

# The Effects of AFTA on Macroeconomic Variables and Poverty: Evidence of Laos

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## Abstract

The ASEAN Free Trade Agreement (AFTA) plays an important role in regional economic development. However, whether AFTA contributes to issues of poverty is still not clear. Therefore, the main objective of this study is to assess the impact of AFTA on poverty using Laos as a case study. We applied a CGE model and micro-simulation for this study. The simulation from the CGE model shows that overall, Laos will gain from AFTA through increasing GDP and welfare gains, and improvements in terms of trade, but will also experience an increase in trade deficits. The gains from AFTA will mainly come from the improvement of trade facilitation and significant increase in FDI. The results of the micro-simulation confirm that Laos will increase in general measures of welfare from AFTA, especially among rural households. In addition, AFTA might also reduce income inequality at the national level. It indicates that AFTA will bring positive impacts to the Lao economy, poverty and income distribution.

Keywords: ASEAN; Laos; CGE model; Micro simulation  
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## 1.0. INTRODUCTION

The impact of trade liberalization on growth and poverty is of major interest to academics and policy makers. Empirical studies show that trade is important to stimulating economic growth and structural change, which can lead to higher incomes and the reallocation of production and consumption (Winter, 2004; Dollar, 1992; Frankel and Rose, 1999). However, there are still some questions as to whether or not trade liberalization is good for poor households.

The Lao People's Democratic Republic (hereafter Laos) is a Least Developed Country (LDC) in economic transition and there is a large development gap between Laos and other countries. The Government of Laos' (GoL) national development goal is to graduate from LDC status by the year 2020, while balancing economic, social and environmental issues (GoL, 2004; 2006). The GoL is liberalizing trade in order to increase economic growth and reduce poverty. One of the most significant steps towards trade liberalization, Laos joined the ASEAN Free Trade Area (AFTA) in 1998.

Laos has achieved economic growth in the past decade along with remarkable poverty reduction. However, Laos still faces various economic problems. First, Laos is facing budget and trade deficits. Second, despite reducing poverty gradually, poverty is still high, especially in rural areas, and inequality has increased.

Therefore, there are some questions concerning whether trade liberalization such as AFTA will raise or alleviate poverty in Laos. The AFTA could have positive and negative impacts on poverty depending on changes in household income, factor markets, household and commodity markets. However, there are very few studies focused on the impact of AFTA on poverty in Laos. Most studies are descriptive analyses which do not use comprehensive economic models.

Given the fact that research on these issues is so limited, the impact of AFTA on macroeconomic variables and poverty is still not clear. Therefore, we used the CGE model and micro-simulation to analyze the impact of AFTA on macroeconomic variables and poverty in Laos. This results of this study are vital to formulating appropriate policies for gaining the maximum benefits from AFTA.

This study has three main contributions to the literature. Firstly, it is a pioneer study in linking the CGE model and micro-simulation to analyze the impacts of AFTA on poverty in Laos. Secondly, in order to capture dynamic trade liberalization impacts, we consider the FDI impact and trade facilitation improvement from AFTA. Third, in order to investigate in more detail the impacts of AFTA on poverty, the logit model is used to analyze the factors influencing the gainer and loser from AFTA.

This paper is organized as follows. Section 2 overviews the current economic integration in Southeast Asia and opportunities and challenges of ASEAN. Section 3 overviews the current situation and issues of the Lao economy, poverty and characteristics of trade. Section 4 reviews key literature related to the subject of trade liberalization under ASEAN and poverty impacts. Section 5 describes the research methodology used in this study. Section 6 presents the results of study and discusses their interpretation and application in national and regional contexts. Section 7 provides conclusions and policy recommendations.

## **2.0. ECONOMIC INTEGRATION IN SOUTH EAST ASIA**

### **2.1. APEC**

Asia-Pacific Economic Cooperation (APEC) and the Association of Southeast Asian Nations (ASEAN) are the two main economic forces of integration and cooperation in East and South East Asia (Mukhopadhyay and Thomassin, 2010).

