

ผลกระทบจากการเศรษฐกิจด้อยครั้งใหญ่ในปี ค.ศ. 2008 กระแสของค่าระหว่างประเทศ  
และคุณค่าระหว่างประเทศ ระหว่างประเทศสหรัฐอเมริกาและประเทศไทยในกลุ่มอาเซียนที่เลือกมา  
สามประเทศ

**Analysis sis of International Trade Flows between the United States and Three ASEAN  
Countries Before and After the Great Recession of 2008**

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**บทคัดย่อ**

งานทางวิชาการนี้มีจุดประสงค์เพื่อวิเคราะห์ผลกระทบจากการเศรษฐกิจด้อยครั้งใหญ่ในปี ค.ศ. 2008 ในเรื่องกระแสของค่าระหว่างประเทศ และคุณค่าระหว่างประเทศ ระหว่างประเทศสหรัฐอเมริกาและประเทศไทยในกลุ่มอาเซียนที่เลือกมาสามประเทศ คือ อินโดนีเซีย มาเลเซีย และไทย ขณะที่การค่าระหว่างประเทศทั่วโลกด้อยลงโดยประมาณ 30% หลังจากช่วงภาวะเศรษฐกิจด้อยครั้งใหญ่ในปี ค.ศ. 2008 โดยผู้เขียนใช้อนุกรมเวลาเปรียบเทียบวิเคราะห์ และวิเคราะห์ผลกระทบทดสอบสถิติการค่าระหว่างประเทศที่รวมรวมโดย UN ระหว่างปี ค.ศ. 2004-2012 เพื่อที่จะเปรียบเทียบกระแสการค้าช่วงก่อน ช่วงระหว่าง และช่วงหลังภาวะเศรษฐกิจด้อยนี้ หลักฐานชัดเจนแสดงให้เห็นว่ากระแสการค่าระหว่างสหราชอาณาจักร ไม่ต่ำกว่า 30% สามารถอธิบายได้หากหดหายดีความแข็งแรงของตลาดเกิดใหม่ที่มีประสิทธิภาพในการพัฒนาสูงทางด้านเศรษฐกิจ มีความแข็งแรง และได้รับผลหรืออุปขับเคลื่อนไปได้ด้วยหัวรถจักรจากเศรษฐกิจประเทศไทย สิ่งเหล่านี้จึงมีผลทำให้เงินทุนโลกเคลื่อนย้ายมายังตลาดเกิดใหม่

**คำสำคัญ:** ภาวะเศรษฐกิจด้อย, การค่าระหว่างประเทศ, สหราชอาณาจักร

**Abstract**

This academic paper aims to analyze the effects of the Great Recession of 2008 on international trade flows and the bilateral balance of trade (BOT) between selected ASEAN countries - Indonesia, Malaysia, and Thailand - and the United States (U.S.). International world trade fell approximately 30% after the Great Recession of 2008. The author used time-series comparative analysis and impact analysis to examine trade statistics compiled by the United Nations between 2004-2012 in order to compare international trade flows before, during, and after the Great Recession. The evidence clearly demonstrates that international trade flows between the U.S. and Indonesia, Malaysia, and Thailand fell significantly less than the worldwide average decline of 30%. The explanations given for this vary from the economic strength of emerging markets, which outperformed developing economies, to the strength and "locomotive effect" of the Chinese economy, to the global capital that flowed into emerging markets after 2008.

**Keywords:** international trade flows, BOT, balance of trade, Great Recession, emerging markets, ASEAN.

## Scope of the paper

This paper is organized into three parts: (1) presentation of world economic background, (2) analysis of international trade flows between the U.S. and the three largest ASEAN (Association of South East Asian Nations) nations - namely Indonesia, Malaysia, and Thailand, before, during, and after the Great Recession, and (3) analysis of BOT in three important trade sectors – namely vehicles other than railway, rubber and articles thereof, and electrical & electronic equipment.

## Literature and Statistical Review

Grusky, Western & Winer (2011) state that the Great Recession was the worst recession in the world since the Great Depression of 1929-1939. Unlike the “Tom Yum Kung crisis of 1997,” which started in Thailand, the epicenter of Great Recession of 2008 started in the United States as a result of the subprime mortgage crisis.

