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中國區域貿易倡議及其於亞洲的影響
China's Regional Trade Initiatives and Their Impact in Asia

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摘要

中國在亞洲的重量級角色在近年來已受到國際矚目，但儘管多方學者在研究該國的興起時對其政治與經濟勢力已有著墨，對於中國在亞洲地區貿易的牽動卻不大關注。

為此本文特地透過中國與東亞及東南亞諸國的貿易開放度、市場集中度與貿易強度等指標，研究亞洲地區從 1992 年至 2014 年間貿易關係的演變。而研究結果說明各國的貿易關係的確在這期間有發生顯著的變化，其效果不論是在貿易於國內生產總值的占比上或是在貿易政策的開放性上都可見一斑。此外，與中國保持高貿易強度的國家數量不僅增加了，各國各自的貿易強度也有所增長，但唯獨諸國的貿易多樣性卻比在 1992 年時低。

本文認為，基於 1992 至 2014 年間亞洲貿易概況及各國間貿易關係的演變，東亞及東南亞諸國如今受貿易的牽制以及對於中國貿易的依賴性均高於昔日。因此，在考量亞洲地區的未來時，中國與各國間貿易關係的演變就成為不可疏忽的一點。有鑑於如中國「一帶一路」等措施，各國對於自身對中國貿易的依賴性之審慎評估和迅速排除將是下一個難題。

關鍵字: 國際貿易，貿易關係，貿易倡議，中國，東亞，東南亞，貿易密集度，市場集中度，貿易多元化，貿易開放度

Abstract

China's evolving role in Asia as a regional player has caught the attention of the international community. Many scholars have focused on a range of considerations regarding China's rise, such as its expanding economic and political presence in Asia; however, insufficient focus has been applied to the effects of Chinese trade in the region. This paper examines the evolution of China's trade with its East and Southeast (EA&SEA) neighbors from 1992 to 2014 and how these trade relationships have changed. It accomplishes this by examining several indicators, including trade openness, market concentration, and trade intensity for the selected countries and China. This paper's results indicate that EA&SEA countries and China have experienced significant changes to their trade relationships from 1992 to 2014. There has been substantial growth in the trade openness for the majority of countries in the EA&SEA region, in terms of both trade to GDP ratio and in terms of trade policy. Additionally, relative to China, the EA&SEA region is now less diversified than it was in 1992. Lastly, the number of the EA&SEA countries with high trade intensity with China has increased, as well as the degree of trade intensity of EA&SEA countries. This paper concludes, that as a result of changes in trade from 1992 to 2014 and the evolving trade relationship between China and EA&SEA countries, EA&SEA countries are, on average, more vulnerable to trade and trade dependent on China. Keeping in mind China's past and present trade relationships with EA&SEA countries is important when considering the future of the region. With the development of China's new initiatives such as "One Belt, One Road," evaluating and possibly reducing trade dependency is likely now more than ever, a wise endeavor.

Keywords: international trade, trade relationships, trade initiatives, China, East Asia, Southeast Asia, trade intensity, market concentration, trade diversification, trade openness

Chapter 1: Introduction

It has been frequently argued that China's role in Asia has moved from a relatively passive one of acquiescence throughout the 1990s and 2000s to one of increasing assertiveness in recent years. The South and East China Sea disputes, reassertions of sovereignty over Tibet and Taiwan, the increased role of China in ASEAN and other multilateral organizations, and many other examples have made it clear that China's role is evolving and necessitates keen observation. China's newly-found regional role, and perhaps global one, has been further emphasized by rapid economic and trade growth. Its passage of numerous trade agreements and adoption of trade liberalization policies point to greater regional involvement and changing relationships with regional partners.

China's increased trade over the past two decades has gathered international attention for its scope and depicts a country that is actively promoting its economic interests by trade openness. It follows a trend of over three decades of trade liberalization across the world and in Asia. Many scholars have focused on either past strategic, economic, or political aspects of these broader trade trends, especially in regards to the relationship between the United States and China. Less research has been to evaluate the changes in trade in the East and Southeast regions, especially in regards to how they affect the relationship between China and its neighbors. I will examine the implications of China's trade with the region over the past two decades and lend an interpretive eye to the shifting balance of power in the region.

1.1 Research Motivation and Rationale

The importance of examining power relationships in Asia is well-established, but the understanding of them varies quite considerably. China's relationship with its neighbors is no exception, as China's position in Asia is central to nearly every discussion on Asian international relations, or its importance is at the very least acknowledged. There is extensive research on subjects regarding questions of power, and similarly, a great number of works have described the ongoing events and processes, yet there remains great uncertainty to the future of Chinese power and what it will hold for Asia. Some scholars have proclaimed China a global hegemon while others are still skeptical about it even achieving regional power status (Shambaugh, 2013).

In a different perspective on Chinese power, I will examine the trade relationships between China and its regional neighbors over the past two decades. Despite being largely economic in nature, these evolving trade relationships reflect profound strategic importance for China's relationships with other players in the region. Because policy can only depict one side of a relationship, I intend to focus primarily on the outcomes of trade. Therefore, it is not my intention to solely describe China's process of policy formulation or theoretical distribution of power, rather I will examine the trade changes that have occurred in the region and how they have affected China's latent power.

In this paper Neorealist and Neoclassical realist perspectives are utilized to analyze China's evolving trade position among its regional neighbors. I seek to analyze trade in the East and Southeast Asian regions over the past two decades and examine changes that have occurred. To do this I examine regional trade data with China. From

these changes I deduce the evolving trade relationships between China and its neighbors. This study will accomplish these tasks by collecting data through the use of primary sourced economic data as well as scholarly secondary sources . Careful analysis will subsequently lend to greater understanding of this issue. The methodology employed in this paper is discussed at length in the following methodology chapter.

1.2 Research Goals and Questions

This paper looks to achieve these stated goals:

1. To review current theories on the neorealism and neoclassical realism especially in regards to the concept of latent power and how they apply to trade
2. To present and analyze changes in trade in the EA&SEA region and China over the past two decades
3. To examine the trade relationship between China and its neighbors

To be more specific, the paper will seek to answer the following research questions:

1. How has trade in the EA&SEA region with China changed over the past two decades from 1992 to 2014?
2. How have trade changes affected the trade relationship between China and the EA&SEA countries?
3. What do these trade changes mean for the power relationship between China and EA&SEA countries?

1.3 Hypothesis

1. Trade in the EA&SEA region has liberalized from 1992 to 2014, coinciding with trade liberalization in China. This has led to increased trade in the region and with China and the growing importance of China as a trade partner.
2. The trade changes between China and EA&SEA countries have led to greater trade vulnerability for EA&SEA countries and greater trade dependency with China.
3. While all countries may have benefited from the greater trade to some degree, the increase of trade with China has altered the trade relationship and China has likely received the greatest benefit. Growing exports to China by EA&SEA countries has led to increased trade vulnerability and trade dependency. While China's vulnerability to trade may have increased as well, EA&SEA countries' vulnerability has increased in relative terms to China. Therefore, China has gained a position of greater relative strength and increased relative latent power due to its trade relationship with the countries in the region.

1.4 Literature Review

1.4.1 Defensive and Offensive Neorealism

Kenneth Waltz in his influential work *Theory of International Politics* laid out the groundwork to what was to become known as "Neorealism," also known as "Structural Realism" (1979). Neorealism focuses on the international system and its structural restrictions on the behavior of states. In his book he presents a world that is plagued with

perpetual anarchy due to the international political structure. He describes the domestic political structure and contrasts it with the international political structure by describing how different their ordering principles are. In the domestic political structure "some are entitled to command," that is the State, yet in the international structure "None is entitled to command; none is required to obey" reducing the system to perpetual anarchy (Waltz, 1979). In order to combat this, states must strive to act in a way that promotes their security. This is the aptly-named "self-help" system in which states must help themselves or fail to prosper (Waltz, 1979). This can lead to a number of outcomes, but Waltz theories suggest that states are not inherently aggressive, rather they wish to maintain their position in the system (Waltz, 1979, p. 126); this is part of Waltz's balance of power theory. States wish, at minimum to maintain their positions in the system in order to maintain stability in the system and thus their own security. This leads to states balancing against those powerful states that seem to disrupt the status quo, thus providing a disincentive to be an aggressor.

John Mearsheimer in *The Tragedy of Great Power Politics* provides an alternative to Waltz's worldview (Mearsheimer, 2001). Mearsheimer flips Waltz's theory on its head by suggesting that states are aggressive and offensive in nature, rather than defensive and wanting to preserve the status quo. He also asserts a number of "bedrock assumptions" that define the international system: it is anarchic, great powers possess some offensive military capability, there is uncertainty about other states' intentions so states focus on offensive capabilities of rivals, and survival is the primary goal of states, especially maintaining territorial integrity and domestic autonomy (Mearsheimer, 2001).

Mearsheimer argues that states power-maximize and that a state's ultimate goal is to be the hegemon in the system (Mearsheimer, 2001). However, he suggests that the existence of a global hegemon is impossible due to the "stopping power of water"; that is, the great oceans divide the world and make it impossible for a state to effectively deploy power globally for a long duration therefore, he thinks that states attempt to become regional hegemons instead.

1.4.2 Neorealism and Latent Power

Mearsheimer espouses that power is measured in military power and latent power. Latent power he views largely as wealth, and latent power is important because it is convertible to military power (2001). This is "because rich and populous states usually can and do build powerful armies. Thus, great powers tend to fear states with large populations and rapidly expanding economies, even if these states have not yet translated their wealth into military might" (Mearsheimer, 2001, Chapter 2). While Mearsheimer doesn't define latent power outright, by his usage it can be reasonably concluded that to measure latent power would require measuring economic power by its resources and capabilities, which are tied to and capable of translating to military power.

Latent power is essentially the collective power of a nation. Latent power is not a single measure of power, but rather a collection of power represented by a nation's capabilities and resources. Waltz argues that in regards to latent power that "the economic, military, and other capabilities of nations cannot be sectored and separately weighted (1979, p. 131)." Still, the military power of China and the U.S. in some sense may be irrelevant for measuring latent power. This is because military power is

problematic in two ways: first, direct military confrontation is not likely in China's nor the United States' interests and will hurt economic development, or long-term prosperity, for both. China and the U.S. have said this explicitly. Second, direct military confrontation between two nuclear states presents a slew of problems, namely that calculating a positive scenario is undoubtedly challenging without clear nuclear superiority as second-strike capabilities ensure mutual destruction.

One area of theoretical disagreement between Waltz and Mearsheimer regard their views on states' aims. Waltz views all states as primarily status-quo seeking; in sharp contrast, Mearsheimer sees all states as wanting to change the status quo with only the hegemon seeking to maintain the status quo. Mearsheimer however notes that not all countries actively seek to change the status quo because they must wait until a favorable opportunity presents itself. After all, in perceived unfavorable conditions a country would not be acting in its best interest to power-maximize by changing the status quo. Therefore, it is perhaps possible to reconcile Waltz's and Mearsheimer's views to some extent. First, many would agree that states do not wish less economic prosperity or influence, thereby in part agreeing with Mearsheimer's position that all states want to promote their selfish interests and increase their power. If we assume this view correct, it might also follow that in order to promote a country's self-interest in security a country would desire a regional hegemon to remain in power to provide stability (Waltz's perspective). These two views therefore are not entirely as contradictory as they may seem. This is not a new idea. In Snyder's "Mearsheimer's World" he concludes that Mearsheimer's theories do not supersede Waltz's, rather they complement them (Snyder,

2002, p. 151). Mearsheimer employs many of the same assumptions and introduces a rationale for revisionist states that challenge Waltz's status quo (Snyder, 2002).

1.4.3 Limitations of Neorealism and the Emergence of Neoclassical Realism

Despite being theoretically sound in many regards, an essential problem with neorealism is that while neorealists often comment on foreign policy, the systems-level theory cannot explain why states behave differently even when subjected to the same structural pressures. Waltz argued on multiple occasions that neorealism is a theory of international politics rather than foreign policy (Waltz, 1996). Recognizing the limitations of a solely systems-centric theory, other realist scholars have sought to analyze not only outcomes in the international system, but the foreign policy developed by states to achieve their ends. They have also sought to understand how, despite all countries being subject to some systemic pressures states reach different foreign policies objectives and outcomes. This effort has led to other branches of neorealism, such as neoclassical realism.

The term "neoclassical realism" was developed by Gideon Rose in which he argued that neoclassical realists believe "the scope and ambition of a country's foreign policy is driven first and foremost by its place in the international system and specifically by its relative material power capabilities. This is why they are realist … however, that the impact of such power capabilities on foreign policy is indirect and complex, because systemic pressures must be translated through intervening variables at the unit level. This is why they are neoclassical" (Rose, 1998, p. 146). Neoclassical realists agree with the base assumptions of neorealism that the international system is anarchic and that states

seek to maintain their survival. In some ways, neoclassical realism offers a method of incorporating neorealist theorizing with foreign policy analysis. Neoclassical realists acknowledge the importance of the international system's structure. They recognize that states are constrained, especially by power distribution among them, but they emphasize that the link is indirect. Neoclassical realism moves beyond structural theories that only concern themselves with reoccurring patterns in international politics by incorporating internal factors in the analysis (Rose, 1998). That is, while the system pressures and constraints shape states' behavior, they must be filtered through domestic-level elements before inducing foreign policy behaviors. These filters that shape foreign policy can be categorized as intervening variables. The consist of internal characteristics of or within states, such as political regime type, culture, leader, and others. A criticism of neoclassical realism is that most neoclassical realists do not agree to what the factors are or to what extent exactly that they shape states' policies. This has led to an ever-widening scale of literature on the subject (Tang, 2009). While systems theories may be universal, the wide-ranging internal factors of states can mean increased complexity in their study. Still, what neoclassical realism offers is increased understanding of foreign policy by analyzing the effects of systemic pressures viewed through lower level factors.

Theory	*View of International System*	*View of Units*	*Causal Logic*	
Neoclassical realism	**important; anarchy is murky**	**differentiated**	**systemic incentives (independent variable)** →	**internal factors (intervening variables)** → **foreign policy**

Figure 1 Author modified from original figure (Rose, 1998)

1.4.4 Neoclassical Realism and Trade

Neoclassical realism's key elements highlight the importance of internals factors and foreign policy. Relaxing the assumption of power maximization allows us to explore the choice between internal and external balancing and compels us to develop a sense of how power springs from domestic resources (Brawley, 2010). This is especially relevant for latent power. Power maximization in the short-term may be detrimental to long-term power because of opportunity costs. A military build-up in the short-term may be good for short-term power maximization, but increasing domestic economic strength through investment or increased trade can produce long-term results for power. Policies that focus on internal balancing and on internal economic expansion may more effectively power-maximize over the long-term than short-term (Brawley, 2010). However, conversion of economic resources or latent power can take time. Therefore, it is logical that if a threat to a country will only become serious in the distant future, a power-maximizing foreign policy would rationally choose the strategy of internal balancing to maximize its power for the future (Brawley, 2010). Thus, a country's perception of threats, and how soon it

may face those threats, will affect decision-making and the speed at which they power maximize. Trade is an example of a long-term economic strategy that can power-maximize in the long-term by building up latent power, given the absence of immediate threats.

1.4.5 Trade Openness

There is a large amount of existing literature and theories supporting the notion that trade and trade openness positively affects economic growth; this literature spans centuries and traces back to Adam Smith's famous work *The Wealth of Nations* (1776). While economists generally don't agree on many things, the positive benefits of trade are a rare exception. Therefore, this paper will not explore this basic tenet in depth. The liberal order of international trade does not go without its challenges of course. The majority of critics argue that trade is not equally beneficial. This is an important point that will be considered in this paper.

