Thesis for the Degree of Master of Economics

Comparative Analysis on Foreign Direct Investment Myanmar and Vietnam

by

Khin Zar Win

Department of Resource and Environmental Economics

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미얀마와 베트남의 외국인 직접투자 비교

Advisor: Professor Hyong mo Yoon

by

Khin Zar Win

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A dissertation

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KHIN ZAR WIN

Approved by:

(Chairman) Prof. Bong tae Kim

(Member) Prof. Cheol hyung Park

(Member) Prof. Hyong mo Yoon

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Content

List of Table

List of Figures

미얀마와 베트남의 외국인 직접투자 비교

킨 자 원

부 경 대 학 교 대 학 원 자 원 환 경 경 제 학 과

요 약

1988년 이래로 미얀마와 베트남에서의 외국인직접투자(FDI)를 통한 개발은 중앙계획경제에서 시장경제로의 경제적 전환의 새롭고 인상적인 현상으로 간주되어왔다. 미얀마와 베트남에 대한 FDI는 값싼 노동력과 천연자원에 대한 양국의 비교우위를 이용한다. 오늘날 베트남은 미얀마보다 FDI의 매력적인 대상이다. 기존 연구에 따르면 투자환경을 조성하는 것이 FDI를 유치하기 위한 핵심 전제조건이다. 이 연구에서는 미얀마가 FDI를 유치하고 동아시아 외국인투자의 주요 수령자가 될 수 있는 몇 가지 요인을 확인하고 미얀마와 베트남이 FDI 유치를 위해 어떻게 노력하고 있는지 분석하고자 하였다. 미얀마의 GDP 결정요인 분석에 따르면 FDI가 GDP에 유입한 유의한 영향을 미친 반면 수출은 유의한 영향이 없는 것을 나타났고, 베트남에 대해서도 같은 결과를 얻었다. 이를 통해 미얀마와 베트남 모두 FDI가 GDP에 기여하고 있음을 확인하였다.

List of Abbreviations

FDI	:	Foreign Direct Investment
UNCTAD	:	United Nations Conference on Trade and Development
MNC's	:	A multinational corporation
ISI	:	Import Substitution industrialization
SOEs	:	State-owned Enterprise
WTO	:	World Trade Organization
APEC	:	Asia-Pacific Economic Cooperation
FIL	:	Foreign Investment Law
CSO	:	Central Statistical Organization Of Myanmar
MNPED	:	Ministry of National Planning and Economic development
ODA	:	Overseas Development Assistance
MIC	:	Myanmar Investment Commission
NAFTA	:	North American Free Trade Agreement

Chapter I

Introduction

Since the mid-1980s, worldwide flows of Foreign Direct Investment (FDI) has begun to surge significantly as an engine of growth in many countries around the world. Foreign direct investment has also accelerate the continued integration and interdependence of the world economies through expanding flows of goods, services, capital and technological expertise. In accordance with the changing international and domestic circumstances, both Myanmar and Vietnam have shifted their economic policies from centrally-planned to market-oriented economic systems almost over the same period. One of the earliest steps towards economic reforms in both countries has been the opening of their economies to foreign investment. And FDI has emerged as an important source of economic development in the two transitional economies. In this context, the purpose of this dissertation is to analyze the nature and development of FDI in Myanmar and Vietnam economies is illustrated. The dissertation also examines the lessons to be learned and best results to be obtained for Myanmar by analyzing the two countries recent economic activities in general and FDI in particular. This research work covers the development of FDI in Myanmar and Vietnam between the period 1988-2017. Chapter 1 about of the foreign direct investment and the globle economy. Moreover, the dissertation also examines changing attitudes of developing countries towards Foreign Direct Investment are also examined. Economic reform and FDI inflows in Myanmar and Vietnam are Chapter II. Chapter III gives an analysis of FDI on Myanmar and Vietnam economies and development potentials and constraints for FDI in the two countries. Moreover, areas to improve Foreign Direct Investment such as economic policies and political risks in the two countries are also discussed as a comparative study.

1. Definitions of FDI

The International Monetary Fund (1997) defines FDI as "an investment that is made to acquire a lasting interest in an enterprise operating in an economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprise."[1] According to UNCTAD definition, FDI is defined as an investment involving management control of a resident entity in one economy by an enterprise resident in another country.[2] Agiomirganakis et al. (2003) defined FDI as the flow of capital resulting from the behavior of multinational companies. Thus, the factors which affect the MNC's behavior will also some impact upon the direction and magnitude of FDI. Ohlin (1933) assumes that if the host countries have lower interest rates for investment and higher rates of profitability in growing markets for investors, then there is a higher motivation for FDI in these countries.

2. Type of FDI

Dunning (1993) states that there are three main types of FDI of which the first one is called market-seeking or horizontal FDI. This category involves specialization of production facilities in the host country and its main purpose is to provide products and services to local and regional

[1] http://scholar.lib.vt.edu/theses/available/etd-05072002-000731/unrestricted/ch3-LitReview.pdf

[2] http://unctad.org/en/docs/wir2007p4-en.pdf (accessed on 20.6.2014)

markets. This type of FDI is a little different from Tariff-jumping or export-substituting FDI because the purpose of horizontal FDI is to supply hot country's markets with local products. Market size and market growth in the host country play important roles. Barriers to enter local market such as tariffs and transport costs promote this type of FDI.

A second type of FDI called resource-seeking FDI emerges when firms invest in other countries to obtain resources which are not available in their own countries such as natural resources, raw materials or cheap labor. When MNCs directly investment for export purposes, they have to consider the factor costs in manufacturing sector. The main point distinguishing the second type of FDI from horizontal FDI is this: vertical or export-oriented FDI includes relocating parts of the production chain to the host country. In export-oriented FDI, availability of cheap labor costs is the most essential driver. The third type of FDI is called efficiency-seeking. FDI which occurs when the firm can get economies of scale in doing business.

3. Foreign Direct Investment and the Global Economy

Since the emergence of the international economy in the seventeenth and eighteenth centuries, the world economy has been confronting its highest transformation. In the late 1980s, the Cold war ended with the collapse of the Soviet Union. And a unified Germany reemergence as a dominant power in Western Europe. A relatively decline in American power and wealth, a stagnant yet enormously rich Japan, and the rise of China and Pacific Asia are influencing almost every dimension of international affairs. At the turn of the century, issues arising from economic globalization confront national societies and the international community.

Economic globalization presents both benefits and challenges for the well-being of peoples around the world.

4. Foreign Direct Investment and Developing Countries

Many developing countries also adopted the strategy of import-substitution industrialization (ISI).[3] Latin American countries, particularly, maintained their prewar tariffs or added additional barriers to imports so as to encourage local industry in a wide variety of sectors. China largely from connecting economic relationship with the West. Myanmar withdrew politically and considerably scaled back economic contacts.[4] Socialist countries like Myanmar and Vietnam also adopted reform measures and pursued FDI promotion. And the world economy shifted in the late 1980s and early 1990s away from centralized, command economies towards more decentralized market economies.

The primary reasons for the policy changes in the Third World include the changing opinion of developing countries to seek to supplement their shortage of domestic saving and technology by means of inviting FDI. It is not completely capable for developing countries to collect investment capital with their own sources of financing. Today, all developing countries, including Myanmar and Vietnam, seek to obtain needed capital for their development from FDI. During the 1990s, approximately half of all capital flows to developing countries was FDI. Developing countries are also becoming foreign investors themselves.

3) (Spiegel: World Politics)

4) Spiegel: World Politics

Some of them now have their own TNCs. In 1996, they invested US $ fifty-one billion abroad . Like industrialized countries, they invest predominantly in economies in the same region or continent.[5] Liberalization of the trade policy is also an important element. FDI has a more profound impact on growth in countries that pursue policies promoting exports than it does in countries that follow import-substitution policies. An open trade policy is also important for attracting FDI. When first rate information technology systems reinforce liberal market access, a country is further integrated into the world economy and becomes still more attractive as a destination for investment.

Concerning the FDI in Southeast Asia, countries like Singapore, Indonesia, Malaysia and Thailand are more liberal with less restrictive conditions governing the entry and operation of foreign enterprises.[6]

Myanmar is relatively more restrictive in practicing FDI policy. However, in Vietnam, FDI has been an important part of economic transition, business liberalization and economic development of the country. A survey of international firms in Hong Kong (China), Singapore and Taiwan found that the presence of advanced infrastructure was the most important consideration in choosing to locate regional headquarters and sourcing operations in a country, and the second most important factor in siteing production.

The issue of economic prosperity is often linked to massive inflows of FDI into a nation and the impact of FDI on economic growth has been argued in literature for many years. A comprehensive study of FDI flows to sixty countries over twenty-nine years conclude that FDI is an important

5) World Development Report,

6) World Investment Report FDI from Developing and Transition Economies : Implications Development, Overview, United Nations, New York

vehicle for the transfer of technology and contribution to growth.

Many studies have agreed that there exists a positive relationship between FDI and economic development, either in the short run or in the long run, or both. Therefore, to maintain long-term development, foreign investment should be attracted by cultivating a healthy economic environment within the host economy.

Chapter II

Foreign Direct Investment and the Economic Development of Myanmar and Vietnam

Global economic environment is facing many new challenges now as compared to a couple of decades ago. There is an increasingly globalization of economic activities, especially in production, evolution of technology and globalization of capital resources. This globalization of resources will provide greater opportunities for trade, investment and technological transfer to the developing economies especially to the economies more dynamics in their reform process.

A major challenge for reforming economies is the availability of the huge capital inflows required for the restructuring of these economies. At the same time, the world is experiencing sharp technology improvement which will not only change production but also transform the trade and investment patterns. The quality of resources and technological transfer to emerging economies depends on favorable economic and policy environment and the capacity to absorb them. While external factors are important in the process of restructuring the economy, such restructuring cannot take without simultaneous domestic stabilization policies.[7]

In this context domestic stabilization and reform measure of Myanmar and Vietnam which abandoned Socialist economic practices almost at the same time and changed towards market-oriented economies policies are discussed in this section.

