The Rise of China and India—remaking of the New World Order

Hasanat Shah, Syed and Li, Jun Jiang and Li, Wang

Jilin University

2013

Online at https://mpra.ub.uni-muenchen.de/52574/
MPRA Paper No. 52574, posted 02 Jan 2014 08:43 UTC
The Rise of China and India

---a study of their remaking of the New World Order

Syed Hasanat Shah, Li Jun Jiang and Wang Li ¹

Abstract

In this study we try to observe whether growing China and India will Challenge the existing World Order or will they prefer status quo, and if they don’t then how they will assert themselves within the existing system. Based on reality checks, we concluded that India and China are not revisionist states and they prefer to follow the prevailing rules and norms, at least, for maintaining growth and ensuring stability at home. Similarly, China and India are in critical stages of transition where any misdemeanor of challenging ‘World Order’ or each other can jeopardize their efforts and can bring them to squire one. Direct confrontation in increasingly interdependent world is losing appeal while widespread domestic reforms are converging policies and is increasing interdependence between China and India. Similarly, proximity, rising status within the system, common experience of colonization and emphasis on order and stability are some out and inside pressures that is reshaping the relationship of China and India and shows that there is a lot between them to cooperate than to confront. Though the two countries are not in a

¹ Syed Hasanat Shah is Faculty member at School of Economics and corresponding author (haist@jlu.edu.cn), Li Jun Jiang is the Dean of School of Economics, at Jilin University. Wang Li is Visiting Professor of Politics and Diplomacy in Jilin University.
position to challenge the existing order, however, their relations will change the structure, if not the rules, of the order.

**JEL Classification:** F5

**Key Words:** World Order, Transition Economies, Policy Convergence, Regionalism, Gross National Income, Bilateral Trade, Cooperation, Confrontation,

**Introduction**

Recently a number of studies have predicted the rise of China and India under the assumption of possible rebalance, if not outright decline, in the power of the West. China and India are considered serious contenders who will challenge the existing ‘World Order’ and will compete for political, economic and strategic dominance. Their rise, particularly of China and prevailing ambiguity of her future course of action has already activated alarms in the West as well as in some parts of Asia.

Though China and India, both, are dubbed as potential contender to the existing order, but the existing stake holders seem to be more uneasy with the rise of China than that of India and therefore have divergent policies towards the two. The west hedge against China and consider India as a natural security partner. They also presumes China and India as adversaries, and thus pat India as a balancing chip against China in the region. Indo-China war in 1962 and persisting territorial disputes since then between the two neighboring countries give credential to such presumptions. On the other hand, China considers the shift in policies of major power towards Asia Pacific and South East Asia as a calculated effort to contain and isolate her. China
is also weary of Western deals with India. Thus it seems that as China and India grow, they will lock horns and will challenge the existing ‘Order’ to grab more power in order to dictate the world by their terms.

    History is evident that any change in prevailing orders or transition of power in international politics is not without destruction. Therefore, any effort by India and China to challenge each other or to challenge the prevailing system will increase the possibility of another cold war. But luckily, the calculated efforts by the two and the increasing interdependency among nation states by the start of new millennium present a different picture, where confrontation among states are relegated deep down on the list of options. The era of ‘mutual destruction’ compelled many hostile nations to think ‘out of box’ and reconsider cooperation as vital route for success.

    China and India are no exceptions. In the recent past, the two countries reduced barrier to trade and enhanced economic relations that paved way for further cooperation on economic and non-economic issues, including peace and stability, within the region and around the world. Resultantly, the increasing cooperation between China and India is going to change the theoretical ball game when speculating which rising power could be the next greatest power and under which conditions. So, the question arises whether China and India will challenge the current ‘World Order’ to impose supremacy or will they play by the existing rules? And if not then how China and India will assert themselves within the system? How Chinese and Indian cooperation can contribute to the region and beyond and under what assumptions? In this paper
we will try to address the aforementioned questions and underline the areas of utmost importance that deserve attention from China and India in order to stand up together for future challenges.

**China, India and the Existing Order**

By the mid of twentieth century, unprecedented changes in political thoughts and issues in the balance of power erupted from the ashes of Second World War. Ideological rifts between un-natural allies of the war i.e. Soviet Union and the Western bloc soon divided the world along the fault lines of communism and capitalism. The ideological division between the two blocs was clear and the effort to govern the global affairs by their terms was obvious. The newly decolonized states were attracted and lured to join the exclusive clubs of the two powers that put many of the nascent states in catch twenty-two situation and increased their fear of re-colonization by other means and modes. Capitalist statesmen such as Churchill and Roosevelt, unified to defeat communism, tried to allay the fear of neo-colonization by putting the old wine of control in a new bottle of euphemism, stamped that with ‘carrot and stick’ and branded it by the name of ‘World Order’; the unwritten rules that governed the world affairs and the important relationships of the interstate system for decades to come.

Though the ‘World Order’ was not a written document or signed agreement, but its strong endorsement by the Western bloc made it a rubric of how to conduct relations among states on economic, political and ideological fronts. The ‘Order’ survived cold and hot wars and played a significant role in governing global affairs, particularly from the Western perspective. The unwritten rules of the ‘Order’ provided a solid foundation for various formal institutions (ranging from Breton Woods’ system to NATO) that were tactfully used by the capitalist bloc to
underscore the importance of liberal institutions, democracy and Americanization. After the cold war, the ‘World Order’ was reinvigorated around Western political and economic thoughts and referred by some scholars as the end of mankind’s ideological evolution and the start of universalization of liberal ideologies. For example, to Fukuyama, the change and drift towards liberal values, and thus to the Western ideology, is irresistible. The argument sensed plausible when the debacle of communism created huge ideological vacuum and threatened the existence of many nation states. Many of them demonstrated pragmatic realism and rushed to embrace liberalism in various forms and formats. Resultantly, a number of communist and socialist countries realigned themselves to ‘change’ and tried to integrate themselves to the world economy which later paved the way for them to ascend the ranks of power.

India and China, the origin of two great civilizations, enjoyed power till the rise of the West in the 17th century. Since then, Western powers have dominated world affairs in economic, intellectual, scientific and military terms that are referred to as the ‘Anglo-American Era’. In that era the West monopolized and considered it their prerogative to devise and implement the rules and order to govern global affairs. However, it was not without cost for other countries and regions. The West consolidated their dominance by subjugating and colonizing non-European regions and by ‘kicking away the ladder of development’ from the reach of others. They

---


3 Liberalism was accepted in bits and pieces. It took not very long time for nation states to embrace economic liberalism; however, the process of political liberalism is still dragging feet to make way in many countries across the globe.

