

Greater Mekong Subregion Development Studies

**Impediments to Growth of the Garment and Food Industries in Cambodia:
Exploring Potential Benefits of the ASEAN–People’s Republic of China
Free Trade Agreement**

Vannarith Chheang and Shintaro Hamanaka

**ASEAN–People’s Republic of China Free Trade Area and the
Competitiveness of Local Industries: A Case Study of Major Industries
in the Lao People’s Democratic Republic**

Leebeer Leebouapao, Sthabandith Insisienmay, and Vanthana Nolintha

**The Impacts of the Thailand–Australia Free Trade Agreement and
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**An Assessment of the Role of Nongovernment Organizations in
Combating Trafficking of Women and Children in Cambodia and Viet Nam**

Christopher Gan, Nong Thi Thuy Ha, Betty Kao, and Kongchheng Poch



Journal of

Greater Mekong Subregion Development Studies

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The PPP was initiated under the framework of the GMS Program, a regional cooperation initiative of the six countries that share the Mekong River—Cambodia, the People’s Republic of China, the Lao People’s Democratic Republic, Myanmar, Thailand, and Viet Nam—started in 1992. The PPP delivers learning programs with a subregional orientation. Other activities of the PPP include fellowship awards, learning resource centers, and institutional networking and development. In 2004, the PPP launched the *GMS Journal* to bridge the gap between research and policy making. To further reinforce this link, the PPP initiated a research program in 2009 to enhance the capacity of GMS research institutions to develop a knowledge base for policy choices. As a repository of scholarly works on the GMS, the *GMS Journal* is a valuable resource for the PPP learning programs. It also serves as a platform for publishing research works by GMS research institutions, universities, and think tanks.

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Foreword

This is the last issue of the *Journal of Greater Mekong Subregion (GMS) Development Studies*. It marks the culmination of a knowledge product, which over the past 10 years, has served as an effective platform for disseminating the research of scholars and practitioners seeking to understand the challenges and complexities of GMS development. Conceived in 2004, the *GMS Journal* was intended to bridge the gap between research and policy making, resulting from what was perceived to be a dearth in GMS scholarship at that time. Through the years, however, GMS scholarship gradually flourished. In large part, this was due to the success of the GMS Program itself, where six countries—Cambodia, the People’s Republic of China (PRC), the Lao People’s Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam—committed in 1992 to cooperate on mutually beneficial projects to accelerate the development of the subregion. Ten years later, in 2002, a capacity-building program, the Phnom Penh Plan for Development Management, was initiated within the GMS Program to develop knowledge services through learning programs, research, and knowledge products, including the *GMS Journal* and research briefs. This last issue of the journal coincides with the 10th year of the Phnom Penh Plan.

This issue features five articles of subregional importance spanning the subjects of free trade areas, tourism, and human trafficking. The article by Vannarith Chheang and Shintaro Hamanaka identifies structural constraints to growth and exports within Cambodia’s key industries, focusing on Cambodia’s exports to the PRC, given the major export opportunities arising from the Association of Southeast Asian Nations–PRC Free Trade Agreement (ACFTA). A qualitative case study method was applied by conducting face-to-face interviews with firms to identify the impediments to growth and exports of the garment and food industries in Cambodia, and to examine the opportunities and challenges presented by the ACFTA. The study found that while the ACFTA has created business opportunities for Cambodian industries, it has also presented challenges for key Cambodian firms, including in the garment and food industries. The benefits gained are limited to increased market access opportunities for some Cambodian products and for producers who import raw materials and production machines from the PRC. Moreover, the impact of the ACFTA varies across industries in terms of manner and magnitude. In general, Cambodia finds it difficult to take advantage of the ACFTA due to a lack of technology, investment capital, and human resources, and the absence of local suppliers of production materials.

The paper by Leeber Leebouapao, Sthabandith Insisienmay, and Vanthana Nolintha provides an evaluation of the impact of the ACFTA on industries in the Lao PDR. The case studies on the wood processing, cement, and motorcycle assembly industries show that, in general, the price competitiveness of the industry’s products will fall substantially after tariffs have been completely removed. The degree of impact, however, varies substantially among industries. For wood processing and cement, which are local import-substituting industries, both price competitiveness and product quality will be affected by the removal of tariffs. For motorcycle assembly—an industry led by foreign direct investment—concerns about price competitiveness seem to be less significant for all motorcycle brands. However, product quality and reputation building would be very important factors for Lao PDR motorcycle assemblers penetrating the neighboring Thai market.

Patcharee Suriya, Christopher Gan, Baiding Hu, and David Cohen investigate the impacts of the Thailand–Australia Free Trade Agreement and the Thailand–New Zealand Closer Economic Partnership on the prices of Thailand dairy imports. The study employs an import price model to examine the effects of a reduction in Thai tariffs for Australian and New Zealand dairy products on the prices of Australian and New Zealand dairy products. Empirical results show that the reduction in tariffs for Australian and New Zealand dairy products has small effects on the Thai import prices of dairy products from both countries. Other factors, such as exchange rates, competitor prices, and drought, have significantly larger effects.

The article analyzing the seasonal pattern and the effects of shocks on outbound tourism from the PRC to Thailand presents some very interesting insights. The authors, Akarapong Untong, Vicente Ramos, Mingsarn Kaosa-ard, and Javier Rey-Maqueira, focus on two issues: the measurement of the seasonal behavior of PRC inbound tourists to Thailand, and the measurement of the effects of major unexpected events that affected the tourism industry during 2000–2009. The analysis of seasonality showed that the PRC market had a higher degree of seasonal concentration than the other main nationalities of Thailand’s tourism. The paper combined several methodologies to characterize and quantify the seasonal pattern of the given origin market, which can be particularly relevant to assessing the effectiveness of counter-seasonal policies suggested in some destinations. The results of the analysis of major unexplained events show that epidemic outbreaks had the greatest impact, followed by domestic chaos, and the 2005 tsunami.

The role of nongovernment organizations (NGOs) in combating trafficking of women and children in Cambodia and Viet Nam was assessed in the article by Christopher Gan, Nong Thi Thuy Ha, Betty Kao, and Kongchheng Poch. The study employed primary and secondary data to investigate coordination mechanisms between NGOs, government agencies, and donor organizations, as well as NGOs’ relationships with trafficked women and children. While the assessment found that NGOs play vital roles in fighting human trafficking, the cooperation mechanisms between government agencies and NGOs remain weak. Efforts in some areas also remain insufficient, with some NGO’s focusing more attention on prevention, advocacy, and communication, and only a few carrying out programs to help victims reintegrate into their communities on their return.

We hope that this issue of the *GMS Journal*, although the last, is not the least, as it continues to reflect the ongoing journey toward sound and effective development policies informed by research and scholarly inquiry.

Alfredo Perdiguero
Editor

Impediments to Growth of the Garment and Food Industries in Cambodia: Exploring Potential Benefits of the ASEAN–People’s Republic of China Free Trade Agreement

Vannarith Chheang and Shintaro Hamanaka

Abstract

This paper attempts to identify structural constraints to growth and exports within Cambodia’s key industries and to consider the policy actions needed to reduce obstacles to trade. The paper places special emphasis on Cambodia’s exports to the People’s Republic of China (PRC), given the major export opportunities arising from the free trade agreement between the Association of Southeast Asian Nations (ASEAN) and the PRC, known as the ASEAN–PRC Free Trade Agreement (ACFTA). A qualitative case study method was applied at the firm level by conducting face-to-face interviews to identify the impediments to the growth and exports of key industries in Cambodia, and to examine the opportunities and challenges presented by the ACFTA. This study covers the garment and food industries, which are critical to the economic development of Cambodia in the context of regional and global economic integration. The food industry, with its large number of small and medium-sized enterprises, has great potential to contribute to pro-poor growth in Cambodia, while the textile industry is the largest employer in the Cambodian labor force and is critical for poverty reduction efforts through export-led growth. The study also provides policy recommendations at both the industry and government levels.

This paper was originally published as a working paper in the ADB Working Paper Series on Regional Economic Integration No. 86.

Vannarith Chheang is the Executive Director of the Cambodian Institute for Cooperation and Peace. Shintaro Hamanaka is an Economist in the Office of Regional Economic Integration, Asian Development Bank. The authors would like to thank Jayant Menon for useful comments and suggestions.

Introduction

Exports are a driving force for economic development in many emerging economies. This is especially true for transitional economies in Southeast Asia, such as Cambodia, that are in the midst of rapid regional and global economic integration. The recent phenomenon of signing free trade agreements (FTAs) brings both considerable opportunities and challenges to the industries of the contracting parties. In particular, the FTA between the Association of Southeast Asian Nations (ASEAN) and the People's Republic of China (PRC), known as the ASEAN–PRC Free Trade Agreement (ACFTA), has attracted considerable attention from policy makers and researchers because of its potential impact on the region's economies.

However, transitional economies in Southeast Asia may not be able to easily exploit the benefits of FTAs such as ACFTA. Given that industries in these countries are vulnerable to external shocks, a close examination of the potential positive and negative impacts of the ACFTA is critical in designing relevant trade adjustment policies. In addition to the difficulty of taking advantage of preferential access to partner economies under an FTA, traders in ASEAN's poorer members face more fundamental impediments, such as burdensome paperwork and under-the-table fees. Thus, it is important to address both the general issues of trade impediments and the obstacles that prevent traders from maximizing the benefits of FTAs, and to consider the necessary policy actions. This paper assesses the impediments to exports in the case of Cambodia, with special reference to the impacts of the ACFTA¹ on key industries in the country.

There are various complementary methods that can be used to assess the effects of FTAs. While the gravity model is a popular ex-post method, the results should be carefully read if it is to be used to analyze the impact of the ACFTA, particularly on Cambodia.² Any macro-level model exercise should be accompanied by micro-level analysis to infer clear policy implications. Meanwhile, the majority of existing firm-level surveys that assess the impact of FTAs in Asia tend to focus mostly on incumbent exporting firms in major Asian countries, usually not including Cambodia. While the conduct of large-scale firm-level surveys in Cambodia should be encouraged, a methodological problem of the firm-level survey is persistent, especially when analyzing less developed countries such as Cambodia. Random sampling or even complete enumeration (census) surveys of exporting firms do not produce plausible policy implications for countries' export strategies because potential users of FTAs are nonexporters at this stage. Furthermore, information on the use or nonuse of FTAs is not the only type of information that is valuable; detailed anecdotal information on the impediments to trade in the general sense, as well as on specific obstacles to the use of the ACFTA, should be collected through interviews.

This paper employs a qualitative case study method based on semi-structured interviews with corporate executives in Cambodia. Such a method is particularly useful for examining opportunities and challenges of FTAs in developing countries such as Cambodia, which lacks

¹ In addition to the ACFTA, Cambodia, as an ASEAN member, participates in trade agreements with Japan and the Republic of Korea. However, given the rapid increase in trade with the PRC, this study focuses exclusively on impacts of the ACFTA. According to the United Nations Comtrade Database (UN Comtrade), Cambodia's exports to the PRC increased by 154% from \$36.6 million in 2009 to \$93.6 million in 2010, while Cambodia's exports to Japan increased by 46% from \$142.6 million in 2009 to \$207.8 million in 2010. Cambodia's trade with the Republic of Korea in 2010 had not been reported by UN Comtrade as of 12 July 2011.

² First, the ACFTA is a fairly recent phenomenon and available data series since its implementation are very limited. Second, the accuracy of macroeconomic data from less developed countries, such as Cambodia, are questionable.

quality economic data.³ Because it provides the micro-foundation of the overall assessment of FTA impacts, the case study approach complements other methodologies including the gravity model and firm-level survey mentioned earlier. If used properly, the case study approach is useful for extracting information to draw up the necessary adjustment policies.⁴ An interview-based case study method is helpful in identifying what the real bottlenecks to exports are, what type of assistance should be offered by the government to firms to increase exports, why firms do not export despite FTA preferences, and what kinds of policy reforms are necessary to exploit the export opportunities under FTAs. Based on the responses of several interviewees, specific industry problems with regard to trade under FTAs can be identified, thereby avoiding oversimplification. This paper not only analyzes the trade policy of each company surveyed, but also attempts to clarify the difficulties faced by each industry as a whole in the context of the ACFTA.

Semi-structured interviews were conducted in the Khmer language with several firms in Cambodia in May–July 2010.⁵ The firms to interview were selected carefully, considering several factors including (i) balance across subsectors, (ii) size of firms, and (iii) firms' trade volume. In most cases, a questionnaire focusing on exports to the PRC was sent to interviewees beforehand in both English and Khmer (see Annex for the questionnaire in English). Both the questions identifying the general impediments to Cambodia's trade and the questions relating to the use of the ACFTA were included in the questionnaire. Rather than testing a specific hypothesis in a purely social scientific manner, the objective was to gather as much relevant information as possible and to construct anecdotal case studies. Face-to-face interviews were then conducted with additional questions based on the responses to the questionnaire. These were followed up by telephone-based interviews when necessary.

This paper analyzes two major industries in Cambodia: the garment industry and the food industry. These industries were selected because both are vital to Cambodia in terms of production, employment, and exports, and because they have several contrasting features. The garment industry is the largest industry in terms of output and exports. The majority of firms in this industry are relatively large and have strong export orientation, and most of them have foreign equity participation. In contrast, the food industry is a typical example of a domestic industry in Cambodia with significant economic potential. Most firms in the food industry are small and medium-sized enterprises (SMEs), and further development of the industry is crucial for poverty reduction.

The next section covers the garment industry and the subsequent section focuses on the food industry. Each section starts with a brief introduction of the industry and moves on to individual companies' export policies in the context of the ACFTA. Each section concludes with a summary of empirical findings on the industries' problems in terms of trade. After the examination of the two industries, the final section of the paper considers policy recommendations to maximize the benefits and minimize the costs of the ACFTA.

³ On the quality of Cambodia's trade statistics, see Hamanaka (2011).

⁴ For example, there is an incentive to exaggerate the negative side of FTAs in the expectation of government assistance. This problem can be minimized if an interviewer poses relevant follow-up questions.

⁵ Not all of the interview summaries of the selected firms are included in this paper.

Garment Industry

The garment industry is the largest industry in Cambodia, accounting for approximately 20% of all Cambodian production, 14% of gross domestic product (GDP), and 72% of total merchandise exports. It employs 320,734 workers, among which 293,664 are women, working in 269 factories across the country.⁶ The garment industry is the main income generator within the Cambodian labor force. It is also the country's largest foreign currency earner and contributes about 80% of Cambodia's foreign exchange earnings every year.⁷

The Cambodian garment industry began to develop in earnest in the 1990s, with a strong orientation toward exports. The industry's production has since reached a level equivalent to 500% of that required for self-sufficiency. The main markets, in order of export value for Cambodian textiles are the United States (US), the European Union (EU), Canada, and Japan.⁸ This industry is dominated by large, foreign-owned firms. In 2009, the total number of large factories in Cambodia registered with the Ministry of Industry, Mines, and Energy reached 556, of which 422 were garment-related.⁹ According to the Garment Manufacturers Association in Cambodia, there are currently 136 export-oriented garment factories in Cambodia, of which 93% are foreign-owned. Most foreign direct investment in Cambodia—mainly from the PRC and Taipei,China—goes to this industry.

The garment industry emerged in response to the trade privileges established under the Generalized System of Preferences (GSP) in 1996 by the EU and the US. In 1998, the Clinton administration initiated the US–Cambodian Trade Agreement on Textiles and Apparel (1999–2004), which linked market access (with an increasing quota) for Cambodian textile products to labor standards. Cambodia is the only country with which a trade–labor arrangement was agreed and implemented in order to secure a quota for exports to the US (Ear 2009: 7). In 1999, the US imposed new quotas on all textile exporting countries except Cambodia. Meanwhile, the textile agreement between Cambodia and the EU entered into force on 1 July of the same year. This agreement formalized the principle of unlimited access of Cambodian textile products to the EU market. The privilege of unlimited access was supplemented by a liberalization of the conditions of access to the EU's GSP scheme, which grants an exemption from customs duties to Cambodian exports entering the EU market. The first measure of liberalization under the agreement included the indefinite granting to Cambodia in September 1999 of the benefit of “regional accumulation.” With this privilege, unfinished textile products imported by Cambodia from another member of ASEAN and then exported to the EU are considered to be of Cambodian origin, allowing Cambodia to more easily satisfy the GSP rules of origin.

In the mid-1990s, many firms began moving to Cambodia from the PRC; Indonesia; the Republic of Korea; Taipei,China; and Thailand for three primary reasons. First, wages in Cambodia were relatively low compared with its competitors. Second, PRC companies in particular moved their factories to Cambodia to gain preferential access to European and

⁶ See *People's Daily Online* at <http://english.people.com.cn/90001/90777/90851/6990883.html> (accessed 20 May 2010).

⁷ See *Business in Asia*. Update on Cambodian Garment and Textile Industry. http://www.business-in-asia.com/industries/cambodia_garment.html (accessed 20 May 2010).

⁸ In 2009, total garment exports to foreign countries amounted to \$2,385 million, of which \$1,486 million was exported to the US, \$577 million went to European markets, \$184 million went to Canada, and \$136 million went to other countries.

⁹ A factory or business establishment with more than 100 employees and assets over \$500,000 (excluding land) is considered a large business by the Government of Cambodia (Government of Cambodia 2005).

US markets because the Multi Fibre Agreement (MFA), which imposed quota restrictions on textile products and especially textile products from the PRC, was in effect until 2004.¹⁰ Finally, the 1997–1998 Asian financial crisis served as an impetus for the rapid development of the textile industry in Cambodia, which had been less affected by the crisis.

Cambodia captures a relatively limited share of the value chain in the global garment industry. Cambodia is involved in the “cut, make, and trim” phase of the value chain. The Cambodian industry produces only garments, while most of the raw materials, fabrics, and machines are imported from the PRC and other economies in the region. According to the Garment Manufacturers Association of Cambodia, the country’s garment industry imported \$1 billion in raw materials in 2009, with 66% coming from the PRC and the rest from the Republic of Korea and Taipei, China. According to Cambodian tax law, the import taxes on raw materials serving industries in the country are very low if the final outputs are exported. Because the industry enjoys import tax exemptions as well as tax holidays (Ear 2009: 8), the industry’s direct contributions to government revenues have been limited. More than 95% of garment factories are foreign-owned, and a significant part of the profits are repatriated. Nevertheless, this industry is critical for poverty reduction in Cambodia due to its contribution to export-led growth (Yamagata 2006).

Case Study: Company A (Cotton Producer and Exporter)

Company A is a major cotton exporter. The company was founded in 2006 by a Cambodian businessperson with the primary goal of exporting cotton to the PRC. A PRC businessperson visited Battambang Province in Cambodia and suggested to the eventual founders of Company A that they grow cotton for export to the PRC. She offered assurances that she would buy all the cotton produced by the company. The founders of Company A visited the PRC several times to study its local markets and decided to start their business upon returning to Cambodia.

Today, Company A has a total of 80 employees, of whom 40 are regular staff, and investment capital worth over \$2 million. It has a cultivated land area of more than 1,500 hectares, up from 100 hectares at its inception, in the Rottanak Mondul district of Battambang Province. The total export volume of Company A reached 150 tons per year in 2009 and the company is one of Cambodia’s top cotton exporters. The main export markets include the PRC, Japan, the Republic of Korea, and Viet Nam. Even though the PRC only began importing cotton from this company in February 2010, it has already become the firm’s second-largest market at 50 tons per year, trailing only Viet Nam. When asked why the firm only started to export cotton to the PRC in February 2010, the company’s management confessed that it tried to avoid relying too much on exporting to the PRC to prevent having low prices dictated by its PRC partner. At the same time, however, the company’s management admitted that they rely heavily on their PRC business partner in order to export to the PRC market. Company A does not have information about the end-users of their products, which are factories in the PRC. Instead, the company relies heavily on intermediaries to market its products in the PRC.

Recently, Company A decided to import several modern cotton processing machines from the PRC at the price of \$600,000 per unit. Despite the high cost, the company decided to purchase the machines because the import process was straightforward and free from overly

¹⁰ Even after the end of the MFA in 2004, the garment industry in Cambodia was still able to compete in international markets and maintain its dynamism in exporting to Canadian, EU, Japanese, and US markets.

bureaucratic procedures. In addition, the Government of Cambodia reduced the import tariff (customs duty) imposed on these machineries to zero.¹¹ In this example, Company A has clearly benefited from the ACFTA in terms of reduced input expenses.

When asked whether the firm could compete with products imported from the PRC, Company A's project manager was confident about the quality of his products. The quality of the firm's cotton has been tested in a laboratory in the PRC and the results showed that his products were superior to similar items from other countries, including the PRC, with respect to the cotton's endurance and whiteness. Furthermore, business partners, not only in the PRC, but also in Japan and the Republic of Korea, have praised the quality of Company A's products. Companies in the PRC, Japan, the Republic of Korea, and Viet Nam have promised to purchase all of the cotton that Company A can produce. However, the company's management worries that they may not be able to supply all of these markets in a timely fashion given that cotton requires a much longer period and more land under cultivation to grow than other crops.¹²

In spite of these positive developments, Company A's project manager admitted that there are some problems regarding export procedures. Without disclosing how much he has to pay to get an export permit, he admitted that the permit process requires that unofficial fees be paid to avoid delays.

In addition to this problem faced by Company A on the Cambodian side of the border, the project manager identified another major problem on the PRC side. When the products arrive in the PRC, PRC customs officers there require his business partner, who is in charge of conducting import procedures, to fill in a number of papers in addition to the certificate of origin, a process that usually takes about 1 month. Only after all paperwork has been finished can the products be imported. In contrast, customs officers in Viet Nam do not require many papers (except the certificate of origin), according to the project manager. This is one of the reasons that Company A chooses to export more to Viet Nam than to the PRC.

To cope with these challenges, Company A suggested that the government could help the company by easing its export procedures and customs clearance processes. For instance, the government could charge a fee for phytosanitary inspection only and eliminate the rest of the procedures. In addition, the company's management also requested the Government of Cambodia to grant multiple export permits with a certain validity period (e.g., 1 year) so that the firm need not waste resources completing paperwork for each export transaction.

Case Study: Company B (Textile Producer and Exporter)

Company B is a supplier of apparel products. The company produces its apparel in accordance with the design, quality, and quantity requested by buyers from other countries, particularly in Canada and Europe. The trademark and brand names of the products are designed by either the buyers or partner companies. The company was established in 2000 by an entrepreneur from Hong Kong, China. The parent company, which is in charge of finding buyers and partners, was established in Hong Kong, China and its factories are located in Cambodia and the PRC. Company B has established strong business connections with buyers in Europe. The factory in Cambodia has a staff of 400, 90% of which are female. The company produces jackets and

¹¹ In addition, other taxes on raw materials imported from the PRC to Cambodia, such as cotton seeds and the accompanying packing materials, were also abolished under the ACFTA scheme.

¹² For instance, at least 260 cotton fruits are used to make 1 kilogram of cotton.

sweaters, all of which are exported to Europe.¹³ The production inputs of the company are raw materials imported from the PRC and the labor inputs are sourced from the local Cambodian people. Given that almost all textile producers in Cambodia are only suppliers and they are not involved in the process of selling in the market, Company B is a typical example of an export-oriented firm in the garment industry in Cambodia.

The company tracks preferential trade arrangements provided by other countries and regions to Cambodia, although the company has never been involved in trade negotiations. Europe has been beneficial for Cambodia's textile exporters since it provided special trade treatment for Cambodian products under the Everything-But-Arms Agreement. As a result of this preferential trade treatment, Company B started operating in Cambodia with the intention of exporting to Europe.

When asked about the ACFTA, the company representative said that she was not aware of the agreement and it did not affect Company B's operations because it was already importing raw materials from the PRC on a freight-on-board basis, thereby avoiding import tariffs in accordance with Cambodian investment law and the investment facilitation policy of the Council for the Development of Cambodia.¹⁴ While the company is interested in learning whether there are any enhanced export opportunities with the PRC under the ACFTA, there seems to be a very little opportunity at present, because products from the PRC are very competitive. The Company B case study suggests that the ACFTA may have little impact on Cambodian garment producers, especially those that are export-oriented since their market is primarily Europe and not the PRC, and those that import raw materials from the PRC already enjoy import tariff exemption under the existing trade regime.

Regarding competition in other markets (especially Europe), there is some competition between Cambodian products and those from other countries, including the PRC. However, it is the buyers that draw up the marketing strategies, and Company B is not directly involved in such competitive processes. The administrative and shipping officers of Company B are wary that if the special treatment under the Everything-But-Arms Agreement were ended, there would be an increase in competition with PRC products in European markets. However, the company still believes that Cambodian labor, which is much cheaper than labor in the PRC, will continue to make Cambodian garment products competitive.

Case Study: Company C (Textile Producer)

Company C is a textile manufacturer that is owned by a Cambodian businessperson and has current investment capital of more than \$140,000. The company began its operations in 1995. Before starting Company C, the owner opened a business in 1990 as a clothes vendor at Olympic Market, which is the largest clothes wholesaler in the capital Phnom Penh.¹⁵ Realizing that Cambodia did not produce cotton fabrics, she devised a plan to import raw materials, particularly cotton fabrics, from foreign countries and assemble them in Cambodia to produce clothes. Based on cost calculations, she realized that her products would be highly competitive, given the relatively cheap labor in Cambodia and her company's product design, which is

¹³ The company does not have any plans to expand its sales in ASEAN markets because its products—jackets and sweaters—are not suitable for tropical ASEAN countries.

¹⁴ Company B enjoys other tax incentives, including tax holidays, because the company is 100% export-oriented.

¹⁵ She later began selling her products at other markets in Phnom Penh including Oruessei Market, Central Market, Deum Kor Market, and Chbar Ampaov Market.

suitable for Cambodian preferences. Her relatives helped her by suggesting where and how to purchase cotton fabrics from Thailand for use in making her own clothes. Her business has grown since 1995. At its peak, between 40 and 50 packages of ready-made clothes were sold daily with a total value of \$4,000–\$5,000.¹⁶ The number of employees reached 30 in 2006.

However, sales in recent years have dropped drastically, with only a few packages of ready-made clothes sold daily. Sales now average as low as \$200–\$300 per day. In response, Company C's owner decided to reduce the number of employees to about 10. When asked to give the reason for sharply decreasing sales in recent years, she pointed to the massive inflow of ready-made clothes from the PRC. Huge numbers of PRC products are now sold at Olympic Market and other markets. The ready-made clothes from the PRC are cheaper than her products by \$1.00–\$2.50 per item, while their quality is about the same.

When asked to give reasons why she could not reduce the price of her clothes to compete with imports from the PRC, the owner identified high input costs resulting from transport fees, the tariff imposed on imported cotton fabrics, and high electricity costs in Phnom Penh. For example, the tariff imposed on cotton fabrics imported from the PRC and Thailand are both 7% of the total price of the materials. The government provides special tax treatment to export-oriented producers, but not to local market-oriented small companies like Company C. Domestic-oriented SMEs are required to pay import taxes for the cotton fabrics. In addition, the fabrics imported from the two countries are subject to a 10% value-added tax.

The loss of competitiveness compared to ready-made clothes from the PRC has led the owner of Company C to seek cheaper inputs by importing cotton fabrics from Indonesia. The owner revealed that the cost of Indonesian fabrics is about \$1.00 per yard (including the import tariff), while the cost of Thai fabrics is about \$1.50 per yard. However, the company's owner was still uncertain whether her final products would be able to compete with PRC ones even if Indonesian inputs were used. The owner of Company C suggested that the Government of Cambodia should assist garment-producing SMEs by eliminating tariffs imposed on cotton fabrics imported from ASEAN member states.

When asked why she did not import cheap raw materials from the PRC, especially cotton fabrics, Company C's owner confessed that she did not know anyone who could advise her on the PRC's fabric market and export procedures. She has instead decided to import fabrics from Indonesia and Thailand because she has a relative, who used to trade with Indonesian and Thai cotton fabric suppliers in the past, help her make arrangements with the suppliers and facilitate the importing process.

