THE IMPACT OF INTERNATIONAL TRADE WITH CHINA ON ECONOMIC GROWTH OF MYANMAR(1990/91 - 2016/17)

By

NILAR HLAING

THESIS

Submitted to

KDI School of Public Policy and Management

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Committee in charge:

Professor Dongseok KIM, Supervisor   _____

Professor Sherzod SHADIKHODJAEV   _____

Professor Shun WANG   _____

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ABSTRACT

The Impact of International Trade with China on Economic Growth of Myanmar

(1990/91 - 2016/17)

By

Nilar Hlaing

The main objectives of this study are to estimate the long run equilibrium relationship among export and import between Myanmar and China and the GDP of Myanmar and the direction of long-run or short-run causality between the international trade among two countries and economic growth of Myanmar. The data used in this paper are time-series data collected from Ministry of Planning and Finance of Myanmar. The analysis is used to estimate the dynamic causal relationship between the international trade between Myanmar and China and GDP growth of Myanmar. In this study, the Augmented Dickey-Fuller (ADF) unit root test is used to determine whether there is the stationary relationship among the variables of Myanmar's GDP and export and import with China after transforming them into first differences. The Johansen cointegrated test is used to determine whether all the data are cointegrated and they have long-run association. The Vector Error Correction Model is used to provide that export has a positive impact and import has a negative impact on GDP of Myanmar. The result is that there is a long-run causal relationship running from both exports and import to GDP, but not for short-run. This study shows that there is a long-run equilibrium relationship among the three variables; exports and imports with China and GDP of Myanmar.

Keywords: International trade, export to China, import from China, GDP, economic growth, regression analysis, cointegration test

ACKNOWLEDGEMENTS

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LIST OF ABREVIATIONS

WTO	World Trade Organization
ASEAN	Association of South East Asian Nations
LDCs	Least Developed Countries
WB	World Bank
GDP	Gross Domestic Product
EX	Export
IMP	Import
CAFTA	China-ASEAN Free Trade Area
WITS	World Integrated Trade Solution
OECD	Organization for Economic Cooperation and Development
CSO	Central Statistical Organization
USD	United State Dollar
OLS	Ordinary Least Square
ADF	Augmented Dickey-Fuller
UN	United Nation
VAR	Vector Autoregression
VECM	Vector Error Correction Model
ECT	Error Correction Term
AIC	Akaike information criterion
MOPF	Ministry of Planning and Finance
H_0	Null hypothesis
H_1	Alternative hypothesis
FDI	Foreign Direct Investment

CHAPTER ONE

INTRODUCTION

1.1   Introduction

Myanmar became a member of the World Trade Organization (WTO) in 1 January 1995 and a member of the Association of Southeast Asian Nations (ASEAN) since 1997. Myanmar considers that the multilateral trading system can bring a large range of opportunities for Myanmar's exports and overcome its foreign trade constraints. Myanmar has been participating in the Doha Round, aiming to make sure that 100% duty-free, quota-free market access will be granted to the Least Developed Countries (LDCs) by the end of the Round. Trade with the ASEAN members accounts for around 40% of Myanmar's total imports and around 50% of its total exports.

Myanmar's merchandise exports account for nearly 16% of GDP in 2011/12 fiscal year. The main export goods are gas, jade, wood and wood products, and fish and crustaceans. Its merchandise imports account for about 16% of GDP. The main import goods are petroleum products, and iron and steel and articles thereof (WTO, 2014). In 2011/12 fiscal year, Myanmar's main export destinations are China, Thailand, and India and their export shares in total products are 38.5%, 34.6% and 19.6% respectively. Its main import origins are China, Thailand, and Singapore and their import shares in total products are 82.9%, 55.9% and 53.4% respectively (WITS, 2016).

Myanmar government is promoting the quality of export products by creating new export markets. The country's import policy is to boost the essential import goods and materials for the wellbeing of the people. Myanmar has adopted a market-oriented economic

*Myanmar's fiscal year is from April 1 to March 31.

system since 1988. The government abolished the requirements of import licensing for 166 products in April 2013. The commercial tax on export commodities were removed except gem, gas, crude oil, teak and timber.

Myanmar government promulgated the Export and Import Law on 7 September 2012 which replaced the Control of Import/Export Temporary Law (1947). The Ministry of Commerce is implementing the rules and regulations of the Export and Import Law. It is formulating the international trade policies, issuing both export and import licenses and implementing all trade-related matters. The government intends to lower trade barriers.

Myanmar has 15 main border trade points with five neighboring countries and has already signed the border trade agreements with China, India, Bangladesh, Thailand, and Lao PDR. The border trade is a very important activity for the bilateral trade of Myanmar-China. Myanmar and China signed an MoU for the export of 100,000 tons of rice, according to the Myanmar Rice Federation. According to the authorities, these border trade agreements aim for promoting the trade facilities such as delivering of high quality and efficient services between two countries.

In the past two decades, China has become Myanmar's "closest friend, protector and trading partner" (Hays, 2008, pp.1). There is a large economic gap between Myanmar and China. The United Nations ranked Myanmar 138th out of 166 countries and China recently surpassed Japan as the world's second-largest economy. China is a friendly neighbor country of Myanmar and China has provided support and help for Myanmar's economic development (Reuters, 2011).

Moreover, Myanmar is part of the China-ASEAN Free Trade Area (CAFTA), the world's largest free trade area by population. Under CAFTA, China's average import tariff rate on Myanmar products was reduced to 0.6% in 2012. For example, China's tariff rate on imports of textile and clothing items from Myanmar was reduced to zero-rated in 2012.

Similarly, Myanmar reduced the tariff rates on Chinese products and the average tariff rate on Chinese furniture was cut to 0.02% by 2015.

Foreign trade promotes bilateral relationship between trading partner countries. Trade between Myanmar and China is worth about US$ 10 billion annually, equal to 30 percent of Myanmar's total overseas trade. To be able to carry out trade activities between Myanmar and China, border trade camps are opened in Muse, Lwejel, Kanpaikte, Kengtung and Chinshwehaw on Myanmar's side. The main trading between Myanmar and China depends on cross-border trade and Myanmar's border town Muse in Northern Shan State is adjacent to China's border town Ruili in Yunnan province. Among two ways of normal and cross-border trade, the cross-border trade accounted for roughly a half of China's total trade with Myanmar. China's export to Myanmar through cross-border trade amounted to 55.3 percent of China's total exports in 2013. But it declined to 48.7 percent in 2014 and 42.7 percent in 2015. China's import from Myanmar through cross-border trade amounted to 66.4 percent of China's total imports in 2013. But it decreased to 24.6 percent in 2014 and 55.2 percent in 2015 (Kubo, 2016).

Myanmar's exports to China are more diversified than exports to other trade partners. China is a major trading partner for Myanmar – bilateral trade accounts for over 50 percent of total trade. Myanmar's exports to China include rice, fish, timber, beans, sesame, clothing, aquatic products, rubber, minerals and other goods. Myanmar's import goods from China are machines, machine parts, electrical devices, electronic gadgets, chemicals, fertilizers, medicines, dairy products and other items. Myanmar's export products to China and import products from China for the year 2016 can be illustrated as follows:

Table 1. Myanmar's Export Products to China and Import Products from China for the

Year 2016

Product Group	Export (US$ Thousand)	Export Product Share (%)	Import (US$ Thousand)	Import Product Share (%)
All Products	4,766,681	100	5,403,104	100
Capital goods	10,950	0.23	1,981,334	36.67
Consumer goods	2,711,988	56.89	1,140,619	21.11
Intermediate goods	822,351	17.25	2,194,766	40.62
Raw materials	1,165,827	24.46	74,667	1.38
Animal	152,966	3.21	6,483	0.12
Chemicals	2,719	0.06	429,755	7.95
Food Products	1,069,141	22.43	37,473	0.69
Footwear	5,166	0.11	34,779	0.64
Fuels	1,435,880	30.12	31,004	0.57
Hides and Skins	465	0.01	25,771	0.48
Mach and Elec	11,729	0.25	1,512,171	27.99
Metals	253,530	5.32	1,164,365	21.55
Minerals	16,634	0.35	37,499	0.69
Miscellaneous	82,806	1.74	137,886	2.55
Plastic or Rubber	107,030	2.25	292,620	5.42
Stone and Glass	263,921	5.54	182,305	3.37
Textiles and Clothing	107,015	2.25	542,875	10.05
Transportation	3,039	0.06	787,698	14.58
Vegetable	1,233,924	25.89	69,651	1.29
Wood	20,716	0.43	110,770	2.05

Source: World Integrated Trade Solution Database, (2016).