4 Ha-Joon Chang, “Kicking Away the Ladder: Development Strategy in Historical Perspective”, (Anthem Press, 2002)
imposed their cultural values and ideologies on the colonies and purged indigenous customs and traditions. China and India, the two emerging powers, went through this experience when they were defeated, colonized and ruled by the West. Today, it is difficult for China to forget the ‘Century of Humiliation’ and India has yet to escape the shadow of two centuries of subjugation. Even after independence, political and economic powers, enmeshed in cold war mentality and equipped with ‘Orders’, dictated the two countries for decades to come.

Today India and China are emerging powers. They have already started leaving footprints on the world. The rise of China and India, the economic and political heavyweights, has changed the predictable list of great powers in the twenty first century. Their ability to influence other societies as well as the behavior of international institution is on rise. They are unique in many aspects. They are the two most populated countries in the world with a large landmass and have thousands of years of uninterrupted history. They were the power house of the world for millennia and the birth place of important invention and innovations. Today, they are again the economic hubs and major contributors to global output. Their military, economic and political clout is on rise.

Since Jim’s O’Neill wrote about their emerging role the two neighboring countries further consolidated their positions on world stage. Minor players in the global economy in the 1980’s, China today is the world’s second largest trading power, while India has spawned some world-class companies; for example, Infosys, Tata and Reliance Industries. Over the last three

---

decades China has grown by $10^6$ percent per annum and has shown great resilience to the 2008 financial crisis. China holds over three trillion dollars in hard currency reserves\(^7\) and has sufficient resources, like labor and high saving rate, to grow by $8^8$ percent in the next ten to twenty years. Meanwhile, India, the biggest democracy in the world, has grown by $6^9$ percent per annum since 1980 and became a hot destination for international investment. A plethora of reports predict that by 2025, China and India will have the world’s second and fourth-largest economies, and by 2040 they will be first and second largest economies, respectively. Other reports see China to be world’s largest economy bit earlier by 2025\(^{10}\). China and India are recognized nuclear powers and the increasing stake of the two in world affairs are pushing them to develop blue-water navies. China’s first aircraft carrier ‘the Liaoning’ was handed over to the PLA (Peoples Liberation Army) in an auspicious ceremony on 25th November, 2012, while India is in a deal with long time ally Russia to acquire refurbished aircraft carrier INS Vikramaditya by the last quarter of 2013. China and India is expanding their reach by exploring new political and economic relationships with Latin America and Africa in order to secure raw material, market access and to influence them. At the same time, they start asking for reforms in international institutions and have demanded representation at international institutions

\(\text{_________________________}\)

6 Report for Selected Countries and Subjects", (www.Imf.org)

7 China’s foreign reserve assets reached to $3.3 trillion by the end of September, 2012.

8 China Has Potential to grow Annually by 7-8% in 2 decades” (accessed December 15, 2012)

http://www.bjinvest.gov.cn/english/bn/200903/t349092.htm

9 Report for Selected Countries and Subjects", (www.Imf.org)


http://www.frost.com/prod/servlet/frost-home.pag
commensurate with their powers. Therefore, their rise reflects a glimpse in a dramatic shift of power from the core to the semi-peripheries, or return of the power to the origin. This will have significant impact on global affairs and established norms i.e. on the existing ‘World Order’.

So, the ‘Power Transition’ approaches assert that China and India will demand greater roles in the international order and then subsequently will challenge the existing system once they have the economic and military strength to do so\textsuperscript{11}. Offensive realists\textsuperscript{12} argue that China, like all previous potential hegemonies will be strongly inclined to become a real hegemony, as long as her power continues to grow. Though, India and China may have abandoned obscurity for great power politics but the suspicion that their real intentions, particularly of China, remain hidden is at the heart of many observations\textsuperscript{13}. Some observers believe that rising states’ attitudes towards world order are not fixed but mixed and depends on the context. Therefore, the developing status of China and India will not allow them to challenge the existing system, at least in ways that can cause global instability and can back fire. Yet, the rise of China and India took the world by storm of uncertainty and ambiguity about their approach to the existing ‘order’ and their dealing with it.

**Is the World Order in Transition?**


\textsuperscript{12} Mearsheimer, “The Rise of China Will Not Be Peaceful at All”, (The Australian, 2005).

‘World order” simply refers to the rules that govern the most important relationships of the interstate system’. The ‘Order’ is not static but follows a dynamic path. As the world changes so do the rules of the ‘Order’ and players in the ‘game’. In the last decade or two the highly charged process of globalization diffused power from a few cores to different poles. South and south cooperation is on the rise and is going to correct the injustices in North and South relations. Reforms in the Breton Woods institutions are the center of many debates. Soft powers are shaping and smart powers are in action. Regionalism in the Global South is resurging and social movements in different parts of the world are eroding the power of neo-liberal ideologues. The Beijing consensus is reverberating while the Washington consensus is shaking. Strategic interests of developed and developing countries are converging. Ecological limits to growth, security and prosperity will possibly prevent gun point invasions and subversion of other sovereign states, while increased interdependency made ‘pooring thy neighboring’ tantamount to ‘pooring thyself’. The distinction between issues of high and low politics are fading away. Resultantly, the chances of expansive showdowns are on decline and the importance of rule bound cooperation is on rise. Simply, the ‘World Order’ is on the move from ‘vertical,’ where Western political systems, wealth and ideas are above, to ‘horizontal,’ in which there will be co-operation, mutual learning and perhaps benign competition between different ideas and systems. The transition towards new equilibrium seems to be imperative.


16 The former referring to politics dealing with security and the latter referring to non-security politics
A number of developing countries including Brazil, Russia, India, China, and South Africa along with Indonesia and Turkey are on a journey to catch up the developed nations. In the last three decades, the developing world's share of global gross domestic product (GDP) in purchasing power parity terms increased from 33.7% in 1980 to 43.4% in 2010. Asia's share (32 percent) of the global economy markets crossed that of USA (30 percent) and EU (25 percent). From 1995 to 2008, South-South merchandise trade doubled to 20% of world trade and nearly 70% of South-South trade is attributed to intra-Asian trade\(^\text{17}\). This shows that the center of economic activities is also experiencing a shift towards new direction and that is the sign of a multi-polar world where instead of a unified concept of globalization, main players will interact with each other from emerging regional cores.

