors' own calculations based on data from the GSO. AGR denotes agriculture, MAN manufacturing, and SER services. Mining is not depicted because it accounts for less than 1 percent of total employment. The 1989, 1999, and 2009 employment shares match well with census estimates.

Image source: McCaig and Pavcnik, 2013, p. 34.

Appendix E: About the World Bank Logistics Performance Index

The Logistics Performance Index is a benchmarking tool created to help countries identify their performance in trade logistics. The LPI 2014 compares across 160 countries. The LPI is based on a worldwide survey of operators on the ground (global freight forwarders and express carriers), providing feedback on the logistics “friendliness” of the countries in which they operate and those with which they trade. They combine in-depth knowledge of the countries in which they operate with informed qualitative assessments of other countries where they trade and experience of global logistics environment. Feedback from operators is supplemented with quantitative data on the performance of key components of the logistics chain in the country of work. The LPI consists therefore of both qualitative and quantitative measures and helps build profiles of logistics friendliness for these countries.

LPI 2014 ranks 160 countries on six dimensions of trade -- including customs performance, infrastructure quality, and timeliness of shipments -- that have increasingly been recognized as important to development. The data used in the ranking comes from a survey of logistics professionals who are asked questions about the foreign countries in which they operate.

The components analyzed in the International LPI were chosen based on recent theoretical and empirical research and on the practical experience of logistics professionals involved in international freight forwarding. They are:

- The efficiency of customs and border management clearance (“Customs”).
- The quality of trade and transport infrastructure (Infrastructure”).
- The ease of arranging competitively priced shipments (Ease of arranging shipments”).
- The competence and quality of logistics services—trucking, forwarding, and customs brokerage (“Quality of logistics services”).
- The ability to track and trace consignments (“Tracking and tracing”).
- The frequency with which shipments reach consignee within scheduled or expected delivery times (“Timeliness”).

The LPI uses standard statistical techniques to aggregate the data into a single indicator that can be used for cross-country comparisons.

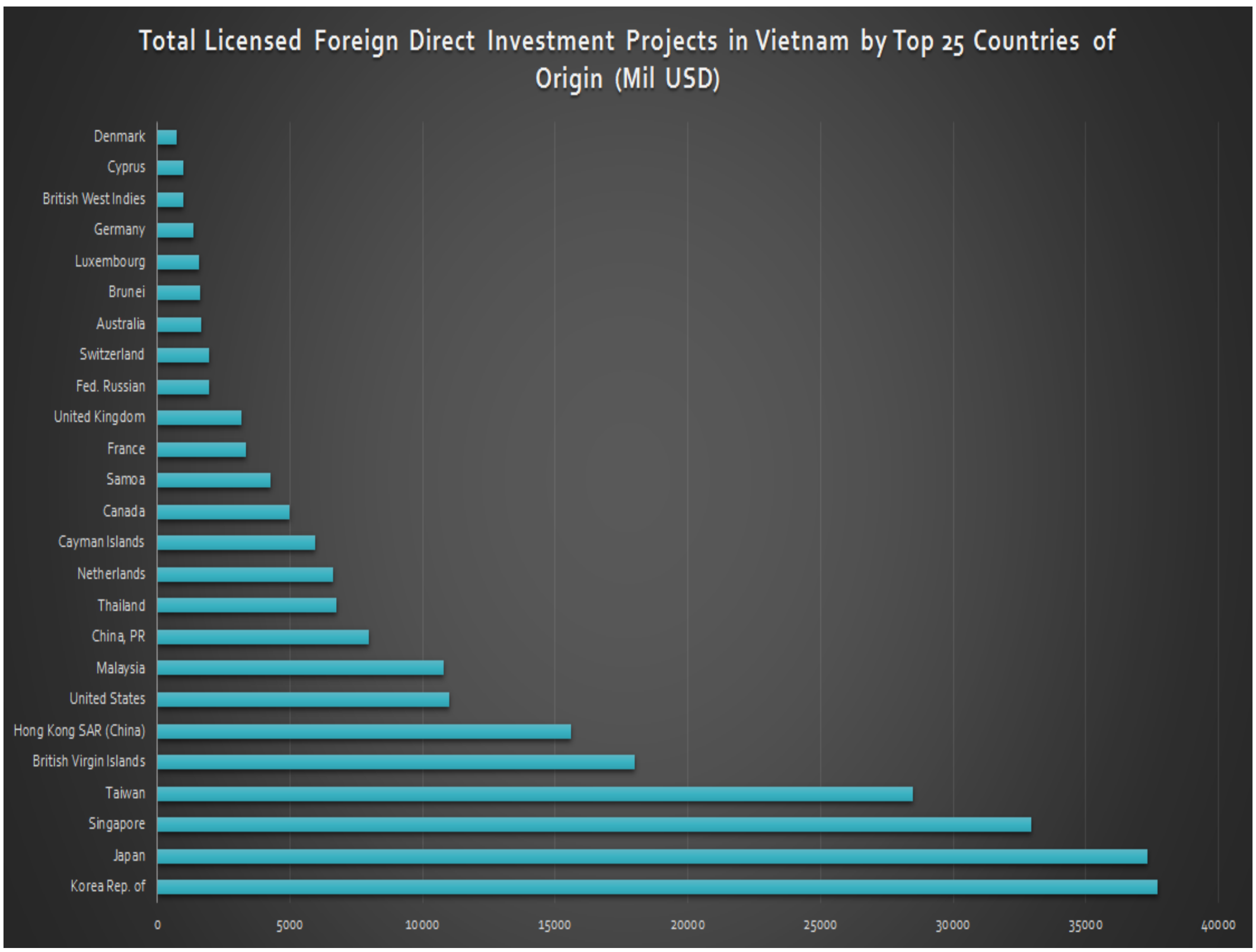
Appendix F: Sources and Levels of Foreign Direct Investment

Figure 7. FDI Projects Licensed by Main Counterparts:

Foreign direct investment projects licensed by main counterparts (Accumulation of projects as of 31/12/2014)		
	Number of projects	Total registered capital (Million USD)
TOTAL	17768	252716
Korea Rep. of	4190	37726.3
Japan	2531	37334.5
Singapore	1367	32936.9
Taiwan	2387	28468.5
British Virgin Islands	551	17990
Hong Kong (SAR)	883	15603
United States	725	10990.2
Malaysia	489	10804.7
China, PR	1102	7983.9
Thailand	379	6749.2
Netherlands	229	6625.4
Cayman Islands	57	5948.5
Canada	143	4995.2
Samoa	122	4270.2
France	426	3324.5
United Kingdom	199	3159
Fed. Russian	106	1957.4
Switzerland	101	1943.8
Australia	326	1656
Brunei	160	1624.4
Luxembourg	32	1579.1
F.R Germany	247	1359.7
British West Indies	7	992.2
Cyprus	13	960.2
Denmark	112	705.3
Belgium	56	419.8
Indonesia	42	386.4
Italy	61	384.9
Finland	10	325.3
India	92	299.2
The Philippines	72	298.1
Mauritius	39	282.8
Slovakia	5	235.5

Bermuda	**6**	**232.6**
Cook Islands	**3**	**191**
Poland	**12**	**138.8**
United Arab Emirates	**8**	**135.1**
Norway	**30**	**120.9**
Channel Islands	**14**	**114**
Bahamas	**3**	**108.7**
Austria	**21**	**94.2**
New Zealand	**25**	**82.1**

Figure 8. Total Licensed FDI in Vietnam by Top Countries of Origin:



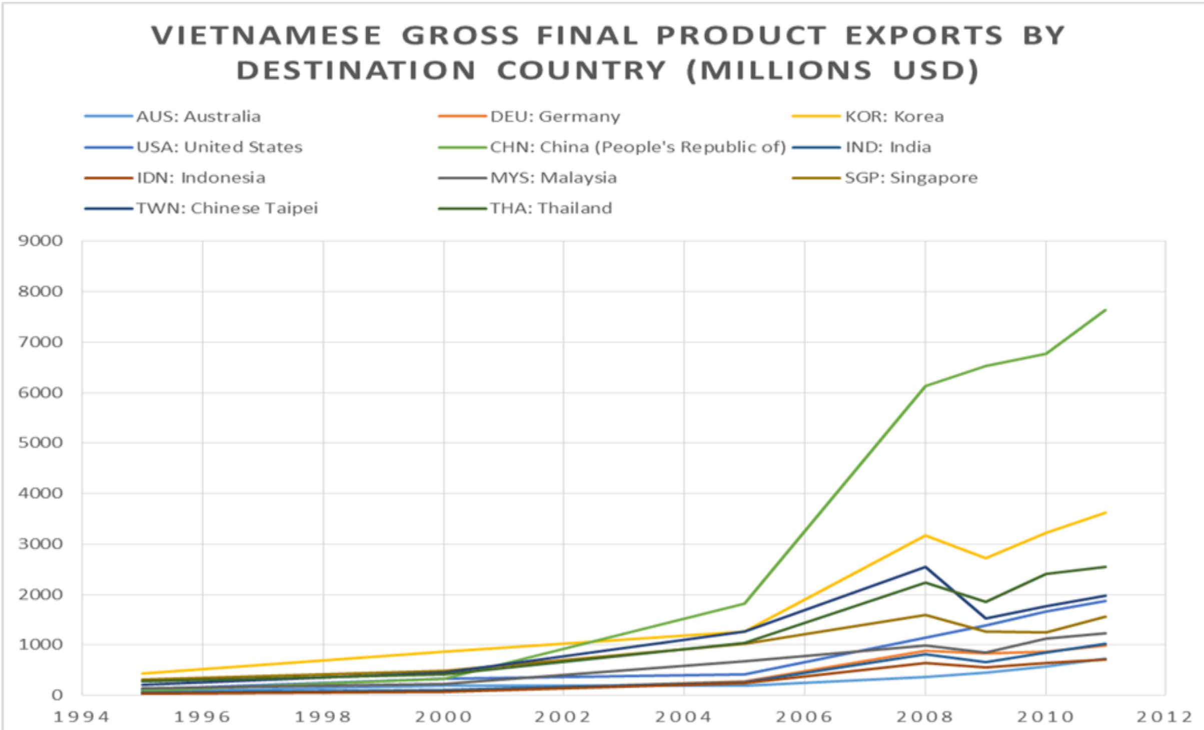
Data source: General Statistics Office of Vietnam.