1.2 Background of the Study

Myanmar is classified as a low-income country in South East Asia. Due to the decades of domestic military rule and international economic sanction, Myanmar has limited trade integration with the global market and is increasingly dependent on China for imports, exports, aid, and investment. On August 5, 1988 China signed a major trade agreement, legalizing cross-border trading with Myanmar. China's influence on Myanmar grew rapidly when the international trade with other countries was declining under the economic sanction and China occupied an important position in Myanmar's international trade. The other reasons why China influences Myanmar are because of the closed economy for long-term period from 1962 to 1988 except the neighboring countries and because Myanmar and China made friendships.

From 1994 to 2012, the total value of China's imports from Myanmar accounted for US$7.6 billion, its exports to Myanmar stood at US$28.6 billion. Together with Vietnam and Cambodia, Myanmar's trade deficit with China is one of the greatest amongst the Southeast Asian countries.

After the years of economic isolation, in 2012, the United States and the European Union eased most of their sanctions and the government of Myanmar had initiated a wide range of reforms to open its economy to foreign trade and investment (OECD, 2014). Consequently, real GDP growth has been rising; it was estimated at 5.9% in 2011/12 and 6.4% in 2012/13. Myanmar's per capita GDP was around US$900 at the end of March 2012 (WTO, 2014). The statistics suggest that Myanmar's reforms may be related to reducing its reliance on China and Myanmar has started to shift away from China, leaving China a big-concern over the decreasing influence on Myanmar. China faces high competition in Myanmar because Japan and Singapore are coming to gradually occupy the engagements with Myanmar, where China has taken long influence (Maini and Sachdeva, 2017).

China is the main trade partner of Myanmar and Myanmar's exports to China is 41.3% of total exports in 2015/16 and it is 37.3% in 2014/15. It is also the main origin for Myanmar and Myanmar's imports from China is 38.6% of total Myanmar imports in 2015/16 and 30.2% in 2014/15 (CSO, 2016).

1.3 Purpose of the Study

Over the past four decades, a few more economists confirmed that the free trade has affected the economic growth of a country and these two variables are positively related (Lewer and Berg, 2003). A country's economic growth is directly influenced by the external trade activity, which is considered by the majority of economists as one of the main engines of a country's economic growth. The relationship between economic growth and export is an important component of international trade.

International trade between Myanmar and China was unbalanced. Myanmar's export to China was US$ 1.4 billion in 2012 and was US$ 4.8 billion in 2015. Myanmar's import from China was US$ 2.5 billion in 2012 and was US$ 5.4 billion in 2015 (WITS, 2016). Although Myanmar's export and import amounts related to China increased in 2015 rather than 2012, trade deficit was US$ 1.1 billion in 2012, and was US$ 0.6 billion in 2015, respectively. The reason is that China got trade surplus on Myanmar and Myanmar got trade deficit on China. The current account deficit increased from 5.6 percent of GDP in 2013/14 to 6.3 percent of GDP in 2014/15. It is driven by a growing trade deficit which increased from 4.5 percent of GDP in 2013/14 to 8.3 percent in 2014/15 (WB, 2015). The bigger the trade deficit, the more the serious concerned matters in any policy debate in Myanmar. The impact of China's economic transition on Myanmar will be similar to its impact on other commodity producing countries. Because of declining commodity prices, export revenues are falling. Figure 1 shows the trends of exports and imports to and from China as well as trade deficit on

China during the period from 2011/12 fiscal year (from April 2011 to March 2012) to 2016/17 fiscal year (from April 2016 to March 2017):

Figure 1. Myanmar's Exports, Imports and Trade Deficit on China during the period from 2011/12 to 2016/17 fiscal year
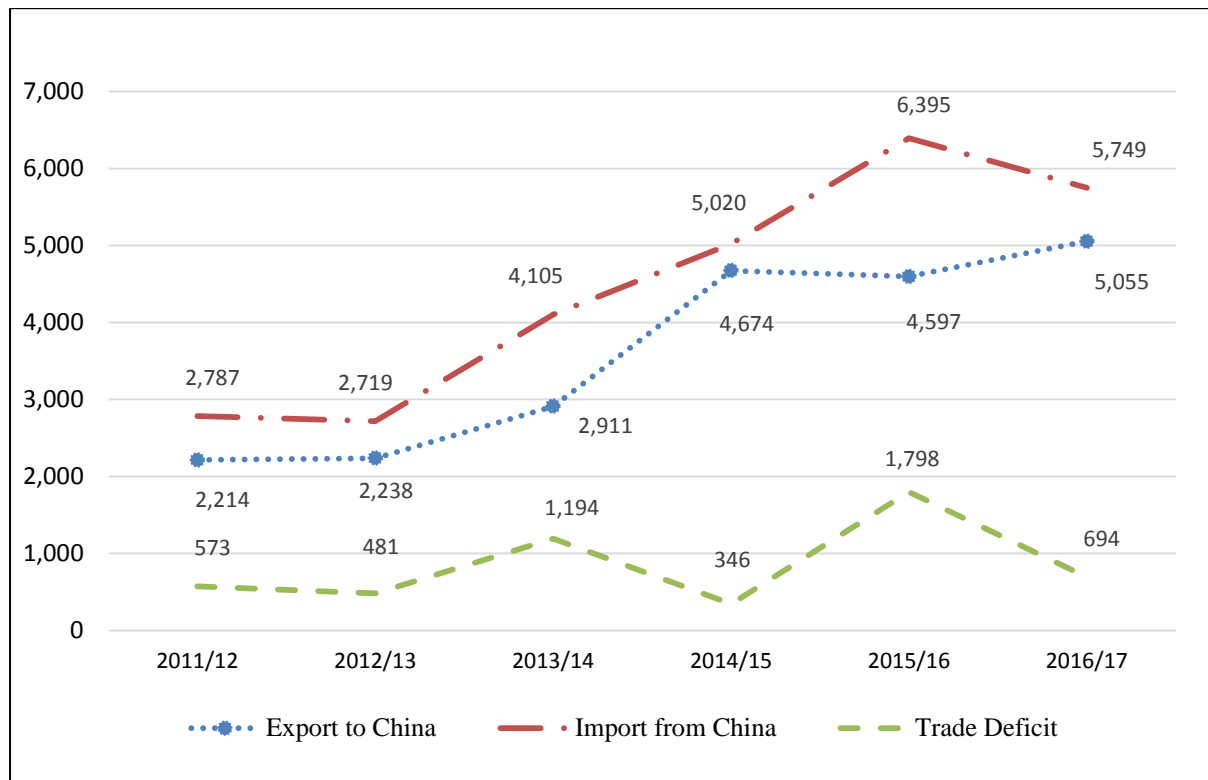
(USD Million)

Source: Central Statistical Organization and Planning Department, Ministry of Planning and Finance

According to Figure 1, the trade deficit trend of Myanmar on China fluctuated during the period from 2011/12 to 2016/17 fiscal year, although both export and import increased year by year, except export from Myanmar to China slightly decreased in 2015/16 fiscal year and import from China to Myanmar slightly decreased in 2012/13 fiscal year as well as sharply decreased in 2016/17 fiscal year. During the fiscal year 2013/14, Myanmar's imports from China increased excess Myanmar's exports to China increased and thus the trade deficit of Myanmar on China increased sharply. In contrast, during the fiscal year 2014/15,

Myanmar's exports to China increased excess Myanmar's imports from China increased and so the trade deficit of Myanmar on China decreased sharply.