The Great Recession is defined as the period lasting from December 2007 to June 2009. In this paper, the author defines 2008 as the year of the Great Recession. The Great Recession was the worst worldwide economic decline since the Great Depression of 1929 (Federal Reserve Bank, Dallas, 2009).

The Great Recession resulted in economic hardship throughout the world. In the United States, unemployment skyrocketed from 5% in 2007 to 9.5% in June of 2009. Business bankruptcies multiplied by 31% and millions of people had their homes foreclosed. In an interdependent world economy, this kind of economic “contagion” is a ‘systemic effect’ and could not be contained in the United States and spread

throughout the world (Foster, 2009). Economic growth in nearly every country declined, but economic output in East Asia did not decline at all during the recession, growth merely slowed (Arias, Yen, 2014).<sup>1</sup> Arias, Maria, A. & Wen

This incident is important and deserves an investigation because we now live in a globalized and borderless world where every country is more interdependent with one another than ever before. One of the vital purposes of this study will be to compare and view not only how the Great Recession affected world trade flows, but also how it affected the different regions of the global economy.

By examining the international trade flows before, during, and after the Great Recession, in the case of this paper between 2004 - 2012, academicians, businessmen, and policy makers can better understand, calculate and anticipate what may happen the next time there is a recession, and the best courses of action for business development policies and management strategies.

What lessons did businessmen, policy makers, politicians, and central bankers gain from how the “Great Recession” affected international trade and how will they be able to deal with the next recession? Since World War Two (WWII), the U.S. has had a recession, on average, every six years (Conerly, Bill, 2014). This academic paper will examine the thesis that bilateral trade between the U.S. and ASEAN countries did not decline as much as the world average of 30% as well as examine different trade sectors from 2004-2012. The basis of this paper is the author’s interest in international trade issues going back to when I was studying at the American Graduate School of

International Management. My interest in this field grew through my employment with the Korean Overseas Trade Promotion Association (KOTRA) in Chicago, Illinois, USA. Presently, as a lecturer in International Business at Eastern Asia University, this topic is garnered more interest from a global management perspective.

1. Presentation of world economic background, including size of the country's economy, and regional economic growth

In 2015, the three largest economies within the ASEAN countries in terms of GDP in US Dollars are: (1) Indonesia – \$888.5 billion, (2) Thailand - \$404.8 billion, and (3) Malaysia – \$ 338.1 billion (World Bank, 2015).

As far as ranking of international trade in the world in is concerned, Indonesia was the 24th largest trading nation, Thailand, the 23<sup>rd</sup> largest, Malaysia, the 20<sup>th</sup> largest trading nation in the world. Their international trade volumes are very similar (World Bank, 2016). Please see Table One.

**Table 1**

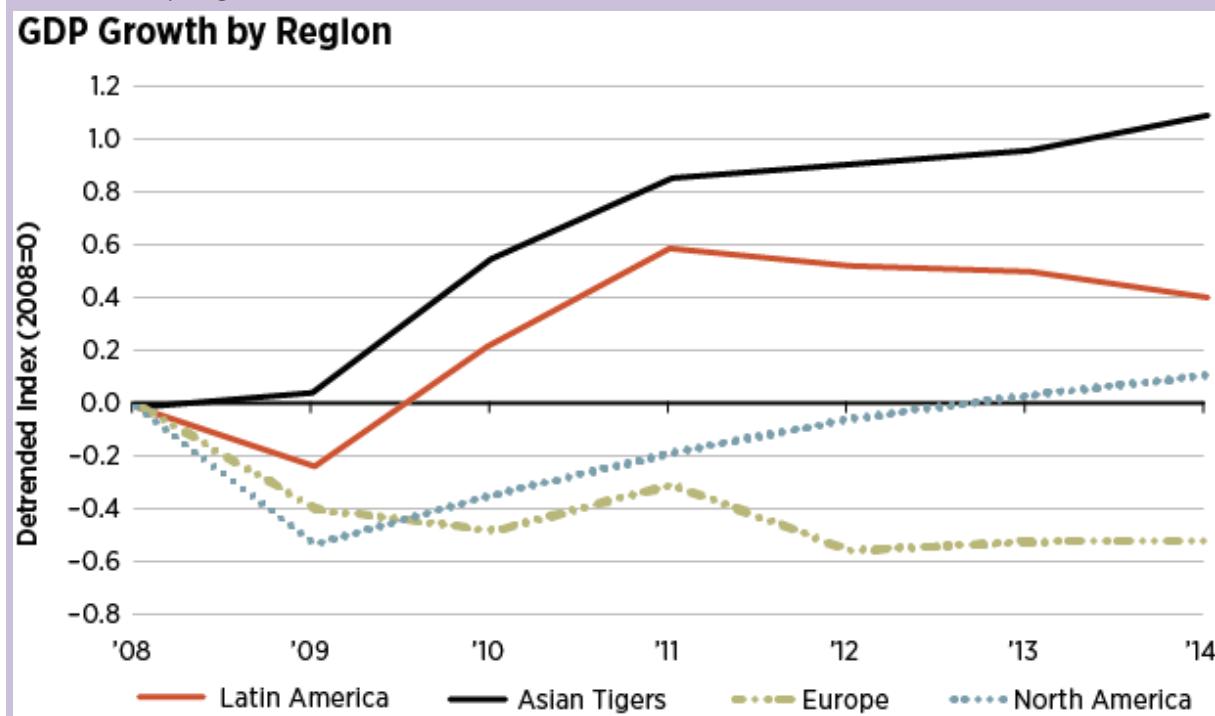
*Share of World Trade: Imports and Exports by Country*