Appendix G: Gross Final Product Exports

Figure 9. Table of Gross Final Product Exports by Destination Country, 1995-2011:

Vietnamese Gross Final Product Exports by Destination Country (Million USD)							
Time	1995	2000	2005	2008	2009	2010	2011
Country							
AUS: Australia	78.16	200.91	191.96	370.36	447.25	577.31	728.06
DEU: Germany	38.65	95.31	286.4	885.34	834.11	862.43	986.58
JPN: Japan	358.14	642.42	1211.34	2959.68	2550.38	2693.04	2536.99
KOR: Korea	430.09	871.82	1270.55	3179.51	2721.91	3227.08	3619.86
USA: United States	116.34	326.79	411.16	1144.8	1393.44	1658.85	1878.72
CHN: China (People's Republic of)	88.59	327.43	1825.84	6133.26	6523.64	6778.74	7635.22
IND: India	58.98	106.45	262.4	814.73	665.6	845	1026.97
IDN: Indonesia	41.74	71.88	253.69	639.59	554.67	639.86	720.58
MYS: Malaysia	147.88	232.49	682.72	994.67	853.24	1123.12	1223.71
SGP: Singapore	319.07	479.89	1023.6	1603.82	1260.39	1254.47	1556.4
TWN: Chinese Taipei	210.9	455.12	1259.65	2539.41	1528.19	1775.93	1982.01
THA: Thailand	272.53	412.01	1033.66	2230.09	1853.95	2404.15	2552.39

Figure 10. Graph of Gross Final Product Exports by Destination Country, 1995-2011:



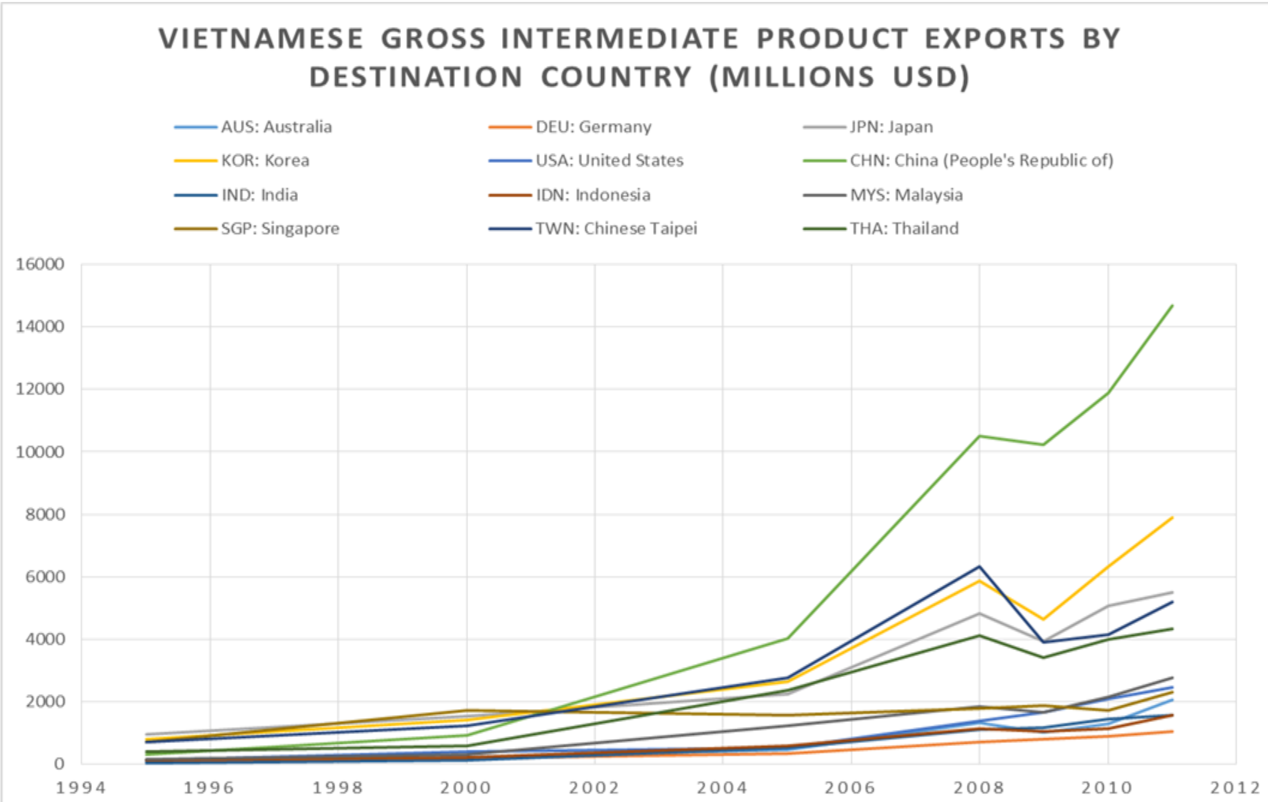
Data source: Trade and Value Added Database, Organization for Economic Co-Operation and Development.

Appendix H: Gross Intermediate Product Exports

Figure 11. Table of Gross Intermediate Product Exports by Destination Country, 1995-2011:

Vietnamese Gross Intermediate Product Exports by Destination Country (Million USD)							
Time	1995	2000	2005	2008	2009	2010	2011
Country							
AUS: Australia	86.28	225.26	471.29	1314.21	1031.38	1290.3	2058.57
DEU: Germany	120.05	203.67	352.15	697.45	792.34	896.05	1041.72
JPN: Japan	948.31	1551.87	2259.76	4834.23	3927.45	5071.49	5487.4
KOR: Korea	813.95	1409.19	2651.04	5859.33	4655.94	6318.16	7895.3
USA: United States	118.86	396.03	515.14	1381.03	1673.44	2098.73	2473.43
CHN: China (People's Republic of)	320.86	929.49	4016.31	10507.98	10226.15	11887.52	14682.35
IND: India	48.61	115.27	522.96	1105.31	1174.5	1450.91	1573.34
IDN: Indonesia	136.82	232.36	578.9	1134.26	1039.49	1134.49	1578.81
MYS: Malaysia	169.29	327.51	1235.91	1841.33	1678.15	2144.66	2755.19
SGP: Singapore	701.5	1711.37	1572.28	1778.91	1870.51	1732.55	2299.18
TWN: Chinese Taipei	701.26	1218.93	2769.96	6337.29	3901.41	4149.89	5190.05
THA: Thailand	405.17	602.1	2379.86	4104.67	3414.14	3993.86	4322.68

Figure 12. Table of Gross Intermediate Product Exports by Destination Country, 1995-2011:



Data source: Trade and Value Added Database, Organization for Economic Co-Operation and Development.

Appendix I: Increasing Value of Export Products

This appendix contains comparative data on the growing value of exports of a variety of manufactured products to the United States and European Union.