There are several reasons why Company C does not use homemade cotton (e.g., from the Company A plant) to minimize input costs. First, Cambodian cotton plants do not yet have the capacity to produce the end product: cotton fabrics. They focus more on producing semi-processed cotton for export to other countries that are then used to produce cotton fabrics. A second and related reason is that most cotton plants in Cambodia are export-oriented and are inclined to sell their products to international rather than local markets because they want higher prices.

High electricity costs in Cambodia are another driver of high production costs for Company C. For instance, electricity costs in Phnom Penh range from KR610 (\$0.14) to KR720 (\$0.17) per kilowatt, depending upon the consumption level. The more electricity consumed, the higher the price per kilowatt that users have to pay. While this policy is designed

¹⁶ One package contains 12 pieces of ready-made clothes.

to help minimize electricity consumption, such a pricing mechanism makes the realization of economies of scale difficult.

In conclusion, the case of Company C shows that the ACFTA may have a serious adverse impact on small Cambodian garment producers whose production is mostly based on raw materials imported from ASEAN countries rather than the PRC. With the same treatment for imported ASEAN and PRC products (tariff and value-added tax), ASEAN textile producers that import raw materials from ASEAN countries to produce end products such as clothes may not be able to compete with ready-made clothes from the PRC because of their extremely low prices. This suggests that ASEAN should abolish the tariff imposed on raw materials imported from other members as soon as possible so that the products of small ASEAN textile manufacturers can become more competitive with PRC textile imports.

Summary of Empirical Findings of Garment Industry Case Studies

First, the bottleneck of Cambodia's garment industry is due to the fact that there are no midstream sectors in the whole value chain, while its upstream and downstream sectors are strong. The upstream sector—cotton production—is very competitive even when compared with the PRC, and the majority of production is exported to other countries, mainly European markets. Most of the downstream sectors are also notably export-oriented. Most of them simply produce final products, using imported materials, based on the design and orders from companies and buyers in other countries, particularly in Europe. While the upstream and downstream sectors in Cambodia's garment industry are competitive, the industry as a whole has not exploited business opportunities due to the lack of midstream sectors. In fact, the production of fabrics and textiles in Cambodia is very limited. Naturally, companies in upstream and downstream sectors concentrate on exporting their products, rather than establishing a complete value chain in the country. If efficient midstream sectors existed in Cambodia, then domestic companies would be able to produce clothing and apparel final outputs using fabric and textiles made in the country with Cambodian cotton.

Second, export procedures in Cambodia sometimes constrain the domestic garment industry, although this seems to happen less frequently than in other industries. For example, export procedures are a more urgent problem for the Cambodian food industry, discussed in the next section. If the government were to grant a multiple export permit with a certain validity period, instead of a series of single permits, firms could save time by avoiding tedious paperwork. The PRC's cumbersome import procedures also affect Cambodia's exports to the PRC. Several companies point out that customs in the PRC require several certificates in addition to certificates of origin, which is not the case with Cambodian exports to other neighboring countries, including Viet Nam. Thus, Cambodian companies tend to export to Viet Nam more than to the PRC.

Finally, the impacts of the ACFTA on Cambodia's garment industry, which is generally an export-oriented industry led by a small number of large-scale, foreign-owned companies, are limited. However, the ACFTA has had some adverse effects on domestically oriented SMEs. Large-scale companies, whose products are typically exported, are already enjoying the tariff-free import of their materials under Cambodian investment law. Thus, the ACFTA has no impact on their imports from the PRC. Because large-scale companies' main export markets are in Europe, the ACFTA does not have a substantial impact on their exports either. In contrast, domestically oriented SMEs, whose sales principally target domestic markets, face

substantial negative effects from the ACFTA, usually without enjoying any benefits. Under the ACFTA, final apparel products made in the PRC enter the Cambodian market, where there is already fierce competition, tariff-free. Moreover, because their products are sold domestically, SMEs are unable to import raw materials tax-free, unlike large foreign firms. A lack of business partners in the PRC is another reason why some firms import materials from other ASEAN countries instead of the PRC.

Food Industry

The manufacturing industry in Cambodia is still in its infancy, dominated by light industries that employ low technology. However, Cambodia is now pursuing a more export-oriented, rather than an import-substitution, development policy. The garment industry is the top export-oriented manufacturing sector in Cambodia. Other light industries, especially the food industry, are focused on local rather than foreign markets. The food industry in Cambodia has the potential to expand its international sales by utilizing mass production with low input costs and high-quality output.

SMEs, which make up approximately 95% of all enterprises and account for almost half of all employment, are the backbone of the Cambodian economy. The Government of Cambodia has emphasized the important role of SMEs in economic growth and poverty reduction in its Second Socio-Economic Development Plan and National Poverty Reduction Strategy. According to the Cambodian Ministry of Industry, Mines, and Energy, 82% of SMEs in 2006 were in the beverage, food, and tobacco sector (USAID 2006). Given that such a major portion of the workforce is employed in this industry, its development is critical for pro-poor growth in Cambodia (Kobayashi et al. 2009).

The food processing industry in Cambodia is still developing. It is facing several constraints and weaknesses, including the lack of processing facilities, food processing technology and skills, market analysis and marketing information, and sanitation and hygiene knowledge; as well as poor infrastructure, an unreliable supply of raw materials, and the low levels of competitiveness among its products due to high operating costs (COSECAM and Plan Cambodia 2009: 23).

Case Study: Company D (Rice Producer and Exporter)

Company D operates various businesses within the rice industry, including milling, purchasing, and exporting. Company D was founded by a Cambodian businessperson in 1993 with an initial investment of slightly more than \$10,000. Today, it has become one of the country's main rice producers and exporters, employing 80 people and with investment capital of approximately \$2 million. Only six staff members earn a regular annual salary, while the rest are paid a daily allowance of about \$3 per day. The firm has the capacity to produce 110 tons of rice per day to meet local and overseas demand, which is a significant increase from only 8 tons per day during its initial years. Company D exports about 3,000 tons of rice each year, accounting for 0.6% of total Cambodian rice exports.

The company exports rice to foreign markets such as France; Hong Kong, China; Italy; Portugal; Switzerland; and the US. The company's founder is not worried about competing with products from the PRC in international markets, as he strongly believes in the quality and relatively low price of his rice. When asked why the company has not exported to the

PRC, the respondent confessed that he had always wanted to do so, but he had yet to establish a connection with any intermediary who could introduce his company to clients in the PRC. For this reason, Company D plans to dispatch a market study team to the PRC in the near future to conduct a feasibility study and, if possible, establish trade ties with a rice-importing firm.

Even though Company D had little knowledge of opportunities available through the ACFTA, the firm has already benefited from the ACFTA to a certain extent. The respondent said that the company's rice productivity has dramatically increased in recent years due to the application of more advanced technologies in the production process. These technologies, particularly rice color sorting machines, are imported from the PRC. The general director of Company D decided to purchase these machines from a local supplier because their quality is similar to those of machines imported from Japan and Thailand, while the cost is much less. Rice color sorting machines made in the PRC cost about \$30,000 per unit in Phnom Penh compared with similar machines imported from Japan and Thailand that cost approximately \$60,000 per unit. Import tariffs on agricultural machines from the PRC were reduced to zero in May 2008, creating favorable conditions for the rice milling industry to raise its competitiveness in both local and international markets.

The firm still faces complicated export procedures that cause delays in delivering products to its foreign clients. To encourage exports to foreign countries, such as the PRC, the company strongly seeks the easing of the Government of Cambodia's export procedures, which are the source of two main problems. First, the delivery process of products is regularly delayed as companies spend too much time clearing export applications through the two main government ministries: the Ministry of Commerce and the Ministry of Agriculture, Forestry, and Fisheries. It takes at least 5–7 days to finish the paperwork before a firm can proceed with exporting. Second, the time and costs of export logistics lead to increases in the total costs of products, and this leads to significant increases in prices that lower the amount of revenue generated from exports. For example, Company D has to go through at least 15 checking processes and is required to pay for each process, including unofficial solicitation fees, before being able to export its products, resulting in higher expenses. The company has to spend more than \$1,000 for each container filled with 20 tons of rice (about \$55 per ton) for transport and delivery from Phnom Penh to Sihanoukville, including the export paperwork. Rice exporters from Viet Nam spend approximately \$500 for a container of the same size for intra-Viet Nam transport costs, according to Company D's general director.

While Company D still uses the Cambodian port of Sihanoukville because it generates revenue for the government, some exporting firms have decided to export products through Viet Nam's international seaport rather than Cambodia's, because of costly and time-consuming export procedures associated with the Cambodian port. Truck-loading containers are used to transport products from Cambodia, specifically Phnom Penh, across the Cambodia-Viet Nam border (Bavet) to Saigon Port in Ho Chi Minh City. This transport route is considered by some firms to be faster and less costly than the route from Phnom Penh to Sihanoukville. The documents required for products to be exported or transited to Viet Nam are bills of product and packaging invoices, and, in some cases, certificates of rules of origin and phytosanitary documents. While the required documents are almost the same in both countries, transiting through Viet Nam may be less time-consuming and less costly because of its geographical proximity, better infrastructure connectivity, and faster customs procedures. Company D's

general director anticipates that more Cambodian exporting firms will begin to use Vietnamese ports as their transit point rather than Sihanoukville unless the government pursues reforms.

On the policy side, Company D's general director suggested that the government should help Cambodian rice-exporting firms that are able to compete with the foreign firms, especially PRC firms, in four ways. First, the government can help ease export procedures by following the suggestions offered earlier. Second, it should provide loans to exporters to help them expand their business. (In order for Company D to expand business recently, it had to borrow money from a private bank at a 10% rate of interest per year.) Third, it should provide more training on new scientific agricultural production methods to Cambodian rice producers to enable them to raise their productivity. Finally, it should grant exporters multiple export permits so that they can deliver their products to foreign countries faster and reduce expenses.¹⁷

Case Study: Company E (Rice Exporter)

Company E is a rice trading firm. The company was established in 2008 to promote Cambodian rice exports to the region and the world. The company has four managing staff members and very limited investment capital.¹⁸ Although it is a new trading company, it has already established networks with domestic suppliers and overseas clients. Company E conducts transactions with more than 15 milling factories in several provinces in the country. These millers supply high-quality rice to the company based on the standards set by overseas clients.

The company has its own in-house export facilitation services and notes that the export process is time-consuming and costly. According to the secretary general of the company, complicated bureaucracy and under-the-table exchanges are the main obstacles to efficient exporting. Another issue is the lack of logistics services and the inefficient transport infrastructure. For instance, the 20-foot containers used to transport rice can be loaded with only 24 tons of rice; whereas those from Viet Nam can be loaded with 25 tons of rice. In addition, the road from Phnom Penh to Sihanoukville is very narrow and in poor condition.

The principal export market of Company E is the EU. The quantity of rice exported to the EU has been increasing over the last few years. While the company exported about 70 tons per order in the past, it now exports up to 1,500 tons per order. Such a positive upward trend explains the attractiveness of the EU market for Cambodian rice exporters. According to the company, under the Everything But Arms Agreement between Cambodia and the EU, Cambodia is now able to export rice products to the EU tariff free. The absence of tariffs increases the competitiveness of Cambodian rice in the EU market. The company so far has not had any problem regarding the quality standards demanded by buyers from EU countries.¹⁹ When asked why the company does not export rice to Japan or the US, the secretary general explained that Japan and the US are potentially attractive markets, but the company does not have business connections nor has it identified demand in either of these two countries.

According to the secretary general, the PRC's import procedures are complicated since it sometimes does not recognize certificates of origin from Cambodia. Asked why the PRC

¹⁷ Export firms receive a single permit each time they export. If they want to export again, they have to apply for another permit.

¹⁸ The company borrows from the bank based on actual orders from foreign clients. As such, the company needs little working capital.

¹⁹ The company refused to buy rice that was produced with genetically modified organisms. This is due to restrictions set forth by the EU, which does not accept this type of rice.

does not accept certain certificates of origin from Cambodia, the secretary general shared his personal view that PRC authorities probably did not fully trust the documents issued by the Cambodian authorities, despite their obligation to recognize them under both the World Trade Organization and ACFTA frameworks.²⁰ Based on its business experiences in the PRC, the company also notes that when rice arrives at ports in the PRC, the process of unloading normally takes up to 7 days. Asked further about their knowledge of the PRC market and the ACFTA, the secretary general replied that there was little knowledge about the agreement and he was not aware of the tariff benefits that apply to rice products under the ACFTA. At this stage, complicated trade procedures and a lack of market information on the PRC make Company E more dependent on traditional markets, such as the EU, for export. The company exported to the PRC only once in 2009 and found it difficult due to complicated import procedures.

Case Study: Company F (Food Producer)

Company F was established in 2002 by a young Cambodian businessperson with the goal of providing jobs to Cambodians, creating a market for local products such as corn and rice, and substituting domestic food products for imported foreign products. Company F has grown quite remarkably since its inception. In 2002, it had only 25 workers and investment capital of about \$100,000. In 2010, the company employed more than 100 regular staff members and had a working capital of about \$1 million. The company focuses exclusively on the domestic market, with children as its primary market. Since the company's domestic market share is still small, it is looking for international partners to introduce new technology that will lead to a mass production system. The company's net profits are approximately 10% of total sales, and the profit is used mainly for reinvestment and business expansion. The company's vision is to help Cambodian farmers gain market access and to provide employment opportunities to the Cambodian people.

The production cost structure of the company is 40% for packaging, 30% for labor (domestic labor force only), and 30% for other costs (e.g., electricity and water). The reason that packaging is the most costly component because the company needs to import plastic bags from neighboring countries, mainly Viet Nam, because the packaging industry in Cambodia is not competitive due to high costs and the low quality of its products. (High electricity costs also reduce the competitiveness of Cambodian products.) As a result, overall production costs for Company F in Cambodia are higher than they are for firms in Thailand or Viet Nam.

The lack of sophisticated production technology limits the production capacity of the company. The machinery used for production is secondhand and not very efficient. The company spends a lot of money maintaining and repairing its machines. The owner and manager are looking for partnerships or joint ventures with foreign investors to introduce a mass production system and lower the unit cost of production. Without such a technological upgrade, the company is at risk of losing its competitiveness compared to imported food products from the PRC, Thailand, and Viet Nam.

The company has not yet exported any of its products, but management wants to begin exporting products to neighboring countries. However, the complicated export process and lack of capacity (especially in terms of capital and production technology) constrain the

²⁰ Article 5 of the agreement on trade in goods between ASEAN and the PRC states that "the rules of origin and the operational certification procedures applicable to the products covered under this agreement and the early harvest program of the Framework Agreement are set out in Annex 3 of this agreement."

company from doing so. Asked about her awareness of the ACFTA, the owner expressed a lack of knowledge on regional trade arrangements. Although the government regularly invites her to attend various workshops and meetings, most of these focus on the development of SMEs producing for domestic markets, not SMEs that export to foreign markets. She urged the government and international institutions to further assist the private sector, especially SMEs, in exporting to regional markets and joining regional production networks. In addition, the company expressed the view that the government can assist SME brand promotion in foreign markets, given that it is nearly impossible for SMEs to promote their brands in export markets on their own due to financial constraints.

On the question of whether the company is facing competition with similar products imported from the PRC, the company's owner and manager mentioned that they did have competition in imported food products—especially from the PRC, Thailand, and Viet Nam—but the company is able to compete with imported products through quality, cost, and marketing strategies. The manager is confident that Company F can expand its market share in Cambodia.

Case Study: Company G (Palm-Related Food Producer and Exporter)

Company G was registered in 2001. Before the establishment of the company, the owner, a Cambodian–French national, studied products that can be produced from palm juice with the aim of assisting Cambodian farmers. The owner brought palm juice from Cambodia to France for laboratory research. He learned that wine, organic sugar, and vinegar can be made from palm juice. The owner then decided to invest in building a small factory outside of Phnom Penh to produce products from palm juice. The products of the company include organic palm sugar, organic vinegar, palm drink, and different types of wine and whiskey. The factory can produce 60,000 bottles of wine and whiskey per year, 12 tons of organic palm sugar per year, and 100,000 liters of vinegar per year.

For palm wine and whiskey, the company's main focus is domestic markets, with only about 1% of its total production exported to France. Export to France is usually through unofficial channels such as tourists, friends, and acquaintances. Wine and whiskey bottles are imported from France, at a cost of about \$1 per bottle. The cost of bottles is high partly because the company orders only a small number each time. Some types of palm wine cost only \$2, which means that the bottle's cost is already half of the total price. However, the company prefers to import wine and whiskey bottles from France because of their superior design and quality. Such high costs make the company less competitive in international markets, and moreover, less competitive against imported products in the domestic market.

For organic palm sugar, the main target is international markets. The company now exports organic palm sugar to France; Japan; Singapore; Taipei, China; and the US. The French market is the company's largest. Exports overseas are usually managed through business partnerships with buyers and intermediaries from the destination countries. The critical bottlenecks to sugar exports are transport costs and customs procedures. The company pointed out the high transport and customs clearance costs in Cambodia. Company G uses transport services from its factory near Phnom Penh to the port in Sihanoukville, supplied by outside service providers, at a cost of \$1,700–\$2,000 per container of organic palm sugar. Packaging costs are also high. About 50% of the total cost of each unit produced is spent on packaging. The company orders plastic boxes from Viet Nam and packs its products in Cambodia. The company finds it difficult to export because of high transport fees and customs clearance costs in Cambodia.

For vinegar, the main market is domestic. The company cannot export vinegar products due to the lack of certificates of standard—such as the Good Manufacturing Practice, International Organization for Standardization, and Applied Science Accreditation Commission—that buyers demand. These standard quality certificates are technical standards that are necessary for the company to export their beverage products to international markets. To certify the quality of its products, Company G started conducting several checks—a visual and tactile check (shape, taste, and texture)—at every stage of the production process, using the latest technology. Through a partnership agreement with the French Agricultural Research Centre for International Development, training and technical support are being provided to the manufacturing engineers of the company. Obtaining the accreditation certificates listed above is very costly for a small local producer such as Company G. It may take time for the company to expand its production capacity and enlarge its operations, and only then can the company consider applying for these certificates to export.

Company G is interested in expanding its international sales, especially in the PRC. At the moment, however, the company finds it difficult to enter the PRC market due to a lack of price competitiveness compared to PRC products. The manager was not aware of the involvement of the private sector in regional trade negotiations and information on regional trade agreements, particularly the ACFTA. The company conducts trade based on business-to-business relationships, with little consultation with (and even less support from) the government. The manager showed interest in exporting the company's products to the PRC under the ACFTA if it could be demonstrated to easily bring preferential market access. The company is also interested in the ASEAN market and will seek to expand its market access to the PRC and ASEAN through improved quality and production capacity.

Summary of Empirical Findings of Food Industry Case Studies

First, the largest bottleneck in Cambodia's food industry, in terms of reducing competitiveness in international markets, is the lack of supporting industries. Food, particularly low-value-added food, is generally competitive internationally (e.g., Cambodian rice), but the productivity of Cambodia's processed or value-added food is low because of high costs associated with the packaging process. Because Cambodia does not produce high-quality packaging, the Cambodian food industry needs to import packaging materials from neighboring countries such as Viet Nam. In the case of palm wine, which is popular in the EU market, half of the total production cost is spent on bottles imported from France, since without well-designed bottles it is difficult to sell internationally. Thus, in order for Cambodia's food industry to become profitable enough to successfully export, the establishment of supporting industries is urgently needed.

Second, given the nature of food products, export and import procedures are a more sensitive concern than they are for garment-related products. Sanitary issues are critical for food products, and lengthy customs and other procedures significantly affect the quality of some food products. Under-the-table fees are also a major deterrent because they not only increase costs, but also delay the export process. Many firms pointed out that a multiple export permit is necessary to reduce the time and financial costs of trade, and, more importantly, to possibly contribute to a reduction in unofficial fees. A lack of high-quality transport infrastructure is another issue. Because of these problems, some Cambodian firms export products through Viet Nam to final destinations, rather than directly from Sihanoukville.

Third, the impact of the ACFTA on Cambodia's food industry seems to be limited. Above all, Cambodian food producers and traders realize that PRC products are competitive within Cambodian markets, yet it is not easy for Cambodian exporters to penetrate the PRC's markets, with the notable exception of rice. While some firms are interested in exporting to the PRC in the future, limited knowledge of the PRC's markets and the ACFTA, and a lack of business partners and marketing strategies are the main challenges. As a result, the major export market for Cambodian food products has been the EU, and this situation seems likely to continue. Meanwhile, tariff-free imports of high-quality but inexpensive machines under the ACFTA, such as rice millers from the PRC, contribute to higher levels of productivity throughout the Cambodian food industry.

Fourth, although it is true that the PRC cuts tariffs on food imports from Cambodia under the ACFTA, the PRC's import procedures are sometimes a major obstacle for Cambodian exporters to overcome, especially with respect to food products. The certificates of origin issued by Cambodian authorities are sometimes not fully recognized by PRC authorities, and products from Cambodia therefore do not always enjoy preferential status in the PRC's markets. Partly due to complicated procedures required by the PRC authorities, some Cambodian firms either avoid or have given up exporting to the PRC.

Policy Considerations

The ACFTA has created major business opportunities for Cambodian industries. At the macro level, Cambodia's trade with the PRC has been increasing very rapidly in recent years. In 2010, Cambodia's exports to the PRC more than doubled from the previous year (footnote 1). Such a macro view is consistent with the export policies of companies analyzed in this paper, some of which have already exported to the PRC, or at least plan to export their products to the PRC's markets.

At the same time, the ACFTA also presents challenges for key Cambodian industries, including garments and food. The benefits gained are limited to increased market access opportunities for some Cambodian products, and for producers who import raw materials and production machines from the PRC. Moreover, the impact of the ACFTA varies across industries in terms of manner and magnitude. In general, Cambodia still finds it difficult to take advantage of the ACFTA due to a lack of technology, investment capital, and human resources, and the nonavailability of local suppliers of production materials.

The final section considers necessary policy actions to exploit the export opportunities brought about by the ACFTA and regional trade agreements in general. Six suggestions can be extrapolated from the detailed analysis in the previous sections. The recommendations are classified into two groups. The first four recommendations are general in scope, with exports to the PRC expected to increase significantly if these recommendations are implemented properly. If the status quo persists, however, exports to the PRC are unlikely to increase significantly because of a range of constraints that Cambodian industries face. The final two recommendations are related to policies toward the ACFTA and the steps necessary to maximize the potential benefits of this agreement.

Recommendation 1: Simplify trade procedures and eradicate unofficial fees. All export industries in Cambodia are faced with sophisticated, costly, and time-consuming export procedures, as well as high logistics and transport costs. The government needs to reduce

bureaucratic constraints in the export process to encourage the private sector to fully harness its export potential. In addition, the government should establish a single-window service for all procedures related to the export process. All of the firms interviewed raised concerns about the high unofficial facilitation fees required to export their products. The government needs to deal with this issue seriously by enforcing the newly adopted anticorruption law, setting up an effective monitoring mechanism, and improving law enforcement. The private sector, especially exporting firms, should be given direct access to senior leaders of the relevant anticorruption units. Only through partnership and cooperation between the public and private sectors can these unofficial fees be reduced. It should be noted that burdensome export procedures and corruption are interrelated. Some officials prefer single export permits over multiple export permits because they can collect unofficial fees more frequently. Thus, simplifying trade procedure is an effective way to reduce corruption.

Recommendation 2: Develop hard infrastructure and logistics services. Hard infrastructure (particularly road and railway) connectivity needs to be improved. Public institutions and development partners need to strategically identify and develop hard infrastructure to facilitate increased exports. Exporters tend to use Vietnamese ports instead of Sihanoukville because the related transport costs are cheaper and the process less time-consuming. In addition, the private sector should invest more in logistics services, while the deregulation of investments in the transport sector is strongly encouraged.

Recommendation 3: Develop human resources development and build capacity for exporting firms. Underdeveloped human resources are the main constraint facing exporting firms. In the food industry, human resources are extremely limited, especially in the field of production engineering and management science, which are critical to reducing costs and guaranteeing international quality standards. Personnel are needed in agricultural engineering and laboratory and scientific research to increase crop productivity and develop the agro-industry in a sustainable way, given that Cambodian agricultural products still have very low value-added. Development partners should implement more projects to support the productivity of agricultural exporting firms in Cambodia. Capacity-building projects within the private sector should be encouraged and further developed.

Recommendation 4: Establish local suppliers, supporting industries, and a value chain. The garment industry in Cambodia faces a serious lack of local suppliers, such as fabrics producers. While some sectors in the industry are competitive, the industry as a whole is not competitive, because only a part of the value chain exists in Cambodia. Value chain creation within the production network is necessary for job and income generation. In relation to this, it is important to build up supporting industries. For example, Cambodia's food industry has not been competitive enough because firms need to use expensive imported packaging materials. It is not the process of food production itself, but rather the need to import packaging materials, that pushes up the cost of Cambodian food products. If inexpensive, high-quality packages were produced in Cambodia, the Cambodian food industry could become more competitive and profitable. Thus, the government and development partners should support the establishment of local suppliers and other supporting industries.

Recommendation 5: Improve information dissemination on international markets and free trade agreements. The government and development partners need to provide more information on regional trade agreements and offer support to the private sector in designing appropriate market entry strategies. Information on the benefits of using FTAs to enjoy preferential export treatment should be widely disseminated among Cambodian exporters, including SMEs. Rigorous market research on international markets for Cambodian exporters is

also necessary. In many cases, Cambodian firms face difficulty in exporting to other countries, including the PRC, simply because of a lack of market information. Weak commercial networks, especially international networks, are another critical problem. Instead of directly exporting to the PRC, Cambodian firms sometimes need to export to intermediaries in other countries who have commercial connections with the PRC. In addition, the private sector should be encouraged to participate more in regional trade agreement dialogues to enable them to raise their concerns.

Recommendation 6: Improve the quality of Cambodian products through upgraded technology. The food industry in Cambodia lacks international quality standards. Public institutions and development partners to help the private sector, especially exporting firms and factories, to improve the quality of their products. Technology transfer also contributes significantly to improving the quality of their products and their production capacity. Foreign direct investment and foreign–local business partnerships will encourage increased technology and knowledge transfer, which can contribute significantly to the development of infant industries in Cambodia. The import of machinery with the latest technology is also very important. Some subsectors of the agriculture sector, such as cotton production, have been enjoying tariff-free imports of machinery from the PRC under the ACFTA, resulting in increased productivity. Reducing tariffs on machinery other than agricultural machinery under the ACFTA framework would contribute to higher productivity among Cambodian industries.

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Appendix: Questionnaire for the Project—The Impacts of Regional Trade Arrangements on Cambodian Industries²¹

Background of the Company

- Name of respondent
- Name of firm
- Type of products
- Number of regular employees
- Year of firm establishment
- Type of firm: 1. Fully owned multinational. 2. Fully owned domestic firm. 3. Fully owned foreign firm. 4. Foreign–domestic joint venture firm

Questions

- Do you know about Cambodia’s free trade agreements with other countries and regions? (A. Yes or B. No) If you choose A, please specify the types of agreement.
- Do you know about the Association of Southeast Asian Nations (ASEAN)–People’s Republic of China (PRC) Free Trade Agreement, also referred to as the ACFTA? (A. Yes or B. No)
- Do you think that the Government of Cambodia has widely disseminated the ACFTA to the private sector? (A. Yes or B. No or C. Do not know)
- Has your company been involved with any free trade negotiations so far? (A. Yes or B. No or C. Do not know) If you choose A, please specify number of times your company has been involved.
- Has there been any structural change within your company in recent years, such as revenues, market, and production network? (A. Yes or B. No) If you choose A, please specify what kinds of changes has your company made.
- Who are your suppliers? From which countries or regions do they originate?
- Who are your main customers? Do you export your products to the PRC?
- Do you have any plans to export to ASEAN and the PRC? How will you do this?
- What are the sources of your company’s raw materials? Do you have any difficulty importing those materials?
- Which countries does your company import technologies and machines from? Do you have any difficulty in importing these technologies and machines?
- Do you have any plans to form joint ventures with foreign firms?
- Have the import, export, and production processes of your company as a whole improved recently? What kinds of problems has your company faced with the above processes?
- What are the main constraints of your company in exporting the products or services to other countries in the region, especially the PRC?
- Could your products and/or services compete with PRC products in the Cambodian market? Why?

