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Regional Economic Integration of the Great Mekong Sub-Region Perspectives and Risks

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1- Introduction and Overview

According to the Asian Development Bank (ADB), the Greater Mekong Sub-region (GMS) Program is a program initiated in 1992 by Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), the Laos People's Democratic Republic (Laos), Myanmar, Thailand, and Vietnam to enhance regional economic development of the GMS and the economic relations of its member states with assistance of the ADB. The GMS is a natural economic area bound together by the Mekong River, and it enfolds a geographical area of 2.6 million square kilometer. Just around 326 million people live within this area. Even that the program in general covers nine sectors like agriculture, energy, environment, human-resource development, investment, telecommunications, tourism, transport infrastructure, and transport and trade facilitation, we focus our considerations, mostly on the main objectives of the GMS program: the connectivity and competitiveness of the member regions, which can be achieved primarily through the improvement of transport infrastructure and trade facilitation.[1] The reason behind this choice is based on the economic theory of regional economic integration, which goes back to Viner (1950) and Balassa (1961, 1967). However, the development of the GMS region is of great interest, because until now only sufficiently developed regions like the North America (NAFTA), Europe (EU) and South America (MERCOSUR) accelerate the economic integration of their geographic region with the help of negotiations and cooperation. In contrast to the members of these established institutions, three of GMS countries (Laos, Myanmar, and Cambodia) are least developed countries.

Before going through the details, the general idea of regional economic integration is to enhance the welfare by increasing the trade in goods and service and flows of production factors. It is well-known from classical trade theory, which is at least based on the work of Ricardo and Heckscher-Ohlin, that the abolition of all kind of trade barriers and all reductions of transaction costs increases the efficiency of all involved trading countries and the overall welfare in all concerned countries. In so far, free trade is in general a first best solution.

[1] Because of space restrictions we ignore other less important aspects like energy supply, telecommunication, electric power transmission, ICT and so on.

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However, that does not necessarily mean that all groups inside the trading countries gain from free trade or flow of factors. According to the classical trade theory, it is only guaranteed that the aggregate consumption possibilities and aggregate production increases. Trade theory does not avoid the possibility that huge parts of a society are harmed by opening the domestic markets. A specific problem of the practical application of the open economy concept is that the production factors are not as malleable and flexible as assumed in trade models. That means an immediate implementation of free trade can cause, in reality, huge economic frictions, which leads to unemployment and breakdowns of companies and in the extreme whole economic sectors. These negative impacts can outweigh the efficiency gains in the short and mid-term run. To avoid these problems, the framework of regional economic integration was, firstly, developed by Jacob Viner (1950) who introduced the terms “trade creation” and “trade diversion” effects. The latter effect refers to the redirection of interregional flow of goods, caused by changes in tariffs and the creation of free trade areas (FTA). The former term refers to the diversion from a more efficient exporter towards a less efficient one by the change in custom tariffs and development of FTAs. Especially, the diversion effect is obviously contradicting the objective to raise efficiency. In addition, the considerations of the New Trade Theory[2] and the ‘New’ New Trade Theory[3] have to be taken into account. In so far, it is important to investigate into the economic conditions and characteristics of the involved countries. An additional significant point is to take a look at the political-economic background of the participating countries, regarding the economic objectives to participate throughout the integration process. According to Balassa (196), economic integration consists of six steps until the first-best state of the world can be reached: (1) Preferential trading area (2) Free trade area, Monetary union (3) Customs union, Common market (4) Economic union, Customs and monetary union (5) Economic and monetary union (6) Fiscal union.

If we look at GMS, we have to state that the region is on a way to become a free-trade area. If we compare the GMS with other integrating regions, we have to realize that there are many differences between the GMS and for example the North American Free Trade Area (NAFTA) or European Union (EU). Therefore, we will focus with respect to the GMS on what is achieved and what is attainable in the near future and what are possible obstacles to achieve the maximal attainable.

However, the main differences between GMS and NAFTA and EU are the different political systems, which are in use in the GMS countries and the economic potentials of the participating countries.

Without any doubt, the GMS countries are some of the fastest-growing economies worldwide. On the other hand, Cambodia, Myanmar and Laos are least developed countries, with the ranks 138 (Cambodia, Laos) and 149 (Myanmar) according to the Human Development Index and with the ranks 184 (Cambodia), 176 (Laos) and 206 (Myanmar) according to their GDP per head measured in PPP-$.
As the result, the GDP per capita rose in all countries (see Table 1 (current US-$) and Table 2) and the average GDP of the GMS region in 2011 was Purchasing Power Parity (PPP)-$ 4,514.26 where the Myanmar’s was the lowest with PPP-$ 1,324.61 and Thailand’s GDP with PPP-$

[2] See for example Krugman (1979, 1980, 1981), Brander and Spencer (1985), Dixit and Norman (1980), and Chang (2002, 2008).
[3] See for example Melitz (2003), Ottaviano (2011), Shiozawa (2007), Fujimoto and Shiozawa (2011, 2012), and Antras (2004).

8,702.99 the highest. Measured in GDP per capita terms Cambodia is the second poorest country in the regions with PPP-$ 2,371.55 (Figure 1).

Table 1: GDP per Capita (in current $)

Countries	2005	2006	2007	2008	2009	2010	2011	share of average 2011
Cambodia	473	539	631	745	739	787	883	0.34
Guangxi PRC	987	1,200	1,530	2,001	2,231	2,742	3905	1.50
Yunnan PRC	949	1,116	1,390	1,803	1,976	2,320	2972	1.14
Laos	485	620	720	886	915	1,037	1,300	0.50
Myanmar	216	257	351	537	596	759	831	0.32
Thailand	2,709	3,158	3,740	4,100	3,942	4,738	5,114	1.96
Vietnam	646	735	849	1,067	1,089	1,198	1,407	0.54
GMS	1,083	1,264	1,523	1,822	1,863	2,212	2,609	1.00

Source: Authors' Calculation and Data from ADB (2013)

However, we should note that the average GDP of the GMS region in 2011 was US-$ 2,609. Measuring the income differences between the GMS countries we have to state that the poorest member Myanmar realizes only 32% of the average GMS per capita GDP and the richest member Thailand nearly 200% of it. Therefore, the per capita income in Thailand is nearly seven times higher than that in Cambodia or Myanmar.

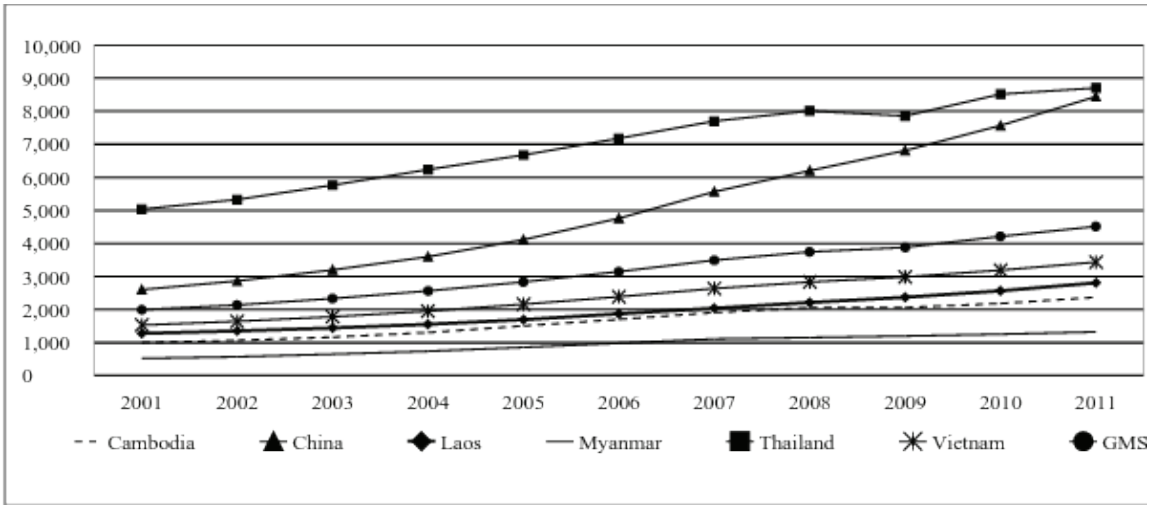
Table 2: Average GDP real growth rate 2001-2011

Countries	Cambodia	China	Laos PDR	Thailand	Vietnam	Myanmar
Average annual GDP growth (%)	8	9.5	7.1	4	6.8	11.5%

Source: http://www.tradingeconomics.com (downloaded 2013-05-11)

According to Figure 1, the GDP of GMS grew during the decade by 7.7% on average.