APEC, founded in 1989, aims to enhance economic growth and prosperity and to reinforce the Asia-Pacific community. It serves as a hub for promoting economic growth, cooperation, trade and investment in the Asia-Pacific region. As an inter-governmental group, APEC operates based on non-binding commitments, open dialogue and equal respect for the views of all participants. The key distinct feature of APEC is that it has no treaty obligations required of its members. The decision-making process within APEC is done by consensus and commitments are made on a voluntary basis. APEC has 21 members, accounting for approximately 40% of the world's population, 55% of world GDP and about 44% of world trade (APEC, 2013). APEC has committed to reduce tariffs and nontariff barriers across the Asia-Pacific region in order to create efficient domestic economies and to significantly boost exports. Adopted by leaders at their 1994 meeting in Bogor in Indonesia, APEC's vision is to liberalize trade and investment in *the Asia-Pacific by 2010 for industrialized economies and 2020 for developing economies*.

Since it was founded, APEC has made much progress in the areas of trade and investment liberalization, business facilitation and economic and technical cooperation. Average trade barriers in the region had been brought down from 16.9% in 1989 to 5.8% in 2010, resulting in nearly a six-fold increase in intra-APEC merchandise trade (exports and imports). By the same token, between 1989 and 2010 APEC's total trade had increased more than five times, while that of the rest of the world had increased about 4.6 times. Moreover, APEC twice launched the 'Trade Facilitation Action Plan,' resulting in a reduction of the cost of business transaction across the region by 5% between 2002 and 2006 and by a further 5% in real terms between 2007 and 2010. Such cost reduction of business transaction represents a total savings for business of \$58.7 billion. Finally, around 1600 projects have been initiated since APEC first began to engage in capacity building work in 1993. APEC contributes funding to around 100–150 projects each year, with a total value of over \$23 million committed by APEC to projects in 2010–2011 (APEC, 2013).

### **2.2 ASEAN**

#### **1. ASEAN history**

The Association of Southeast Asian Nations (ASEAN), comprising the five original member countries of Indonesia, Malaysia, the Philippines, Singapore and Thailand, was established on 8 August 1967 (Lee, 1978). The formation of ASEAN has been influenced by both political and geostrategic reasons associated with the West's abandonment of its role as a shield against communism (Lee, 1983). After the 1973-74 oil crisis and recession, regional economic cooperation made much progress in preferential trading arrangements between members, common trade negotiations with outside powers and a policy of complementary industrial investment.

ASEAN was extended to include Brunei Darussalam in 1984, Vietnam in 1995, both Lao PDR and Myanmar in 1997 and Cambodia in 1999. ASEAN integration was enhanced by the implementation of the Agreement on ASEAN Preferential Trading Arrangement in 1977, which was amended in 1995. Since then, the relations between member countries of ASEAN have strengthened both in scope and importance. These relations comprise, *inter alia*, trade,

investment, customs, and intellectual property (European Commission, 2008). As of 2011, the ASEAN region had a population of approximately 605 million people (8.8% of the world's population), a land area of 4.46 million km<sup>2</sup> (3% of the total land area of Earth), a combined nominal GDP of US\$2,178 billion (3.1% of world GDP), and a total trade of about US\$2,388 billion (6.5% of total world trade)(ASEAN Secretariat, 2012a).

The primary purposes of ASEAN are (i) to accelerate economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations; and (ii) to promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries of the region and adherence to the principles of the United Nations Charter (ASEAN Secretariat, 2012c).

To further enhance intra-regional trade, the ASEAN leaders decided to build a new institution, known as the ASEAN Free Trade Area (AFTA), in 1992. AFTA was intended to reduce tariffs on all trade among members to under 5% within 15 years, albeit with the innumerable exclusions upon which each member nation insisted. Initially, the deadline for tariff reduction was set for 2008. But after ASEAN was enlarged to include Vietnam, Laos, Cambodia, and Myanmar, the deadline was moved forward to 2003, and later to 2000. In 2000, the Initiative on ASEAN Integration was launched, including unilateral and voluntary tariff reduction, especially by the older ASEAN members. The establishment of an ASEAN fund in excess of US\$ 55 million played a crucial role in helping new members in areas such as infrastructure, human resource development, information and communications technology, and regional economic integration. In 2002, AFTA became operative but it appears not yet to have had a substantive impact. AFTA has been more of a preferential trade area with lower tariffs among its members compared to the rest of the world than a free trade area that eliminates tariffs and non-tariff barriers on goods produced by members for intra-AFTA trade (Angresano, 2004, p. 921).