²¹ The format is changed from the original.

- What are you going to do to increase your company's competitiveness against PRC products or services?
- What kinds of help do you need from the Government of Cambodia in order to boost your company's competitiveness against products and/or services from foreign countries, especially the PRC?

ASEAN–People’s Republic of China Free Trade Area and the Competitiveness of Local Industries: A Case Study of Major Industries in the Lao People’s Democratic Republic

Leebeer Leebouapao, Sthabandith Insisienmay, and Vanthana Nolintha

Abstract

This paper provides an evaluation of the impact of the Association of Southeast Asian Nations (ASEAN)–People’s Republic of China (PRC) Free Trade Agreement (ACFTA) on industries in the Lao People’s Democratic Republic (Lao PDR). In general, the paper finds that price competitiveness in the three industries under review falls substantially if tariffs are completely removed. However, the degree of impact varies substantially across industries. In the wood processing and cement industries, of which cement benefits from import substitution policies, competitiveness based on both price and product quality will be affected by the removal of tariffs. Ensuring product quality in the face of increased competition from neighboring countries will be crucial for both industries in order to maintain domestic market share and expand into ASEAN and PRC markets. For an industry led by foreign direct investment, such as motorcycle assembly, the concern over price competitiveness seems to be less significant. However, strengthening product quality and brand reputation should be high on the agenda of Lao PDR motorcycle assemblers as they seek to penetrate the neighboring Thai market. This paper concludes by recommending a package of industry-specific policy interventions to prepare industries in the Lao PDR for increased competition in domestic markets and possible expansion into the more competitive regional markets of ASEAN and the PRC.

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Introduction

The governments of both developed and developing countries has pursued trade liberalization for many years. The motives for liberalization vary from one country to another. In general, trade liberalization is driven by preferential trade agreements (PTAs), including the establishment of free trade areas (FTAs) and multilateral trade agreements (MTAs) such as those under the World Trade Organization. When countries establish an FTA, the tariffs applied to goods coming from member countries are lower than those applied to nonmembers (Krugman and Obstfeld 2003). With FTAs, countries can accelerate their economic integration by forming strategic and preferential relationships among a smaller group of countries to permit deeper market access, give an edge over rivals in penetrating export markets, and allow faster liberalization in new and sensitive areas.

Following the usual patterns of trade liberalization, the Lao People's Democratic Republic (Lao PDR) first opened its doors to the world in 1986 and has since undertaken major economic reforms, including trade liberalization, simplification of tariffs, and elimination of most quantitative restrictions. The Lao PDR has also been very active in subregional and regional integration programs.¹ The country was accepted as a full member of the Association of Southeast Asian Nations (ASEAN) in 1997 and joined the ASEAN Free Trade Area in 1998, under which all members have agreed to gradually remove tariffs under the Common Effective Preferential Tariff scheme, which includes a time frame extending through 2015. The Lao PDR's external trade has increased since joining ASEAN, reaching 70% of gross domestic product (GDP) in 2008. This increase has been led by mineral and hydropower exports. Bilateral trade between the Lao PDR and the People's Republic of China (PRC) has increased significantly from 3.7% of the Lao PDR economy's GDP in 2001 to 7.6% in 2008. The share of these bilateral trade flows to the Lao PDR's total trade also increased from about 6% to 10% over the same period. In addition, foreign direct investment (FDI) approvals increased rapidly from a marginal level of \$300 million before joining ASEAN to more than \$4 billion in 2009.

At the 10th ASEAN Summit in Vientiane in November 2004, economic ministers from ASEAN member states and the PRC signed the Agreement on Trade in Goods of the Framework Agreement on Comprehensive Economic Co-operation between ASEAN and the PRC. A key feature of the Agreement on Trade in Goods is the non-maintenance of quantitative restrictions and the elimination of nontariff barriers. The Lao PDR, as a member of ASEAN, is subject to commitments made under the ASEAN-PRC Free Trade Agreement (ACFTA).

Effective 1 January 2010, the ACFTA called for the elimination of all tariffs on 6,682 tariff posts in 17 sectors: 12 in manufacturing and 5 in the agriculture, mining, and maritime sectors. The ACFTA envisages the lowering and elimination of all tariff barriers by dividing them into either a Normal Track or a Sensitive Track. The Normal Track is further divided into two models (Normal Track I and Normal Track II), while the Sensitive Track is also divided into two models (Sensitive List and Highly Sensitive List). In principle, the Lao PDR and other ASEAN members are subject to all commitments made under the ACFTA. For the Normal Track, the original six members of ASEAN (Brunei Darussalam, Indonesia, Malaysia, the Philippines,

¹ Some of the main cooperation frameworks include the Association of Southeast Asian Nations (ASEAN), the Cambodia-Lao PDR-Viet Nam Development Triangle, the Greater Mekong Subregion, and the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy.

Singapore, and Thailand), known as ASEAN-6, and the PRC were to gradually reduce tariff rates to between 0% and 5% by 2005. The newer ASEAN members (Cambodia, the Lao PDR, Myanmar, and Viet Nam) will reduce Normal Track tariff rates to between 0% and 5% by 2010, and will complete their removal by 2015. For the Sensitive Track, ASEAN-6 and the PRC will reduce tariff rates to 20% by 2012, and to between 0% and 5% by 2018. The Sensitive Track schedule for the Lao PDR and other newer ASEAN members designates 2015 as a target for tariff reduction to rates of 20% and 2020 as the target for reductions to between 0% and 5%.

At the macro level, the ACFTA is likely to bring both opportunities and challenges to Lao PDR industries. The Government of the Lao PDR expects the country to benefit from the ACFTA mainly through export market expansion. The combined ASEAN–PRC market is already the largest market for Lao PDR exports. However, an expanded market size alone is not sufficient and thus Lao PDR exporters need to improve their competitiveness abroad while preparing for increased competition in domestic markets by maximizing the expected benefits from the ACFTA.

The objective of this paper is to analyze the impact of the ACFTA on Lao PDR industries. The second section discusses theoretical debates and presents the analytical framework for the impact evaluation. Based on three case studies, impacts on industry are then discussed. The last section concludes the paper and provides policy recommendations.

Theoretical Debates and Analytical Framework

The question of how the formation of PTAs affects domestic industries has long been an important, yet inconclusive, one for trade and political economy theorists. Viner (1950, cited in Ornelas 2005), a pioneer of the static analysis of PTAs, argued that a PTA could have negative effects on both the member countries and world welfare. Viner explains that the effects of a PTA depend on whether it leads to trade diversion or trade creation. Moreover, Krugman (1989) developed a model to analyze regional trade agreements (RTAs) at a time when there was concern that the rapid spread of RTAs could hinder multilateral trade liberalization and reduce global welfare. He concluded that RTAs consolidate the world into many small trading blocs and reduce welfare, even though each bloc aims to maximize the welfare of its members. These concepts have become important tools for many subsequent studies on the costs and benefits of forming RTAs.

Another group of economists in the 1960s and 1970s built upon Vinerian theory to attest to the importance of PTAs and contribute to the understanding of their formation. Kemp and Wan (1976, cited in Richardson 1995) argued that it is possible to formulate a customs union that leads to improvements in the welfare of member countries while leaving the welfare of nonmembers unchanged. Similarly, Bhagwati (1968, cited in Bhagwati and Panagariya 1996) asserted that a customs union could be developed to minimize the costs of industrialization. Later, Krishna and Bhagwati (1997) showed that this proposition is a modification of the theory of Kemp and Wan (1976). Decades later, Krishna (1995, cited in Bhagwati and Panagariya 1996) used political economy theory to examine why forming a PTA has become popular and concluded that trade diversion is the main motive for their formation.

In addition to the debate on the formation of PTAs in general, there has been extensive research and debate *ex post* and *ex ante* surrounding the formation of specific new trading blocs such as the ACFTA. Tang and Wang (2006) used a gravity model to test the effectiveness

of the AFCTA in increasing trade in goods.² First, the authors applied an Export Similarity Index to assess the PRC's export potential within ASEAN-6 markets by comparing the PRC with other major trade partners of ASEAN-6. The authors set up the gravity model to provide a benchmark for bilateral trade flows by relating them to GDP, distance, language, and other characteristics of each trading partner. After controlling for size and distance effects, the ACFTA was found to have a statistically significant effect on bilateral trade volumes.

Park, Park, and Estrada (2008) constructed a computable general equilibrium model to quantify the potential welfare and output gains of the ACFTA on the region and on individual countries. The study finds that, in general, the ACFTA will lead to positive net trade creation and higher output and welfare for the region. However, countries with higher levels of preexisting regional integration and more advanced economies are likely to gain more. In addition, the study finds that the ACFTA is expected to increase trade among members, but divert trade away from nonmembers. The model predicted a larger increase in exports from ASEAN to the PRC than in the opposite direction. For instance, exports from Cambodia, the Lao PDR, Myanmar, and Viet Nam (CLMV) are expected to increase by more than 50%, while imports from the PRC will fall by 12%. This is contrary to the usual perception that the ACFTA could lead to a flood of PRC exports to ASEAN members.

However, there are still some concerns over the potential negative effects of the AFCTA. Gradziuk (2010), who supported the formation of the AFCTA, argued that the agreement could have sizable effects on the newer ASEAN members. The surge of imports of cheap and low-value-added manufacturing products from the PRC could adversely affect the domestic industries of countries that are still relying on low-value-added and labor-intensive industries. Similarly, Thangavelu (2010) asserted that the short-run displacement effects of the AFCTA could be severe for small and medium-sized enterprises in ASEAN's most advanced economies, domestic industries in emerging economies such as Indonesia and the Philippines, and the CLMV economies that are dominated by labor-intensive industries. The model of Park, Park, and Estrada (2008) discussed earlier also highlighted the challenges for less developed members of the ACFTA.

In considering data limitations, the time frame of the Lao PDR's commitments under the ACFTA, and the country's economic characteristics, this paper will evaluate the potential impacts of the ACFTA on the Lao PDR economy by conducting case studies on three affected industries.³ Based on trade patterns between the Lao PDR and ASEAN members, and between the Lao PDR and the PRC, the authors decided to examine the impacts of the ACFTA on the competitiveness of motorcycle assembly, an FDI-led industry; cement, an import-substituted industry; and wood processing, a domestic industry. The simulation of the price competitiveness of all three local industries after 2015 is the common evaluation technique. The motorcycle assembly and wood processing industries were also subjected to a strengths, weaknesses, opportunities, and threats (SWOT) analysis to provide qualitative insights on their competitiveness under the ACFTA. Before moving to the evaluation of the ACFTA's impacts at the industry-specific level, the following section will present a broad assessment of the Lao PDR's trade performance as it might be affected by the ACFTA.

² Robert (2004) also uses the gravity model to explain trade flows within the ACFTA and argues that the trade partners are likely to gain from this agreement by 2010.

³ Plummer, Cheong, and Hamanaka (2010) comprehensively document all methodologies for the economic impact assessment of FTAs. The ex ante methods include the use of trade indicators, estimation of potential markets in individual markets, and development of the computable general equilibrium model. The ex post method includes FTA preference indicators, FTA trade and welfare indicators, and the gravity model.

Potential Impacts of the ACFTA on Selected Industries

It is too early to evaluate the actual impact of the ACFTA at the industry level given that its full implementation is yet to come. Therefore, the paper will evaluate the impacts of the ACFTA by examining case studies of three industries that represent FDI-led (motorcycle assembly), import substitution (cement), and domestic (wood processing) industries.

Motorcycle Assembly

Industry overview

The development of the Lao PDR motorcycle assembly industry was initiated in the early 1990s. The two premier assemblers are Honda and Suzuki. In 2003, a number of PRC companies and Kolao, a giant company based in the Republic of Korea, also began assembling motorcycles in the Lao PDR. In addition to these large motorcycle assemblers, there are dozens of smaller PRC motorcycle assembly companies across the country providing a variety of motorcycles to meet domestic demand, often by assembling motorcycles that imitate popular Japanese models.

Initially, Honda and Suzuki assembled motorcycles under the complete knock down system before Honda shifted its production to the incomplete knock down system in response to competition from newly arrived PRC and Korean assemblers. At present, Honda, Kolao, and most PRC assemblers operate under the incomplete knock down system, while Suzuki and a smaller number of PRC assemblers have stuck with the complete knock down system. The assemblers’ local content is about 40% for Honda, 20% for Kolao, and 60% for most PRC firms. However, the gradual increase of domestic demand and the shift of production systems have led to a declining trend in imported motorcycles and a substantial increasing trend in imported parts. Motorcycles with engine displacements of 110 cubic centimeters (cc) and 115 cc comprise the majority of motorcycles sold in the Lao PDR, with a smaller number of 125 cc models being sold.

The ACFTA’s impacts on the industry

The Lao PDR motorcycle assembly industry is relatively small and young compared with the same industries in other ASEAN countries such as Indonesia, Malaysia, Thailand, and even Viet Nam. When tariffs and nontariff barriers are removed across ASEAN and the PRC, the Lao PDR motorcycle industry will be left competing against imports in domestic markets while enjoying expanded opportunities in overseas markets. To measure the competitiveness of the industry, this study compared current and future price differences between motorcycles assembled in the Lao PDR and imported motorcycles.

The simulations of price changes under the ACFTA employ two scenarios. The first scenario represents tariff changes according to the ACFTA scheme, which would lead to a reduction in the price of imported motorcycles (Table 1). The second scenario attempts to examine the competitiveness of Lao PDR motorcycles in a third country (Table 2). In this scenario, Lao PDR motorcycle assemblers try to penetrate a major neighboring motorcycle market such as that of Thailand.

Under the first scenario, our analysis shows that the price competitiveness of motorcycle assemblers varies substantially. Kolao motorcycles, PRC motorcycles assembled in the Lao PDR, and locally assembled Suzuki motorcycles remain competitive in domestic markets

Table 1: Prices of Lao PDR Motorcycles in the Lao PDR and Thai Markets (baht)

Manu- facturer	Brand	Engine Displace- ment (cc)	Local Assembly or Imported	Price in Lao PDR Market			Price in Thai Market		
				2010	2015	2020	2010	2012	2018
Honda	Wave 110	110	Local	65,500	65,500	65,500	120,620	94,420	84,595
	Click	110	Thai	80,000	70,940	64,040	44,000	44,000	44,000
	Scoopy-i	110	Thai	77,000	68,322	61,677	44,300	44,300	44,300
	Wave 110i	110	Thai	65,500	58,000	52,403	36,000	36,000	36,000
	Air Blade i	110	Thai	92,320	81,720	73,770	53,000	53,000	53,000
	Air Blade i	110	Thai	97,540	86,340	77,940	56,000	56,000	56,000
Yamaha	Fino	115	Thai	72,000	68,630	61,955	44,500	44,500	44,500
	Mio	115	Thai	77,000	64,010	57,785	41,500	41,500	41,500
	Nouvo MX 2009	115	Thai	85,360	75,560	68,210	49,000	49,000	49,000
Suzuki	Smash Revolution	110	Thai	63,610	56,310	50,835	36,500	36,500	36,500
	Smash Junior	110	Local	42,000*	42,000*	42,000*	77,380	60,580	54,280
	Smash Revolution	110	Local	52,000*	52,000*	52,000	95,780	74,980	67,180
	Smash Unlimited	110	Local	44,500*	44,500*	44,500*	81,980	64,180	57,505
Kolao	Sonata	110	Local	19,900*	19,900*	19,900*	36,716*	28,756*	25,771*
	My Love	110	Local	27,900*	27,900*	27,900*	51,436	40,276*	36,091*

cc = cubic centimeter, Lao PDR = Lao People's Democratic Republic.

Notes:

1. Prices of imported motorcycles are estimated based on current retail prices in Thailand, duty tax under the Association of Southeast Asian Nations–People's Republic of China Free Trade Agreement, Lao PDR domestic excise tax of 20%, Lao PDR domestic value-added tax of 10%, transport costs of B100 per unit, and administration cost of 4%.
2. The prices of locally assembled motorcycles and imported motorcycles are the retail prices at motorcycle shops in Vientiane. Prices of local motorcycles are assumed to remain constant from 2010 to 2020.
3. * indicates that the product is price-competitive with the nearest competitor.

Sources: National Economic Research Institute interviews with motorcycle shop owners in Vientiane in 2010; and <http://www.motorcycle.in.th/>

after the ACFTA has been fully implemented. On the other hand, locally assembled Honda motorcycles become uncompetitive. However, the territorial restrictions of their parent companies—such as a ban on sales in foreign markets in which Honda manufactures motorcycles locally—would protect them for a number of years. Finally, 125 cc motorcycles seem to be relatively more competitive than 110 cc and 115 cc models.

Under the scenario of competition in a third market such as Thailand, there is room for Kolao and PRC motorcycles assembled in the Lao PDR to enter the market. However, the price gap between Lao PDR and Thai motorcycles is small, while the (real and perceived) gap in quality tends to be quite high. Only after these brands have established sound reputations, improved their research and development capacities, and invested more in product development than in

Table 2: Prices of Lao PDR Motorcycles in the Lao PDR and Thai Markets (baht)

Manu- facturer	Brand	Engine Displace- ment (cc)	Local Assembly or Imported	Price in Lao PDR Market			Price in Thai Market		
				2010	2015	2020	2010	2012	2018
Honda	Wave 125	125	Local	75,000	75,000	75,000	138,100	108,100	96,850
	Dream 125	125	Local	63,900*	63,900	63,900	117,676	92,116	82,531
	Wave 125	125	Thai	74,920	66,320	59,870	43,000	43,000	43,000
	Wave 125	125	Thai	85,360	75,560	68,210	49,000	49,000	49,000
Yamaha	Mio GT 125	125	Thai	76,660	67,860	61,260	...	...	...
	Nouvo MX 2009	115	Thai	85,360	75,560	68,210	...	...	...
Suzuki	Jelato 3-Star	125	Thai	79,966	70,786	63,901	44,000	44,000	44,000
	Step New Color (UY125S-G)	125	Thai	71,440	63,240	57,090	45,900	45,900	45,900
	Smash Step Automatic	125	Local	54,000*	54,000*	54,000*	41,000	41,000	41,000
Koloa	My Love	125	Local	29,700*	29,700*	29,700*	99,460	77,860	69,760
	Veracruz	125	Local	32,700*	32,700*	32,700*	51,778	45,838	41,383*
	Sorento	125	Local	28,900*	28,900*	28,900*	56,998	50,458	45,553
PRC	Fekon	125	Local	22,500*	22,500*	22,500*	50,386	44,606	40,271*
	Longsin	125	Local	21,500*	21,500*	21,500*	41,500	32,500*	29,125*
	Fino Haobo	125	Local	37,500*	37,500*	37,500*	39,660*	31,060*	27,835*
	Hongxin	125	Local	19,000*	19,000*	19,000*	69,100	54,100	48,475
	Dafeng	125	Local	26,000*	26,000*	26,000*	33,160*	29,360*	26,510*
	Shinery	125	Local	23,000*	23,000*	23,000*	45,340	40,140*	36,240*

... = not applicable, cc = cubic centimeter, PRC = People’s Republic of China, Lao PDR = Lao People’s Democratic Republic.

Notes:

1. Prices of Lao PDR motorcycles exported to Thailand are based on the current retail price in Vientiane, tariff rates under the Association of Southeast Asian Nations–People’s Republic of China Free Trade Agreement, Thai excise and multiple taxes of 13%, value-added tax in Thailand of 7%, transport costs of B100 per unit, and administration cost of 4%.
2. The prices of motorcycles in Thailand are the retail prices and are assumed to be constant from 2010 to 2018.
3. * indicates that the product is price-competitive with the nearest competitor.

Source: National Economic Research Institute interviews with motorcycle shop owners in Vientiane in 2010; and <http://www.motorcycle.in.th/>

product imitation will such price differences help them gain market share in Thailand. Therefore, the infant motorcycle industry in the Lao PDR needs to be developed through policies that enhance labor productivity and provide clear incentives for local industries to invest in research and development and train their workforces; through the enforcement of standards for quality, safety, environment, and intellectual property rights; and by raising awareness of commitments under the ACFTA and their potential impacts on the industry. Moreover, the industry should be forward-looking to exploit openings in potential markets such as the PRC, Thailand, and Viet Nam. Procedures and costs related to the import–export process need to be reduced and the Lao Automotive Association strengthened.

Wood Processing

Industry overview

The Lao PDR wood processing industry is at an early stage of development. In 2009, there were 1,089 furniture factories: 621 were medium- or large-scale factories and 468 were micro-scale, which are family-owned cottage industries serving the domestic market. Of the total, there were 251 factories with both primary and secondary wood processing operations. Feeding into the production process, raw materials management and allocation are based on a government quota system. Factories' current raw log quota allocation for production is insufficient to meet actual demand. The industry is characterized by low-skilled workers and seasonal shortages of labor, particularly during the rice planting and harvesting seasons when the workforce can be reduced by as much as 50%. Product design is traditional and characterized by bulky and material-consuming products.

Lao PDR export and import markets for wooden products are determined largely by geographic and logistical conditions. Wood product exports from northern Lao PDR are mainly destined for PRC markets, while those from central and southern Lao PDR are more likely to go to fellow ASEAN members. Imported wood products mainly come from the PRC, Thailand, and Viet Nam.

The export share of high-value-added wooden products, such as wooden furniture (HS 9403), remains relatively low compared with other exported wood products, while the import share of wooden furniture is comparatively higher than other imported wooden products. However, due to the government's policy banning the export of raw logs and primary wood processing products, exports of high-value-added products such as wooden furniture are gradually increasing, with the major importers being the PRC, Thailand, and Viet Nam (Table 3).

Table 3: Lao PDR Exports and Imports of Wood Products, 2001–2008

Item	2001	2002	2003	2004	2005	2006	2007	2008
Total Lao PDR exports (\$ '000)	316,858	325,408	352,430	426,447	593,707	1,069,817	1,140,705	1,052,220
Exports of wood and wood products (HS 44) (%)	37.40	38.92	42.74	38.77	28.71	18.72	18.02	24.17
Exports of wooden furniture (HS 940330_60) (%)	0.01	0.04	0.04	0.05	0.11	0.09	0.09	0.14
Total Lao PDR imports (\$ '000)	635,526	629,621	758,516	960,635	1,145,979	1,471,327	1,870,155	2,279,254
Imports of wood and wood products (HS 44) (%)	0.09	0.06	0.08	0.22	0.09	0.07	0.14	0.11
Imports of wooden furniture (HS 940330_60) (%)	0.04	0.02	0.03	0.07	0.04	0.04	0.05	0.04

Lao PDR = Lao People's Democratic Republic.

Source: International Trade Center www.trademap.org

The ACFTA’s impacts on the industry

The Lao PDR’s wood processing industry currently enjoys government protections through import tariffs ranging from the lowest rate of 8% for fuelwood, wood in chips or particles, sawdust, and wood waste and scrap (HS 4401) to the highest rate of 25% for wooden furniture (HS 9403).⁴ As a result, the industry’s competitiveness, particularly in terms of prices, is impacted. Wood products are classified in the Normal List I of goods under the ACFTA scheme. By 2016, the tariffs on these goods will be eliminated. The commitment to eliminate these tariffs may put some pressure on the domestic wood processing industry given that the Lao PDR still imports a relatively large amount of high-value-added wood products, particularly from the PRC, which ranks second among global exporters of high-value-added wood products and fourth among exporters of wood furniture (UN Comtrade 2001).

To evaluate the ACFTA’s impacts on the wood product industry, Table 4 compares the prices of domestic and imported furniture from the PRC before and after 2015. Due to current tariff restrictions, the Lao PDR’s furniture industry can compete with imported furniture fairly well. For example, in 2009, the retail price of a bed made of teak wood was KN4,200,000 compared with KN5,095,000 for a similar bed from the PRC. However, when the ACFTA’s tariff reductions are fully implemented, the price competitiveness of Lao PDR furniture will

Table 4: Prices of Domestic and Imported Furniture in Lao People’s Democratic Republic, 2009 and 2015 (KN)

Item	2009 Prices with Imported Furniture Subject to a 40% Tariff Rate	2015 Prices with Imported Furniture Not Subject to a Tariff under the ACFTA Scheme	Is the Furniture Price Competitive?	
			2009	2015
Teak bed (Lao People’s Democratic Republic)	4,200,000	4,200,000	Yes	Yes*
Bed (People’s Republic of China)	5,095,000	3,057,000	No	Yes
Round table with four seats (Lao People’s Democratic Republic)	3,000,000	3,000,000	Yes	No
Round table with four seats (People’s Republic of China)	3,035,000	1,821,000	Yes	Yes

ACFTA = Association of Southeast Asian Nations–People’s Republic of China Free Trade Agreement.

* denotes a weak conclusion.

Notes:

1. Expected prices are based on current market prices and the tariff reduction schedule.
2. Conclusions on price competitiveness in 2009 and 2015 compare the price of furniture made in the Lao People’s Democratic Republic with comparable imports.
3. This comparison only provides an approximation of price differentials and cannot account for potential consumer bias in terms of materials used to make furniture. Imported furniture products, in general, are made from non-hardwood and other non-wood materials, and are segmented to mass market demand. On the other hand, furniture products from the Lao People’s Democratic Republic are mostly made from hardwood and target high-end markets.

Source: Authors’ estimates based on field survey.

⁴ Between these low and high tariff rates, the rate is 15% for fiberboard of wood or other ligneous materials (HS 4411); 15% for wooden frames for paintings, photographs, mirrors, and similar objects (HS 4414); 20% for plywood, veneered panels, and similar laminated wood (HS 4412); and 20% for tableware and kitchenware (HS 4419).

change significantly as furniture imported from the PRC will be less expensive than domestically produced furniture.

More than 400 small furniture factories serving the domestic market will soon face increased competition from firms in other ASEAN countries and the PRC that are known for producing well-designed, higher-quality furniture. In general, the demand for furniture is unlikely to be determined by prices, but rather by product design, customer satisfaction, and personal tastes. Laotians seem to prefer furniture made of hardwood. This shields a particular segment of the Lao PDR furniture market from lower-priced imported products that are made of non-hardwood. However, imported products cover a wider range of product design and are of better quality, making possible changes in the preferences of Laotian consumers. From interviews with the owners and managers of many small furniture factories, it was learned that sale volumes are already decreasing because more furniture is being imported, particularly from the PRC and Thailand, even though the prices of imports are higher than those for domestic products. Therefore, under the ACFTA scheme, small domestic furniture factories will soon face the challenge of price competition in addition to competition with respect to quality and design.

Table 5 shows a SWOT analysis for the Lao PDR wood processing industry based on interviews with wood processing companies. Although the Lao PDR benefits from strengths such as natural resource endowment (forests) and low labor costs, these strengths are not sustainable in the long term. With regard to opportunities, the market for wood products and furniture is expected to grow; the ASEAN and PRC markets are already open to Lao PDR exports of wooden furniture. Weaknesses and threats exist in terms of quality, design, and other fundamental problems within the Lao PDR wood product industry.

Table 5: Lao People's Democratic Republic Wood Product Industry SWOT Analysis

Strengths Business environment: higher forest coverage than in neighboring countries Production: low labor costs	Weaknesses Production: low product quality, unattractive product design, especially for European customers; low labor productivity; low management skills; high level of waste; huge volumes of valuable raw materials not utilized; lack of working capital; old machinery and little reinvestment Business environment: high electricity costs; high transport costs; lack of skilled workers; logging under government direction (e.g., quotas, state-owned companies)
Opportunities Production: unused capacity in saw mills, pulp and paper industry to expand, development of big plantations Demand: increasing domestic demand for construction products; international niche markets such as eucalyptus wood; domestic and international tourism industry (hotels, resorts); benchmarking and best practices from major competitors (Philippines, Viet Nam)	Threats Increasing labor costs New competitors (e.g., the People's Republic of China and Thailand) Deforestation for agricultural use due to increasing population

SWOT = strengths, weaknesses, opportunities, and threats.