The new era of regionalism based on interest and independent of geography will surge and globality\(^\text{18}\) will replace Globalization. Peter Drucker\(^\text{19}\) considers that the demands of 'knowledge economy' will make regionalism necessary and highly desirable where the real power will not be judged by the capacity of destruction but by the ability of creation and contribution. Regionalism within globalized context is taking precedence in world politics and economics. Aaron Friedberg\(^\text{20}\) consider that today the dominant trend in world politics is

\(^\text{17}\) Various Reports of UNCTAD, retrieved from http://www.unctad.org/en/Pages/Statistics.aspx 2010

\(^\text{18}\) Globality is characterized by the rise of companies that are based in rapidly developing economies and do business in new, and often very different, ways.


towards regionalization and fragmentation than towards globalization and unification, while Rostow\textsuperscript{21} and Richard Rosecrance\textsuperscript{22} consider that ‘the coming age is of regionalism’ and predict ‘the rise of region states’ in the post cold war era. Interestingly, on the other hand, the Chinese version of world orders like the theory of Tian Xia\textsuperscript{23} believes in world integration rather than fragmentation by ‘transforming enemies into friends’. Tian Xia put emphasis on attraction of masses rather than conquering them and considers that the chaotic world needs efficient ‘order’ not empty ‘freedom’. In between the two poles, Ian Bremmer has his own version of ‘G-Zero world’\textsuperscript{24} in which no country will take the lead to organize political and economic coalition to find solution for collective problems.

The rise of the new players and the receding power of the traditional ‘rule setters’ depict that transition is crucial where uni-polarity will be replaced by multi-polar era in world politics. The recent global financial crisis, that engulfed the developed countries, has accelerated the process of rebalancing the highly tilted ‘World Order’. But it does not mean that the existing order is going to vanish soon or it will be easily replaced by another setup. For any change to occur, the current system will play the role of indispensable and inevitable pivot.


\textsuperscript{22} R. Richard, “Regionalism and the Post-Cold War Era”, \textit{International Journal}, Vol 46, 991.

\textsuperscript{23} T. Zhao, “Rethinking Empire from a Chinese Concept of All-under-Heaven”, (Tian Xia), \textit{Social Identities} Vol 12(1), 2006.

\textsuperscript{24} Ian Bremmer, “Every Nation for Itself: Winners and Losers in a G-Zero World”, (Portolio, May 2012)
**China and India: Revisionist or Status-quo States**

Now the question arises, will the emerging powers, particularly China and India, want to take on and challenge the established international system? Are China and India status quo or revisionist states? And how would the two emerging actors develop their own rules in case the major players, particularly the US, break away from the established norms? What forms will their cooperation take and how they will adjust to work within the system? Therefore, the role of emerging Asian powers in endorsing current global governance and promoting their own rules is open to speculation.

Power transition theory suggests that a rising power satisfied with the existing international order is less likely to instigate instability by changing or challenging the system, while a rising power dissatisfied with the existing setup will try to replace it. Not surprisingly, a burgeoning literature considers the broader global consequences of China’s rise in this backdrop.

---


Some assert that the international system still revolves around the Western belief that China will resist because of her bitter experience during the hundred years of humiliation and then three decades of confrontation with the West after independence. Interestingly India does not come under this kind of suspicion. However, it is not as simple and it may be more complicated to define friends or foes. Another view is that China and India have regained power through the current system, so they are not going to challenge the system. Analysts also believe that the two countries have not yet developed the capacity to initiate and take the burden of change. Therefore, a more plausible possibility is that China and India will take a more prominent role within the system rather than taking over the system. A third line of reasoning suggests that China and India will modify and fundamentally remake the current international system based on their experience of shame and subjugation. Debate on ‘Tianxia’, a Chinese version of world order in China and revering Chanakia by Indian is a step in that direction.

But it is not easy to analyze whether China and India really want to replace the existing system and introduce a ‘New World Order’. Some studies have tried to verify the behavior of emerging states by analyzing their role from different dimensions to conclude whether they support or reject the existing system. For example, Kim assumes that the countries who are dissatisfied with the existing system have different allies from that of the dominant states.

Werner and Kugler\textsuperscript{28} consider a rapid increase in military spending another indication that states want change. By the standard of the above two assertions, India as the world’s largest (proclaimed) democracy and a close ally of the West has always avoided reaching out to the anti-West bloc, or any action that would alienate the West. Recently, the newly appointed foreign minister of India Salman Khurshid called off his planned trip to Iran in order not to annoy the West\textsuperscript{29}. Perhaps India has limited leverage to maneuver out of the system because of her security and economic dependence on the West. In the last two decades India’s military spending increased rapidly along with rapid economic growth but it is less likely that India’s military buildup will pose a challenge to the ‘Order’. India fought wars with two neighboring countries, Pakistan and China, and territorial disputes with them are still lingering. Therefore, India’s military spending in context of external threat can show a different picture, particularly vis-à-vis China. India wants to keep pace with China’s military spending\textsuperscript{30}. At the same time India’s rising defense spending is an effort to consolidate her status of emerging power. This shows that the rise in India’s military spending is more to maintain balance of power within the region than to challenge the global system.


\textsuperscript{29} “At last minute, Khurshid calls off his visit to Iran” \textit{The Indian Express} (accessed November 25, 2012) http://www.indianexpress.com/news/at-last-minute-khurshid-calls-off-his-visit-to-iran/1033873

\textsuperscript{30} Gabe Collins and Andrew Erickson, ‘India Plays Catch-up with China: Asia’s titan boost 2011 defense budgets”,” \textit{China SignPost}\textsuperscript{\textsuperscript{TM}} (洞察中国), No. 29 (14 March 2011)
China also shows great caution in dealing with pariah states after integration to the world system. China is the only state that holds a formal alliance with North Korea; however, Beijing does not endorse all the acts of the isolated neighbor. China receives regular criticism from the West for its huge military budget, but that can not be translated into Chinese intention of remaking of the existing order. China has four nuclear neighbors and has regional disputes with half a dozen neighboring states. At the same time, United States and allies are digging deep and increasing strength in Asia pacific. China military spending together is far below then the military spending of the major stake holder of current system i.e. the United States of America. Same is the case with India. In 2012, China defense budget was just $106.4 billion while India’s defense budget was $ 48.9 billion compared to $ 711 billion of the USA. In between 2005 and 2010, china and India’s military spending as a percent of GDP (gross domestic product) decreased from 1.3 percent to 1.25 and 2.6 to 2.4 percent, respectively; while in the same period USA defense budget increased from 3.9 to 4.6 percent of GDP\textsuperscript{31}.