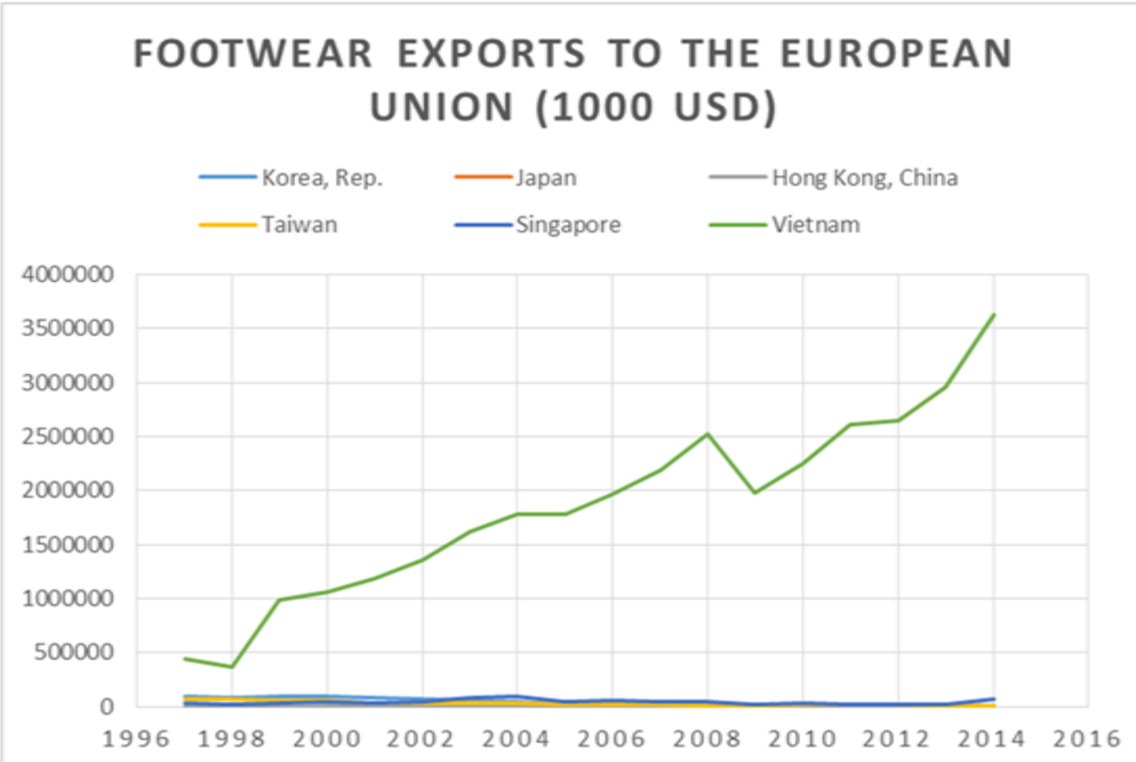
Exporting nations compared:

- China
- Hong Kong
- Singapore
- South Korea
- Taiwan
- Vietnam

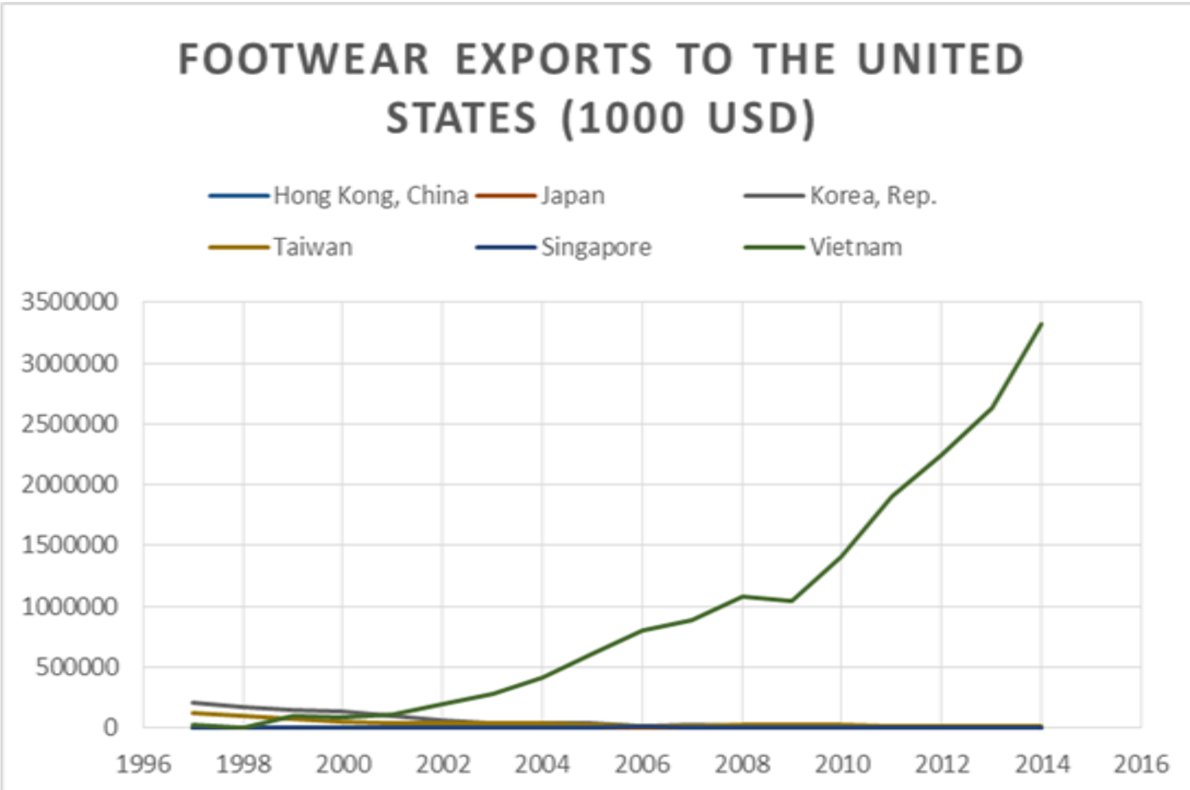
Export products compared include:

- Footwear
- Clothing
- Textiles
- Sporting Goods
- Telecommunications Equipment
- TV and Radio Transmitters

Figure 13. Footwear Exports to the EU, 1997-2014:



<u>Figure 14. Footwear Exports to the U.S., 1997-2014:</u>



Product Code 85 (Standard International Trade Classification, Rev.1)

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Figure 15. Clothing Exports to the EU, 1997-2014:

Figure 16. Clothing Exports to the U.S., 1997-2014:

Product Code 84 (Standard International Trade Classification, Rev.1)

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Figure 17. Textile Exports to the EU, 1997-2014:

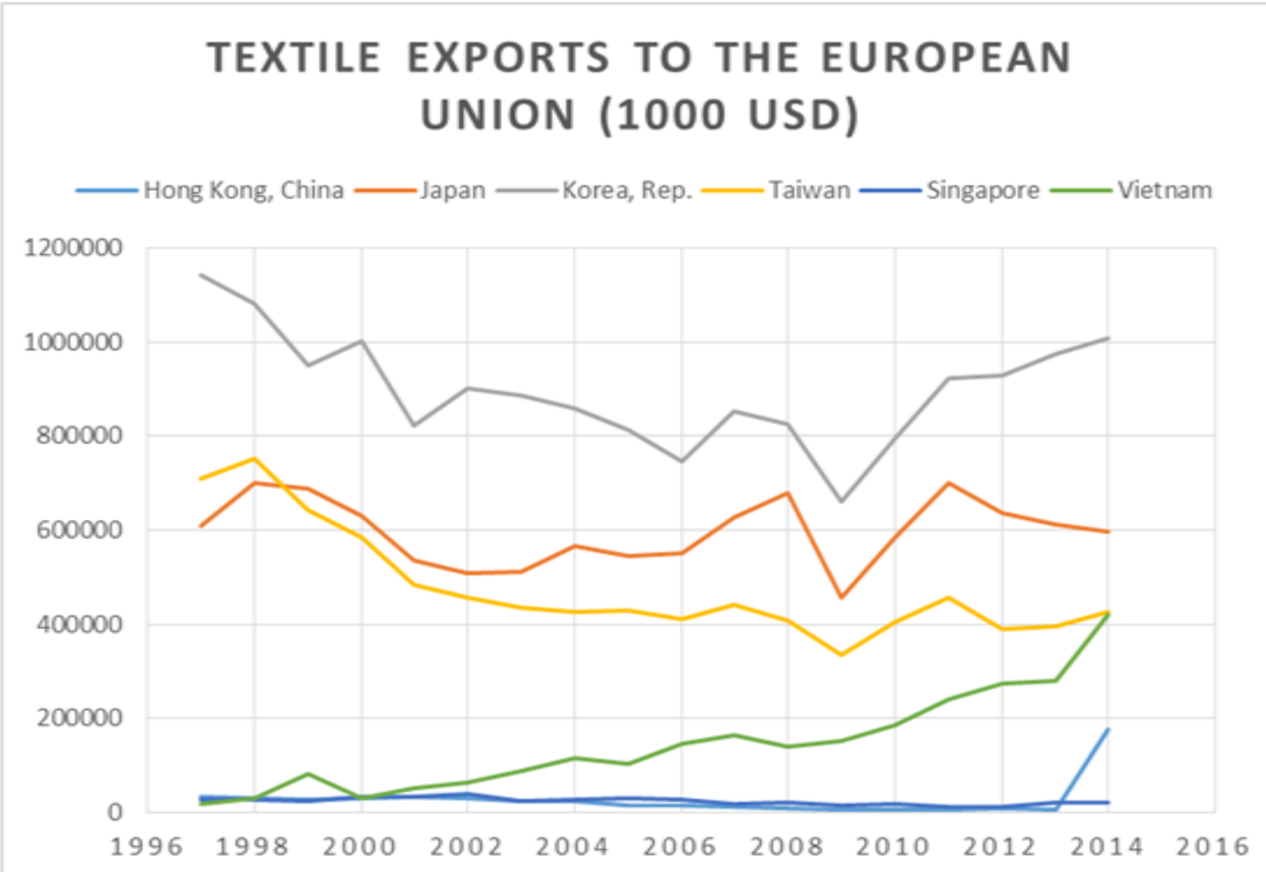
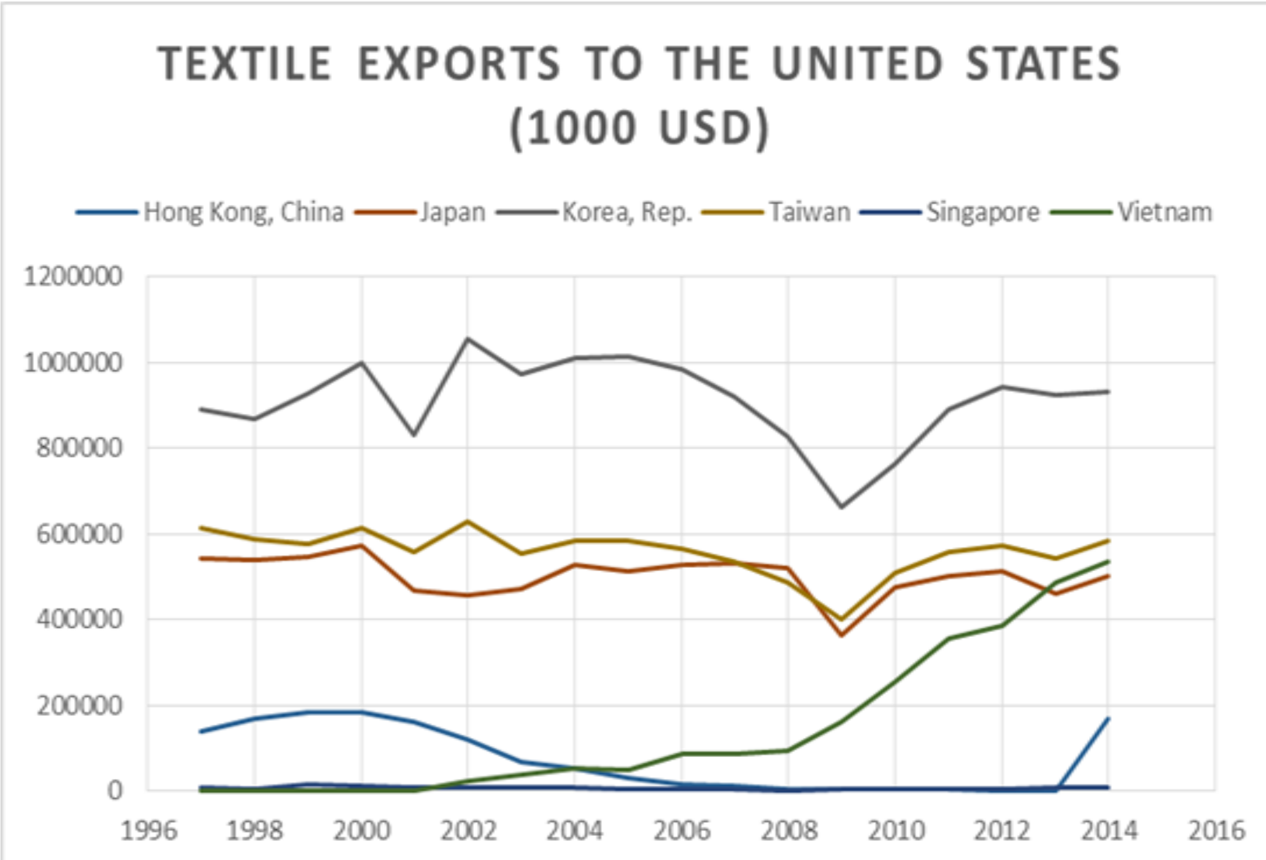