Rank	Exporters	Value	Share	Annual % change		Rank	Importers	Value	Share	Annual % change
				4	3					
2	United States	1546	8.4	4	3	1	United States	2336	12.6	3
23	Thailand	230	1.2	3	0	20	Thailand	248	1.3	8
24	Malaysia	227	1.2	0	-6	25	Malaysia	197	1.1	5
26	Indonesia	188	1.0	-6	0	27	Indonesia	190	1.0	8

In 2013, the United States' share of the Global GDP was approximately 23%. Nevertheless, the Great Recession, with its origins in the U.S., released a tsunami of toxic debt throughout the world, sinking economic growth, and causing international trade flows to dramatically decline across the globe (Federal Reserve Bank of St. Louis, 2015)

#### **Regional economic growth**

Economic growth in 2008 and in the years following the Great Recession varied from one region of the world to another region of the world. The following graph divides the world into four regions:

**Table 2***GDP Growth by Region*

SOURCES: World Economic Outlook (July 2015) and authors' calculations.

NOTE: Trend growth calculated using data between 1980 and 2008.

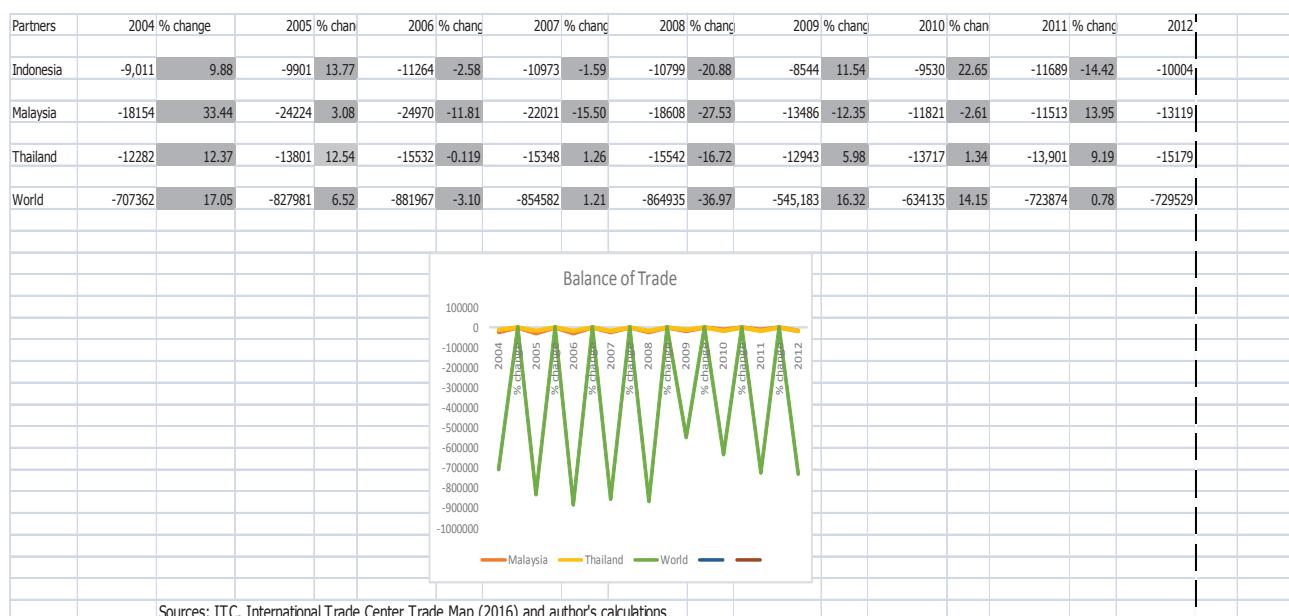
■ FEDERAL RESERVE BANK OF ST. LOUIS

The Asian Tigers include Indonesia, Malaysia and Thailand plus other countries in Asia. This evidence points to the fact that the economies of emerging markets, such as Indonesia, Malaysia, Thailand and other ASEAN countries experienced less severe economic downturn than the developed countries such as the United States and the European countries. The graph above depicts the emerging countries' economies, which includes "the Asian Tigers. Their economic not only did not decline as much as N. America and European economies, but they recovered faster (Federal Reserve Bank of St. Louis, 2014). Riding on the stronger economies, relative to US and Europe, the emerging countries

trade flows did not decrease as much as the world average.

2. Analysis of international trade flows between the United States and the three largest ASEAN economies before and after the Great Recession as well as the analysis of balance of trade between the U.S. and the "world" Table Two examines international bilateral trade between the United States and the (1) World, (2) Indonesia, (3) Malaysia; and ,(4) Thailand. This includes the percentage increase/decrease from 2005 through 2012; a period of three years before the Great Recession, from 2005 to 2008; the year of the Great Recession, from 2008 to 2009; and a period of three years after the Great Recession, from 2009 to 2012.

Please see Table Two and Table Three: “List of Partner Markets for a product commercialized by the United States of America” (ITC Trade Map)