Therefore, China and India’s military spending is considered more a consequence of possible regional or international security dilemmas and less of their desire to take over the system\textsuperscript{32}. China and India want to maintain deterrence along with growth and project power beyond peripheries, but not by confirming to offence-oriented operational military doctrines.

\textsuperscript{31} The Economist (accessed Feb 19, 2013)

www.economist.com.hk/blogs/dailychart/2011/03/defence_budgets

\textsuperscript{32} Neighbors with Difference: The India-China Relationship in Context (available at

www.upclose.unimelb.edu.au)
They know that offence oriented doctrine will destabilize the whole region and ultimately their own countries.

Despite concerns about the ambitious nature of both China and India, the evidence of scholarship for over a decade suggests that in the United Nations, in the Breton Woods institutions and the World Trade Organization, China and India have more often been rule takers than challengers to the existing international order. Johnston also confirmed that on the basis of China’s participation in international institutions and her willingness to challenge the system, China is more of a status quo rather than a revisionist power. In the last three decades, China has been transformed from the World Order’s antagonist and revolutionary challenger to a critic and advantage-taker. Today China endorsed and is the proactive mover and shaker of the existing system.

In the recent past, China and India showed dedication and committed resources to the prevailing system that facilitated their rise and is important for their stability. After 2008 financial and recent EU sovereign debt crises, China and India’s behavior is more cooperative. China firmly stood for free trade and urged trade partners (United States and EU) not to go for

---


protectionism\textsuperscript{35}. No doubt, Chinese domestic politics still revolve around the communist ideology, but their engagement in international politics and diplomacy is not at odds with existing ‘Order’. China is trying to deal with other international actors (such as the United States, India etc) within the system. Even it is considered that possible conflict between the US and China on locking up energy and strategic commodities\textsuperscript{36} or India and China’s struggle for regional influence, may be within the system.

Another argument in favor of China as status quo is that, China is the biggest creditor and trade partner of the United States, and therefore, the time of China as an existential adversary of the US and US backed system have passed. China’s interest and policies are converging on major stake holders of the system. Today China shares an increasingly common set of values, practices, and outlooks with other global actors\textsuperscript{37}. At the same time, the world entered into an era of ‘new security concept’: ‘dialogue’, ‘cooperation’ and ‘mutual trust, mutual benefit, equality and coordination’\textsuperscript{38} that allowed ‘states to treat each other as partners or at least as


neither friend nor foe. Gone are also the days when states were only looked upon as hostile and adversaries. Today nation states are more pragmatic and less suspicious of each other.

International trade and increasing economic interdependence remind us that we are in an age of ‘power of dependence’. Today states economic and security (nontraditional) interests are inextricably bound with what happens in the rest of the world or in a region. Interdependence leads to unprecedented cooperation and policy coordination where regional and international organizations start playing dominant role to ensure security and maintain political and economic stability. Therefore, the possibility that India and China will challenge the existing order or will directly confront each other is very low.

**China and India: Adversaries or Partners**

Even if India and China don’t want to change the system, still their growth momentum, political rise, and policy convergence or their cooperation will significantly alter the course of actions within the system. The two countries have a long history of exchange of goods and ideas. Chinese culture and society were deeply influenced by Buddhism whose roots can be traced to India. Similarly, Indian revered Chinese culture and inventions. But the 1962 war bedeviled their relations for decades and cultivated a huge trust deficit between them. Both states considered each other as adversary and were hostile to each other. However, the recent rapprochement of the

---


two shows that either it dawned upon them that coexistence is a viable option or their interests start converging. India was the first stop of new Chinese premier Li Keqiang. In the recent visit of Indian Premier Manmohan Singh in October 2013, China and India signed a landmark border pact and the two countries agreed to study the potential for a bilateral regional trade arrangement. Rapid rise of China and India increased their level of interdependence and therefore, their focus on areas of complementarity. Strong economic growth and their improving diplomatic and trade relations have led many to dub the two countries as 'Chindia'.

Similarly, the widespread liberalization and reforms in India and China focused on domestic growth produced a new cadre of ‘elites’ and brought them closer. The structures, processes, and performances of their policies grew more alike and in one generation China and India leapt from Maoism and socialism to Reaganism and Thatcherism. Investment flew in and across the Indian and Chinese borders along with new ideas. Trade between India and China increased by leap and bound from $2.92 billion in 2000 to $73 billion in 2012. It is expected that it will reach to $100 billion by 2015. China is the top source of India’s imports (12 percent of total) and the third largest destination for Indian exports (6.5 percent of the total). Despite the fact India has trade deficit problem with China, they behave more like a partner than adversaries. China and India together constitute 36 percent of world population (China 19 percent and India 17 percent). Huge labor force gives them comparative advantages. Luce and Kynge quoted Indian entrepreneur

41 Elites plays an important role in shaping consciousness that is vital in determining interstate and interfaith relations

that rising China is an opportunity rather than a threat. Similarly, Chinese entrepreneur can not ignore the importance of Indian market. India and China are world power houses and together they contribute to half of total increase in world output in 2012 (china 40 percent and India 15 percent).

On issues of global governance, India and China seems to be on the same page. Their voting records in the UN General Assembly show that on issues like Iran, Sudan, Burma, Middle East security and nuclear proliferation, they are markedly closer to each other than to the USA. They developed a pressure group and fought together against the lack of movement by developed countries on issues of subsidies in Doha round of negotiations. Their joint communiqué issued on 9 August, 2007 says,

“Unless the outcome of the negotiations upholds the proposals of developing countries resulting in real and effective reduction of trade distorting domestic support coupled with meaningful disciplines, substantial improvement in market access by developed countries and eliminations of all form of export subsidies the aspirations of the developing countries, as built in the mandate, will not be fulfilled”

This shows that China and India’s interdependence is increasing but their cooperation is dictated only by vested interest and by non political imperatives, and therefore, the possibility

---

43 India, China Take Common Stand on WTO Doha Round Issues (accessed August 20)
http://pib.nic.in/newsite/erelease.aspx?relid=26914
that they will violently compete for wide economic and geopolitical interest within and outside the region can not be ruled out. The two countries government policies toward each other in recent years has been driven more by bureaucratic expertise and military demands rather than by political vision. That does not bode well to support flexible and long term cooperative relations. Though, to large extent China and India have reshaped their relations from adversaries to non-hostile states, but they need to go beyond economic interdependence and required to address India’s fear of hegemony and China’s fear of encirclement. Otherwise they will miss the opportunities to fix the problems in prevailing ‘Order’ and stand for the developing world. Therefore, an important mean to this end is to develop regional and sub-regional cooperation by ‘seeking clear truths from murky facts’ i.e. understanding the region from within rather than taking the dictations from outside.