Figure 18. Textile Exports to the EU, 1997-2014:



Product Code 65 (Standard International Trade Classification, Rev.1)

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Figure 19. Sporting Goods Exports to the EU, 1997-2014:

Figure 20. Sporting Goods Exports to the U.S., 1997-2014:

Product Code 8944 (Standard International Trade Classification, Rev.1)

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Figure 21. Telecommunications Equipment Exports to the EU, 2007-2014:

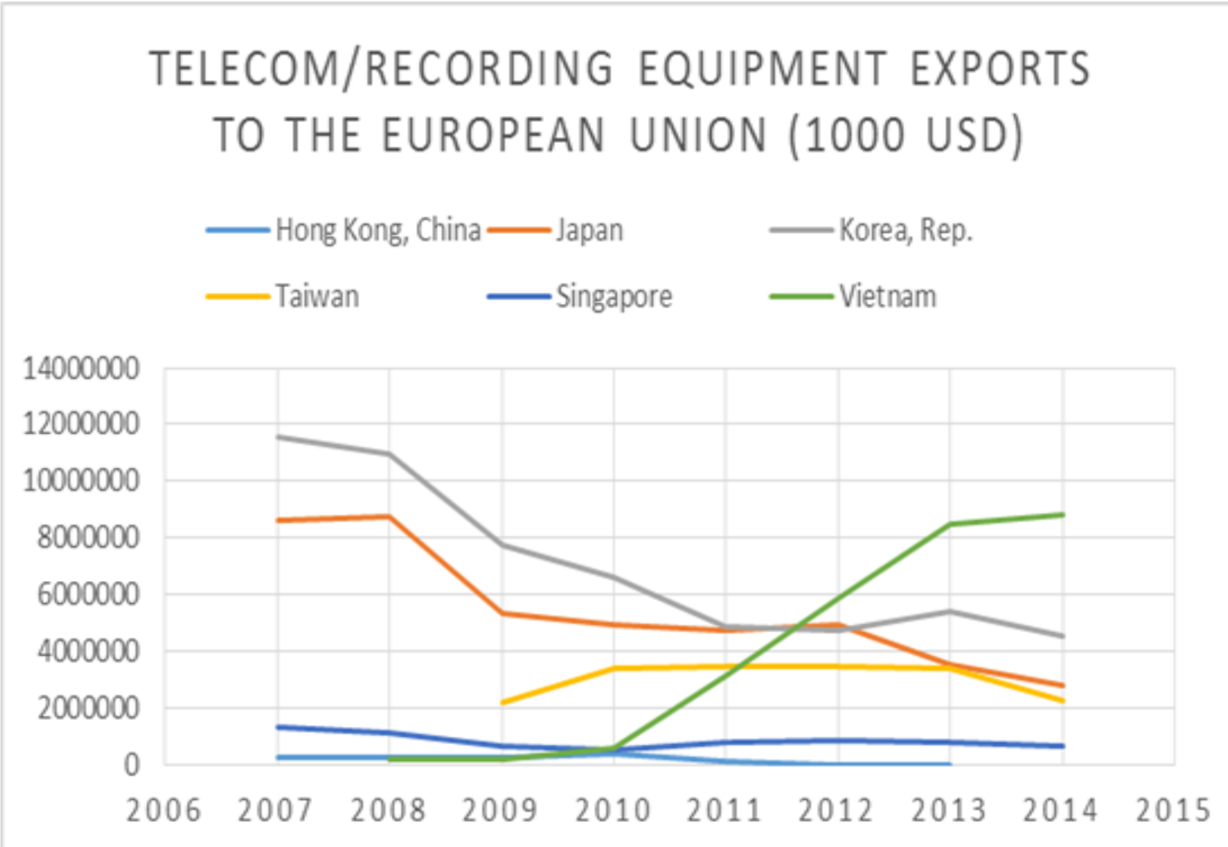
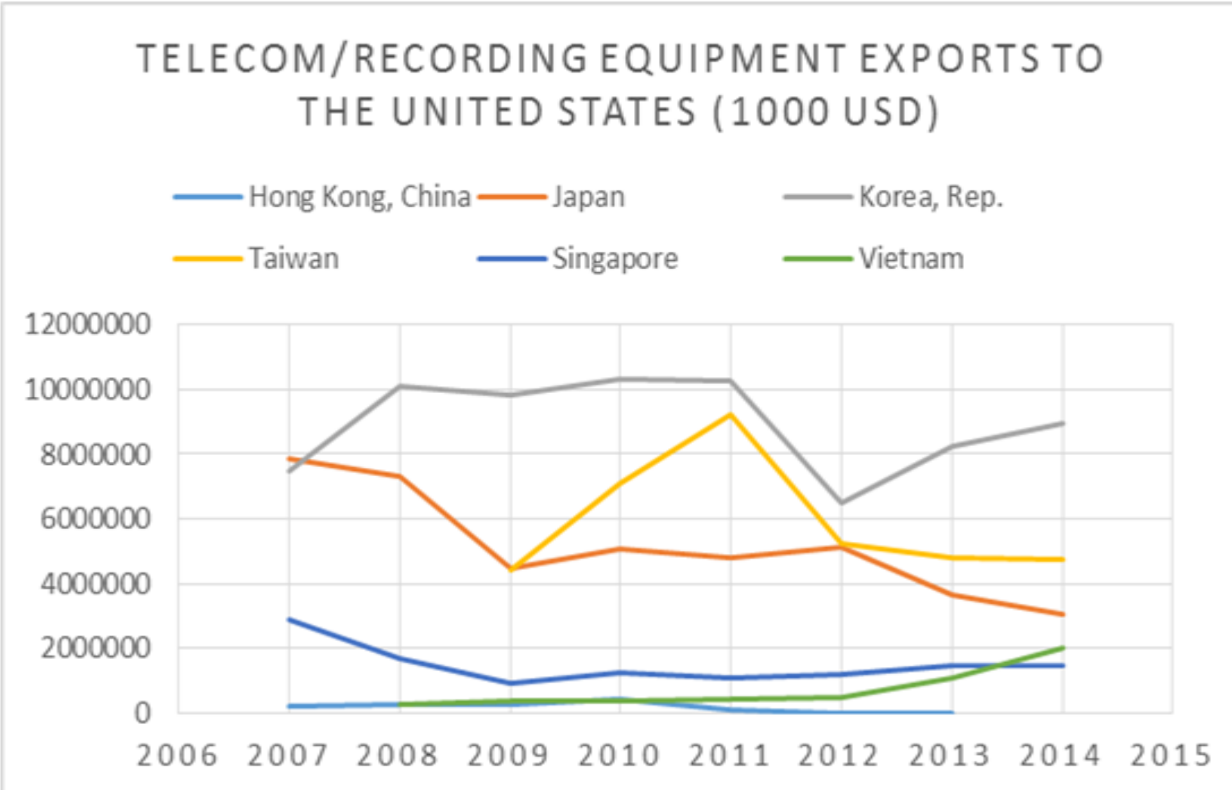