Source: Authors' compilation.

Cement Industry

Industry overview

The demand for cement in the Lao PDR has increased substantially since it began to develop in the 1990s and might even double from its current level by 2015. On the supply side, the industry is able to respond to almost 70% of total domestic demand and is expected to meet an increased share of domestic demand by 2015 after the construction of several new cement plants.

The Lao PDR cement industry produces two types of cement and has gradually won the trust of local consumers. The distribution of cement is concentrated in only a few provinces located close to the plants. Due to domestic transport constraints, areas located far from the plants rely on imported cement from neighboring countries, especially Thailand and, to a lesser extent, the PRC and Viet Nam. This means that Lao PDR cement is able to compete with imported cement only in areas where domestic infrastructure is well developed such as in the central region and its surroundings. This will be one of the key challenges facing the cement industry under the ACFTA scheme.

The Lao PDR cement industry enjoys protections from the government through tariffs and, more importantly, quantitative restrictions. Table 6 shows the importance of the quantitative restrictions and how these will continue to play a major role in protecting the Lao PDR cement industry until the quota on cement is completely eliminated under the ACFTA.

Table 6: Lao People’s Democratic Republic Cement Production and Imports, 2002–2009 (tons)

Item	Portland Cement (HS 252329)							
	2002	2003	2004	2005	2006	2007	2008	2009
Total production	238,453	324,707	331,868	467,387	563,599	788,448	889,025	1,156,000
Total imports	277,775	225,042	249,826	219,698	378,261	258,739	378,865	395,377

Source: Production data are from the Lao People’s Democratic Republic Cement Industry Group. Import data taken from www.trademap.org

The ACFTA’s impacts on the industry

ACFTA commitments as they apply to the Lao PDR cement industry include both reductions in tariffs and the removal of quantitative restrictions. Cement falls within Normal Track I, under which the tariff has to be completely removed within 5 years. Currently, the tariff rate on the types of imported cement that are also produced domestically (HS 252329) is 8%, which is a recent reduction from the longstanding rate of 10%. In 2011, the rate was scheduled to be cut to 5% before being reduced to 0% by 2015. For other types of cement that are not domestically available, such as hydraulic cement, the tariff rate will remain at 5% until 2014 and will fall to 0% in 2015.

The evaluation of the impacts of the ACFTA on the Lao PDR cement industry employs a simple comparison of prices between domestic cement and imported cement from the PRC, Thailand, and Viet Nam before and after the imposition of tariff reductions. The comparison of

prices only covers cement that is available in private markets. Imported cement allowed by the government for large construction projects is not included. The selected areas of comparison cover the home provinces of the cement plants and provinces bordering countries that are the main exporters of cement to the Lao PDR.

The results in Table 7 show that Lao PDR cement can compete with imported cement on a price basis fairly well, especially in provinces close to cement plants. Specifically, the Lao PDR cement industry can compete with Thai cement in all major provinces, except those that are far from the cement plants and closer to bordering countries. Second, the price competitiveness of Lao PDR cement will fall substantially when tariffs are fully eliminated. This effect will be particularly severe in the provinces that are far removed from domestic plants. Third, Lao PDR cement will have difficulty competing with imports in terms of quality. While some Lao PDR cement products have improved in quality since the 1990s, in general the quality of domestic cement is lacking when compared to the quality of imported cement, especially with regard to cement used in heavy construction.

In addition to actual differences in quality between domestic and imported cement, Lao PDR producers also face problems with perceptions about the low quality of their products. As price differences become less favorable to Lao PDR cement under the ACFTA scheme, the gap in quality perceptions will play a much stronger role in the decision making of domestic consumers. Knowing this, it is possible that Thai cement producers will increase their prices in Lao PDR markets where domestic producers are located in order to seize higher profits. They might be able to do so based on the reputations of their brands; if the prices for Thai cement are not much higher than those for Lao PDR cement, consumers are likely to choose Thai cement based on the perception of superior quality. Finally, the expected increase in the production and capacity of Lao PDR cement producers could be either an opportunity to meet increased domestic demand or a challenge in terms of downward pressure on prices (and profits) from an oversupply of cement.

Conclusion and Policy Recommendations

In general, the evaluation of the three industries under this study shows that price competitiveness will fall substantially in all cases after tariffs have been completely removed under the ACFTA. However, the degree of impact varies substantially across industries. For domestic industries, such as wood products, and import-substituted industries, such as cement, both price competitiveness and product quality will become issues when tariffs are removed. Ensuring product quality in the face of increased competition from neighboring countries will be crucial for both industries in order to maintain domestic market share and expand into ASEAN and PRC markets. For an industry led by foreign direct investment, such as motorcycle assembly, the concern over price competitiveness seems to be less significant across all motorcycle brands. However, product quality and reputation will be a very important issue for Lao PDR motorcycle assemblers, particularly Kolao and PRC brands, if they hope to penetrate the neighboring Thai market. The findings of these industry case studies complement many of the conventional arguments found in the theoretical and empirical literature on the potential negative impacts of regional free trade agreements on domestic industries.⁵ This

⁵ Particularly, the findings support the arguments of Gradziuk (2010) and Park, Park, and Estrada (2008), which are discussed in length on p. 24 of this paper.

Table 7: Prices of Domestic and Imported Cement by Province (KN/ton)

Location	Type of Cement	2009 Prices	2014 Prices	2015 Prices	Is Lao People’s Democratic Republic Cement Competitive?	
		(imported cement subject to 8% tariff rate)	(imported cement subject to 5% tariff rate)	(imported cement not subject to a tariff rate)	2009	2015
Vientiane	Lao P525 Red (Bull)	800,000		800,000	Yes*	No
	Lao P425 Blue (Bull)	750,000		750,000	Yes	No
	Lao P425 Green (Bull)	730,000		730,000	Yes	No
	Thai Portland (Elephant)	800,000	776,000	737,200	...	...
	Thai Mix	680,000	659,600	626,620	...	...
Khammouan	Lao P525 Red (Lion)	665,000		665,000	Yes	Yes
	Lao P425 Green (Lion)	600,000		600,000	Yes	Yes
	Lao P425 Blue (Bull)	700,000		700,000	Yes	Yes
	Thai Portland (Elephant)	810,000	785,700	746,415	...	...
	Thai Mix (Tiger)	765,000	742,050	704,948	...	...
	Thai Mix (Bird)	735,000	712,950	677,303	...	...
	Thai Portland (Diamond)	800,000	776,000	737,200	...	...
Savannakhet	Lao P525 Red (Bull)	720,000		720,000	Yes	Yes
	Lao P425 Blue (Bull)	640,000		640,000	Yes	Yes
	Thai Mix# (Tiger)	787,000		724,000	...	...
Champasak	Lao P425 Green (Bull)	680,000		680,000	Yes	Yes*
	Lao P425 Red (Bull)	740,000		740,000	Yes*	No
	Thai Portland (Elephant)	750,000	727,500	691,125	...	...
	Thai Mix (Bird)	740,000	717,800	681,910	...	...
	Thai Portland (TPI Red)	790,000	766,300	727,985	...	...
	Thai Mix (TPI Green)	700,000	679,000	645,000	...	...
Luang Prabang	Lao P525 Red (Deer)	730,000		730,000	Yes	Yes*
Prabang	Lao P425 Green (Deer)	690,000		690,000	Yes*	No
	Lao P525 Red (Bull)	830,000		830,000	Yes	No
	Lao P425 Blue (Bull)	760,000		760,000	Yes	No
	Thai Portland (Elephant)	860,000	834,200	792,490	...	...
	Thai Portland (Red Bull)	920,000	892,400	847,780	...	...
	Vietnamese Portland	690,000	669,300	635,835	...	...
	Oudomxay	Lao P525 Red (Bull)	910,000		910,000	Yes	No
Lao P425 Blue (Bull)		780,000		780,000	Yes	No
Thai Portland		980,000	950,600	903,070	...	...
PRC Portland		700,000	679,000	645,050	...	...

... = not applicable, PRC = People’s Republic of China.

* denotes a weak conclusion.

Notes:

1. Expected prices are based on current market prices and the tariff reduction schedule of the Association of Southeast Asian Nations–People’s Republic of China Free Trade Agreement.
2. Price competitiveness in 2009 and 2015 compares the price of Lao People’s Democratic Republic cement with comparable imports of similar quality.
3. Because of the lack of data, the price of Thai mix (Tiger) cement in Savannakhet is estimated to be about 3% higher than the same cement sold in Khammuane.

Source: Authors’ estimates based on current retail price data from the Ministry of Industry and Commerce and the Cement Producers Group.

paper supports the conclusion that negative adjustments are likely to be short term in nature. Yet, the findings suggest the importance of beginning preparations to adapt to the ACFTA scheme before the agreement is fully implemented.

In response to these challenges, the paper proposes the following policy recommendations specific to each industry. For the wood processing industry, measures should be taken to ensure clear policies that promote higher value-added wood processing, a fair allocation of the quota of raw logs that is consistent with factories' prior performances, and the enforcement of reforestation policy. Moreover, in order to market Lao PDR wood products better both domestically and internationally, there is a need to create more modern product designs—emphasizing efficient raw material use, lighter weight, and higher-value-added—and incorporate international designs according to ever-changing global trends and fashions.

For the cement industry, the government should continue to support a more favorable business environment, especially with respect to competitiveness. An assessment of domestic demand for cement and raw material availability should be conducted in order to prevent cement shortages that could lead to unnecessarily high prices. Other areas to be addressed include improving infrastructure and logistics systems to reduce transport costs, and bolstering the reputation of Lao PDR cement products. Moreover, given that future demand is promising, active investment in the cement industry should be considered in the context of economies of scale.

The infant motorcycle assembly industry needs to be supported through policies that enhance labor productivity and secure the enforcement of standards for quality and safety, and environmental and intellectual property rights. Moreover, policies should facilitate potential expansion into neighboring markets in the PRC, Thailand, and Viet Nam. To do so, the government should provide more attractive incentives for local industries to invest in research and development and training for their workforces. Awareness of ACFTA commitments and their potential impact on the industry should be raised, together with a strengthening of the nationwide motorcycle association. In addition, procedures and costs related to the import-export process need to be simplified and costs reduced.

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The Impacts of the Thailand–Australia Free Trade Agreement and Thailand–New Zealand Closer Economic Partnership on Thai Dairy Import Prices

Patcharee Suriya, Christopher Gan, Baiding Hu, and David A. Cohen

Abstract

This study investigates the impacts of the Thailand–Australia Free Trade Agreement and Thailand–New Zealand Closer Economic Partnership on Thailand’s dairy import prices. The study employs an import price model to examine the effects of a reduction in Thai tariffs for Australian and New Zealand dairy products on their prices.

Empirical results show that the effects of a reduction in tariffs for Australian and New Zealand dairy products on Thai import prices of dairy products from both countries are small. Other factors such as exchange rates, competitor prices, and drought have significantly larger effects. Surprisingly, the effect of import tariffs on Thai import prices for Australian and New Zealand dairy products are negative. This indicates that a tariff reduction by Thailand increases Australian and New Zealand exporters’ markups and raises Thai import prices for Australian and New Zealand dairy products. This is because import demand for dairy products in Thailand is inelastic. Thus, Australian and New Zealand exporters do not need to raise prices, because a tariff reduction effectively increases profit without any effort on the exporter’s part.

Introduction

Thailand is a small player in the world dairy market. Most Thai dairy farms are small-scale operations with an average of about 20 cows. Thai dairy farmers have low productivity and efficiency compared with world leaders in dairy production such as Australia and New Zealand.

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The Thai domestic raw milk supply is insufficient to meet domestic demand. Thai processors need to use both domestic raw milk and imported ingredients to produce several categories of dairy products, such as pasteurized and ultra-high-temperature (UHT) milk, condensed milk, evaporated milk, yogurt, butter, and cheese (Rabobank 2004).

Thailand's main dairy imports are concentrated milk and cream (skimmed and whole milk powder) and whey, which are important raw materials in dairy food processing. Buttermilk and yogurt, butter, cheese and curd, and nonconcentrated milk and cream make up only 20% of total dairy imports. The major source countries for dairy imports are Australia, the Czech Republic, France, Ireland, the Netherlands, New Zealand, and the United States. Thailand also exports some dairy products to neighboring Cambodia; the People's Republic of China; Hong Kong, China; Indonesia; the Lao People's Democratic Republic; Malaysia; Myanmar; the Philippines; and Singapore. The most important Thai dairy exports are concentrated milk and cream, a portion of which are reexports—that is, they are prepared for export using imported ingredients, thus they are functionally exported first from abroad, and then are reexported from Thailand. These are followed by nonconcentrated milk and cream, buttermilk and yogurt, and whey. Exports of butter, cheese, and curd are insignificant (Thailand Customs Department 2010).

In 2005, Thailand signed the Thailand–Australia Free Trade Agreement (TAFTA) and the Thailand–New Zealand Closer Economic Partnership (THNZCEP) Agreement (Thailand Department of Trade Negotiations 2005). Under these agreements, Thai dairy products are put on the “sensitive products” list, with tariff elimination for Australian and New Zealand dairy products phased out over a longer period than other products. Tariff rates for dairy products from the two countries will be steadily reduced to 0% by the end of 2025 (Australian Department of Foreign Affairs and Trade 2004, New Zealand Ministry of Foreign Affairs and Trade 2005). The trade agreements with both countries covering dairy products directly affect the Thai dairy market, yielding both advantages and disadvantages for Thai stakeholders. For example, a joint study investigating the benefits of a closer economic partnership agreement between Thailand and New Zealand showed that consumers and processors in Thailand would benefit from the agreement over dairy products (Thailand Ministry of Commerce and New Zealand Ministry of Foreign Affairs and Trade 2004). Thai consumers thus would have access to higher-quality dairy products at lower prices, while processors would work to reduce their production costs and improve their export competitiveness to Southeast Asian countries. This would lead to an increase in the demand for imported dairy ingredients. However, Rabobank (2004) has argued that the THNZCEP would have a negative effect on the Thai raw milk market. Thai dairy farmers would lose price competitiveness because the pledged price of Thai raw milk is higher than the price of imported dairy ingredients. Furthermore, processors prefer to use imported dairy ingredients because of their higher quality and lower prices.

The study employs an import price model to examine the effects of the Thai tariff reduction for Australian and New Zealand dairy products on the prices of Australian and New Zealand dairy products. This is the first study to evaluate the effects of TAFTA and the THNZCEP Agreement on the prices of Thai dairy imports from Australia and New Zealand.

An Overview of the Thailand–Australia Free Trade Agreement and Thailand–New Zealand Closer Economic Partnership Agreement

Under TAFTA, Thailand has eliminated tariffs on 2,724 items imported from Australia (49% of the products it imports from Australia) and Australia has abolished tariffs on 5,083 products from Thailand (83% of the products it imports from Thailand) (Australian Department of Foreign Affairs and Trade 2004). Similarly, under the THNZCEP Agreement, Thailand has cut tariffs to 0% for 2,978 New Zealand products (54% of the products it imports from New Zealand), whereas New Zealand has removed tariffs from 5,878 Thai products (79% of the products it imports from Thailand) (New Zealand Ministry of Foreign Affairs and Trade 2005). Tariffs on the remaining Thai exports will be phased out over a longer period, with special attention paid to products that might compete with sensitive sectors of the New Zealand marketplace, such as dairy and beef products. These will be duty-free and nonquota by 2025, whereas Australia and New Zealand will be completely liberalized for products from Thailand by 2015. In addition, all products that qualify for a tariff reduction must comply with rules of origin.¹

Under TAFTA and the THNZCEP Agreement, the respective parties are obligated to set up procedures to resolve business obstacles in terms of rules of origin, phytosanitary measures, customs processes, intellectual property, electronic commerce, competition policy, and transparency. In addition, all three countries agree to share information and cooperate in these areas to develop their business environment, according to their respective agreements (Australian Department of Foreign Affairs and Trade 2004, New Zealand Ministry of Foreign Affairs and Trade 2005).

The trade agreements have also established cooperation in services and investment. For example, Thai chefs and massage therapists who have specialist certificates may apply for an Australian or New Zealand work visa without taking a skills test. Similarly, Australian and New Zealand businesspeople and their spouses can easily enter Thailand.

Under the TAFTA terms, Australia permits 100% Thai ownership of companies that operate businesses in Australia, excluding the audiovisual, broadcasting, and media sectors; and Australian international and domestic airlines, Australian airports, and Telstra (Australia's largest telecommunication company). Thailand, however, allows up to 50% Australian ownership in any business and provides greater market access of up to 60% for Australian companies in mining, distribution, construction, management consulting and hospitality ventures, science and technology institutions, and maritime cargo services. Under the THNZCEP Agreement, New Zealand and Thailand must support access for 100% equity participation from overseas investors. Thailand allows New Zealand entrepreneurs to invest in manufacturing subsectors such as machinery, appliances, software production, food processing, paper products, and furniture; and Thai entrepreneurs may invest in any business in New Zealand except fisheries (New Zealand Ministry of Foreign Affairs and Trade 2005).

The content focusing on dairy products is very similar in both agreements. Thailand included their dairy products on the sensitive products list. Tariff elimination for Australian

¹ Rules to establish the country of origin of imported and exported goods and to help identify those which qualify for lower or nil customs duty (World Trade Organization 2002. Rules of origin regimes in regional trade agreements. WT/REG/W/45).

and New Zealand dairy products is therefore to be phased out over a longer period than for other products. Tariff rates for dairy products from the two countries will gradually decrease to 0% over different time periods. For instance, tariffs on skim milk powder and liquid milk will be eliminated in 2025 because these products significantly impact Thai dairy farmers. Tariffs on whole milk powder, butter, and cheese will be eliminated in 2020. Tariffs for buttermilk and evaporated milk will be eliminated in 2015. Tariffs on whey were eliminated in 2009 and tariffs for butterfat in 2008. However, tariffs on other dairy products such as milk powder and milk food for infant feeding, caseinates, and lactose, which Thailand does not produce, will be eliminated once the agreement is implemented (Table 1).

Some dairy products, such as whole milk powder, buttermilk, cheese, sweetened whole milk powder, butter, and evaporated milk, are protected by special safeguards and tariff rate quotas, which reduce tariff rates step by step and increase the trigger volume (i.e., the volume at which the special safeguard measure is applied) by 5% annually. However, if import volumes are larger than the trigger volume, the surplus will be taxed at 90%, under the most-favored-nation tariff clause under Article 1 of the World Trade Organization's General Agreement on Tariffs and Trade (New Zealand Ministry of Foreign Affairs and Trade 2005). Therefore,

Table 1: Tariff Reduction Program for Dairy Products under the Thailand–Australia Free Trade Agreement and the Thailand–New Zealand Closer Economic Partnership Agreement

Dairy Products	Previous Tariff	Phaseout
Milk powder and milk food for infant feeding	5%	Eliminated 1 Jul 2005
Skimmed milk powder	5% (under quota) 216% (over quota)	Tariff and quota removed 1 Jan 2025
Whole milk powder	18%	Reduced to 15%, 1 Jul 2005 Phased to 0%, 1 Jan 2020 (SSG)
Butterfat	5%	Eliminated 1 Jan 2008
Buttermilk	18%	Reduced to 15%, 1 Jul 2005 Phased to 0%, 1 Jan 2015 (SSG)
Cheese	30%	Phased to 0%, 1 Jan 2020 (SSG)
Sweetened whole milk powder	18%	Reduced to 15%, 1 Jul 2005 Phased to 0%, 1 Jan 2020 (SSG)
Other dairy preparations	5%	Eliminated 1 Jul 2005
Caseinates	5%	Eliminated 1 Jul 2005
Lactose	1% (under quota) 10% (over quota)	Eliminated 1 Jul 2005
Butter	30%	Phased to 0%, 1 Jan 2020 (SSG)
Whey	5%	Reduced to 3%, 1 Jan 2008 Eliminated 1 Jul 2009 (SSG)
Evaporated milk	30%	Phased to 0%, 1 Jan 2015 (SSG)
Liquid milk and cream	20% (under quota) 41% (over quota)	Tariff and quota removed 1 Jan 2025

SSG = special safeguard.

Sources: Australian Department of Foreign Affairs and Trade (2004); New Zealand Ministry of Foreign Affairs and Trade (2005).

domestic producers will have time to adjust their production efficiency and improve their competitive ability before facing duty-free imported milk.

Method and Data

Data

The import price models for Thai dairy imports from Australia and New Zealand were estimated using data from the first quarter of 1991 to the fourth quarter of 2009 for six dairy product categories following the four-digit level of the Harmonized Commodity Description and Coding System (HS) of tariff nomenclature: concentrated milk and cream (HS0402), buttermilk and yogurt (HS0403), whey (HS0404), butter (HS0405), cheese and curd (HS0406), and total dairy products. Nonconcentrated milk and cream (HS0401) was not included in the analysis because import price data were missing for the study period. The data were obtained from the Information and Communication Technology Centre; the Office of the Permanent Secretary, Ministry of Commerce, Thailand; the Customs Department of Thailand; and the Bank of Thailand.

Import Price Model

The conceptual framework used in the study is based on exporter profit maximization under imperfect competition (Tantirigama 2006, Mallick and Marques 2008). The import demand is determined by the import price. The import price is the foreign export price denoted in the importer currency, which is expressed by

$$p_m = p_e(1 + t), \tag{1}$$

where p_m is the price in the importer currency, p is the price in the exporter currency, e is the exchange rate in terms of the importer currency per unit of the exporter currency, and t is the import tariff.

The study employs the import price model to investigate the effects of the Thai tariff reduction for Australian and New Zealand dairy products on the prices of these dairy products. The prices of Thai dairy imports from the two countries are determined from exchange rates, import tariff rates, competitor prices, input costs, exporter market shares in Thailand, and a dummy variable for drought in exporting countries. This relationship is expressed as a double log-linear form, estimated by regressing separately for each exporting country and dairy product:

$$\begin{aligned} \ln pm_{ikt} = & \alpha_{ik} + \beta_{1ik} \ln e_{it} + \beta_{2ik} \ln tar_{ikt} + \beta_{3ik} \ln cp_{ikt} + \beta_{4ik} \ln mc_{it} \\ & + \beta_{5ik} \ln z_{ikt} + \beta_{6ik} D_{it} + v_{ikt}, \end{aligned} \tag{2}$$

$i = \text{Australia or New Zealand}; k = 1, \dots, m; \text{ and } t = 1, \dots, T,$

where

$\ln pm_{ikt}$ = log import price (unit value) of dairy product k from exporter i (Australia and New Zealand) denoted in Thai baht;

- $\ln e_{it}$ = log exchange rate defined as Thai currency per exporter i 's currency;
 $\ln tar_{ikt}$ = log average import tariff rate for Thai dairy import k from exporter i ;
 $\ln cp_{ikt}$ = log competitor price of exporter i for dairy product k (unit value denoted in Thai baht);
 $\ln mc_{it}$ = log input cost for dairy products of exporter i ;
 $\ln z_{ikt}$ = exporter i 's market share for dairy product k in Thailand;
 D_{it} = dummy variable for drought in exporting countries where D_{it} equals 1 if country i encounters drought in year t ; 0 otherwise;
 α_{ik} = constant terms among source country i for dairy import k ;
 $\beta_{1ik}, \beta_{2ik}, \beta_{3ik}, \beta_{4ik}, \beta_{5ik}, \beta_{6ik}$ are elasticities of the import price of dairy product k from exporter i with respect to exchange rate, tariff rate, competitor price, exporter input cost, exporter market share, and the dummy variable for drought in exporting countries;
 V_{ikt} = disturbance term; and
 β_{1ik} = degree of exchange rate pass-through of dairy products from different source countries, which explains how the prices of dairy imports denoted in Thai baht changes with respect to the exchange rate movement.

The degree of exchange rate pass-through can indirectly reflect the degree of pricing-to-market, which explains how a dairy exporter adjusts its price in the domestic currency according to exchange rate fluctuations or the degree of pricing-to-market and indicates the market competition status in the Thai dairy import markets (Tantirigama 2006).

If $\beta_{1ik} = 0$, there is no exchange rate pass-through. This represents the import price expressed in Thai baht and is unchanged with respect to an increase in the exchange rate (effectively currency devaluation) because an exporter fully reduces its markup to stabilize the price in Thailand. If $\beta_{1ik} = 1$, there is a complete exchange rate pass-through into the price of Thai dairy imports. When the Thai baht moves higher against the exporter currency, the exporter does not adjust its domestic currency markup or price (non-pricing-to-market). Therefore, the import price expressed in Thai baht increases proportionally with the Thai currency devaluation. This relationship implies that the Thai dairy import market meets the conditions of perfect competition. If $\beta_{1ik} < 1$, it implies that there is a less-than-complete exchange rate pass-through into the import price, known as an incomplete exchange rate pass-through. When devaluation of the Thai baht (or appreciation of the exporter currency) occurs, the exporter partially reduces the markup to maintain its market share, hence the import price expressed in Thai baht increases incompletely with Thai currency devaluation. If $\beta_{1ik} > 1$, it implies that there is a more-than-complete exchange rate pass-through into the import price. The exporter increases the markup partially according to the devaluation of the Thai baht, and then the import price expressed in Thai baht increases more than the exchange rate changes (Table 2). The last two cases both imply that the Thai dairy import market is in imperfect competition.

There is an inverse relationship between the degree of pricing-to-market (PTM) and the degree of exchange rate pass-through (ERPT), in which $PTM = 1 - ERPT$. If the degree of exchange rate pass-through is low, the degree of pricing-to-market is high (Pholphirul 2007). If the coefficient of exchange rate pass-through (β_{1ik}) is known, we can approximate the absolute value of the degree of pricing-to-market by $1 - \beta_{1ik}$ (Tantirigama 2006). This study also reveals the pricing behavior of Australian and New Zealand dairy exporters in the Thai dairy market.

The elasticity of the import price with respect to the tariff (β_{2ik}) is expected to be positive, indicating a tariff rate pass-through into the import price. The interpretation of the tariff

Table 2: Relationship of the Exchange Rate Pass-Through and Pricing-to-Market

Type of Exchange Rate Pass-Through	Exchange Rate (B/NZ\$)	Export Price (NZ\$)	Import Price (B)	Type of Pricing-to-Market
No exchange rate pass-through ($\beta_{1ik} = 0$)	Increased 1% (depreciation)	Reduced markup 1%	Unchanged	Negative complete pricing-to-market
Complete exchange rate pass-through ($\beta_{1ik} = 1$)	Increased 1% (depreciation)	Unchanged markup	Increased 1%	No pricing-to-market
Less-than-complete (incomplete) exchange rate pass-through ($\beta_{1ik} < 1$)	Increased 1% (depreciation)	Partially reduced markup	Increased less than 1%	Negative partial pricing-to-market
More-than-complete exchange rate pass-through ($\beta_{1ik} > 1$)	Increased 1% (depreciation)	Partially increased markup	Increased more than 1%	Positive partial pricing-to-market

Source: Tantirigama, M. 2006. Exchange Rate Pass-Through and Pricing-to-Market: The Study of New Zealand (1988–2003). Doctor of Philosophy thesis, Lincoln University, New Zealand.

rate pass-through is similar to the exchange rate pass-through. If $\beta_{2ik} = 0$, there is no tariff rate pass-through. When the Thai tariff rate for Australian and New Zealand dairy products decreases, exporters from both countries increase their markup or price in proportion to the tariff reduction; hence, the import price in Thai baht is constant. If $\beta_{2ik} = 1$, there is a complete tariff rate pass-through. The import price of dairy products in Thai baht decreases proportionally with the tariff reduction because the exporters keep their markups stable. If $\beta_{2ik} < 1$, there is an incomplete tariff rate pass-through. The import price of dairy products in Thai baht partially decreases with the tariff reduction because the exporter partially increases its markup or price in the local currency. If $\beta_{2ik} > 1$, there is a more-than-complete tariff rate pass-through. The exporter partially decreases its markup or price of dairy products in the local currency due to the tariff reduction, and then the import price in Thai baht decreases more than the tariff reduction (Tantirigama 2006, Nicita 2009).