An analysis of this table “Partner Markets for the United States – Indonesia, Malaysia, Thailand, and the World” clearly demonstrates the devastating effect of the Great recession on the Balance of Trade (BOT). The BOT, worldwide, fell approximately 30% according to the Federal Reserve Bank of St. Louis

(2014). When examining the percentage change in the BOT for the U.S. before the Great Recession from 2005 to 2008, during the Great Recession from 2008 to 2009 and after the Great recession, from 2009 to 2012, we find the following percentage changes in the United States BOT in Table Three.

**Table 3**

*Annual Average Percentage Change in United States' BOT before, during, and after the Great Recession*

	Before	During	After
The World	1.5%	-36.9%	6.59%
Indonesia	3.2%	-20.88%	-1.4%
Malaysia	-8.07%	-27.53%	5.5%
Thailand	4.6%	-16.72%	10.4%

*Note.* From: ITC Trade Map (2016) and author's calculations

In Table Three, positive values mean an increase in the bilateral BOT toward the deficit side for

the United States, while negative value means an increase in balance of trade on the surplus side for the U.S.

When worldwide trade shrank by 36.97% as a result of the Great Recession, the international trade deficits for the U.S. actually improved as a result of a decrease of the negative BOT for United States. (The Great Recession, improved the U.S. BOT with the world.)

The U.S. trade with the world changed positively 36.9% from 2008 till 2009. The BOT deficit decreased 27.5% with Malaysia, 20.8% with Indonesia, and only 16.7% with Thailand. Among the three countries, the Great Recession affected bilateral trade between the United States and Thailand the least from 2008 to 2009. The change in the BOT between the US and these three ASEAN nations was significantly less than the change of trade between the U.S. and the rest of the world.

When looking at percentage change in bilateral trade with the U.S. before the recession from 2005 – 2008, Indonesia increased its BOT by 3.2% annually, Malaysia decreased its BOT with the U.S. by an average of eight point zero-seven per-cent (8.07%) per year, and Thailand increased its annual average BOT by 4.67% per year. From 2008-2009, the BOT between the U.S. and Indonesia fell by 20.88% while the BOT between the U.S. and Malaysia fell by 27.5%. This large drop in trade between the U.S. and Malaysia in 2009 may be explained by a large drop in electrical machinery and electrical equipment trade which dominates trade flows in both directions.