**Theoretical Framework for Stable Partnership**

So, the question is on which ground viable relation can be built? Particularly when ‘The Five Principals of Peaceful Coexistence’ did not survive more than eight years after that was first codified in agreement by China and India in 1954. But the ‘principles’ still can provide solid foundation for long lasting relations. They are

- Mutual respect for each other's territorial integrity and sovereignty,
- Mutual non-aggression,
- Mutual non-interference in each other's internal affairs,
- Equality and mutual benefit, and
- Peaceful Co-existence
The principles reflect the concept of peaceful coexistence, the everlasting and fundamental stance of China’s foreign policy confirm the stand of India on how to conduct international relations and protect vital interests. The principles also support Indian stance of non-polarized and non-hegemonic world and negates the idea that Asian countries must choose between a Chinese or American future.

China and India are aspiring to play a global role. Therefore, they understand the importance of regionalism and the significance of regional cooperation and institutions.\textsuperscript{44} They are aware of each other growing status and their mutual importance. China assured neighbors of her peaceful intentions\textsuperscript{45} and India is trying to win over neighbors too\textsuperscript{46}. India and China are co-members or observers of many regional organizations (from ASEAN to APEC); however, there are no direct pacts between Delhi and Beijing. Therefore, their growing status compel them to consider their position from regional perspective, where the range of factors that may be implicated in the growth of regionalism between India and China can take economic, social, political, cultural and historic dimensions as well as understanding that the two countries are in different stages of development.

\textsuperscript{44} David Shambaugh, Return to the Middle Kingdom? China and Asia in the Early Twenty-First Century”, In Power Shift: China & Asia’s New Dynamics, edited, 2005


\textsuperscript{46} They have disputes with a number of countries. Therefore, before taking global responsibility they have to resolves serious issues, at least, with neighboring countries.
The process of regional engagement has no fix boundaries and regionalism is not ‘natural’. Regionalism is socially constructed and politically contested. In this back drop, in the following paragraphs we try to figure out which theoretical underpinning China and India can follow to enhance cooperation.

For those who subscribe to the realist school of thought, regionalism is the only viable option for weak states to coexist along with powerful states. Therefore, regionalism is the impact of outside (hegemonic) pressure and the politics of alliance\textsuperscript{47} formation does not take domestic factors in to consideration. Realists do not believe in the power of economics in integration and they consider the international political system as the driving force behind economic and other forms of regional integration. The widely debated realist theories of regionalism and regional cooperation can be understood in the back drop of European integration, however, they lost wherewith to explain the surge in regionalism in post cold war era, particularly in areas that lacks hegemonic interpretation of regional cooperation. ASEAN is one of the examples. Emerging powers in Asia not only lack the ability to subdue each other. Therefore, under realist assumption of political competition, hegemony and mercantilism, the two big giants of Asia have limited opportunity to cooperate and take advantage of each other.

Globalization is another approach that looks at regionalism as a whole by putting states ecologically, strategically and economically in the same boat. Globalization and structural interdependence compelled states to put aside national egoisms and join hands to address the issues of common interest and challenges. Structural change in the international system increased

social and economic interdependence where technological change made geography irrelevant\(^48\). Therefore, scholars are debating the claim that regionalism in this highly interconnected world needs to be addressed by new approaches.

Among the structural interdependence theorists, Joseph Nye pointed to two areas for regional cooperation, micro-economic and macro-political organization\(^49\). The first involves formal economic integration characterized by formal institutional structures, where markets, private trade, investment flows and private companies pave way for cooperation; while the later is important to control conflict by constructing inter-state or inter-governmental agreements or regimes. The main concept of micro-economic and macro-political organization is a reflection of interdependence of realism and liberalism. Domestic reforms by China and India and their rapid growth have increased their economic interdependence; however, a number of unresolved issues (e.g. China’s claim to Arunachal Pradesh and India’s support to Tibetan government in exile) still hold them back from proceeding to cooperation on the macro-political front. Constructivist and domestic level theories of state coherence directs attention to the discursive interplay of subjectively constructed ideas in forming the interest, identities and structure to define cooperation\(^50\). Constructivist emphasizes multilateralism over unilateralism and positive sum


\(^{50}\) Checkel, Jeffrey, “The Constructivist Turn in International Relations Theory”, World Politics 50:2 (1998); Blyth, Mark, “Structures Do Not Come with an Instruction Sheet: Interests, Ideas and
win-win situation over zero-sum power struggle. But the problem of constructivist ideology in terms of China and India is that they both have different cultures, political systems, structure of governance and distinguished identity which hardly pave way for long lasting cooperation, within and beyond the region.

Theories that underline the functional response of the state consider that starting with technical and non controversial issues will generate a momentum that can lead to enhanced cooperation and greater political integration. Neo-functionalism considers that the level of complexity of issues actually does not reduce but increases cooperation among states by necessitating the existence of supranational institutions to govern the affairs. China and India already started cooperating on a number of issues of economic interest that will bring them closer. But it does not mean that they shun competing in other areas at all. Territorial dispute, outside influence and lack of serious efforts to understand each other provide less fertile land for supranational institution to blossom.

Generalized neoliberal institutionalist theories, among others, provide sound footing for regionalism. Neoliberal theories address the issues of regional cooperation by building institution with clear purpose and limited authority. Further, the institutions are more ‘statist’ in nature and they don’t override on state authority. They also formalize the forms of interdependence and give way to strategic interaction. That will ultimately lead to enhanced cooperation. China and India

already entered to soft regionalism. Therefore, under the auspices of neoliberal theories, they
together can develop an effective partnership to address the issues of utmost importance.

China and India’s cooperation is not a new area. Historically the two relied on each other
for exchange of idea and trade for centuries, however, without formal institutions and proper
market mechanism. External pressure never compelled them to formalize relations. The two
countries curved different path to fight the colonialist and then adopted divergent policies from
late 1940’s to early 1990’s to tackle domestic imperatives. In early 1990’s the process of
globalization based on neo-liberal ideologies brought them in line and being developing
countries put their stake together.

