Economic Interdependence and Strategic Interest:  
China, India, and the United States in the New Global Order

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“If the last century was the age of alliances, this is an era of inter-dependence.”

Indian Prime Minister Narendra Modi, Address at Tsinghua University, Beijing May 15, 2015

International political economy and strategic studies are usually analyzed by distinct scholarly communities. Thus, the consequences of the changing global economy for the pursuit of strategic interests has not been adequately analyzed. This paper calls for a new approach to analyzing the relationship between global markets and the pursuit of strategic interests by rigorously documenting changes in the global economy and employing insights from social network theory. We then elaborate on the implications of these changes for relations between China, India, and the United States. Social network theory is a promising methodology for describing these issues because it introduces concepts such as centrality and density that better measure changes in the global economy. Concepts of indirect dependence and interaction among networked actors offer novel insights that illuminate the complexity and contingency of strategic interests in the contemporary global setting.

The development of global markets has made the world more economically interdependent. Our paper shows how this change is not only a matter of increased interdependence but involves qualitative change. Global markets have not only promoted the rise of China, India, and other emerging economies, they have led to the proliferation of South-South trade and financial flows. During the Cold War, strategic alliances and colonial ties frequently constrained the possibilities for economic transactions. Today global markets have decentralized the structure of exchange and increased the number of available transaction partners. These developments affect countries’ pursuit of strategic interests because they lower the costs of switching allegiances and increase the governance costs of alliances. We show that international alliances are increasingly replaced by network alignments of self-interested actors. At the same time, countries increasingly manage the risks posed by relatively fluid alignments by diversifying their portfolios of economic and strategic relations and by engaging in hedging strategies.

To understand these changes we use the Cold War era as an implicit baseline. Our examination of changes in the global economy compares current data to the early 1990s, i.e. the end of the Cold War system. We then consider the impact of these economic changes by examining China, India and the United States’ pursuit of their strategic interests. China and India’s integration into the global economy since has involved more dramatic change. The American position has changed less since the United States already had a higher level of global integration. We posit

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1 Comments welcome. Please do not cite without permission. Thank you to participants in the conference on “Strategic Rivalry and Economic Interdependence: China, India, and the United States in the New Global Order” held at the University of Virginia, February 28, 2014 and the conference on “Changing Asia: Perspectives on Regional and Global Cooperation” at the German Institute of Global and Area Studies, Konrad Adenaur Stiftung, Hamburg Germany, April 17, 2015.
that changes in these countries’ pursuit of strategic interests illuminate the impact of changing global markets. Examination of both global economic trends and these bilateral relationships enables us to make preliminary assessments about how changes in the strategies of these three giants, with their immense economies and formidable strategic power, affect the contemporary global order.

Much of the literature on the strategic impact of economic interdependence analyzes its impact on conflict and the outbreak of war. In contrast, Keohane and Nye contend that interdependence adds issues such as economic governance, international law, environmental sustainability, etc. to the international agenda and erodes the primacy of military conflict. Developments in these issues may lead to strategic conflict, but they may also lead to cooperation. Instead of focusing on military conflict as our dependent variable, we focus on the variable prior to conflict – the strategic interests of the state. Following Neuchterlein, we define strategic interests as “the perceived needs and desires of one sovereign state in relation to other sovereign states comprising the external environment.”

We contend that in order to understand the impact of economic interdependence on strategic interests we must include this broader range of issues because concerns such as cyber espionage underscore how difficult it is to exclude economic interests from security issues.

We begin our analysis by critically reviewing the existing literature on economic interdependence and strategic interest. Next we analyze changes in the global economy. We then examine the impact of these changes on bilateral economic and strategic relations between China, India, and the United States. We conclude our analysis by elaborating on the impact of increasing economic interdependence for relations among these countries and the consequences of these changes for the new global order.

I. Theories of Economic Interdependence and Strategic Interests in the New Global Order

Analyses of the impact of interdependence on strategic interests can be divided into realist, liberal, and game theoretical perspectives. According to the realist approach, states are unitary actors that are motivated to maximize security in a world of anarchy. The benefits of trade do not accrue equally across states and the distribution of those benefits affect international power relations. Trade can be used as an instrument of power among competitive states. Weak states must be concerned about trade with powerful ones since the latter may use trade to make the former dependent, as Albert Hirschman pointed out long ago. When trade creates rising powers, they grow dissatisfied with the order imposed by hegemonic powers and go to war in order to change it. Hegemonic powers may be threatened by rising powers and initiate conflict in order

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to preempt their challenge.\textsuperscript{6} They do so regardless of circumstances because of their uncertainty about the rising powers intention.\textsuperscript{7} Because of the challenges it poses, states often attempt to minimize their interdependence.\textsuperscript{8}