7) Ahmed Khaid: Myanmar's Membership to AFTA/ APEC, Issues involved in economic diplomacy

1. Economic Reforms in Myanmar and Vietnam

Myanmar is a country highly endowed with enormous natural resources. Its large area of arable land, its natural gas and mineral deposits and its fisheries and forestry represent enormous resource potential.

Under the centrally-planned economy, the resources remain largely unexploited and protected. It has resulted the country to remain less developed. It can be assumed that a country endowed with natural resources is less likely to develop rapidly when economic policies of that country change frequently. It is true for Myanmar's past economic policies had reflected to low level of development. In fact, Myanmar's economy has been closed to outside world and thus inward-looking policies have been formulated and implemented.

Myanmar as an agricultural country started economic reforms in the agricultural sector where the government's monopoly in domestic marketing of rice and some important crops were relaxed and the government abandoned its procurement of rice at below-market price.[8] In late 1988, the government removed restrictions on private sector participation in domestic and foreign trade. The government has sought to encourage private sector by external trade. As the private sector is duty encouraged, the number of exporters, importers, business representatives, partnership firms,
increased.[9]

Myanmar has, however, certainly made some progress towards a market-oriented economy. But it has not yet fully achieved three broad objectives of the government, compared with the performances of its neighbouring countries. What has been achieved has not been much.

8) IMF- Recent Economic Developments

9) H.E.D.O Abel An Overview of Myanmar's Economy,

There is still a long way to accomplish a market economy that is coupled with risks and challenges for Myanmar.

Myanmar's economic reforms can be compared with reform processes in Vietnam. The Vietnamese government in late 1986 has adopted the new economic reform programme "Doi Moi".[10] As in Myanmar, these economic reforms are the most important and comprehensive in Vietnam's economic history.

Economic reforms that have taken place simultaneously in Vietnamese economy were quite similar to those of Myanmar with a few exceptions. Reforms in Vietnam were initiated at micro level from agriculture to industries (giving financial autonomy to state enterprises), to domestic and external trade liberalization, and to foreign investment and then to finance and banking.[11] The World Investment Report (1995) pointed out that the result of the market-oriented economic reforms in Vietnam have been very impressive. The Vietnamese leadership also took organizational measures to transform the command economy into a market-economy. The economy is presently comprised of six sectors: the state sector (includes SOEs), the collective sector (agricultural cooperatives and small-scale industries), the household and individual sector, the private capitalist sector, and finally the state capitalist sector (joint ventures between SOEs and private enterprises and between SOEs and foreign multinationals). Since 2001, foreign-invested economic sector has been regarded as an independent economic sector.

The Vietnamese foreign investment stipulates that the maximum legal capital to a joint venture to be contributed by a foreign partner should not be less than 30 percent of the total capital.The law states that an enterprise with foreign investment capital shall not exceed twenty years.

10) Foreign Direct Investment and Trade, World Investment Report

11) Basic Facts on the Socialist Republic of Vietnam

However, its tenure can be extendable if necessary.[12] Today, Vietnam has being admitted as a member of World Trade Organization (WTO) and hosted an Asia-Pacific Economic Cooperation (APEC) Summit in November 2006. These significant events have shown Vietnam's positive image in economic development and international relations arena.[13] Foreign Direct Investment has played a dominant role for this rapid growth of economic development in Vietnam.

FDI has helped to advance market-oriented economic reforms which have contributed to Vietnam's rapid economic growth. In turn, economic reforms and rapid economic growth have led to conditions that are favourable to private investment and have contributed to the rapid growth of FDI. In the context of Myanmar, it may be appropriate to focus on creating a more attractive business environment by accelerating domestic economic reforms to generate broader benefits from foreign investment.

2. Fundamental Characteristics of Foreign Investment Policies in Myanmar and Vietnam

(2.1) Foreign Investment Policies in Myanmar

After transforming the economy into a market- oriented model, the government enacted new laws in various areas in order to foster economic development. Some of the existing laws that were no longer suitable for the changing economic environment have been amended. The government encouraged private sector participation in foreign trade

12) Legal Writings on Foreign Investment in Vietnam

13) Ye' Htut ; "Vietnam, A Jumping Tiger, International Eleven Journal, Yangon Eleven Media Group

activities. The first Myanmar Foreign Investment Law (FIL) was promulgated in 1988. Policy objectives of the FIL are: (1) promotion and expansion of exports; (2) exploitation of natural resources which require heavy investment; (3) acquisition of high technology; (4) supporting and assisting production and services requiring large amounts of capital; (5) opening up of more employment opportunities; (6) development of works which would save energy consumption and (7) promotion of regional development. Foreign investors can organize their business activities either in the form of a wholly foreign-owned company or a joint venture with any partner.

The government revised the FIL of 1988 in the year of 2012. The new text of that law extends from the income tax exemption which is available to a foreign company from three years to five years. Moreover, the investors can as well receive exemptions from the payment of import duty on machinery and equipment used in the enterprise and on raw materials imported in the first three years of production.[14] According to the 1988 text of the FIL, foreign investors did not have the right to lease the land for more than a year. But in the revised version of the FIL, the government allowed foreign investors to obtain a leasehold of real property for about fifty years, extendable up to additional ten years periods depending upon the size of the investment. The lease can be granted for a term longer than 50 years for projects in less developed areas with poor infrastructure and access to communications.[15] In the previous FIL, the foreign investment ratio is restricted to 50% maximum and 35 minimums in 13 restricted sectors.

14)"Foreign Investment Law Myanmar "ebookbrowse.net /my/ myanmar - foreign - Investment- law"

15)http:// www.wfw.com /Publications/ Publication1183/ $File/WFW -Myanmar FDILaw .pdf

But in the new FIL, the ratio can be negotiated between the new law, the government banned 100% foreign ownership of ventures in some sectors. The government guarantees that an enterprise formed under the permit shall not be nationalized within the tern of contract or the extended term if such term is extended. The special Economic Zone Law SEZL (2011) and Dawei Special Economic Zone Law DSEZL (2011) were enacted and provide various incentives such as tax holiday for a five years period and grant 50% relief of income tax for oversea sale products for another five years period. There is three step issues a permit of trading right and the last one asks for the completion of formalities at the Companies Registration Office.

In January 2013, the MNPED amended the 2012 FIL rules. The MNPED is assigned with the design of policies in question. The MIC, which is a division of the MNPED, implements the policies and offers advice to the government in facilitating and promoting domestic and foreign investment.

(2.2) Foreign Investment Policies in Vietnam

Vietnam started its reform procession 1986 and transformed its economy from a socialist economy into a market- oriented system and adopted an open-door policy in regard to foreign investments. After 1990, the private sector was allowed to participate in FDI projects since then; the government has carried out various measure to attract foreign investment to the country. The first investment law was introduced in 1987 and revised in the years 1990,1992,1996 and 2000 with various favorable investment incentives. And, the country also lifted restrictions on foreign trade. In 1992, the country has simplified the procedures for the registration of foreign enterprises compared to the previous periods. The government provided a more level-playing field between foreign and domestic investors. The government welcomed FDI in all sectors of the economy. Foreign investors can establish enterprises in Vietnam and can choose between three legal entities: (1) Business cooperation on the basis of a business contract; (2) joint venture enterprise; and (3) enterprise with one hundred percent owned capital.[16]

In Article 21 of the law on foreign investment (2000), the government guarantees foreign investors that an enterprise shall not be nationalized. In Article 22 of the law on investment in 2000, the foreign investors are entitled to transfer their profit and other sources of receipts without restrictions. There are no minimal requirements for investment capital. In Article 36 of the 2005 version of the law on investment, the government limits the land use for an investment project normally to fifty years, but for some projects which invest in areas with especially difficult socio-economic conditions and which would request longer leases of land, the government has extended the lease of land to seventy years.

Vietnam offers a two-year tax exemption, and for another two years, the investors just have to pay half of the regular tax rates. For some priority categories, the government offers a preferential income tax between 10-15% for FDI. Companies are exempted from import duties if they import raw materials, machinery and other inputs which are used in export industries. In order to attract foreign investors to the country, Vietnam has established industrial zones (IZs) and export processing zones (EPZs). Foreign investors can receive preferential treatment if they establish their enterprises in one of those areas. The government offers corporate income tax rates of 10%, 15% and 20% for the whole investment project duration.

16)Law on Foreign Investment in Vietnam (http;// www.vietnamlaws.com/ freelaws/ LFIna12 Nov)

Chapter III

Foreign Direct Investment Trends and flows and Analysis of FDI Impact in Myanmar and Vietnam

1. Inflow of foreign direct investment in Myanmar and Vietnam

The Union of Myanmar, the second largest country in mainland Southeast Asia, has a total area of 676577 square kilometers and an estimated population of about 53 million. Myanmar is endowed with rich natural resources and cultivable land, which remains largely untapped.[17]

Foreign investment in Myanmar was highly restricted prior to the economic reforms in 1988. In order to achieve the objectives of economic development, Myanmar launched a program called for a high level of foreign investment. Following the introduction of the liberal investment law, FDI came into the country since 1989/90. Although the Foreign Investment Law has been promulgated since November 1988, the list of economic activities allowed for FDI were announced in May 1989. This may be one of the reasons why foreign investment did not rush into the country until the end of 1989.[18]

After transforming the economy from a centrally-planned system to a market-oriented one, the government implemented a series of liberalization measures in order to promote and raise the level of investments in almost every sector of the economy.