Among the three ASEAN countries – Indonesia, Malaysia, and Thailand - the US

international trade flows with Thailand decreased by only 16%. The reasons Thailand fared better are complex but one reason for this relatively favorable situation is that Thailand had replenished its foreign reserves since the last financial crisis (Chirathivat, S & Mallikamas, S., Thailand's Economic Performance and Response to the Global Crisis, 2010, pg 4)

The U.S. experienced smaller trade deficits with Thailand, Indonesia, and Malaysia in 2009 compared to 2008. The BOT improved for the U.S. – in other words, the U.S. had smaller trade deficits as a result of shrinking trade. This paper will not examine in detail the reasons for this, but one possible reason was due to the decrease in demand in the U.S., or the “freezing” of credit markets in the United States. Later. This academic paper, will examine the BOT flows among three important trade sectors. While the BOT decreased significantly following the Great Recession between the U.S. and the ASEAN countries under study, the decline in trade volume was far less than the worldwide average decline (Table Two on page 6). Only the change in the balance of trade with Malaysia, which was 28%, comes close to the worldwide average of 36.9% decline in balance of trade between the U.S. and the world.

3. Analysis of the balance of trade in three important trade sectors between the U.S. and three ASEAN countries. Indonesia, Malaysia and Thailand. These three trade sectors are televisions receivers, rubber products, and automobile (vehicle) and parts. As we discovered in Part 1, international trade flows between Indonesia, Malaysia, and Thailand did not change as much as the world wide average. For this paper, three trade sectors were examined to ascertain

whether certain sector were affected more than others. I selected automobile parts (defined as vehicles other than railway), product sector number 87; rubber and rubber articles, thereof, product sector number 40; and electrical and electronic equipment, product sector number 85 according to the product nomenclature of the International Trade Center (ITC Trade Map, 2016).

Automobile and parts (Vehicles, other than railway product sector was chosen because the U.S. automobile industry went through enormous changes and bankruptcy during the Great Recession. Automobiles are durable products. Rubber and articles thereof was chosen because it is an important

commodity in Indonesia, Malaysia, and Thailand. Commodities are susceptible to “boom and bust” cycles. Television receivers were chosen because there are large electrical and electronic manufacturing operations in Indonesia, Malaysia, and Thailand. Television receivers are important products in our electronics age.

Tables 5, 6, and 7 examine the change in international trade flows for the three categories mentioned above for one year prior to the Great Recession, from 2007-2008; during the Great Recession; and for one year after the Great Recession, from 2009-2010. (In thousands of USD dollars)

**Table 4**

*Balance of Trade in Parts and Accessories of vehicles; product code: 8708, with the United States*

Country	2007	% change	2008	% change	2009	% change	
						2010	2011
Indonesia	60089	-86.99	7815	-76.26	1855	104.42	3792
Malaysia	9031	10.70	9997	-5.21	9476	149.99	23689
Thailand	157515	-10.29	141301	-28.41	101157	43.48	145141

*Note.* From: ITC, International Trade Center Map and authors' calculations my calculations

The international trade in durables was affected more than any other sectors as a result of the Great Recession. Vehicles and parts are a “twentieth century” industry. During this time, General Motors (GM) of the U.S. would have gone bankrupt if not for a U.S. government bailout during this period. Because of this we expect to see a large decline in the BOT of this product sector due to the restructuring and retooling the U.S. vehicle industry.

Bilateral trade in vehicle parts and accessories between the U.S. and Indonesia, Malaysia, and Thailand is dominated by Thailand with a trade balance with the U.S. of over one hundred fifty million dollars in 2007. Indonesia's balance of trade with the U.S. fell by more than 76%, by five-hundred and ninety million dollars from 2008-2009. Without knowing details of the vehicle parts industry, it appears that international trade of vehicle parts and accessories between the U.S. and Indonesia was being either restructured or phased out.

On the other hand, international trade in this product category with Malaysia dropped only 5% during the recession. It seems that industry factors in addition to the Great Recession were affecting bilateral trade in vehicle parts and accessories between the U.S. and these three ASEAN nations during this period.