The elasticity of the import price with respect to the competitor price is expressed as β_{3ik} . A positive effect of the competitor price on the import price indicates co-movement in the pricing strategy between the exporter and its competitor (Lee and Tcha 2005, Tantirigama 2006). The elasticity of import price with respect to the marginal input cost is β_{4ik} , which is expected to be positive. The elasticity of the import price with respect to exporter market share is β_{5ik} , which would be negative or positive. The coefficient of the drought dummy variable β_{6ik} in the exporting countries (β_{6ik}) is hypothesized to be positive.

The tests for the import price equation in this study include three hypotheses:

1. Complete exchange rate pass-through ($H_0 : \beta_{1ik} = 1$, all i and k).
2. Complete tariff rate pass-through ($H_0 : \beta_{2ik} = 1$, all i and k).
3. Symmetric pass-through of exchange rate and tariff ($H_0 : \beta_{1ik} = \beta_{2ik}$, all i and k).

These hypotheses imposed the restrictions in the regression analysis and are tested with Wald statistics.

Estimation of the Import Price Equation

The Australian and New Zealand price models are analyzed separately. In each country model, six price equations for six Thai dairy import categories are estimated simultaneously using

the seemingly unrelated regression equation (SURE). Both Zellner (1962) and later Greene (2002) argued that the SURE model is an efficient technique to analyze a system of multiple equations with cross-equation parameter restrictions and correlated error terms. Based on generalized least squares (GLS), SURE uses the correlations of the errors among different equations to improve the efficiency of parameter estimates, resulting in better estimates than those obtained by running ordinary least squares equations separately (Alaba, Olubusoye, and Ojo 2010). There are two methods for the SURE estimation: GLS and GLS with a first-order autoregressive (AR1). If serial correlation is present in the model, the GLS AR1 method can make adjustments, providing more efficient estimates than the GLS method (Greene 2002, Tantirigama 2006).

The GLS estimated results in all regressions show the presence of positive serial correlation among cross-section regressions. The estimated results by the GLS method in all regressions show the presence of positive serial correlation among cross-section regressions. The Durbin–Watson statistics in the Australian and New Zealand regression models have a value less than 2. To correct for the positive serial correlation, the GLS AR1 method was employed to reestimate all regressions. It can be clearly seen that all estimated results by the GLS AR1 method show higher adjusted R^2 and lower residual sums of squares than the GLS method. In addition, the Durbin–Watson statistics from the GLS AR1 method in all regressions increase and are closer to 2, which indicates no serial correlation. This evidence suggests that the GLS AR1 method provides more efficient and reliable results than the GLS method. Therefore, the estimated results from the GLS AR1 method are used to identify the determinants of the import price models for Thai dairy imports from Australia and New Zealand. The correlation coefficients show that dairy production costs, consumer income, and the industrial productivity index are highly correlated to other independent variables in each dairy product category. To avoid the problem of multicollinearity, these three variables are excluded from the Thai import price model for dairy products.

Results and Findings

The import price models for six Thai dairy imports from Australia are in Table 3 and those for dairy products from New Zealand are in Table 4. The models include exchange rate, import tariff, competitor price, and exporter market share, as well as a dummy variable for drought. Overall, the explanatory powers (adjusted R^2) and F-statistics suggest that the regression results in the model are efficient and reliable.

Import Price Models for Thai Dairy Imports from Australia

Exchange rate

The estimated coefficients of the Thai import prices for dairy products from Australia in terms of the exchange rate movement are positive and statistically significant in four dairy product categories: concentrated milk and cream, buttermilk and yogurt, butter, and total dairy products. When the Thai baht depreciates against the Australian dollar by 1%, import prices in Thai baht for Australian concentrated milk and cream increase by 0.53%, for buttermilk and yogurt by 0.43%, for butter by 0.30%, and for total dairy products by 0.33% (Table 3). The null hypothesis

Table 3: Import Price Models for Thailand Selected Dairy Imports from Australia Using Generalized Least Squares First-Order Autoregressive Method

Dairy Product	Concentrated Milk and Cream (HS0402)	Buttermilk and Yogurt (HS0403)	Whey (HS0404)	Butter (HS0405)	Cheese and Curd (HS0406)	Total Dairy Products
<i>Explanatory Variable</i>	<i>Estimated Coefficients</i>					
Constant	0.51 (0.43)	0.87 (0.79)	1.52 (1.63)	0.11 (0.40)	4.46*** (6.48)	1.21** (2.05)
Log of exchange rate	0.53*** (3.70)	0.43*** (3.23)	0.36 (1.54)	0.30*** (4.83)	0.20 (1.42)	0.33** (2.47)
Log of import tariff	(0.10) (1.47)	0.05 (0.93)	(0.19)* (1.71)	(0.03) (0.96)	(0.43)*** (6.02)	(0.11)* (1.68)
Log of competitor price	0.53*** (7.20)	0.72*** (9.93)	0.40*** (4.21)	0.78*** (28.47)	0.25*** (3.63)	0.52*** (8.20)
Log of market share	(0.01) (0.35)	(0.02) (1.31)	0.03 (0.98)	0.07*** (4.46)	(0.01) (0.18)	0.02 (0.59)
Dummy variable for drought	0.17*** (4.29)	(0.03) (0.63)	0.27*** (3.89)	0.003 (0.18)	0.003 (0.09)	0.15*** (4.22)
No. of observations	65	65	65	65	65	65
Degrees of freedom	59	59	59	59	59	59
Mean	4.31	4.13	3.33	4.25	4.70	4.23
Standard deviation	0.31	0.33	0.39	0.31	0.27	0.28
Residual sum of squares	0.53	0.82	1.65	0.19	0.53	0.53
R ²	0.9063	0.8701	0.8114	0.9658	0.8709	0.8853
Adjusted R ²	0.8983	0.8591	0.7954	0.9629	0.8600	0.8755
F-Statistics	114.10***	79.10***	50.70***	332.90***	79.60***	91.00***
Durbin-Watson	1.81	1.93	1.21	1.88	1.92	1.69
Autocorrelation coefficient	0.09	0.03	0.40	0.06	0.04	0.16
ρ used for AR1 ^a	0.46	0.12	0.36	(0.02)	0.17	0.33
<i>Hypothesis Testing</i>	<i>Wald Statistics</i>					
1. $H_0: \beta_{1i} = 1, \text{ all } i$	10.60***	17.90***	7.57***	123.61***	33.68***	24.23***
2. $H_0: \beta_{2i} = 1, \text{ all } i$	247.65***	367.43***	112.96***	1,258.46***	394.88***	293.20***
3. $H_0: \beta_{1i} = \beta_{2i}, \text{ all } i$	26.40***	9.68***	7.17***	36.45***	34.18***	15.87***

() = negative, AR1 = first-order autoregressive process, R² = coefficient of determination.

Notes: *** significant at 1%, ** significant at 5%, * significant at 10%. t-statistics are in parentheses.

^a ρ is the first-order autocorrelation coefficient of the residuals. It was first estimated and then used to transform the residuals. If the transformed residuals were still showing serial correlations, ρ was reestimated and the residuals re-transformed. This process was repeated until the transformed residuals were free of serial correlations. The reported ρ were such values that the residuals were free of serial correlations.

Source: Authors' calculations.

Table 4: Import Price Models for Thailand Dairy Imports from New Zealand Using Generalized Least Squares First-Order Autoregressive Method

Dairy Product	Concentrated Milk and Cream (HS0402)	Buttermilk and Yogurt (HS0403)	Whey (HS0404)	Butter (HS0405)	Cheese and Curd (HS0406)	Total Dairy Products
<i>Explanatory Variable</i>	<i>Estimated Coefficients</i>					
Constant	2.24*** 4.33	2.25*** 4.04	3.51** 1.98	1.16*** 3.76	3.34*** 3.08	2.18*** 4.13
Log of exchange rate	0.52*** 3.80	0.32** 2.18	(0.23) (0.51)	0.01 0.07	0.25 1.54	0.54*** 3.99
Log of import tariff	(0.03) (0.37)	(0.20)*** (3.40)	(0.16) (0.60)	(0.09)** (2.52)	(0.23)** (2.03)	(0.04) (0.63)
Log of competitor price	0.12*** 3.15	0.38*** 5.95	0.43* 1.93	0.81*** 18.03	0.29** 2.02	0.14*** 3.79
Log of market share	(0.07)** (2.42)	0.05** 2.25	(0.03) (1.15)	0.03** 2.10	0.01 0.35	(0.05)* (1.66)
Dummy variable for drought	0.19*** 4.34	0.15*** 2.94	0.19 1.52	0.04 1.63	0.12*** 2.84	0.18*** 4.38
No. of observations	60	60	60	60	60	60
Degrees of freedom	54	54	54	54	54	54
Mean	4.38	4.17	3.84	4.25	4.63	4.36
Standard deviation	0.26	0.38	0.43	0.33	0.27	0.27
Residuals sum of squares	0.94	1.09	4.37	0.36	0.89	0.82
R ²	0.7290	0.8545	0.5507	0.9391	0.7684	0.7800
Adjusted R ²	0.7039	0.8411	0.5090	0.9335	0.7470	0.7597
F-Statistics	29.10***	63.40***	13.20***	166.60***	35.80***	38.30***
Durbin-Watson	1.71	1.00	1.77	1.39	1.77	1.52
Autocorrelation coefficient	0.15	0.50	0.11	0.31	0.12	0.24
ρ used for AR1 ^a	0.39	0.31	0.61	0.07	0.26	0.42
<i>Hypothesis Testing</i>	<i>Wald Statistics</i>					
1. H ₀ : $\beta_i = 1$, all i	11.83***	21.79***	7.43***	156.50***	22.48***	11.39***
2. H ₀ : $\beta_{2i} = 1$, all i	200.24***	430.33***	18.80***	861.51***	120.24***	248.28***
3. H ₀ : $\beta_i = \beta_{2i}$, all i	18.15***	14.91***	0.02	1.54	8.65***	22.35***

() = negative, AR1 = first-order autoregressive process, R² = coefficient of determination.

Notes: *** significant at 1%, ** significant at 5%, * significant at 10%. t-statistics are in parentheses.

^a ρ is the first-order autocorrelation coefficient of the residuals. It was first estimated and then used to transform the residuals. If the transformed residuals were still showing serial correlations, ρ was reestimated and the residuals re-transformed. This process was repeated until the transformed residuals were free of serial correlations. The reported ρ were such values that the residuals were free of serial correlations.

Source: Authors' calculations.

of complete exchange rate pass-through to dairy import prices from Australia is rejected at the 1% level of significance. The result shows an incomplete exchange rate pass-through into Thai import prices for Australian concentrated milk and cream, buttermilk and yogurt, butter, and total dairy products. When the Thai baht depreciates, Australian dairy exporters partially reduce their markup to maintain their market share in Thailand. As a result, the import prices of Australian dairy products (expressed in Thai baht) increase by a proportion that is less than the depreciation for the baht. These results are consistent with Pholphirul's study (2003), which found incomplete exchange rate pass-through to Thai import prices in nine industries.

Import tariff rate

The estimated tariff rate coefficients for Australian dairy products are negative and statistically significant in three dairy product categories (whey, cheese and curd, and total dairy products). The results imply that when Thai import tariffs for the three Australian dairy products decrease by 1%, Thai import prices increase by 0.19% for whey, 0.43% for cheese and curd, and 0.11% for total dairy products. The null hypothesis of complete tariff rate pass-through to dairy import prices from Australia is rejected at the 1% level of significance. This implies the presence of an incomplete exchange rate pass-through in Thai import prices for Australian whey, cheese and curd, and total dairy products. When the Thai import tariff for an Australian dairy product decreases by 1%, Australian dairy exporters increase their domestic currency price by a proportion that is greater than the tariff reduction. As a result, the prices of Australian dairy products in Thai baht increase.

Similarly, the null hypothesis of the symmetry of the exchange rate and tariff rate pass-through is rejected in all Australian dairy product categories at the 1% level of significance. This implies that there is a difference between the exchange rate pass-through and tariff rate pass-through in all Australian dairy product categories. Therefore, it can be concluded that the response of import prices to exchange rate movements cannot be used to predict the effect of tariff changes in all Australian dairy product categories.

Competitor price

New Zealand dairy product prices are used as competitor prices for Australian dairy products in the Thai market. The estimated coefficients of New Zealand prices are positive and statistically significant in all dairy product categories. These findings show that there is significant positive co-movement in the pricing strategy between Australia and New Zealand. An increase in the prices of New Zealand dairy products results in an increase in the prices of Australian dairy products. The finding is consistent with Tantirigama's study (2006), which reported positive co-movement in the pricing strategy of the export price between Australian and New Zealand milk and cream, butter, and cheese and curd. Similarly, Lee and Tcha (2005) found the Australian export price of dressed sheep meat responded positively to the New Zealand export price.

Market share

The estimated coefficients for the Australian market share vary across dairy product categories, but the magnitudes of the estimated coefficients are small. Only the butter coefficient is positive and statistically significant. This result implies that a larger market share of Australian butter in Thailand results in an increase in markups and prices of the product in the Thai market. This reflects the monopolistic status of Australia in the Thai butter market.

Drought

Severe droughts in Australia in 2001, 2002, 2003, 2007, and 2008 led to a decrease in milk production in those years (Dairy Australia 2003, Armstrong et al. 2005, Jesse 2005, Griffith 2010). As a result, Australian dairy product prices increased significantly in the same years. The estimated coefficients for the dummy variable for drought in Australia are positive and statistically significant in concentrated milk and cream, whey, and total dairy products. These findings indicate that a drought in Australia leads to an increase in Thai import prices of dairy products from Australia.

Import Price Models for Thailand Dairy Imports from New Zealand

Exchange rate

The estimated coefficients of Thai import prices for dairy products from New Zealand with respect to exchange rate movement are positive and statistically significant in three dairy product categories: concentrated milk and cream, buttermilk and yogurt, and total dairy products. These results show that when the Thai baht depreciates against the New Zealand dollar by 1%, import prices (denoted in baht) of these New Zealand dairy products increase by 0.52% for concentrated milk and cream, 0.32% for buttermilk and yogurt, and 0.54% for total dairy products (Table 4).

The null hypothesis of complete exchange rate pass-through to dairy import prices from New Zealand is rejected at the 1% level of significance. This implies an incomplete exchange rate pass-through in Thai import prices for New Zealand concentrated milk and cream, buttermilk and yogurt, and total dairy products. When the Thai baht depreciates (or the New Zealand dollar appreciates), New Zealand dairy exporters partially reduce their markup to maintain their market shares in Thailand, hence the import price expressed in Thai baht partially increases. These results are consistent with the exchange rate pass-through theory and previous studies. For example, Pholphirul (2003) found incomplete exchange rate pass-through in the prices of Thai imports in nine industries ranging from 0.08 to 0.53. The degree of exchange rate pass-through in buttermilk and yogurt from New Zealand is 0.32, which is close to the 0.40 exchange rate pass-through coefficient for the food industry in Pholphirul's study.

Import tariff rate

Thai import tariffs are included in the import price models to measure the effects of import tariff changes on Thai import prices of dairy products from New Zealand. The effects of tariff changes on import prices are known as the degree of tariff rate pass-through into import prices.² The estimated elasticities of Thai import prices for dairy products from New Zealand with respect to the import tariff are negative and significant in only three dairy product categories: buttermilk and yogurt, butter, and cheese and curd. The results show that when Thai import tariffs for these three dairy products decrease by 1%, Thai import prices of these New Zealand dairy products increase by 0.20% for buttermilk and yogurt, 0.09% for butter, and 0.23% for cheese and curd (Table 4). The null hypothesis of complete tariff rate pass-through to dairy import prices from New Zealand is rejected at the 1% level of significance in these dairy product

² These refer to the response of the importer's tariff prices induced by the tariff changes. For example, an incomplete tariff pass-through implies that an increase in tariff leads to a partial increase in import prices because the foreign firm absorbs a partial effect of the tariff change by reducing its markup to stabilize the buyer's price and market share (Feenstra 1989, Mallick and Marques 2008).

categories. This implies that New Zealand dairy exporters increase their domestic currency price proportionately more than any decrease in the Thai import tariff. As a result, Thai import prices for New Zealand buttermilk and yogurt, butter, and cheese and curd increase.

Previous studies have documented positive effects of tariffs on import prices (Feenstra 1989, Mallick and Marques 2008, Nicita 2009). The signs of the estimated coefficients of import tariffs in this study do not conform to the hypothesized sign, but our findings are similar to Tantirigama's study (2006), which showed that import tariffs have a small negative impact on New Zealand import prices of motorcars from Australia, France, Italy, and the United States. The negative sign indicates that car exporters practice a more than proportionate decrease (increase) in their domestic currency prices due to an increase (decrease) in tariffs. Mallick and Marques (2008) argued that the negative tariff rate pass-through in Indian import prices of beverages and fibers is caused by an inelastic demand in these two sectors. Although the tariffs for beverages and fibers have been reduced, foreign exporters in these two sectors are able to increase their foreign currency prices more than proportionately to the tariff reduction.

Similarly, the null hypothesis of the symmetry of the exchange rate and tariff rate pass-through is rejected in all dairy product categories at the 1% level of significance. This implies that there is a difference between exchange rate pass-through and tariff rate pass-through in all dairy product categories. Therefore, the response of import prices to exchange rate movements cannot be used to predict the effect of a change in tariffs in all cases.

Competitor price

Australian dairy product prices are used as competitor prices for New Zealand dairy products in the Thai market. The estimated coefficients of Australian prices are positive and statistically significant in all dairy product categories. These results mean that the prices of Thai dairy imports from New Zealand increase when the prices of Australian dairy products increase. This indicates that there is a positive co-movement of New Zealand's pricing strategy with that of its competitor, Australia, in the Thai dairy import market.

The finding is consistent with previous studies. For example, Tantirigama (2006) found that New Zealand exporters responded positively to their competitors' prices of milk and cream in Thailand with an elasticity of 0.04, while elasticities in other Asian countries were between 0.01 and 0.31. The elasticity of the New Zealand export price of butter with respect to the Australian price in the main export destinations is between 0.05 and 0.39, while the elasticity of the New Zealand export price of cheese and curd with respect to the Australian price varies from -0.07 to 0.85 across its export destinations. In addition, the positive co-movement in the pricing strategy on the export price between Australia and New Zealand was also found in other products, such as sheep meat (Lee and Tcha 2005) and wool products (Tantirigama 2006).

Market share

The estimated coefficients for New Zealand's market share are negative and significant in concentrated milk and cream, and total dairy products. These results show that New Zealand exporters reduce their export price markup for concentrated milk and cream, and total dairy products when New Zealand's market shares for these two product categories in Thailand increase. This indicates that New Zealand's pricing strategy for concentrated milk and cream, and total dairy products in Thailand is based on perfect competition.

The estimated coefficients for New Zealand's market share in buttermilk and yogurt, and butter are positive and statistically significant. These results show that a larger market share of

New Zealand buttermilk and yogurt, and butter in Thailand results in an increase in the markups and prices in Thailand. This reflects the monopolistic status of New Zealand for these two dairy products in Thailand. New Zealand's market share of the total Thai import market is high, at 53% for buttermilk and yogurt and 30% for butter. The estimated coefficient for New Zealand's market share in butter is consistent with the study by Tantirigama (2006), which showed a positive effect of New Zealand's market share, and export price for butter in Asian countries.

Drought

Severe droughts in New Zealand led to a decrease in fresh milk production in 1998, 1999, 2001, 2003, 2007, and 2008 (New Zealand Treasury 2008). As a result, New Zealand dairy product prices increased significantly in those years. The estimated coefficients for the dummy variable for drought in New Zealand are positive and statistically significant in most dairy product categories (concentrated milk and cream, buttermilk and yogurt, cheese and curd, and total dairy products). These findings indicate that a drought in New Zealand leads to an increase in Thai import prices of dairy products from New Zealand.

Conclusion and Implications

The results of this study show that the pattern of pricing behavior of Australian and New Zealand dairy products in the Thai market is similar. Competitor price, drought, and exchange rate showed significant positive impacts on Thai import prices for dairy products from the two countries. Australian and New Zealand dairy exporters compete with each other in the Thai dairy import market and there is a significant positive co-movement in prices between Australian and New Zealand dairy products. Drought positively influences Australian and New Zealand dairy product prices. Severe droughts in New Zealand in 1998, 1999, 2001, 2003, 2007, and 2008; and in Australia in 2001, 2002, 2003, 2007, and 2008 led to a shortage of milk supply and a significant increase in prices of Australian and New Zealand dairy products as a result of reduced export volumes. Incomplete exchange rate pass-through into Thai import prices is found in most dairy products from Australia and New Zealand. When the Thai baht depreciates against the Australian and New Zealand currencies by 1%, the dairy exporters from the two countries partially reduce their markup to maintain their market shares in Thailand, hence the import price expressed in Thai baht increases by less than 1%. This implies the presence of monopolistic behavior by Australian and New Zealand dairy exporters in the Thai dairy import market.

The study documents that the effect of import tariffs on Thai import prices for Australian and New Zealand dairy products is negative. When Thailand reduced import tariffs on Australian and New Zealand dairy products, dairy exporters reacted by increasing their markups, thus partially (or totally) offsetting the tariff reduction. As a result, the prices of Australian and New Zealand dairy products in Thai baht increased. This indicates that the implementation of TAFTA and the THNZCEP Agreement has led to an increase in Thailand's import prices for Australian and New Zealand dairy products. However, an increase in dairy product prices would be a partial result of the depreciation of the Thai baht and the presence of monopolistic behavior by Australia and New Zealand in the Thai dairy import market. In addition, Thai consumers do not appear to mind paying extra for Australian and New Zealand milk products. Consumers may think these are of higher quality than Thailand's domestically produced items, with a wider range of product choices available as imports.

The effect of exporter market share on Thai import prices for Australian and New Zealand dairy products is minimal. The estimated coefficient for exporter market share shows mixed results across dairy products in both the Australian and New Zealand models. A significant positive relationship between exporter market share and price is found for New Zealand buttermilk and yogurt, and butter; and for Australian butter. This indicates that the Australian and New Zealand pricing strategies for these dairy products are based on monopolistic competition. A significant negative relationship between exporter market share and price is exhibited for New Zealand's concentrated milk and cream, and total dairy products. This reflects the perfect competition of New Zealand concentrated milk and cream, and total dairy products in Thailand. However, exchange rate, competitor price, and drought play a larger role than tariff rate and market share in the pricing of dairy products by Australia and New Zealand in Thailand's market.

The results from the import price models for Australian and New Zealand dairy products provide some information for Thai dairy processors and traders, helping them to predict the cost of dairy imports and to set their dairy product prices in Thailand. For example, Thai import prices for Australian and New Zealand dairy products increase significantly when competitor price, drought, and exchange rate increase. A reduction in Thailand's tariffs for dairy imports from Australia and New Zealand leads to an increase in Thai import prices for Australian and New Zealand dairy products. Thai policy makers can also apply the findings from the prediction of dairy import price to set the price guarantee for raw milk and the ceiling price for ready-to-drink milk (pasteurized and UHT). Most ready-to-drink milk products depend on imported milk ingredients such as powder and whey. If the import price of skim milk powder, whole milk powder, and whey increase, the price guarantee for raw milk and the ceiling price for ready-to-drink milk should increase.

The implementation of TAFTA and the THNZCEP Agreement helps trade liberalization in dairy products. However, the monopoly power of Australia and New Zealand in the Thai dairy market suggests that Thai policy makers should be concerned with improving competition between imported dairy products and domestic dairy products. The response of the Government of Thailand to market competition for Thai dairy farmers and processors should include dairy production assistance such as technical support and training programs, and low-interest loan support. Beyond continuing these initiatives, policy makers should also consider liberalizing the dairy market with other dairy-exporting countries such as the United States and member countries of the European Union. This will enhance global dairy trade liberalization and competition in the global dairy market.

The government should also increase cooperation with free trade agreement member countries on dairy industry development joint projects. For example, Fonterra (New Zealand's dominant dairy cooperative) is collaborating on a joint project focusing on milk quality improvement with the Government of Thailand. This cooperative venture aims to develop milk quality management systems and processes on farms and at milk chilling centers that will enhance the quality and safety of raw milk from farm to factory in Thailand. The transfer of technology or know-how between Thailand and countries that are members of a free trade agreement is a potentially powerful and suitable way to improve long-term dairy industry productivity and development in Thailand. This could also increase the export potential for local high-quality milk and help build Thailand's presence in the international dairy products marketplace.

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Seasonal Pattern and Effects of Shocks on Outbound Tourism from the People’s Republic of China: The Case of Thailand

Akarapong Untong, Vicente Ramos, Mingsarn Kaosa-ard, and Javier Rey-Maqueira

Abstract

This paper uses the case of Thailand, the first country to obtain approved destination status, to analyze two issues related to outbound tourism from the People’s Republic of China (PRC). The first objective is to measure and understand the seasonal behavior of PRC tourist arrivals to Thailand during 1985–2009. The study applies the X12-ARIMA method and the Gini coefficient to the analysis of seasonality. The results show that the PRC market had a higher degree of seasonal concentration than the other main nationalities of Thailand’s tourism. The second research issue is the measurement of the effects of major unexpected events that affected the tourism industry in Asia during 2000–2009. The results show that epidemic outbreaks had the greatest impact, followed by domestic turmoil and the 2005 tsunami.

Introduction

The World Tourism Organization (2010) ranking of international tourism spenders shows that the People’s Republic of China (PRC) had by far the fastest growth in expenditure on international tourism during 2000–2009. Ranking only seventh in 2005, it overtook France in 2009 to achieve fourth position. In 2009, expenditure further increased by an impressive 21%. PRC outbound tourists increased from 4.5 million in 1995 to 47.8 million in 2009 (CNTA 2010a). The World Tourism Organization (2003) predicts that outbound travel from the PRC will grow to about 120 million tourists by 2020, while the Pacific Asia Travel Association predicts that this figure will be reached in 2026 (Kaosa-ard 2007). Thus, in the near future, the PRC is expected to become the largest tourism market in the world and a factor driving the growth of the world’s tourism, especially in Asia and the Pacific.

In 1988, Thailand became the first country to achieve approved destination status (ADS)—a measure by the Government of the PRC that allows its residents to travel to selected

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countries for personal and leisure purposes, usually on all-inclusive package tours. Thailand consistently ranked among the top three destinations for PRC travelers in Asia and the Pacific during 1990–2009. However, new trends are challenging Thailand's position, in particular the current diversification of international destinations, the greater freedom of PRC outbound tourism, and the fact that due to its impressive outbound growth more countries are becoming increasingly aware of the importance of the PRC tourism market. Hence, many countries are aspiring to obtain a share of the PRC outbound tourism market and are beginning to develop marketing strategies oriented toward this market.

This paper analyzes outbound PRC tourism using the case of Thailand, the country with the longest history of welcoming PRC tourists. In particular, the paper focuses on two issues: (i) understanding the seasonal pattern of outbound PRC tourism and the effects on overall seasonality of an increase in the PRC market share, and (ii) measuring the effects of negative shocks on this market.

The results of these analyses will improve the understanding of PRC outbound tourism, and should help Thailand's tourism authorities adjust their tourism strategy for the PRC market. However, given the increasing interest from many countries in capturing part of the outbound PRC market, the results and the methodology proposed will be also useful to other destinations that wish to learn from Thailand's successful experience.