Figure 1: GDP per capita (PPP-$)



Source: http://www.tradingeconomics.com (downloaded 2013-05-11)

Table 3: Annual average growth rate of GMS Countries' exports 2001-2011

	Cambodia	China	Laos	Myanmar	Thailand	Vietnam	World
Cambodia	-	13.62%	-1.36%	-29.23%	36.01%	15.62%	13.11%
China	20.42%	-	24.58%	21.29%	23.87%	29.78%	19.10%
Laos	40.19%	59.17%	-	*N/A*	23.82%	14.89%	20.03%
Myanmar	*N/A*	12.50%	*N/A*	-	13.82%	32.28%	9.06%
Thailand	16.89%	22.25%	17.37%	18.92%	-	21.94%	10.44%
Vietnam	27.19%	18.02%	10.85%	25.11%	12.90%	-	16.35%

Source: Authors' calculation based on UN Comtrade data

Table 3 shows that countries in the first column exported to the countries in the first row.

As we see the increase of the exports of all participating have grown annually at a double-digit percentage rate. The only exceptions are the exports of Cambodia to Myanmar and Laos, which decreased. If we look at these numbers, it cannot be denied that the enormous increase in the export volumes within the GMS region has contributed to the high growth rates.

Besides the income the population and its growth is also an important indicator, which influences the per-capita growth; it is presented in the following table:

Table 4: Population in GMS 2005-2010 (million inhabitants)

	2005	**2006**	**2007**	**2008**	**2009**	**2010**	**Annual Growth Rate**
Cambodia	13.30	13.50	13.70	13.90	14.10	14.30	0.01
Guangxi PRC	49.25	49.61	50.02	50.49	50.92	51.59	0.01
Yunnan PRC	44.50	44.83	45.14	45.43	45.71	46.02	0.01
Laos	5.62	5.75	5.87	6.00	6.12	6.23	0.02
Myanmar	55.40	56.52	57.50	58.38	59.13	59.78	0.02
Thailand	65.10	65.57	66.04	66.48	66.90	67.31	0.01
Vietnam	81.91	82.85	83.76	84.67	85.57	86.48	0.01
GMS	315.08	318.63	322.03	325.35	328.45	331.71	0.01

Source: Authors' Calculation and Data from ADB

As we see the poorest countries have the highest population growth rates. If these rates remain constant, the population of Myanmar and Laos will be doubled after 35 years, whereas the population of GMS will be doubled after just 69 years. Obviously, the population growth rate has a strong negative effect on the per-capita GDP growth and also on the level of environmental degradation.

From this rough economic overview of GMS countries, we can derive three important facts, the GDP per capita growth rates of these are relatively high, growth rates of trade are also relatively high, population is growing in all member countries, and the GDP per capita is relatively low. The resulting question is now, if the economic integration of the GMS countries can be called a success model to enhance the welfare of the citizens in the MSG region.

This is of course a difficult question, because taking into account that the questionable reliability of the available data makes it impossible to use sophisticated econometric methods to measure the influence and the direction of the efforts to institutionalize the GMS region.

Here we use a more non formal approach to look at the development of the GMS region of the last ten years and then to discuss possible further developments, perspectives and risks of GMS.

4- Industrial Structures and development of trade in GMS[4]

If we look at the development of the six countries' industrial structure, it is obvious, that the share of agricultural production to the gross domestic product has decreased remarkably since 1992, in the same period the contribution of the industrial sector to the GDP has increased. Nevertheless, only China and Thailand have a relative small agricultural sector, which reflects their relative advanced development status. Contrary to that Cambodia, Laos, Myanmar and Vietnam have a relative huge agricultural sector, what is a typical characteristic of less-developed countries (see Table 5 and Table 6).

Table 5: Sectoral Share of GDP

Sector / Country	Agriculture			Industry			Services		
	1992	2006	2012	1992	2006	2012	1992	2006	2012
Cambodia	NA	30	35	NA	26	24	NA	44	41
China	22	12	10	44	48	45	34	40	45
Laos	62	42	26	18	32	34	20	26	40
Myanmar	61	48.5	39	9	16.5	19	30	35	42
Thailand	12	11	9	38	44.5	39	50	44.5	53
Vietnam	34	20	22	27	42	41	39	38	38

Source: World Development Indicators 2012

Table 6: Main trade products of the GMS countries

Country	Export	Import
Cambodia	clothing, footwear, timber, rubber, rice, fish, tobacco, cassava, crops	petroleum products, cigarettes, motor vehicles, construction materials, gold, machinery, pharmaceuticals
China	electrical and other machinery, including data processing equipment, apparel, radio telephone handsets, textiles, integrated circuits	electrical and other machinery, oil and mineral fuels, optical and medical equipment, metal ores, motor vehicles
Laos	wood products, coffee, electricity, tin, copper, gold, cassava	machinery and equipment, vehicles, fuel, consumer goods
Myanmar	natural gas, wood products, pulses, beans, fish, rice, clothing, jade and gems	fabric, petroleum products, edible oil, crude oil, fertilizer, plastics, machinery, transport equipment, food products, construction materials, cement
Thailand	electronics, computer parts, automobiles and parts, electrical appliances, machinery and equipment, textiles and footwear, fishery products,	capital goods, intermediate goods and raw materials, consumer goods, fuels

[4] If nothing else is mentioned the numbers in the text are calculated by the authors based on UN Comtrade data.

	rice, rubber	
Vietnam	clothes, shoes, electronics, seafood, crude oil, rice, coffee, wooden products, machinery	machinery and equipment, petroleum products, steel products, raw materials for the clothing and shoe industries, electronics, plastics, automobiles

Now we analyze the development of trade with the GMS, the development of the trade with each country and how this relates to their trade volume. Before we look at the details, we look at some developments on the institutional level; that means the results gained by multi-lateral negotiations. This important, because according to the gravity model, which goes back to Tinbergen (1962) the trade volume between two countries is positively depending on the economic size measured by the GDP of both countries and negatively depending on the economic distance between them. Economic distance means nothing else than the transaction costs of international trade, which include transportation costs and trade facilitation costs. The latter costs are highly influenced by the efficiency of the custom's administration. Therefore, we take a look at the development of different indicators of trade facilitation (see Table 7).

We have added Korea as a reference country, and we observe that all GMS countries have improved their indicators in the last seven years to some amount. One reason for these improvements is the Cross-Border Transport Agreement *(*CBTA, formally known as *The Agreement between and among the Governments of the Kingdom of Cambodia, the People's Republic of China, the Lao People's Democratic Republic, the Union of Myanmar, the Kingdom of Thailand, and the Socialist Republic of Vietnam for the Facilitation of Cross-Border Transport of Goods and People*) which took effect in 2003.