The BOT in vehicle parts and accessories between Malaysia and the U.S. increased by 10.7% from 2007-2008, while the balance of trade between Thailand and the U.S. in the same industry sector declined 10.3% during this same period. One possible reason to explain this phenomenon is due to the unfavorable strategic attractiveness of Thailand for foreign investment at that time.

After the Great Recession, Malaysia's balance of trade in vehicle parts and accessories with the U.S. worsened by 5.2%. Thailand's balance of trade in vehicle parts and accessories from 2008 to 2009 worsened by 28.4% after the Great Recession. Overall, one possible explanation for this phenomena could be it was a result of the drastic financial overhaul, retooling, and radically restructuring General Motors in the U.S., the second largest car company in the world, during this period as shown in Table 4.

**Table 5**

*Balance of Trade in Natural Rubber; product code: 4001, with the United States.*

	2007	% change	2008	%change	2009	change	2010	%
country								
Indonesia	1287273	26.97	1634460	-59.77	657624	157.97	1696446	
Malaysia	110260	28.86	142084	-63.65	51649	149.51	128869	
Thailand	445806	28.12	571187	-48.09	296521	93.30	573170	

Note. From: ITC, International Trade Center Map and author's calculations

Rubber as a commodity product sees boom and bust cycles in its demand. Its demand is extremely cyclical. Rubber and rubber products were riding an up-cycle when the 2008 Great Recession hit (now, nearly all commodities are experiencing deflationary spiral). At the time of the Great Recession, commodity prices were booming due to huge demand from China for commodities.

The change in the BOT in rubber with the U.S. was remarkably uniform between the three countries, Indonesia, Malaysia, and Thailand, in the percentage growth of approximately 26% to 28% increase before the Great Recession as well as uniform in the percentage decrease in the BOT on the downside, during the Great Recession. BOT decreased 48% in Thailand and 63% in Malaysia. Therefore, the effects of the Great Recession on the trade balance between

Indonesia, Malaysia and Thailand and the United States in natural rubber products were remarkably similar. The three balance of trade balances followed similar patterns of rise and decline before and after the Great Recession. One assumption is that commodities, in general, and rubber, in particular, follow similar market and pricing trends in times of high demand.

In other words, while Indonesia had the largest trade balance in rubber products, with ten times that of

Malaysia and three times that of Thailand, the percentage increase in the trade balance was almost the same at 27% and 28% from 2007 to 2008. Similarly, the flow of trade between the U.S. and Indonesia, Malaysia, and Thailand had fallen a staggering 48% for Thailand, 59% for Indonesia, and 63% for Malaysia. Therefore, we can see that the percentage change in the BOT of rubber was nearly the same for Indonesia, Malaysia, and Thailand.

**Table 6**

*Balance of Trade in Television Receivers; product code: 8528, with the United States*

(In thousands of USD dollars)

	2007	% change	2008	% change	2009	% change	2010
country							
Indonesia	4808	-96.55	166	-159.04	-98	-418107.14	409647
Malaysia	135995	-75.47	33359	-23.14	25640	610.64	182207
Thailand	575341	-8.05	529054	0.91	533881	-15.05	453542

Note. From: ITC, International Trade Center Map and author's calculations

Television receivers represent home appliance electronic needs. They are in big demand as they have many applications in for the electronics industry. Among the three countries under study, Indonesia starts with a low base for the manufacturing of television receiver having only a \$4,808,000.00 balance of trade surplus with the United States in 2007, but then it explodes to \$ 400 million trade surplus with the United States in television receivers by 2010. On the other hand, Malaysia and Thailand had a strong manufacturing base for the manufacture of television receivers, with Thailand's balance of trade with the United States amounting to \$575,341,000.00, a trade surplus with the United States of \$1,040,000.00 more

than Malaysia's balance of trade in television receivers with the U.S.

Possible reasons for the spiking in BOT with Indonesia may have to do with Japanese, Taiwan, and Korean companies shifting production to Indonesia from other countries due to increasingly low wages and tax incentives for foreign companies, and also rising skilled labor. Another possible reason may be that at this time there was a change in manufacturing patterns within the industry as production was trending toward LCD, liquid crystal displays.