According to liberal theory, economic interdependence reduces conflict through three mechanisms: opportunity costs, international institutions, and domestic interests. Richard Rosecrance provides the classic explanation for opportunity costs. In \textit{The Rise of the Trading State}, he argues that as the benefits from trade grow, the costs of wars that disrupt trade increase, deterring states from precipitating conflict.\textsuperscript{9} Integration with international financial markets has also been found to be associated with less conflict.\textsuperscript{10} Liberal theorists, who concede the possibility that international economic interdependence may produce conflict as well as peace, underscore the importance of international institutions that enhance and sustain economic openness and mitigate conflict.\textsuperscript{11} These institutions promote peaceful international adjustments by providing a forum for negotiation and dispute resolution, monitoring and disseminating information about international actors, enabling information exchanges that reduce possibilities for miscalculating resolve, and creating a third party authorities that can enforce regulatory decisions.\textsuperscript{12} Scholars have also noted that economic interdependence and international institutions can give rise to powerful interests in both state and society that wish to avoid conflict and protect the gains that they have acquired through interdependence.\textsuperscript{13}

Robert Keohane and Joseph Nye build on the liberal tradition to develop a model of complex interdependence that underscores the complex and contingent consequences of economic interdependence.\textsuperscript{14} Keohane and Nye’s concept of interdependence incorporates power to show that more powerful countries are able to impose greater costs on weaker, more vulnerable countries. At the same time, they contend that the impact of power is contingent on the process of political bargaining between countries. Complex interdependence differs from realism. Realism posits that states are unitary actors. Force has primacy in determining outcomes and international politics is characterized by a hierarchy of issues in which military security prevails.


Complex interdependence proposes that states interact through multiple channels that may create contending actors within a country. Military force is not a factor in a growing range of international issues. Instead, interstate relations are based on multiple issues that lack a stable hierarchy making agenda setting, issue linkage, and the nature of international institutions important factors in international bargaining.

Complex interdependence posits that economic interdependence increases the probability of peace. Not only is there a growing range of issues where force is not useful, but interdependence imposes costs even on powers that dominate issue arenas. For instance, in Nye’s analysis, China’s economic policy makers resisted pressures from a group of senior military officers to sell China’s growing stock of U.S. Treasuries to retaliate against the United States for providing weapons to Taiwan because selling those treasuries would hurt Chinese economic interests as well as American interests.\textsuperscript{15} However, because Keohane and Nye recognize that there will be varying degrees of complex interdependence in different arenas, they take a less categorical and more contingent view of outcomes than many conventional realist or liberal perspectives. Their work suggests a combination of competitive and cooperative outcomes beyond the possibility of violent conflict in a growing range of policy sectors. At the same time their focus on international or systemic processes understates the role of domestic politics,\textsuperscript{16} and their concept of interdependence did not adequately account for the dynamics of international relations.

Recent analysis utilizing game theoretic frameworks better captures the complexity and dynamics of international relationships.\textsuperscript{17} Game theoretical models are especially appropriate for relations between China, India, and the United States where the mix of cooperation and competition suggests multiple equilibria. While we appreciate the growing sophistication of models depicting relations between countries, we argue that these models inadequately conceptualize the complexity of interactions between domestic actors and institutions on the one hand and foreign actors and international institutions on the other. Furthermore, these models inadequately conceptualize the broader system-level context. For example, Copeland offers a model in which an actor’s future expectations of the benefits from trade and the costs to security structure strategic interaction.\textsuperscript{18} However, actors have incomplete information due to the “shadow of the future”\textsuperscript{19} since the leaders of other states may renege on their commitments or be removed from power. The dynamics of trade might increase an actor’s dependence and vulnerability or more generally alter the relative balance of power and in so doing change its interests. These changes can lead to a trade-security spiral that shifts a cooperative equilibrium towards conflict. Other models of strategic interaction highlight how strategic cultures and domestic institutions shape the perception of other player’s actions and how domestic institutions


shape player’s strategies.\textsuperscript{20} Decentralized domestic institutions with dispersed authority may undermine the credibility of commitments. Closed decision-making processes may produce distrust and misunderstandings. Democratic checks are likely to reduce the impulse towards conflict and enhance the credibility of signals.

In sum, the development of thinking about the impact of economic interdependence on countries’ pursuit of their strategic interests highlights two important issues. First, it has moved far beyond the early categorical assertions of both liberalism and realism, where interdependence either results in peace or conflict, respectively. Newer perspectives help us understand the contingency and complexity of countries’ strategic interaction. Analysts of the complex interdependence approach, such as Keohane and Nye, point out that interdependence means that economic issues are not subordinate to security issues nor vice versa. Game theoretic approaches illuminate the importance of strategic interaction and the dynamics of bilateral relations that it produces.