In particular the government encouraged the private sector to participate pro-actively in foreign direct investment activities. The government tried to attract FDI by enacting the Foreign Investment Law (FIL) in November 1988, which allows 100% ownership for foreign companies. After the

17) Win Tun ; "Southeast Asian Economic Experience and Prospects: Myanmar,

18) Mya Than: Investment Law

foreign investment law was enacted, the government has attracted 18 foreign enterprises with the total investment of $ 449.487 million in 1989-1990 period, 22 foreign enterprises with $280.573 million in 1990-1991, and 4 enterprises with $ 5.893 million in 1991-1992. In brief, FDI inflows into the country gradually increased from 1989 to 1996. But the amount of inflows decreased continuously from the year 1996-1997 due to the Asian Financial Crisis in that time. However, the amount increased again in 2004-2005 and 2005-2006 periods due to major investments in the power sector made by Thailand. In 2008-2009, the total investment increased to an amount of $ 984.996 million and rose sharply again in 2017 with the amount of $ 5678.010 million. All the investments during this period came mainly from Asia, the UK and Russia. The approved amount of FDI inflows are shown in the following table 1.

Table 1: Inflow of Foreign Direct Investment into Myanmar

(US $ Million)

Year	No. of Projects	Approved Investment
1989-90	18	449.487
1990-91	22	280.573
1991-92	4	5.893
1992-93	23	103.785
1993-94	27	377.184
1994-95	36	1352.295
1995-96	39	668.166
1996-97	78	2814.245
1997-98	56	1021.917
1998-99	10	54.396
1999-00	14	58.150
2000-01	28	217.687
2001-02	7	19.002
2002-03	9	86.948
2003-04	8	91.170
2004-05	15	158.280
2005-06	5	6065.680
2006-07	11	719.700
2007-08	8	205.710
2008-09	5	984.760
2009-10	7	329.580
2010-11	24	19998.970
2011-12	13	4644.460
2012-13	94	1419.470
2013-14	123	4107.060
2014-15	211	8010.530
2015-16	215	9486.120
2016-17	138	6649.810
2017-18	222	5718.090
Total	1470	65768.850

Source: Central Statistical Organization of Myanmar

Being reunified again after the end of the Vietnam-war in 1975, the country started the process of transformed its economy from a centrally planned system to a market oriented one in 1986.Those economic reforms which are called " Doi Moi " were introduced that year. The country's gross domestic product GDP, GDP per capita, export and also foreign investment increased after 1986. Now, Vietnam's economy is one of the fastest growing economies in ASEAN. Foreign direct investments are the most important factor during the industrialization and modernization of the country's economy. FDI offers to a country not only investment capital but also technological advancement, enhanced managerial skills, and more job opportunities, Vietnam has attracted foreign investors into the country after the first " law on foreign investment " was introduced in 1986. Since then, large amounts of FDI were flowing into the country.

Table 4 shows the overall inflows of FDI into the country from the year 1988 to 2012. During the period of 1988 to 1990, the country attracted in total 211 investment projects with a registered capital $ 1603.5 million. The total registered capital has increased continuously from 1991 ($ 1284.4 million) to 1996 ($ 9635.3 million). After amending the law on foreign investment in 1996, the registered capital rose to $ 9635.3 million with 372 investment projects during that year. The inflows of capital dropped gradually from $ 4873.4 million in the year 1997 to $ 2762.8 million in 1999 due to the Asian Financial crisis in 1997-98. In the period 2000-2004, the investments still flew into the country, but did not account for a significant amount.

The new FDI law was once more amended in 2005 with offering more favorable conditions to foreign investors. This amended law to a rapid increase in FDI inflows in 2005 and in 2006 with total registered capital of

$ 12004.5 million and $ 12004.5 million. Moreover, in 2006, Vietnam was regarded as one of the top developing-country recipients of FDI in the world. After that, the registered capital amount of $ 16348.0 million. From 1988 to 2012, Vietnam could attract significant FDI throughout the entire above mentioned period with only the years from 1999 to 2004 being an exception due to the 1997-1998 East Asian crises. In general, Vietnam started to receive significant amounts of foreign investment after its first law of investment in 1986 has been passed. The registered capital in 1996 was the highest amount of capital inflow during 1988 to 2005, and this hugely increased amount of capital was caused by the government's new amendment of the investment law in the same year. The overall foreign direct investment licensed in the period 1988 to 2017 is illustrated in table 2.

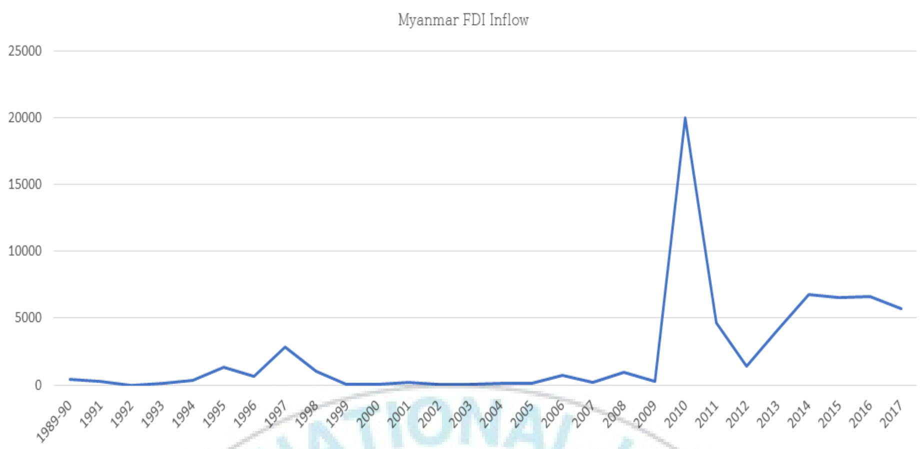
Table 2: Inflow of Foreign Direct Investment into Vietnam

(US $ Million)

Year	No. of Projects	Approved Investment
1988-1990	211	1603.5
1991	152	1284.4
1992	196	2077.6
1993	274	2829.8
1994	372	4262.1
1995	415	7925.2
1996	372	9635.3
1997	349	5955.6
1998	285	4873.4
1999	327	2282.5
2000	391	2762.8
2001	555	3265.7
2002	808	2993.4
2003	791	3172.7
2004	811	4534.3
2005	970	6840.0
2006	987	12004.5
2007	1544	21348.8
2008	1171	71726.8
2009	1208	23107.5
2010	1237	19886.8
2011	1191	15618.7
2012	1287	16348.0
2013	1530	22352.2
2014	1843	21921.7
2015	2120	24115.0
2016	2613	26890.5
2017	2741	37100.6

Source: General Statistics Office of Vietnam

Figure 1 (US $ Million)



Source: Central Statistical Organization of Myanmar

Figure 2 (US $ Million)

Source: General Statistics Office of Vietnam

If one compares the amount of FDI inflows between Myanmar and Vietnam during 1988-1996 periods, the volume of total investment inflows into Myanmar was US $ 6 billion while Vietnam attracted about US $ 29 billion of total investment. In comparison with Vietnam, Myanmar lagged behind with four times lower than that of the amount of FDI inflows into Vietnam. Major difference between these two countries was that Vietnam was able to construct an environment with more macro-economic stability and less political risk than Myanmar.

Vietnam reform agenda remains unfinished. Relative political and economic stability must be weighed against poor physical infrastructure, corruption, red tape, bureaucratic delay and other obstacles to foreign investment. At the same time, the regional investment environment is increasingly competitive, and Vietnam needs to continue working to maintain the relevance and attractiveness of its FDI policies.

For Myanmar, it is important to note that foreign investment has, to some extent, contributed to Myanmar economic development. The impact of foreign investment on Myanmar, however, is still insignificant in terms of quantity compared to the amount of investment flows into Vietnam. In 2017, for example, the investment flows into Vietnam reached US $ 37 billion while Myanmar attracted only around US $ 5 billion during the same period. It should be note that Myanmar will have to inevitably compete with other countries in the region in attracting foreign investment. In order to keep a competitive position in attracting FDI, it is necessary to create more investment friendly environment by strengthening its economic and political foundations. Because formulation of outward-looking strategy and removal of trade and investment barriers are not sufficient conditions for attracting foreign investments. More favorable political climate and consistency in economic policies are equally important.

2. Foreign Direct Investment in Myanmar and Vietnam by Sector

The distribution of FDI among the various economic sectors is depicted in table (3). Until 1994-1995, the sector receiving the highest FDI was the oil and gas sector followed by fisheries, hotel and tourism and the manufacturing sector. As shown in table (3), the manufacturing sector received foreign investments almost every year since 1989- 1990, amounting to $923.561 million in 1996-97, because Myanmar is resource-rich country and labor costs per worker are low. Before the Asian Financial Crisis in 1997-1998, the picture was a slightly different one: the largest investment receiving sector then was the manufacturing sector followed by oil and gas sector. Due to the economic sanctions by US and Western countries, the amount of FDI in the manufacturing sector decreased significantly after 2002-03 period. Companies in the garment industry are the main FDI recipient in the manufacturing sector, and the FDI-inflows declined sharply after US economic sanctions were put in place. In March 2018, the manufacturing sector was ranked third in terms of FDI with 867 projects and US $9481 million.

Since Myanmar is rich in oil and gas, the government invited foreign investors to carry out oil and gas exploration after 1989. As a result, a large amount of investment flowed into the sector. The inflow of FDI into the oil and gas sector amounted to $ 298.045 million in 1989-90. But the inflows declined to US $172.100 million in 1997-98. Despite the US-sanctions in 2003 the investment in the oil and gas sector still dominated the FDI-statistics in that year with a total capital of US $ 44.00 million. Myanmar offers a good potential to exploit its rich onshore gas fields with the most advanced technology. Thus large amounts of foreign investment became vital for the development of that sector and increasing the country's foreign trade revenue. The amount of investment total US $ 22,412 million, and thus became the sector ranked second in terms of FDI.