Moreover, in the fiscal year 2015/16, Myanmar's imports from China increased sharply and Myanmar's exports to China decreased slightly. Thus, we can find that Myanmar's trade deficit on China increased sharply in that fiscal year. But, during the fiscal year 2016/17, Myanmar's exports to China increased and Myanmar's imports from China decreased and so the trade deficit of Myanmar on China decreased sharply. In sum, during the period from 2011/12 to 2016/17 fiscal year, it is concluded that Myanmar's trade deficit on China fluctuated.

Myanmar's total import from the world started increasing sharply after 2012/13 fiscal year except 2015/16 fiscal year which increased a little. In 2012/13 fiscal year, Myanmar's total trade deficit started and was increasing year by year. The comparison between the total trade with the world and the total trade with China from 2007/08 fiscal year to 2016/17 fiscal year is given in Figure 2:

Figure 2. The Comparison between Total Trade with the World and Trade with China from 2007/08 Fiscal Year to 2016/17 Fiscal Year
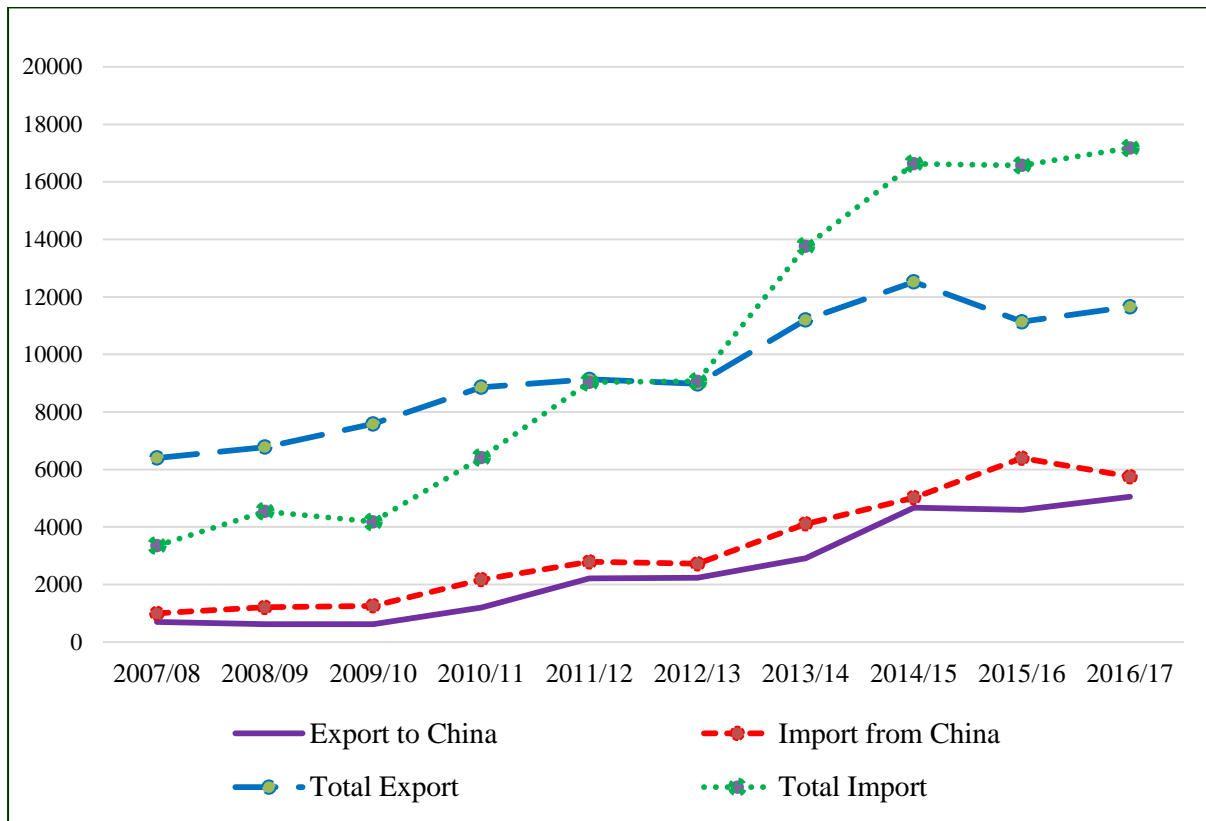
(USD Million)

Source: Central Statistical Organization and Planning Department, Ministry of Planning and

   Finance

The export-led growth hypothesis generally reflects the relationship between exports and economic growth. According to Mishra (2011), it is suggested that adopting the export promotion polices will promote the country's economy. Under President Thein Sein, the government applied the export promotion and import substitution strategy. Moreover, the government was aware of its trade policy challenges and has launched specific trade policy and facilitation measures, and thus, in April 2012, it abolished an ill-functioning "export first" policy introduced in 2002.

The purpose of this study is to estimate the relationship among exports to and imports from China and GDP of Myanmar. Specifically, we will attempt to show whether

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international trade with China had a significant effect on the economic growth of Myanmar. The objectives of the study are to estimate the impact of international trade with China on Myanmar's economic growth to obtain a better understanding of the relationship between both export and import of Myanmar related to China and economic growth of Myanmar during the period from 1990/91 to 2016/17 fiscal year and to examine long run or short run causality running from export and import to GDP. Understanding the systematic relationship between international trade and economic growth would guide policy makers to formulate appropriate policies in Myanmar.

1.4 Research Questions

The key research questions regarding the impact of international trade with China on economic growth of Myanmar are as follows:

(i)   Is there an impact of international trade with China on economic growth of Myanmar during the period from 1990/91 to 2016/17 fiscal year?

(ii)   Is there a strong relationship between export and import with China and the GDP of Myanmar?

1.5 Organization of the Paper

This study proceeds as follows: Chapter two provides literature review. Chapter three provides data description. Chapter four explains the methodology of the study and Chapter five presents empirical results and discussions. Conclusion and policy recommendations are given in Chapter six.

CHAPTER TWO

LITERATURE REVIEW

International trade brings numerous benefits and contributes to comprehensive development of national economy. Many observation methods based on a mathematical model were used to analyze the interactive impact between international trade and economic growth. In this paper, the impact of international trade with China on economic growth of Myanmar is estimated. It is hypothesized that the cointegration among the export, import and GDP will run efficiently and effectively the long run relationship between the international trade and economic growth of Myanmar related with China. The following literature reviews attempt to demonstrate and support the hypothesis in this paper.

According to Awokuse (2008), the effect of import is stronger than that of exports. He investigated the causal relationship between trade and economic growth for three Latin American economies (Argentina, Colombia and Peru). To explore the role of both exports and imports, the cointegration test is used in this study. The paper suggested that there is a long-run relationship between the variables for all three countries. It is concluded that for several Latin American countries both exports and imports play a very important role for economic growth.