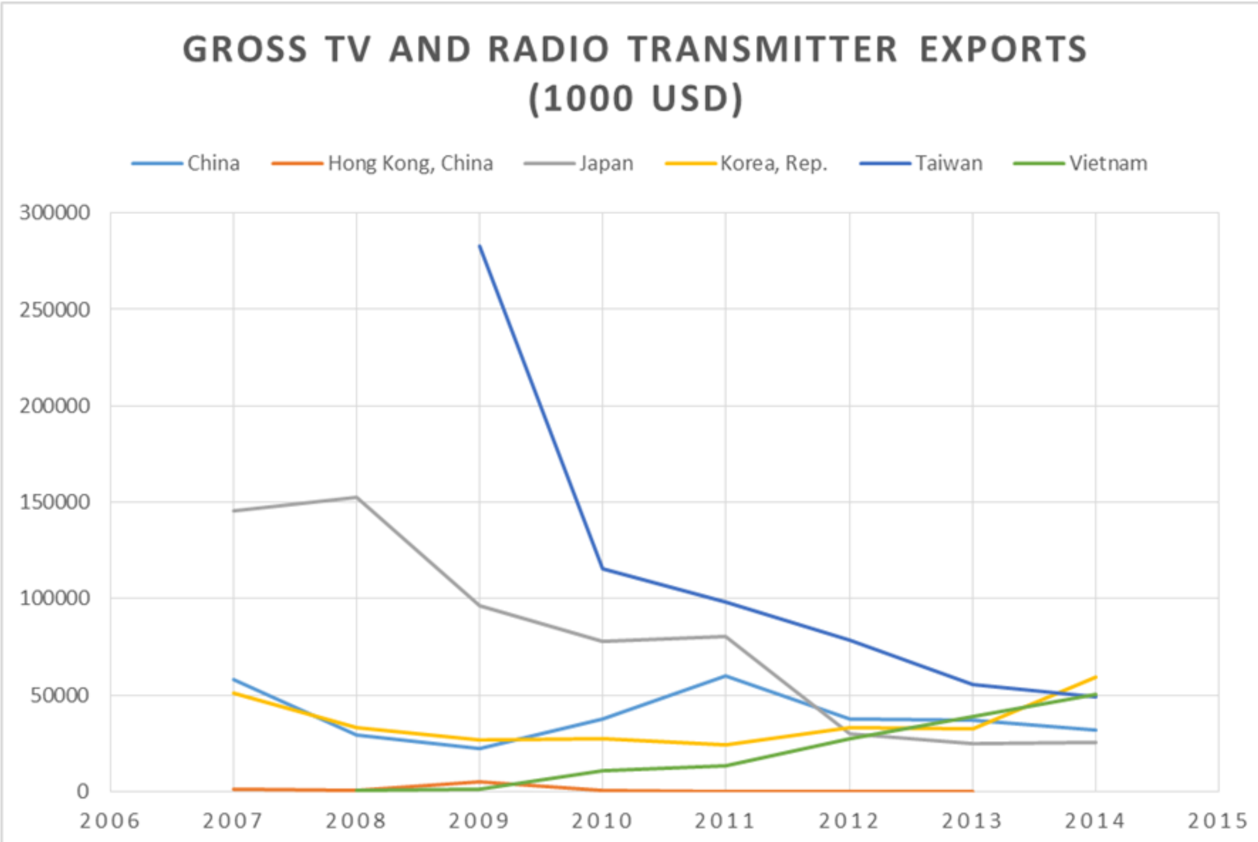
Figure 22. Telecommunications Equipment Exports to the U.S., 2007-2014:



Product Code 76 (Standard International Trade Classification, Rev.4))

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Figure 23. TV and Radio Transmitters Exports, 2007-2014:



Product Code 7643 (Standard International Trade Classification, Rev.4)

Data Source: UN Comtrade Data obtained from World Integrated Solution Database, World Bank.

Appendix J: Top 50 Global Ports

Figure 24. Top 50 Global Ports by Containerized Unit Volumes:

Top 50 Global Ports by Containerized Unit Volume (1000s TEU)									
	Port Name	Country	2010	2011	2012	2013	2014	Share World 2014	Growth Rate 2010-14
1	Shanghai	China	29,069	31,700	32,529	33,617	35,285	5.2%	121%
2	Singapore	Singapore	28,431	29,937	31,649	32,240	33,869	4.9%	119%
3	Shenzhen	China	22,509	22,570	22,940	23,278	24,037	3.5%	107%
4	Hong Kong	China	23,699	24,400	23,117	22,367	22,226	3.2%	94%
5	Ningbo	Korea	13,144	14,510	15,670	16,774	18,700	2.7%	142%
6	Busan	Korea	14,194	16,184	17,046	17,686	18,678	2.7%	132%
7	Guangzhou	China	12,550	14,260	14,743	15,309	16,600	2.4%	132%
8	Qingdao	China	12,012	13,020	14,503	15,520	16,580	2.4%	138%
9	Dubai	UAE	11,600	13,000	13,270	13,641	15,249	2.2%	131%
10	Tianjin	China	10,080	11,580	12,300	13,010	14,061	2.1%	139%
11	Rotterdam	Netherlands	11,145	11,876	11,865	11,621	12,298	1.8%	110%
12	Port Klang	Malaysia	8,870	9,603	10,000	10,350	10,946	1.6%	123%
13	Kaohsiung	Taiwan	9,181	9,636	9,781	9,938	10,593	1.5%	115%
14	Dalian	China	5,242	6,400	8,060	9,912	10,011	1.5%	191%
15	Hamburg	Germany	7,900	9,014	8,863	9,302	9,730	1.4%	123%
16	Antwerp	Belgium	8,468	8,664	8,633	8,578	8,978	1.3%	106%
17	Xiamen	China	5,820	6,450	7,201	8,008	8,572	1.3%	147%
18	Tanjung Pelepas	Malaysia	6,530	7,520	7,700	7,628	8,550	1.2%	131%
19	Los Angeles	USA	7,831	7,940	8,078	7,869	8,340	1.2%	106%
20	Long Beach	USA	6,263	6,100	6,045	6,730	6,821	1.0%	109%
21	Laem Chabang	Thailand	5,068	5,731	5,830	6,041	6,583	1.0%	130%
22	Jakarta	Indonesia	4,714	5,649	6,200	6,590	6,504	1.0%	138%
23	Ho Chi Minh	Vietnam	3,856	4,815	5,060	5,542	6,390	0.9%	166%
24	Bremen	Germany	4,871	5,900	6,115	5,831	5,780	0.8%	119%
25	New York	USA	5,292	5,500	5,529	5,467	5,772	0.8%	109%
26	Yingkou	China	3,338	4,033	4,851	5,301	5,611	0.8%	168%
27	Lianyungang	China	3,870	4,850	5,020	5,490	5,005	0.7%	129%
28	Colombo	Sri Lanka	4,000	4,262	4,180	4,306	4,907	0.7%	123%
29	Tokyo	Japan	4,284	4,639	4,751	4,861	4,895	0.7%	114%
30	Algeciras	Spain	2,810	3,603	4,114	4,501	4,555	0.7%	162%
31	Jawaharlal Nehru	India	4,752	4,320	4,260	4,162	4,450	0.7%	94%
32	Valencia	Spain	4,206	4,327	4,469	4,328	4,442	0.6%	106%
33	Jeddah	Saudi Arabia	3,830	4,040	4,738	4,561	4,263	0.6%	111%
34	Felixstowe	UK	3,400	3,400	3,700	3,740	4,100	0.6%	121%
35	Port Said	Egypt	3,474	4,269	3,631	4,100	3,959	0.6%	114%
36	Khor Fakkan	Oman	3,022	3,229	3,996	3,800	3,800	0.6%	126%
37	Santos	Brazil	2,722	2,985	3,171	3,446	3,685	0.5%	135%
38	Manila	Philippine	3,154	3,467	3,705	3,770	3,650	0.5%	116%

39	Piraeus	Greece	513	1,680	2,734	3,164	3,585	0.5%	699%
40	Ambarli	Turkey	2,540	2,700	3,097	3,378	3,488	0.5%	137%
41	Seaport Alliance	USA	3,595	3,519	3,519	3,456	3,428	0.5%	95%
42	Savannah	USA	2,825	2,944	2,966	3,034	3,346	0.5%	118%
43	Colon	Panama	1,600	1,900	3,519	3,356	3,287	0.5%	205%
44	Balboa	Panama	2,758	3,232	3,251	3,064	3,236	0.5%	117%
45	Tanjung Perak	Indonesia	3,030	2,643	2,849	3,001	3,106	0.5%	103%
46	Tanger Med	Morocco	2,058	2,185	18,263	2,558	3,080	0.5%	150%
47	Taicang	China	2,200	3,058	4,014	2,170	3,057	0.4%	139%
48	Salalah	Oman	3,485	3,200	3,620	3,340	3,034	0.4%	87%
49	Gioia Tauro	Italy	2,851	2,305	2,721	3,087	2,970	0.4%	104%
50	Keelung	Taiwan	1,963	2,402	2,704	2,642	2,943	0.4%	150%
Top 50 Year Total			354,619	385,151	420,570	415,465	437,035		123%
Share of Top 50 among world total (%)			65.6%	65.6%	67.3%	63.8%	63.9%		

Table source: World Container Traffic Data 2015, International Association of Harbors and Ports.