The power sector accounted for nearly US $ 6030.00 million in 2005-06, and the cumulative amount of total investments in the power sector was the highest amount in the year 2017-18 with US $ 20,688 million, because the distribution of electricity was the highest amount in the year 2017-18 with US $20,688 million, because the distribution of electricity was still low for domestic consumption purpose. In regard to the mining sector, the inflows of FDI were US $54.100 million in 1988-89. But that amount decreased continuously until 1994-95. The Myanmar Mining Law was enacted in 1994, and the amount of FDI inflows then increased again in 1995-96 with the total amount of US $155.779 million. This sector was ranked fourth in terms of FDI in 2017-18 with US 2899million. According to the Central Statistical Organization of Myanmar (CSO) in 2013, the power sector accounting for the highest FDI followed by oil and gas, manufacturing, Mining, hotel and tourism and the real estate sector. The manufacturing sector is US $ 1769 million (accounting for 31%), real estate sector is US $ 1302 million (accounting for 23%), power sector is US $ 406 million (accounting for 7%) and transport sector is US $ 901 (accounting for 16%) in 2017-18.

Table 3: Yearly Approved Investment Total by Sector in Myanmar

Registered Amount (US $ Million)

No	Sector	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
1	Agriculture	-	-	20.00	-	-	-	-	-	-	-
2	Construction	-	-	20.50	-	-	-	-	-	-	-
3	Fishing	4.75	3.26	-	-	26.38	2.6	-	-	-	12
4	Hotel & Tourism	-	15.50	5.25	-	-	-	3.5	-	-	-
5	Industrial Estate	-	-	-	-	-	-	-	-	-	-
6	Manufacturing	43.29	18.13	77.39	15.75	13.18	2.82	3.52	-	-	18.72
7	Mining	4.88	16.00	1.11	-	3.38	1.45	6.00	0.70	-	5.00
8	Oil & Gas	-	5.25	47.55	3.25	44.00	54.30	142.55	34.97	471.48	137.00
9	Power	-	-	-	-	-	-	-	6030.00	281.22	-
10	Real Estate	-	-	28.00	-	-	-	2.71	-	-	-
11	Transport	-	-	7.88	-	-	30.00	-	-	-	-
12	Other Service activities	-	-	10.00	-	-	-	-	-	-	-

(Source: Central Statistical Organization)

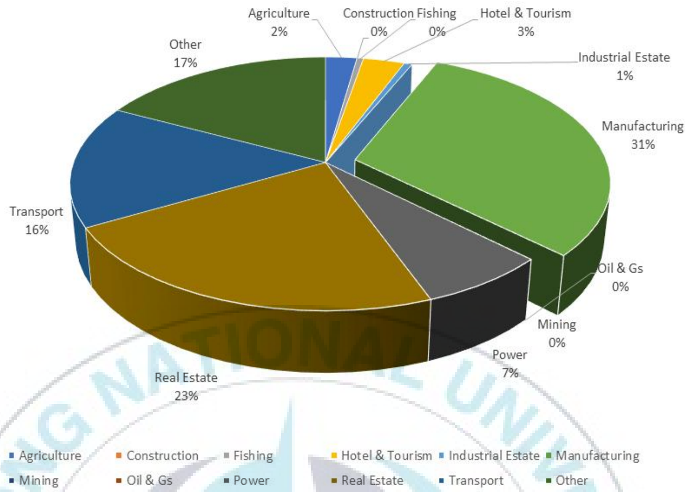
Table 3: Yearly Approved Investment Total by Sector in Myanmar (Continued)

Amount (US $ Million)

No	Sector	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	Agriculture	-	-	138.75	-	9.65	20.00	40.00	7.18	-	134.49
2	Construction	-	-	-	-	-	-	-	-	-	-
3	Fishing	-	-	-	-	23.11	89.01	26.86	8.00	1635.00	27.66
4	Hotel & Tourism	15.00	15.25	-	-	300.00	434.21	357.94	238.00	404.00	177.00
5	Industrial Estate	-	-	-	-	-	-	10.00	-	-	34.00
6	Manufacturing	-	6.00	65.32	32.25	400.71	1837.11	1500.51	1060.99	1180.00	1769.16
7	Mining	855.99	2.50	1396.07	19.89	15.334	33.00	6.25	28.923	-	1.31
8	Oil & Gas	114.00	278.60	10179.3	247.69	309.20	-	3222	4817.79	-	-
9	Power	-	-	8218.52	4343.98	364.20	46.51	40.11	47.00	910.00	406.00
10	Real Estate	-	-	-	-	-	441.00	781.00	728.68	748.00	1302.06
11	Transport	-	-	-	0.63	-	1190.00	1679.30	1934.99	3081.00	901.65
12	Other Service activities	-	-	-	-	14.76	16.39	357.00	235.96	231.00	1005.26

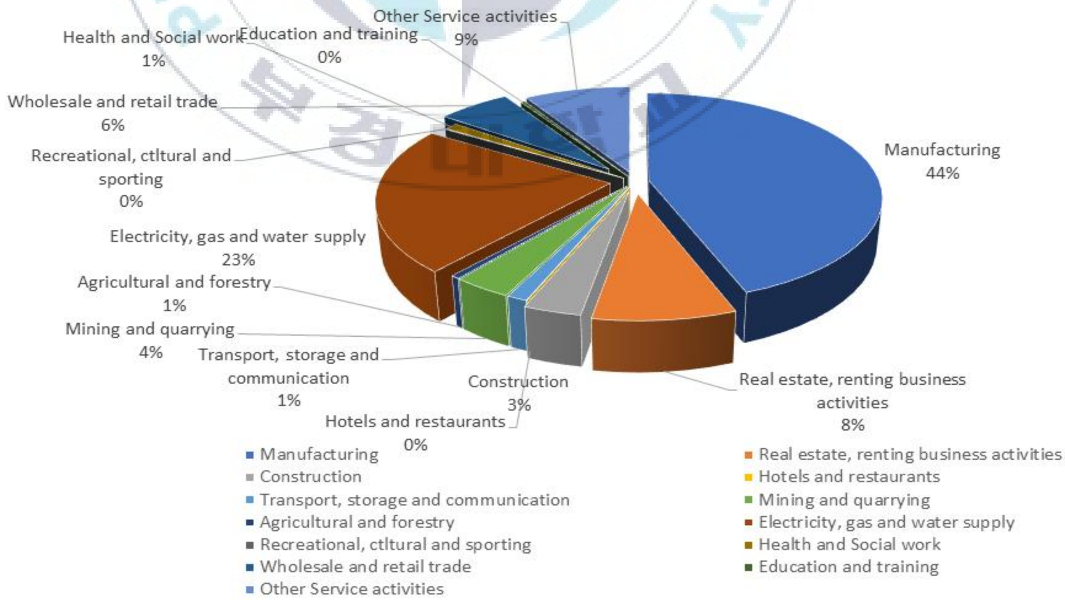
(Source: Central Statistical Organization)

Figure 3 FDI Sector by Myanmar (unit:%)



Source: Central Statistical Organization of Myanmar

Figure 4 FDI Sector by Vietnam (unit:%)



Source: General Statistics Office of Vietnam

From the year 1988 to 2017, FDI flowed into almost all sectors of Vietnam's economy. Foreign direct investment projects licensed by kinds of economic activities were described in table (4). During the period 1988 to 2004, agriculture sector has attracted the registered capital amount of $ 3633.5 million. The most investment flowing sectors were manufacturing sector ($ 28373.4 million), real estate ($ 5797.4 million), construction ($ 5002.2 million), hotels and restaurants ($ 5092.3 million) and then transport, storage and communication ($ 3979.3 million). In 2017 manufacturing and wholesale, electricity and water supply, real estate amounted to $ 16437 million, $ 8374 million, $ 3107 million, or 44%, 23%, and 8%, respectively. In Vietnam, the agricultural sector accounts for two-thirds of the total employment in Vietnam and 25% of GDP. The data on FDI by sector in Vietnam shows that the approval level for investment in agriculture and forestry is only 5% And thus the effect of foreign direct investment on employment creation was limited. In 2017, a total of 222 foreign enterprises in 12 sectors from 32 countries were permitted to invest US $ 5721.1 million up to the end of March 31.

Table 4: Foreign Direct Investment Projects Approve by Kinds of Economic Activities in Vietnam

Source: Statistical Yearbooks of Vietnam (2005,06,07,08,09,2010,11,12,13,14,15,16,2017)

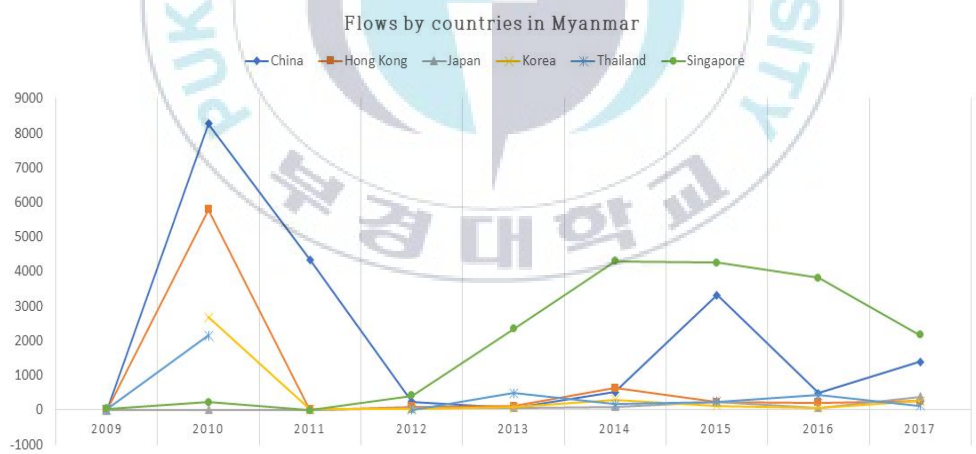
Registered Amount (US $ Million)