The estimated results of Javed, Qaiser, Mushtaq, Saif-ullaha and Iqbal (2012) showed that the variables of import and output of the country have positive and significant impact on the economy of Pakistan. They examined the effect of international trade on economic growth. In the paper, the annual data are used over the period 1973 to 2010. The OLS (Ordinary Least Square) technique and Augmented Dickey-Fuller (ADF) unit root test were used to find out the relationship between the variables. The paper suggested that trade openness has a positive effect on the economic growth. This study recommended that the

Pakistan Government should adopt the strategies for the development of the economy and also use the suitable economic policies to decrease the imports of costly products in the country.

Jawaid and Raza (2013) investigated the bidirectional causal relationship between terms of trade and economic growth in India. They studied the effect of terms of trade on economic growth of India. The paper used the annual time series data for the period of 1980 to 2010. In this paper, the ARDL bound testing cointegration, Augmented Dickey-Fuller (ADF) unit root test, and the Granger causality test were used. They found that there is a positive relationship between terms of trade and economic growth in both long run and short run.

There is a long-run relationship between exports and economic growth (Mishra, 2011). In this study, the dynamics of the relationship between exports and economic growth for India was reinvestigated. The paper used the cointegration test between exports and real GDP using time series data over the period 1970 to 2009. The paper concluded that there is a causal relationship running from GDP to exports in the long-run, but there is no relationship among the variables in the short-run.

Zang and Baimbridge (2012) claimed that exports and imports have effects on economic growth of Japan and South Korea differently. They investigated the relationship among exports, imports and economic growth of South Korea and Japan. They used the cointegration test among the variables to determine whether there is a link among export, import and economic growth in South Korea and Japan. Their analysis indicated that Japan's economy is export-led economy, and South Korea's economic growth has a negative effect on its export growth.

Bastola and Sapkota (2015) confirmed that export has a positive impact on economic growth, but they said that import has a negative impact on economic growth in Nepal. They

studied the relationships between international trade and economic growth of Nepal. They used the annual time series data for the period 1965 to 2011. In this study, the cointegration tests are used to find out that exports, imports, and economic growth of Nepal are cointegrated. They suggested that Nepal government needs to reduce import goods in order to promote economic growth in Nepal.

Singh (2015) examined the effects of international trade and investment on output of New Zealand. The time series for the period 1954 to 2007 are used. The cointegration tests are used to find out the implications for long-term strategies to be formulated and to improve the output and economic growth of New Zealand. This study suggested that the government needs to make export and investment promotion to arrive at higher levels of the country's output and economic growth.

Adeleye, Adeteye and Adewuyi (2015) studied the impact of international trade on economic growth in Nigeria. They used the cointegration test and error correction modeling for regression analysis of time series data for the period 1988 to 2012. They confirmed that only the export has positive and significant effect and other variables have insignificant effect although they found that international trade is playing a major role in economic growth of Nigeria. This study recommended that the import substitution strategy should be used for the development of Nigeria's economy.

Irandoust (2017) proved that imports, exports and GDP have a causal relationship for long run and they also have a bidirectional relationship. The long-term dynamics of imports, exports and economic growth in Sweden based on the time series data over the period 1800-2000 are examined. The cointegration tests are used to find out the relationship between these variables to determine the trends and constants. This study implies that the feedback hypothesis is supported.

Guan and Hong (2012) argued that the policy of foreign trade used in the United States is not valid. They investigated the relationship between the foreign trade and economic growth of US. They used the time series data for the period 1960 to 2010. They applied the cointegration to find out the causal relationship between variables of export, import and GDP. This result found that there exists no Granger causality relationship between imports and exports. This study recommended that the US government needs to use a new trade policy aiming to expand the country's export, but not to restrict its imports for promoting its economy.

CHAPTER THREE

DATA DESCRIPTION

For this study, the necessary data are obtained from the Planning Department and the Central Statistical Organization under the Ministry of Planning and Finance in Myanmar as well as from the World Bank. This research paper is based on annual time series data for exports and imports between Myanmar and China and for GDP of Myanmar's economy during the period from 1990/91 to 2016/17 fiscal year.

Table 2. Export and Import between Myanmar and China and GDP of Myanmar.

(Kyat Million)

FISCAL YEAR	GDP	EX	IMP
1990-91	151,941	396	1,205
1991-92	186,802	438	895
1992-93	249,395	339	946
1993-94	360,321	210	1,261
1994-95	472,774	278	1,019
1995-96	604,729	195	1,434
1996-97	791,980	336	1,116
1997-98	1,119,509	837	1,524
1998-99	1,609,776	571	1,744
1999-00	2,190,320	847	1,568
2000-01	2,552,732	1,143	1,855
2001-02	3,548,472	1,545	2,068
2002-03	5,625,255	3,071	2,350
2003-04	7,716,616	1,343	2,817
2004-05	9,078,929	1,659	2,819
2005-06	12,286,765	2,125	2,716
2006-07	16,852,758	3,530	4,186
2007-08	23,336,113	3,833	5,473
2008-09	29,165,118	3,352	6,578
2009-10	33,905,666	3,359	6,855
2010-11	39,846,694	6,663	12,005
2011-12	44,278,875	13,286	16,721
2012-13	51,727,452	13,428	16,317
2013-14	57,690,173	17,465	24,633
2014-15	65,437,095	28,043	30,135
2015-16	72,714,021	27,580	38,373
2016-17	79,760,097	28,590	34,389

Source: Central Statistical Organization and Planning Department, Ministry of Planning and
    Finance

Note: In Myanmar, the trade amounts were collected in USD. Before 2011/12 fiscal year,

these collected USD amounts were changed by the official rate of about 6 kyats (1USD = 6

Kyats) and recorded in Myanmar kyat. But, after 2011/12 fiscal year, trade amounts were recorded in USD without changing by the official rate. In this paper, trade amounts between Myanmar and China are analyzed by Myanmar kyats. Thus, trade amounts in USD collected after 2011/12 fiscal year are multiplied by 6 kyats to go with the total GDP amounts. Because GDP amounts are always recorded in Myanmar kyat although the floating rate is started in 2011/12 fiscal year.

CHAPTER FOUR

METHODOLOGY OF THE STUDY

The goal of this study is to identify the dynamic relationship among three variables' export to and import from China and economic growth of Myanmar in growth rate terms to estimate the impact of international trade with China on economic growth of Myanmar during the period from 1990/91 to 2016/17 fiscal year. In this paper, the cointegration test is used for regression analysis to examine the long-run relationship among the dependent variable of GDP and the explanatory variables of export and import between Myanmar and China. Then the paper continues to estimate whether there is long run or short run causality running from export and import with China to GDP of Myanmar or not. From the analysis of the study, we can determine whether international trade between two countries has a positive or negative effect on economic growth of Myanmar. Through this exercise, we explore the policy recommendations for course correction.

4.1   Log Transformation

I used natural logarithms of the above three variables in the cointegration test. In the case of using the transformed data, a rationale for interpretation of treatment estimation effects based on the data transformation should be provided (Keene, 1995).