Realist and liberals point to important factors that explain the outcome in question,
however, their relative importance varies. In particular, we argue that the liberal approach
provides a ground where China and India can build an effective long lasting partnership without
losing identity or confronting the existing system, rather their participation will strengthen the
existing structure of global governance. In order to measure the interdependence of China, India
and US, we devise the following methodology.

**Empirical Analysis of Interdependence**

In order to support our argument, we collected the GNI (gross national income) and trade
data for China, India and the USA to empirically confirm their level of interdependence. We
selected GNI because the concept of GNI is broader than GDP and better reflects the economic
power and political influence of a country across the globe. We collected GNI and Trade data
from World Development Indicators (World Bank) given in Appendix 1. We use GNI to check long as well as short term co-integration by employing Vector Error Correction Cointegration technique while we use Granger and Augmented Granger Causality tests to determining the path of trade dependency among the three countries (methodology adopted in this paper is gives in the Appendix 1)

**Insert Table 1 here**

**Insert Table 2 here**

Our results shows in Table 1 shows that the GNI of the three economies are cointegrated in long as well as in short run when China and US GNI’s are dependent variables. The result indicates that a one percent increase in US GNI increases Chinese GNI by 0.5 percent. Similarly, the negative and significant coefficient of error term (ECM-1) in case when US GNI is dependent variables shows that US GNI has a long run relationship with US and Indian GNI. US and Chinese GNI confirm significant long and short run result. however, Indian GNI failed to failed to show both long and short run relation with the US and Chinese GNI. Negative significant values of ECMt-1 on one hand confirm long run relation and on the other hand show that Chinese GNI reverts to equilibrium within in three years after any change or shocks, while that of US takes 5 years to revert back to equilibrium. This confirms that big economies are interlinked and depends on each other.

Our results of Variance Decomposition (table 2) and Impulse response function (fig 1) indicates positive relations between Chinese GNI and the GNI of US and India, while in Case of
India and US the response is not positive. Variance decomposition results shows that changes in Indian GNI explain Chinese GNI by 11 percent compared to 1.3 percent by US GNI in 4th time period. Similarly, Chinese GNI explains India GNI by 32 percent in 4th time period compared to 0.2 percent by the US GNI. Chinese GNI also explains 30 percent variation in US GNI in first time period. This shows that Chinese GNI is closely linked to the GNI of India and US.

**Insert Fig 1 here**

Similarly, Impulse response function in Fig 1 indicates positive relations between Chinese GNI and the GNI of US and India. China shows positive response in GNI due to standard shock stemming from US and India. This shows that India and US GNI explains the changes in Chinese GNI. In Case of India and US the response turns from positive to negative after 3 time period, while in Case of India and US the response turns from positive to negative after 3 time period.

In case of trade dependence, our bi and multivariate granger causality results in tables 3 and 4 confirm two-way causality in trade across the board between the three countries. The results in tables 3 and 4 give credence to our VDC findings. The significant two-way granger causality results shows that Indian trade not only cause Chinese and US trade but Indian Trade is also get caused by Chinese and US trade. Similarly, China and US cause and get caused each other trade. This shows that India and China are not only living in increasingly interdependent world but they themselves are interdependent on each other in many aspects.

**Insert Tables 3 and 4 here**
**Possible Impacts of China and India’s Cooperation**

Though the empirical evidence and ground realities support the argument that China and India are less interested to confront or challenge the existing order for certain reason, but the impact of change in their internal or external policies is tacitly reshaping ‘world order’ from within by influencing peripheries without challenging the core of the ‘order’. Thus, their cooperation is bound to affect regions beyond their boundaries. China and India are two giants whose cooperation will change the landscape of continents from Asia to Africa and to Latin America. We can explain their role in changing world from the experience of ASEAN and NATO to show that how cooperation between China and India can avoid deadweight loss of senseless competition or outright confrontation to control others.

The Association of South East Asian Nation was built on institutional framework based on liberal ideologue. ASEAN member countries shows huge diversity in term of size, culture, language, religion and history, yet their unprecedented cooperation based on discreteness, informality, consensus building and non-confrontational bargaining styles and legalistic decision makes ASEAN a huge attraction. Despite the fact that ASEAN member states consist of less than 10 percent of world population and contribute not more than 5 percent to world GDP, yet World top economies and major players want to join them. ASEAN cooperation based on formal institution building has huge brand value. Recently ASEAN determined and shaped the identity of bigger regions e.g ASEAN plus three and ASEAN plus six etc. Similarly, NATO is another example where member state pool security, a very sensitive area, irrespective of religious and cultural differences and old rivalries. Their collective security reduces the burden and diverts scarce resources to efficient allocation elsewhere.
On the same line, by institutionalizing their relations, China and India can efficiently allocate their scarce resources and can attract many regions to collaborate, including South Asia\textsuperscript{51}. China and India’s cooperation will balance the power and will become a connecting force in the region that will pave the way for peace and development. This will drastically reduce the external challenges emanating from neighboring countries to India and will increase the standing of South Asian countries need an effective regional bloc as SAARC (South Asian Association for Regional Cooperation) is ineffective because of asymmetry, political and military rivalry between big member states and absence of a counter weight to India.
of China in the region. Alleviation of poverty and development in the South Asian region will provide a huge market for China and India.

Similarly, China’s influence in central Asia is on rise. Many analyst dub SCO, regional equivalent of NATO, as success where China is playing a pivotal role. Chinese and Indian cooperation will help India access central Asia and Russia, an old benefactor of India. In return, as a result of increasing interdependence, China can assure smooth flow of maritime activities in Indian Ocean. However, it seems an uphill task until the two neighboring countries introduce confidence building measures based on formal institution building to cure the mistrust.

BRICS is another area where China and India’s cooperation will infuse huge energy to it. But the most important role the formal cooperation of the two can play is in Africa. Africa is no more a theater for developed or emerging nations to settle their score or compete for scarce resources. China and India is extensively investing in African continent and require African diplomatic support on issues of international importance. Africa is a major trade partner of China and India. Together, China and India can play a fair game and can change the empty rhetoric of African development to a reality. Their role in Africa will determine the skill of their global leadership and future of global governance.