Furthermore, the subject of defining "trade openness" is an open question. There is an abundance of studies that grapple with how to define and evaluate trade openness properly. Previous studies have approached the concept of trade openness in various ways, but there is not a golden standard to be used. There are difficulties in identifying proper measures for trade openness in capturing economic growth due to inherent complexities in variables. Winters notes these difficulties in three main sources: measuring trade stances is difficult, the direction of causation between openness and growth is not always clear and difficult to establish, and the interaction with trade policy must be considered with other policies (2004). There are however ways to overcome

these difficulties. In a survey of research papers to evaluate measures of trade openness and policy six broad categories of commonly-used methodologies and measures were found (David, 2007)**.** These six categories of trade openness measures are trade ratios, adjusted trade flows, price-based, tariffs, non-tariff barriers, and composite indices. These reflect different aspects of trade openness as the first three focus on outcomes while the last three focus on policies (David, 2007). In this study, David's data and research concluded that "the adjusted trade flows and composite indices categories have strong correlations with each other and with the tariffs category … [and] that three measures from the composite indices category that correlate broadly across the adjusted trade flows category are driving the result (David, 2007, p. 27)." He also noted that strong correlations suggest that composite indices can capture the effects of trade policy changes and changes reflected in the outcomes captured by adjusted trade flow measures (David, 2007, p. 27).

1.4.6 Tariffs and Non-tariff barriers

Tariffs represent a significant measure of a country's trade openness. How they fluctuate indicates a degree to which a country is restricting or opening itself to foreign trade. There are several categories of tariffs, but the three main categories are bound, most favored nation (MFN), and preferential (with preferential being either unilateral or reciprocal) (WITS, 2010). Each type of tariff may exist for the same commodity or good; in general, the bound rate is the highest tariff, the preferential the lowest one, and the MFN applied is generally somewhere in between; however a country may raise its MFN tariff to the bound rate as long as it does so on a nondiscretionary basis (WITS, 2010). As the figure reflects; however, trade openness cannot be measured by tariffs alone because tariffs are applied differently among trading partners.

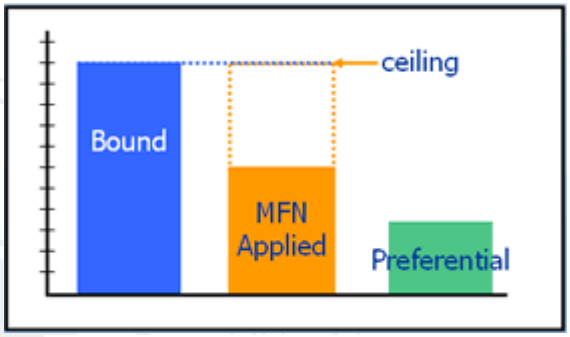

Figure 2 Comparing Types of Tariffs (WITS, 2010)

Examples of Non-tariff Barriers to Trade		
Code	**Measure**	**Example**
3	Price Control	Minimum import price
4	Finance	Advance payment of customs duties
5	Licensing	Prior surveillance
6	Quantity controls	Seasonal quotas
7	Monopolistic	Sole importing agency
8	Technical	Packaging requirement

Table 1 Comparing Types of Tariffs (WITS, 2010)

It must be noted that since tariffs are individually applied, worldwide averages show little in regard to policy or outcomes.

Non-tariff barriers are, as the name implies, barriers to trade excluding tariffs. They often come in the form of regulatory controls. Stated goals of these regulatory

controls are to pursue "social, public health, environmental, or other non-economic policy objectives" but there is some subjective interpretation as to whether governments intend to use them as barriers to trade or not (WITS, 2010). Regardless, they act as barriers to trade and thus help reflect the trade openness of an economy.

1.4.7 Country Size and Trade

As aforementioned, some critics contend trade unequally benefits countries. One of these supposed sources of inequity is country size. There are six main benefits of a country's size in terms of population according to Alesina, Spolare, and Wacziarg (2005, p. 1503). They are economies of scale in the production of public goods, greater safety as a public good, ability to internalize cross-regional externalities, greater insurance to shocks, income redistributive schemes in different regions, and the role of market size. The benefit of market size is the most important in terms of trade because a larger market allows more competitors, even before external trade. A large market size allows multiple sources of competition, scalable technology, shared resources, and raises the intensity of product market competition (Aghion, Philippe, & Howitt, 1992; Alesina et al., 2005, p. 1504). Because of this, smaller countries often suffer more than large countries during periods of trade restrictiveness, or as a result of higher trade barriers. Reversely, small countries benefit more from increased trade. However, in the absence of trade barriers the effect of a country's population size would have no effect on its economic success as its market size would be irrelevant (Alesina et al., 2005).

1.4.8 Summary of Literature Review

Defensive and and Offensive Neorealism are often used to describe the source of and interaction of power in international relations. They depict a world of anarchy, without an international structure to regulate states. In order to survive, states adopt policies that are self-promoting. They also have options in terms of their interaction with states, but these actions are determined by their capabilities and latent power.

It is important to keep in mind the restraints that Neorealism purports; however, as a systems theory, it is limited in its applicably. This literature review suggests, that using a neoclassical realist perspective is an appropriate approach to analyze the changing trade relationship between China and its EA&SEA neighbors. A neoclassical realist perspective allows greater insight into the issue at hand. While traditionally the Neoclassical realist perspectives advocates using domestic-level factors for analysis, it is also appropriate to evaluate larger trends that results therefrom. Rather than focus on a single country and its domestic factors, this paper looks at a wider perspective by evaluating the effects of trade between China and its regional neighbors.

Chapter 2: Theoretical Framework

2.1 Theoretical Basis

Neorealist and neoclassical realist theory point out that all states wish to increase or maintain their security. While hard power may be the ultimate measure of power, these realists theories also dedicate a substantial weight to that of "latent power," which are things that can be converted to hard, military power. Neoclassical realists point to the different strategies or foreign policies that states create due to different domestic or internal factors that may maximize latent power. Neoclassical realism should also "[direct] our attention toward critical issues such as what drives the waxing and waning of material power capabilities in the first place. Factors such as differential growth rates, it argues, will end up dictating the roles countries can play in world politics (Rose, 1998, p. 170)." Along those lines, if China's domestic economic growth has been sustained in part through trade, the differences and changes of trade between China and EA&SEA countries are relevant subject matter.

The growth of trade worldwide, has had profound effects for the world economy, and likewise for the Asian region. Globalization through trade has shaken traditional institutions and has shifted centers of economic power. Economic growth and the expansion of resources and capabilities are important elements of latent power and fall in the realm of international power. Because international trade is one of the most important drivers of economic growth, it is also important to evaluate. Changes in levels of trade or trade relationships can arguably have meaningful effects on the power of states. As

Wohlforth notes, "Any realist discussion of international change must combine the domestic and international levels of analysis. A [purely structural] realist explanation cannot offer a comprehensive account of precisely why a given state's domestic political, social, and economic institutions decline in comparison to those of competing powers (Wohlforth, 1993, p. 27)."

In the following discussion, trade and the trade relationships over the past two decades between China and its regional neighbors is examined. Despite being largely economic in nature, these evolving trade relationships reflect profound strategic importance for China's relationships with other players in the region. It is not my intention to solely describe China's process of policy formulation or theoretical distribution of power, rather I will examine the trade changes that have occurred in the region and how they have affected China's latent power. Because policy can only depict one side of a relationship, I intend to focus on the outcomes of trade and evolving trade relationships over the period of time in question.

Theoretical Model

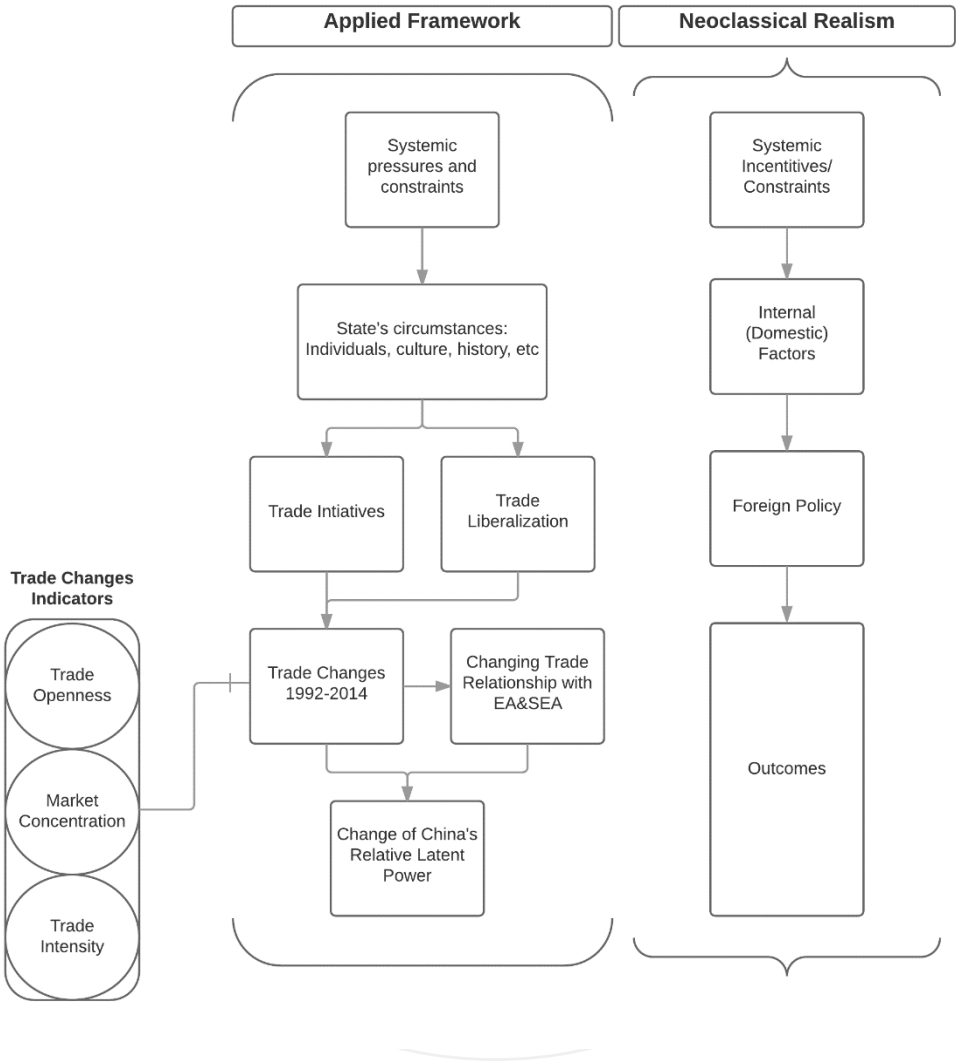

Figure 3 Author-created figure

2.2 Geographical Scope:

China has a long and complex history with its neighbors. Its relationships with these neighbors span thousands of years and the "region" itself is defined by history and culture more than by somewhat arbitrary national lines. According to the PRC, China

consists of 23 provinces (including Taiwan[1]), four municipalities, five autonomous regions, and two Special Administrative Regions (Hong Kong and Macau). The PRC considers all of these areas as parts of its sovereign territory and form its core.

While geographical terms such as "East Asia", "South Asia", "Central Asia," or "Southeast Asia" all at times include China (depending on source), they do not fully reflect historical and cultural realities of China and the region that it views itself as a part of. Instead, to view from a Chinese perspective it is appropriate to look to what some have called the traditional "Chinese cultural sphere" of the "Sinic civilization" (Reischauer, 1974). This includes China, Japan, Korea, Vietnam, and areas between Mongolia and the Himalayas (Fuchs & Stuchtey, 2002, p. 322).

Figure 4 EA&SEA Region, Modified from original image (Miller & Kim. 2016)

The countries of Southeast Asia received cultural influence from both India and China civilizations to varying degrees over their histories (Houghton-Mifflin, 1997). Vietnam was heavily influenced by the Chinese and to a lesser extent, the other countries of "Indo-China"

1 The status of Taiwan is highly disputed and will be discussed.

(Cambodia, Laos, Thailand, Malaysia, and by extension, Singapore) were influenced by China and also fall into the Chinese cultural sphere. It should be noted that the Sinic world is the only one that is based on a cultural, rather than religious, identity (Blinnikov, 2011, p. 132). Cultural ties and influences came from a number of sources such as the imperial tributary system, emigration of ethnic Chinese, trade, proximity to China, and informal business ties in what has been called the bamboo network. The Imperial Tributary System facilitated trade, economic, and cultural exchanges. The Ryukyu Islands, Annam (present-day Vietnam), Siam (Thailand), Burma (Myanmar), and Nepal were all "tributary states," which sent regular tribute missions (Vohra, 2000). The Ryuku Islands also essentially allowed Japan to trade with China indirectly after the Ryukyu Islands were absorbed into the Japanese Empire. In the present day, overseas Chinese communities and business networks continue to be influential.

Using the definitions of the Chinese cultural sphere and Sinic civilization, there are 18 areas considered part of the Sinic world (Fuchs & Stuchtey, 2002; Houghton-Mifflin, 1997; Reischauer, 1974). These areas are categorized into Chinese-claimed territory and 3 spheres of influence; however, these categories are not a reflection of sovereignty or lack thereof of any parties. The Chinese-claimed territory consists of

Mainland China, Hong Kong, Macau[2], and Taiwan[3]. The 1st sphere consists of Mongolia, South Korea, North Korea[4], Japan, and Vietnam. The 2nd sphere consists of Cambodia, Laos, Thailand, Malaysia, Singapore. Lastly, the 3rd sphere consists of the Philippines, Myanmar/Burma, Indonesia, and Brunei. These groupings reflect the descending influence of the Sinic civilization on these areas (descending from greatest to least, 1st to 3rd sphere).

To represent these areas, the termed region of "East Asia and Southeast Asia" will be used. The area of East Asia & Southeast Asia (henceforth "EA&SEA") will be defined as Taiwan, Mongolia, South Korea, Japan, Vietnam, Cambodia, Laos, Thailand, Malaysia, Singapore, Philippines, Myanmar/Burma, and Indonesia unless otherwise noted.[5] For the purposes of this study Hong Kong and Macau are grouped together with Mainland China. North Korea data is largely unavailable and thus not represented.

2 Hong Kong, Macau, Tibet, and Taiwan are all claimed as part of the PRC's current territory; however, the PRC considers them to be under different circumstances and administration. For Hong Kong and Macau see Deng Xiaoping's "One Country, Two Systems". Hong Kong and Macau were returned to the PRC by the former colonial powers of the United Kingdom in 1997 and Portugal in 1999 under certain guarantees of sovereignty. For the purposes of this study, they are not analyzed separately from the PRC.
3 Please see the sub-section of Limitations entitled "A Brief History of Taiwan and Limitations Due to Political Realities"
4 Unfortunately, due to the "Hermit Kingdom's" tendencies of extreme isolation, the lack of reliable data makes it infeasible to include North Korea in this study
5 There are data availability issues for some areas due to variances in political and geographical definitions

Chapter 3: Methodology

3.1 Summary of Methodological Approach and Research Design

For the purposes of this paper, a combination of research methods are employed. This study is first composed of secondary research. This includes a literature review to draw existing theories to establish the field into which this study is based and establish the relationship of this paper to the existing body of research. The theoretical framework aids in structuring the theoretical arguments made, as well as analyzing the data gathered. Further literary analysis of many scholarly journal articles, several books, and secondary sources are used to develop the qualitative research of this paper. The bulk of this research is sourced through and conducted using National Chengchi University's online library which has access to a host of databases such as LexisNexis. Google scholar and Science Direct were also used to locate scholarly articles and books.

