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## No. 8

### **Does ASEAN Boost Cambodia's Trade?**

*Sokchea Lim*

*Economic Development Program*

*Cambodian Institute for Cooperation and Peace*

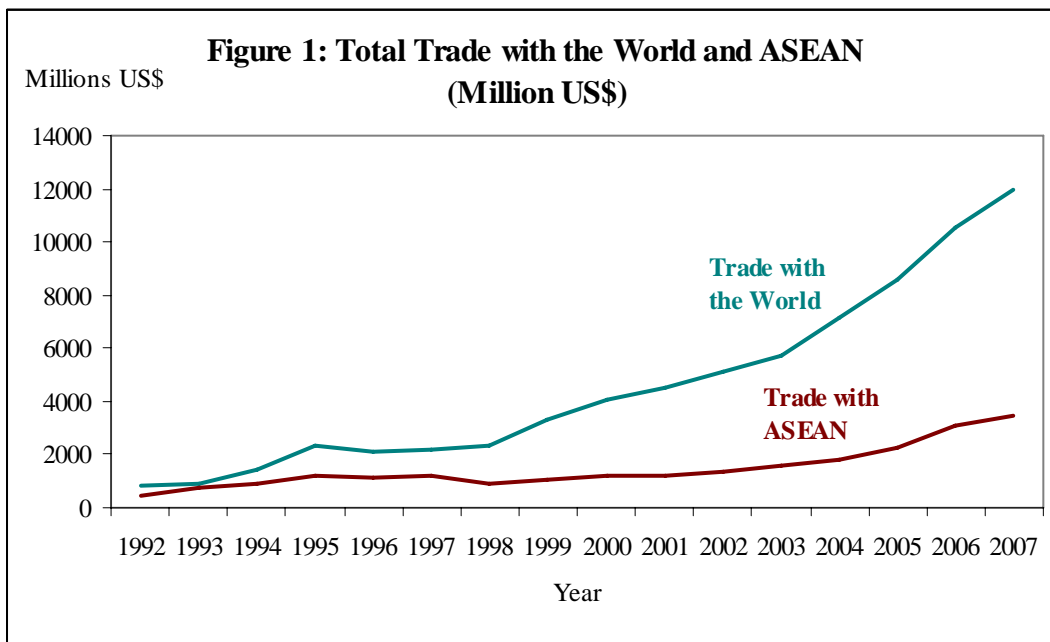
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After 1993, Cambodia was pursuing a drastic reform of openness through sub-regional, regional and global integrations while there were political and scholarly debates over whether Cambodia be ready for the competition as well as what benefits be derived from the group membership. Among several efforts, Cambodia was negotiating to become a member of the Association of South East Asian Nations (ASEAN) and the effort was successful in April 1999. As one of the members, Cambodia also participated in the ASEAN Free Trade Area (AFTA) platform to promote trade within the ASEAN region. Although theoretical foundations suggest that trade improves consumers' utility and terms of trade, the political debates and debates among scholars were tough and among those arguments, a question was asked whether the membership of ASEAN increases trade between Cambodia and member countries. Until today 10 years have passed and it is important to examine the trend and look back at the history to evaluate if the question can be answered. Hence, the objective of this article is to first examine the data of Cambodia's trade flows, especially its trade with ASEAN and review some empirical research on Cambodia's trade which examines the relationship between the two variables, namely ASEAN membership and Cambodia's trade with ASEAN.