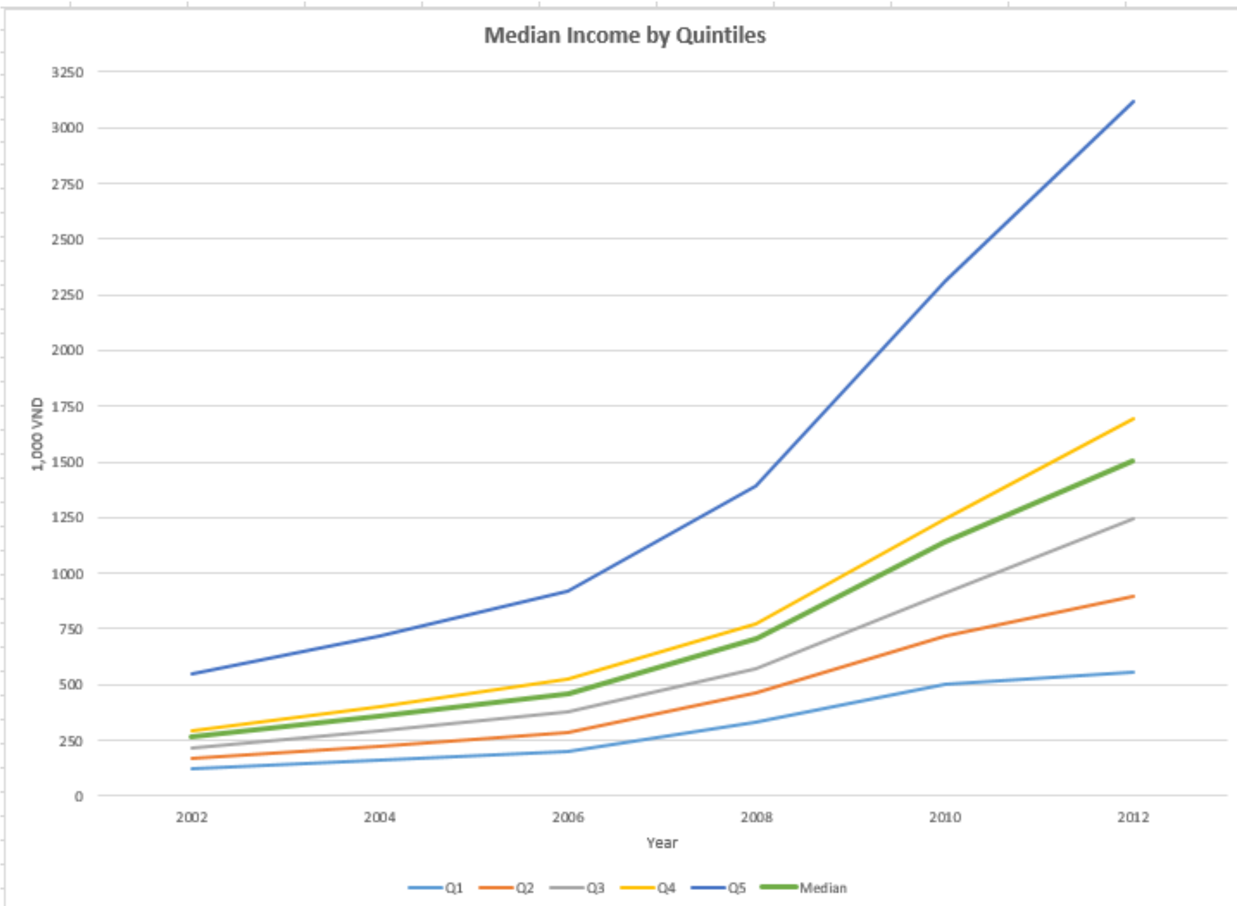
Appendix K: Income

Figure 25. Table of Median Income by Quintiles, 2002-2012:

Median Income by Quintiles, 2002-2012 (1,000 VND):

Year	Median	Q1	Q2	Q3	Q4	Q5	Income Ratio Q5:Q1
2012	1,503	558	898	1,246	1,697	3,115	4.6
2010	1,139	499	720	914	1,247	2,311	4.6
2008	705	330	460	568	776	1,391	4.2
2006	460	202	286	377	522	917	4.5
2004	360	160	226	294	404	715	4.5
2002	269	123	170	214	290	549	4.5

Figure 26. Graph of Median Income by Quintiles, 2002-2012:



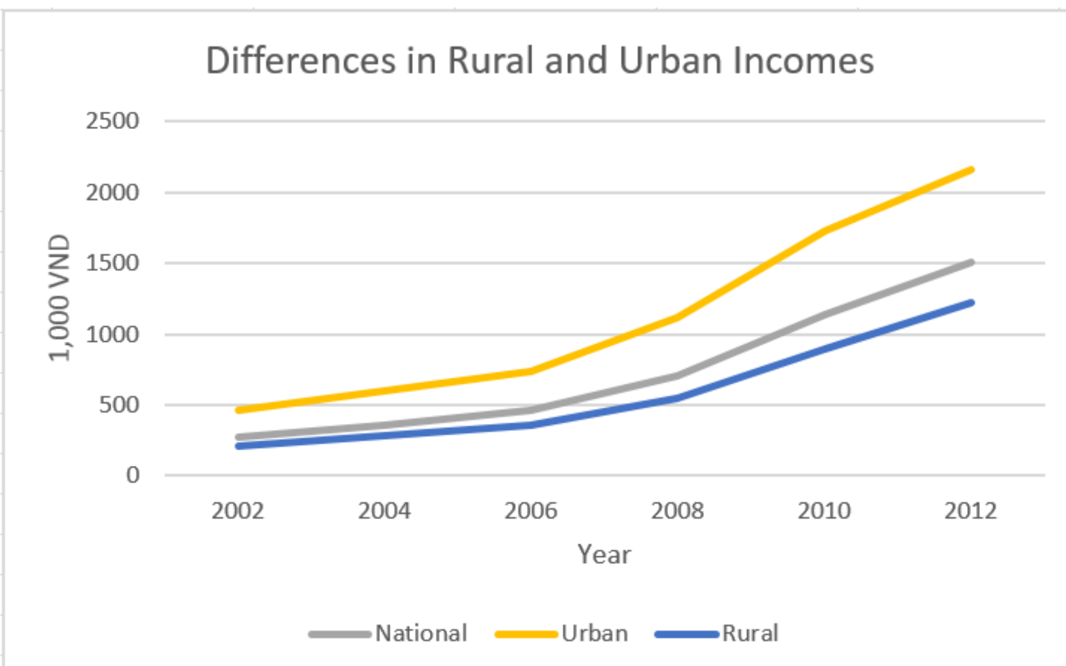
Data source: General Statistics Office of Vietnam.