Table 7: Trade Facilitation[5]

Economy	Year	Documents to export (number)	Time to export (days)	Cost to export (US-$/container)	Documents to import (number)	Time to import (days)	Cost to import (US-$/container)
Cambodia	2006	7	43	736	12	54	816
	2010	10	22	732	11	29	872
	2013	9	22	755	10	26	900
China	2006	8	23	390	6	26	430
	2010	8	21	500	5	24	545
	2013	8	21	580	5	24	615
Laos	2006	12	55	1,420	15	65	1,690
	2010	10	39	1,860	10	37	2,040
	2013	10	26	2,140	10	26	2,125
Thailand	2006	9	24	848	12	22	1042
	2010	5	14	625	5	13	795
	2013	5	14	585	5	13	750

[5] For Myanmar was no data available

Vietnam	2006	6	24	468	8	23	586
	2010	6	22	555	8	21	645
	2013	6	21	610	8	21	600
Korea, Rep.	2006	5	12	780	8	12	1042
	2010	3	8	742	3	8	742
	2013	3	7	665	3	7	695

Source: World Bank (2013)

However, compared to Korea, there is still a high potential for improvement. Nevertheless, Cambodia, Laos and Thailand have made a remarkable progress in reducing the transaction costs of international trade. According to Helble et al. (2009), one dollar spent on the improvement of trade facilitation leads to a return of $ 697 in less-developed countries.[6] Therefore, it is highly recommended that GMS countries lower the transaction costs of trade by abolishing bureaucratic obstacles. Even, that it seems to be an easy task, it does not, because it must be assumed that the customs officers counteract such ambitions, because less bureaucracy reduces the possibilities to receive bribes from shipping companies. It is obvious the longer the duration of customs clearance, the higher will be the shipper's willingness to pay to accelerate the process of customs clearance. And that the willingness to accept bribes is high in all GMS countries will be confirmed by looking at the perceived level of public sector corruption from Transparency International (2012):

Table 8: Corruption Perceptions Index

	Cambodia	China	Laos	Myanmar	Thailand	Vietnam
score[7]	22	39	21	15	37	31
rank[8]	167	80	160	172	88	123

Source: Transparency International (2012)

Often policy-makers assume that charging high custom service fees is in favor of their country, but this is not true, because such fees work in the same way as a tax on imports and exports, which creates deadweight losses. Therefore, the Centre for International Economics (2010, p. 23) stated, "*GDP can increase by up to 1.2 per cent per each day's reduction in average time to trade*" and further it (2010, p. 24) concluded "*If GMS countries facilitate trade and transport simultaneously GDP can increase by up to 7 per cent for some GMS countries*".

Beside the decrease of the facilitation costs, also a huge amount of money was invested in the improvement of trans-boundary transport infrastructure. The ADB (2012) lent and granted US-$5.1 billion for 56 investment projects with a total project cost of US-$15.0 billion until 2011. The projects involved sub-regional roads, airports and railway improvements and other non transport objectives.[9] Additionally, the GMS governments have provided about US-$4.3 billion for these projects and donor countries have funded about US-$5.6 billion. To get an impression how the

[6] See AusAid (2010).

[7] Denmark, Finland and New Zealand got the highest score with 90 from 100; the lowest score was received by North-Korea with 8.

[8] The number of countries was 176.

[9] Unfortunately, there exists no precise data how much money was spent for each project.

road net develops, we look at the following table, where we see the number of persons per road km:

Table 9: Persons per Km of Road

Countries	2005	2006	2007	2008	2009	2010	Growth Rate
Cambodia	439.55	446.16	450.79	453.48	355.90	360.95	-0.04
Guangxi PRC	794.31	549.28	530.99	508.60	506.71	506.87	-0.09
Yunnan PRC	228.80	225.85	225.33	222.97	221.86	219.95	-0.01
Laos	165.97	161.43	159.38	160.99	154.67	131.18	-0.05
Myanmar	1809.79	1829.64	1849.89	1813.87	1837.18	1857.37	0.01
Thailand	653.87	601.60	599.97	613.47	619.45	595.97	-0.02
Vietnam	688.86	696.77	651.76	607.94	592.90	599.21	-0.03
GMS	553.07	519.38	510.00	499.94	490.07	482.44	-0.03

Source: Authors' Calculation and Data from ADB

In this table, a negative growth rate means an increase of the road km per person. Except of Myanmar, the road net per capita has been extended between 2005 and 2010. However, but more decisive and important is the relationship between vehicles and road km. This is presented in the next table.

Table 10: Registered Vehicles per Km

Countries	2005	2006	2007	2008	2009	2010	Growth Rate
Cambodia	3.07687	4.46163	4.95872	7.25564	7.82978	6.49706	0.16
Guangxi PRC	9.53177	7.14064	8.49576	9.66336	12.16111	14.69915	0.09
Yunnan PRC	5.26234	5.87207	6.75978	7.58087	9.09636	11.21736	0.16
Laos	2.65557	3.22851	3.50628	3.86369	4.48546	4.32903	0.10
Myanmar	10.85873	10.97783	12.94924	12.69712	12.86024	13.00161	0.04
Thailand	71.92585	76.40279	79.79578	85.27242	89.82013	91.77957	0.05
Vietnam	N/A	N/A	N/A	6.68736	7.70773	8.98812	0.16
GMS	16.59200	17.65898	18.36012	20.49774	22.05306	23.63940	0.07

Source: Authors' Calculation and Data from ADB

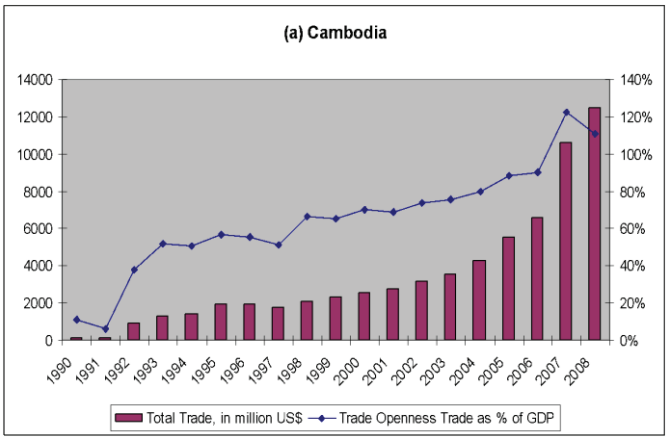
Obviously, the number of vehicles is growing faster than the road kms. Of course, the car density in GMS is still low compared with developed countries (USA 31 vehicles per km, Germany 80 vehicles per km), but if the growth of 16% per annum will remain constant, then the level of the USA is reached in 10 years in Cambodia, and in seven years in Yunnan. Cambodia will reach in just 13 years the German level. The economic impact of this development is the resulting reduction of the average speed of vehicles and transport of goods, because of a rising number of traffic jams and the deterioration of roads will increase over-proportionally. Consequently, the transportation costs of traded goods will increase. Therefore, a too strong increase of the number of vehicles counteracts the efforts to improve the road infrastructure.

If we want to judge, if all these efforts led to successful outcomes, it would be in general preferred to use econometric methods to estimate the effect of these expenditures. We think in the case of less-developed countries; the applications of such sophisticated methods are not really helpful or may be misleading, because of the lack of appropriate data and the reliability of data, which is accessible. In so far, we will give an indication using compiled data from the literature and our own descriptive statistics. At next, we will take a short look at trade relations of each country.

(a) Cambodia

At first we look at the development of the trade volume as percentage of GDP and the development of the trade volume in the period 1990 to 2008. Both indicators have increased.[10]

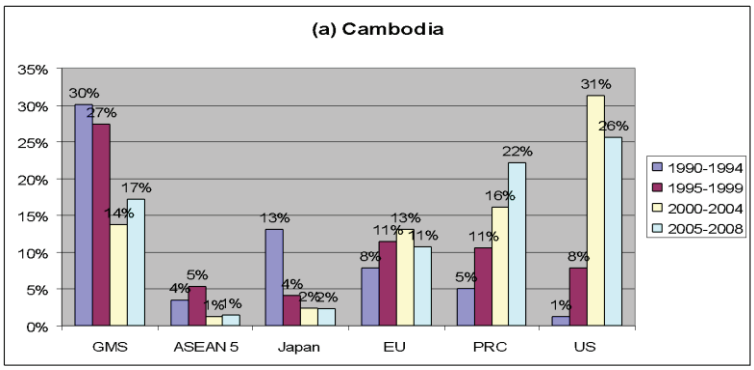
Figure 2: Cambodia's Trade Volume and Percentage of GDP



Source: Menon and Melendez (2011)

This is of course a good development, but here we are more interested regarding the trade with GMS. For that reason, we look at the development of trade volume shares of Cambodia with regard of the trade partners between 1990 and 2008.