No	Sector	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1	Manufacturing	28902.4	3942.8	5979.3	7788.8	11701.9	17141.2	15505.4	16428.8	16936.9	16437.6
2	Real estate, renting business activities	23702.8	7808.4	6827.9	869.9	1979.9	951.9	2832.8	2394.7	2355.0	3107.5
3	Construction	492.1	652.0	1816.0	1296.4	346.0	222.3	1084.7	738.6	634.1	1260.4
4	Hotels and restaurants	1350.2	9156.8	-	-	-	-	-	-	-	-
5	Transport, storage and communication	1882.1	299.8	881.0	74.9	227.1	68.1	176.7	145.0	903.0	450.4
6	Mining and quarrying	6840.8	397.0	5.6	98.4	167.5	85.9	107.3	25.4	71.5	1292.7
7	Agriculture and forestry and fishing	223.5	134.5	36.2	141.5	99.4	97.7	136.4	258.0	133.5	191.6
8	Electricity, gas and water supply	3.7	183.9	2952.6	2528.5	97.2	2037.3	228.4	2799.4	310.4	8374.1
9	Recreational, cultural and sporting	5.8	107.4	62.3	153.0	60.6	50.4	14.6	2.9	330.2	39.1
10	Health and Social Work	402.9	15.0	205.6	88.5	140.2	90.0	415.7	13.3	52.5	389.4
11	Wholesale and retail trade	54.8	261.1	462.1	499.1	772.8	628.8	404.8	684.4	1972.1	2213.1
12	Education and training	86.7	30.4	74.7	11.2	105.1	127.9	77.5	29.2	64.6	122.3
13	Other Service activities	63.2	118.2	582.8	2047.9	649.8	850.7	937.4	595.3	3126.7	3222.4
	Total	64011.0	23107.3	19886.1	15598.1	16347.5	22352.2	21921.7	24115.0	26890.5	37100.6

3. Foreign Direct Investment flows by Countries Myanmar and Vietnam

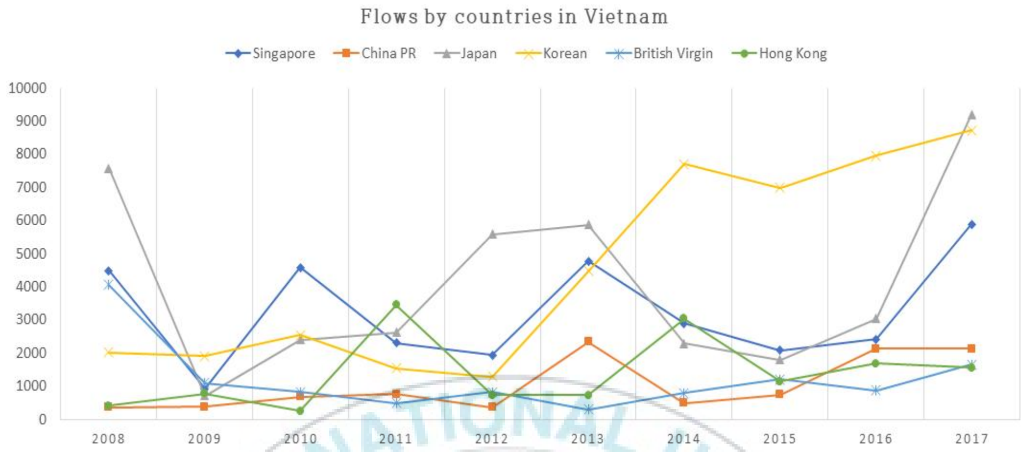
In 2017, a total of 222 foreign enterprises in 12 sectors from 32 countries were permitted to invest US $ 5721.1 million up to the end of March 31.In 2017 Singapore is the largest investor of with the total US $ 2163.960 million followed by China, Netherlands, Japan are also the main investors of Myanmar. China is still the biggest investor in Myanmar and being engaged in almost all sectors of the economy, such as livestock and fisheries, manufacturing, mining, oil and gas and the power sectors. Those sources of FDI are shown in table 3. The Republic of Korea also invested with a large amount in Myanmar's banking construction and textile industries.

Figure 5 (US $ Million)



Source: Central Statistical Organization of Myanmar

Figure 6 (US $ Million)



Source: Statistical Yearbooks of Vietnam (2005,06,07,08,09,2010,11,12,13,14,15,16,2017)

After the introduction of the law on foreign investment in 1987,75 different countries have invested in Vietnam, until the year 2005 the biggest share of those investments came from Asia. In table (6), the sources of FDI in Vietnam by countries are listed. According to table (6), Singapore is the largest investor for the period 1988-2004 ($ 9080.6 million) followed by Taiwan ($ 7903.1 million), Japan ($ 5961.7 million), S-Korea ($ 5216 million) and the British Virgin Islands ($ 4362.2 million). In 2009, the U.S become the largest investor with a capital of US $ 9945.1 million. Korea, Japan, Singapore, Taiwan, China and Hong Kong SAR are the top six investors in Vietnam in 2016.As of December 2017, Japan was the largest investor capital with ($ 9204.7 million) total registered capital 24.8%, the second largest investor was Korea with ($ 8720 million), Singapore reached ($ 5894.9 million), China was ($ 2137.6 million)and British Virgin Islands was ($ 1650.8 million).

Vietnam has attracted 2741 foreign investment projects with the registered capital of nearly $ 22.2 billion, increased by 4.9% in the number of projects and 40.1% in the registered capital in comparison with the 2016.The manufacturing sector attracted the most registered capital with $ 14.7 billion, sharing 47.6% of total registered capital, the electricity, gas, steam and air conditioning supply achieved 27.2%, the other economic activities gained 25.2%. The implementation capital in 2017 gained $ 17.5 billion increase of 10.8% in comparison with 2016.

Table 5: Foreign Investment of Permitted Enterprises by Countries in Myanmar

(US$ Million)

Country	2011	2012	2013	2014	2015	2016	2017
Australia					2.99	16.29	
Bangladesh					0.65		
Brunei Darussalam		1.00	2.27	43.87	26.48	18.02	8.070
Canada		1.01		153.92	1.27	5.15	1.36
China	2.5	8269.2	4345.7	231.77	56.92	516.9	3323.8
France			5.36	67.25		0.79	7.34
Germany				3.6		1.15	10.4
Hong Kong		84.84	107.1	625.56	225.17	213.7	251.98
Indonesia					13.19	9.03	9.86
India	73	11.5	26.04	208.88	215.42		11.00
Japan	4.31	54.06	55.71	85.74	219.79	60.42	384.12
Korea	25.57	37.94	81.21	299.59	128.09	66.42	253.91
Luxembourg			5.2	40.15			1.53
Malaysia	51.86	4.32	56.4	18.52	257.22	21.39	21.88
Marshall Island				4.49		6.5	1.0
Netherlands		10.3		431.30	438.02	5.0	533.93
Singapore	-14.6	418.23	2340.1	4297.1	4251.2	3820.7	2163.9
Samoa				30.21		22.06	38.64
Thailand		1.3	489.07	165.67	236.17	423.05	123.86
Taiwan					8.29	10.46	17.2
U.A.E			4.5	1.69			100.5
UK	99.83	232.7	156.86	721.85	9.183	54.32	211.18
Vietnam	18.14	329.39	142	175.4	4.676	1386.2	20.81

Source: Central Statistical Organization

Table 6: Foreign Direct Investment in Vietnam by Countries

(US $ Million)

Country	2011	2012	2013	2014	2015	2016	2017
Singapore	2306.4	1938.0	4769.0	2892.8	2082.5	2414.7	5894.9
Taiwan	579.0	2658.1	673.3	1228.9	1468.2	2194.4	1532.7
Japan	2622.0	5593.1	5875.5	2299.0	1803.4	3035.9	9204.7
Korean	1540.2	1285.2	4466.0	7705.0	6983.2	7965.2	8720.0
British Virgin	496.8	822.1	309.3	790.4	1217.3	874.5	1650.8
France	62.9	108.9	84.4	47.6	99.0	205.3	109.3
Netherlands	394.2	119.1	398.7	204.5	430.5	92.1	822.5
United States	299.9	160.4	130.4	309.6	224.4	430.4	874.4
United Kingdom	334.5	43.2	193.7	346.3	1288.7	230.5	244.9
Russian	38.7	143.1	1031.9	11.5	12.0	58.2	43.7
Malaysia	458.3	238.4	147.8	388.4	2478.8	939.6	297.7
Thailand	212.4	199.4	204.7	232.8	337.4	732.0	624.9
Hong Kong	3460.7	729.1	729.9	3036.4	1148.1	1680.9	1566.6
Brunei	79.5		82.7	87.4	197.6	354.8	55.5
Cayman Island	757.7	371.2	2338.6	497.1	744.1	136.7	2137.6
Canada	52.8	21.6	27.7	297.0	6.1	76.4	46.4

Source: Statistical Yearbooks of Vietnam (2005,06,07,08,09,2010,11,12,13,14,15,16,2017)

4. Impacts of Foreign Direct Investment in Myanmar and Vietnam

(4.1) Impacts of Foreign Direct Investment on Myanmar's Economy

In Myanmar, FDI has been the largest source of external financing since 1988, except for a small amount of grants associated with United Nations Development Program assistance and debt relief from Japan. The development of FDI in Myanmar could be divided into two periods. The first period started with the promulgation of Foreign Investment Law in 1988 through 1996-97 before the Asian Financial Crisis. The second period began with the onset of Asian Financial Crisis in 1997 to 2005-2006. During the first period, Myanmar made measurable progress toward liberalization and influx of FDI substantially increased. FDI inflows had averaged nearly US $ 800million annually. Up to the end of March 1997, total foreign investment of US $ 6 billion had been approved. During the second period, cumulative stock of FDI was over US $ 7.7 billion.[19] Of which, a major portion of US $ 6 billion was approved during only one fiscal year (2005-06).[20] This fact shows that Myanmar could attract US $ 1.7 billion only during the eight years from 1997 to October 2005.[21]

There are several reasons that contribute to this decline of FDI in Myanmar. This second period started with the beginning of the Asian Financial Crisis in 1997, which coincided with a heightening of international sanctions imposed on Myanmar. And the government initiated a partial return to restrictive practices in trade and foreign exchange management that seemed to have adverse effect on the economy.[22] In foreign trade, for example, restrictive measures were

19) Select Monthly Economic Indicators

20) Press Conference p.4

21) Select Monthly Economic Indicators

22) ADB Report

imposed such as eighty percent of imports must be essential imports before permission can be obtained for importing selected non-essential items.