Figure 3. Log Transformed Data of Export to China, Import from China and GDP of Myanmar
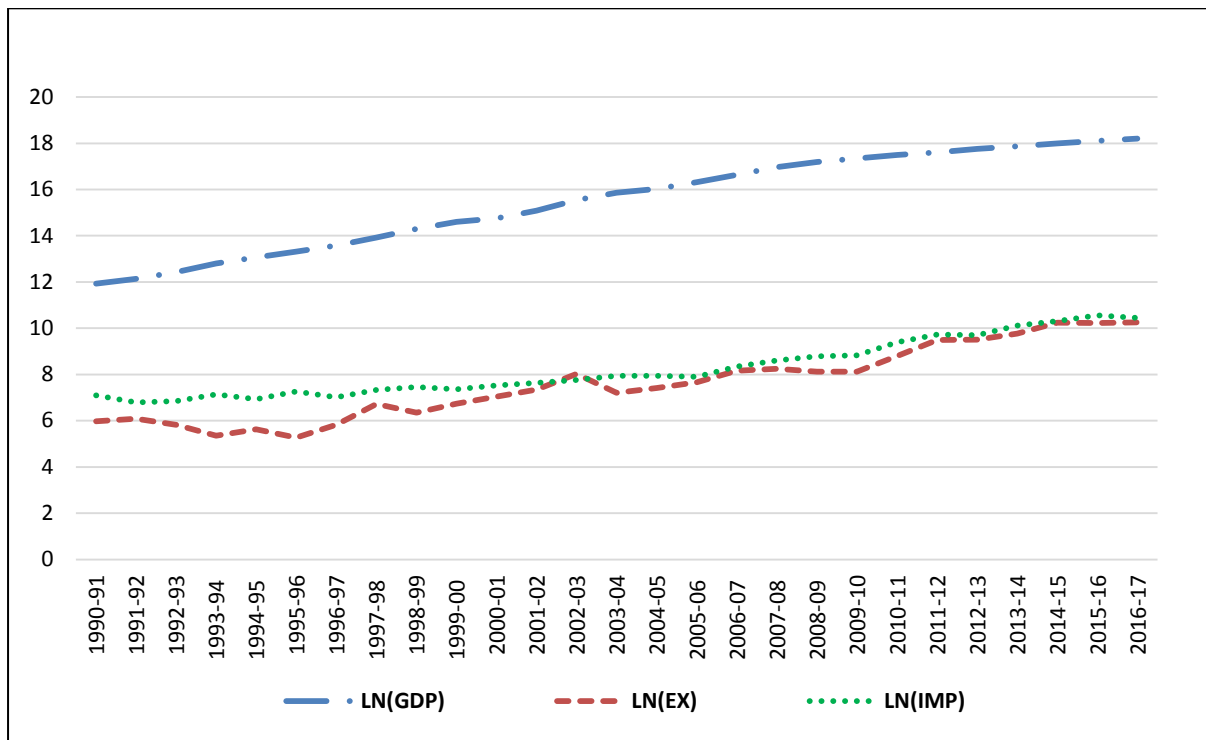
Source: Log Transformation Data Results from Table 2**.**

4.2   Unit Root Testing

The unit root test has spurred for the development of analysis theory of non-stationary time series data. This test can tell whether a particular variable has unit root or not. If a stationary linear combination exists among two or more non-stationary time series data, these data may be stationary and become cointegrated (Engle and Granger, 1987). The cointegrating equation can be interpreted as the long-run relationship among the variables of export and import between Myanmar and China and GDP of Myanmar.

In this paper, log transformed data of GDP, export and import are non-stationaries and they become stationaries after transforming them into first differences.

For log transformed data of GDP:

$$\ln(GDP)_t \sim I(1)$$

$I(1)$ variable is stationary after transforming the variable of $\ln(GDP)$ into the first differences:

$$(1 - L)\ln(GDP)_t = u_t \qquad \text{(or)} \qquad \nabla \ln(GDP)_t = u_t$$

$$\nabla \ln(GDP)_t \sim I(0)$$

Here, $(1 - L)$ is the lag polynomial of $\ln(GDP)_t$ which has a unit root and the variable is known to be integrated of first order. The $\nabla \ln(GDP)_t$ is stationary which has no unit root and ut is a disturbance term.

Then, for log transformed data of export to China:

$$\ln(EX)_t \sim I(1)$$

$I(1)$ variable is stationary after transforming the variable of $\ln(EX)$ into the first differences:

$$(1 - L)\ln(EX)_t = u_t \qquad \text{(or)} \qquad \nabla \ln(EX)_t = u_t$$

$$\nabla \ln(EX)_t \sim I(0)$$

And then, for log transformed data of import from China:

$$\ln(IMP)_t \sim I(1)$$

$I(1)$ variable is stationary after transforming the variable of $\ln(IMP)$ into the first differences:

$$(1 - L)\ln(IMP)_t = u_t \qquad \text{(or)} \qquad \nabla \ln(IMP)_t = u_t$$

$$\nabla \ln(IMP)_t \sim I(0)$$

The economic interpretation is that $\ln(GDP)_t$, $\ln(EX)_t$ and $\ln(IMP)_t$ have trends in the growth rate, $\nabla \ln(GDP)_t$, $\nabla \ln(EX)_t$ and $\nabla \ln(IMP)_t$ have the linear trends, and they

become stationary at I (0). E-views provides various tools for testing the time series for the existence of a unit root after first differences of the series in Augmented Dickey Fuller (1979) test.

Log transformed data of GDP is stationary at the third situation only (Trend and Intercept) of the first differences of the unit root testing:

$$\ln(GDP)_t = \beta_0 + \beta_1 \cdot \ln(GDP)_{t-1} + r_t + u_t$$

Null Hypothesis: Ho: $\ln(GDP)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(GDP)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

Here, β_0 is a constant term and r_t is a linear deterministic trend of the first differences (third situation) of the unit root test.

For log transformed data of export to China, it is stationary at the first situation (None) of the first differences of the unit root testing:

$$\ln(EX)_t = \beta_1 \cdot \ln(EX)_{t-1} + u_t$$

Null Hypothesis: Ho: $\ln(EX)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(EX)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

Then, it is stationary at the second situation (Intercept only) and it is also stationary at the third situation (Trend and Intercept) of the first differences of the unit root testing:

$$\ln(EX)_t = \beta_0 + \beta_1 \cdot \ln(EX)_{t-1} + u_t$$

Null Hypothesis: Ho: $\ln(EX)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(EX)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

Then,

$$\ln(EX)_t = \beta_0 + \beta_1 \cdot \ln(EX)_{t-1} + r_t + u_t$$

Null Hypothesis: Ho: $\ln(EX)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(EX)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

For log transformed data of import from China, it is stationary at the first situation (None), at the second situation (Intercept only) and at the third situation (Trend and Intercept) of the first differences of the unit root testing:

$$\ln(IMP)_t = \beta_1 \,.\, \ln(IMP)_{t-1} + u_t$$

Null Hypothesis: Ho: $\ln(IMP)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(IMP)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

Then,

$$\ln(IMP)_t = \beta_0 + \beta_1 \,.\, \ln(IMP)_{t-1} + u_t$$

Null Hypothesis: Ho: $\ln(IMP)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(IMP)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

And then,

$$\ln(IMP)_t = \beta_0 + \beta_1 \,.\, \ln(IMP)_{t-1} + r_t + u_t$$

Null Hypothesis: Ho: $\ln(IMP)_t \sim I\,(1)$ (or) $\beta_1 = 1$

Alternatives: H1: $\ln(IMP)_t \sim I\,(0)$ (or) $0 < \beta_1 < 1$

4.3   Cointegration Testing

The cointegration test can determine whether three variables of GDP, export and import which are a group of non-stationary series are cointegrated or not. In this paper, E-views implements VAR based methodology of Johansen (1991, 1995) cointegration tests. In

Johansen test, the variables of log transformed data of GDP and export to China and import from China are stationary when they are converted into first differences.

To estimate the relationship between international trade with China and economic growth of Myanmar, the following cointegration model was established:

$$\ln(GDP)_t = \beta_0 + \beta_1 . \ln(EX)_t + \beta_2 . \ln(IMP)_t + e_t$$

where,

$\ln(GDP)_t$ = The total value of ln(GDP) at year t.

$\ln(EX)_t$ = Log Transformed Export Data of Myanmar to China at year t.

$\ln(IMP)_t$ = Log Transformed Import Data of Myanmar from China at year t.