## **2. AFTA**

The ASEAN Free Trade Area was established in 1993 by Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand. AFTA comprised a schedule of preferential tariff reductions, to be implemented progressively until 2010. Goods were divided in five categories: Inclusion List-Fast Track (IL-FT); Inclusion List-Normal (IL-N); Temporary Exclusion List (TEL); Sensitive List (SL); and General Exceptions (GE). The group titles reveal their meanings quite accurately. IL-FT goods were expected to have preferential tariffs reduced to 0-5% by 2000, while IL-N products had until 2003 to reach that level. TEL items were expected to be phased into the Inclusion List by 2000 for most manufactured products, and by 2003 for unprocessed agricultural products. SL goods corresponded mainly to unprocessed agricultural products that were granted a more flexible arrangement for phasing into the Inclusion List. Finally, GE products were permanently excluded from the agreement. In the second half of the 1990s, AFTA expanded to include four other countries in the region, namely, Cambodia, Laos, Myanmar, and Vietnam. They were incorporated into the existing scheme for preferential liberalization, although with more flexibility both with respect to the products added to the Inclusion List and with respect to the timing of liberalization.

The formation of AFTA seems a clear means to eliminate tariff and nontariff barrier in ASEAN. This arrangement has significantly enhanced intra-ASEAN trade. With an average

annual growth rate of 13.4% over the period 2000–2011, intra-ASEAN trade rose from US\$166.8 billion in 2000 to US\$584.2 billion in 2011 (ASEAN Secretariat, 2012b).

There are three main reasons for AFTA's success in deepening economic integration in ASEAN. AFTA's coverage is comprehensive, as over 90% of product classifications were in the Inclusion List from the outset of the liberalization program. The liberalization program is also very ambitious, ultimately requiring free/near-free trade within the area for almost all products. Finally, AFTA members have clear commitment to achieve free intra-bloc trade (Calvo-Pardo et al., 2009, p. 10).

### **3. ASEAN Vision 2020**

In 1997, the ASEAN countries continued the process of economic integration by establishing a vision and outlook for the year 2020. Their vision is to have a Zone of Peace, Freedom, and Neutrality for the ASEAN countries. The pathway chosen to reach this vision is to expand the economic integration of member countries. It is hoped that by 2020 an ASEAN Economic Region can be established and be a free trade area for member countries.

### **4. ASEAN Community**

The ASEAN Leaders considered the importance of establishing an ASEAN Community at the 9th ASEAN Summit in 2003, and signed the Cebu Declaration on the Acceleration of the Establishment of an ASEAN Community by 2015 at the 12th ASEAN Summit in January 2007. The ASEAN Community is comprised of three pillars, namely the ASEAN Political-Security Community, ASEAN Economic Community (AEC) and ASEAN Socio-Cultural Community. Each pillar has its own Blueprint, and, together with the Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan Phase II (2009–2015), they form the Roadmap for an ASEAN Community 2009–2015 (ASEAN Secretariat, 2012b).

Among the three communities in ASEAN, AEC would transform ASEAN into a region in which goods, services, capital and skilled labour would flow freely. The establishment of AEC is (1) to generate a post-AFTA agenda that would be comprehensive; (2) to deepen economic integration in ASEAN in light of the new international commercial environment, especially the dominance of free trade areas (FTAs); (3) given (2), to prevent the possibility that bilateral FTAs could actually jeopardize ASEAN integration since all member-states were free to pursue their own commercial policy agenda; (4) to prevent the economic crises such as the one which occurred in 1997 through cooperation in the real and financial sectors and free flow of skilled labour (Plummer, 2006, p. 436).

### **2.3. ASEAN+3**

ASEAN+3—including the ASEAN-10 countries, China, Japan, and the Republic of Korea—was initiated in the informal ASEAN Leader's Meeting in December 1997 in the midst of the Asian financial crisis. The East Asia Vision Group, established in 1999, proposed the idea of forming an "East Asian Community." In November 2004, the ASEAN+3 Leaders agreed to establish an "East Asian Community" as a long-term objective and regarded ASEAN+3 as the main engine for this eventual formation. Its main purposes in terms of economic, trade, and investment integration are the establishment of an EAFTA and trade liberalization well ahead of the Asia Pacific Economic Cooperation (APEC) Bogor Goal<sup>4</sup>; the enlargement of the Framework Agreement on an ASEAN Investment Area (AIA) to all of East Asia; the

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<sup>4</sup> The APEC Bogor goal was declared in 1994 to set the goal of zero tariffs by 2010 for developed countries and by 2020 for developing countries.

advancement of development and technological cooperation among regional countries to provide assistance to less developed countries; and the realization of a knowledge-based economy and establishment of a future-oriented economic structure (Dean and Wignaraja, 2007).