Recent developments in the literature enhance our appreciation of the complexity of strategic relations but we still lack adequate conceptualization of how changes in the global economy affect the systemic structure that shapes the context for a nation’s pursuit of their strategic interests. As we will show, the expansion of global markets increases the number of viable transaction partners. This reduces the costs switching allegiances. The decentralization of control over economic resources increases the importance of indirect dependence through which third parties and systemic change affects bilateral economic relations. The proliferation of international organizations, such as preferential trade agreements, enables weaker countries to reduce the impact of power asymmetries by shifting issues from bilateral economic relations to international fora.\textsuperscript{21}

We employ social network analysis to illuminate these points. Conventional international relations analysts define power as the capabilities of individual countries, and they conceptualize international structure in terms of the distribution of power capabilities across countries.\textsuperscript{22} Network analysts invert this view by contending that power derives from positions in networks rather than attributes of individual countries.\textsuperscript{23} Power is derived from centrality within a network since the greater the centrality, the greater the social capital, and thus greater capacity to organize collective action. A country can gain bargaining power within a network to the degree that it is linked to other members of a network that are otherwise weakly connected and therefore are dependent on the bridge country.\textsuperscript{24} Reciprocally, countries that have more outside options have greater power because they are more able to exit unfavorable relationships with partners. Network analysis extends our understanding of complex interdependence by introducing the concept of indirect and systemic dependence. Under indirect interdependence, actors are

\textsuperscript{24} Maoz (2011) defines a bridge as central states that “connect different clusters of states to each other” (Chapter 1).
dependent on the acts of others beyond their immediate dyadic partners. In the condition of systemic interdependence, changes in the broader network structure affect all actors within the network.\textsuperscript{25} Our view is that the social network approach to power is valuable not because it supersedes the conventional approach, but because incorporating its insights with conventional approaches helps us to develop a more sophisticated understanding of the causal complexity generated by international structure.\textsuperscript{26}

Our use of social network theory to conceptualize changes in the global economy leads us to the paradoxical outcome that countries face increased constraints but greater latitude for choice. The advance of global markets has been accompanied by the spread of global norms and rules that constrain the actions of states with regards to economic policy. At the same time, by decentralizing international trade and finance, economic globalization has three consequences that affect international strategic coordination. Global economic decentralization: 1) reduces the costs of switching strategic partners; 2) increases indirect interdependence thereby increasing the importance of third party countries to bilateral relations; and 3) increases the number of strategic bilateral relations characterized by simultaneous cooperation and competition. These changes make international relations more complex and fluid. Countries are less willing to make commitments that lock themselves into alliances with inflexible commitments. Instead, they prefer coordination through more flexible alignments or conditional, cooperative relations based on mutual interests whose governance allows for persistent differences in other areas and greater flexibility for each partner.\textsuperscript{27}

II. Changing Structure of the Global Economy

Since the Cold War, the global economy has transitioned from a hierarchical, hub-and-spoke structure with concentrated trading partners to a decentralized one. The development of global trade and the consequent diversification of export markets is one dimension of the emerging decentralized structure. Rapid growth of South-South trade has been an important factor driving export diversification. The increasing participation of developing countries in global financial markets as both recipients and sources of capital is another trend promoting the decentralization of the global economy. We begin the next section with an evaluation of trade patterns before moving on to a discussion of international investment. Global finance presents a somewhat mixed picture. Foreign direct investment (FDI), foreign exchange reserves, and foreign


\textsuperscript{27} International relations theory has traditionally used alliances and alignments interchangeably. We introduce the distinction between rigid alliances and more flexible alignments to highlight changing forms of international cooperation. Our causal argument here is parallel to that of David A. Lake, who sees states as opportunistic actors and the forms of international cooperation as a product of the costs of opportunism and governance. See David A. Lake, “Anarchy, Hierarchy, and the Variety of International Relations \textit{International Organization}, 50:1 (Winter, 1996), pp. 1-33. For another parallel in institutional economics see Oliver F. Williamson, \textit{The Transaction Cost Economics Project: The Theory and Practice of the Governance of Contractual Relations}. Cheltham, UK: Edward Elgar, 2013.
assistance have become less centered on advanced industrial countries but portfolio investment remains dominated by developed country markets.

II.A  New Patterns of Global Trade

The rapid growth of world trade in goods and services from $6.3 trillion in 1995 to $23.9 trillion in 2014 has been widely appreciated. Less attention has been paid to the decentralization of the structure of global trade despite the fact that this development has potentially far more wide-ranging consequences. Overall, the Herfindahl-Hirschman market concentration index (HH) for global exports — a measure of the dispersion of trade value across an exporter's market ranging from near zero for extremely decentralized exports to close to one when exports are sent to very few countries — declined from 0.14 in 1988 to 0.04 in 2013 before increasing slightly to 0.05 in 2014. (See Figure 1)

Decentralization of China’s exports paralleled global trends. China’s HH index for exports dropped from 0.19 in 1992 to 0.06 in 2013 before rising to 0.08 in 2014. India’s HH index dropped even more precipitously, from 0.27 in 1988 to 0.04 in 2013 before rising to 0.5 in 2014. The United States began with more diversified exports with an HH index of 0.12 in 1991. Its exports also diversified as its HH index declined to 0.05 in 2011 before increasing slightly to 0.06 in 2012 and 0.07 in 2014.