β = The cointegrating vector

e_t = The error term

4.4 Vector Error Correction Model (VECM) Testing

The three variables of log transformed data of GDP, EX and IMP are cointegrated or have long-run association and we developed the restricted VAR that is the Vector Error Correction Model testing to determine whether there is long-run or short-run causality among these variables or not.

$$\Delta \ln(GDP)_t = \alpha + \sum_{i=1}^{n} \beta_i \Delta \ln(GDP)_{t-i} + \sum_{i=0}^{n} \gamma_i \Delta \ln(EX)_{t-i} + \sum_{i=0}^{n} \delta_i \Delta \ln(IMP)_{t-i} + \varphi ECT_{t-1} + u_t$$

$$\Delta \ln(EX)_t = \alpha + \sum_{i=1}^{n} \beta_i \Delta \ln(EX)_{t-i} + \sum_{i=0}^{n} \gamma_i \Delta \ln(GDP)_{t-i} + \sum_{i=0}^{n} \delta_i \Delta \ln(IMP)_{t-i} + \varphi ECT_{t-1} + u_t$$

$$\Delta \ln(IMP)_t = \alpha + \sum_{i=1}^{n} \beta_i \, \Delta \ln(IMP)_{t-i} + \sum_{i=0}^{n} \gamma_i \, \Delta \ln(GDP)_{t-i} + \sum_{i=0}^{n} \delta_i \, \Delta \ln(EX)_{t-i} +$$

$$\varphi ECT_{t-1} + u_t$$

ECT is the error correction term and is the OLS residuals. The long-run cointegrating regression equation is as follow:

$$\ln(GDP)_t = \beta_0 + \beta_1 . \ln(EX)_t + \beta_2 . \ln(IMP)_t + e_t$$

and is defined as following:

$$ECT_{t-1} = \ln(GDP)_{t-1} - \beta_0 - \beta_1 . \ln(EX)_{t-1} - \beta_2 . \ln(IMP)_{t-1}$$

The error correction term is related to the last period deviation from long-run equilibrium influences the short-run dynamics of the dependent variable of GDP. Thus, the coefficient of ECT, φ is the speed of adjustment because it measures the speed at which GDP returns to equilibrium level after the change in export and import.

Estimated VECM with GDP as the target variable:

$$\Delta \ln(GDP)_t = -0.0423 ECT_{t-1} + 0.1588 \Delta \ln(GDP)_{t-1} - 0.0026 \Delta \ln(EX)_{t-1} +$$

$$0.0828 \Delta \ln(IMP)_{t-1} + 0.1921$$

Cointegrating equation (long-run model):

$$ECT_{t-1} = 1.0000 \ln(GDP)_{t-1} - 2.7798 \ln(EX)_{t-1} + 3.2631 \ln(IMP)_{t-1} - 21.3014$$

$$1.0000 \ln(GDP) = 21.3014 + 2.7798 \ln(EX) - 3.2631 \ln(IMP) + e_t$$

4.5 Serial Correlation Testing

In time series regressions, the residuals are correlated with their lagged values. The serial correlation violates the standard assumption of regression theory. In such regression

theory, the disturbances are not correlated with other disturbances. E-views provides the tools

to detect the serial correlation and is specified in the form of generally:

$$\ln(GDP)_t = \ln(EX)_t.\alpha + \ln(IMP)_t.\beta + u_t$$

$$u_t = z_{t-1}\gamma + e_t$$

Then, we get:

$$\ln(GDP)_t = \ln(EX)_t.\alpha + \ln(IMP)_t.\beta + z_{t-1}\gamma + e_t$$

Where, the vector z_{t-1} may contain either lagged values of u or lagged values of e or

both, and

$\ln(GDP)_t$ = A vector of dependent variable at t time

$\ln(EX)_t$ and $\ln(IMP)_t$= Vectors of explanatory variables at t time

z_{t-1} = A vector of variable in the previous period

α, β and γ = Vectors of parameters

u_t = A disturbance term

e_t = The innovation in the disturbance

CHAPTER FIVE

EMPIRICAL RESULTS AND DISCUSSIONS

5.1 ADF Unit Root Test

If the regression is not of the same order of integration or any linear combination of the regressors, it is said to be unbalanced (Baner, 1994). There is a stationary linear combination among two or more non-stationary time series data, and these data become stationary and cointegrated. ADF unit root test is used to determine whether there is a stationary linear combination among two or more non-stationary time series data. The unit root test result can be stated as follows:

Table 3. ADF Unit Root Test Result

Variables	Test for Unit Root	Deterministic Regressors	ADF Test Statistics	5 % Critical Values	P values	Lag Length
Ln(GDP)	1st Difference	Constant, Linear Trend	-4.0936	-3.6122	0.0189	1
Ln(EX)	1st Difference	Constant	-5.4760	-2.9862	0.0002	
		Constant, Linear Trend	-5.5695	-3.6032	0.0007	1
		None	-4.7546	-1.9550	0.0000	
Ln(IMP)	1st Difference	Constant	-6.6391	-2.9862	0.0000	
		Constant, Linear Trend	-5.3751	-3.6122	0.0012	1
		None	-4.3754	-1.9550	0.0001	

According to the above result, the ADF statistic value of ln(GDP) is -4.0936 and the associated one-sided p-value is less than 5%. The absolute statistic value of In(GDP) is bigger than the critical values of 5% level at first differences so that we can reject the null hypothesis and we accept the alternatives that the ln(GDP) data is stationary at I (0). Similarly, the absolute statistic values of ln(EX) and ln(IMP) are also bigger than the critical

values of 5% level and the p-values are less than 5%. Then we can reject the null hypothesis that the data are non-stationary or have unit roots. Thus, both ln(EX) and ln(IMP) are stationary at I (0) after transforming them into the first differences.

Figure 4. Variable trends at first differences
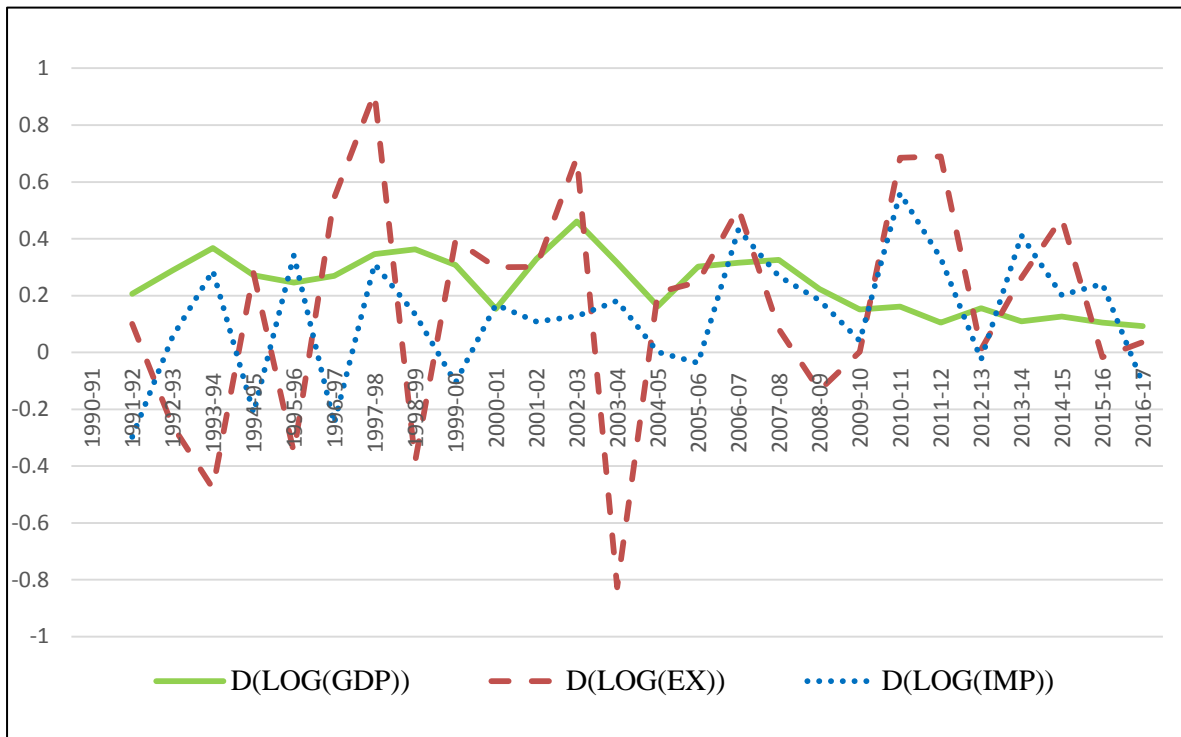
5.2   Lag Selection Criteria