Literature Review

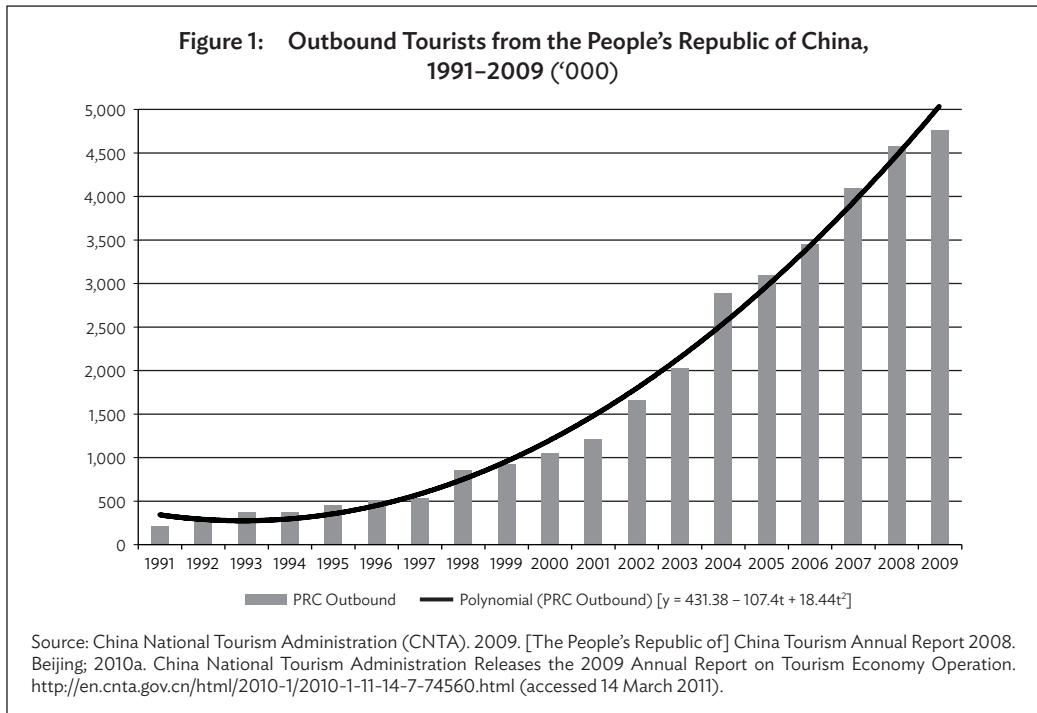
With a population of more than 1.3 billion and steady opening and reforms since 1978, the PRC economy has developed rapidly. Outbound tourism of PRC households has been increasing due to the rise in their disposable income (Kim, Guo, and Agrusa 2005). Thus, the number of PRC tourists has increased tremendously. In 2008, PRC tourism accounted for 1.87 billion trips, of which 94.5% were domestic, 2.4% were outbound, and 3.1% were inbound (CNTA 2009). Figure 1, presenting the evolution of PRC outbound tourism during 1991–2009, clearly shows the growing trend.

During 1991–2010, the PRC's tourism went through three main stages: (i) inbound tourism only; (ii) inbound and domestic tourism; and (iii) comprehensive tourism including domestic, inbound, and outbound tourism.

PRC outbound tourism had long been suppressed due to the political climate and the economic situation in the country. Before the 1980s, outbound tourism was strictly controlled and was permitted only for government business. In 1984, personal travel to visit relatives in Hong Kong, China and Macao, China was permitted, marking the beginning of PRC outbound tourism (Qu and Lam 1997).

In 1988, Thailand was granted ADS, and this status was also given to Malaysia and Singapore in 1990. However, at that time, the process of getting a private passport was difficult and took at least 6 months. Australia, the Republic of Korea, and New Zealand were granted ADS in 1998, and Japan in 2000. This was followed by the progressively rapid widening of ADS to most of the European Community in 2004, the United Kingdom (UK) in 2005, and the United States (US) in 2008 (CNTA 2009). Hence, PRC tourists' outbound travel destinations had expanded from 20 in 2002 to 135 by mid-March 2010 (CNTA 2010b).

The number of PRC outbound tourists traveling to Thailand increased at an annual average rate of 19.69% during 1985–2009 (Tourism Authority of Thailand, 2009), reaching a maximum of 1,033,305 in 2006, proving that Thailand is an attractive destination for PRC



tourists. Among destinations that had been granted ADS before 2007, Thailand is the first country visited by outbound PRC tourists as a first stop (CNTA 2009).

However, 2008 and 2009 saw a decrease in PRC arrivals due to several factors, including the international economic situation, the political crisis in Thailand, and a change in the behavior of PRC tourists as travelers became more sophisticated. Whereas the earlier concept was to visit as many places as possible in a limited time, the modern traveler tends to spend more time in one destination. Buffets are replaced by more special meals, and there is a need for new scenic spots on their itinerary (Verheslst 2003).

Data and Methodology

The empirical analysis presented in the results section uses secondary monthly data from January 1985 to December 2009 (a total of 300 observations). Tourist arrivals from the 11 main nationalities visiting Thailand were obtained from the Tourism Authority of Thailand (for 1985–2007) and the Ministry of Tourism and Sports (for 2008–2009).

Decomposition by X12-ARIMA Method

A time series can be decomposed into four components: trend (T), seasonal (S), cycle (C), and irregular (I). Three common methods are used for time series decomposition: the simple average method, the moving average method, and the Census II method. This study applies a Census II method called the X12-Autoregressive Integrated Moving Average (X12-ARIMA). As this method makes an adjustment for the fluctuation before the decomposition,

it is more adequate if the moving average parameter is not determined and the data fluctuate substantially. Typically, there are two underlying decomposition models:

$$\text{Additive decomposition: } Y = T + S + C + I \tag{1}$$

$$\text{Multiplicative decomposition: } Y = T \times S \times C \times I, \tag{2}$$

where Y is the time series, T is the trend component, S is the seasonal component, C is the cyclical component, and I is the irregular component.

X12-ARIMA is one of the most common methods used to adjust for seasonality in monthly and quarterly time series. This method was the successor to Census II X11. It combines two main methods: the regression model with the Seasonal Integrated Autoregressive and Moving Average (SARIMA), and the X11 seasonal adjustment method. The SARIMA was applied to adjust outliers of the series before the seasonal adjustment. There are three types of outliers: additive outliers, level shifts, and temporary changes. These were specified as regression variables in the model.

The SARIMA model developed by Box and Jenkins (1994) can be used with time series data with seasonality. It has the same form as the ARIMA model but with the additional assumption that the month of the same season must not have series correlation, and could have autocorrelation for intervals corresponding to the seasons. These assumptions are important constraints in the application of SARIMA, since time series data of a particular period as well as of different periods may have autocorrelation between them (Box, Jenkins, and Reinsel 1994). To overcome this problem, Box, Jenkins, and Reinsel (1994) introduced a seasonal multiplicative model that can be used with seasonal additive and multiplicative data. In general, there is no constant in the SARIMA model and the SARIMA(p,d,q)(P,D,Q)_s is as follows (Box, Jenkins, and Reinsel 1994; Kim and Moosa 2005):

$$\phi_p(B)\Phi_p(B^S)\Delta^d\Delta_S^D Y_t = \theta_q(B)\Theta_q(B^S)\varepsilon_t, \tag{3}$$

where

Y_t = data at time t with seasonality;

B and B^S = backward shift operation of regular and seasonal, when $B_m = \Delta Y_{t-m}$;

d and D = orders of the differentiation of regular and seasonal to be stationary;

p and P = regular and seasonal autoregressive order;

q and Q = regular and seasonal moving average order;

Δ^d and Δ^D = differenced orders at d and D of regular and seasonal;

ϕ_1, \dots, ϕ_p and Φ_1, \dots, Φ_p = the autoregressive parameters of regular and seasonal;

$\theta_1, \dots, \theta_q$ and $\Theta_1, \dots, \Theta_q$ = moving average parameter of regular and seasonal;

ε_t = white noise process at time t [$\varepsilon_t \sim N(0, \sigma_{\varepsilon_t}^2)$].

A SARIMA (p,d,q)(P,D,Q)_s is identified by the autocorrelation function and partial autocorrelation function plot. Then, the diagnostic checking by the residual autocorrelation function plot and the Q-statistics by the Box–Pierce method are implemented (residuals must be a white noise series). Finally, an adequate model of SARIMA (p,d,q)(P,D,Q)_s is obtained.

After the outliers are adjusted by using ARIMA, the time series is adjusted for seasonality using X11 under the assumption that seasonal variation can be measured from the observed series and can be extracted from the variation of the cyclical component (C), trend component (T), and irregular component (I). The seasonal component (S) is defined as the repetitive and predictable movement around the trend line in a year. The cyclical component refers to

fluctuation around the trend, such as a business cycle. The irregular component is the residual time series after the trend, cycle, and seasonal components such as terrorist attacks or disasters. In the multiplicative model, the original time series is expressed as

$$O_t = S_t \times C_t \times I_t \tag{4}$$

where O_t is the observed time series, S_t is the seasonal component, C_t is the cyclical component, and I_t is the irregular component.

After the seasonality is taken out of the time series, the next step is to evaluate the impacts of seasonal variation on the changes in the number of tourists in the high and the low season from those in the absence of seasonality. In this step, an impact measurement is applied, let S_t be the seasonal index in month t . Therefore, the impact of seasonality on the number of PRC outbound tourists to Thailand in month t (PS_t) can be examined using the following formula:

$$PS_t = \frac{(S_t - 100)}{100} . \tag{5}$$

The value calculated for PS_t indicates the change in the number of PRC outbound tourists not including the variation in time trend, cycle, and irregularity, compared to the usual time. Then, the remainder in the series is only the seasonal variation. If the calculated PS_t is positive, it implies that month t is in the high season. On the other hand, if the calculated PS_t is negative, it implies that in month t , the demand is less than usual, hence month t is in the low season.

Moreover, the method also allows the assessment of the duration of the effects of disasters on tourism arrivals. The duration of impact may vary and the impact may not be felt within the month of the crisis, especially if it occurs at the end of the month. The duration of each disaster's effects should therefore be studied individually. Thus, this research estimates the impact of an irregular event on the number of PRC outbound tourists to Thailand in month t (PD_t) using the following ratio:

$$PD_t = \frac{(100 - I_t)}{100} . \tag{6}$$

If PD_t has a value greater than 0, it means that the number of PRC outbound tourists in month t is less than the normal number when there is no time-related variation.

The impact is assumed to occur in the month of the disaster if the value of PD_t in that month is greater than 0. However, if it is less than 0, the impact is assumed to begin in the next month. The last month of impact is the month with a PD less than or equal to 0. The duration (DUR) of impact can be expressed as

$$DUR = j - i, \tag{7}$$

where i is the first month of impact and j is the last month of impact.

Analysis of Seasonal Concentration Using the Gini Coefficient

Corrado Gini, an Italian statistician, developed the Gini coefficient using the Lorenz curve for its calculation. Later, many economists developed and proposed various formulas to calculate the Gini coefficient in order to reduce errors in the calculation and to simplify the computation.

This study uses the formula suggested by Lundtorp (2001) because the formula is relatively easy to compute:

$$G_k = \frac{2}{n} \left(\sum_{i=1}^n i f_{ik} - \frac{n+1}{2} \right), \quad (8)$$

where

- G_k = Gini coefficient of tourists in group k,
- i = the cumulative fractiles for month i,
- f_{ik} = fractile for month i of tourists in group k,
- n = the number of fractiles (12 for monthly data),
- k = groups of tourists (in this case, PRC).

The Gini coefficient in equation 8 takes values from 1/12 to 1 (Rossello, Riera, and Sanso 2004). The value of 1/12 implies that the same number of tourists arrive every month; hence, there is no tourism seasonality. On the other hand, the coefficient would take the value of 1 if the entire demand is concentrated in a single month. Hence, the higher the index, the higher is the seasonality of tourist arrivals.

After equation 8 is used to calculate the Gini coefficient of group k, the method of Lerman and Yitzaki (1985) is applied to decompose the Gini coefficient of total tourists with the following formula:

$$G = \sum S_k R_k G_k, \quad (9)$$

where

- G = Gini coefficient of total tourists,
- S_k = market share of group k,
- R_k = Gini correlation between tourists in group k and total tourists,
- G_k = Gini coefficient of tourists in group k.

According to equation 9, the contribution of the Gini coefficient of tourist arrivals in group k to the Gini coefficient of total tourist arrivals can be computed by using the following formula:

$$C_k = \frac{S_k \times R_k \times G_k}{G}. \quad (10)$$

According to equation 10, the contribution of the Gini coefficient of tourist arrivals in group k depends on three factors: the market share of that group (S_k), the Gini correlation between tourists in group k and total tourists (R_k), and the Gini coefficient of tourists in group k (G_k). Among these factors, it can be argued that the market share is a controllable and changeable factor by means of marketing promotion and planning (Fernandez-Morales and Mayorga-Toledano 2008). The change in the market shares of tourists in each segment affects the seasonal concentration of total tourist arrivals. For that reason, Fernandez-Morales and Mayorga-Toledano (2008) suggested using relative marginal effects (RMEs) to measure the effect of a change in the market share of each segment on total seasonal concentration of tourist arrivals using the following formula:

$$RME_k = S_k \times \left(\frac{R_k G_k}{G} - 1 \right). \quad (11)$$

The estimated RME can then be used to identify for which segment an increase in the market share would affect the overall seasonal concentration. The rationale for this proposal is that the market share is easier to change than the Gini correlation (R_k) and the Gini coefficient (G_k), which have a more structural character. However, an increase in market share can be achieved through successful marketing campaigns (Fernandez-Morales and Mayorga-Toledano 2008).

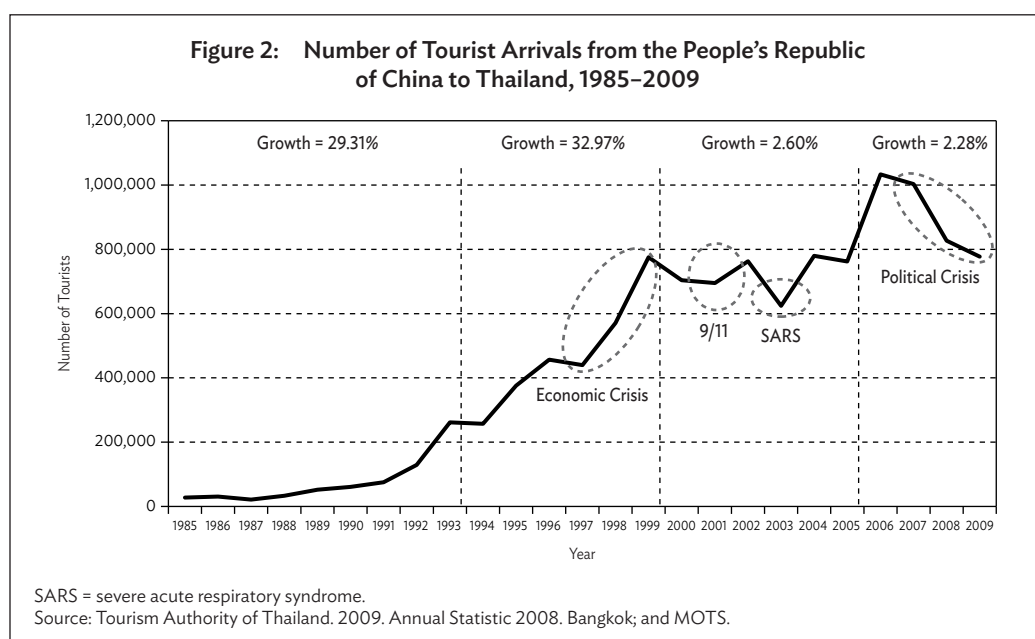
Results of the Study

The results of this study are divided into two major parts: (i) the results of the analysis of the PRC's outbound tourism to Thailand, and (ii) the results of the seasonality and uncertainty analysis.

Tourist Arrivals from the People's Republic of China to Thailand

Figure 2 shows the rapid growth of PRC tourist arrivals to Thailand during 1991–2009 and the stages of its evolution. Using the growth rate, we can divide the trend of PRC tourist arrivals to Thailand into four periods: 1985–1992, 1993–1999, 2000–2005, and 2006–2009.

During 1985–1992, PRC tourist arrivals to Thailand grew by 29% per year. The Government of the PRC adopted an opening-up policy and Thailand was the first ADS for PRC outbound tourism. During 1993–1999, PRC tourism grew rapidly at a 33% per year. The 1997 Asian economic crisis led to a depreciation of Thailand's currency, which made Thailand a cheaper destination and resulted in a surge of PRC tourists to the country. During 1999–2005, tourism was affected by different shocks, including the 9/11 terrorist attack in the US and the outbreak of severe acute respiratory syndrome (SARS). These extraordinary events caused a deceleration in the growth rate of PRC tourist arrivals to Thailand. The unsatisfied willingness to visit the country during these years led to a boom in PRC tourists to Thailand during 2005–2006.



However, several negative events occurred again during 2007–2008 (notably the Thai political crisis, which closed Thailand’s main airports at the end of 2008), explaining the sudden decline in 2009.

The Seasonality and Uncertainly Analysis

Figure 3 presents the monthly distribution of PRC arrivals to Thailand during the four periods proposed in Figure 2. Comparing the profiles of the four graphs, it can be concluded that there has been a change in the pattern of seasonal variation. However, there are still two main reasons that explain the seasonal pattern: public holidays, such as the PRC’s traditional New Year holiday in January or February; and Thailand’s Songkran festival in April.

Table 1 displays the monthly impact of seasonality (PS_t) described in equation 4 using the seasonal index estimated by X12-ARIMA.

The percentages in the table show the monthly and peak season and low season differences in tourist arrivals compared to the profile without seasonal variation. For example, in 1985–1992, there was an increase in peak season tourist arrivals of 9.52% compared to the situation in the absence of seasonality.

Table 1 proves that the peak seasons for PRC tourism in Thailand are January and February (due to the PRC’s New Year holiday) and April (due to the Thai Songkran festival). In contrast, during the rainy season from July to October, there are fewer PRC visitors to Thailand. The table is also useful to understand the evolution of the seasonal impacts on the number of PRC outbound tourists to Thailand. The seasonal pattern has changed over the 25-year period

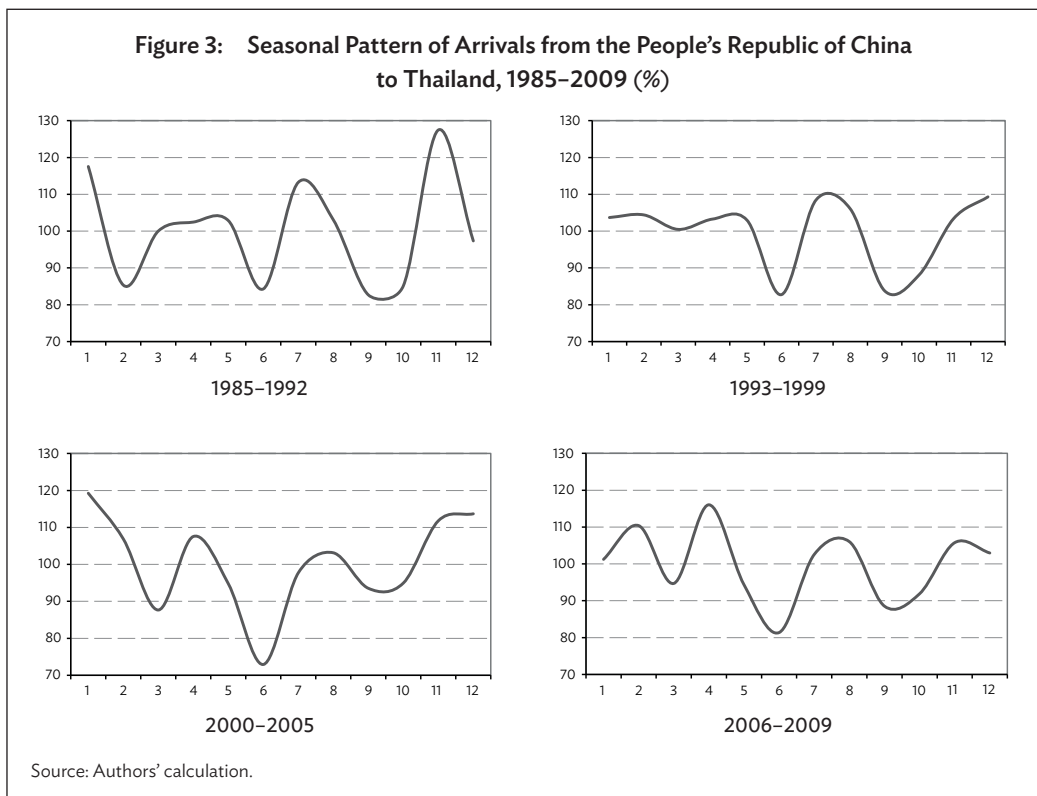


Table 1: Monthly Impact of Seasonality on Arrivals from the People's Republic of China to Thailand (%)

Month	1985–1992	1993–1999	2000–2005	2006–2009
January	17.54	3.68	19.24	1.23
February	(14.67)	4.40	6.87	10.39
March	0.01	0.46	(12.35)	(5.31)
April	2.45	3.27	7.54	16.03
May	2.86	2.94	(5.23)	(5.67)
June	(15.71)	(17.26)	(27.08)	(18.64)
July	13.25	8.41	(2.29)	2.56
August	3.06	6.03	3.13	6.03
September	(17.33)	(16.25)	(6.47)	(11.48)
October	(14.89)	(11.91)	(5.06)	(8.11)
November	27.46	3.37	11.78	5.76
December	(2.67)	9.30	13.68	2.96
Peak season	9.52	4.65	10.37	6.42
Low season	(13.06)	(15.14)	(9.75)	(9.84)

() = negative.

Source: Authors' calculation.

from an initial situation of high seasonal variation to a more stable profile in the last subperiod (2006–2009). In particular, there has been a reduction of about 5 percentage points in the decrease associated with the low season. Finally, as the high and low seasons have a similar magnitude in absolute terms after 1999, it can be concluded that the seasonal variation during 2000–2009 had little effect on the overall number of tourists.

To compare the profile of the PRC market with that of tourists of other nationalities, Table 2 presents the X12-ARIMA estimation of the impact of seasonality on the arrivals from Thailand's top 10 origin markets: the nine other countries are Australia, Germany, India, Japan, the Republic of Korea, Malaysia, Singapore, the UK, and the US (the main destinations from Oceania, South Asia, Europe, Northeast Asia, Southeast Asia, and the Americas).

The results show that the gap between the high and low seasons for the PRC market is among the highest, similar only to that of the Republic of Korea and the UK. Hence, PRC tourist arrivals to Thailand show a stronger seasonal behavior than some of Thailand's other main origin markets, such as Japan, Malaysia, and Singapore.

The seasonality analysis using the Gini coefficient is shown in Figure 4. The graph displays the estimate of this index for each year, showing that there is a lot of variation, with estimated values ranging from 0.16 to 0.37. However, it can be concluded that the pattern of seasonal concentration tended to stabilize after 1997, except for the unexpected shocks of the SARS outbreak in 2003 and the Thai political crisis in 2008–2009.

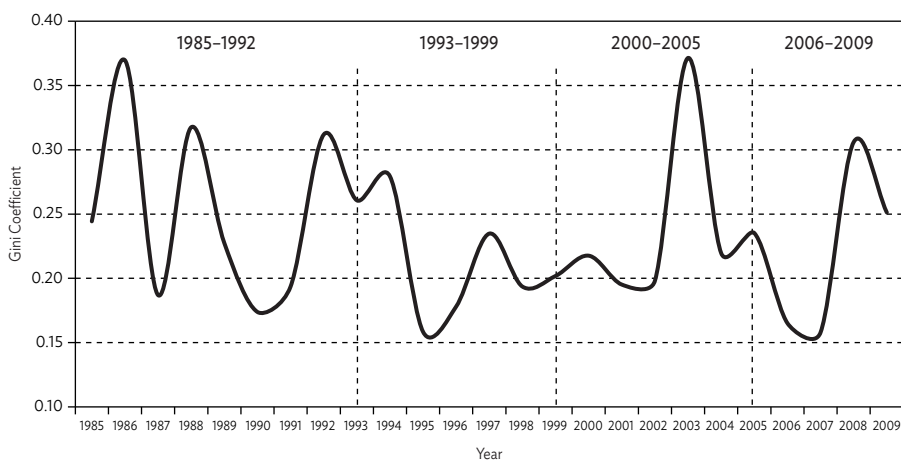
Continuing the comparative analysis, Table 3 presents the results of the Gini coefficient for the main tourism origin markets of Thailand. As was explained in the description of the methodology, the higher the Gini coefficient, the higher is the measure of inequality—in this case, the difference in the distribution of arrivals though the year. Hence, the conclusion from this table is that the PRC market has a higher seasonal concentration than all of the other nationalities except Germany.

Table 2: Comparison of Monthly Impact of Seasonality between the People's Republic of China and Other Countries, 2006–2009

Month	PRC	Australia	Germany	India	Japan	Rep. of Korea	Malaysia	Singapore	UK	US
January	1.23	10.02	3.25	(1.26)	9.92	33.88	(1.43)	(1.84)	12.91	22.28
February	10.39	(15.14)	3.18	(2.08)	7.87	0.00	0.48	(1.68)	10.97	4.96
March	(5.31)	(9.22)	3.30	(0.88)	8.33	(1.44)	0.01	(0.06)	15.10	8.53
April	16.03	3.32	0.04	(0.05)	(10.86)	(15.65)	(0.24)	(1.87)	5.98	(8.37)
May	(5.67)	(12.58)	(2.96)	3.35	(20.16)	(10.19)	(0.65)	(0.64)	(21.07)	(13.08)
June	(18.64)	(3.19)	(4.87)	2.08	(12.58)	(7.64)	(0.23)	1.90	(18.97)	(3.70)
July	2.56	2.02	(3.20)	(0.13)	(7.11)	7.03	(0.39)	(0.04)	(5.38)	0.91
August	6.03	(6.03)	(2.45)	(0.01)	15.48	16.06	0.65	(0.28)	(7.18)	(14.43)
September	(11.48)	5.80	(1.68)	(0.25)	12.44	(24.62)	(0.96)	(0.80)	(22.24)	(25.73)
October	(8.11)	14.60	0.18	(0.02)	(8.32)	(11.67)	0.14	(0.18)	(4.82)	0.98
November	5.76	(4.22)	2.88	(0.93)	3.94	3.07	0.11	1.75	6.36	10.09
December	2.96	13.79	2.30	(0.11)	(0.97)	7.93	2.40	3.74	27.06	15.97
Peak season	6.42	0.54	0.86	5.43	2.61	7.47	0.23	7.39	7.25	4.49
Low season	(9.84)	(0.92)	(1.21)	(5.72)	(4.06)	(11.11)	(0.34)	(7.39)	(10.40)	(6.60)

() = negative, PRC = People's Republic of China, Rep. = Republic, UK = United Kingdom, US = United States.

Source: Authors' calculation.

Figure 4: Gini Coefficients of Arrivals from the People's Republic of China to Thailand, 1991–2008

Source: Authors' calculation.

Table 3: Comparison of Gini Coefficients of the People's Republic of China and Other Major Tourism Countries

Period	PRC	Australia	Germany	India	Japan	Rep. of Korea	Malaysia	Singapore	UK	US
1985–1992	0.253	0.168	0.302	0.174	0.185	0.217	0.197	0.254	0.204	0.178
1993–1999	0.215	0.150	0.280	0.160	0.178	0.238	0.179	0.219	0.163	0.162
2000–2005	0.240	0.163	0.279	0.186	0.179	0.211	0.178	0.210	0.172	0.177
2006–2009	0.220	0.152	0.241	0.185	0.167	0.207	0.167	0.200	0.173	0.168

PRC = People's Republic of China, Rep. = Republic, UK = United Kingdom, US = United States.