The rapid growth of South-South trade has been an important factor driving the dispersion of trade. From 1995 to 2014, the South-South share of global trade, measured as total merchandise exports from one developing country to another, increased from 38% to 52%. East Asia has been the main driving force of South-South trade. In 2013, more than 75 percent of South-South trade was shipped to or from counties in East Asia. China, and to a lesser extent India, have emerged as major sources of dynamism for South-South trade. From 1994 to 2008, the share of low-income countries’ GDP accounted for by exports to China and India grew from 1.1% to 8.3%. Exports to China and India as a share of middle income countries’ GDP increased from 2.2% to 7.5%. As dynamic economies with scarce natural resources, China and India import natural resource commodities from developing countries with abundant natural resources. From 1994 to 2008, these commodities accounted for 70% of the growth of low-income country exports of agricultural and food products, and 73% of their exports in raw materials went to other low and middle-income countries. China and India alone absorbed 40% of this growth.

31 Data in the previous two sentences is from Gordon H. Hanson, “The Rise of Middle Kingdoms: Emerging Economies in Global Trade,” Journal of Economic Perspectives 26:2 (Spring 2012) p 44.

Figure 1: Herfindahl-Hirshman Market Concentration Index For Exports, 1988-2014

Weighted Out-Degree for the World’s Exporters: 1994 and 2014

Figure 2: Degree of Decentralization Over Time
Figure 2 uses social network analysis to compare the degree of decentralization of global merchandise trade in 1994 and 2014. For each year we computed the weighted out-degree centrality - the number of export markets and the share of each market - for each country. The figure plots them against each country’s rank in the system from high to low. The cumulative values for 2014 are greater than the values for 1994 demonstrating in 2014 most countries enjoy higher out-degree centrality and therefore greater decentralization of their export markets. As each countries out-degree centrality/export decentralization increases, the global market for merchandise exports decreases.

Social network theory offers us another way of depicting the decentralization of global trade. Figures 3A through 3F show us how the general pattern of decentralization of global trading has played out for the exports of China, India, and the United States. Examination of the underlying data represented by these figures shows that there has been significant decentralization of each countries’ export markets and changes in the geographical composition of trade. Shares of exports to North America, Europe and to a lesser extent Asia have declined while shares of Latin America, the Middle East and Africa have increased.

China offers the most dramatic example of export dispersion as a comparison of Figures 3A and 3B graphically demonstrate. Arrayed around China are all of its export markets with at least one percent of total exports for that year. The width of the links (or edges in social network terms) between China and its export markets is proportional to that country’s share of China’s total exports. In 1993, nearly 60% of China’s trade went through or to three countries, Hong Kong (24%), the US (19%), and Japan (17%). In 2014, the same countries absorbed 39% of China’s exports. Another measure of export market concentration is to define one percent of China’s total exports as a cut off point for significant export markets and then compare the number and share of these markets. In 1993, China had 13 significant export markets totaling 82% of its exports. In 2014, China had 23 significant export markets counting for 78% of its total exports.

Examining the geographical dispersion of China’s exports also helps us to understand the decentralization of China’s export trade. In 1993, five Asian significant export markets accounted for 48% of all China’s exports. Two North American countries, the U.S. and Canada, absorbed 20% of China’s exports and five European countries accounted for eleven percent. By 2014, the share of Asian export markets had declined. Eleven significant Asian markets accounted for 41% of China’s exports. The two significant North American markets’ share decreased from 20% to 18%, and the five significant European markets share remained at 11%. The export share of Latin America and the Middle East increased. In 2014, Latin America had two significant export markets -- Brazil and Mexico -- accounting for three percent of China’s

The data for Figures 3A-3F and in the following three paragraphs were downloaded from the United Nations Commodity Trade Database for 1990 and 2014. Accessed at [http://comtrade.un.org/](http://comtrade.un.org/) most recently on June 14, 2016. We used 1993 as the baseline year for China due to missing data. The data was processed using the igraph package in R. The social network graphs were generated using Gephi. Edge thickness is relative to the value of the exports from the node in the center to the respective partner. We see a growth in the number of nodes as well as the spreading out in the value of the exports.
total exports and the Middle East also had two significant markets --- Iran and the United Arab Emirates -- absorbing three percent.