Before performing the Johansen Cointegration test and VEC modeling, we need to choose the optimal number of lags. According to the following criteria, we choose lag 1 at 5% level.

Table 4. Lag Selection Criteria Test Result

VAR Lag Order Selection Criteria
Endogenous variables: LOG(GDP) LOG(EX)
LOG(IMP)
Sample: 1 27
Included observations: 25

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-74.6052	NA	0.0998	6.2084	6.3547	6.2490
1	37.5286	188.3848*	2.63e-05*	-2.0423*	-1.4572*	-1.8800*
2	44.8946	10.6070	3.11e-05	-1.9116	-0.8877	-1.6276

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

5.3 Johansen Cointegration Test

The technique of co-integration tests is based on Engle and Granger (1987) and if there is a cointegration among the variables, there is a long-run co-movement among them (Palaskas and Varangis, 1991). The co-integration test is used for long-term equilibrium relationships between non-stationary time series (Tang and Butiong, 1994).

Under an unrestricted cointegration test (Trace), the trace test indicates 1 cointegrating equation(s) at the 0.05 level. We can reject the null hypothesis at none of 0.05 level and we accept that there is cointegration between the log data of variables. According to this result, all the three variables of ln(GDP), ln(EX) and ln(IMP) data have long-run association and they move together. According to the maximum eigen-value test result, there is also 1 cointegrating equation(s) at 0.05 level because we can reject the null hypothesis at none of 0.05 level. Thus, we accept that all the three variables are cointegrated and they have long-run association and they move together at none.

If the variables of ln(GDP), ln(EX) and ln(IMP) are cointegrated or have long-run association, we can run restricted VAR that is VECM model to determine whether there is long-run or short-run causality among these variables or not. The cointegration test result is stated as follows:

Table 5. Johansen Cointegration Test Result

Sample (adjusted): 3 27
Included observations: 25 after adjustments
Trend assumption: Linear deterministic trend
Series: LN_GDP_ LN_EX_ LN_IMP_
Lags interval (in first differences): 1 to 1

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Prob.**	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	35.4729	29.7971	0.0100	22.5032	21.1316	0.0319
At most 1	12.9697	15.4947	0.1159	9.7000	14.2646	0.2324
At most 2	3.2698	3.8415	0.0706	3.2698	3.8415	0.0706

Trace test and Max-eigenvalue test indicate 1 cointegrating eqn(s)
at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

5.4 Vector Error Correction Model Test

The long-run equilibrium relationship has parameters and the error-correction model is the long-run model with the imposed parameter values (Vogelvang, 2005). A vector error correction model is a restricted VAR model. It is used for non-stationary time series that are cointegrated. The VEC has cointegration relations and it restricts the long-run behavior of the endogenous variables to converge to the cointegrating relationships for short-run adjustment dynamics (Eviews 6, 2007). The vector error correction model test result is as follows:

Table 6. Vector Error Correction Model Test Result

Vector Error Correction Estimates
Sample (adjusted): 3 27
Included observations: 25 after adjustments
Standard errors in ( ) & t-statistics in [ ]

Cointegrating Eq:	CointEq1
LOG(GDP(-1))	1.0000
LOG(EX(-1))	-2.7798
	(0.6588)
	[-4.2194]
LOG(IMP(-1))	3.2631
	(0.9370)
	[3.3171]
C	-21.3014

Error Correction:	D(LOG(GDP))	D(LOG(EX))	D(LOG(IMP))
CointEq1	-0.0423	0.1157	0.0483
	(0.0121)	(0.0732)	(0.0328)
	[-3.4958]	[1.5812]	[1.4718]
D(LOG(GDP(-1)))	0.1588	-0.0092	0.3493
	(0.1946)	(1.1769)	(0.5279)
	[0.8158]	[-0.0079]	[0.6616]
D(LOG(EX(-1)))	-0.0026	-0.0439	0.2540
	(0.0356)	(0.2152)	(0.0965)
	[-0.0741]	[-0.2039]	[2.6315]
D(LOG(IMP(-1)))	0.0828	-0.3977	-0.4888
	(0.0811)	(0.4905)	(0.2200)
	[1.0201]	[-0.8107]	[-2.2213]
C	0.1921	0.2319	0.0843
	(0.0490)	(0.2966)	(0.1330)
	[3.9165]	[0.7820]	[0.6337]

In accordance with above vector error correction model, both exports and imports between Myanmar and China have impacts on GDP growth of Myanmar. The results provide that exports and imports with China have different effects on economic growth of Myanmar

meaning that export to China has a positive impact and import from China has a negative impact on GDP of Myanmar.

In this model, ln(GDP) is the dependent variable and we need to check whether this model has any statistical error or not. Under the least squares method, the value of R2 is 0.6446 (64.46%) and the p-value (F statistic) is 0.0002 which is less than 5%. So, we cannot reject the model and accept that the test statistic is significant. The log transformed data of GDP, export and import we used in this model are good fitted well. The Least Squares test result in which the model is good for this paper is stated as follows:

Table 7. The Least Squares Test Result

Dependent Variable: D(LOG(GDP))
Method: Least Squares (Gauss-Newton / Marquardt steps)
Sample (adjusted): 3 27
Included observations: 25 after adjustments
D(LOG(GDP)) = C(1)*(LOG(GDP(-1)) - 2.7799*LOG(EX(-1)) +
        3.2631*LOG(IMP(-1)) - 21.3014) + C(2)*D(LOG(GDP(
    -1))) + C(3)*D(LOG(EX(-1))) + C(4)*D(LOG(IMP(-1))) + (5)

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.0423	0.0121	-3.4958	0.0023
C(2)	0.1588	0.1946	0.8158	0.4242
C(3)	-0.0026	0.0356	-0.0741	0.9417
C(4)	0.0828	0.0811	1.0201	0.3199
C(5)	0.1921	0.0490	3.9165	0.0009
R-squared	0.6446	Mean dependent var		0.2423
Adjusted R-squared	0.5736	S.D. dependent var		0.1029
S.E. of regression	0.0672	Akaike info criterion		-2.3846
Sum squared resid	0.0904	Schwarz criterion		-2.1408
Log likelihood	34.8078	Hannan-Quinn criter.		-2.3170
F-statistic	9.0700	Durbin-Watson stat		2.0444
Prob(F-statistic)	0.0002			

To find the p-value from the above VECM model under the VAR environment, we use the above system equation to determine whether the log transformed data of export and import influence the dependent variable of ln(GDP) data in the long-run or not. Error correction term is the speed of adjustment towards long-run equilibrium. For long-run

causality, the coefficient of C (1) is – 0.0423. The value of coefficient is negative sign and significant. So, there is long-run causality running from the two independent variables of ln(EX) and ln(IMP) to dependent variable of ln(GDP). It means that ln(EX) and ln(IMP) have influence ln(GDP) in the long-run.