Further research is conducted using secondary data collected from statistical databases, predominantly the United Nations for consistency. This raw secondary data has not been analyzed or interpreted by the primary authors, rather it consists of statistical data collected from the relevant countries over the period from 1992-2015. This data has been collated and organized using WITS and Microsoft Excel (World Bank, 2016).
For the methodological approach, qualitative methodology will be primarily used. Data will be used for quantitative analysis; however, this is done in a limited fashion utilizing statistical data to evaluate trade changes from 1992 to 2014. This will be done largely using descriptive analysis. The results of the data collection will be utilized in

conjunction with theories on latent power and trade to evaluate the results of China's trade and trade relationships with its neighbors in the EA&SEA region.

For this research, three indicators are used to evaluate trade. They were chosen on the basis of their relevancy to research goals and the theoretical framework discussed in the previous sections. They were also selected on the basis of their simplicity, ease of understanding, and reliability to measure trade changes over time. Lastly, the indicators had to be widely adopted to provide a wide enough dataset for the countries under analysis.

The three indicators used are:

1. Trade Openness (Trade Orientation and Trade Policy)
2. Trade Market Concentration
3. Trade Intensity

All of the indicators use secondary raw data (primary source) retrieved from the United Nations with the exception of the trade policy index; however, the method of data collection varied among the indicators.. These following sections will describe the value and rationale of the indicators for this paper. They will also explain how the indicators are measured and calculated. Lastly, the following sections will describe the method of data collection for each of these indicators.

3.2 First Indicator: Trade Openness

As outlined in the literature review, numerous methods of measuring trade openness exist. For this study, trade openness is measured in two ways: trade orientation

and trade policy. For the trade outcomes measure, trade-to-GDP ratios are evaluated. This statistic is calculated by adding a country's total imports plus total exports divided by its GDP in current prices. It weighs the combined importance of exports and imports of goods and services in an economy, giving an indication of the dependence of domestic producers on foreign demand and of domestic consumers on foreign supply. For the second measure, trade policy, an index is utilized. The trade policy index utilized in this study incorporates weighted-tariffs, non-tariff barriers to trade, and other measures discussed below. It reflects government policies towards trade openness.

3.2.1 Trade Openness: Trade Orientation

Openness to trade is widely measured by its trade-to-GDP ratio. This statistic is calculated by adding a country's total imports plus total exports divided by its GDP in current prices. It weighs the combined importance of exports and imports of goods and services in an economy, giving an indication of the dependence of domestic producers on foreign demand and of domestic consumers on foreign supply (World Bank, 2015b). There is a concave relationship between trade openness and per capita income: as incomes rise, countries tend to trade more, but at a decreasing rate. A trade value above 100 indicates that combined exports and imports exceed GDP; a trade value less than 100 implies the reverse.

Trade to GDP ratio is calculated as:

$$\frac{X_{it} + M_{it}}{Y_{it}}$$

Equation 1 Mathematical Definition of trade to GDP ratio (trade orientation) (World Bank, 2015b)

Where X is the total value of exports, M is the total value of imports, and Y is the GDP of country i at time t. All else being equal, larger countries tend to have lower trade-to-GDP ratios because they may undertake a greater share of trade within their borders (World Bank, 2015b). Likewise, population and geography may distort trade openness; for example, landlocked countries trade less than the sizes of their GDPs would suggest.

3.2.1.1 Method of Data Collection for Trade Orientation Index (Trade Openness)

The Openness to Trade data was collected using the United Nation's UNCTADstat online data center ("UNCTADstat," 2016). The statistics are available online for access by a variety of parameters using the website's search functions. Each set of data required different parameters to be used. The "Openness to Trade" data was accessed by using the "international trade in goods and services" folder, "trade indicators" subfolder, and two separate reports, the "Goods and services (BPM5): Trade openness indicators, annual, 1980-2013" and the "Goods and services (BPM6): Trade openness indicators, annual, 2005-2014" ("UNCTADstat," 2016). These reports are published by United Nations Conference on Trade and Development, a principal organ of the United Nations General Assembly, and is "the United Nations body responsible for dealing with development issues, particularly international trade – the main driver of development ("About UNCTAD," 2016)."

These two reports had overlapping data for the years 2005 to 2013; however, since the data is from the same source, for the years 2005 to 2013 the "Goods and services (BPM6): Trade openness indicators, annual, 2005-2014" report was used

because it was published at a later date and has the most updated data. The data from both reports was selected and compiled by using the following parameters:

- Set 1 & Set 2
    - Measure: Percentage of Gross Domestic Product
    - Flow: Sum of imports and exports
    - Series: Total trade in goods and services
    - Year: 1980-2013, 2005-2014, respectively
    - Economy: Brunei, Cambodia, China, Taiwan, Indonesia, Japan, Korea, Laos, Malaysia, Mongolia, Myanmar, Philippines, Singapore, Thailand, and Vietnam

3.2.2 Trade Openness: Trade Policy

A trade policy index is utilized in this study. This index's data is sourced from a subset of the Heritage Foundation's "Index of Economic Freedom" called the " Trade Freedom index" (Miller & Kim, 2016). The index used is a composite measure of the tariff and non-tariff barriers that affect imports and exports of goods and services. Different imports entering a country can, and often do, face different tariffs; therefore, to adjust for this, the weighted average tariff uses weights for each tariff based on the share of imports for each good. Weighted average tariffs are a purely quantitative measure and account for the basic calculation of the index.

Trade policy index is calculated as:

$$\text{Trade Policy Index of country (i)} = \left(\frac{Tariffmax - Tariffi}{Tariffmax - Tariffmin} * 100\right) - NTBi$$

Equation 2 Author created figure, from Mathematical Definition of Tariff Policy Index (Miller & Kim, 2016)

where Tariffmax and Tariffmin represent the upper and lower bounds for tariff rates (%); and Tariffi represents the weighted average tariff rate (%) in country i. The minimum tariff is naturally zero percent, and the upper bound was set as fifty percent (Miller & Kim, 2016). A non-tariff barrier penalty is then assigned according to a predetermined scale. This scale "determine(s) the extent of NTBs in a country's trade policy regime using both qualitative and quantitative information … The categories of NTBs considered in our penalty include: quantity restrictions, price restrictions, regulatory restrictions, investment restrictions, customs restrictions, and direct government intervention" (Miller & Kim, 2016).

3.2.2.1 Method of Data Collection for Trade Policy Index (Trade Openness)

The Trade Policy data is incorporated in an index in order to measure trade openness through trade policy. The index is sourced from part of the Heritage Foundation's Index of Economic Freedom and covers the period from 1995 to 2016. (Miller & Kim, 2016). The data was downloaded into Excel and then collated to retain only the selected EA&SEA countries and China. For the purpose of this paper's research, I then further refined the index by selecting a subset of the full index that is referred by Heritage as the "Trade Freedom index" (Miller & Kim, 2016).

3.3 Second Indicator: Trade Market Concentration (Diversification)

The Herfindahl-Hirschman Market Concentration Index (HH Market Concentration) is a measure of an exporting country's dispersion of trade value across the country's partners. An exporting country with a highly significant amount of trade value concentrated in very few markets will have an index value close to 1. There is a range of values from 0 to 1. A higher index indicates that exports are concentrated in fewer markets, whereas a country trading equally with all partners will have an index close to 0. This indicator is a measure of an exporting country's dependency on its trading partners, as well as the dangers it could face if its partners were to increase trade barriers (World Bank, 2015b). Measured over time, a fall in the index indicates an increase in trading partners or a greater dispersion of trade value across trade partners. A rise in the index indicates the opposite. A country with a low HH market concentration value indicates trade value diversification among trading partners.

Herfindahl-Hirschman Market Concentration Index is calculated as:

$$\frac{\sum_{j=1}^{n_i}\left(\frac{x_{ij}}{X_i}\right)^2 - \frac{1}{n_i}}{1 - \frac{1}{n_i}}$$

Equation 3: Mathematical Definition of Herfindahl-Hirschman Market Concentration Index (World Bank, 2015)

X is the total value of exports from reporter *i*, *x* is the value of exports from country *i* to destination market *j*, and *n* is the number of partner markets to which country *i* exports. A low index may not be a true indicator of a broad partner base if the number of partners is low: it simply implies that it trades with each of them equally.

3.3.1 Method of Data Collection for HH Market Concentration Indexes

Herfindahl-Hirschman Market Concentration Index data was collected using the World Bank's data system known as World Integrated Trade Solution (WITS) (World Bank, 2016). The WITS website utilizes data from different sources, but for the trade intensity data WITS used UNCOMTRADE data (World Bank, 2016). This system has integrated data for access by a variety of parameters using the website's "custom query" function. Each set of data required different parameters to be used. The HH market concentration index data was accessed by using the "advanced query" function, using "trade outcomes" indicators, "export diversification" trade indicator group, and "Herfindahl-Hirschman Market Concentration Index" as the individual indicator. For the HH market concentration data, 12 different country's data was compiled, including all EA&SEA countries except for Laos, Taiwan, and Myanmar, in which data was unavailable.

For the purposes of this research, there are two market diversification market indexes used. The first is an individual country's "World HH Market Concentration Index"; this measures a country's HH Market Concentration as a dispersion of trade value across all the exporting country's partners worldwide. The second HH market

concentration index used is an individual country's "EA&SEA HH Market Concentration Index"; this is calculated using the same equation but measures a country's HH Market Concentration as a dispersion of trade value only across the exporting country's partners in EA&SEA region.

In total there were 24 individual sets of data were accessed, compiled and used for calculations. They used the following parameters:

- Set 1: China's world HH market concentration.
    - Trade flow: exports (reported), Year: 1992 to 2015, Product Classification: HS 1988/92, Reporter: China, Partner: All countries (world)
- Set 2: China's EA&SEA regional market concentration
    - Trade flow: exports (reported), Year: 1992-2015, Product Classification: HS 1988/92, Reporter: China, Partner: EA&SEA countries excluding China group[6]
- Sets 3-13: World HH market concentrations for the following individual countries: Korea, Thailand, Singapore, Philippines, Malaysia, Indonesia, Japan, Mongolia, Cambodia, Vietnam, Brunei
    - Trade flow: exports (reported), Year: 1992, 1996, 2000, 2004, 2008, 2012, 2013, 2014; Product Classification: HS 1988/92, Reporter: Individual country, Partner: All countries (world)

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6 EA&SEA countries were a custom-made partner group consisting of Korea, Thailand, Singapore, Philippines, Malaysia, Indonesia, Japan, Mongolia, Cambodia, Vietnam, and Brunei

- Sets 14-24: EA&SEA regional HH market concentrations for the following individual countries: Korea, Thailand, Singapore, Philippines, Malaysia, Indonesia, Japan, Mongolia, Cambodia, Vietnam, and Brunei
    - Trade flow: exports (reported), Year: 1992, 1996, 2000, 2004, 2008, 2012, 2013, 2014, Product Classification: HS 1988/92, Reporter: Individual country, Partner: EA&SEA including China group[7]

3.4 Third Indicator: Trade Intensity

The trade intensity index is used to determine whether the value of trade between two countries is greater or smaller than would be expected on the basis of their importance in world trade; it indicates whether a reporter exports more, as a percentage, to a partner than the world does on average (World Bank, 2015b). It is defined as the share of one country's exports going to a partner divided by the share of world exports going to the partner.

Trade intensity is calculated as:

$$100 * \left[\frac{x_{ijk}}{X_{ik}} \Big/ \frac{x_{wjk}}{X_{wk}} \right]$$

Equation 4 Mathematical Definition of Trade Intensity Index Sourced from (World Bank, 2015b)

7 "EA&SEA including China group" were a custom-made partner group consisting of Korea, Thailand, Singapore, Philippines, Malaysia, Indonesia, Japan, Mongolia, Cambodia, Vietnam, Brunei, and China. Data for Laos, Taiwan, and Myanmar were not available in this dataset

Where x_{ij} and x_{wj} are the values of country i's exports and of world exports to country j and where X_{it} and X_{wt} are country i's total exports and total world exports respectively (World Bank, 2015b). An index of more (less) than one hundred indicates a bilateral trade flow that is larger (smaller) than expected, given the partner country's importance in world trade (World Bank, 2015b).

3.4.1 Method of Data Collection for Trade Intensity Index

Trade intensity index data was collected using the World Bank's data system known as World Integrated Trade Solution (WITS) (World Bank, 2016). The WITS website utilizes data from different sources, but for the trade intensity data WITS used UNCOMTRADE data (World Bank, 2016). This system has integrated data for access by a variety of parameters using the website's "custom query" function. Each set of data required different parameters to be used. The trade intensity index data was accessed by using the "advanced query" function, using "trade outcomes" indicators, "orientation and growth" trade indicator group, and "trade intensity index" as the individual indicator.

For the trade intensity index data, eleven different countries' data was compiled, including all EA&SEA countries except for Laos, Taiwan, and Myanmar, in which data was unavailable. They used the following parameters:

- Set 1: Trade intensity of EA&SEA countries
    - Reporters: Korea, Thailand, Singapore, Philippines, Malaysia, Indonesia, Japan, Mongolia, Cambodia, Vietnam, Brunei;
    - Products: All products, Product Classification: HS 1988/92, Partner: China, Year: 1992-2015

Chapter 4: Research Findings and Analysis

4.1 Chinese Power in Asia

Chinese power in the region is complex and evolving. If we look back, it could be argued that China was careful and played a quiet hand, biding its time as Deng Xiaoping suggested it should, and followed a "peaceful rise" to power over past decades. While China raised international concern at times, they were primarily due to internal actions or incidents, such as human rights violations, rather than external actions. China arguably followed these peaceful rise principles and utilized domestic reforms to increase its economic power, thus "internally balancing" as Waltz might suggest countries do given its situation (1979, p. 168). China also comparatively maintained the status quo; an effort, perhaps in order to preserve its security and ensure its economic development. During this period China cooperated with the United States to a large degree and sought security in Asia by non-confrontational means.

It could be suggested that theoretically, China and other Asian nations in the 1990s and early 2000s should have acted as external balancers to American power in the region by forming alliances against it, but it is important to remember that although the United States had a strong presence in the region, it had not sought territorial expansion; in fact it had done the opposite by returning land in areas where it had military bases with allies, such as the Subic Bay Naval Base in the Philippines, or Okinawa in Japan (Ikeda, Mondale, Perry, & Usui, 1996; Sanger, 1991). Furthermore, because of a previous perceived common hegemonic threat from the USSR, the United States set up a ring of

formal or informal alliances in the region, with Japan, South Korea, ANZUS, and other Asian Pacific countries in order to protect its interests during the Cold War and act as an offshore balancer. In that sense, a balance of power was established to thwart a Soviet threat. With the end of the Cold War, the alliance system remained, but its practicality and balancing use dwindled. With American interests feeling secure in Asia, United States began to shift its focus elsewhere, such as stabilizing Eastern Europe and the Middle East.

A series of events have occurred that have changed the foreign policy of China. First, as mentioned before, the Soviet Union collapsed and its power as a regional hegemon was drastically reduced to that of a great power or less. This reduced a key challenge to Chinese power in the region. Second, with the dissolution of the USSR, the United States felt its interests in Asia were largely secure, especially with the help of her allies; there were no regional hegemons or great powers that were asserting dominance or acting aggressively. The United States also began taking on additional responsibilities and had concerns in other regions of the world. These distractions led to the U.S. to drawdown both its presence and focus in Asia. This reduced an additional key challenger to Chinese power. Third, with China's "economic miracle" in full-swing, its economy continued to grow for over a decade. With this growing power China began to take increasingly external positions on issues that affected its interests.