The rise of Central and South Asia will tilt the order towards Asia while that of Africa will increase the say of developing world. Thus, cooperation between China and India will change structure without confronting the rules and core of the world order.
On internal issues, China and India’s economies are growing with impressive rate and in a decade or two they will surpass USA and EU. Since open up policies and liberalization, China’s share of world exports increased from less than 1 percent in early 1980’s to more than 10 percent by 2011, while India’s share in world exports increased from 1 percent to 2 percent in the same period. Thus, China and India’s growing economies, expanding ecological footprints, and rising political influence require them to deal with common challenges collectively.

In the last three decades the two countries pulled 650 million people out of poverty trap. However, 40 percent of India’s population, the majority of which are in the north of India, and 20 percent of China’s population, especially in the west of China, are still living below poverty line. Therefore, in terms of internal challenges the two countries can help each other to reduce poverty by linking trade to poverty alleviation. China has a comparative advantage in industrial production, while India has advantage in the services sector. Therefore, increased trade across borders and setting up industrial zones in underserved areas will alleviate poverty on one hand and will make the growth more inclusive on the other. At the same time, increase in trade between China and India will provide a hedge against dip in exports in face of slump in global demands.

India, like any other developed country concentrate on industrialization. However, half of Indian workforce and 20 percent of output depend on agriculture sector. Thus, for more balanced growth, India needs to create synergy between agriculture and industry and in this regard she can
learn from Chinese experience at the start of reforms\textsuperscript{52} in 1978. Indian can also learn from Chinese SoE’s (State Owned Enterprises) and infrastructure development. On the other hand, India’s advanced market based financial system and edge in IT sector can offer some lessons for China.

Among others, border issues between China and India eclipsed their relations for long and still hinder them to develop a genuine partnership. Therefore, introduction of common security (macro-political) through mutual cooperation will be positive step in search of peace and progress. Similarly, ‘new security concept’ is another area where China and India’s cooperation will have long lasting affect on their partnership and on the region and that will pave some way for solving old disputes.

**Conclusion**

At the start of the twenty first century the world saw a dramatic shift from uni-polarity to multi-polarity. This affected the nature of the issues and structure of the global rules of governance. Some observers believed that the world is in transition where the emerging power, particularly India and China, will challenge the existing ‘World Order’ and will remake it. But reality speaks different, at least for the time being. The rise of China and India owes a lot to the existing system and they have large stake in its stability. China and India are in the process of

\textsuperscript{52} Chinese started reform from agriculture sector a long with special economic zones. Agriculture sector reform increase allocative efficiency by increasing productivity and diverting surplus labor to industry.
development and any disruption in the existing system will bring catastrophic social, political and economic consequences for the two countries. Therefore, India and China are not in a position to challenge the existing order, nor they can shoulder the burden that would result from change. Their behavior at various regional and multilateral organizations confirms their status quo position. Similarly, our empirical finding shows that China and India’s interdependency on each other and on the rest of world is on rise.

But it does not mean that China and India are satisfied with their current positions. They start asking for more power and representation in global decision making. Their rising stature and expanding influence shows that it is difficult to deny them anymore of their role in matter of global governance. They want to turn the table on major powers and secure their position but within the system. Similarly, their rise is good news for developing countries who demand reform in the global governance for long time. For them the rise of China and India is a hope. However, confrontation between China and India will be highly detrimental and can put them off the track. Being developing countries, they have common stake in matters of international affairs and face similar problem at domestic level. Therefore, China and India is in the process of redefining their relations and enhanced cooperation under changing imperatives. Out and inside pressure beside common interest and values are pushing them in that direction. For increased cooperation China and India need to erect open, transparent and efficient institutions structure based on neo-liberal ideology mixed with indigenous knowledge in order to address the current issues and future challenges.
In short, our paper assumes that India and China has a lot to cooperate than to confront. China and India are neighboring countries who can not escape geography nor can they run away from their good or bad shadows. Therefore, China and India need to stand up to the moment and fix problems of the existing ‘Order’ and contribute to peace, stability and development beyond their borders.

For centuries India and China fell and rose together independently, however, in this interdependent world their rise and fall will not be mutually exclusive. Their cooperation, assuming active role and rule bound approach is a ‘necessary condition for assuming peace and global leadership in the increasingly interdependent world.

Appendix 1

<table>
<thead>
<tr>
<th>Gross National Income Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>1981</td>
</tr>
<tr>
<td>Year</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>1980</td>
</tr>
<tr>
<td>1981</td>
</tr>
<tr>
<td>1982</td>
</tr>
</tbody>
</table>

Sum of Export and Import Volume Index (2000 as base year)
## Methodology

In this section we discuss three models that we will employ in order to understand the relation among China, India and The US.

### Model 1: VECM Co-integration Vector

\[
[\Delta Z_{i,t}] = [b_i] + [B_{i,i}] \times [\Delta Z_{i,t-1}] + \cdots + [B_{i,m}] \times [\Delta Z_{i,t-1}] + [\xi_i] \times [ECM_{t-1}] + [\mu_i] \quad (1)
\]

Where \([ . \)] in eq(1) represent the vector form of the of coefficient i.e. ‘b’ and ‘B’ and Z represent the variables used in the model. Here our variables are the log values of China, India and United States GNI. ECM is the error correction term. If the results show long run cointegration (i.e.
negative and significant values of ECM-1) then we will apply Wald test to measure short run relation among the variables.

**Model 2: Granger Causality**

\[
TRCH_t = \gamma + \sum_{i=1}^{k} \alpha_i \cdot TRCH_{t-i} + \sum_{i=1}^{k} \beta_i \cdot TRIN_{t-i} + \mu_t \tag{2}
\]

\[
TRIN_t = \phi + \sum_{i=1}^{k} \delta_i \cdot TRIN_{t-i} + \sum_{i=1}^{k} \lambda_i \cdot TRCH_{t-i} + \eta_t \tag{3}
\]

In Granger Causality eq(2) and (3), TRCH, TRIN stands for trade volume of China and India. For granger causality our null hypothesis is \(\beta = \lambda = 0\). Similarly, we will replace the values of US trade in the above equations in order to measure the bilateral casual impact of US trade in relation with Indian and Chinese trade.

**Model 3: Augmented Granger Causality**

However, it is generally observed that the F-test is ineffective when the variables display an integrated or cointegrated structure and the test statistics lack a standard distribution (Zapata and Rambaldi, 1997). In such condition, when the data is integrated or cointegrated, the general tests applied for exact linear restrictions on the parameters (e.g. the Wald test) do not exhibit usual asymptotic distributions. To deal with this problem and avoid stationarity and cointegration that we can face in running the granger causality test, we can use the procedure proposed by Toda and Yamamoto (1995) of augmented granger causality.