Figure 3: Cambodia's Trade Volume Shares



Source: Menon and Melendez (2011)[11]

We see that the share of the trade volume with the GMS countries has slightly increased from 35% to 39% in the last 20 years, and at the same time, the trade volume with the USA and European Union has also increased. These developments could lead to the wrong conclusion, that GMS trade became less important. To get a closer insight, we have taken two years 2001 and 2010 and look which share of the exports went to GMS countries and, which share of the imports came from GMS countries. In 2001, only 3 % of the total exports went to GMS countries, and this share has doubled to 6% in 2010. That means 94% of the exports are sold to non-GMS countries. The main export goods of Cambodia are clothing and footwear, which represent 88% of all exports,

[10] Please note the $ values are current $. The decrease in 2008 was caused by the financial crisis in the USA and Europe.

[11] Please note, Menon and Melendez (2011) differentiate between China (PRC) and GMS.

and they are mainly exported to developed countries like the EU and the USA. In 2001, the main exports were primary goods like timber, which represented 93% of the exports. On the other side, the share of imports from GMS has increased from 32% in 2001 to 48% in 2010.

Table 11: Cambodia's Trade to GMS 2001 and 2010 (Constant 2010 US-$)

Cambodia	2001		2010	
	Export	***Import***	***Export***	***Import***
Total GMS	57,122,903.55	592,400,662.65	312,126,871.00	2,365,843,821.00
Shares to GMS				
China	0.36	0.31	0.21	0.50
Laos	0.02	0.00	0.00	0.00
Myanmar	0.00	0.00	0.00	0.00
Thailand	0.16	0.46	0.48	0.29
Vietnam	0.46	0.22	0.31	0.21
GMS/World[12]	0.03	0.32	0.06	0.48

Source: Authors' calculations based on trade data from UN Comtrade

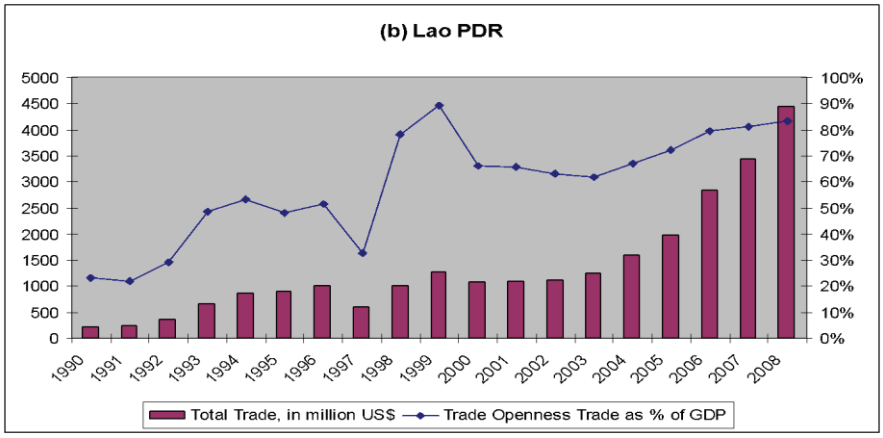
Within the GMS region, the main trading partners are China, Thailand and Vietnam. The trade with Myanmar and Laos did not and does not play an important role in absolute terms.

Nevertheless, the growth rates of imports and exports are also important. The average yearly growth rate of the exports between 2001 and 2010 was 20% and the average growth rate of exports to the whole world was only 13%. In the same period, the imports from GMS grew yearly by 16% and from the whole world by 11%. We can conclude that the trade relations with GMS are growing faster than with the rest of the world. However, Cambodia has realized a trade balance surplus of just 0.687 billion US-$ in 2010, but with respect to GMS, it realized since a long time ago a trade balance deficit, what is caused by imports from China.

(b) Laos

Now we will look at the same type of data of Laos.

Figure 4: Laos' Volume and Percentage of GDP

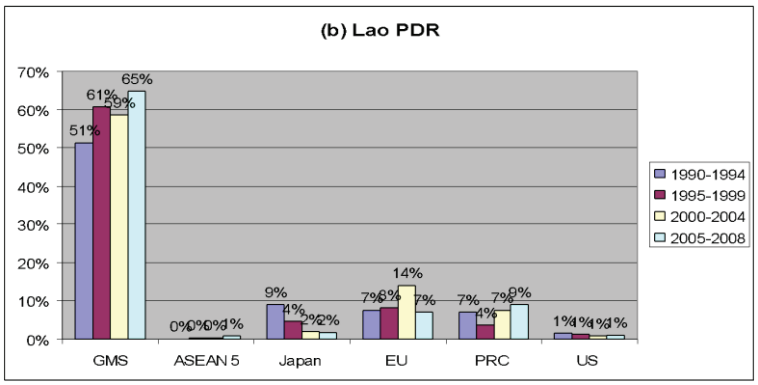


Source: Menon and Melendez (2011)

[12] In this row we see the exports respectively imports to GMS related to the corresponding world totals.

As we see from the Figure 4, the trade volume and the trade volume to GDP has increased since 1990 dramatically. Different from Cambodia the share of the trade volume with GMS has increased from 58% to 74% since 1990. With respect to the other regions which are taken into account the share with Japan has declined from 9% to 2%.

Figure 5: Laos' Trade Volume Shares



Source: Menon and Melendez (2011)

The main export goods of Laos were and are primary goods which amount to just around 90% of its exports. From these primary goods are 46% ores and metals and 17% fuels. That means that Laos is strongly dependent on the export of exhaustible resources.

Table 12: Laos' Trade to GMS 2001 and 2010 (Constant 2010 US-$)

Laos	2001		2010	
	Export	***Import***	***Export***	***Import***
Total GMS	202,518,162.99	652,203,848.13	1,644,145,567.00	2,820,433,957.00
Shares to GMS				
Cambodia	0.00	0.00	0.00	0.00
China	0.05	0.10	0.37	0.17
Myanmar	0.00	0.00	0.00	0.00
Thailand	0.54	0.77	0.46	0.76
Vietnam	0.41	0.12	0.18	0.07
GMS/world	0.51	0.99	0.80	0.87

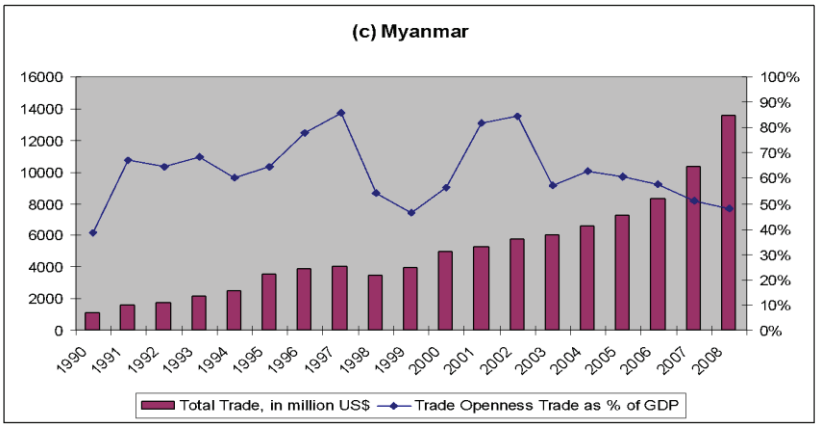
Source: Authors' calculations based on trade data from UN Comtrade

In 2001, mostly all imported goods had their origin in GMS, where 77% were produced in Thailand, just 51% of the exports found their destination in GMS. As we see, the share of the exports are going outside the GMS has decreased to 20%, but the imports from outside the GMS raised to 13%. Just 80% of Laos' trade volume is traded within GMS. From the Table 8 above, we can derive that Laos has nearly no trade relations with Myanmar and Cambodia. As Cambodia Laos realizes a permanent trade balance deficit with GMS, but other than Cambodia also with the rest of the world. The trade balance deficit has increased between 2001 and 2010 by just four times. The exports of Laos increased during the period between 2001 and 2010 by 26% yearly and the imports by 51%. The total exports during this period grew with 20% and the total imports with 19% yearly. In summary, the trade with GMS countries grew stronger than that with the whole world.

(c) Myanmar

The absolute trade volume of Myanmar increased strongly in the observed 18 years, but related to its GDP it raised only slightly by just 10%. The share of trade volume with GMS has increased continuously from 1% to 35% and with the USA from 3% to 6% until 2005. Then the share fell nearly to zero percentages caused by political tensions between the USA and the military government of Myanmar (see Figure 6 and Figure 7).