Figures 3C and 3d show that changes in the structure of India’s global merchandise exports parallels those of China. The number of India’s export markets with greater than one percent of India’s total exports has increased from 22 to 30 while their combined share of India’s total exports declined from 82% to 76%. Examining the composition of this shift is revealing. From 1994 to 2014, the share of European and North American countries receiving at least one percent of India’s exports dropped from 46% of India’s total exports to 28%. Asian countries declined slightly from 26% to 25% (eight countries). The big increases were in the Middle East where export markets receiving at least one percent of India’s exports increased from 7% to 20%. In 1994, no African countries accounted for one percent of India’s total exports. In 2014, South Africa and Kenya each had at least one percent of India’s exports together totaling 3%. Russia, which absorbed 3% of India’s exports in 1994, received less than one percent in 2014.

Though the United States’ exports have also become more decentralized in the last two decades, the changes are less dramatic as can be seen by comparing Figures 3E and 3F. In 1994, the U.S. had 19 significant export markets accounting for 79% of American exports. In 2014, the number of significant export markets increased to 21 receiving 79% of total U.S. exports. Like China and India, there have been interesting shifts in the geographical composition of U.S. exports. The share of the seven significant Asian export market for the U.S. declined from 24% in 1994 to 22% in 2014. Similarly, the share of the U.S.’s seven significant European export markets declined from 19% to less than 16%, and Canada’s share dropped from 22% to 19%. Increased exports to Latin America account for much of the change. The United States had two significant Latin American export markets in 1994 accounting for 13% of total exports. By 2014, the U.S. had four significant Latin American export markets totaling 20% of all American exports. The share of U.S. exports to significant exporters in the Middle East also grew. In 1994, the U.S. had 20 significant Middle Eastern export markets, with Saudi Arabia absorbing 2% of its total exports. In 2014, the two significant export markets in the region represented only three percent of U.S. exports.

In sum, global trade has trended towards greater dispersion of export markets and import sources. The increase in South-South trade is an important factor driving these trends. China and India’s growing share of world trade and dynamic role in promoting South-South trade are also key to this trend. The dispersion of export markets and import sources alters the impact of economic interdependence by making countries less dependent on any one economic trading partner.
Figure 3A The Structure of Chinese Exports, 1993

Figure 3B The Structure of Chinese Exports, 2014

Figure 3C The Structure of Indian Exports, 1994

Figure 3D The Structure of Indian Exports, 2014
II.B Changing Patterns of Global Finance

In some respects, trends in global financial markets parallel the transformation in global trade. As global financial markets advance, developing countries become a more important destination and source of financial flows. Control over financial assets has progressively dispersed, in the process redistributing financial power. For instance, the share of developing countries in global inward and outward FDI has increased substantially since 1990. Foreign exchange reserves by developing countries has come to dwarf the reserves held by developed countries. Flows of portfolio investment have also increased, but redistribution has been much more limited. Foreign assistance no longer flows exclusively from developed to developing countries as China and India become significant donors. The decentralization of sources of FDI and foreign assistance provide countries with opportunities to fashion more alternative strategies and reduce their dependence on individual countries as sources of finance.

The share of total FDI inflows to developing countries has steadily increased from 17% in 1990 to over exceeded 61% in 2013. Total inflows to developed economies dropped from 83% in 1990 to just 39% in 2013. The accumulation of these trends can be seen in changes in the stock of inward FDI. From 1990 to 2013, the share of FDI stock in developing and transition economies grew from 24.7% to nearly 37% while that of developed economies declined from 75% to 63%.

All FDI figures are from UNCTADStat using inward and outward FDI stocks and flows. These four separate measures have been merged together into one dataset that classifies countries as either “advanced economies” (developed countries) or “emerging” markets (developing and transition economies according to the UNCTAD classification.
Perhaps even more striking has been changes in the foreign direct investors. In 1990, 95.1% of all FDI came from developed countries (See Figure 4). Developing countries provided only 4.9% of FDI outflows. Transition economies had no FDI outflows. By 2013, the share of developed country FDI outflows dropped to 61% while the shares of developing and transition countries rose to 39%. We can see the cumulative effect of these changes in the shares of FDI outflow stocks, albeit the trends are less dramatic than the inward FDI patterns. Developed countries now account for less than 80% of outward FDI stock, while emerging markets own more than 20%.

Foreign exchange reserves have long been considered a manifestation of international financial power. Many believe the increase in international trade and financial flows, along with the volatility that brings, places a greater premium on stockpiling these reserves. In the last decade, total foreign exchange reserves have grown from $3 trillion in 2003 to over $11 trillion in 2014. This remarkable growth has been accompanied by a dramatic sea change in foreign exchange reserve ownership (Figure 5). In 2000, advanced economies held 63% of all reserves while developing countries held 37%. Over a decade later the situation had reversed. In 2014, advanced economies possessed only 33% while developing countries held nearly 67%.