China may have changed the distribution of power in the East and Southeast Asian region. However, China knows that there is potential for conflict. Avoiding conflict has been a cornerstone to China's strategy of building economic strength and latent

power. Therefore, China is focusing on its ‘own backyard’ in the EA&SEA region rather than trying to upset the balance outside of the regiom. This aligns with her military posturing, statements regarding external powers not interfering with Asian Affairs, the New Asian Security Concept, and numerous other examples.

4.2 China’s Trade Liberalization and Regional Trade Initiatives

Since the late 1970s China has developed and employed wide-reaching economic reforms. These reforms have liberalized its economy and transformed it to becoming more market-driven and outward-oriented. China has evolved from a Maoist-, socialist-, and centrally–planned state with frequent stagnation, to one of the world’s fastest growing economies. By doing so, China has successfully integrated into the world economy. It is now ranked the largest economy by GDP (PPP) in the world. While China has undertaken many domestic reforms to achieve this, much of its success is due to trade. China’s trade liberalization over the past two decades paved a way forward for its participation in global trade and its economic growth.

China’s interest in free trade agreements and other trade initiatives has increased over the past two decades following other countries in the EA&SEA region. In the mid-1990s, ten of the EA&SEA countries joined the World Trade Organization. China at first balked at the organization, but reversed course a few years later. Its accession to the World Trade Organization (WTO) was notable. When it joined in December 2001, China was the WTO’s 143rd member and accounted for just 4% of the world’s total exports but by 2014, China’s merchandise exports accounted for 12% of the world’s trade merchandise exports (Escaith & Maurer, 2015).

In the 2000s China showed increased interest in joining trade agreements with partners in Asia. In 2001, China joined the Asia Pacific Trade Agreement (APTA) formerly known as the Bangkok Agreement. A series of six other agreements with eleven countries/regions followed in the 2000s, including the Mainland-HK CEPA, Mainland-Macau CEPA, ASEAN-China FTA (ACFTA), China-Singapore FTA, Economic Cooperation Framework Agreement (ECFA), and China-South Korea FTA (Ministry of Commerce, 2015). These trade agreements reflect both China's and its neighbors foreign policy decisions as well as their desire for greater trade through trade liberalization.

Despite the increased trade liberalization in the EA&SEA region through the creation of trade agreements, negotiations are currently underway for additional agreements. These include the Regional Comprehensive Economic Partnership (RCEP), Cross-Strait Service Trade Agreement (CSSTA), and a China-Japan-Korea FTA. China is also supporting APEC's initiative known as the Free Trade Area of the Asia-Pacific (FTAAP) that are under consideration for feasibly. While the rationale behind these agreements may be trade liberalization, the effects of trade liberalization must also be

considered as motivating factors. If these trade agreements increase trade or alter trade

Regional Trade Agreements			
Name of Completed Agreement	**Signed**	**In Effect**	**Countries/Regions Involved**
Asia Pacific Trade Agreement (APTA)/Bangkok Agreement	5/28/1975	12/31/1976	Bangladesh (1975), China (acceded in 2001), South Korea (1975), Laos (1975), Sri Lanka
Mainland-HK CEPA	6/29/2003	1/1/2004	Hong Kong
Mainland-Macau CEPA	10/18/2003	1/1/2004	Macau
ASEAN-China FTA (ACFTA)	6/24/2005	2010*	Brunei, Indonesia, Malaysia, the Philippines, Singapore, Thailand
China-Singapore FTA	9/3/2008	1/1/2009	Singapore
Economic Cooperation Framework Agreement (ECFA)	6/29/2010	9/12/2010	Taiwan
China-South Korea FTA	06/01/2015	12/20/2015	South Korea
Name of Agreement with Negotiations Underway	**Nego. Started**		
Regional Comprehensive Economic Partnership (RCEP)	11/18/2012		Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, Cambodia, China, Japan, South Korea, India, Australia, New Zealand
Cross-Strait Service Trade Agreement (CSSTA)	2013		Taiwan
China-Japan-Korea FTA	3/26/2013		Japan, Korea

Table 3 Author compiled from: (Cabrillac, 2004; Macao Special Administrative Region Economic Services, 2016; Ministry of Commerce, 2015)

relationships, there are implications for China and EA&SEA countries.

4.3 China's Evolving Trade Relationship with East and Southeast Asian Countries

Across East Asia and Southeast Asia, countries have experimented with trade liberalization and export-oriented growth models similar to that of China. Similar economic miracles have occurred in the region. Some in fact, predate or coincided with

China's, such as the Four Asian Tigers'.[8] However, none of these countries have had the same results at the scale that China has had—largely because China's burgeoning population and tremendous industry create different conditions for it to thrive in international trade. Increasing trade and integration has brought varying returns. While trade may be good for all, there are still winners and losers in relative terms if results vary. The evolving trade relationship between China and its neighbors are necessary to consider.

Trade liberalization and consequent trade openness policies have been cornerstones of the Washington Consensus for nearly three decades (Stiglitz, 2002). However, it has also been widely acknowledged that a country's economic vulnerability to global shocks or trade partners is largely dependent on the degree to which it is incorporated into the global economy (Briguglio, Cordina, Farrugia, & Vella, 2009; *Global Economic Prospects*, 2010; Rodrik, 2010). The level of exposure to trade can be measured in a country's trade openness, that is, a ratio of international trade to GDP.

Economies vary in vulnerability and dependence by a number of additional factors. Countries that are highly import-dependent, especially for strategic imports, make a country vulnerable to the availability and cost of such imports. However, countries that are highly export-dependent are often more vulnerable "because exports finance imports and contribute to investment and growth" (United Nations Development Programme, 2011, p. 20). This can be seen particularly in developing countries where

8 The Four Asian Tigers are Singapore, Taiwan, Hong Kong, and Korea

exports constitute a significant portion of GDP.

Export-oriented industrialization, or export-led growth, have been and remain quite popular in East and Southeast Asia as a dominant force in policy. The Four Asian Tigers all very successfully used this model in their development and continue to do so to a large degree. China's development has also been strongly-marked by an export-oriented economy. However, it's important to remember that export-oriented economies are at greater risk to external shocks and trade partners' trade barriers because those economies are highly dependent on trade. Therefore, dependency on trade with China is a possible source of vulnerability, relative to the trade relationship.

While export-dependency can pose a threat to a country's economy in external economic shocks, the degree of an impact depends on two factors: one, the mix of its exports (that is, the diversity of exports), and two, the mix of its trading partners (the diversity in trading partners). Many developing countries remain reliant on commodities and have a low diversity of product exports. However, reliance on commodities are an internal economic issue that countries must address with domestic policy. Reliance on commodities may create vulnerability to global shocks, but are not a good measure for depicting vulnerability to a single trading partner. On the other hand, countries that have highly concentrated export markets or a limited number of trading partners are due to international structures and arrangements which increase trade vulnerability. Therefore, evaluating market concentration with trading partners is more relevant in this discussion in order to evaluate the trade relationship between EA&SEA countries and dependency on China

Lastly, the level to which a country trades with China is important to evaluate. However, this can be problematic to evaluate due to country size using simple techniques. A country's size can alter the true significance of a trade relationship; for instance, Brunei exporting 10% of its products to China might appear small as a portion of China's imports, however, proportionally to the world average, it might actually be quite high. Furthermore, rankings of top trading partners can also give a false sense of trade relationships. For example, say hypothetically that we want to evaluate Brunei's trading partners. In one scenario, let's say we rank Brunei's top trading partners and China is ranked number one, followed by four other ranked countries. China accounts for 90% of trade and the other four countries account for 1%, 1%, 1%, and 1% respectively. In another scenario, we rank the countries for Spain. China is again ranked number one, but this time China and the other four others account for 20%, 19%, 19%, 19%, and 19% of trade, respectively. While China's rank has not changed in either scenario, its importance (and the trade relationship) is drastically different. In this way, rankings do not accurately reflect the importance of trade relationships. Trade intensity on the other hand provides a way of accurately reflecting the importance of trade among partners. Trade intensity measures trade between countries without the variations resulting from the comparative size of the trading partners. The intensity of trade index was first promoted by Arthur Brown in "*Applied Economics: Aspects of the World Economy in War and Peace*" (Brown, 1947). It was subsequently developed and popularized by Kojima before being widely adopted (Kojima, 1964). While a trade intensity index does not take into account some differences in trade due to natural factors such geography, it still provides a relative

measure of trade flows that adjusts for global macroeconomic changes and country size.

Taking all of these factors into consideration, to evaluate the evolving trade relationship between China and the EA&SEA countries, this paper will utilize indicators of trade openness, market concentration, and trade intensity.

4.4 First Indicator. Trade Openness: Observations and Analysis

As outlined in the literature review and methodology, numerous methods of measuring trade openness exist. For this study trade openness is measured in two ways: trade outcomes and trade policy. For the trade outcomes measure, trade-to-GDP ratios are evaluated. For the second measure, trade policy, an index is utilized. The trade policy index utilized in this study incorporates weighted-tariffs and non-tariff barriers to trade.

4.4.1 Trade Openness (Trade to GDP)

Openness to trade is widely measured by its trade-to-GDP ratio. As discussed in the methodology section, this statistic is calculated by adding a country's total imports plus total exports divided by its GDP in current prices. A trade value above 100 indicates that combined exports and imports exceed GDP; a trade value less than 100 implies the reverse. It weighs the combined importance of exports and imports of goods and services in an economy, giving an indication of the dependence of domestic producers on foreign demand and of domestic consumers on foreign supply (World Bank, 2015b).

Trade to GDP Comparison

As the "Total Trade in Goods and Services, Percentage of GDP" table below demonstrates, there has been significant growth in the trade openness of the majority of

countries in the EA&SEA region over the long-term period from 1992 to 2014; all countries in the region showed an increase of total trade as a percentage of GDP over the period. This aligns with the worldwide trend of greater reliance on international trade. The region, excluding China, had an average increase of 53.93%. Cambodia, Japan, Korea, Mongolia, Myanmar, Taiwan, Thailand, and Vietnam had significant increases of over 50% during the period; China had a similar increase of 51.91%. Notably, Cambodia, Japan, and Vietnam had the largest percentage gains, all having over 100% increases (324.99%, 128.02%, and 178.17% respectively). On the low end, Brunei, Indonesia, and the Philippines showed small increases of 2.13%, 1.25%, and 2.42% respectively.

The trade movements from 1992 to 2014 suggest an overall marked increase in trade openness and reliance on trade. However, over the period from 2004 to 2014, the

Total Trade in Goods and Services, Percentage of GDP (%)										
	1992	1996	2000	2004	2008	2012	2013	2014	1992- 2014 % Change	2004-2014 % Change
China	30.54	36.52	44.45	65.07	58.02	50.36	48.83	46.39	**51.91%**	**-28.71%**
Brunei		119.31	95.65	101.96	109.95	112.64	124.75	121.85	**2.13%**	**19.51%**
Cambodia	34.31	59.69	111.51	134.47	106.23	131.27	139.42	145.80	**324.99%**	**8.43%**
Indonesia	47.15	46.50	76.52	60.07	55.92	48.35	47.94	47.73	**1.25%**	**-20.54%**
Japan	17.71	19.45	20.90	25.31	36.35	32.43	36.45	40.39	**128.02%**	**59.57%**
Korea	53.44	57.38	75.47	79.73	104.05	112.03	104.83	96.88	**81.30%**	**21.51%**
Laos	43.96	66.48	65.11	54.13	56.85	66.43	61.33	61.33	**39.50%**	**13.29%**
Malaysia	138.98	167.80	211.84	202.20	177.04	162.41	156.93	154.06	**10.85%**	**-23.81%**
Mongolia	64.44	74.24	121.80	131.28	120.84	129.27	109.33	115.97	**79.97%**	**-11.66%**
Myanmar	22.14	42.05	62.82	54.43	38.06	30.11	35.28	35.28	**59.35%**	**-35.19%**
Philippines	53.48		110.20	101.93	64.36	58.50	53.79	54.78	**2.42%**	**-46.26%**
Singapore	308.95	340.58	371.75	413.57	444.08	375.54	367.80	358.63	**16.08%**	**-13.28%**
Taiwan	82.35	89.74	103.26	118.78	134.77	133.06	130.02	129.22	**56.92%**	**8.79%**
Thailand	76.29	84.76	121.62	128.18	142.03	139.21	132.72	131.55	**72.43%**	**2.63%**
Vietnam	62.32	88.54	110.59	140.58	168.08	154.92	163.57	173.35	**178.17%**	**23.31%**
EA&SEA Average	77.35	96.66	118.50	124.76	125.62	120.44	118.87	119.06	**53.93%**	**-4.57%**

Table 4 Compiled and calculated from data sourced from ("UNCTADstat," 2016)[9],[10]

growth of trade openness slowed, and for some countries, reversed. Indonesia, Malaysia, Mongolia, Myanmar, the Philippines, and Singapore's trade openness all decreased over the period. In addition, the EA&SEA region averaged a decrease of 4.57% over the period. China's openness to trade also decreased, declining by 28.71%. While some degree of these decreases in trade openness may be attributable to the global slowdown during the Great Recession of 2007-2009, some countries showed declining trade openness as early as 2004 (Indonesia, Malaysia, Myanmar, and the Philippines) or increases as late as 2008 (Brunei, Japan, Korea, Laos, Mongolia, Singapore, Taiwan, Thailand, Vietnam) so these changes are less easily tied to the single event.

Trade to GDP and Trade Openness Implications

The data discussed above has several implications for EA&SEA countries. First, while trade liberalization and increased trade is often a positive step in promoting economic growth in an economy, the level to which an economy is dependent on trade increases the vulnerability it faces from global shocks and the actions of trading partners (World Bank, 2015b). Therefore, EA&SEA countries were more open as well as more vulnerable in 2014 compared to 1992. Second, while China had an overall increase of 51.91% of its trade openness from 1992 to 2014, which was just under the EA&SEA

9 For Laos and Myanmar, 2014 data was not available. Therefore, the nearest year available (2013) was substituted.

10 Blue-highlighted cells indicate percentage increase, whereas olive-highlighted cells indicate percentage decrease. Blue and olive were used in order to highlight differences in change without making a normative statement on what is a "positive" or "negative" outcome.

average of 53.93%, China's percentage of GDP from total trade in goods and services amounted to only 46.39% in 2014. That was lower than all EA&SEA countries except for Japan and Myanmar in 2014. This is significant when evaluating China's trade relationships with these countries. Cambodia, Korea, Malaysia, Mongolia, Singapore, Taiwan, Thailand, and Vietnam in 2014 all had much higher trade openness, with each country's total trade in goods and services at over 95% of GDP. While the difference between China and the EA&SEA countries is in part due to the size of China and its economy, considering China was the largest trader of goods and services in the world in terms of value, it is significant that China remained less vulnerable than many in the region.

4.4.2. Trade Openness (via Trade Policy)

One limitation of trade openness when measured by Trade to GDP is that it can be influenced by wider macroeconomic trends, such as the health of the world economy. It is thus also necessary to evaluate trade openness from the perspective of trade policy. To evaluate trade policy an index is used. It is a composite measure of the tariff and non-tariff barriers that affect a country's imports and exports of goods and services. Specifically, it uses a combination of weighted average tariffs and scaled non-tariff barriers as outlined in the methodology section of this paper. Different imports entering a country can, and often do, face different tariffs; therefore, to adjust for this, the weighted average tariff uses weights for each tariff based on the share of imports for each good. A high number score on the index suggests the country has relatively low trade barriers (tariffs and non-tariff barriers) and is open to trade.