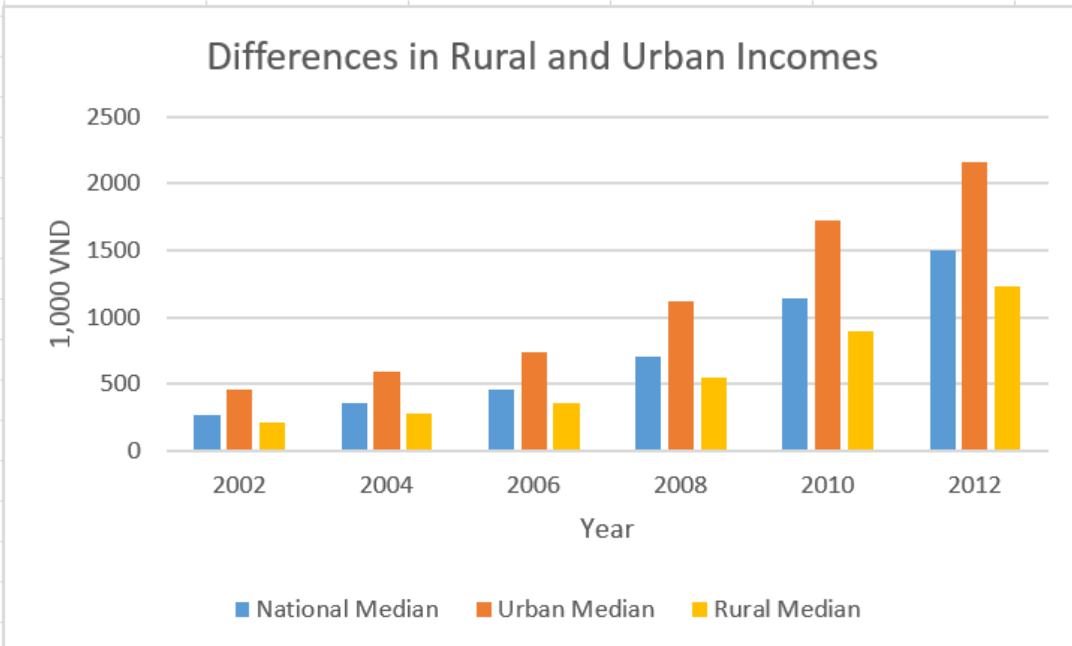
Figure 27. Table of Differences in Urban and Rural Incomes, 2002-2012:

Differences in Urban and Rural Incomes, 2002-2012 (1,000 VND):

Year	National Median	Rural	Urban	Ratio Urban:Rural
2012	1,503	1,226	2,161	1.8
2010	1,139	891	1,726	1.9
2008	705	548	1,115	2.0
2006	460	359	738	2.1
2004	360	284	595	2.1
2002	269	211	461	2.2

Figures 27-28. Graphs of Differences in Urban and Rural Incomes, 2002-2012:

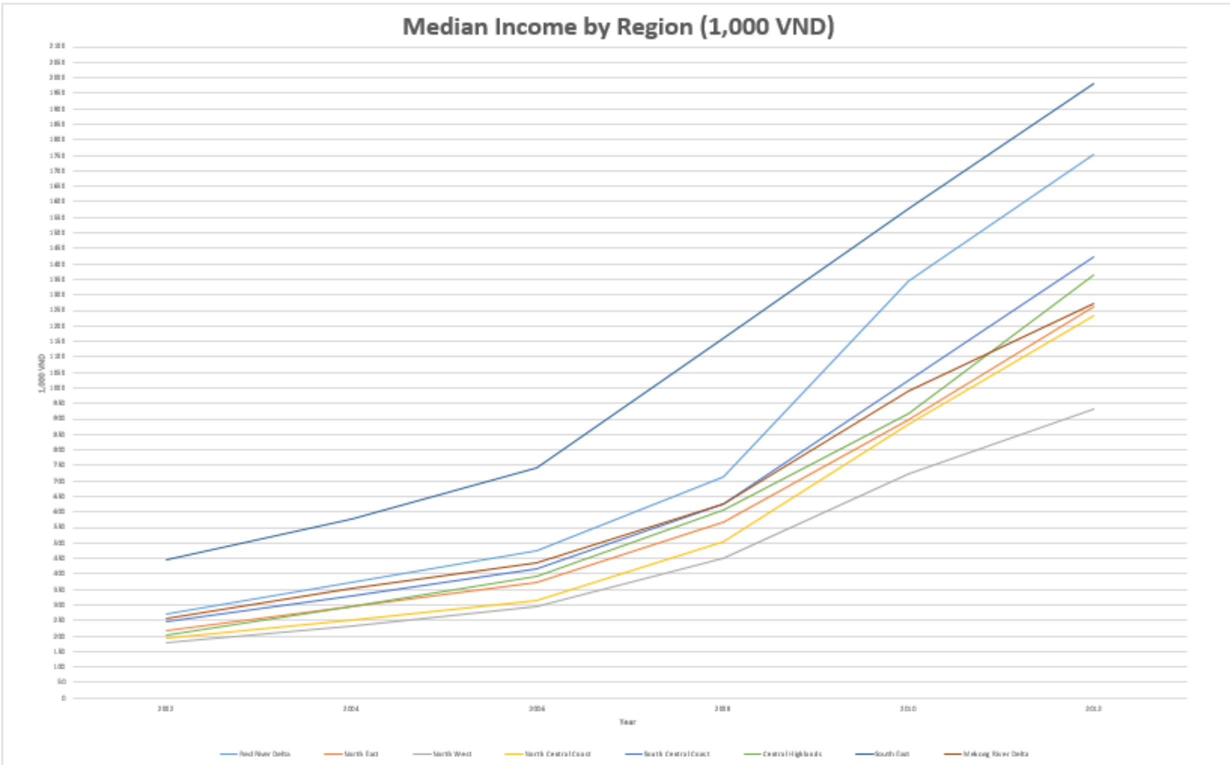




Data source: General Statistics Office of Vietnam.

Figures 29. Graph of Regional Differences in Income, 2002-2012:

Regional Differences in Income, 2002-2012 (1,000 VND):



Data source: General Statistics Office of Vietnam.

Appendix L: Inequality

<u>Figure 30. The Gini Coefficient over Time:</u>

Figure 2.3: There has been a slight rise in inequality over time

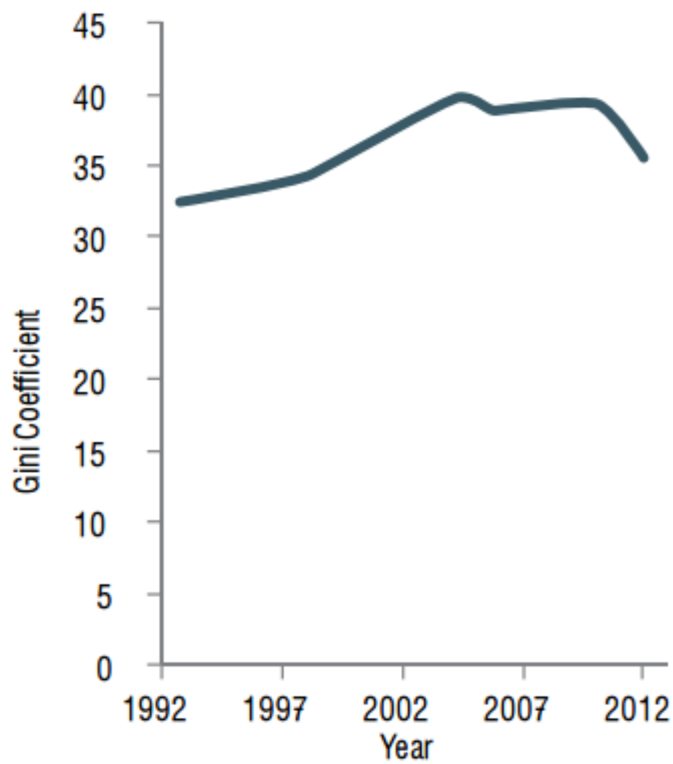


Image source: Dinh, Demombynes, & Badiani-Magnusson, 2014, p. 37.

Figure 31. Income Growth of the Bottom 40%:

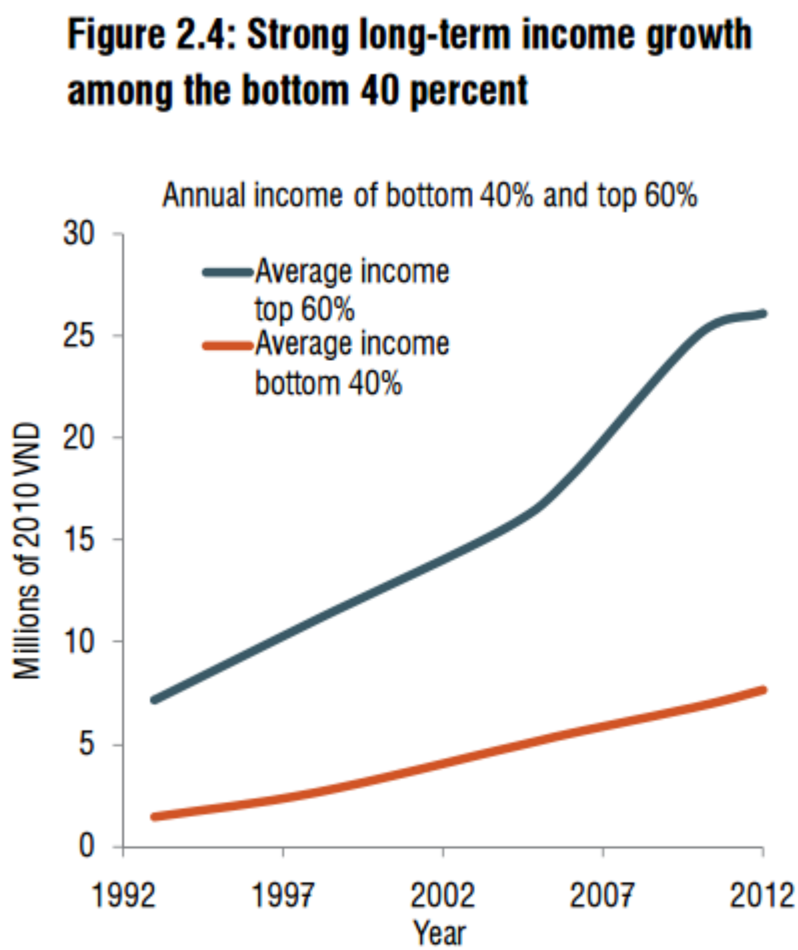


Image source: Dinh, Demombynes, & Badiani-Magnusson, 2014, p. 37.