#### **Data Examination (1992-2007)**

Figure 1 presents the trends of the nominal amounts of Cambodia's trade with the globe and ASEAN. Trade is measured as the sum of total exports and imports of goods and services. The data are extracted from two sources, IMF's International Financial Statistics 2009 (CD-

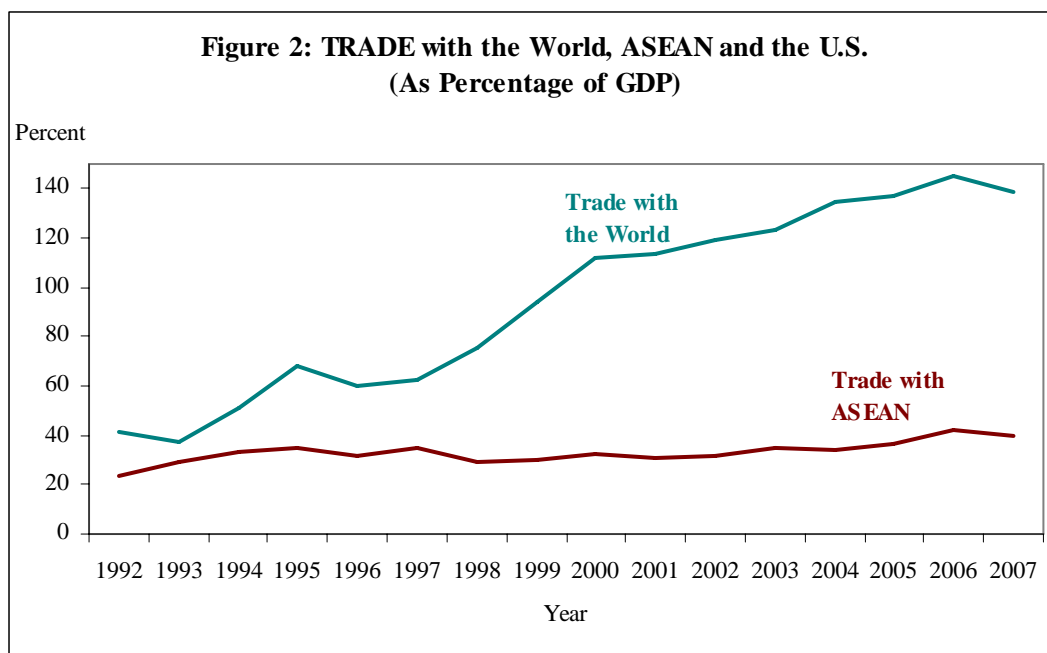
ROM) and UN ComTrade Database. Cambodia's total trade with the world initially accounted for US\$820 million in 1992 and rose by roughly 300 percent to US\$3.3 billion in 1999 and by another 260 percent to about US\$12 billion in 2007. In 1992, trade with ASEAN<sup>1</sup> was originally about US\$465 million which represented more than 50 percent of total trade. For the same period, it jumped by 126 percent to merely US\$1.1 billion and by another 230 percent to US\$3.5 billion. However, it is worth noting that the trade with ASEAN as the percentage of total trade declined to 32 percent the year Cambodia gained membership and slightly to 29 percent in 2007. By and large, it is indicative that while the nominal amounts of trade with ASEAN have surged tremendously, the trade share with ASEAN to total trade fell modestly prior to Cambodia's integration into ASEAN and remained marginally steady thereafter.



Sources: IMF's International Financial Statistics 2009 (CD-ROM)  
UN ComTrade (<http://comtrade.un.org/>)

On the other hand, it would be even more obvious to examine both trends as the ratio of trade to gross domestic product (GDP). The ratio is generally referred to the degree of openness, which simply means how wide the country has opened its door to trade. Also, the trend of the ratio provides us the picture of how trade changes overtime when we control the effect of inflation and income. Figure 2 illustrates a similar trend for total trade of Cambodia with the world. Trade with the world soured from 40 percent of GDP in 1992 to 95 percent in 1999 and to approximately 140 percent in 2007. The growth of total trade was significantly larger than that of GDP; hence, trade volume started to surpass total income in 2000. Nonetheless, trade with ASEAN presents a relatively flat line. It rose slowly from 23 percent to 30 percent in 1999 and continued to keep on gradual rise to about 40 percent in 2007. It is noted that while total trade grew substantially fast, trade with ASEAN seemed to be indifferent before and after Cambodia gained the membership when GDP growth is controlled.