Trade Policy Index															
	Burma	Cambodia	Korea	Taiwan	Indonesia	Thailand	Japan	Vietnam	Laos	Philippines	Malaysia	Singapore	Mongolia	EA&SEA average	China
1995			69.2	75.2	45.0	66.4	82.0	44.6		42.0	67.0	83.0	55.0	62.9	20.0
1996	50.0		77.0	75.2	73.0	66.4	82.0	44.6	81.0	47.0	67.0	83.0	65.0	67.6	20.0
1997	50.0	15.0	69.2	75.2	73.0	66.4	81.0	44.6	66.0	53.2	55.0	83.0	68.6	61.6	30.0
1998	50.0	68.0	69.2	77.0	73.0	71.6	79.0	51.0	66.0	59.0	65.0	83.0	85.0	69.0	34.0
1999	50.0	68.0	69.6	78.0	73.0	71.2	79.0	51.0	66.0	58.4	72.2	83.0	85.0	69.6	38.2
2000	69.0	68.0	69.2	78.0	66.0	73.2	81.0	51.0	66.0	64.6	68.8	83.0	75.0	70.2	42.6
2001	69.0	62.8	67.8	78.8	67.2	77.6	80.6	51.0	55.6	68.4	66.0	83.0	75.0	69.4	46.0
2002	69.0	67.0	67.6	80.0	72.6	77.8	80.4	51.0	55.6	71.6	66.6	83.0	71.0	70.2	48.6
2003	69.0	68.0	73.2	77.2	74.6	64.8	81.0	47.6	55.6	77.4	73.0	85.0	75.0	70.9	50.6
2004	70.4	52.0	66.6	78.0	74.2	65.6	80.8	54.8	56.6	77.0	73.4	85.0	75.0	70.0	51.4
2005	70.8	52.0	73.6	78.4	77.2	67.6	80.6	50.2	60.6	79.4	75.8	85.0	77.0	71.4	54.4
2006	72.2	53.4	65.0	81.8	74.6	68.4	80.2	57.6	58.0	79.8	76.6	85.0	77.0	71.5	68.0
2007	71.8	52.2	69.2	81.6	74.0	74.2	80.2	56.0	60.8	79.8	76.8	90.0	80.0	72.8	68.0
2008	71.0	52.2	66.4	86.7	73.0	75.2	80.0	62.8	57.0	78.8	76.2	90.0	81.4	73.1	70.2
2009	72.2	63.4	70.2	85.2	76.4	75.6	82.0	63.4	66.4	78.6	78.2	90.0	81.2	75.6	71.4
2010	72.3	70.0	70.8	85.8	77.9	75.9	82.4	68.9	68.4	77.8	78.7	90.0	79.8	76.8	72.2
2011	72.3	70.0	70.8	86.2	73.8	75.9	82.6	68.9	68.4	77.8	78.7	90.0	79.8	76.6	71.6
2012	73.6	65.2	72.6	85.0	73.9	75.2	81.8	79.6	58.7	75.5	78.8	90.0	79.8	76.1	71.6
2013	73.6	70.2	72.6	85.0	75.0	75.2	81.8	78.6	58.7	75.5	77.0	90.0	79.8	76.4	72.0
2014	73.6	71.0	72.6	85.8	74.8	75.0	82.4	78.7	58.6	75.5	76.4	90.0	74.7	76.1	71.8
2015	74.2	72.2	72.6	86.4	74.8	75.4	82.6	78.6	58.6	75.4	80.0	90.0	74.8	76.6	71.8
Earliest period-2015 Change (%)	48.4%	381.3%	4.9%	14.9%	66.2%	13.6%	0.7%	76.2%	-27.7%	79.5%	19.4%	8.4%	36.0%	21.7%	259.0%
2004-2015 Change (%)	5.4%	38.8%	9.0%	10.8%	0.8%	14.9%	2.2%	43.4%	3.5%	-2.1%	9.0%	5.9%	-0.3%	9.5%	39.7%

Table 5 Compiled and calculated from data sourced from Heritage Foundation's "Index of Economic Freedom" (Miller & Kim, 2016)[11]

Trade Policy Comparison

The trade policies in regards to trade openness varied across the region. From 1995 to 2015 some countries such as Cambodia, Indonesia, Vietnam, and the Philippines, drastically lowered trade barriers (which increased their index scores). Other countries such as Korea and Japan did little to adjust their trade policies. Laos was the sole country in the region to raise trade barriers over the period which consequently lowered its index score.

Evaluating the trade openness using the trade policy index of China and the average of EA&SEA region, there are some noticeable trends. It is clear that the EA&SEA region in 1995 had, on average, a much higher degree of trade openness than China; in fact, the region was over three times more open. Over the period from 1995 to 2015 however, China significantly increased its trade openness through trade policy. It trade policy index increased by 259.0% over the period as China reduced trade barriers, significantly narrowing the gap between China's and the EA&SEA region's trade openness . EA&SEA increased its trade openness by trade policy as well, on average, by 21.7%. This is meager in comparison; however, it is also important to note that china remained less open to trade in terms of trade policy.

[11] Green cells indicate increases (%), yellow indicates minor increases (%), and red indicates decreases (%)

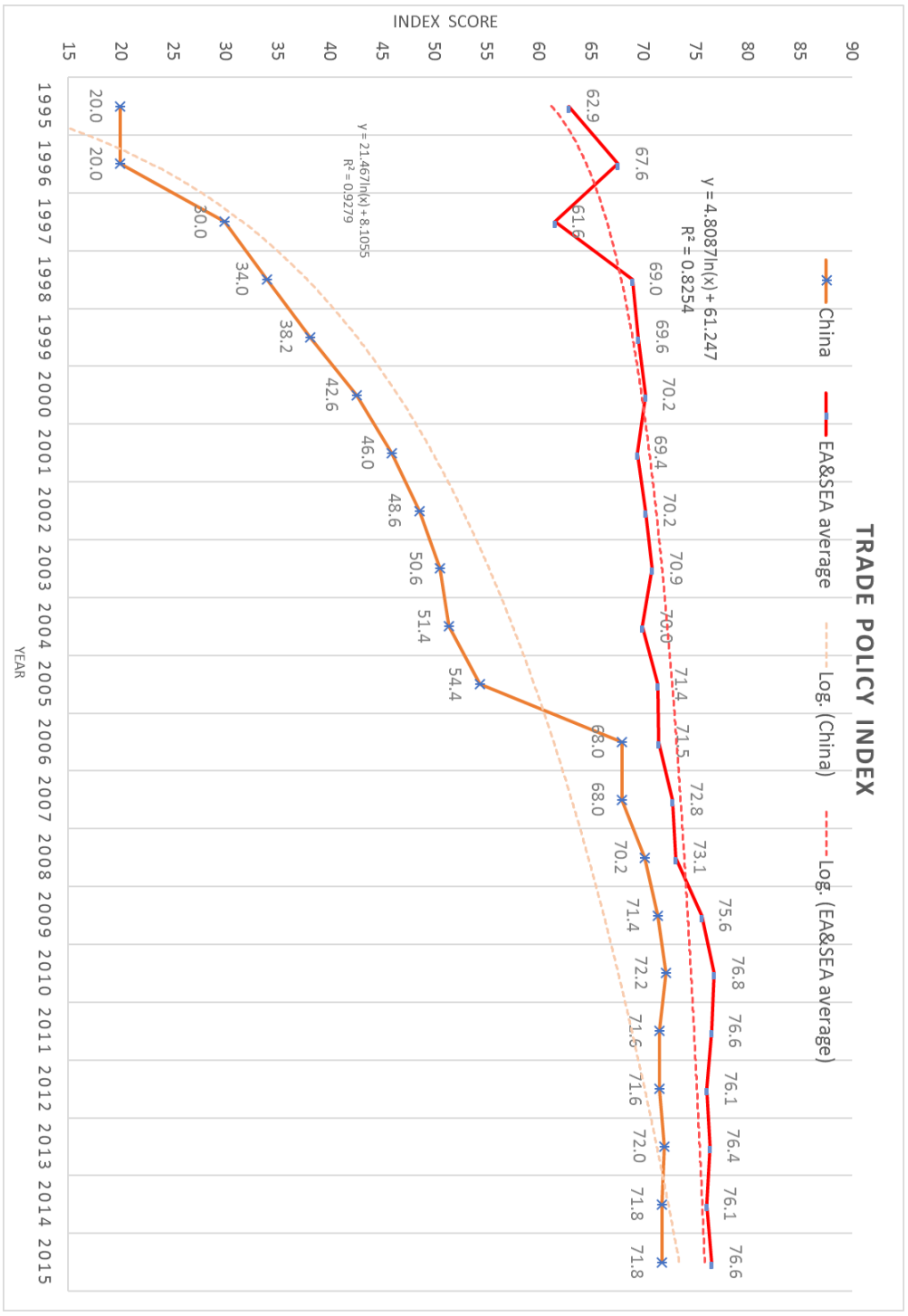

Figure 5 Compiled and calculated from data sourced from Heritage Foundation's "Index of Economic Freedom" (Miller & Kim, 2016)

4.4.3 Trade Openness Implications: Trade to GDP and Trade Policy

By 2015 China's trade policy remained with higher trade barriers than the EA&SEA average, giving China a slightly lower index score. What is significant is the rapid degree in which China lowered its trade barriers from 1995 to 2015. By rapidly lowering its trade barriers, China made other countries' exports more cost competitive which encouraged countries to increase its exports to China. China's trade liberalization policies and decreased trade barriers coincided with the expanding importance of trade to EA&SEA countries. From 1992 to 2014, the trade to GDP ratio of the EA&SEA region increased by 53.93% on average. While China's increased at a similar rate over the period, the outcomes of the change were drastically different. In 2014, China's Trade to GDP ratio was 46.39 while the region average was 119.06.

4.5 Second Indicator. Market Concentration: Observations and Analysis

While export-dependency can pose a threat to a country's economy, the degree of an impact depends on two factors: one, the mix of its exports (that is, the diversity of exports), and two, the mix of its trading partners (the diversity in trading partners). Many developing countries remain reliant on commodities and have a low diversity of product exports. However, these are internal economic issues that pertained to resource endowment and economic development countries that must address with domestic policy. On the other hand, countries that have highly concentrated export markets or a limited number of trading partners, are due to international structures and arrangements. Therefore, evaluating market concentration with trading partners is more relevant in this

discussion.

As mentioned in the methodology section, the Herfindahl-Hirschman Market Concentration Index measures the dispersion of trade value across an exporter's partners. That is, it measures how concentrated or diversified a country's exports are to its export markets. This indicator is a measure of an exporting country's dependency on its trading partners, as well as the dangers it could face if its partners were to increase trade barriers (World Bank, 2015b).

There is a range of values from 0 to 1. A higher index indicates that exports are concentrated in fewer markets, whereas a country trading equally with all partners will have an index close to 0. Thus, a country with a highly significant of trade value concentrated in very few markets will have an index value close to 1. Measured over time, a fall in the index indicates an increase in trading partners or a greater dispersion of trade value across trade partners. A rise in the index indicates the opposite. A country with a low HH market concentration value indicates trade value diversification among trading partners. For the purposes of this analysis, there are two market diversification market indexes used. The first is an individual countries' "World HH Market Concentration Index"; this measures a country's HH Market Concentration as a dispersion of trade value across all the exporter's partners worldwide. The second HH market concentration index used is an individual countries' "EA&SEA HH Market Concentration Index"; this is calculated using the same equation but measures a country's HH Market Concentration as a dispersion of trade value only across the exporter's partners in EA&SEA region.

4.5.1 China's (World) HH Market Concentration Index

Beginning in 1992, China's (World) HH Market Concentration was 0.225 with 196 export markets globally. This represents a fairly high market concentration considering the number of China's export markets and it being relatively easier to being diversified with more partners. After 1992 there was a sudden drop in its market concentration, which is perhaps attributable to its expansion from 196 exports markets to 201. From 1993 to 1994 there was a 10.1% increase in the index (indicating a rise in concentration or decrease in diversity); however, from 1994 onward there is a downward trend as the trendline depicts. From 1992 to 2015, China's market concentration decreased by an average annual rate of 4.7%. In total from 1992 to 2015, China's market concentration declined 71.8%, from 0.225 to 0.063. This means in the long-term view Chinese exports are significantly more diversified among its global trade partners in 2015 compared to 1992.

Looking at short term changes however and there are some interesting movements. From 2006 to 2008 there were significant decreases of 13.8% each year. From 2008 onward, China's market concentration experienced some volatility with several rise and fall fluctuations; however, over the period 2008 to 2015 the market concentration has remained relatively unchanged, moving from 0.062 in 2008 to 0.063 in 2015. Global economic trends such as the 2009 U.S. mortgage crisis could explain this occurrence, but China's export diversification in EA&SEA suggests there may be other explanations.

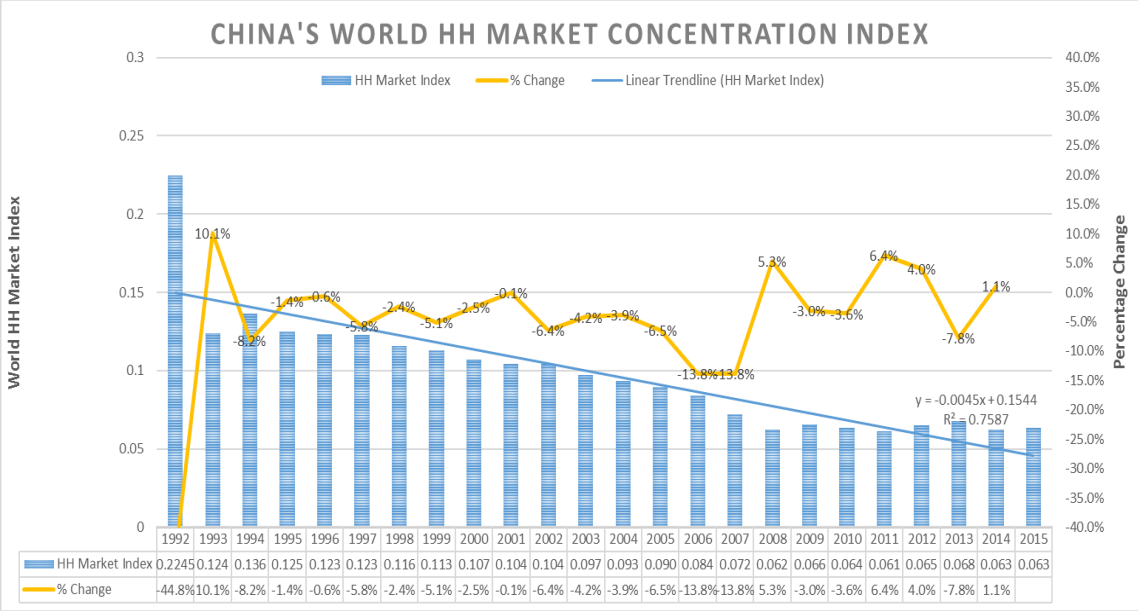

Figure 6 Compiled and calculated from data sourced from WITS (World Bank, 2016)

4.5.2 EA&SEA Countries' (World) HH Market Concentration

China's regional neighbors, with the exception of Mongolia, have also experienced world market diversification as the table below demonstrates. Some countries are more noteworthy than others in this regard. Looking at long-term changes, Thailand, Philippines, Malaysia, Indonesia, Cambodia, and Brunei have all made significant decreases in world market concentration; their market concentrations all declined over 30% from 1992-2014. Singapore and Japan also experienced diversification, as their market concentration decreased as well, albeit a lesser amount, 26.2% and 14.6% respectively. Korea experienced a market concentration decrease with a slight 1.1% drop over the period. One might conclude that by looking at Korea, Singapore, and Japan that their market concentrations decreased less because they have more developed economies; however, the HH market concentration focuses on the

exporters' markets, therefore export product type is largely irrelevant. In addition, there is the case of Vietnam, which had a slight decrease of 4.1% from 2000 to 2014. Mongolia, the outlier of the group, experienced an 82.0% increase in its market concentration from 1996 to 2014. In 2014, it had a market concentration of 0.773, by far the highest market concentration of the EA&SEA countries.