Source: Authors' calculation.

Table 4 uses the methodology described in equation 8 to decompose the total Gini coefficient (first column) into three factors: the PRC Gini coefficient (second column), market share (S), and Gini correlation (R). The contribution to total seasonal concentration of PRC tourists, calculated from equation 9, is presented in column C; and the last column of the table displays the RME described in equation 10.

In Table 4, the RME value of 1.87 for 2009 indicates that a 1% increase in the PRC market share in Thailand would lead to a 1.87% increase in overall seasonality. Hence, the results of the seasonal decomposition show that during 1995–2009, the increase in PRC market share has caused an increase of Thailand's tourism seasonality.

Table 5 presents the value of the RME for Thailand's main tourism origin markets.

As a general conclusion, an increase in the market share of any nationality will not reduce the overall seasonality of Thailand's tourism. However, there are some exceptions, such as the negative figures for Australia in some years, for example 1985, 2007, or 2009.

Table 4: Decomposition of the Seasonal Concentration of Outbound Tourists from the People's Republic of China to Thailand

Year	Gini Coefficient (G)		Market Share (S)	Gini Correlation (R)	Contribution to Total Concentration (C)	Relative Marginal Effect (RME)
	Total	PRC				
1985	0.15	0.24	1.13	0.93	1.66	0.53
1992	0.17	0.31	2.51	0.88	4.00	1.49
1993	0.14	0.26	4.54	0.97	8.05	3.50
1999	0.14	0.20	8.97	0.87	11.10	2.13
2000	0.14	0.22	7.35	0.96	11.35	4.00
2005	0.15	0.24	6.58	0.92	9.40	2.81
2006	0.14	0.17	7.47	0.91	7.81	0.34
2007	0.15	0.16	6.94	0.99	7.14	0.20
2008	0.16	0.31	5.67	0.94	10.43	4.76
2009	0.17	0.25	5.49	0.91	7.37	1.87

PRC = People's Republic of China.

Source: Authors' calculation.

Table 5: Comparison of the Relative Marginal Effect between the People's Republic of China and Other Major Tourism Countries

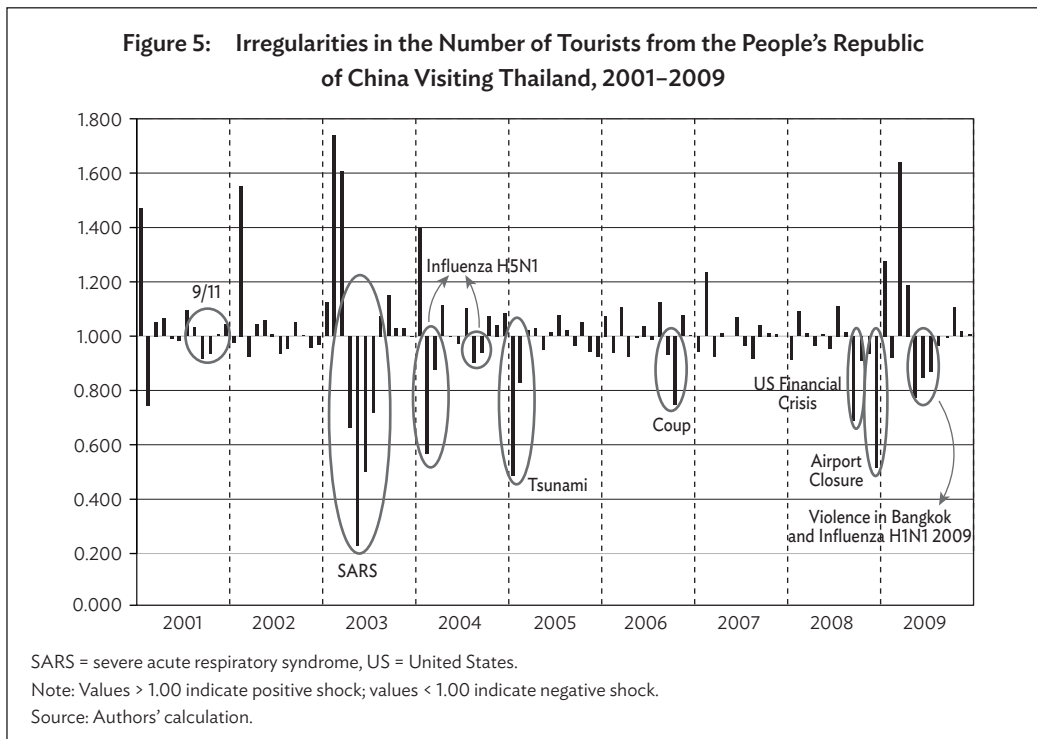
Year	PRC	Australia	Germany	India	Japan	Rep. of Korea	Malaysia	Singapore	UK	US
1985	0.53	(0.28)	3.69	0.66	1.69	(0.13)	3.81	5.03	0.14	1.16
1992	1.49	(0.19)	3.25	(0.30)	2.59	1.60	1.52	1.19	(0.04)	(0.57)
1993	3.50	0.17	4.80	0.16	2.35	2.42	4.24	1.10	0.18	0.44
1999	2.13	0.37	4.27	0.42	2.84	1.49	(1.62)	1.94	0.72	0.77
2000	4.00	0.31	3.53	0.70	1.83	1.53	0.15	2.56	1.04	1.19
2005	2.81	0.60	2.03	0.74	0.30	1.71	(2.89)	1.32	0.52	0.18
2006	0.34	0.41	1.77	0.42	(0.17)	1.69	(0.72)	1.45	0.56	0.31
2007	0.20	(0.29)	1.94	0.42	(0.42)	0.81	1.42	0.91	1.17	0.38
2008	4.76	(1.06)	1.75	0.30	1.46	3.22	0.19	0.54	0.45	0.11
2009	1.87	(0.17)	1.19	0.43	(0.53)	1.20	0.78	1.59	(0.55)	(0.03)

() = negative, PRC = People's Republic of China, Rep. = Republic, UK = United Kingdom, US = United States.

Source: Authors' calculation.

The last part of this section is devoted to the uncertainty analysis, focusing on the irregular component of PRC tourist arrivals to Thailand during 2001–2009 (Figure 5). The figure shows nine important negative situations.

Once the irregular component is estimated through the X12-ARIMA method, it can be used to construct a dummy variable that reflects the impact of the nine negative situations. These



variables are used in a SARIMA intervention model to estimate the number of PRC tourists lost due to each event. The results of the estimated effect on the number of PRC tourists visiting Thailand show that SARS caused the greatest fall of approximately 18% per month, while avian influenza caused a monthly fall of 7%, and the H1N1 influenza outbreak in 2009 caused a decline of 3% (Table 6). In total, the three epidemic outbreaks resulted in the greatest losses in tourism from the PRC market—a decline of 285,237 visitors. The losses from the 2005 tsunami account for a monthly fall of almost 24%, or the 131,331 PRC tourists.

Table 6 also shows that the epidemic outbreaks and natural disasters are of longer duration than the other crises. Their average impact length was about 4 months, while the impact duration of the 9/11 terrorist attack, the military coup, the closure of airports, and the 2005 tsunami was approximately 2 months. Finally, the duration of the Bangkok violence at the beginning of 2009 was only 1 month, the same duration as the impact of the US financial crisis.

Table 6: Impact of Major Crises on Arrivals from the People's Republic of China to Thailand

Year of Impact	Crisis Event	Duration (months)	Loss in Number (persons)	% Loss per Month (%)
2001	Terrorist attack on the World Trade Center (9/11)	2	18,185	7.87
2003	Outbreak of SARS	4	178,688	18.00
2004	Outbreak of avian influenza (H5N1)	4	81,973	7.04
2005	Indian Ocean earthquake and tsunami	2	68,200	23.86
2006	Military coup in Thailand	2	45,558	13.41
2008	Financial crisis in the United States	1	32,174	48.51
2008	Closure of Suvarnabhumi and Don Mueang airports	2	53,817	22.09
2009	Violence in Bangkok	1	31,956	46.73
2009	Outbreak of influenza (H1N1)	4	24,576	2.60

SARS = severe acute respiratory syndrome.

Source: Authors' calculation.

Conclusions

This paper studied both the seasonal behavior of PRC tourist arrivals to Thailand during 1985–2009 and the effect of some negative shocks that affected tourism during 2001–2009. The X12-ARIMA method, SARIMA with intervention, and the Gini coefficient were applied to analyze seasonality and estimate the impact of nine crises during 2001–2009.

The empirical analysis proves the adaptability of the methodologies proposed to perform a complete seasonality analysis. The monthly seasonal index of equation 4 is more informative than the Gini coefficient, as the Gini coefficient measure is affected by shocks that are not due to seasonality. With this methodology, the results show that PRC tourist arrivals to Thailand have a relatively higher degree of seasonal concentration compared with Thailand's other main tourism origin markets. The decomposition of the Gini coefficient proved useful for understanding the contribution of each individual market to overall destination seasonality. In particular, the analysis shows that an increase in the PRC market share would not improve the overall seasonality of tourism in Thailand.

The study also quantified the effects of the main negative shocks that occurred during 2001–2009 on the number of PRC tourists visiting Thailand. The epidemic outbreaks had the greatest impact, but the losses tend to decline if a similar event occurs again. The domestic political crisis and the 2005 tsunami had the second-greatest impact, while the 9/11 terrorism attack on the World Trade Center in the US had the smallest impact on PRC tourism to Thailand.

This paper combined several methodologies to characterize and quantify the seasonal pattern of a given tourism origin market. Understanding the evolution of seasonality is crucial for many destinations that face this problem. It can be particularly relevant to assessing the effectiveness of counter-seasonal policies, which have been proposed in some destinations. The empirical research should be beneficial to the Government of Thailand in the design of strategies to deal with seasonality and negative tourism shocks. However, given that Thailand was the first outbound tourist destination of the PRC, beginning in 1988, this study should also be helpful to other destinations that wish to increase their share of the PRC outbound tourism market.

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An Assessment of the Role of Nongovernment Organizations in Combating Trafficking of Women and Children in Cambodia and Viet Nam

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Abstract

Human trafficking in general, and the trafficking of women and children in particular, is a major concern worldwide, including in the countries of the Greater Mekong Subregion (GMS). Many nongovernment organizations (NGOs) in the GMS play an active role in supporting anti-trafficking programs. These include the Save the Children Cross-Border Project Against Trafficking and Exploitation of Migrant and Vulnerable Children, and the Combating Human Trafficking in Vietnam program of the Asia Foundation. Despite many successes, NGOs are still confronted with numerous difficulties in effectively implementing anti-trafficking programs.

This study investigates the roles of NGOs in combating the trafficking of women and children in Cambodia and Viet Nam. It assesses the coordination mechanism between the government and NGOs, as well as among NGOs. It also evaluates the NGOs' effectiveness in combating trafficking in women and children in the two GMS countries.

The study uses both primary and secondary data. Primary data were gathered through structured interviews with NGO staff in charge of women and children anti-trafficking programs and projects in Cambodia and Viet Nam. Secondary data include published books, reports, and materials from the government and NGOs. The data are analyzed quantitatively and qualitatively to draw out results and make recommendations.

Introduction

Human trafficking in general, and the trafficking of women and children in particular, takes place in almost all countries. It is estimated that 200,000–225,000 women and children are

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trafficked annually from Southeast Asia and more than 150,000 are trafficked from South Asia (Ren 2004). World Vision (2005), estimate that 250,000 people in the Greater Mekong Subregion (GMS) are trafficked annually and some 1.2 million children are trafficking victims worldwide. Women and children are trafficked for domestic work, begging, and child adoption, and to be sold as brides.

Cambodia and Viet Nam, both located in the GMS, faced human trafficking problems. Human trafficking is both a domestic and cross-border issue for both countries. In Viet Nam, domestic trafficking is closely linked to migration from rural and mountainous areas to urban areas, and it mainly involves trafficking of women and children for sexual exploitation to destinations where prostitution is prevalent, such as Ha Noi and Ho Chi Minh City. Trafficking for labor exploitation also occurs within the country in sectors such as agriculture and construction, as well as in factories, sweatshops, and karaoke bars (UNIAP 2008, Hoang 2008).¹

Viet Nam remains largely a source country for cross-border human trafficking. Since the end of the Cold War, it is estimated that nearly 400,000 Vietnamese women and children have been trafficked across the country's borders, mainly via paths and border gates in the north and southwest (Lam 2005, UNIAP 2008). Children and women are trafficked from Viet Nam's northern provinces (e.g., Lang Son, Lao Cai, and Quang Ninh) to Guangxi Zhuang Autonomous Region and Yunnan Province in the People's Republic of China (PRC) (Wang 2005). Vietnamese women and children are trafficked to the PRC for marriage, sexual exploitation, and labor exploitation. A considerable number of babies are trafficked for adoption. Baby trafficking is a lucrative business in Viet Nam, where babies can be sold for up to \$50,000 each (Orhart 2000). Vietnamese women trafficked to the PRC account for 70% of the total number of trafficked Vietnamese women worldwide (UNIAP 2008) and about 4,000 Vietnamese women are trafficked for prostitution in Cambodia (IOM 2007). Viet Nam is also a destination country for trafficked Cambodians and a transit country for PRC children into Cambodia (IOM 2000, UNIAP 2008, Hoang 2008).

Similarly, Cambodia is a source, destination, and transit country for men, women, and children trafficked across national borders, chiefly to Malaysia, Thailand, and Viet Nam for forced labor and sexual exploitation (US Department of State 2007, ECPAT-Cambodia n.d.). The borders between Cambodia, the PRC, the Lao People's Democratic Republic, and Viet Nam are open and porous, allowing thousands of people to be trafficked each year. For example, unofficial estimates suggest that there are as many as 15,000 prostituted persons in Siem Reap, and that up to 35% of victims have been smuggled into Cambodia from Viet Nam, mostly from the southwestern provinces (such as Can Tho, Hau Giang, and Tay Ninh). A report from the National Assembly of the Kingdom of Cambodia, which chaired the Senate Commission on Human Rights and Reception of Complaints, indicates that there are more than 14,000 women and children working in prostitution in Phnom Penh alone (Oung 2002). Based on actual counts, Steinfatt (2003) estimated that there were 18,256 sex workers across Cambodia in 2002–2003, of which 2,000 women and children were classified as trafficked.

Cambodia also acts as a transit point in the trafficking network through which PRC and Vietnamese nationals are sent to Thailand or more distant locations abroad (IOM 2000,

¹ Hoang (2008: 3) further argues that the stringent migration policy adopted by the Government of Viet Nam, which is meant to protect women from exploitation, can lead to more irregular migration and may aggravate trafficking because it "has diverted the flow of migrants away from established migration routes to the most dangerous and least populated areas."

UNIAP 2008, Hansson 2001). Trafficking of Cambodian men, women, and children to Malaysia includes sexual exploitation, labor exploitation (especially factory and construction work), and domestic work.

The governments of Cambodia and Viet Nam face various obstacles in their efforts to combat human trafficking. These include the lack of an effective data collection system; the absence of empirical studies on human trafficking; the clandestine and illegal nature of trafficking; the lack of strong bilateral cooperation between neighboring countries; the insufficiency and ineffectiveness of rehabilitation programs, which often results in trafficked individuals becoming traffickers; gaps in multisector efforts in countering trafficking, particularly in the legislative, judiciary, and law enforcement areas; and corruption in the police force. Cambodia's anti-trafficking regulation and programs are considered weak (US Department of State 2008) despite the government's efforts to counter trafficking, such as the enactment of the Law on Suppression of Human Trafficking and Sexual Exploitation 2008 and the establishment of an anti-trafficking taskforce. Furthermore, accurate recording of trafficking incidents in Cambodia and obtainment of reliable estimates of the number of victims and offenders have been hampered by a lack of harmonization of the methodologies employed in trafficking research and limited cooperation between the agencies involved in data collection.

Objectives, Methodology, and Limitations

This study investigates the roles of nongovernment organizations (NGOs) in combating the trafficking of women and children in Cambodia and Viet Nam. It assesses the coordination mechanism between the government and NGOs, as well as among NGOs. It also evaluates the effectiveness of NGOs in combating the trafficking of women and children in the two GMS countries.

Research Method and Data

The study used a survey questionnaire to identify NGOs' roles in combating the trafficking of women and children in Cambodia and Viet Nam. The questionnaire was designed and implemented according to the Dillman Total Design Method (1978), which has been found to improve response rates and data quality. To assess the reliability and validity of the questionnaire, a pretest was conducted. Following the pretest, some modifications were made to the questionnaire. The revised questionnaire was translated into the Khmer and Vietnamese languages, and administered using face-to-face interviews with NGO staff.

In Viet Nam, 20 NGOs that have implemented anti-trafficking projects and programs were identified. Of these organizations, 15 are based in Ha Noi, 2 in Ho Chi Minh City, 1 in Nghe An Province, 1 in Da Dang City, and 1 in Hue City. Due to the difficulties in accessing appropriate program staff, only 13 NGOs, both local and international, were identified and interviewed using face-to-face interviews. International organizations and United Nations (UN) agencies in the country, such as the International Organization for Migration (IOM) and the United Nations Inter-Agency Project on Human Trafficking (UNIAP), declined to participate in the interview as they do not consider their organization to be an NGO, but they assisted by providing some information.

Accessing NGO staff in Cambodia was also problematic because staff did not find the interview useful, were busy with their jobs, and/or wanted to keep their opinion or information on the subject confidential. A total of 25 NGOs, both local and international, were identified and interviewed face-to-face. They included international organizations, such as the International Labour Organization; and UN agencies, such as the UNIAP.

The list of NGOs interviewed in Cambodia and in Viet Nam is in Appendix 1.

Limitations

When administering the survey questionnaire in Cambodia and Viet Nam, it was difficult to obtain the full cooperation of the NGOs interviewed because of the sensitive nature of human trafficking. This prevented the study from carrying out a detailed statistical analysis, and consequently affected the robustness of the research results and findings. The research considered only the perspectives of the NGOs. It did not obtain the views of the beneficiaries of NGO anti-trafficking projects and programs because of the difficulty and sensitivity of identifying and accessing trafficked victims.

In addition, for reasons of confidentiality, not all of the survey questions were answered by the NGO staff. For example, most Vietnamese NGOs refused to give the number of trafficking cases they had investigated. Similarly, most Cambodian NGOs preferred to answer only general questions to protect the privacy of trafficked victims. Some Vietnamese NGO respondents could not reveal information related to crimes, arrests, or prosecutions because their organizations did not engage in investigating them. Similar limitations also applied in the case of Cambodia.

Most NGOs in the two countries use the term “human trafficking” when providing information on trafficking of women and/or children. Consequently, the data provided reflect human trafficking in general (i.e., men, women, and children) rather than the number of women and children trafficked. This phenomenon can be explained by the fact that there is no specific definition of women or children trafficking and the definition of trafficking is still ambiguous between different agencies.

Overview of Nongovernment Organizations Combating Human Trafficking in Cambodia and Viet Nam

The number of NGOs in Viet Nam involved in anti-trafficking activities is modest. Combatting trafficking is not a focus for most NGOs, and their programs and projects focus mainly on furthering economic development, providing health and education services, overcoming the consequences of war, eliminating hunger and reducing poverty, and combating environmental problems. For many small or medium-sized NGOs, anti-trafficking activities are a subproject or minor project under one program (e.g., human rights, women’s rights, children’s rights, or immigration). For this reason, they frequently do not see themselves as professional anti-trafficking NGOs. Moreover, some NGOs’ anti-trafficking programs are short-term because they depend largely on donor funding; the programs are terminated once donor support ends. Some NGOs cannot perform their anti-trafficking programs effectively because of the lack of effective administrative personnel, weak cooperation with other NGOs, lack of coherent and cohesive government policies to address the abuse and exploitation of women, and the absence of relevant information and accurate data about trafficking.

According to the Asia Foundation (2008), there are 222 local NGOs in Viet Nam. The number of international NGOs in Viet Nam increased from approximately 200 in the early 1990s to 750 in 2009. International NGOs' activities span all 63 provinces and cities in the country. Similarly, there are almost 400 local NGOs and nearly 600 associations registered with the Government of Cambodia, which is a dramatic increase from the figure in 1991. In addition, more than 40 NGO sector and issue working groups, both formal and informal, come together on issues of common interest in support of the development of the Cambodian NGO community (Cambodian NGO Statement 2002).

NGOs in Cambodia have helped rescue child trafficking victims, provided legal assistance to child victims, conducted a comparative legal study on Cambodian laws and the UN Convention on the Rights of the Child, and developed a legal handbook to assist law enforcement officers. Several local NGOs have been involved in more general activities to raise public awareness on the nature of human trafficking in Cambodia. For example, the Women's Media Centre and the Cambodian Women's Crisis Center have been working on producing radio and television messages, and the Cambodian League for the Promotion and Defense of Human Rights has created posters to increase awareness about trafficking. International agencies have also been engaged in trafficking prevention in Cambodia. For example, the UN Children's Fund (UNICEF) has initiated and supported several programs involving advocacy, awareness raising, information gathering, and policy planning focusing on child trafficking for commercial sexual exploitation. The IOM, in cooperation with the Ministry of Women's and Veterans' Affairs launched a 3-year capacity-building project in 2000 for the prevention of all forms of trafficking in women and children in Cambodia (IOM 2000).

Findings and Results

Profile of Respondents

Table 1 summarizes the profile of respondents from NGOs in both countries. Most of the respondents are officers, coordinators, and managers who have been working on anti-trafficking programs for 1–4 years. The dominant age group of respondents is 26–35 years. More than half of the Vietnamese respondents hold a master's degree; while the highest level of educational attainment of almost three-quarters of the Cambodian respondents is a bachelor's degree. Most of the NGOs in Cambodia and Viet Nam have been implementing anti-trafficking programs for 4–6 years, although some NGOs in Cambodia (about 15%) have been conducting programs for more than 6 years.

General Information on Women and Children Anti-Trafficking Programs

NGOs based in Viet Nam commenced anti-trafficking programs for women and children between 2002 and 2006, which was the period when many bilateral and multilateral treaties were signed between Viet Nam and neighboring countries. For example, in February 2002, Viet Nam participated in the first Regional Ministerial Conference on People Smuggling, Trafficking in Persons and Related Transnational Crime (the Bali Ministerial Process). Since 2000, the Government of Viet Nam together with four other members of the GMS (Cambodia,

Table 1: Profile of Nongovernment Organization Respondents

Item	Cambodia	Viet Nam
Presence of anti-trafficking programs	56%	100%
Proportion of female staff working on anti-trafficking programs	36%	100%
Dominant age groups	26–35 years old = 57% 36–45 years old = 21.4%	26–35 years old = 61.5% 36–45 years old = 38.5%
Highest educational attainment	Bachelor's degree = 71.4% Master's degree = 21.4%	Bachelor's degree = 46.2% Master's degree = 53.8%
Respondents at:		
officer level	42.9%	30.8%
coordinator level	14.3%	30.8%
manager level	21.4%	38.5%
Years working on anti-trafficking programs	Less than 1 year = 21.4% 1–4 years = 43.8% More than 4 years = 35.7%	Less than 1 year = 0.0% 1–4 years = 38.5% More than 4 years = 61.6%
Average number of employees	92	33
Average number of years implementing anti-trafficking programs	Less than 3 years = 7.1% 4–6 years = 14.4% More than 6 years = 14.4%	Less than 3 years = 23% 4–6 years = 38.5% More than 6 years = 7.1%

Source: Authors' calculations based on a survey interview in April 2011.

the PRC, the Lao People's Democratic Republic, and Thailand) signed an agreement with the International Labour Organization through the Mekong Sub-regional Project to Combat Trafficking in Children and Women. Moreover, on 14 July 2004, the National Plan of Action on Combating Trafficking in Women and Children 2004–2010 was ratified by the Prime Minister. These internal and external factors provided the impetus for governments and agencies, including NGOs, to implement anti-trafficking activities.

Cambodia-based NGOs have done a great deal of work to raise awareness of children's rights—especially the issue of trafficking and sexual exploitation of children—through radio and TV programs; workshops; dramas; rallies and marches; and the production and dissemination of awareness-raising materials such as posters, bulletins, newsletters, and calendars (CRF 2001). In terms of protection measures, the government has established investigation groups and a legal executive task force to uncover offenses and bring offenders to justice. An on-call team and a 24-hour hotline have been set up. NGOs have engaged in investigating trafficking cases, helping rescue child victims, and providing legal assistance; conducting a comparative legal study on Cambodian laws and the Convention on the Rights of the Child; and developing a legal handbook for law enforcement officers. Training courses have been conducted in ministries, and national and international organizations (CRF 2001).

Funding Sources

NGOs in Cambodia and Viet Nam access various funding sources to support their anti-trafficking programs. Table 2 shows that most NGOs have used external sources of funding to develop their programs. About 70% of Vietnamese NGO funds are from external sources such as the European Commission; the IOM; the United States Agency for International

Table 2: Funding Sources for Women and Children Anti-Trafficking Programs

Source	Cambodia (N =14)	Viet Nam (N = 13)
Own sources	7.7	30.8
United Nations agencies	15.4	7.7
Foreign donors (International Monetary Fund, World Bank) and bilateral sources	30.8	7.7
Cofunding with other nongovernment organizations (Asia Foundation, International Organization for Migration, Oxfam)	23.1	0.0
Other sources	61.5	69.2

Source: Authors' calculations based on a survey interview in April 2011.

Development; and the embassies of Australia, the Netherlands, the United Kingdom, and the United States. In Cambodia, about 62% of NGO funds come from the Asia Foundation, the IOM, Oxfam, and the United States Agency for International Development; while about 31% are provided by foreign donors such as the International Monetary Fund or the World Bank. The high degree of dependence on external funds has made the implementation of programs and projects unsustainable.

Staff Training

The provision of training courses on how to identify and respond to women and children trafficking cases is the main activity conducted by the NGOs to build the capacity of staff in charge of anti-trafficking projects and programs. Participation by NGO staff in regional and national conferences and workshops also provides knowledge and ideas that help in the design of anti-trafficking programs. Surveyed NGOs indicated that they have adopted training programs in the form of in-house training and local workshops (Table 3). Cambodian NGOs use mainly in-house trainers, while NGOs in Viet Nam use mostly international trainers.

However, the training programs provided are generally inadequate. NGOs cited two reasons for the lack of training provision: First, there is a shortage of qualified national and international trainers in both countries. In some cases, training activities provide only a brief introduction to the human trafficking situation, and do not teach skills to enable staff to deal with specific problems and issues. Second, there is a lack of suitable training curriculum and communication materials. Most materials are not applicable to the country context and require translation from a foreign language.

Prevention and Rehabilitation Programs to Reduce Vulnerability to Human Trafficking

The main focus of the NGOs surveyed in both countries was prevention and protection, followed by policy and advocacy (Table 4). Of the NGOs in Viet Nam, 46% focus on working with the media, while 43% of NGOs in Cambodia take part in networking and information-sharing programs. The NGOs stressed that prevention was the most important factor in helping combat human trafficking. If prevention activities are adequate and well implemented, then the people will not have to confront the consequences of trafficking. Rehabilitation programs

Table 3: Training Course Provision

Type of Course	Cambodia (%)	Viet Nam (%)
Training provided to staff in charge of anti-trafficking projects and programs on how to identify and respond to women or children trafficking cases	100	38.5
Type of training provided to staff in charge of anti-trafficking projects and programs:		
In-house training	28.6	15.4
Local workshops	92.9	23.1
Regional conferences	42.9	15.4
National conferences	42.9	23.1
Number of training programs provided:		
1–3	50.0	7.7
4–6	14.3	15.4
Provision of training:		
Independent consultants or trainers	35.7	7.7
Trainers from the organization	71.4	15.4
Local trainers	42.9	7.7
International trainers	50.0	23.1
Number of trainers used in nongovernment organizations:		
1–2	28.6	23.1
3–4	28.6	0.0

Source: Authors' calculations based on a survey interview in April 2011.