<sup>1</sup> The data are downloaded from UN ComTrade Database SITC Rev.2 (<http://comtrade.un.org/>) with the partner countries as the reporting sources. In 1992, Cambodia's trade with ASEAN includes total trade with only 5 countries comprising of Indonesia, Malaysia, Philippines, Singapore and Thailand. For 1999 and 2007, Vietnam was counted in. The 1999 figures are presented to clearly capture the momentum of the trade upsurge before and after ASEAN membership.



Sources: IMF's International Financial Statistics 2009 (CD-ROM)  
UN ComTrade (<http://comtrade.un.org/>)

### Review of the Literature

It should not be sufficient to provide the validity of an argument by just looking at the graphs or the trends of the variables because they can be influenced by various factors and shocks. Therefore, empirical economists and researchers use econometric models to control for those factors. The article presents chronologically three papers<sup>2</sup> which investigate factors affecting Cambodia's trade flows. The papers employ gravity models, one of the widely-used trade models. Table 1 summarizes the methodologies and results.

Neak (2005)<sup>3</sup> uses a panel data of bilateral trade between Cambodia and 29 countries including 6 ASEAN countries, namely Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. The time array ranges from 1994 to 2002. Ordinary Least Squares (OLS) method is employed to regress the gravity model. The regression controls 8 explanatory variables which are the product of GDP, the product of GDP per capita, transportation cost (city distance as a proxy), foreign direct investment, border, ASEAN, preferential arrangement and bilateral trade arrangement. Although the main purpose of the study is to evaluate the relationship between bilateral trade and foreign direct investment (FDI), the binary variable, ASEAN, was controlled in the analysis. The result indicates an insignificant relationship between the ASEAN membership of Cambodia and the bilateral trade.

**Table 1: Summary of Empirical Research on Cambodia's Trade**

Authors	Data	Methods	Results
Neak (2005)	29 trading partners including 6 ASEAN countries.	OLS <sup>a</sup>	Insignificant relationship

<sup>2</sup> The paper by Fukase and Martin (2001) evaluating the static benefits of Cambodia under each of AFTA liberalization packages by using a computational general equilibrium model is not presented because the paper uses the 1998 data. However, their results suggest that those benefits are small.

<sup>3</sup> Neak, S. 2005. FDI and Trade in Cambodia: Substitutes or Complements? *Cambodian Economic Review*, 1, 99-114.

	Time: 1994-2002		
Kim (2006)	20 major trading partners including 4 ASEAN countries. Time: 1994-2004	OLS and RE <sup>b</sup>	Limited role of ASEAN
Huot & Kakinaka (2007)	20 major trading partners including 4 ASEAN countries. Time: 2000-2004	OLS	Significant Relationship

a. OLS stands for Ordinary Least Squares

b. RE stands for Random Effects.