5.5 The Wald Test

For the short-run causality, we develop the Wald test to determine whether there exists a short-run causality among ln(GDP), ln(EX) and ln(IMP) or not. Under the test result, the Chi-square p-value is 0.9409 (94.09%) which is bigger than 5%. We cannot reject the null hypothesis and we accept that ln(EX) cannot influence ln(GDP) variable which is dependent variable. It means that there is no short-run causality running from export to GDP.

Similarly, there is no short-run causality running from import to GDP because we cannot reject the null hypothesis and we accept that ln(IMP) cannot influence the dependent variable of ln(GDP) because the Chi-square p value is 0.3077 (30.77%) is bigger than 5%, meaning that there is no short-run causality running from import to GDP.

Summing up, there is long-run causality running from the independent variables of export and import to GDP which is dependent variable. But, there is no short-run causality running from both export and import to GDP. The Wald test result can be stated as follows:

Table 8. The Wald Test Result

Null Hypothesis	F-Statistic (P)	Chi-square(P)	Decision
Ln(EX) cannot influence Ln(GDP) variable	0.9417	0.9409	Accept
Ln(IMP) cannot influence Ln(GDP) variable	0.3199	0.3077	Accept

5.6   Serial Correlation Test

According to the serial correlation testing, we cannot reject the null hypothesis and we accept that this model has no serial correlation because the p-value Chi-square is 0.5449 (54.49%) and it is bigger than 5% as following:

Table 9. Serial Correlation Test Result

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.2828
Obs* R-squared	0.3666
Prob. F (1,19)	0.6011
Prob. Chi-Square (1)	0.5449

Ho = There is no serial correlation in the model.

5.7   Heteroskedasticity Test

Under the Heteroskedasticity test, the p-value Chi-square is 0.7004 (70.04%) and it is bigger than 5%. We cannot reject the null hypothesis and accept that there is no heteroskedasticity in this model. It can be stated as following:

Table 10. Heteroskedasticity Test Result

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.5419
Obs*R-squared	3.8249
Scaled explained SS	2.4330
Prob. F(6,18)	0.7697
Prob. Chi-Square (6)	0.7004
Prob. Chi-Square (6)	0.8759

Ho = There is no heteroskedasticity in the model.

5.8   Jarque-Bera Test

According to the Jarque-Bera testing, residual of this model is normally distributed which is desirable because the p-value is 0.9974 (99.74%) and it is bigger than 5%. Thus, we cannot reject the null hypothesis and accept that residual is normally distributed that is desirable as follows:

Table 11. Jarque-Bera Test Result

Series	Residuals
Sample	3 27
Observations	25
Mean	-1.81e-16
Median	-0.0074
Maximum	0.1355
Minimum	-0.1386
Std.Dev.	0.0614
Skewness	0.0351
Kurtosis	2.9878
Jarque-Bera	0.0053
Probability	0.9974

Ho = the model is normally distributed.

In accordance with the Serial Correlation test, Heteroskedasticity test, and Jarque-Bera test results, we can find that the model used in this paper is good and desirable because this model has no serial correlation as well as no heteroskedasticity and the residual of this model is normally distributed.

CHAPTER SIX

CONCLUSION AND POLICY RECOMMENDATIONS

6.1   Findings

In this study, a unit root test is firstly applied to determine whether there is a unit root or non-stationarity in the data or not. The log transformed data of GDP, export and import become stationary after transforming them into first differences. Secondly, the Johansen cointegrated test is applied to determine the contribution of international trade to economic growth after choosing the optimal lag length (1). This test suggests that there is one cointegrating equation among the variables and that cointegrating relationship in this paper is spurious.

Since GDP, export and import are cointegrated and associated, the vector error correction modelling is used for the results that both exports and imports have an impact on GDP growth in the long run. The results show that exports and imports with China have different effects on economic growth of Myanmar. It means that export to China has a positive impact and import from China has a negative impact on economic growth of Myanmar in the long-run.

Granger Causality approach is used to evaluate the direction of causality relationship running export and import to GDP. The Granger causality test (VECM) indicates that there is a long-run causal relationship running from both exports and import to GDP, but not for the short-run. The analysis leads to the conclusion that both international trade between two countries and economic growth of Myanmar are related to past deviations (error correction terms) from the empirical long-run relationship.

Moreover, the model used in this paper has no statistical error and it is good because the test statistic is significant, the value of R^2 is high and p-value is less than 5%. Under the

serial correlation and heteroskedasticity test, the Chi-square p-values are bigger than 5% meaning that we cannot reject the null hypothesis and we accept that there is no serial correlation in this model as well as there is no heteroskedasticity in this model. According to the Jarque-Bera testing, it is found that residual of this model is normally distributed.

6.2   Conclusion

Economic theory provides that international trade can contribute to the economic growth of a country. The aim of this study is to evaluate the long run equilibrium relationship between the export, import between Myanmar and China and the GDP of Myanmar and the direction of causality between the international trade among two countries and economic growth of Myanmar. The regression analysis is used to estimate the dynamic causal relationship between the international trade between Myanmar and China and the GDP growth of Myanmar.

This study shows that there is a long-run equilibrium relationship among the three variables of exports, imports and GDP. Both exports and imports of Myanmar to and from China play an important role in the economic growth of Myanmar. The empirical result implies that the exports and imports between two countries and GDP of Myanmar are cointegrated and these variables have long-run association. There is the causality running from export and import with China to GDP of Myanmar in the long-run but not in the short-run. The test result evaluates that the export to China has a positive impact and import from China has a negative impact on GDP of Myanmar in the long-run.

6.3   Policy Recommendations

Most developing countries initiated the trade reform processes in the late 1970s, but Myanmar reformed economic sector and trade process in 2012. Prior to 2012, many OECD

countries impose restrictions on imports and exports from and to Myanmar. The United States banned all imports from Myanmar, Canada prohibited all imports and exports, and the European Union banned imports of timber, coal, metals and precious stones.

After lifting the western economic sanctions, Myanmar's economy has become more integrated into the global as well as regional economies. Myanmar government relaxed import restrictions and abolished export taxes. Myanmar's export is increasing and the export goods are diversified. The government performed the export promotion and import substitution strategies. The government is aware of its trade policy challenges and thus it promoted the trade facilitation and implemented an online license issuing system and online payment system at the border areas. The government also launched two pilot projects on self-certification, in co-operation with Australia and New Zealand. But the outdated technological capacity and poor trade-related infrastructures are the major obstacles impeding the development of the country.

The policy regarding trade strategies for economic growth and economic development of the country can be recommended as following:

(i) According to the analytical result that export to China has a positive impact on economic growth of Myanmar, the government needs to provide export promotion as a strategy for economic growth by enhancing the connectivity with the global countries and utilizing the more regional free trade agreements with neighboring countries.

(ii) The result indicates that import from China is negatively affecting economic growth, indicating that import substitutions should be maintained in the domestic economy. Thus, the government needs to promote the domestic industry to generate more import substitution products.

(iii) The government should create the trade liberalization and the liberalization of

FDI inflows in order to more open the market access. The government needs to encourage the private sector to increase investments in the firms for helping boost exports and create high competition among the public and private sectors while maintaining the reduction or elimination of tariff, quotas and trade-related barriers.

(iv)   Moreover, the government should build the transparency requirements for publishing the trade regulations, notifying the changes in trade policies and responding to the request for trade-related information.

(v)   To modernize the trade market, the government must receive the advanced foreign technology and knowledge from developed countries through imports and promote the quality of trade-related infrastructures.

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