Unlike rubber products, television receivers experienced negative BOT changes before the recession, with Thailand experiencing the least change

of negative 8.05%. Thailand was the only country out of the three to not incur a negative percentage of balance of trade with the U.S. from 2008 to 2009 in television receivers. However, things changed drastically from 2008 to 2009 as Thailand's trade in television receivers with the U.S. decreased while Indonesia's trade balance shot up. One assumption is that offshore production of television receivers might have started shifting from Thailand to Indonesia due to the basic production process has been improved in Indonesia, while Thailand began in engage in more complex industrial production, but further study is needed before we can derive the conclusion. After the recession in 2009, Indonesia actually experienced a trade deficit amount with the United States of \$98,000 as its international trade fell by 159%. We saw that from 2007 to 2008, Malaysia's trade balance with the U.S. grew considerably more than Thailand's in this category, but this trend was reversed in 2009. Malaysia experienced negative trade flow. Its balance of trade decreased by 27% while Thailand's increased by 0.91%. The balance of trade surpluses with the U.S. widened to \$533,881,000.00 for Thailand in 2009, but dropped 15% for a trade surplus in television receivers of \$453 million.

Television receivers experienced negative BOT changes before the recession for all three countries but recovered well from 2009-2010.

## Summary

When looking at the bilateral trade of three sectors vehicle parts and accessories, rubber and rubber products, and television receivers between the United States and Indonesia, Malaysia, and Thailand there are some clear trends. International trade flows of all three

sectors declined significantly from 2008 to 2009, during the height of the Great Recession. Other factors, such as industry trends, domestic economic and political, and technological, logistic, and supply chain developments, certainly played a role in the significant changes in international trade flows between the U.S. and Indonesia, Malaysia, and Thailand. It is clear that the Great Recession of 2008 had A MOST significant economic impact on international trade flows between the U.S. and Indonesia, Malaysia, and Thailand.

As discussed, the balance of trade between the U.S. and Indonesia, Malaysia, and Thailand sharply decreased in all categories from 2008-2009. Yet, the total balance of trade between the United States and Indonesia, Malaysia, and Thailand declined significantly less than the decline of international trade between the U.S. and "the world". For the U.S., the Great Recession improved its balance of trade with ASEAN countries and the world. Its trade deficits with those countries actually improved (See Table Two).

## Conclusion

The information presented and discussed in this paper is significant for the following reasons: By examining international trade flows before and after the GREAT RECESSION, academicians, businessmen, and policy makers alike can calculate possible effects of the next recession on trade and anticipate the best courses of action.

Business leaders and government officials can use this information for business development purposes  
c) Business leaders and government officials can use this knowledge to better manage the economy

To be redundant, this academic paper clearly demonstrates the percentage decrease in trade between the United States and ASEAN countries of Indonesia, Malaysia, and Thailand was proportionately less, and to a significant degree, than the percentage decline of international trade between the United States and the world as a whole. We learned that across trade sectors, rubber, vehicles and parts, and television receivers, the Great Recession caused a decrease in international trade flows with the United States in a similar direction and magnitude for the three countries examined. Having said that, Malaysia fared the worst and Thailand the best.

The information discussed in this academic article may be used by individuals and businessmen in these three countries so that during the next recession, they can shift production and resources into and out of not only these product sectors, but also they can allocate resources more effectively and efficiently in other subsectors not covered in this article.

The Great Recession of 2008 slowed economic growth and development in every country in the world. This worldwide economic recession was countered, in the

U.S., effectively by the Central Bank's use of monetary policy to an extent never seen before. In the United States. Its Central Bank, the Federal Reserve Bank, used Quantitative Easing Quantitative easing (QE). QE is a monetary policy used by central banks to stimulate the economy when standard monetary policy has become ineffective. This policy is supposed to stimulate the economy by encouraging banks to make more loans. The question is, if there is another recession, do the Central Banks and U.S. and other governments have a "Plan B" to counter the next Great Recession? Because the U.S. government is politically divided between the executive and the legislative branches, a fiscal policy response (tax and spend) policy response is out of the question for a future "Plan B" for the U.S. With interest rates at near zero, the Federal Reserve Bank cannot use the same stimulus as it did during the Great Recession on 2008. The question of "What is Plan B" for the U.S. government, in the event of the next big recession, is important for policy makers to answer. This question may have to be answered sooner rather than later.

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