ASEAN and its '+3' countries have made substantial progress in the areas of economic, monetary and financial cooperation. Total trade value between ASEAN and the +3 countries has been rising over time with an annual average growth rate of 14.6% over the period 2005–2011). It rose from US\$315.2 billion (25.7% of total ASEAN trade) in 2005 to US\$669.1 billion (28% of total ASEAN trade) in 2011 (ASEAN Secretariat, 2012b). The main driving force behind this trade flow is the establishment of bilateral trading arrangements between ASEAN and its counterparts, namely, ASEAN-China, ASEAN-Japan, and ASEAN-Korea. These arrangements will serve as the building blocks for the possible establishment of an East Asian Free Trade Area (EAFTA). In terms of financial cooperation, a regional financing arrangement called the 'Chiang Mai Initiative' (CMI) has been put in place. The CMI comprises an expanded ASEAN Swap Arrangement (ASA) and a network of bilateral swap arrangements (BSAs) among ASEAN members.

In addition, there has been significant progress in developing the Asian Bond Market Initiative (ABMI) for China, Japan and the Republic of Korea. ASEAN+3 countries are taking initiatives to alter existing regulations to help the issuance of and investment in local currency denominated bonds under the ABMI.

### **1. ASEAN+China**

The development of ASEAN-China trade and economic relations can roughly be divided into three stages (Jianglin, 2007). The first stage, covering 1967 to 1990, was an important moment to build mutual understanding and trust. The mutual understanding between ASEAN and China was gradually strengthened through bilateral activities in the late 1970s and early 1980s when China dramatically changed its foreign policy. China formally agreed to have diplomatic relations with all ASEAN members by 1991. The second stage, covering 1991 to 2001, was the rapid improvement of political and economic relations between China and ASEAN. In particular, in 1997, both sides issued a joint declaration on building a good-neighborly partnership oriented to the 21<sup>st</sup> century. The third stage, starting from 2002 to present, is to enhance the China-ASEAN Free Trade Area by 2010. In 2004, all ASEAN members unanimously recognized China's full market economy status and signed the Agreement on Trade in Goods of the Framework Agreement on Comprehensive Economic Cooperation with China. In July 2005, the 'early harvest trade in goods' programme came into effect. In 2007, both sides signed the Agreement on Trade in Services. These arrangements have reinforced economic relationship between ASEAN and China.

### **2. ASEAN+Japan**

The bilateral trade relationship between ASEAN and Japan has been strengthened since the Joint Declaration made at the Japan-ASEAN Summit held on 5 November 2002 in Phnom Penh, Cambodia. This declaration signaled an intention to (1) implement measures for the realization of a Comprehensive Economic Partnership, including elements of a possible Free Trade Area to be completed as soon as possible within 10 years, and (2) to establish a Committee to consider and draft a framework for the realization of the Comprehensive Economic Partnership between Japan and ASEAN. In October 2003, the governments of Japan and of the ASEAN-10 signed a general framework for a bilateral free trade agreement. In November 2004, they agreed to initiate the negotiating process. The talks started in April

2005 and ended in November 2007, and the agreement came into force on 1 December 2008 (Ministry of Foreign Affairs of Japan, 2013).

The Japan-ASEAN FTA is a comprehensive one, covering trade in goods, services, investments, rules of origin, dispute settlement, sanitary and phyto-sanitary regulations, technical barriers to trade, economic cooperation and, on Japan's request, intellectual property rights. For groups in Southeast Asia, it is seen as formalizing ASEAN's role as a regional manufacturing hub for Japanese corporations. It is now easier and cheaper for Japanese firms to move components of automobiles and electronics from one ASEAN country to another in a regional assembly line.

### **3. ASEAN +Korea**

The ASEAN-Korea FTA took effect on June 1, 2007 (ARIC, 2012). Due to concerns about agriculture, particularly the deal's provisions on rice and livestock, Thailand negotiated separate arrangements with the Korean government to join the pact in early 2009. In November 2007, Korea and ASEAN signed the ASEAN-Korea FTA Trade in Services Agreement, which came into force in May 2009. Furthermore, in June 2009, Korea and ASEAN signed the ASEAN-Korea FTA Investment Agreement, which entered into force in September 2009.