China is by far the largest holder of foreign exchange reserves. At the end of 2013, Chinese reserves amounted to $3.82 trillion. India was also a large holder of reserves with its $292 billion, as of February 2014, ranked it tenth among all countries. At the same time, the United

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34 Ibid, UNCTAD figures collated in author FDI dataset.  


\textbf{Figure 5: Changing Outward FDI Patterns}

\includegraphics[width=\textwidth]{outward_fdi.png}

\textbf{Figure 6: Changing Foreign Exchange Reserves}

\includegraphics[width=\textwidth]{foreign_exchange_reserves.png}

\footnote{37}{“India’s forex reserves surge to $292.33 bn,” Rediff.com (February 15, 2014) at \url{http://www.rediff.com/business/report/indias-forex-reserves-surge-to-29233-bn/20140215.htm}, accessed on February 21, 2014.}
One domain where change is more limited is portfolio investment. In terms of volume, the United States and other developed countries remain far above the holdings of developing Asian nations. The top ten countries by holdings in 2012 were the U.S., UK, Japan, Luxembourg, Germany, France, Ireland, the Netherlands, Switzerland, and Italy. Neither China nor India makes the top fifty. The U.S. represents 18 percent of the total world share of portfolio investment assets. By comparison, the amount of the world share for both China and India is less than 1 percent.39

Finally, the landscape of Overseas Development Assistance (ODA) is beginning to change but these changes are only in their infancy. According to the UN, “South-South cooperation (SSC) has become much more prominent over the last decade . . . estimates of total South-South cooperation stand at about $15.3 billion in 2008 (current prices), or 9.5 percent of total development cooperation.”40 This same UN report estimates that China is the largest provider of South-South aid, estimating about $2 billion in 2008, and that India is the fourth largest provider with approximately $750 million.41 The July 2014 Brazil, Russia, India, China, and South Africa (BRICS) announcement that they have formed the New Development Bank (NDB) with $100 billion and a $100 billion Contingent Reserve Arrangement (CRA) is another marker of this incipient change. The NDB and CRA serve as potential alternatives to the World Bank and International Monetary Fund and also increase the bargaining power of the BRICS in negotiations over redistributing power within the Bretton Woods institutions and offer the prospect of increasing the international use of the BRICS currency relative to the U.S. dollar.

Though China has implemented a foreign assistance program for some time, it was only in 2011 that it became a net ODA provider with net ODA outflows amounting to $660 million.42 India remained a net recipient of $3.2 billion in foreign aid in 2011.43 U.S. ODA increased from an annual average of $9.6 billion for the five-year period ending in 1990 to an average of $30.5 billion for the five-year period ending in 2013. The U.S. share of the all ODA increased from 16.2 percent to 21.8 percent.44 Nonetheless, the evolving role of emerging markets like the BRICS from ODA recipients to providers has more than symbolic significance. In areas like sub-Saharan Africa, these changes already provide least developed countries with new alternatives in development finance. These alternatives will likely grow in the upcoming years.

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41 UN, Chapter 5: ODA, 147-8.
II.C The Spread of Horizontal Associations

The rise of emerging economies like China and India and the increasing importance of trade and financial flows among emerging and developing economies contributed to a proliferation of horizontal associations among these countries. In 2009, with the transformation of the G8 meetings on global finance to the G20, the developed countries of the world formally recognized the importance of emerging economies. The annual meetings of the BRICS since 2009 are emblematic of the spread of horizontal associations among emerging economies. The number of preferential trade agreements (PTAs) burgeoned from 70 in 1990 to almost 300 in 2010, with a vast majority of the new PTA’s formed by developing countries to promote South-South trade.\(^{45}\) Others sources identify as many as 385 or up to 449 PTAs currently active.\(^{46}\) As linkages among developing countries spread so have security associations, as exemplified by the Shanghai Cooperation Organization (SCO).

Figure 7: Increasing PTAs

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\(^{45}\) In the late 1970s, 60% of PTA’s involved North-South trade while South-South trade accounted for only 20%. In 2010, South-South PTA’s comprised two-thirds of all PTA’s while the share of North-South PTA’s shrank to one-quarter. See World Trade Organization, *World Trade Report 2011*, 54-56.

\(^{46}\) Büthe and Milner (2014) identify 385 PTAs as of 2007 whereas the WTO states that there are currently 449 regional trade agreements (RTAs), with 262 currently in force. For the former figure, see Tim Büthe and Helen V. Milner, “Foreign Direct Investment and Institutional Diversity in Trade Agreements: Credibility, Commitment, and Economic Flows in the Developing World, 1971-2007, *World Politics*, 66:1 (January 2014), footnote 42, 100. For the WTO data, see WTO RTA Database, [https://www.wto.org/english/tratop_e/region_e/region_e.htm](https://www.wto.org/english/tratop_e/region_e/region_e.htm). Figure 6 graphics are based on the year of notification and entry into force dates provided by the WTO RTA database.
III. Relations Between China, India and the U.S.