Such measures, in turn, contributed to the slow pace of economic reform process. Therefore, the root causes of FDI downturn since 1997 might include both internal as well as external factors, such as the impact of the financial crisis on ASEAN countries, which are the largest investors in Myanmar, sanctions imposed by the West, sudden changes in the trade and foreign exchange policies, and the overvalued exchange rate.

During the last eighteen years, started from 1988, oil and gas sector has absorbed the largest FDI share. And the manufacturing sector stood as the second largest recipient of foreign investment. It is observed that a major portion (about thirty percent) of FDI in Myanmar concentrated in the natural-resource extracting oil and gas sector. From the positive point of view, the oil and gas sector has largely contributed to the foreign exchange earning of Myanmar and contributed to thirty percent of total export in 2005- 2006. The bulk of production from these oil fields is sold to Thailand. In 2005, natural gas accounted for thirty seven percent of all export earnings. Thailand has to import twenty percent of total domestic consumption of gas from Myanmar.[23]

Apart from Thailand, India, China and South Korea are also keen to secure a deal on gas with Myanmar.[24] Recently, Myanmar oil and gas authorities clarified that the country possesses seven percent of total gas deposit in Southeast Asian region and Myanmar has a potential to produce thirteen trillion to fifteen trillion cubic feet.[25] Therefore, it is

23) U Thein Lwin: Future Key Role of Myanmar in ASEAN Energy Sector, paper presented in Seminar on ASEAN Economic Cooperation.

24) Thailand's PTTEP Company will explore Block M9 Gas field at the Gulf of Mataban Block M9" The Voice Weekly Journal.

25) Malaysia will invest at the Thaninthayi Offshore Block, The Voice Weekly,

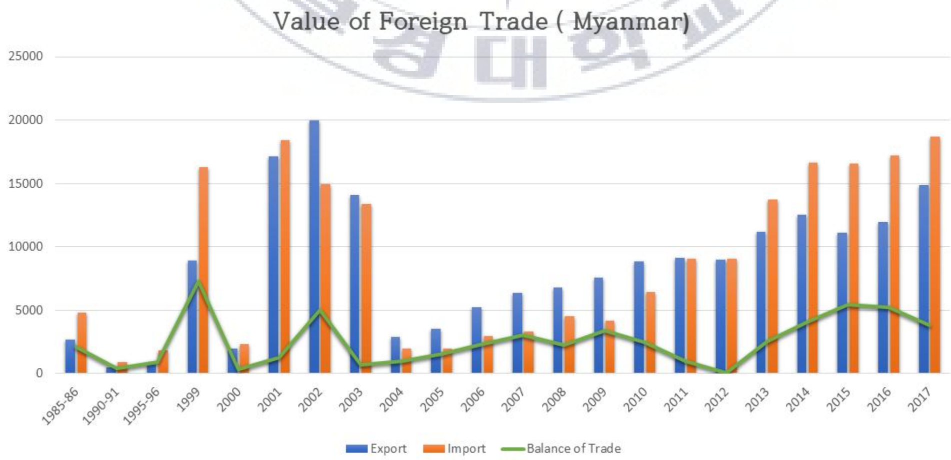
expected that Myanmar's gas output and exports will continue to rise over the near future. And a major portion of foreign exchange earnings and major FDI share of Myanmar might probably depend on this natural resource extracting sector.

From a negative point of view, these resource extractions are non-renewable in nature. Some analysts have argued that the benefits of developing countries from foreign investment in natural resources exploration have been ambiguous.

They have pointed out that the real benefit from such extraction may be smaller than the initial GDP indicators showed, as these indicators do not take into account the wealth the country loses after their extraction, which are non-renewable. They also stressed that adverse environmental impact of such extraction might be potential cost for a developing country.[26]

Myanmar's export and import trade account also began to record a surplus since 2002-2003 after years of deficits. In 2017-18, the value of export was US $ 14850.7 million, that of import US $18687.0 million. The total balance recorded a deficit of US $ 3836.3 million.

Figure 7 (US $ Million)



Source: Central Statistical Organization of Myanmar

26) World Development Report

One of the primary motives of the developing countries in an attracting FDI is to gain assess to the high technology from the more advanced countries. Technology transfer through FDI in Myanmar has produced less satisfactory results. One reason in that the amount of FDI came into the country has been quite small.

The other reason is that the nature of FDI which is still concentrating on the primary resource - seeking type. Although FDI can serve as a channel for technology transfer, it requires an appropriate and supportive environment. Human capital accumulation would be needed to focus in order to enhance the economy's absorptive capacity of technical know - how from FDI.

In assessing the impact of FDI on Myanmar, it is recognized that FDI has played a significant role for the foreign capital accumulation in terms of export expansion, trade surplus and promotion of international reserves. However, as note earlier, job opportunities and technology transfer through FDI have been still insignificant.

(4.2) Impacts of Foreign Direct Investment on Vietnamese Economy

In respect of Vietnam, the country followed the model of a centrally planned economy until the mid- 1980s. Its commercial relations were mainly with the Council for Mutual Economic Assistance (CMEA) block of communist countries and it had very little contact with the West. During the early 1980s, the country experienced a severe economic crisis. However, with the introduction of a program of economic reform (doi mio), Vietnam achieved significant progress, especially in macroeconomic stabilization and opening up the economy. Economic growth averaged 7.5 percent during the 1990s. The structure of the economy has changed with the increasing share in industry and services. Living standards improved and the number of poor households fell. Until the mid- 1990s, Vietnam was one of the world's poorest countries, with an annual per capita income of under US $ 200.[27]

The development of FDI in Vietnam could also be divided into two periods. The first run from 1988, when the Foreign Investment Law started to take effect, to 1996, the year before the onset of the Asian financial crisis.

The second period began from 1997 to 2005, as for this analysis. In the first period, inflows peaked at US $ 8.5 billion of approved capital in 1996, with the cumulative amount of twenty- six billion.[28] During this period, the nature of foreign investment in Vietnam had also changed from concentration of FDI in natural resource-seeking industries (petroleum and agriculture) to labor-intensive ones (manufacturing). This shift was mainly due to changing economic environment in East Asia and Vietnam.In 2017, export turnover of goods was estimated at USD $214 billion, an increase of 21.2% compared to 2016, of which Export turnover of the domestic economic sector achieved US $ 58.9 billion, grew by 17.1% export turnover of the FDI sector (including crude Oil) was USD $ 155.1 billion, increase by 22.8%.

27) Brown : Economic Development

28) Freeman: ASEAN Enlargement

Figure 8 (US $ Million)

Source: General Statistics Office of Vietnam

Manufacturing has been the largest single sub-sector, with sixty five percent of total FDI project in 2005, followed by transportation and communication. FDI inflows into the industrial sector increased dramatically in the period 1995-2005. While in 1995 FDI inflows into the sector were only an estimated US $ 1118 million, in 2005 about US $ 2,614 million of FDI was directed into this sector.[29] With foreign investors increasingly attracted to export-oriented industries, FDI has played an important part in Vietnam's export promotion. Vietnam's international trade has expanded dramatically since the market-oriented reforms in 1988. The total merchandise trade value to GDP has been growing rapidly and steadily, making Vietnam one of the most open economies on the basis of trade as a percentage of GDP. Exports increased almost tenfold, from US

29) www.vdf.org.vn/ws/202006/Nguyen lan economic growth

$ two billion in 1991 to US $ 19.5 billion in 2003. Strong export growth had been one of the main forces contributing to the high GDP growth over the same years.[30] Exports of foreign firms, excluding oil and gas, increased rapidly to US $ 3.3 billion in 2000, when they accounted for over 33.8 percent of total exports.

5. Linear regression model analysis

(5.1) Methodology of research

In this economic analysis, we must find the relation between two or several variables, by using two statistical techniques:

- correlation shows how strong is the link between the analyzed variables;

- regression explains and allows to predict the value of one factor in relation to the other(s).

Simple regression aim is to highlight the relationship between a dependent variable explained (endogenous, score) and an independent variable (explanatory, exogenous factor predictors)

Ref: Andrei and Bourbonais, 2008

The simple regression model (unifactorial regression model) is defined through a mathematical relation built up in the context of economic theory, which implies that the economic phenomenon as effect is the result of the cumulated action of two categories of factors:

- one main factor that is essential;
- all the other factors can be considered non-essential, with randomly occurred action or constant action, invariable upon the economic phenomenon as effect. These influences are collected in the resultative variable.

30) Vo: Vietnam's Reform,

The simple regression model can be transcribed mathematically as follows:

$$Y = f(x) + \varepsilon$$

In a simple regression econometric model, the relation between the resultative variable (Y) and the causal variable (X) can be described by a function as follows:

$$y_i = b + a.\ X_{ii} + \varepsilon_i$$

Where:

y_i – resultative characteristic (explained);

x_i – factorial characteristic (explanatory);

ε_i – residual variable.

The hypotheses underlying the regression model that helps analyzing the effect of FDI upon economic growth are the following:

I_1: the data series are not affected by measurement errors;

I_2: the residual variable has zero mean;

I_3:the dispersion of the residual variable is invariable in time, namely it has the property of homoscedasticity;

I_4: the residues are not self-correlated;

I_5: the factorial (explicative) variable is not correlated with the residual variable;

I_6: the errors of the model are usually distributed according to a distribution of zero mean and σ^2 dispersion. To estimate the parameters of a linear regression model we can use the method of the least squares, or the maximum Like hood method. According to the least squares method, the estimation of the parameters are based on the condition that the sum of the squares of the differences between the real value and the value estimated through the regression model should be minimal.

$$F\ (\hat{\alpha},\hat{\beta}) = \min \sum_{t=1}^{n}(y_t - \hat{y_t})^2 = \min \sum_{t=1}^{n}(y_t - \hat{b} - \hat{a}.x_t)^2$$

$$\hat{a} = \frac{\begin{vmatrix} n & \sum y_t \\ \sum x_t & \sum (x_t \cdot y_t) \end{vmatrix}}{\begin{vmatrix} n & \sum x_t \\ \sum x_t & \sum x_t^2 \end{vmatrix}}$$

$$\hat{b} = \overline{y_t} - \hat{a}.\overline{x_t}$$

This stage requires extremely complicated calculations, and a very long time. To make the expert's work easier, specialized IT applications have been created, that allow estimating the parameters of the model and the validation of the results obtained. One of the IT programs used to solve econometric aspects is Eviews, which I have used in this research.