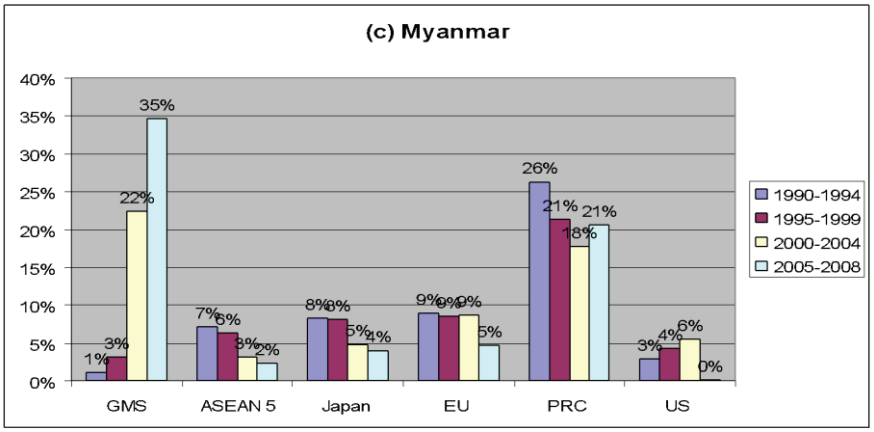
Figure 6: Myanmar's Volume and Percentage of GDP



Source: Menon and Melendez (2011)

Also the share of the trade volume with all other regions respectively countries decreased. In the recent years, the main export goods are primary goods, which represent just 88% of all exports. From these primary goods are 54% fuels (natural gas) and 11% agricultural raw materials (include wood).

Figure 7: Myanmar's Trade Volume Shares



Source: Menon and Melendez (2011)

If we look at the following tables, we observe, that Myanmar exports to and imports from Thailand and China for the most part. In the period between 2001 and 2010 the aggregate exports increased yearly on average by 9%, whereas the exports to GMS increased by 15% pa on average.

Table 13: Myanmar's Trade to GMS 2001 and 2010 (Constant 2010 US-$)

Myanmar	2001		2010	
	Export	***Import***	***Export***	***Import***
Total GMS	1,393,717,231.90	686,455,387.48	4,913,688,455.92	1,641,855,385.04
shares to GMS				
Cambodia	0.08	0.000	0.04	0.00
China	0.42	0.56	0.26	0.69
Laos	0.00	0.000	0.04	0.00
Thailand	0.49	0.43	0.66	0.29
Vietnam	0.01	0.01	0.00	0.02
GMS/world	0.40	0.19	0.64	0.39

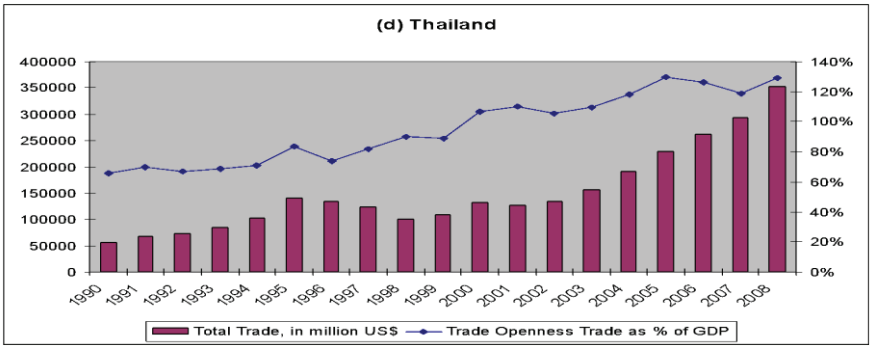
Source: Authors' calculations based on trade data from UN Comtrade

The aggregate imports rose every year on average by 2%, but the imports from GMS by 10% every year. Therefore, we also can conclude that GMS became more important for Myanmar's trade than the rest of the world.

(d) Thailand

Now we come to Thailand, if we look at the following figure the trade volume has increased by more than 7 times, also the trade to GDP ratio has increased from 20% to 120%. Only at the time of the Asian crisis, the ratio decreased a few years.

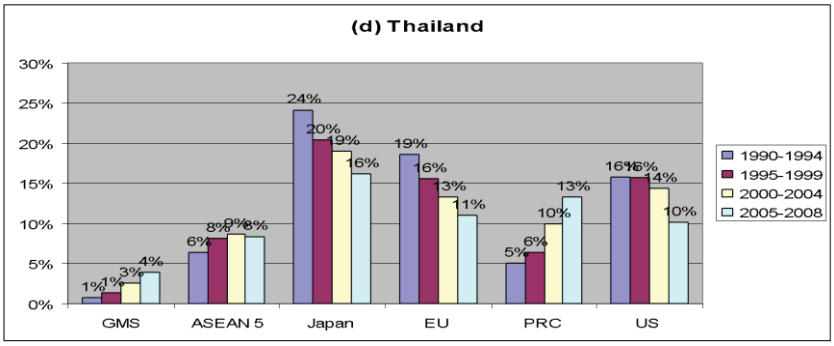
Figure 8: Thailand's Volume and Percentage of GDP



Source: Menon and Melendez (2011)

If we look at the distribution of the aggregate trade volume between 2001 and 2008, it is obvious that the share with GMS has continuously increased from 6% to 17%. Also the share with ASEAN 5 has increased but only slightly by 2 percentage points. The shares of all other regions and countries decreased.

Figure 9: Thailand's Trade Volume Shares



Source: Menon and Melendez (2011)

If we look closer at the distribution of trade within GMS in 2001, we can state that China was Thailand's main trading partner; just 59% of the export went there and 75% of the imports came from there.

Table 14: Thailand's Trade to GMS 2001 and 2010 (Constant 2010 US-$)

Thailand	2001		2010	
	Export	***Import***	***Export***	***Import***
Total GMS	6,017,998,750.53	6,088,148,228.61	33,869,634,143.00	29,414,079,393.00
Shares to GMS				
Cambodia	0.10	0.002	0.07	0.01
China	0.59	0.75	0.63	0.82
Laos	0.08	0.02	0.06	0.03
Myanmar	0.07	0.16	0.06	0.10
Vietnam	0.16	0.07	0.17	0.05
GMS/world	0.08	0.08	0.17	0.16

Source: Authors' calculations based on trade data from UN Comtrade

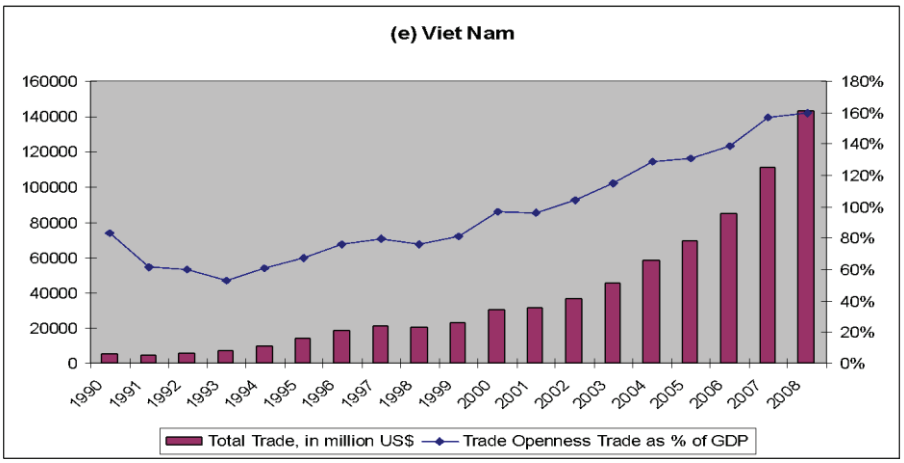
Until 2010, the shares of China have further increased; by four percentage points, the exports and the imports by seven percentage points. The shares of mostly all other GSM countries have decreased or remained more or less constant. The share of exports and imports of their corresponding aggregates to GSM as a whole has doubled. While the trade with GSM is nearly balanced, Thailand realizes a trade balance surplus with the world as a whole.