China, India, and the United States have each opened their economies to global trade and financial flows since 1990. Trade, in particular, plays a more important role for each country. China’s trade in goods and services as a share of GDP rose from 29% in 1990 to a peak of 71% in 2006 before declining as a consequence of the Great Recession and re-balancing to 52% in 2012. The growth of trade as a share of India’s economy is just as remarkable if somewhat less appreciated. It grew from 15% in 1990 to 55% in 2012. From 1990 to 2012, trade growth in China and India stood head and shoulders above that of other large emerging markets. (Figure 8) Their respective growth in trade of 3,776% and 1,964% dwarfed that of the next highest large emerging markets, Thailand (947%), South Korea (900%), and Chile (850%). Trade became more important for the United States as well, but at a slower pace and lower levels. From 1990 to 2012, American exports of goods and services grew by 401% and total trade as a share of American GDP increased from 20% to 30%. An important consequence of these changes is that China, India and the United States are much more interdependent than the superpowers during the Cold War.

III.A China and the United States: Rising Competition and Sustained Imbalance

The key issues in Sino-American relations are a reflection of changes in the global economy. The United States rebalancing towards Asia is a consequence of Asia’s ascendance as a dynamic center of the global economy. China’s assertiveness in the East and South China Sea is fueled by China’s economic dynamism and military build-up. The Trans-Pacific Partnership (TPP) is an example of how U.S. policy towards China is increasingly affected by “third parties” as the United States attempts to sustain alignments that counter China’s rise. China and the United States increasingly resort to Asia’s proliferating regional associations to build support for their positions. China’s “One Belt, One Road (OBOR)” project and its establishment of the Asian Infrastructural Investment Bank (AIIB) are further examples of utilizing economic and financial resources to build support by linking China with countries around the world.

III.A.1 Security

After the Taiwan Strait crisis of 1995 and 1996, China entered a long period of building good relations with its neighbors. Tensions with Taiwan were substantially reduced after Ma Ying-jeou became president in 2008. Relations with the United States also improved during the Bush Administration. At the 2004 Asian Pacific Economic Cooperation (APEC) meeting, Presidents Bush and Hu Jintao created the Senior Dialogue to promote coordination between the two countries on issues of mutual concern. The two leaders established the Strategic Economic Dialogue in 2006. In 2009, Presidents Obama and Hu combined the meetings into the U.S.-China Strategic and Economic Dialogue, which have met annually since.

The United States “pivot” to Asia in 2011 sparked much criticism among Chinese foreign policy experts who not only saw the initiative as an effort to contain China’s rise, but alleged it encouraged U.S. allies to challenge China’s claims over disputed islands in the East and South China Seas. In 2012, after conservative Tokyo Governor Shintaro Ishihara announced he would purchase the disputed Senkaku/Diaoyu Islands in the East China Sea, the Chinese public
responded with nationalistic outrage, and the Chinese government sent ships into the territorial waters around the islands claimed by the Japanese. In November 2013, China declared the islands to be covered by an air-defense identification zone that required any aircraft flying over the zone to comply with Chinese rules. Tensions over the Spratly Islands between China, the Philippines, and other Southeast Asian countries began to escalate in 2010, as China began to enforce its claims over the disputed islands by sending its ships into the disputed waters. Although the Philippines submitted the dispute to the Permanent Court of Arbitration in spring 2013, China began dredging and land reclamation projects that among produced an airstrip and port facilities.47

Cyber-espionage has been another issue of growing tension between the United States and China. The controversy heightened in 2010 when Google reported hackers from China had broken into its system and stolen valuable intellectual property. Since then, a broad range of top American corporations and a number of government agencies have reported cyber attacks. For its part, China denies that it was responsible for these attacks despite independent [non-governmental] analysis suggesting Chinese military involvement.48 On the contrary, China asserts that it is a victim of attacks. In May 2014, a U.S. federal grand jury indicted five officers in China’s People’s Liberation Army for cyber-espionage.

Sino-American relations are characterized by a “dualism;”49 as tensions have risen there has also been an increase in linkages between the two states. The potential for cooperation has been increased by annual summits of the countries’ top leaders, a growing number of high-level military exchanges and joint military drills,50 and regular meetings of officials at different Asian regional forums, such as the APEC and various ASEAN dialogue mechanisms.