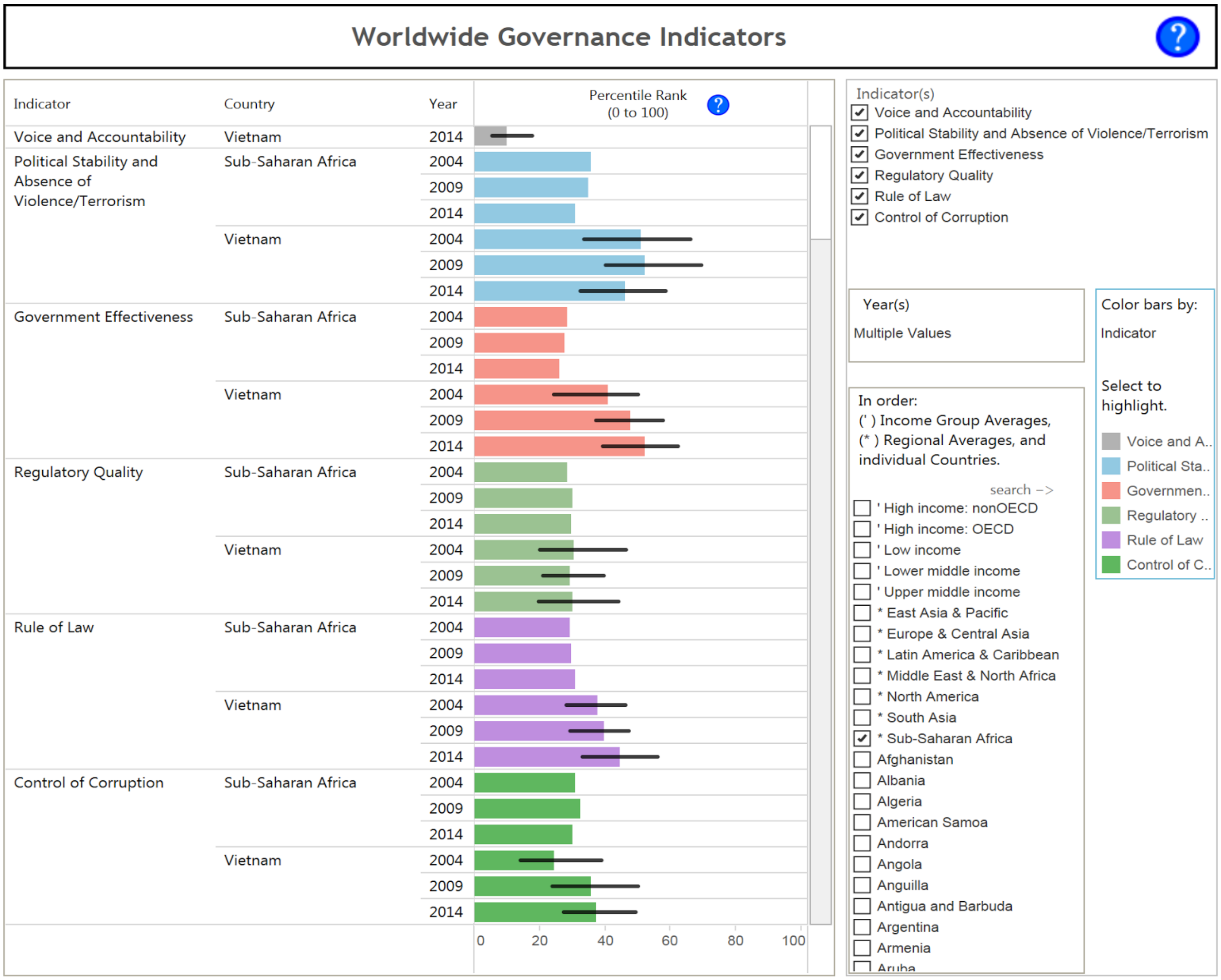
Appendix M: State Budget Expenditure Final Accounts

Figure 32. State Budget Expenditure Final Accounts, 2005-2013:

	Structure (%)							
TOTAL EXPENDITURE	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Expenditure on development investment	30.15%	28.08%	26.38%	32.31%	28.23%	26.45%	27.47%	21.45%
Expenditure on social and economic services	50.37%	53.06%	55.74%	54.05%	58.05%	59.30%	61.67%	68.22%
Expenditure on education and training	10.89%	13.46%	11.83%	12.35%	12.05%	12.62%	12.99%	16.58%
Expenditure on health care	2.90%	4.11%	3.18%	3.45%	3.87%	3.93%	4.03%	5.85%
Exp. on science, technology and environment	0.98%	1.90%	0.70%	0.68%	0.64%	0.73%	0.60%	0.76%
Expenditure on broadcasting and television	0.80%	0.35%	0.59%	1.08%	1.36%	1.10%	1.16%	1.11%
Pension and social relief	6.76%	9.16%	8.20%	8.96%	9.90%	9.92%	8.76%	10.45%
Expenditure on economic services	4.49%	4.04%	4.68%	4.85%	5.80%	5.78%	5.81%	7.15%
Expenditure on general public administration	7.14%	7.31%	8.40%	7.23%	8.65%	9.20%	9.11%	9.63%
Addition to financial reserve fund	0.03%	0.05%	0.04%	0.04%	0.04%	0.04%	0.05%	0.01%

Appendix N: World Bank Worldwide Governance Indicators

Figure 33. Worldwide Governance Indicators for Vietnam and Sub-Saharan Africa:



Source: *Kaufmann D., A. Kraay, and M. Mastruzzi (2010), The Worldwide Governance Indicators: Methodology and Analytical Issues*
The Worldwide Governance Indicators are available at: www.govindicators.org
Note: *The Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.*

Appendix O: African Natural Resources

Figure 34. African Natural Resources:

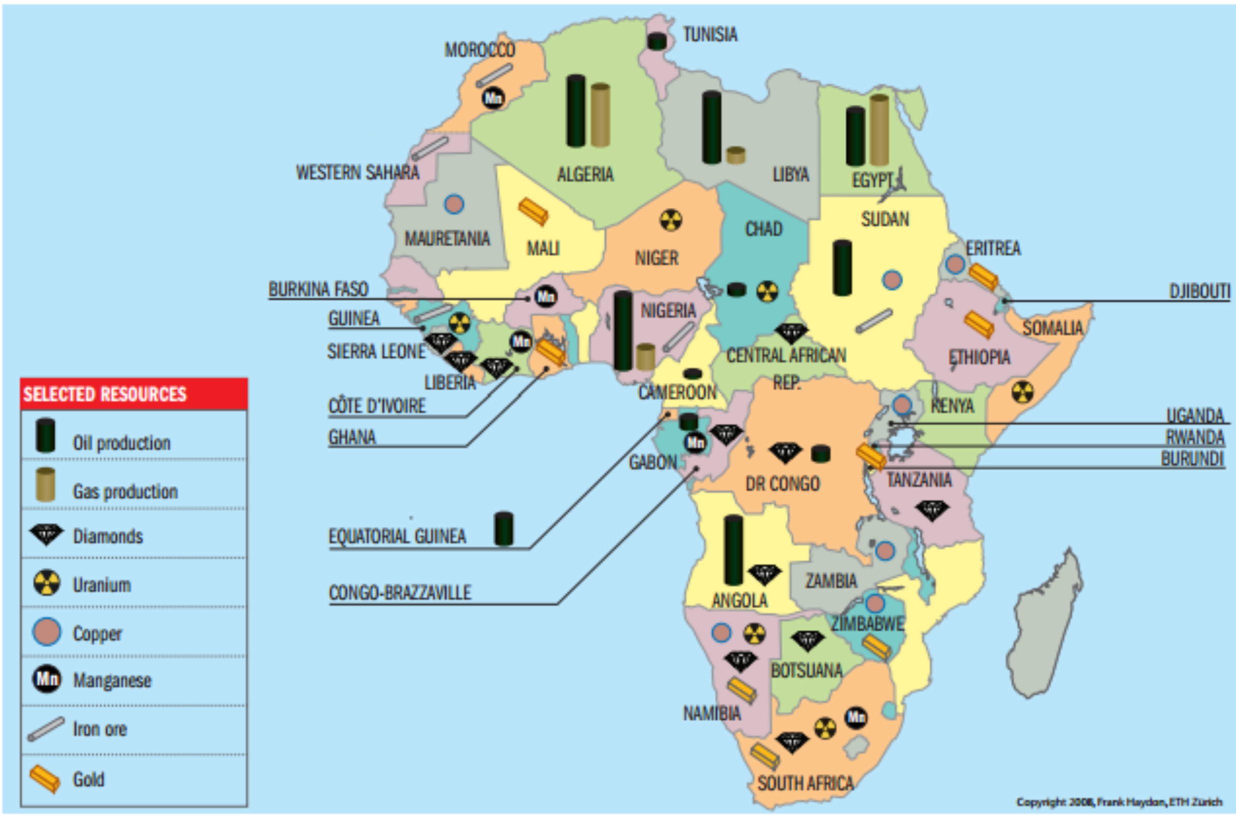


Image Source: Center for Security Studies, ETH Zurich, 2008.