(5.2) Empirical Analysis

All data for deriving variables used in this chapter are secondary data which were collected from various reliable data sources. Most of the Myanmar data such as foreign direct investment, exchange rate, openness and GDP growth rates are obtained from the Central Statistical Organization of Myanmar (CSO). In regard to Vietnam, data for exchange rate, openness, GDP growth rate and GDP are obtained from key indicators for General statistics Office of Vietnam.

To reflect the correlation between the evolution of the FDI and the GDP - the main macroeconomic result indicator, I have used a set of data for 1990 to 2017.

The influence of the FDI upon the GDP can be revealed with the simple linear regression model, in which the GDP is the resultative variable, and the FDI is the explicative variable. Here is such a model.

Table 7: Results of Linear Regression Models for Myanmar

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-47.99506	846.51	-0.056698	0.9553
MYEXP	0.090981	0.105283	0.864154	0.3961
MYFDI	0.850156	0.131726	6.453974	0
MYGDP(-1)	0.957902	0.030513	31.39326	0

R-squared	0.988813	Mean dependent var	17620.07
Adjusted R-squared	0.987415	S.D. dependent var	22655.3
S.E. of regression	2541.532	Akaike info criterion	18.65048
Sum squared resid	1.55E+08	Schwarz criterion	18.8408
Look likelihood	-257.1068	Hannan-Quinn criter	18.70867
F-statistic	707.1401	Durbin-Watson stat	2.093615
Prob (F-statistic)	0		

The results of The results of the econometric analysis are depicted in table (7).

For Myanmar, exports do not affect national income, and foreign investment has an impact.

The probability of this econometric model is very high. The values of the tests R-squared(0.98) and Adjusted R-squared(0.98) are close to 1, and by the null the bull degree of risk while the value of test Prob(F-statistical) is 0.

The next is Vietnam, similar to Myanmar

Table 8: Results of Linear Regression Models for Vietnam

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2840.883	1796.954	1.580944	0.127
VEEXP	0.079096	0.094913	0.833352	0.4129
VEFDI	0.204023	0.073626	2.77107	0.0106
VEGDP(-1)	0.967888	0.093842	10.314	0

R-squared	0.99609	Mean dependent var	76542.18
Adjusted R-squared	0.995601	S.D. dependent var	68091.96
S.E. of regression	4515.969	Akaike info criterion	19.80019
Sum squared resid	4.89E+08	Schwarz criterion	19.99051
Look likelihood	-273.203	Hannan-Quinn criter	19.85837
F-statistic	2038.125	Durbin-Watson stat	0.915601
Prob (F-statistic)	0		

The impact of foreign direct investment on national income is greater in Myanmar than in Vietnam.

The probability of this econometric model is very high. The values of the tests R-squared (0.99) and Adjusted R - squared (0.99) are close to 1, and by the null the bull degree of risk while the value of test Prob(F-statistical) is 0.

Chapter IV

Potentials and Constraints for Foreign Direct Investment in Myanmar and Vietnam

1. Natural Resources (Myanmar and Vietnam)

In both Myanmar and Vietnam, the main motive of the FDI is natural resource-seeking investments. Natural resource-seeking type can be subdivided into physical resource-seeking and human-resource seeking investments. Concerning the possession of physical resources, both Myanmar and Vietnam have abundant physical natural resources.

With twice the size of the total land area of Vietnam, Myanmar is endowed with fertile agricultural land, mineral resources, forest resources and water resources. Most of these resources are still untapped and the potentials for FDI in these areas remain strong. Apart from physical resource-seeking investment, human-resource seeking type is also a primary means of FDI sourcing in the developing countries. The natures of FDI in Myanmar and Vietnam have largely concentrated to take advantage of their abundant and low-cost labour. Both countries have great potentials in their human resource bases.

Concerning the human resource development, the United Nations Development Programme has annually published a comprehensive development index of the countries around the world. In its 2017 report, Myanmar ranked number 140 out of 189 countries, while Vietnam ranked number 116 in the same index. Life expectancy rates were reported around sixty-six years in Myanmar and seventy-seven years in Vietnam. In the context of public expenditure on health, Vietnam seemed to have a better record in providing health care. Vietnam has spent 14 percent of GNI for health care services, while Myanmar spent -15 percent of GNI in 2017.[31] According to the human development index, it is discernable that

Myanmar would need to upgrade her human resource base in order to gain competitiveness of the labour force. Vietnam aslo has to bolster up its labour efficiency as the country still has limited international commercial know-how and skilled labour. Sustainable economic growth of Myanmar should be based on enhancement of human resource skills while traditional ethics and cultural values are preserved.

2. Infrastructure (Myanmar and Vietnam)

Apart from natural resources, presence of advanced infrastructure was one of the most important consideration in choosing location to operate FDI in a country. Infrastructure development-especially a physical infrastructure of transport and communication links with domestic and global markets-is particularly important to attract FDI into a country. For example, one of the attractiveness of Singapore for FDI has been its highly-developed infrastructure, apart from high-quality labor, political stability and its strategic location.[32] Delay in the infrastructure development might have adverse effects on private investment and the inflow of foreign direct investment.

The present stage of infrastructure in Myanmar, power, transport and communication, is not sufficient enough to absorb FDI and it appears to be one of the main barriers in doing business. One major barrier, in Vietnam, is also the sheer scale of its development needs in physical infrastructure. However, accessibility of ODA from international institutions has encouraged Vietnam to develop its infrastructure than Myanmar. Moreover, the nature of FDI today is increasingly connected with trading opportunities of particular country to the regional of global market, although there remains the local market exploitation. For

31) Human Development Index 2017

32) C.H. Kwan : Economic Interdependence

example, a huge increase of FDI in Maxico after entering NAFTA has been evidence that the country is seen as desirable base for supplying US market. Both Vietnam and Myanmar have the prime locations for regional business activities. Vietnam is situated in a location from which to do business and trade with the world fastest growing economic regions.[33]

Myanmar has recently been receiving heightened international attention as a strategic location which can triangularly link China, South Asia and Southeast Asian countries. In this regard, building of good physical infrastructure is to be given priority and extremely important in order to gain benefits from transit trade and to some as in Myanmar is at the centre of the most dynamic economic powers in Asia-China, India and ASEAN. These powers jointly bring a huge market about two and a half of all humanity with them.

3. Agriculture (Myanmar and Vietnam)

Myanmar believe that its potential lies in the agricultural sector and that a key element in the growth strategy is to strengthen its agricultural base which would, in turn, contribute to the growth of other sectors. The agricultural sector is the main source of export earning, and it has strong links with the rest of the economy by providing industrial raw materials. And over half of total work force in engaged in this sector.

With the possession of abundant human and agricultural resources, Myanmar should aim to be a major food supplier in ASEAN. Major problem to be tackle are weak input supplies such as fertilizer, low technology, and weak marketing in agricultural. To overcome the shortage of fertilizer, it is learnt that chemical fertilizer would be extracted from the natural gas which is abundant in Myanmar. By sufficiently producing

33) Kim: Southeast Asian Economic Miracle

domestically, it will contribute not only for agricultural development but for reducing foreign exchange expenditure for such import. So far, Myanmar agricultural products are neighbouring countries such as Thailand and Vietnam have gained foreign exchange earnings by processing seasonal fruits and vegetables which are usually plentiful in Myanmar. It is necessary for Myanmar to attract FDI in agricultural related canning factories and packaging industries apart from heavy reliance on traditional commodity export. It is assumed that technology and processes need to be updated to increase production levels and to promote the quality of products. At the same time, infrastructure needs in transportation and telecommunications are also essential for agricultural development. Public sector institutions may require to make major improvements, in particular, more transparent economic and related policies.[34] There is scope for investors to bring in modern-large-scale farming methods, using both the plentiful natural resources and the labor for value-added processing of agricultural products.[35]

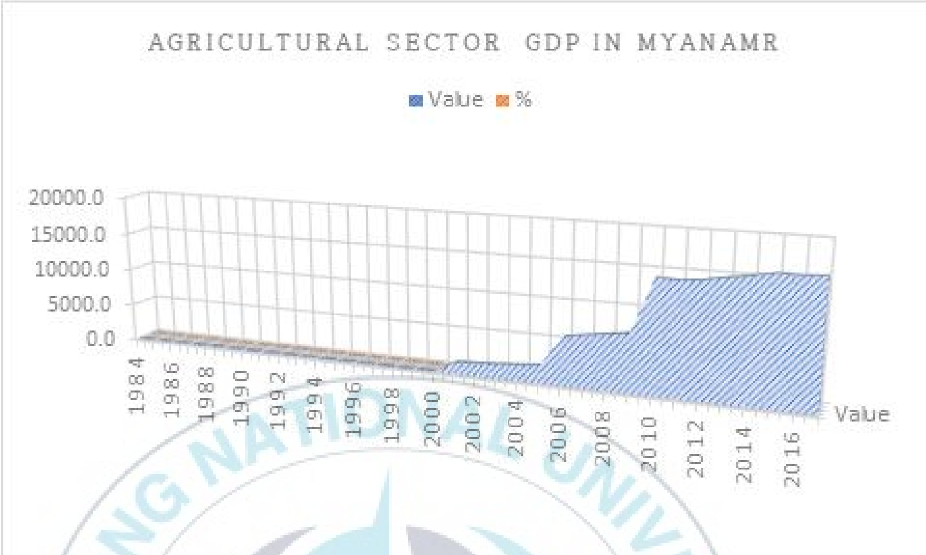
For Vietnam, Vietnam's success as a rice exporter has been sustained in the years since 1989, and the country has been the second largest exporter of rice in 2006. However, there is little potential for this export to grow much further. Vietnam is a very densely populated country with 108737 square kilometre of agricultural land. Therefore, owing to its population density, Vietnam's comparative advantage lies primarily in labour-intensive activities such as light manufacturing and series.[36]