The absolute exports of Thailand to GSM grew between 2001 and 2010 on average by 21% and the absolute imports by 19%, whereas the corresponding growth rates to the whole world increased only by 10%. The most important export goods of Thailand are primary commodities with a share of 21%, machinery and other equipment with 49% and other manufacturing with 26%.

(e) Vietnam

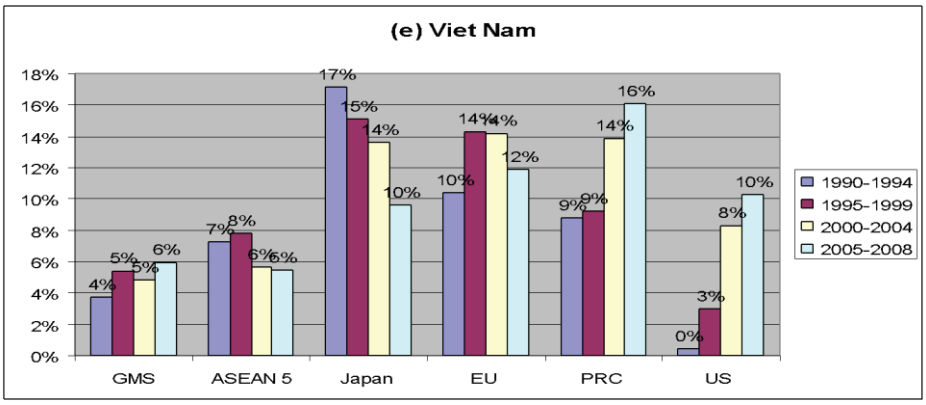
Like the previous GMS countries also the trade volume of Vietman has increased dramatically in the period between 1990 and 2008, also the trade share has increased strongly. If we look at the trade shares regarding the different regions and countries, we can also confirm that the share of GMS rose from 13% to 22%. However, the China trade is mainly responsible for this development, because the trade share of the other GMS countries rose only from 4% to 6%.

Figure 10: Vietnam's Volume and Percentage of GDP



Source: Menon and Melendez (2011)

Figure 11: Vietnam's Trade Volume Shares



Source: Menon and Melendez (2011)

If we differentiate the trade volume into exports and imports, we see that the export share of China remained dominately high at 72%, and the import share increased by 12 percentage points to 76% in 2010. The only other significant change, is the increase of eight percentage points of the export share of Cambodia.

Anyways, the exports to GMS countries grew in absolute terms on average by 18%, whereas the total export volume only grew by 16% yearly during the period 2001-2010. Also the import volume from GMS counties grew yearly by just 27%, whereas the total import volume grew only by 17% in 2001-2010. It is remarkable, that China and Thailand are responsible for 83% of Vietnam's exports to GSM and for 95% of its imports. The shares of Laos' and Myanmar's shares of Thailand's trade volume regarding GMS are less than 3% and less than 0.1% of Thailand's world trade volume.

Table 15: Vietnam's Trade to GMS 2001 and 2010 (Constant 2010 US-$)

Vietnam	2001		2010	
	Export	***Import***	***Export***	***Import***
Totals GMS	2,405,748,743.01	3,066,834,351.03	10,739,121,793.00	26,477,119,320.00
Shares to GMS				
Cambodia	0.07	0.01	0.15	0.01
China	0.72	0.64	0.72	0.76
Laos	0.03	0.03	0.02	0.01
Myanmar	0.003	0.002	0.005	0.004
Thailand	0.17	0.32	0.11	0.21
GMS/World	0.13	0.15	0.15	0.31

Source: Authors' calculations based on trade data from UN Comtrade

Compared to Myanmar, Laos and Cambodia Vietnam had a relative balanced structure of its exports in 2010. The main export goods are primary commodities (28%), clothing and footwear (26%) machinery and equipment (18%) and other manufacturing (27%). In 2001, 86% of its exports were primary commodities. However, Vietnam mostly realizes a trade balance deficit, which accounted for just $12.6 billion in 2010. Since 2001, it has increased by just 10 times. Additionally, Vietnam also realized trade balance deficits with all other GMS countries, except Cambodia.

(f) China

It is well known that China's worldwide trade volume has expanded extremely in the last 20 years, since a few years China is the country with the highest export volume in the world. Not surprisingly the trade volume with the GMS also increased, as we can derive from the following table.

Table 16: China's Trade Volume with GMS (Current 1,000 US-$)

	Cambodia	Laos	Myanmar	Thailand	Vietnam
1992	13,000	40,000	390,000	1,319,000	179,000
2011	2,499,000	317,000	4,400,000	57,983,000	35,710,000
yearly average growth rate %	31.9	11.5	13.6	22.0	32.1

Source: Authors' calculations based on data from Lu (2012)

If we look at the distribution of import and export shares regarding the different GMS countries, it becomes obvious, that in principle, only Thailand and Vietnam are relevant from the Chinese view, because their aggregate share of the exports added up to 85% in 2001 and in 2010, it was 89%. Regarding the imports the shares of both countries were 97% in 2001 and 96% in 2010. With respect to the GMS trade China realized a trade balance surplus with the GMS on aggregate, and according to Lu (2012) and our own calculations it only realized with Thailand a permanent trade balance deficit since 2001, with all other GMS countries China realized a trade balance surplus.

Table 17: China's Trade to GMS 2001 and 2010 (Constant 2010 US-$)

China	2001		2010	
	Export	***Import***	***Export***	***Import***
Total GMS	6,017,525,966.82	7,258,333,574.61	48,149,267,107.00	41,838,831,751.00
Shares to GMS				
Cambodia	0.04	0.01	0.03	0.00
Laos	0.01	0.00	0.01	0.01
Myanmar	0.10	0.02	0.07	0.02
Thailand	0.48	0.80	0.41	0.79
Vietnam	0.37	0.17	0.48	0.17
GMS/world	0.02	0.02	0.03	0.03

Source: Authors' calculations based on trade data from UN Comtrade

While the imports from the whole world increased only by yearly 7% in the period 2001-2010, the imports from GMS grew yearly by 21%. On the one hand, the exports to GMS grew in the same period yearly by 25%, whereas to the whole world by 18.6%. Regarding the traded goods of China, we can conclude that China, for the most part, exports manufactured goods either for consumption or production purposes; otherwise, China imports for the most parts primary commodities like food and natural resources. Furthermore, China's trade balance deficit with Thailand is caused by the import of rubber, rubber products and cassava, fruits and fish.

Additionally to the trade balance, the amount of foreign direct investments (FDI) is an indicator for the economic development of an economy. On the one hand, huge FDI reflects the trust of international investors in the long-run development. On the other hand, FDI compensates a potential trade balance deficit, which otherwise can create financial problems in the long run for an economy. However, we can state that since 1992, the FDI have increased in all GMS countries, only the Asian crisis and the financial crisis in Europe and the USA let to short-run declines, which were caught up after a short while. The following table represents the FDI in current $ and the yearly average growth rates of FDI for all GMS countries.

Table 18: FDI inflows to GMS 1992-2011 (million of current $US)

Country	**1992**	**1997**	**2002**	**2007**	**2011**	**Average Yearly Growth Rate** (1992-2011)
China	11 007.5	45 257.0	52 742.9	83 521.0	123 985.0	0.14
Cambodia	33.0	168.1	145.1	867.3	891.7	0.19
Laos	7.8	86.3	4.5	323.5	450.0	0.24
Myanmar	149.0	878.8	191.4	714.8	850.0	0.10
Thailand	2 151.0	3 882.0	3 355.4	11 359.4	9 572.0	0.08
Vietnam	473.9	2 220.0	1 400.0	6 700.0	7 430.0	0.16
Total GMS	13 822.3	52 492.2	57 839.3	103 486.0	143 178.7	0.13
Total GMS except China	2 814.7	7 235.2	5 096.4	19 965.0	19 193.7	0.1063179

Source: Authors' calculations and Data from UNCTAD World Investment Report 2012

As we see the FDI has increased in all GMS countries, whereby Laos and Cambodia realized the highest growth rates. However, how important the foreign investments are, is reflected in the next table, where the FDI inflows are related to the total domestic investments.