There are some noticeable trends that can be broken into three groups. The first are countries that demonstrated steady downward trends of market concentration. Thailand, Malaysia, Indonesia, and Cambodia saw relatively steady decreases over their market concentrations over the 1992 to 2014 period, and over the short-term period from 2004 to 2014. The second group are countries that experienced market concentration decreases which were reversed. For example, Korea experienced a market concentration decline with rapid market diversification from 1992 until 1996 (dropping to 0.064). However, this decline reversed and had climbed to near 1992 levels by 2014 (reaching 0.089). Several countries experienced similar drops with their lowest market concentration in the 2000s that then increased over the term until 2014. These countries include Singapore (2004), the Philippines (2004), Japan (2008), and Mongolia (2000). Vietnam and Brunei fall into the third group, which were less stable and showed decreases over the long-term but no trends in the short-term.

Global Herfindahl-Hirschman Market Concentration Index of Selected EA&SEA Countries												
	China	Korea	Thailand	Singapore	Philippines	Malaysia	Indonesia	Japan	Mongolia	Cambodia	Vietnam	Brunei
1992	0.225	0.090	0.083	0.086		0.102		0.099				0.334
1996	0.123	0.064	0.084	0.084	0.161	0.101	0.100	0.099	0.425			
2000	0.107	0.082	0.065	0.063	0.134	0.082	0.094	0.111	0.365	0.329	0.065	
2004	0.093	0.082	0.048	0.056	0.102	0.067	0.085	0.088		0.276	0.078	0.180
2008	0.062	0.070	0.048	0.061	0.089	0.067	0.076	0.073		0.248	0.069	
2012	0.065	0.084	0.049	0.062	0.093	0.067	0.068	0.081		0.130	0.062	0.229
2013	0.068	0.091	0.047	0.062	0.100	0.065	0.067	0.084	0.751	0.105	0.061	0.195
2014	0.063	0.089	0.047	0.063	0.105	0.065	0.059	0.085	0.773	0.118	0.063	0.166
Earliest period-2014 Change (%)	-72.2%	-1.1%	-43.1%	-26.2%	-34.5%	-36.0%	-41.6%	-14.6%	82.0%	-64.3%	-4.1%	-50.3%
2004-2014 Change (%)	-33.0%	8.5%	-1.3%	12.9%	18.4%	-2.5%	-31.3%	-3.2%	n/a	-57.5%	-19.5%	-7.8%

Table 6 Compiled and calculated from data sourced from WITS (World Bank, 2016)

4.5.3 Comparison of (World) Market Concentration: China and the EA&SEA Countries

There are several important observations to consider. First, there has been an overall increase in market diversification in China and East and Southeast Asia (a decrease in market concentration). This is likely due with the rise of trade agreements, bilateral treaties, and other trade promoting initiatives in the region. All countries in the EA&SEA region in 2014 are more diversified than they were in their earliest recorded period, with the exception of Mongolia. China experienced the highest percentage decrease in its market concentration, dropping 72.2% from 1992 to 2014. In contrast, Vietnam and Korea are only slightly more diversified in 2014 compared to 1992, 1.1% and 4.1% respectively. The remaining countries in the region have made significant gains in reducing market concentration.

Over the short-term it appears that the market diversification trend for the region may be reversing for several countries. From 2004 to 2014, Korea, Singapore, and the

Philippines' market concentrations increased, thus increasing market vulnerability. Furthermore, Thailand, Malaysia, and Japan showed signs of slowing reductions of concentration reduction, with decreases of only 1.3%, 2.5%, and 3.2% respectively over the period. China, Indonesia, and Cambodia continued with large decreases in market concentration from 2004 to 2014 at rates of 33.0%, 31.3%, and 57.5%.

In 1992, Korea, Thailand, Singapore, Malaysia, and Japan had lower market concentrations than China, meaning they had greater market diversification. By 2014 this was reversed however, with Korea, Singapore, Malaysia, and Japan having higher market concentrations than China, with Thailand being the exception[12]. On the other hand, the earliest measured periods of the Philippines, Brunei, Mongolia, and Cambodia all began with higher market concentrations than China and in 2014 remained with higher market concentrations. Indonesia and Vietnam had lower market concentrations than China in 2000, but by 2014, Vietnam had a higher market concentration than China while Indonesia remained with a lower market concentration. Thus, notably, although in 1992 China had a higher market concentration than the majority of EA&SEA countries, by 2014 this was the opposite. In fact, by 2014 China only had a higher market concentration than Thailand and Indonesia, while China had a lower market concentration than nine out of eleven EA&SEA countries. This means that in 2014 China's export markets are now more diversified than nine out of eleven of its regional

12 The original data used four decimal places for significant figures. For practical considerations for displaying this data however only three decimal places were used in Table 1. Therefore, although the market concentrations for China, Singapore, and Vietnam in 2014 appear the same, they are actually different. Their market concentrations are 0.0625, 0.0631, and 0.0626 respectively.

peers, and China is less susceptible to external shocks or partners' trade barriers than they are.

4.5.4 Comparing China's EA&SEA Regional Market Index with China's World Market Concentration

In 1992, China's EA&SEA Regional HH Market Concentration Index was 0.366 with 12 export markets in the region. This suggests that despite having considerable trade within the EA&SEA region, China was not very diversified in the region. As the chart below demonstrates, in 1993 China's regional market concentration was over three times that of its world market concentration at the time. From 1992 to 2015 the number of China's export markets in the EA&SEA region remained constant with 12 export markets, yet China's market concentration in the region dropped from 0.411 to 0.084, a significant 79.5% decrease. Therefore,

China's HH Market Concentration Index				
	World HH Market Concentration	World HH Percentage Change	EA&SEA Regional HH Market Concentration	EA&SEA HH Percentage Change
1992	0.225	0.0%	0.366	0.0%
1993	0.124	-44.8%	0.411	12.3%
1994	0.136	10.1%	0.404	-1.5%
1995	0.125	-8.2%	0.371	-8.2%
1996	0.123	-1.4%	0.387	4.1%
1997	0.123	-0.6%	0.340	-12.1%
1998	0.116	-5.8%	0.377	10.8%
1999	0.113	-2.4%	0.365	-3.2%
2000	0.107	-5.1%	0.337	-7.7%
2001	0.104	-2.5%	0.337	0.1%
2002	0.104	-0.1%	0.296	-12.3%
2003	0.097	-6.4%	0.280	-5.2%
2004	0.093	-4.2%	0.255	-9.1%
2005	0.090	-3.9%	0.231	-9.4%
2006	0.084	-6.5%	0.202	-12.6%
2007	0.072	-13.8%	0.174	-13.7%
2008	0.062	-13.8%	0.164	-5.6%
2009	0.066	5.3%	0.151	-8.2%
2010	0.064	-3.0%	0.142	-6.0%
2011	0.061	-3.6%	0.139	-2.0%
2012	0.065	6.4%	0.120	-13.9%
2013	0.068	4.0%	0.100	-16.2%
2014	0.063	-7.8%	0.092	-8.6%
2015	0.063	1.1%	0.084	-8.4%
1992- 2015 Change (%)	n/a	-4.7%	n/a	-5.9%

Table 7 Compiled and calculated from data sourced from WITS (World Bank, 2016)

although China's EA&SEA HH Market Concentration shows a decline in unison with its world market concentration, from 1992 to 2015 China's E&SEA regional market concentration decreased at a faster rate, averaging 5.9% decrease annually compared to its world market concentration average decrease of 4.7%.

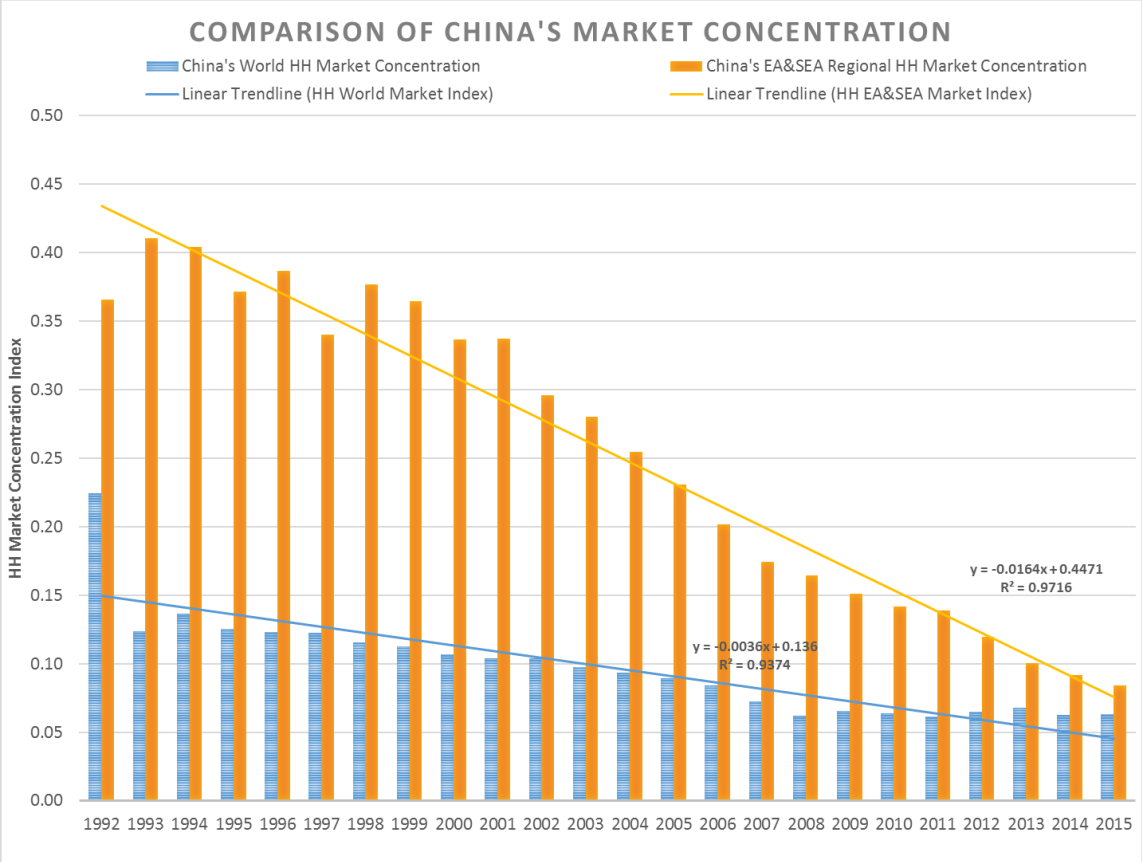

Figure 7 Compiled and calculated from data sourced from WITS (World Bank, 2016)

4.5.5 EA&SEA Countries (EA&SEA Regional) HH Market Concentration Index

Most of EA&SEA countries experienced significant declines in their regional market concentrations concurrently with declines of their world market concentrations over the period from 1992 to 2014. Thailand, Malaysia, and Indonesia's regional market

concentrations decreased by over 50% over the period, decreasing 75.6%, 56.8%, 52.4% respectively. Cambodia had a large decrease of 40.5% from 2000 to 2014 period, and may have had a larger decrease if accounting from 1992, but the data is unavailable. Singapore and Vietnam's market concentrations in the region decreased around 30% (29.6% and 31.7% respectively), while Brunei's and the Philippines' market concentrations decreased around 20% (18.6% and 23.7% respectively). Korea and Japan are exemptions to this trend. It is interesting that while Korea and Japan's world market concentrations decreased from 1992 to 2014, their regional market concentrations

Regional Herfindahl-Hirschman Market Concentration Index of Selected EA&SEA Countries												
	China	Korea	Thailand	Singapore	Philippines	Malaysia	Indonesia	Japan	Mongolia	Cambodia	Vietnam	Brunei
1992	0.387	0.164	0.225	0.118		0.224		0.090				0.344
1996	0.337	0.106	0.147	0.131	0.200	0.181	0.207	0.078	0.591			
2000	0.255	0.137	0.120	0.137	0.157	0.167	0.194	0.085	0.854	0.465	0.137	
2004	0.164	0.208	0.090	0.086	0.144	0.112	0.167	0.132		0.635	0.131	0.273
2008	0.120	0.229	0.069	0.080	0.115	0.107	0.146	0.156		0.479	0.112	
2012	0.100	0.215	0.064	0.085	0.118	0.102	0.110	0.153		0.297	0.096	0.326
2013	0.092	0.240	0.060	0.083	0.137	0.100	0.109	0.156	0.975	0.213	0.087	0.242
2014	0.084	0.238	0.055	0.083	0.153	0.097	0.098	0.159	0.974	0.277	0.093	0.281
Earliest period-2014 % Change	-78.3%	45.4%	-75.6%	-29.6%	-23.7%	-56.8%	-52.4%	77.1%	64.8%	-40.5%	-31.7%	-18.6%
2004-2014 Change (%)	-48.9%	14.4%	-39.0%	-3.5%	6.3%	-13.3%	-41.0%	20.3%	n/a	-56.4%	-29.0%	2.6%

Table 8 Compiled and calculated from data sourced from WITS, (World Bank, 2016)

increased significantly (45.4% and 77.1% respectively). Mongolia's regional market concentration increased concurrently with its world market concentration. In total, eight out of eleven EA&SEA countries experienced decreases in their regional market concentrations, thus becoming more diversified. The remaining three, Korea, Japan, and Mongolia, saw their regional market concentrations increase, becoming less diverse and more vulnerable to external shocks and trading partners' actions in the region.

Several observations are noticeable among the EA&SEA countries. Thailand, Malaysia, Indonesia, and Vietnam experienced relatively steady decreases in their regional market concentrations. Three countries experienced declining market concentrations that reached a low point and then reversed, including Korea (1996), the Philippines (2008), and Japan (1996). Brunei and Singapore's regional market concentrations were more volatile, including multiple increases and decreases but over the long-term decreased. Mongolia had a fairly steady increase in its regional market concentration.

4.5.6 Comparison of (EA&SEA Regional) Market Concentration: China and the EA&SEA Countries

Evaluating the region in 2014, the countries can be essentially broken into three groups. The first group is countries with regional market concentrations that are less than 0.120, including China, Thailand, Singapore, Malaysia, Indonesia, and Vietnam. These countries' export markets are the most diversified in the region. The second group is countries with over. 0.120 but less than 0.200 regional market concentration; this group includes the Philippines and Japan. This group is somewhat diversified in the region. The third group consists of countries with regional market concentrations over 0.200; this group includes Korea, Mongolia, Cambodia, and Brunei. These countries are not well-diversified and have a significant portion of their exports going to few markets.