This procedure modified Wald test (MWald) for restrictions on the parameters of \(VAR(k)\). When a \(VAR(k + d_{max})\) is predicted (where \(k\) is the lag length in the system and \(d_{max}\) is the maximal order of integration to occur in the system). This test displays asymptotic chi-square distribution and considers the selection procedure valid whenever \(k \geq d_{max}\). The model is as
\[ \log Trch_i = \alpha + \sum_{i=1}^{K} \beta_i \log Trch_{i-1} + \sum_{j=K+1}^{d_{\text{max}}} \beta_j \log Trch_{i-j} + \sum_{i=1}^{K} \lambda_i \log Trin_{i-j} + \sum_{j=K+1}^{d_{\text{max}}} \lambda_j \log Trin_{i-j} \]

\[ \sum_{i=1}^{K} \delta_i \log Trus_{i-j} + \sum_{j=K+1}^{d_{\text{max}}} \delta_j \log Trus_{i-j} + \delta t \]  

(4)

**Tables and Figures**

**Table 1: The VECM Granger Causality**

<table>
<thead>
<tr>
<th>Dependent variables</th>
<th>Direction of causality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short run</td>
</tr>
<tr>
<td>D(LOGC)</td>
<td>----</td>
</tr>
<tr>
<td>D(LOGI)</td>
<td>0.265147 (0.2917)</td>
</tr>
<tr>
<td>D(LOGU)</td>
<td>5.755528 (0.0580)</td>
</tr>
</tbody>
</table>

**Table 2: Variance Decomposition**

<table>
<thead>
<tr>
<th>Variance Decomposition of LOGC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
</tbody>
</table>
### Variance Decomposition of LOGI

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>LOGC</th>
<th>LOGI</th>
<th>LOGU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.009544</td>
<td>7.626222</td>
<td>92.37378</td>
<td>0.000000</td>
</tr>
<tr>
<td>2</td>
<td>0.014609</td>
<td>18.11736</td>
<td>81.87584</td>
<td>0.006796</td>
</tr>
<tr>
<td>3</td>
<td>0.018575</td>
<td>26.67939</td>
<td>73.24395</td>
<td>0.076656</td>
</tr>
<tr>
<td>4</td>
<td>0.022047</td>
<td>32.34496</td>
<td>67.45191</td>
<td>0.203132</td>
</tr>
<tr>
<td>5</td>
<td>0.025312</td>
<td>35.01110</td>
<td>64.69641</td>
<td>0.292492</td>
</tr>
<tr>
<td>6</td>
<td>0.028488</td>
<td>35.54255</td>
<td>64.11561</td>
<td>0.341842</td>
</tr>
<tr>
<td>7</td>
<td>0.031597</td>
<td>34.96352</td>
<td>64.65309</td>
<td>0.383382</td>
</tr>
<tr>
<td>8</td>
<td>0.034615</td>
<td>34.00049</td>
<td>65.55485</td>
<td>0.444663</td>
</tr>
</tbody>
</table>

### Variance Decomposition of LOGU:

<table>
<thead>
<tr>
<th>Period</th>
<th>S.E.</th>
<th>LOGC</th>
<th>LOGI</th>
<th>LOGU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.009384</td>
<td>30.58383</td>
<td>0.848648</td>
<td>68.56752</td>
</tr>
<tr>
<td>2</td>
<td>0.013394</td>
<td>35.06634</td>
<td>2.551125</td>
<td>62.38254</td>
</tr>
<tr>
<td>3</td>
<td>0.016685</td>
<td>42.17748</td>
<td>1.646748</td>
<td>56.17577</td>
</tr>
<tr>
<td>4</td>
<td>0.019696</td>
<td>47.69540</td>
<td>2.010038</td>
<td>50.29456</td>
</tr>
<tr>
<td>5</td>
<td>0.022468</td>
<td>50.96928</td>
<td>2.314140</td>
<td>46.21658</td>
</tr>
<tr>
<td>6</td>
<td>0.024950</td>
<td>52.61756</td>
<td>3.316468</td>
<td>44.06597</td>
</tr>
<tr>
<td>7</td>
<td>0.027176</td>
<td>53.25589</td>
<td>3.530528</td>
<td>43.21359</td>
</tr>
<tr>
<td>8</td>
<td>0.029213</td>
<td>53.31845</td>
<td>3.657775</td>
<td>43.02378</td>
</tr>
</tbody>
</table>

Fig: 1'
Response to Cholesky One S.D. Innovations ± 2 S.E.
### Table 3: Pair wise Granger Causality Tests for Trade

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRCH does not Granger Cause TRUS</td>
<td>2.49248</td>
<td>0.07763</td>
</tr>
<tr>
<td>TRUS does not Granger Cause TRCH</td>
<td>4.38342</td>
<td>0.01116</td>
</tr>
<tr>
<td>TRIN does not Granger Cause TRUS</td>
<td>7.76189</td>
<td>0.00070</td>
</tr>
<tr>
<td>TRUS does not Granger Cause TRIN</td>
<td>8.43175</td>
<td>0.00044</td>
</tr>
<tr>
<td>TRIN does not Granger Cause TRCH</td>
<td>107.319</td>
<td>9.2E-13</td>
</tr>
<tr>
<td>TRCH does not Granger Cause TRIN</td>
<td>63.8695</td>
<td>9.5E-11</td>
</tr>
</tbody>
</table>

### Table 4: Augmented Granger Causality Test Results for Trade

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>F- p values</th>
<th>Chi-sq p values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combined causality of Tri and Tru on Trc</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>TRi does not Granger Cause Trc</td>
<td>0.0006</td>
<td>0.0005</td>
</tr>
<tr>
<td>Tru does not Granger Cause Trc</td>
<td>0.0186</td>
<td>0.0056</td>
</tr>
<tr>
<td>Combined causality of Trc, Tru on Tri</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Trc does not Granger Cause Tri</td>
<td>0.0004</td>
<td>`0.0000</td>
</tr>
<tr>
<td>Tru does not Granger Cause Tri</td>
<td>0.10425</td>
<td>0.1000</td>
</tr>
<tr>
<td>Combined causality of Tri and Trc on Trc</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>Trc does not Granger Cause Tru</td>
<td>0.0687</td>
<td>0.0403</td>
</tr>
<tr>
<td>Tri does not Granger Cause Tru</td>
<td>0.0565</td>
<td>0.0306</td>
</tr>
</tbody>
</table>