34) Kairu : Industrial Development

35) Maw : Demand for Capital

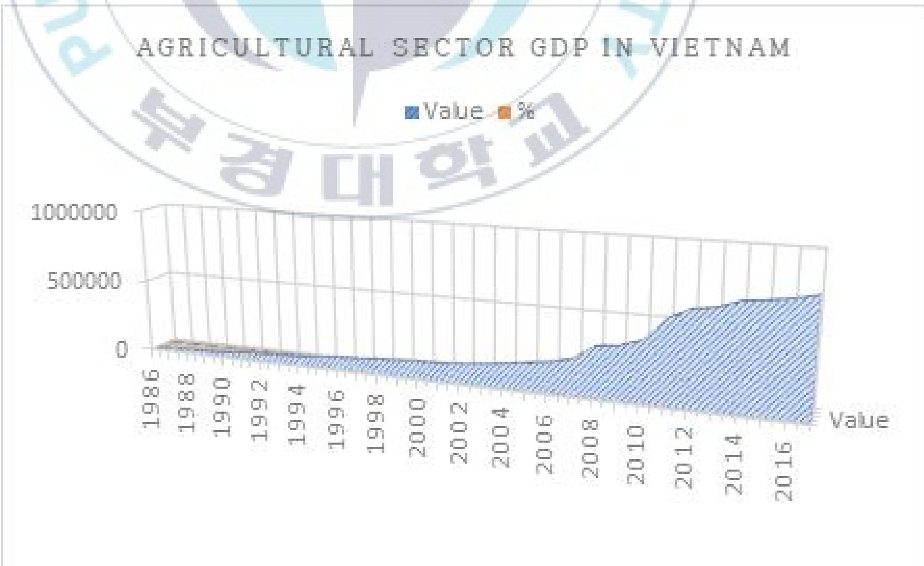
36) Dollar : Vietnam

Figure 9 (US $ Million)



Source: Central Statistical Organization of Myanmar

Figure 10 (Bill Dongs)

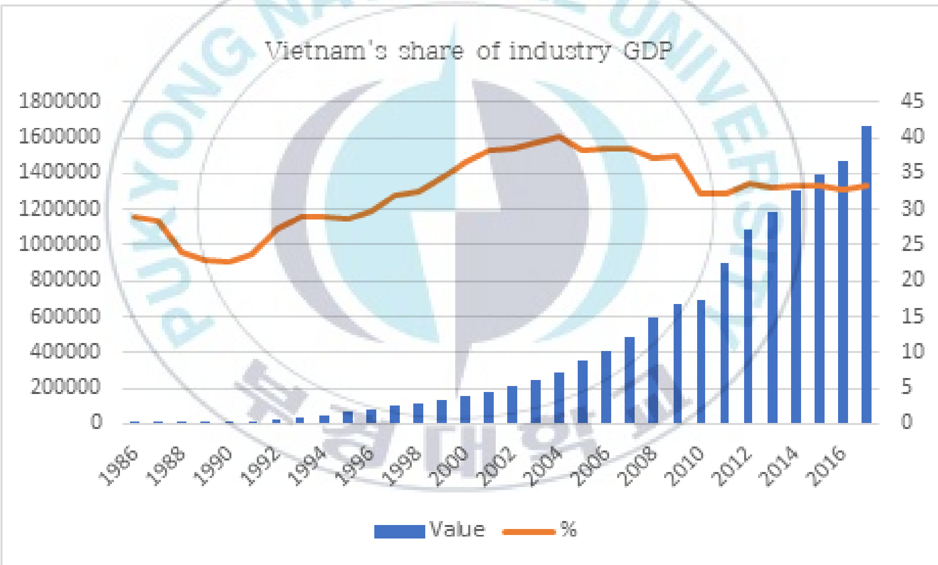


Source: General Statistics Office of Vietnam

4. Industry (Myanmar and Vietnam)

For a developing country, industrialization is regarded as essential to overcome technological dependant and to break away from a production pattern which relies on the production of a few primary commodities for its export earnings and has to import most of its necessary manufactures. Several analytical studies found that FDI in manufacturing sector has a significant and positive effect on economic growth in the host economies. But FDI flows in non-manufacturing sector do not play a significant role in promoting economic growth.[37]

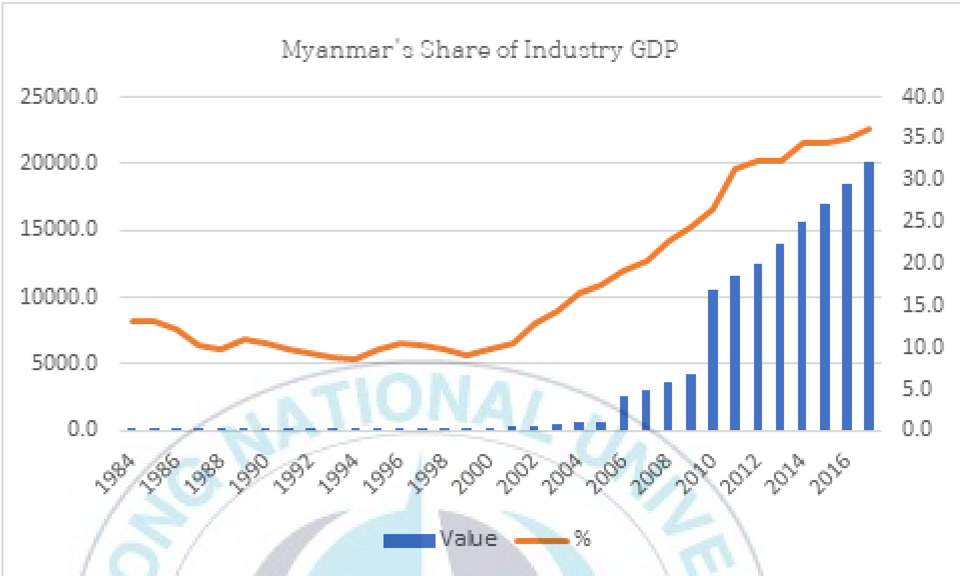
Figure 11 (Bill Dongs)



Source: General Statistics Office of Vietnam

37) www.vdf.org.vn/ws/wd202006/Nguyanlen 29 Nov 06/ economic growth

Figure 12 (US $ Million)



Source: Central Statistical Organization of Myanmar

Myanmar's share of industry in GDP remains the lowest in Southeast Asia region. In the 1990s, the share of manufactured products in the exports of Myanmar remained lower than the average of the least developed countries or the average of all developing countries. Even Bangladesh, one of Myanmar's neighboring countries, has achieved some success in producing nontraditional exports. Garments shared more than 50% of the total exports.99 The Vietnam share of industrial value added in 2017 accounted for 36% of GDP. Vietnam ranked one of the twenty largest apparel and textile exporters. Foreign direct investment could be an effective instrument for promoting development in the industrial sector.

The speediest way to promote the industrial sector is to create a favourable environment for FDI. An attractive investment law, government incentives, a good political climate, business-oriented institutions, a transparent legal framework, streamlined bureaucratic regulations and procedures, and developed infrastructure facilities seem to be the requirements to achieve this objective.

Chapter V

Conclusion

Both Myanmar and Vietnam transformed their economic systems into a market-oriented economy in 1988 and in 1986 respectively. They are predominantly traditional economies with practically no modern industrial base. Both countries had colonial experiences for prolonged period. And they chose socialism as a leading ideology for development. Concerning the investment policies of Vietnam and Myanmar, which do reflect substantial and substantive similarities or overlapping legal and other provisions pertaining to the types of business organization allowed: different kinds of fiscal and other incentives, and priority areas for official promotion, etc. However, Vietnam has surpassed Myanmar in terms of foreign investments flows into the country. It has achieved, to some extent, macroeconomic stability bringing its high inflation down to a low level. On the other hand, high rate of inflation and over valued exchange rate and less political stability have posed as important disincentives for foreign investments in Myanmar. Therefore, in this time to keen competition to attract foreign investments both regionally and globally, sound economic and political stability are crucial for Myanmar's economic development. It is necessary to attract foreign investments by creating a more hospitable environment while maximizing benefits for Myanmar.

Compared to Vietnam, Myanmar has limited success in attracting FDI. The impact of foreign investment on Myanmar is still insignificant in terms of quantity compared to the amount of investment flows into Vietnam. Both countries have attracted FDI with very similar investment incentives and pursed FDI promotion nearly at the same period. However, a slow pace of Myanmar's own reform process and political uncertainties in the country are attributes to its little attractiveness of FDI into the country. Although Myanmar possesses larger potentials for FDI than Vietnam, the reluctance of foreign investors to invest in Myanmar might result from its unstable environment for business operation. And there are some arguments that FDI incentives in most countries are simply not effective. Favourable political climate is as equally important as economic and social factors to induce FDI for the transitional economies like Vietnam and Myanmar. Like Vietnam, therefore, by reducing obstacles and constraints, FDI could be beneficial contribution for the economic development of Myanmar.

In Vietnam, manufacturing, real estates, accommodation and food service activities and construction could attract more investment than other sectors. But in Myanmar, power, oil and gas sectors can attract a large amount of FDI. It would be better if Myanmar could try to give more incentive to foreign investors to invest in high technology sectors. While both Myanmar and Vietnam started liberalizing the economies by the late 1980s, yet we find that Vietnam is far more open economy than Myanmar. In addition, FDI inflows into Vietnam have been about five times as much as in Myanmar. So to get more FDI, both of the countries have to take more economic reforms.

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