Table 19: FDI Inflow as Percentage of Fixed Capital Formation

Country	1992	1995	2005	2009	2010	2011	Average
China	7.1	15.0	7.7	4.3	4.4	3.7	9.4
Cambodia	17.0	34.6	32.1	33.4	38.8	31.5	32.8
Laos	6.4	49.5	2.9	18.3	18.8	na	21.5
Myanmar	20.0	30.0	15.5	33.0	12.2	12.7	30.1
Thailand	4.9	3.0	15.8	7.5	12.2	10.6	12.1
Vietnam	28.8	33.8	11.2	23.4	22.4	22.1	23.1

Source: Authors' calculations and Data from UNCTAD World Investment Report 2012

Not surprisingly, the economically weakest countries received relatively the highest shares of foreign investments. In addition, we should note that the share of FDI in GMS is relatively high compared to the rest of the world.

5- Preliminary Outcomes, Perspectives and Risks of the GMS Program

Obviously, the development of trade was very positive for all GMS countries. Stone et al (2010) estimated the possible payoffs for all GMS countries regarding the reduced road transport costs and trade facilitation. The results are presented in the next table.

Table 20: Aggregate Impacts of Reduced Costs of Road Transport and Trade Facilitation 2000-2015

	Cambodia	Laos	Myanmar	Thailand	Vietnam	China
GDP (million $)	404	173	363	1,822	1,539	1,202
GDP per capita $[13]	28.25	27.77	6.07	27.07	17.80	12.13
GDP %	8.3	7.1	4.7	0.7	2.4	0.1
Exports (million $)	227	-28	51	3,357	1,201	1,787
Exports %	5.3	-4.3	1.7	2.8	3.7	0.3
Equivalent variation (million $)	481	261	617	2,956	2,158	1,441

Source: Authors' calculations and Data from Stone et al. (2010)

The results are remarkable and positive for all participating countries. However, the trade is biased in so far that the poorest countries Myanmar and Laos are selling mainly primary commodities, and that they are importing manufactured goods mainly from Thailand and China.
Let us take a look at the shares of primary goods of the total exports.

[13] Regarding China's GDP per capita increase we have only taken into account the population of Guanxi and Yunnan.

Table 21: Share of Primary Commodities in Total Exports GMS in %

Country	2005	2006	2007	2008	2009	2010
Cambodia	6.45	5.93	7.09	7.32	9.15	7.49
Laos	60.34	74.70	76.77	76.51	81.61	80.62
Myanmar	76.11	76.03	76.20	76.90	76.06	76.74
Thailand	21.75	22.99	22.50	25.72	24.54	24.20
Vietnam	49.69	48.43	44.82	44.30	39.10	41.59

Source: Data from ADB

We can derive from table 21, that Myanmar, Vietnam and Laos are strongly dependent on the exports of natural resources and agricultural products. It is also remarkable, that Cambodia, Myanmar and Laos have nearly no trade relations. This may be caused by the distance and also by the fact that these countries mainly import manufactured goods, which are not produced in these countries. In principle, the trade relations between Myanmar and Laos, on the one hand, and Thailand and China, on the other hand, are like in a classical Heckscher-Ohlin model. Myanmar and Laos are natural resource abundant countries and Thailand and China are capital and labor abundant countries. The problem is that Myanmar's and Laos' exhaustible resources will run out some day, and that the growth potential of the renewable resource sector (agriculture) is limited. Even if it is possible, that other resources in Myanmar or Laos will be explored, or that Laos will really become the electric power house of South-East Asia, there is always the threat of the "Dutch disease" (Corden and Neary, 1982) and its consequences (Krugman, 1982, Chang 2002, 2008). Also, Warr et al. (2010) argue that it very complicates to avoid the problems of the Dutch disease with the help of very sophisticated redistributive policy measures. However, history has shown that such programs will fail because of self-interested policy-makers.

Cambodia and Vietnam differs from the four others in so far that both are relative poor countries, that a huge part of their exports (94%, respectively 85%) are sold in non-GMS countries, and that an important part of their imports (48%, respectively 31%) are bought in the GMS. The economies and their exports depend strongly on labor intensive industries like garment and footwear, whereas these goods are mostly being exported to Europe and the USA. The problem with these labor-intensive products is that Cambodia and Vietnam are competing on the world market with other poor countries like Pakistan and Bangladesh. All these poor countries are only the factories of huge purchasers who own fashion brands, and they are very flexible with respect the choice about the location where to produce and with whom they contract. That means the Cambodian and the Vietnamese labor-intensive industries can only remain competitive, if the wage level is not significantly higher than in countries like Pakistan and Bangladesh and potential producers in Africa. However, the competitors are in a similar position, so it is difficult if not impossible to increase the wages in these industries. In some sense, the situation with respect to Cambodia and Vietnam is more like in a classical Ricardian model. Cambodia and Vietnam have a comparative advantage in labor-intensive production, as long as the wages do not increase. If the labor-intensive industries in Vietnam and Cambodia lose their comparative advantage, then both countries will realize either a huge trade balance deficit, or they have to depreciate their currencies dramatically, with all its negative consequences.

Contrary to the other GMS countries China and Thailand are relatively advanced economies, they mainly export manufactured goods to GMS and import primary goods. For China the trade with GMS is of relative small importance, because only 3% of its international trade is

related to GMS. Regarding Thailand, also less than one fifth of its exports and imports are related to GMS. If we have to categorize the GMS countries, there three types of countries, two relative advanced and big economies (China, Thailand), and for which GMS plays economically a minor role. Two poor countries (Vietnam, Cambodia), which are exporting a huge share of their exports to non-GMS countries, but import relative much from GMS, and thirdly two poor countries (Myanmar, Laos), which have very close trade relations only to GMS.

Without any doubt, the short-run impacts of the GMS program are positive for all participants from the economic view, but some skepticism with respect to the long run development is justified. Andersson et al. (2009, p.31) describe the problem regarding Laos as follows, "*The abundant supply of cheap consumer and capital goods from Chinese (and Thai) producers will hold back the development of a domestic manufacturing industry: it will be difficult for Lao producers to compete with Chinese firms that can build their competitiveness on a large domestic market where both human capital and cheap unskilled labor are plentiful*". The same holds also for Myanmar, Vietnam and Cambodia. There is a huge risk, that industries of the four poorer countries have no opportunity to grow because of the strong competition from Thailand and China. This problem will be drastically increased if as planned all tariffs inside GMS will be abolished.

An additional problem can emerge caused by increasing trade relations, and that is that probably the prices of tradable goods of all GMS countries will converge against one "GMS price." The problem is that changing prices influence the purchasing power of the income in the different countries. If we interpret the GDP per capita as a rough income indicator and look at relative incomes of GMS, we get the following table:

Table 22: GDP per capita in 2010

Countries	US-$	related to GMS	PPP-$	Related to GMS
Cambodia	787.06	0.36	2,184.00	0.42
Guangxi PRC	2,741.95	1.24	7,567.00	1.47
Yunnan PRC	2,320.40	1.05	6,356.28	1.23
Laos	1,037.08	0.47	2,566.00	0.50
Myanmar	759.12	0.34	1,254.00	0.24
Thailand	4,737.71	2.14	8,515.00	1.65
Vietnam	1,197.68	0.54	3,190.00	0.62
GMS	2,212.22	1.00	5,151.54	1.00

Source: Authors' calculation based on data source ADB and World Bank

In the third and fifth column (Table 22), we see the GDPs related to the average GMS GDP in US-$ (column 3) and in PPP-$ (column 5), then the differences become obvious. The interpretation is as follows; the income differences between the six regions are lower in PPP-$ than in US-$. But that also means that the purchasing of US-$ is very different in the region, and this says nothing else that there are differences among the consumer prices measured in US-$. If in the long run the prices converge against the price levels measured in US-$ in Thailand, then it would lead to strong income losses measured in PPP-$ in all other GMS countries. The only way out is to increase the wages measured in US-$ and the coinciding export good prices. This will raise concerns especially for Cambodia and Vietnam, who are selling a huge part of their exports in US-$. As mentioned above, it is nearly impossible to increase the export prices in US-$ in the

labor-intensive export industries because of the competition with companies in Pakistan and Bangladesh. This argument holds for all exports which are traded in the world market.