Looking at the earliest available data, China had higher market concentrations

than every EA&SEA country except for Mongolia and Cambodia.[13] However, China had the largest decrease in its regional market concentration which fell by 78.3% from 1992 to 2014. Thus, by 2014 China's regional market concentration was lower than all of the EA&SEA countries except for Thailand and Singapore. This suggests that, excluding Thailand and Singapore, within the EA&SEA region China's export markets are now the most diversified and China is less susceptible to external shocks or pressures from importers such as trade barriers. Consequently, all of EA&SEA countries excluding Thailand and Singapore are now relatively more vulnerable to external shocks or trade barriers within the region than China.

4.6 Third Indicator. Trade Intensity: Observations and Analysis

Trade intensity is an important indicator of the trade relationship between individual EA&SEA countries and China. Trade intensity provides a way of accurately reflecting the importance of trade among partners by measuring trade between countries without the variations resulting from the comparative size of the trading partners. It also provides a relative measure of trade flows that adjusts for global macroeconomic changes by incorporating global trade values. In evaluating the trade intensity of EA&SEA countries, I hope to discern an important aspect of the trade relationship with China.

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13 The phrase "earliest available data" is used because not every country has data for 1992. For the country in comparison, if that country does not have data available for 1992 then data for 1996 is used for the comparison between China and the country in question. If 1996 data is not available than 2000 data is used and so on.

4.6.1 Evaluation of EA&SEA Countries Trade Intensity

As depicted in the table "Trade Intensity of EA&SEA Countries to China", the trade intensities of EA&SEA countries with China over the past two decades vary considerably, from as low as 0.03 to as high as 1993.51.[14] In 1992, out of the seven countries measured, five had higher trade intensities with China than the world average. In evaluating the other four countries by their earliest available data, it is clear that two countries (Vietnam and Mongolia) also had high degrees of trade intensity with China.

Trade Intensity of EA&SEA Countries to China											
	Brunei	Cambodia	Indonesia	Japan	Korea	Malaysia	Mongolia	Philippines	Singapore	Thailand	Vietnam
1992	13.24		272.75	232.96	229.74	125.51			116.28	78.84	
1993			100.13	140.29	184.84	75.33			75.76	42.77	
1994			109.27	156.48	213.95	108.92			72.08	67.93	
1995			129.51	167.68	246.93	89.54			78.84	98.14	
1996			136.23	175.67	289.30	80.39	590.75	52.65	89.52	110.73	
1997	0.13		137.68	170.46	329.03	78.55	1713.36	31.98	107.36	101.38	
1998	0.03		132.37	182.65	292.56	95.67	1993.51	41.12	130.50	116.34	
1999			143.85	194.76	331.89	95.57	1989.03	57.17	119.14	111.01	
2000		53.53	137.19	195.21	329.89	94.93	1764.73	53.64	120.22	126.02	326.68
2001	116.98	31.60	110.50	217.29	341.86	122.77	1459.82	69.72	123.79	124.69	266.68
2002	153.81	10.59	123.99	233.31	356.93	136.66	1103.79	94.01	133.77	127.41	221.88
2003	136.02	6.30	127.08	248.23	369.65	132.27	941.79	120.79	129.20	144.84	190.71
2004	77.36	8.62	122.85	249.58	374.37	128.12	908.43	127.68	147.78	140.83	209.04
2005		8.49	139.77	241.87	391.20	117.81	865.06	177.59	154.60	149.07	179.80
2006	40.32	7.58	144.15	249.80	371.66	126.14	1181.14	169.98	169.73	157.02	141.80
2007		4.90	144.33	260.36	375.64	149.38	1262.88	193.92	164.49	164.83	127.79
2008		5.15	147.39	277.40	375.84	166.06		193.40	159.50	157.83	134.28
2009		4.71	141.50	270.90	341.94	174.24		109.44	139.75	151.59	135.67
2010		14.96	127.93	249.72	322.22	162.13		142.98	132.88	141.41	137.87
2011		29.24	142.96	249.62	306.49	166.60		161.08	132.18	151.87	151.98
2012	34.20	29.74	145.25	230.12	312.44	161.04		150.95	137.02	149.33	142.82
2013	16.78	37.29	152.18	222.42	320.39	165.68	1065.39	152.30	144.92	146.50	122.68
2014	11.07	40.71	121.97	223.27	309.27	147.00	1070.81	158.51	153.28	134.42	121.20
Earliest period-2014 Change	-16.39%	-23.95%	-55.28%	-4.16%	34.62%	17.12%	81.26%	201.06%	31.82%	70.50%	-62.90%
2004-2014 Change	-85.69%	372.27%	-0.72%	-10.54%	-17.39%	14.74%	17.87%	24.15%	3.72%	-4.55%	-42.02%

Table 9 Compiled and calculated from data sourced from WITS (World Bank, 2016)

[14] In the table "Trade Intensity of EA&SEA Countries to China," the brown-highlighted cells indicate the year pf peak trade intensity of that country to China

Total, that means seven out of the eleven EA&SEA countries had higher than world average trade intensity with China in their earliest measured period. By 2014, that number had climbed to nine out of eleven countries.

In evaluating the long-term change of trade intensity with China from the earliest measured period of a country until 2014, it is clear that six countries trade intensities have increased (Korea, Malaysia, Mongolia, the Philippines, Singapore, and Thailand), while five countries' trade intensities have declined (Brunei, Cambodia, Indonesia, Japan, and Vietnam). Of the countries that saw long-term trade intensity decreases, only Brunei and Vietnam demonstrate both substantial long-term and short-term decreases. It is also difficult to say with certainty that Brunei's decreases represent a trend because of missing annual data. The remaining three countries of Indonesia, Cambodia, and Japan also do not demonstrate both short and long term decreases. Cambodia for instance had a long-term

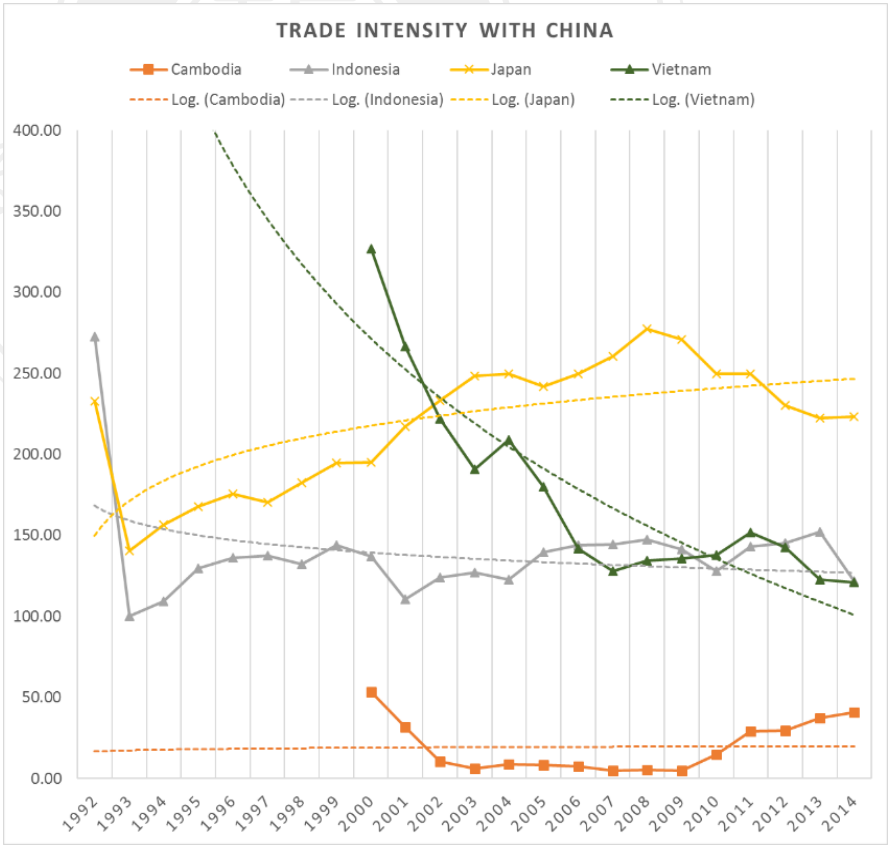

Figure 8 Compiled and calculated from data sourced from WITS (World Bank,

decrease of 23.95%, but a 372.27% increase in the short-term from 2004 to 2014, suggesting that its decreasing trade intensity reversed, and its portion of exports to China climbed. Similarly, Indonesia's trade intensity peaked in 1992, but from 1993 to 2014 its trade intensity with China increased. Thus, Indonesia appears with only a possible slight downward trend, while Japan's trade intensity appears to be actually be trending upwards.

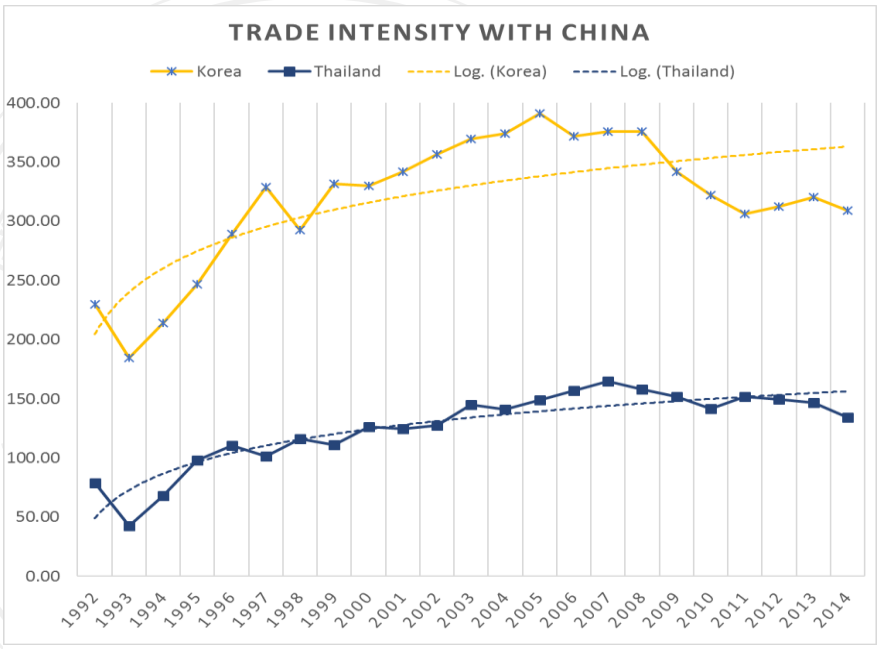

Figure 9 Compiled and calculated from data sourced from WITS (World Bank,

Korea, Malaysia, Mongolia, the Philippines, Singapore, and Thailand had trade intensities with China that increased over the long-term. These increases in trade intensities were also demonstrated over the short-term (2004-2014) for Malaysia, Mongolia, the Philippines, and Singapore. However, Korea and Thailand showed reductions in their trade intensities with China over the short-term. Still, their trade intensities remain significantly higher than their 1992 values and their lowest trade intensity dips in 1993. As the trendline suggests, both Korea and Thailand demonstrate upward trends.

4.7 Cumulative Evaluation and Analysis of Indicators

In the previous three sections, the trade relationship between EA&SEA countries and China from 1992 to 2014 was evaluated using trade openness, market concentration, and trade intensity indicators. In this section, the data is analyzed cumulatively to evaluate those trade relationships. In order to do this, each country's indicators of trade openness, trade market concentration, and trade intensity are evaluated together; then, the countries are categorized by degrees of vulnerability. Those that exhibit trade dependency and vulnerability to China in all three indicators are considered to be part of the "most vulnerable" category. Those that are vulnerable in two indicators are considered in the "less vulnerable" category. Finally, those that are only vulnerable in one indicator are grouped in the "least vulnerable" category.

2014 Vulnerability and Trade Depedency on China			
	Trade to GDP %	Market Concentration	Trade Intensity with China
Brunei	121.85	0.166	11.07
Cambodia	145.80	0.118	40.71
Indonesia	47.73	0.059	121.97
Japan	40.39	0.085	223.27
Korea	96.88	0.089	309.27
Laos	61.33*		
Malaysia	154.06	0.065	147.00
Mongolia	115.97	0.773	1070.81
Myanmar	35.28*		
Philippines	54.78	0.105	158.51
Singapore	358.63	0.063	153.28
Taiwan	129.22		
Thailand	131.55	0.047	134.42
Vietnam	173.35	0.063	121.20

Table 10 Compiled and Calculated from ("UNCTADstat," 2016; World Bank, 2016)

Looking at the previous indicators presented, for 2014, the "most vulnerable" countries in EA&SEA are Vietnam, Korea, Philippines, Malaysia, Singapore, and Mongolia. These five countries exhibit vulnerability in all of the

indicators. That is, they have a relatively high trade to GDP ratio, a relatively high world market concentration, and they exhibit higher than average trade intensity with China. This indicates that they have a high dependence on foreign demand, vulnerability to trade barriers due to relatively low market diversification, and export more to China proportionally than the world average.

"Less vulnerable" countries include Cambodia, Thailand, Indonesia, Brunei, and Japan. These five countries exhibit vulnerability in two indicators. The vulnerability varies among the four countries however. Cambodia and Brunei have a relatively high trade to GDP ratio and world market concentration, but lower than average trade intensity with China. Thus, their export trade is vulnerable to their trade partners in general, not exclusively China, but not excluding China either. On the other hand, Japan has higher than average trade intensity with China and a relatively high market concentration. This suggests a greater vulnerability to China than other trading partners, but because its trade to GDP ratio is relatively low, Japan is less vulnerable than other EA&SEA countries.

For Myanmar, Taiwan, and Laos there is an inadequate amount of data available to make a determination of how vulnerable they are. However, Taiwan and Laos do exhibit high trade to GDP ratios.

EA&SEA countries and China have experienced significant changes to their trade relationships from 1992 to 2014. First, there has been significant growth in the trade openness of the majority of countries in the EA&SEA region over the long-term period from 1992 to 2014, in terms of both trade to GDP ratio and in terms of trade policy. Especially significant is the rapid degree in which China lowered its trade barriers from

1995 to 2015. By rapidly lowering its trade barriers, China made other countries' exports more cost competitive in its markets which encouraged countries to increase its exports to China. China's trade liberalization policies and decreased trade barriers coincided with the expanding importance of trade to EA&SEA countries. All countries in the region showed an increase of total trade as a percentage of GDP over the period, including China; however, relatively speaking, China's trade to GDP ratio percentage increase was slightly less than the regional average. However, China's trade to GDP ratio in 2014 was much less than the regional average (46.39 to 119.06 respectively).