## **2.5. Opportunities and Challenges of ASEAN**

### **1. ASEAN**

There are both opportunities and challenges associated with the ambitious economic integration initiative among ASEAN nations. The deepening economic integration in ASEAN through the implementation of AFTA in 1993 has generated trade flows among its members (Ariyasajakorn et al., 2009). However, intra-ASEAN trade is very low relative to that of other intra-regional trade blocs, namely, the European Union (EU) and the North American Free Trade Agreement (NAFTA) (Ozeki, 2008, p. 28). This indicates that there is still some room to boost intra-ASEAN trade, especially by strengthening the existing ASEAN production network and incorporating CLMV into such production network. Nonetheless, any policy to enhance intra-ASEAN trade should be carefully considered as it could generate trade diversion rather than having a trade creation effect. An empirical study by Hapsari and Mangunsung (2006) suggests that AFTA might be causing some trade diversion and shifting trade from countries outside the trade bloc to possibly less efficient countries inside the trade bloc.

To go beyond AFTA, ASEAN leaders agreed to form the ASEAN Economic Community (AEC) in 2015, which would improve the efficiency and competitiveness of ASEAN countries since this arrangement provides the benefit of scale economies and dynamic efficiency through the free movement of goods and services, investment, and skilled labor. While the diversity in ASEAN provides a great opportunity to exploit much comparative advantage, it is a great challenge as well. In particular, there is a large income gap between ASEAN-6 and CLMV. To address this issue, Menon (2012) suggests that there is a need to increase the pace and breadth of trade and investment policy reforms and to address labor mobility including skilled and non-skilled labor. Without such reforms, it is unlikely that CLMV would fully benefit from the formation of AEC.

The rising economic integration in East Asia also brings about opportunities as well as challenges for ASEAN. Although ASEAN as a whole is large, it is still much smaller than the

combined market size of the three East Asian countries, namely, China, Japan, and the Republic of Korea. China and Japan are the world's second and third largest economies, respectively, and the Republic of Korea ranks among the world's fifteen largest economies (Estrada et al., 2011, p. 3). Greater economic integration in East Asia would also include India, New Zealand, and Australia. The formation of ASEAN+6 FTA could generate the largest gains to East Asia among the plausible regional trade agreements (Kawai and Wignaraja, 2008). The ASEAN framework offers the possibility of pooling scarce capacity and resources in the region's low-income economies, namely, Cambodia, Indonesia, Lao PDR, Philippines, and Vietnam. Nonetheless, the serious challenge facing individual ASEAN countries is the competition between domestic products and imported products from China. ASEAN will increasingly face intense competitive pressure from China, especially in labour-intensive products.

## 2. Laos

Over the past 15 years, Laos seems to have gained from AFTA. First, as one of the least developed countries in ASEAN, Laos has weak institutional capacity, a lack of human and technical resources, and limited leverage to undertake FTA negotiations with the region's larger economies. The country has relied on ASEAN for concluding FTAs with the region's larger economies. Accessing the more than one billion people in China and increasing income per capita through an ASEAN-China FTA, for instance, is a great market opportunity for Laos. Second, reducing tariff rates to zero under AFTA can be an important step for Laos to prepare itself for WTO accession. Finally, further deepening of economic integration in ASEAN countries through AFTA and an AEC would enhance Laos' trade competitiveness and attract more FDI inflows. The rising exports and FDI inflows coupled with other market reforms would constitute more rapid growth in Laos, and thereby reduce income differences between Laos and ASEAN-6 (Menon, 2012). Although the benefits of growth driven by trade and investment have gone disproportionately to the non-poor and inequality has increased, they can be a significant tool to fight poverty in Laos (Fane, 2006).

However, there are many potential costs associated with joining AFTA and ASEAN-plus FTAs. The nascent industries in Laos would be severely affected. An evaluation of the impact of the ASEAN-China FTA on industries in Laos by Leebouapao et al. (2012) indicates that price competitiveness in three industries—namely, wood processing, cement, and motorcycle assembly—would fall substantially if tariffs are completely removed. Moreover, trade liberalization in ASEAN will stimulate the output of each country within the region according to their comparative advantage (Ariyasajakorn et al., 2009). Given its small size and poor physical and human capital, Laos would seem to get fewer benefits compared to other member countries.

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