According to our considerations derived from table 24, the Chinese currency is undervalued by something around 20-25% related to the US-$. Given this, the importer of Chinese products and the Chinese producers are better off. On the other hand, competing producers in the other GMS countries and Chinese consumers are worse off. It can be argued, that an under-valued Yuan generate positive short-run effects for the other GMS countries, because the citizens can consume more and the number of competing companies in the other GMS countries is zero or very small. However, in the long run, it will be more difficult in the other GMS countries to develop their own advanced industries.

As we see, until today the GMS program seems to be successful, if we restrict our view only to economic indicators. However, an economic integration requires also to some extent a political integration. To find out we can investigate this question in the context of environmental policy which is also a part of the GMS program.

6- Natural Environment and Political Cooperation

Because of the fact, that the GMS program also mentions that it follows the idea of environmental sustainability; we take a look at some environmental indicators. At first, we look at the development of CO2 emissions per capita between 2005 and 2009.

Table 23: CO_2 Emission per Capita (metric tons)

Countries	2005	2006	2007	2008	2009	Annual Growth rate
Cambodia	0.28	0.30	0.32	0.33	0.30	0.02
China	4.44	4.89	5.15	5.31	5.77	0.07
Laos	0.27	0.26	0.26	0.25	0.25	-0.02
Myanmar	0.24	0.22	0.22	0.20	0.17	-0.08
Thailand	3.37	3.40	3.51	3.58	3.40	0.00
Vietnam	0.99	1.03	1.11	1.21	1.33	0.08
GMS	1.01	1.02	1.07	1.10	1.09	0.02

Source: Authors' calculations based on Data from ADB and World Bank

As we know the UN target to keep the increase of the average world temperature below two degrees Celsius in 2050, it is acceptable that each human does not emit more than just 2.5 tons per capita and year. In so far, Cambodia, Laos, Myanmar, Vietnam and GMS on aggregate are far below this emission level. However, the emissions of China are increasing rapidly. Even though, this indicator is in some way distorting, because it takes only the national emissions into account and not the emissions, which are embodied in imported commodities. Because Thailand and China have a relative strong industrial sector compared to the other countries, the differences among the emission levels are not surprising. Just another indicator for measuring environmental friendly behavior is the energy use per capita:

Table 24: Energy Use (kg of oil equivalent per capita)

Country Name	1990	1995	2000	2005	2010	Annual Growth Rate
Cambodia	253.97	258.92	271.08	253.73	355.37	0.02
China	868.31	889.98	945.16	1,458.44	1806.92	0.05
Laos	N/A	N/A	N/A	N/A	N/A	N/A
Myanmar	280.27	276.85	276.83	322.17	291.84	0.00
Thailand	1,038.12	1,149.08	1,164.11	1,501.91	1698.86	0.03
Vietnam	303.98	315.93	389.79	509.82	681.34	0.05

Source: Authors' calculations and Data from World Bank

Even that the energy use is increasing, it is increasing less than the GDP per capita, and that can be interpreted as a good signal. Beside these global environmental indicators, which have a minor relevance up to now, the main concerned environmental resource is water. The GMS – although not politically responsible for the use of water resources (as it is the Mekong River Commission), is nevertheless based on water as the central source of energy, infrastructure and transportation development. Water is hence the key resource of GMS economic development. The most important river is the Mekong (Lancang) river, which runs through all six member countries and which is the 12th longest river in the world. From the view of biodiversity the Mekong is the second most important river in the world. Baran and Ratner (2007) stated that the wild capture fisheries of all Mekong riparian countries, have an annual value of USD 2 billion per year. According to the MRC (2010) the total economic value of the fishery is between US-$ 3.9 to US-$ 7 billion a year. Further, the MRC (2010) estimates that 40 million people in rural areas are engaged in the wild capture fishery at the lower Mekong river basin. Therefore, every reduction of the fishery at the Mekong River harms the poorest people in the GMS. Nevertheless, the fishery is threatened by other economic activities, for example by the construction of dams, hydroelectric power plants and clearing of the Mekong affect the quality and the amount of water flowing through the lower Mekong countries. According to Haftendorn (2000), in the long-run four types of conflicts can arise if rivers cross national borders: (1) “conflict through use” (e.g. construction of power stations and dams for electrical and irrigation purposes); (2) “conflict through pollution” lowering the water quality; (3) “relative distribution conflict”, if use of an abundant source is contested; (4) “absolute distribution conflict”, if there is not enough water to serve all the needs of the riparian countries.“ The problem with all running water conflicts is that they are asymmetrical conflicts, because there is a state or states that control a river’s source or upper flow, setting the lower riparian states at a disadvantage. Because of the fact, that all riparian countries want to use the hydro-power potential of the Mekong, the upper-located countries like China have an advantage. Hydro-power plants cause two main problems for a river, they reduce the quantity of water flowing downstream and they make it impossible for some fish species to reach their hatcheries upstream.

To take an example, what happened in the recent past regarding political coordination regarding environmental protection and political conflicts, we take the Xayaburi Dam in Laos under consideration. The dam shall produce electricity for Thailand and is financed by Thai companies and banks. Different NGOs like International Rivers or the World Wildlife Fund, independent researchers, the Mekong River Commission warned to construct the dam, because of its negative impacts on the environment and downstream economies like Cambodia and Vietnam. However, without acceptance of Cambodia and Vietnam, the construction works started in May 2012.

According to Herbertson (2013) this was a breach of the "Mekong Agreement and Procedures"[14] between Thailand, Laos, Vietnam and Cambodia from 1995, because the agreement requires the consensus of all four countries regarding the construction of hydro power plants. However, the construction works are still going on according to the Laotian government. Until today, China has constructed five hydro-power plants also without any consultation from the other GMS countries. However, this example shows that there are still political obstacles regarding a international cooperation. As a result, not only people in downstream countries face environmental problem, about 2,100 Laotians would be resettled and 202,000 people would lost their agricultural land and riverbank gardens (reported by International Rivers.) According to World Wildlife Fund, Xayaburi hydro-power plant would cause extinction of Mekong Giant Catfish, and 229 fish species would be affected (World Fish Center). Finally, it would affect the 10 of millions people in GMS in food shortage and livelihood. According to Milton Osborne, Visiting Fellow at the Lowy Institute for International Policy, *"the future scenario is of the Mekong ceasing to be a bounteous source of fish and guarantor of agricultural richness, with the great river below China becoming little more than a series of unproductive lakes."*

Not surprisingly, Dosch (2011, p.22) concludes regarding the importance of environmental issues with the GMS region, *"While, on balance, there seems to be little evidence of the effectiveness of multilateral efforts at balancing economic interests and environmental concerns in the GMS."*

6. Conclusions

We have to state that the GMS program is until now a successful economic cooperation. According to Hensengerth (2005, p.14), "*The nature of GMS cooperation is one that can be found across Southeast Asia as a guiding principle for cooperation: it "has largely been informal and guided only by a set of principles and institutional arrangements.*"

One main factor for the success of the GMS program is that the program is project-oriented and due to the splitting of projects among various sets of member countries, consensus of all six MS countries is not needed. The implementation of projects can be initiated by two or more interested countries. On the other hand, the approach of cooperation seems to work less well, if trade-offs like with the dam projects between the six countries have to be resolved. If we take the recent history of political and military conflicts (Cambodian-Thai dispute about the Preah Vihear temple since 2008, the Chinese-Vietnamese dispute about the Paracel and Spratley islands) the GMS seems to be not a forum to resolve these kinds of conflicts. In so far it is unclear if the GMS program will become more than project-oriented institution to improve trade facilitations.

As the example of the Xayaburi hydro-power plant shows, the international political problem solving mechanism within the GMS does not work very well, it looks like that a part of the members behave opportunistic to realize only their goals without trying to reach a compromise or consensus by a bargaining process.

Additionally, within the GMS the economic development of the four poorest members is fragile, either with respect to the availability of natural resources or with respect to the European and US demand for labor-intensive goods.

[14] See www.mrcmekong.org/assets/Publications/policies/MRC-1995-Agreement-n-procedures.pdf

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