Changes in the Trade Relationship between EA&SEA countries and China						
	Total Trade in Goods and Services, Percentage of GDP (%)		Global HH Market Concentration Index		Trade Intensity of EA&SEA Countries to China	
	1992- 2014 Change (%)	2004-2014 Change (%)	Earliest period- 2014	2004-2014 Change (%)	Earliest period- 2014 Change (%)	2004-2014 Change (%)
Brunei	2.13%	19.51%	-50.3%	-7.8%	-16.39%	-85.69%
Cambodia	324.99%	8.43%	-64.3%	-57.5%	-23.95%	372.27%
Indonesia	1.25%	-20.54%	-41.6%	-31.3%	-55.28%	-0.72%
Japan	128.02%	59.57%	-14.6%	-3.2%	-4.16%	-10.54%
Korea	81.30%	21.51%	-1.1%	8.5%	34.62%	-17.39%
Laos	39.50%	13.29%				
Malaysia	10.85%	-23.81%	-36.0%	-2.5%	17.12%	14.74%
Mongolia	79.97%	-11.66%	82.0%	n/a	81.26%	17.87%
Myanmar	59.35%	-35.19%				
Philippines	2.42%	-46.26%	-34.5%	18.4%	201.06%	24.15%
Singapore	16.08%	-13.28%	-26.2%	12.9%	31.82%	3.72%
Taiwan	56.92%	8.79%				
Thailand	72.43%	2.63%	-43.1%	-1.3%	70.50%	-4.55%
Vietnam	178.17%	23.31%	-4.1%	-19.5%	-62.90%	-42.02%
China	51.91%	-28.71%	-72.2%	-33.0%	n/a	n/a

Table 11 Compiled and Calculated from ("UNCTADstat," 2016; World Bank, 2016)

Second, there has been an overall increase in market diversification and all countries in the EA&SEA region in 2014 are more diversified than they were in their earliest recorded period, with the exception of Mongolia. This is likely due with the rise of trade agreements, bilateral treaties, and other trade promoting initiatives in the region. However, China experienced the highest percentage decrease in its market concentration. Thus, notably, although in 1992 China had a higher market concentration than the majority of EA&SEA countries, by 2014 China only had a higher market concentration than Thailand and Indonesia. This means that in 2014 China's export markets are now more diversified than nine out of eleven of its regional peers, and China is less susceptible to external shocks or partners' trade barriers than they are.

Third, although there is an overall increase in market diversification for all countries in the EA&SEA region from 1992 to 2014, over the short-term it appears that the market diversification trend may slowing and reversing. Several countries including Korea, Singapore, the Philippines, Thailand, Malaysia, and Japan have showed signs indicating this. China, Indonesia, and Cambodia however continue to see increased market diversification.

Fourth, the number of the EA&SEA countries that have higher than world average trade intensity with China has increased since 1992 to nine out of eleven countries. It is clear that levels of trade intensity with China is also growing for the majority of EA&SEA countries, especially Korea, Malaysia, Mongolia, the Philippines, Singapore, and Thailand.

Consequently, as a result of changes in trade from 1992 to 2014, and the evolving

trade relationship between China and EA&SEA countries, EA&SEA countries are now, on average, more vulnerable and trade dependent on China. Furthermore, as a consequence of the evolving trade relationships with EA&SEA countries, China is now better positioned among its trading partners, with a position of relative strength and increased latent power.

4.8 Implications of Trade Going Forward and Future Possibilities

While China has had a great deal of success from trade, China's economy by many measures is slowing down. In 2007 GDP growth reached 14.2%, but by 2014 that growth had nearly halved to 7.3% (World Bank, 2015a). Many commentators have highlighted just how badly the Chinese economy is at overcapacity. Exports have begun to fall, manufacturing is shifting to other Southeast Asian countries, and investment is not working as well as it had. In order to address this China is currently focusing on two development initiatives. They include the Silk Road Economic Belt and the 21st-century Maritime Silk Road ("One Belt, One Road" or OBOR) and the Asian Infrastructure Development Bank. They focus on sweeping economic and financial development throughout Asia. These development initiatives undoubtedly plan to encourage greater trade, but also greater trade dependence on China.

One Belt One Road was unveiled in late 2013 as a trade initiative with many tasks. It is aimed at addressing domestic economic problems and increasing China's economic strength. The plan is as much inward looking as it is outward looking—it looks to its vast rural interior as well as to the rest of Asia, Europe, and even Africa. The plan is

still in its infancy and therefore evolving, but aims to address some of its domestic problems. By sheer economic weight alone, China often has sway with trading partners. OBOR presents another opportunity for China, one of greater influence.

OBOR in many ways should increase China's trade and economic power. For starters it should help by alleviating the aforementioned overcapacity of China's economy. Land and sea routes will also reduce transit times and costs, leading to greater productivity. China also wants to remain at the center of what many term "Factory Asia". Low paid jobs are shifting from China to other Southeast Asian countries, but by moving up the supply-chain and producing higher value-added products, China is able to profit from this occurrence. In order to do this China is adopting new technologies and promoting innovation (Asian Development Bank, 2013). China is also securing resources for its economy by linking parts of Central Asia by land and the Middle East by sea, to secure petroleum and other commodities.

Keeping in mind China's past and present trade relationships with EA&SEA countries is important when considering the future. While trade undoubtedly benefits the EA&SEA countries in some ways, a disproportionate amount of trade with China is a potential risk. Whatever the motivations of Chinese policies such as OBOR, for EA&SEA countries is important to recognize the implications and outcomes. It is critical to recognize that relative gains or losses are just as important as absolute gains or losses. While countries across the region, and across the world, have scrambled to trade with China due to its huge market size, to do so without recognizing the risks is blind foreign policy.

Chapter 5: Conclusion

China's increased role in Asia has led to many questions regarding the direction of its relationships with regional partners. This has been further emphasized by its rapid economic and trade growth. The passage of numerous trade agreements and adoption of trade liberalization policies point to changing relationships with regional partners and shifting power. EA&SEA countries and China have experienced significant changes to their trade relationships from 1992 to 2014. There has been significant growth in the trade openness for the majority of countries in the EA&SEA region over the long-term period from 1992 to 2014, in terms of both trade to GDP ratio and in terms of trade policy. These changes have been marked by the rapid degree in which China has lowered its trade barriers and encouraged EA&SEA exports. As a result, EA&SEA countries are on average vulnerable to trade at a rate double that of China, with total trade accounting for 119.06% of GDP. Although EA&SEA are now more market diversified than they were in 1992, for several countries, diversification has reversed and markets have become more concentrated in the short-term. Whether this is a start to a long-term trend remains to be seen. Additionally, relative to China, the EA&SEA region is now less diversified and more vulnerable than it was in 1992. Furthermore, China's export markets are now more diversified than nine out of eleven of EA&SEA countries, and China is less susceptible to external shocks or partners' trade barriers than they are. Lastly, the number of the EA&SEA countries with high trade intensity with China has increased, as well as the degree of trade intensity of EA&SEA countries.

Consequently, as a result of changes in trade from 1992 to 2014, and the evolving

trade relationship between China and EA&SEA countries, EA&SEA countries are, on average, more vulnerable and trade dependent on China. Moreover, China is in a position of greater latent power. These are important considerations moving forward, as China continue to expand its role and as the region moves into the next era of international trade. Keeping in mind China's past and present trade relationships with EA&SEA countries is important when considering the future. With the development of China's new trade initiatives such as One Belt, One Road, evaluating and possibly reducing trade dependency is likely now more than ever, a wise endeavor.

5.1 Statement of Limitations

There are parts of this research that I wish to include but cannot due to scope and other limitations. The first major hurdle I faced was accepting that the scope of my research would be limited to the data available. The raw secondary data that I sourced from the United Nations is in many ways the most comprehensive dataset available. However, due to economic, political, historical, and practical restraints, data was not wholly available for Hong Kong, Laos, Macau, Myanmar, North Korea and Taiwan. The range of my research's time series was also restricted from 1992 to 2014, due the unavailability of 2015 or 2016 data. Other times, particular years in the middle of the time period were missing, as was the case for Brunei. Although these restraints proved challenging, I believe the data collected presented a fairly accurate picture of the research in question.

One area of research that is related to the topic of this paper is dependency on

commodities exports. Unfortunately, the number of indicators for the trade relationship between China and EA&SEA countries was limited due to practical considerations, and did not include this measure. Asian developing countries are heavily dependent on commodity exports as indicated by the United Nations Conference on Trade and Development's "*State of Commodity Dependence 2012. Special Unit on Commodities"* (UNCTAD, 2012). Commodities exports account for 28% of exports for the region, and over 60% for North Korea, Laos, Indonesia, and Burma (UNCTAD, 2012). Commodities are thus an important aspect to evaluate when traditionally evaluating general export vulnerability. However, the focus of this paper was on trade relationships and vulnerability to a particular country (China), rather than to world markets as a whole. Therefore, market concentration was selected as a more appropriate indicator than a subset of exports or product types, such as commodities. Still, incorporating a commodities exports indicator in future study would be beneficial for a more comprehensive evaluation. Furthermore, the dynamic between a country's vulnerability of exporting a strategic commodity to China is an area that requires further study. One such dynamic that is particularly interesting is the case of EA&SEA's strategic oil exports to China in regards to China's oil dependency, particularly as oil prices fluctuate.

Lastly, I am reminded of a quote from Aristole: "Actions, which political science investigates, admit of much variety and fluctuation of opinion, so that they may be thought to exist only by convention, and not by nature... We must be content, then, in speaking of such subjects and with such premises [sic] to indicate the truth roughly and in outline… for it is the mark of an educated man to look for precision in each class of

things just so far as the nature of the subject admits (Aristotle, 350BCE).” It is my hope that this research, while limited, reaches this standard.

References

About UNCTAD. (2016). United Nations Conference on Trade and Development (UNCTAD). Retrieved from http://unctad.org/en/Pages/AboutUs.aspx

Aghion, Philippe, & Howitt. (1992). A Model of Growth through Creative Destruction. *Econometrica*, *60*(2), 323–351. http://doi.org/10.2307/2951599

Alesina, A., Spolaore, E., & Wacziarg, R. (2005). Chapter 23 Trade, Growth and the Size of Countries. *Handbook of Economic Growth*, *1*(SUPPL. PART B), 1499–1542. http://doi.org/10.1016/S1574-0684(05)01023-3

Aristotle. (n.d.). *Nicomachean Ethics, Book I*. Retrieved from http://classics.mit.edu/Aristotle/nicomachaen.1.i.html

Asian Development Bank. (2013). *Beyond Factory Asia Beyond Factory Asia*.

Blinnikov, M. S. (2011). *A geography of Russia and its neighbors*. Guilford Press.

Brawley, M. R. (2010). *Political Economy and Grand Strategy: A neoclassical realist view*. Routledge.

Briguglio, L., Cordina, G., Farrugia, N., & Vella, S. (2009). Economic Vulnerability and Resilience: Concepts and Measurements. *Oxford Development Studies*, *Vol. 37*(No. 3), 229–247.

Brown, A. (1947). *Applied economics aspects of the world economy in war and peace*. London: G. Allen & Unwin.

Cabrillac, B. (2004). A Bilateral Trade Agreement Between Hong Kong and China: CEPA. *Http://chinaperspectives.revues.org*, (54).

David, H. L. (2007). A guide to measures of trade openness and policy, 1–39.

Escaith, H., & Maurer, A. (2015). *International Trade Statistics 2015*. *WTO International Trade Statistics*.

Fuchs, E., & Stuchtey, B. (2002). *Across Cultural Borders: Historiography in Global Perspective*. Rowman & Littlefield. Retrieved from https://books.google.com/books?id=4wtBb5sWLyYC&pgis=1

Global Economic Prospects. (2010). Washington D.C.

Houghton-Mifflin. (1997). *The Houghton Mifflin Dictionary of Geography: Places and Peoples of the World*. *The Houghton Mifflin Dictionary of Geography: Places and Peoples of the World*.

Ikeda, Mondale, Perry, & Usui. (1996). The Japan-U.S. Special Action Committee (SACO) Interim Report. *Ministry of Foreign Affairs of Japan*, 1–3. Retrieved from http://www.mofa.go.jp/region/n-america/us/security/seco.html

Kojima, K. (1964). The pattern of international trade among advanced countries. *Hitotsubashi Journal of Economics*, *5*(1), 16–36.

Macao Special Administrative Region Economic Services. (2016). Closer Economic Partnership Arrangement (CEPA).

Mearsheimer, J. J. J. (2001). The Tragedy of Great Power Politics. *The Norton Series in World Politics*, *1*, 555. http://doi.org/10.1177/0095327X0403000409

Miller, T., & Kim, A. B. (2016). *Index of Economic Freedom*. Washington D.C.

Ministry of Commerce. (2015). China FTA Network. Retrieved from http://fta.mofcom.gov.cn/enarticle/enkorea/enkoreanews/201601/30417_1.html

Reischauer, E. O. (1974). The Sinic World in Perspective. *Foreign Affairs; an American*

Quarterly Review, *52*, 341. http://doi.org/10.2307/20038053

Rodrik, D. (2010). *Is Chinese Mercantilism Good or Bad for Poor Countries? Project Syndicate*. Retrieved from www.project-syndicate.org/commentary/rodrik47/English

Rose, G. (1998). Review: Neoclassical Realism and Theories of Foreign Policy. *World Politics*, *51*(1), 144–172. http://doi.org/10.1017/S0043887100007814

Sanger, D. E. (1991). Philippines orders U.S. to leave strategic navy base at Subic Bay. *The New York Times*, 1–4. Retrieved from http://www.nytimes.com/1991/12/28/world/philippines-orders-us-to-leave-strategic-navy-base-at-subic-bay.html?pagewanted=all

Shambaugh, D. (2013). China Goes Global, 313.

Smith, A. (1776). Wealth of Nations. Retrieved April 9, 2016, from http://www.bartleby.com/br/01001.html

Snyder, G. H. (2002). Mearsheimer's World: Offensive Realism and the Sruggle for Security. *International Security*, *27*(1), 149–173.

Stiglitz, J. (2002). *Globalization and Its Discontents*. W. W. Norton & Company. Retrieved from https://www.princeton.edu/wwac/academic-review/files/561/8.3b_StiglitzCh3_4.doc

Tang, S. (2009). Taking Stock of Neoclassical Realism. *International Studies Review*, *11*(4), 799–803.

UNCTAD. (2012). *State of Commodity Dependence 2012. Special Unit on Commodities*.

UNCTADstat. (2016). United Nations Conference on Trade and Development (UNCTAD). Retrieved from

http://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx?sCS_ChosenLang=en

United Nations Development Programme. (2011). *Export Concentration and Export Dependence*. *Towards Human Resilience: Sustaining MDG Progress in an Age of Economic Uncertainty*. Retrieved from http://www.undp.org/content/dam/undp/library/Poverty Reduction/Inclusive development/Towards Human Resilience/Towards_SustainingMDGProgress_Chapter1.pdf

Vohra, R. (2000). *China's path to modernization: a historical review from 1800 to the present*. Upper Saddle River N.J.: Prentice Hall. Retrieved from http://books.google.at/books/about/China_s_path_to_modernization.html?id=pOAvAQAAIAAJ&pgis=1

Waltz, K. (1979). The Theory of International Politics. *Addison-Wesley Publishing Company*, 251. http://doi.org/10.2307/40201892

Waltz, K. (1996). International Politics is Not Foreign Policy. *Security Studies*, *6*(1), 54–57.

Winters, L. A., McCulloch, N., & McKay, A. (2004). Trade Liberalization and Poverty: The Evidence So Far. *Journal of Economic Literature*, *42*(1), 72–115. http://doi.org/10.1257/002205104773558056

WITS. (2010). Types of Tariffs. *World Bank*. Retrieved from http://wits.worldbank.org/wits/wits/witshelp/Content/Data_Retrieval/P/Intro/C2.Types_of_Tariffs.htm

Wohlforth, W. C. (1993). *The Elusive Balance: Power and Perceptions during the Cold War.* Ithaca: Cornell University Press.

World Bank. (2015a). GDP growth (annual %) | Data | Graph. Retrieved January 8, 2016, from http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG/countries/1W-US?display=graph

World Bank. (2015b). World Integrated Trade Solution (WITS). Retrieved from http://wits.worldbank.org/WITS/WITS/Default-A.aspx?Page=Default

World Bank. (2016). Trade Outcomes Indicators Module (WITS). Retrieved from http://wits.worldbank.org/WITS/WITS/AdvanceQuery/TradeOutcomes/IndicatorDefinition.aspx?Page=Indicator