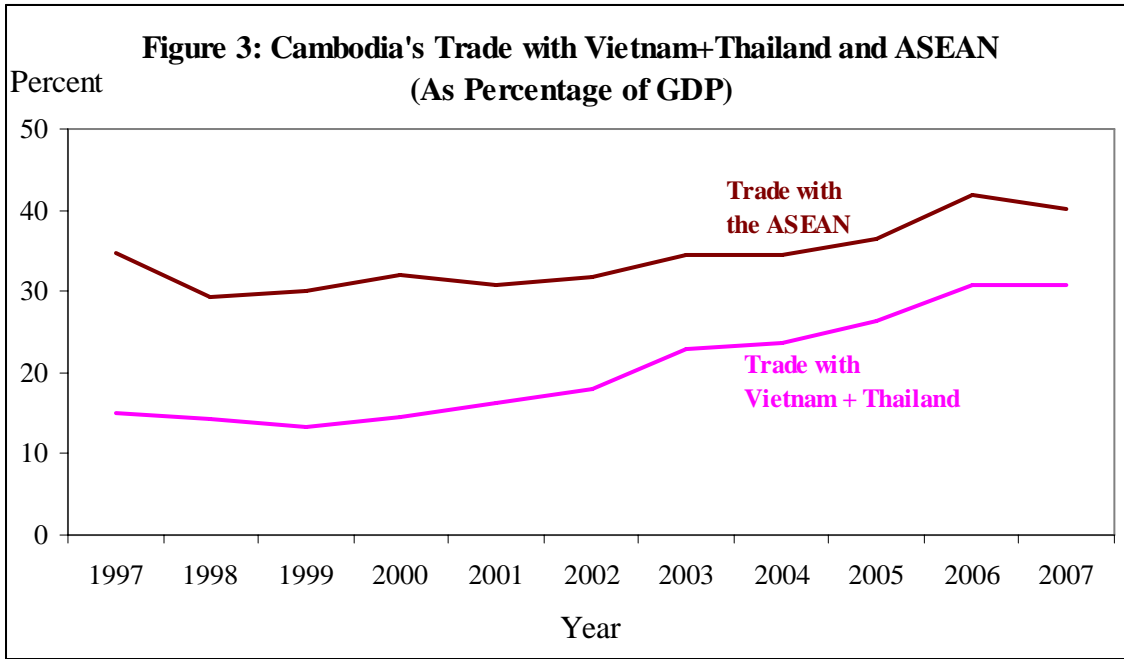
Kim (2006)<sup>4</sup> uses 20 major trading partners of Cambodia in a time span from 1994 to 2004 to analyze Cambodia's trade flows. However, he includes only 4 ASEAN countries which are Malaysia, Singapore, Thailand and Vietnam. The analysis employs two models, the gravity and the unilateral exports models to evaluate both trade and exports alone. He also divides the time span into two parts, prior to and after ASEAN membership. The regression controls 9 explanatory variables including GDP of Cambodia, GDP of the partner countries, exchange rate depreciation, exchange rate risk, transportation cost, border, ASEAN, and the preferential status provided by the European Union and the U.S. The results conclude that ASEAN plays a limited role in boosting trade and exports of Cambodia within the region.

Huot and Kakinaka (2007)<sup>5</sup> also use a panel data of 20 major trading partners of Cambodia with the 4 ASEAN countries employed in Kim (2006), but for a period between 2000 and 2004 after Cambodia gained ASEAN membership. The main purpose of the study is to analyze the impact of trade conformity on bilateral trade of Cambodia on the basis on gravity model. They perform OLS method on the regression equation which controls 6 explanatory variables including the product of GDP, the product of GDP per capita, transportation cost, ASEAN, exchange rate risk and trade conformity index. The results provide evidence of a significant positive relationship between ASEAN membership of Cambodia and its bilateral trade with ASEAN countries.

In conclusion, the three studies above provide significant different findings over the relationship between Cambodia's membership in ASEAN and its bilateral trade with those countries. The differences could result from the different time spans used in the analyses. The positive relationship is found significant when the data after Cambodia gained the ASEAN membership are used in the analyses. The analyses, however, provide insignificant results of the relationship when the data include years prior to its entry into ASEAN. The suspicion could be that ASEAN is a substitute variable for one of the important explanatory variables. Kim (2006) points out that ASEAN membership could take the effect of the border variable. And the data seem to provide some support for this argument. Figure 3 shows that Cambodia's trade with Vietnam + Thailand as percentage of GDP is likely to converge to the total trade of Cambodia with ASEAN. That is, the growth of Cambodia's trade with ASEAN partners is likely dominated by the increase in trade with Vietnam + Thailand.

<sup>4</sup> Kim, S. 2006. An Analysis of Cambodia's Trade Flows: A Gravity Model. 9<sup>th</sup> Socio-Cultural Research Congress Conference. Royal University of Phnom Penh.

<sup>5</sup> Huot, N. & Kakinaka, M. 2007. Trade Structure and Trade Flows in Cambodia: A Gravity Model. *ASEAN Economic Bulletin*, 24, 305-19.



Sources: IMF's International Financial Statistics 2009 (CD-ROM)  
UN ComTrade (<http://comtrade.un.org/>)