Table 4: Prevention and Rehabilitation Programs

Item	Cambodia	Viet Nam
Main types of anti-trafficking programs and projects implemented	Prevention = 71.4% Protection and victim support = 71.4% Policy and advocacy = 61.5% Legal framework and law = 50%	Prevention = 100% Rehabilitation and reintegration = 84.6% Protection and victim support = 46.2% Policy and advocacy = 38.5%
Main types of prevention activity	Education = 57.1% Awareness and advocacy = 57.1% Networking and information = 42.9%	Education = 92.3% Awareness and advocacy = 92.3% Working with media = 46.2%
Main types of protection and victim support activities	Legal assistance = 57.1% Health care = 35.7%	Vocational training = 61.5% Health care = 46.2% Legal assistance = 46.2%

Note: The figures indicate the percentage of the total number of nongovernment organizations surveyed.

Source: Authors' calculations based on a survey interview in April 2011.

generally suffer from insufficient funding and a lack of commitment by trafficking victims to stay in the community, which makes it hard to access them.

Protection and rehabilitation programs play a crucial role in supporting trafficking victims after their return. If the returned victims cannot earn a living and reintegrate socially with others in their community, they are easily re-trafficked. The protection and rehabilitation programs run by NGOs in the two countries differ in focus. Viet Nam's NGOs stress vocational training to help provide the poor and disadvantaged people in rural areas with skills to get jobs and earn

an income. It also helps trafficking victims to reintegrate faster into the community. NGOs in Cambodia pay more attention to prevention programs than they do to repatriation programs. A minority of NGOs provide other types of rehabilitation activities, such as shelter, financial assistance, and health care.

Development of Legal Frameworks

All NGOs in Viet Nam have been working on international criminal law, and three NGOs have also been working on national laws (Table 5). Few NGOs in Cambodia are engaged in international trafficking and human rights law, and most of them tend to focus more on building national laws related to trafficking.

Table 5: Legal Framework Activities

Activity	Cambodia	Viet Nam
Main types of legal framework activity	National laws = 42.9%	International criminal law = 100%
Main types of law enforcement activity	Investigation of complaints = 28.6%	Trial of trafficking cases = 100% Protection of victims = 69.2%
Main types of policy and advocacy activities	Advocacy = 42.9% Information = 28.6%	Advocacy = 76.9% Information = 69.2%

Note: The figures indicate the percentage of the total number of nongovernment organizations surveyed.

Source: Authors' calculations based on a survey interview in April 2011.

All NGOs in Viet Nam support or assist in trials of trafficking cases, and about 70% are engaged in the protection of trafficking victims. About 77% conduct policy and advocacy activities (e.g., advocacy on related laws, plans, and strategies); and almost 70% of NGOs are also involved in information collection, collation, and dissemination. In contrast, only about 29% of NGOs in Cambodia take part in investigating complaints, and more than half of them do not assist in any law enforcement activities. This is because NGOs in Cambodia are not directly involved in policy making; their roles are focused on lobbying, advocacy, and resource mobilization for anti-trafficking strategies. Their law enforcement activities extend to the provision of training on trafficking-related laws for local partners and communities.

Support from the Government

All NGOs interviewed in Viet Nam reported that they are receiving support from the government. In Cambodia, the figure was about 71%. The government has greatly contributed to NGO performance as cooperative partners in carrying out anti-trafficking activities, and as a bridge between NGOs and vulnerable and trafficked victims. Government agencies assist NGOs in accessing victims and selecting high-risk localities, and collaborate in conducting community communication events and awareness-raising activities.

The government agency that was most frequently mentioned as supporting anti-trafficking activities by the NGOs is the Women's Union in Viet Nam (85%) and mass media in Cambodia (57%). The Women's Union, whose functions are to care for the economic, social, mental, and physical well-being of women and children, has members in the rural areas who are vulnerable

Table 6: Government Support Received

Item	Cambodia	Viet Nam
Received support from the government	71.4%	100%
Government agencies that gave support	Mass media = 57.1% Youth union = 14.3%	Women's Union = 84.6% Ministry of Labour, War Invalids and Social Affairs = 38.5%

Note: The figures indicate the percentage of total number of nongovernment organizations surveyed.
Source: Authors' calculations based on a survey interview in April 2011.

to trafficking because of their need for better employment and income. It also has a mandate to implement certain policies and laws related to women. For example, in August 2002, the Government of Viet Nam suspended the marriage licenses mediation services and transferred the function to the Women's Union. The community communication network of the Women's Union has also assisted NGOs in their information, education, and communication campaigns on the prevention of human trafficking, and in the establishment and maintenance of shelters for trafficking victims.

Viet Nam has a high proportion of trafficking victims in the 25–39 age group, mainly because of the high demand for sex workers, domestic workers, and laborers (Table 7). Other reasons are high unemployment, poverty in the countryside, bereavement, and divorce. Similar reasons account for the dominance of the under-18 age group trafficked in Cambodia. The data on child trafficking are even more alarming. For example, in Cambodia, 29% of the NGOs reported that the average age of most children trafficked is 5–10 years, and 21% reported that the average age of children trafficked was 11–15 years. Information about the age of children trafficked in Viet Nam is not reliable as most NGOs interviewed were not involved in anti-trafficking activities involving children. These activities are integrated with child rights programs implemented by their organizations.

While 10 of the NGOs interviewed in Cambodia reported that the victims of trafficking approached the NGOs themselves, self-referral is not common among the NGOs in Viet Nam. Most NGOs in Viet Nam (9 of 13) reported that local law enforcement agencies referred the trafficking victims to them. The victims were also referred to the NGOs by neighbors or

Table 7: Average Age of Women and Children Trafficked

Age Range	Cambodia (%)	Viet Nam (%)
Age of women trafficked since 2005:		
Less than 18 years old	71.4	15.4
18–24 years old	7.1	46.2
25–29 years old	7.1	84.6
30–39 years old	0.0	68.2
Age of children trafficked since 2005:		
Less than 5 years old	7.1	7.7
5–10 years old	28.6	7.7
11–15 years old	21.4	15.4
16–18 years old	0.0	15.4

Note: The figures indicate the percentage of the total number of nongovernment organizations surveyed.
Source: Authors' calculations based on a survey interview in April 2011.

concerned citizens and other service providers. Rather than searching directly for victims, the NGOs conduct surveys to identify the high-risk localities targeted by traffickers and areas where trafficking has reached alarming levels. Local authorities, law enforcement agencies, and civic organizations that work closely with victims introduce the victims of trafficking to the NGOs. Thus, the NGOs' anti-trafficking actions depend largely on the cooperation and assistance of related agencies and organizations.

Of the NGOs in Cambodia, 79% reported that Thailand was the major trafficking destination of Cambodian women, whereas 92% of the NGOs in Viet Nam cited the PRC as the main trafficking destination for Vietnamese women (Table 8). Besides illiterate rural women, a new generation of girls and women from urban areas who have a certain level of education are also traded by organized gangs. The traffickers often search for lonely girls on the internet and lure them to participate in profitable projects or lucrative jobs in big cities. They then sell the girls into brothels in the foreign country.

Similarly, 79% of the NGOs in Cambodia cited Thailand as the major trafficking destination of Cambodian children, whereas 31% Viet Nam NGOs cited the PRC as the main trafficking destination for Vietnamese children. The key reason that children are trafficked both in Cambodia and Viet Nam was found to be poverty and poor educational opportunities.

Methods frequently used by traffickers to lure women and children include the promise of job, marriage, or a better life (Table 9). All NGOs in Viet Nam and 79% of NGOs in Cambodia acknowledged that the promise of a job is the trick most often used by human traffickers because of the victims' desire for higher incomes and a better life. There is also an increasing demand from PRC men for Vietnamese wives, and many young Vietnamese girls believe that marriage to a foreigner will enable them to have a better life. This is a major reason that the PRC is the main destination for trafficked Vietnamese women. Upon arrival in the PRC, the women are often sold to other men, to brothels, or to families as laborers.

Cambodia is the second-largest trafficking destination of Vietnamese women and children. The main purpose is prostitution. Hence, prostitution and pornography are the dominant crimes associated with trafficking of women and children reported by Cambodian NGOs (79%) and Vietnamese NGOs (92%). In Viet Nam, prostitutes use pornographic

Table 8: Destinations of Trafficked Women and Children

Destination	Cambodia (%)	Viet Nam (%)
Trafficking destinations for women since 2005:		
Cambodia	0.0	30.8
People's Republic of China	7.1	92.3
Republic of Korea	28.6	7.7
Taipei,China	35.7	15.4
Thailand	78.6	15.4
Trafficking destinations for children since 2005:		
Cambodia	0.0	7.7
People's Republic of China	7.1	30.8
Republic of Korea	14.3	0.0
Taipei,China	14.3	7.7
Thailand	78.6	7.7

Note: The figures indicate the percentage of the total number of nongovernment organizations surveyed.

Source: Authors' calculations based on a survey interview in April 2011.

Table 9: Methods Used to Trick Women and Children and Crimes Associated with Trafficking

Method	Cambodia (%)	Viet Nam (%)
Methods often used to trick women and children:		
Good job	78.6	100
Marriage	64.3	84.6
Labor market	64.3	30.8
Better life	42.9	76.9
Average length of time to investigate a woman/child trafficking case:		
Less than 5 months	50	15.4
More than 5 months	28.6	0
Formal charges against individuals involved in women and children trafficking	0	7.7
Crimes associated with trafficked women and children:		
Prostitution and pornography	78.6	92.3
Drug trafficking	35.7	0
Illegal immigration	0	61.5
False identification	7.1	53.8

Note: The figures indicate the percentage of total number of nongovernment organizations surveyed.

Source: Authors' calculations based on a survey interview in April 2011.

websites to communicate with customers. These websites are also accessed by young people, including teenagers, through internet cafes and other public places that are difficult for the authorities to regulate. In Cambodia, more than one-third of NGOs cited drug trafficking as the most prevalent crime associated with trafficking in women and children; whereas in Viet Nam, more than two-thirds of NGOs cited illegal immigration and false identification as two major crimes associated with trafficking.

Formal charges against individuals involved in the trafficking of women and/or children are weak and such crimes often go unreported. For example, only one Vietnamese NGO (7.7%) reported formal charges brought against individuals involved in trafficking of women and/or children. A major reason is the difficulty in determining a case of trafficking crime as it has no clear definition. For instance, if a person is approached when he or she is leading others across a country border, that person will not admit to be being involved in trafficking as there is no evidence related to exchange of money, leading to the difficulties in identifying traffickers. Furthermore, one NGO acknowledges that law enforcement activities in Viet Nam remain weak. There is no specific anti-trafficking law in Viet Nam and all trafficking cases are judged according to criminal law.

Major Factors Contributing to the Performance of Anti-Trafficking Programs

Strong commitment and close cooperation from local partners is a major contributing factor to the performance of NGOs' anti-trafficking programs in Viet Nam. All 13 NGOs interviewed acknowledged that they had received strong support from local partners in conducting baseline surveys, facilitating victim access, and evaluating the implementation and sustainability of project activities. Other factors contributing to effective program performance include a well-designed action plan, close coordination with various anti-trafficking agencies, strong

organizational capacity, qualified staff, and valuable technical advisors. The provision of vocational training and establishment of vocational villages, support for production groups, good counseling services, volunteer contributions, and community participation are also significant factors.

NGOs in Cambodia reported that a good legal framework was the most important factor contributing to their performance, followed by strong government commitment, cooperation from local partners, and community contribution. Government agencies, such as the Ministry of Interior, local authorities, and the police, play vital roles in the development of legal framework as well as in law enforcement. Factors such as well-designed action plans, clear procedures for identifying the needs of victims, sufficient funds, strong staff capacity and commitment, and positive experiences in anti-trafficking programs are also crucial to NGO performance.

Major Difficulties in Combating Trafficking

Despite the obvious achievements in combating human trafficking, NGOs in Cambodia and Viet Nam are confronted with many difficulties in implementing their anti-trafficking programs. For NGOs in Viet Nam, the major constraints relate to policy or legal issues and program implementation. Although the Government of Viet Nam has promulgated a national action plan to combat human trafficking, no budget has been provided to carry out the associated activities. Local authorities are neither active nor proactive in combating human trafficking, and they rely mainly on NGOs and other organizations to carry out activities in this area. It is also difficult to determine a case of trafficking crime because it can take different forms, such as sex trafficking, pornography, labor trafficking, and fraudulent adoption (UNICEF 2005). There is no clear definition of the different forms of trafficking. Moreover, law enforcement in Viet Nam remains weak—Viet Nam does not have any specific anti-trafficking law, and all trafficking cases are judged according to criminal law.

Gaining access to victims is also as a critical constraint to the implementation of anti-trafficking programs. This is mainly because trafficking is a sensitive issue and there is a general lack of understanding of the rights of victims. Victims feel ashamed or embarrassed, and may not want people to know of their situation for fear of retribution. Insufficient funding and human resources to organize program activities is another crucial constraint to program implementation. Funding tends to be short-term or allocated annually, leading to breakdowns in implementation when funds are no longer available. The officers are also overworked. Local partners who work part-time on anti-trafficking programs are generally busy with their full-time jobs. Problems involving referral of trafficking victims, discrimination, and management of reintegration cases, as well as the limited understanding of local authorities about the programs' activities are other constraints to program implementation.

In Cambodia, the challenges NGOs face in dealing with human trafficking include difficulty in identifying victims, inadequate and irregular funding, corruption, the dispersed geographical location of the victims, and threats to victims from traffickers. NGOs find it hard to identify trafficking victims due to the limited sources of trafficking data, language barriers, threats from traffickers, and sometimes the lack of understanding by authorities and partners regarding human trafficking. They also find it difficult to transfer trafficking victims to other organizations due to poor cooperation and commitment from these organizations.

The lack of well-established procedures for investigating human trafficking cases is a major problem encountered by the Vietnamese NGOs surveyed. In contrast, more than 50% of

the Cambodian NGOs do not consider this to be a problem. The severity of funding shortages varies across NGOs in Viet Nam.

Many NGOs in Cambodia and Viet Nam reported that the victims' feelings of shame or embarrassment are a major barrier to providing them with help. Some NGOs, on the other hand, reported that there are cases where victims do not see themselves as victims, while other NGOs noted that victims lack knowledge about their rights. NGOs in Viet Nam do not face language and cultural barriers when working with victims, while many NGOs in Cambodia do encounter such problems. NGOs interviewed in both countries reported that they seldom lack support from victim service providers or community-based organizations in assisting trafficking victims.

Problems in Rehabilitating and Reintegrating Trafficking Victims

The survey results show that rehabilitation and reintegration programs are more developed in Viet Nam than they are in Cambodia. Of the 13 NGOs in Viet Nam, 85% have engaged in rehabilitation and reintegration programs (Table 4), while only 43% of the 14 NGOs in Cambodia have done so. This is because repatriation activities are not considered an urgent concern in Cambodia. The Government of Cambodia and other organizations and agencies, including NGOs, place greater emphasis on strengthening prevention, protecting the people from being trafficked, and rescuing victims to reduce the number of people trafficked. In addition, the numbers of victims returned home after being trafficked has not been thoroughly investigated.

Vietnamese NGOs have identified four major issues in their rehabilitation and reintegration programs. First, there is social discrimination against the victims. Due to the lack of information about trafficking and trafficked cases, there is a common misconception that trafficking always relates to crime, regardless of who the traffickers and the victims are. Second, returnees need help in finding jobs and earning an income to enable them to stabilize their lives and avoid becoming a burden to their families, relatives, and society. Most trafficking victims do not have any qualifications or skills, and/or lack the capital to start a new business on their own. Third, many victims return with health problems, including mental health issues resulting from long-distance travel, hard work, and harsh treatment. Fourth, returnees suffer from alienation from their role and status in the community because they have been away for a long period of time. Feelings of shame or embarrassment on the part of the victims can hinder access to them and can prevent them from obtaining legal support, such as the issuance of identity cards, personal documents, or birth certificates for their children.

NGOs' rehabilitation and reintegration programs provide various forms of support to trafficking victims, including the provision of vocational training and psychological support. As the activities of several NGOs were found to overlap, there is scope for individual NGOs to specialize in one activity (e.g., vocational training, shelter, health care, legal assistance, or credit provision). This approach would contribute to providing more effective and comprehensive assistance to the victims. In addition, most victims return home empty-handed. Some have no immediate family members, relatives, or friends to ask for assistance. Thus, shelters are important for such victims when they first return. At present, government agencies are responsible for managing and providing shelters for the victims, while NGOs act as funding agencies or providers of technical assistance for the operation and maintenance of the shelters. Close cooperation between NGOs and government agencies in managing shelters for victims should be fostered to maximize synergies.

Coordination Efforts in Combating Women and Children Trafficking

NGOs in Cambodia and Viet Nam have different areas of emphasis (Table 10). About 70% of NGOs in Viet Nam view anti-trafficking activities as important compared to only 7% of NGOs in Cambodia. Rehabilitation and reintegration, and vocational training are the focal areas of Vietnamese NGOs' anti-trafficking programs (31%); while legal programs and human and children's rights are the focal areas of Cambodian NGOs (7%). Viet Nam's NGOs have engaged more extensively in partnerships to help combat human trafficking compared to Cambodia's NGOs. Activities conducted by Vietnamese NGOs in partnership with other organizations include communication events, while Cambodian NGOs have undertaken joint meetings and workshops on how to combat trafficking of women and children in the country.

All NGOs interviewed in Viet Nam have either collaborated with or received support from government agencies in their anti-trafficking programs. The key government agencies include the Women's Union and the Ministry of Labour, War Invalids and Social Affairs. These

Table 10: Coordination Efforts between Government and Nongovernment Organizations and among Nongovernment Organizations in Combating Trafficking of Women and Children

Item	Cambodia	Viet Nam
Area of anti-trafficking programs ranked as most important	Prevention = 7.1% Rehabilitation and reintegration = 0% Vocational training = 0% Legal programs = 7.1% Human and children's rights = 7.1%	Prevention = 69.2% Rehabilitation and reintegration = 30.8% Vocational training = 30.8% Legal programs = 0% Human and children's rights = 0%
Engaged in partnership activities to combat trafficking	61.5%	28.6%
Collaborative activities engaged in communication events and joint meetings	Communication events with others = 0% Joint meeting and workshops = 14.3%	Communication events with others = 23.1% Joint meeting and workshops = 0%
Anti-trafficking programs that collaborate with or receive support from government agencies	0%	100%
Government agencies supporting anti-trafficking programs	No response	Police = 7.7% Women's Union = 84.6% Youth union = 7.7% Mass media = 15.4% Ministry of Labour, War Invalids and Social Affairs = 38.5%
Collaborated with other NGOs to carry out anti-trafficking programs	71.4%	92.3%
Types of NGOs with whom collaboration on with anti-trafficking programs was conducted	Local NGOs = 7.1% Local and international NGOs = 57.1%	Local NGOs = 15.4% Local and international NGOs = 6.9%
Are there other ways you believe your organization could enhance trafficking investigation?	28.6%	23.1%

NGO = nongovernment organization.

Note: The figures indicate the percentage of the total number of NGOs surveyed.

Source: Authors' calculations based on a survey interview in April 2011.

agencies protect the interests of women and laborers who are vulnerable to trafficking, and act as contact points to access trafficking victims or targeted beneficiaries.

The survey results also show that collaboration among NGOs is common both in Cambodia and Viet Nam, with 60%–70% of the NGOs in both countries reporting that they have collaborated with other local and/or international NGOs in implementing their anti-trafficking programs. The NGOs cooperate with other NGOs to organize communication events, exchange materials, or share implementation experiences. They also organize meetings of NGOs that have carried out anti-trafficking programs to update related documents and strategies and/or develop joint action plans. However, only 23.1% Vietnamese NGOs believe there are other ways that their organizations could enhance their trafficking investigation. Similarly, only 28.6% of Cambodian NGOs believe that their organizations could further improve the investigation of trafficking cases.

Conclusions

NGOs in Viet Nam and Cambodia face various challenges in the implementation of their human anti-trafficking programs and projects. Most NGOs in Viet Nam are frequently hampered by the lack of procedures for investigating cases of women and children trafficking, as well as a lack of financial and human resources to implement most of their programs. Most NGOs in Cambodia consider identifying the victims to be the most difficult part of dealing with trafficking. This task is made problematic by limited data availability, a low level of understanding of the trafficked victims, threats from traffickers, and sometimes a lack of understanding on the part of authorities and partners regarding human trafficking. NGOs in both countries face difficulties in accessing the victims due to a general lack of knowledge of the rights of victims, poor legal assistance and support for the victims, and lack of prosecution of traffickers. In addition, the victims experience social discrimination from the community because of insufficient understanding of the consequences of trafficking and a tendency to relate trafficking to crime regardless of whether the individual is a trafficker or a victim.

Compared to Viet Nam, the anti-trafficking programs operated by Cambodian NGOs have enjoyed a much longer history, dating back 30 years. Most Cambodian NGOs interviewed used financial sources other than the Asia Foundation, the International Organization for Migration, Oxfam, and the United Nations. However, training programs provided to NGO staff are generally inadequate.

Most NGOs in Viet Nam cited commitment at the local and national levels, as well as good collaboration with local partners as the major factors contributing to the performance of their anti-trafficking programs. Similarly, most NGOs in Cambodia attributed the performance of their programs to factors such as cooperation among the NGOs and strong commitment from government agencies, including the judicial police force, local authorities, and the Ministry of Interior. NGOs in Viet Nam agree that prevention, rehabilitation, protection, and support programs help reduce the vulnerability of women and children to trafficking. Unlike in Viet Nam, few repatriation programs are run by NGOs in Cambodia because repatriation activities are not considered to be an urgent need there. Thus, most NGOs in Cambodia support trafficking victims with vocational training to enhance their job opportunities so that they can support themselves.

Policy Implications

The trafficking of women and children from Viet Nam to the PRC and Cambodia involves complex social and cultural issues. For instance, the concept of the “border” as a political boundary does not seem to exist among the ethnic minority groups of the PRC and Viet Nam, and the practice of buying a wife in a nearby village is universal in these remote areas. The enforcement of the one-child policy in the PRC and the associated skewed gender balance in favor of males help fuel the demand for Vietnamese women for marriage and Vietnamese children for adoption. Moreover, lax border patrols and harsh topography make it easy for citizens to cross the borders, thus allowing trafficking to occur undetected. Illegal migration for prostitution from Viet Nam to Phnom Penh in Cambodia still occurs, but it appears to be less prevalent than it was in the late 1990s and early 2000s. This is because human traffickers find it more appealing to push migration for prostitution to provinces along the Mekong delta to Ho Chi Minh City and to other Asian destinations such as the Republic of Korea; Singapore; and Taipei, China (Lainez 2010). Therefore, it is important for the governments of neighboring countries to work together to develop joint solutions to solve the trafficking problems and to cooperate with other organizations to support the victims.

At the Seventh Senior Officials Meeting of the Coordinated Mekong Ministerial Initiative Against Trafficking, held in Bagan, Myanmar on 20–21 January 2010, the GMS countries made a commitment to increase the momentum to combat human trafficking. The event brought together more than 135 representatives from the six governments in the GMS and observers from other member countries of the Association of Southeast Asian Nations, the United Nations, international NGOs, and donors. The participants reviewed plans and priorities to counter trafficking, focusing in particular on law enforcement and criminal justice, and the recovery and reintegration of victims (*New Straits Times* 2010). Despite such concerted efforts by all parties to counter human trafficking, there are still many weaknesses in the implementation of their anti-trafficking programs.

The findings of this study indicate deficiencies in the cooperation between government agencies and NGOs in the implementation of anti-trafficking programs. Anti-trafficking programs of NGO networks in Viet Nam are relatively small, and a number of NGOs—both in Cambodia and in Viet Nam—do not join networks or implement programs in partnership with other NGOs. Implementation of anti-trafficking projects is generally constrained by the lack of financial and human resources, difficulty in identifying victims, and weak legal frameworks. Collaboration with government agencies is taking place but needs to be improved, especially between Cambodian NGOs and the Women’s Union, which is mandated to uplift the economic, social, mental, and physical well-being of women and children. An effective cooperation mechanism between NGOs, related government agencies, and other concerned organizations should be fostered to develop comprehensive and intensive anti-trafficking programs.

NGOs play vital roles in fighting human trafficking. However, the survey results indicate that efforts in some areas remain insufficient. For example, most Vietnamese NGOs’ programs focus more on prevention, advocacy, and communication rather than on the development of the legal framework or law enforcement. The Government of Viet Nam should involve NGOs in developing Viet Nam’s human anti-trafficking law. Working more closely with NGOs and involving them in the policy-making process can help develop policies and laws that are better tailored to the situation of the country as well as of the region.

In Cambodia, there is an absence of systematic data about repatriated victims, and only very few NGOs have carried out programs to help victims reintegrate into their communities on their return. Victims of trafficking often escape and return to their home country where they hope to find assistance, comfort, and sympathy. Thus, government and nongovernment sectors should emphasize rehabilitation programs for them.

NGOs have been involved in combating human trafficking for a long time and the staff in charge of anti-trafficking programs have accumulated many years of experience. However, the survey results show that they lack proper training to implement anti-trafficking programs more effectively. Most of the staff in charge of programs cope with their tasks through self-learning and experience. More training on human trafficking issues should therefore be made available to NGO staff.

The study suggests that poverty and poor education are the leading causes of trafficking in Cambodia and Viet Nam. Once individuals are trafficked, their lives become part of a vicious cycle. Those who are able to return home may fall victim to trafficking again or may become involved in trafficking-related crimes if they cannot escape from poverty. Government measures to promote and invest in activities for hunger elimination, poverty reduction, and children's education are important deterrents to human trafficking. At the same time, advocacy to increase people's awareness of trafficking-related issues should be intensified to make the poor less vulnerable to human trafficking.

Education, advocacy, and communication activities to counter human trafficking should be directed at every social stratum, and should extend to rural and mountainous areas where education standards are very low. The survey results indicate that the promise of a good job by individuals posing as employment agents is the main trick that traffickers use to lure women and children. This underlines the need for governments to provide vocational training and create employment opportunities to help rural people obtain work. Creating jobs is important not only for preventing trafficking, but also for reintegrating and rehabilitating trafficking victims.

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² The Asian Development Bank recognizes China by the name People's Republic of China.

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Appendix: Nongovernment Organizations Interviewed

Cambodia

1. Cambodian Center for the Protection of Children's Rights
2. Cambodian Human Rights and Development Association
3. Cambodian League for the Promotion and Defense of Human Rights
4. Cambodian Women's Crisis Center
5. Healthcare Center for Children
6. Khmer Women's Voice Center
7. Legal Aid of Cambodia
8. Legal Support for Children and Women
9. Mith Samlanh (Friends)
10. NYEMO Cambodia NGO
11. Protection of Juvenile Justice
12. Saboras Organization
13. Chab Dai Coalition
14. Action Pour Les Enfants
15. Don Bosco Foundation
16. International Labour Organization
17. World Vision Cambodia
18. Youth with a Mission
19. Asia Regional Trafficking in Persons (ARTIP) Project
20. End Child Prostitution, Abuses and Trafficking–Cambodia
21. United Nations Inter-Agency Project on Human Trafficking in the Greater Mekong Sub-region
22. Cambodian Defenders Project
23. Equal Access
24. Cambodian Center for Human Rights
25. Women for Prosperity

Viet Nam

1. Save the Children UK
2. ActionAid International Vietnam
3. The Asia Foundation
4. Research Center for Family Health and Community Development
5. Oxfam Quebec
6. Gruppo Trentino Volontariato
7. Vietnam Handicraft Research and Promotion Centre
8. Catholic Relief Services
9. Centre for Reproductive and Family Health
10. SHARE Centre
11. Australian People for Health, Education and Development Abroad
12. Centre for Studies and Applied Sciences in Gender, Family, Women and Adolescents
13. Centre for Education Promotion and Empowerment of Women

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About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than \$2 a day, with 733 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



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