III.A.2 Trade

Trade between China and the United States has grown at an extraordinary pace. From 1990 to 2012, merchandise trade increased from $11.7 billion to more than $486 billion. The United States was by far China’s largest foreign export market receiving $352 billion in Chinese exports, 17.2% of all Chinese exports. The U.S. was China’s third-largest import partner shipping goods worth $134 billion, 7.4% of all Chinese imports. China’s surging exports have resulted in huge American trade deficits. Since 2001, these deficits have -- with the exception of 2009 -- steadily climbed from $28 billion to $218 billion in 2012. The deficits are sustained by mutual interest. The U.S. gets cheap imports that are in some degree financed by the Chinese while the Chinese get continued access to an immense and lucrative export market. Nonetheless, the trade imbalance has been a source of resentment on both sides. Representatives from the United States claim China’s surpluses have been produced by currency manipulation and barriers limiting

50 Shannon Tiezzi, “Surprise, U.S.-China Military Ties are Actually Improving,” The Diplomat (June 27, 2014).
access to China’s market. The Chinese complain that Americans’ profligate spending is enabled by the privilege of being owner of the world’s primary reserve currency.

The changing composition of trade between China and the United States is another source of tension. Since 1990, China has been moving into higher technology sectors that compete with American producers. In 1990, 77% of China’s exports to the United States were comprised of industrial manufactures – including the chemicals (5), manufactured goods (6), machinery and transportation equipment (7), and other manufacturing (8). In 2012, the share of industrial manufactures increased to 97%. The expansion of machinery and transportation equipment exports was responsible for this shift, growing from 10% in 1990 to 50% in 2012. An important driver of this increase was the growth in “office machines and automated data processing equipment”. These grew from nothing in 1990 to 18.2% in 2012. Telecommunications and sound equipment was another important factor rising from 1.4% in 1990 to 12.6% in 2012. Electric machinery, apparatus and appliances also rose from 1.6% to 8.7%. While China saw an increase in these more technologically sophisticated sectors, it experienced declines in lower technology sectors.

While the increase in Chinese exports to the U.S. was due to greater success in technologically sophisticated sectors, American exports increased in lower technology sectors. From 1990 to 2012, the sector with the biggest increase was “crude materials, inedible, except fuels.” Exports in this sector rose from 15% of the total to 27%. This growth was largely explained by the increase in oilseeds and oleaginous fruit from nothing to 11.5%. The share of American industrial manufactures in U.S. exports to China declined from 72% in 1990 to 61% in 2012. A drop in chemicals and related products from 23% to 13% explains most of this decline. Within this category, the reduction was caused by a decline in fertilizer exports by 10%.

China’s steady move up the value-added chain for exports only increases its reliance on wealthy country markets such as the U.S. According to Gordon Hanson, “high-income countries absorbed over 70 percent of China’s . . . export growth in apparel, footwear, and other manufactures and over 55 percent in electronics.”51 The great Chinese “export machine” also remains tied to the West as a result of processing trade, which links foreign invested enterprises (FIEs) to global production chains. Feenstra and Wei find that, as of 2006, FIEs in China accounted for “84 percent and 85 percent of processing exports and imports, respectively.”52 Electronics is one of China’s fastest growing export industries, tripling in exports between 1992 and 2006 while remaining a key component of processing trade.53

As Chinese manufacturing exports become more sophisticated, China becomes more of a competitor with the United States, and the U.S. becomes more critical of Chinese economic policies. The U.S. was a major proponent of China’s accession to the World Trade Organization (WTO), but American skepticism about China’s commitment to free trade quickly grew. The U.S.-China Relations Act of 2000 (PL 106-286, 22 USC §6951 “requires the United States Trade

51 Hanson, 2012, 52.
53 Feenstra and Wei, 2009, 5. Export shares for electrical products was 6 percent in 1992 and 18 percent in 2006.
Representative (USTR) to report annually to Congress on compliance by the People’s Republic of China with commitments made in connection with its accession to the WTO.”

The United States has aggressively looked for leverage to open up the Chinese economy. It has raised a number of cases against China in the WTO. In 2013 alone, the U.S. was actively engaged in seven cases against China for various anti-dumping and other trade disputes. The annual U.S. China Strategic and Economic Dialogue has also been a forum used to press China for trade liberalization and the strengthening intellectual property rights. The U.S. indirectly pressures China for liberalizing reforms through its negotiations of the TPP.

The TPP is as much an effort to achieve strategic objectives as it is economic ones. By aligning its twelve country members together in a free trade zone, the TPP is designed to enhance leverage over China in eventual bargaining over the terms of China’s further global integration. With the inability of countries to use the WTO as a negotiating forum, the TPP would be the biggest agreement since the Uruguay Round negotiated in the early 1990’s. The leverage will be even greater if, as is planned, the TPP is linked to the North Atlantic trade pact. President Obama admitted to this objective when he told Wall Street Journal reporter Gerald F. Seib, “If we don’t write the rules, China will write the rules…. We will be shut out…. We don’t want China to use its size to muscle other countries in the region.”

Strategically, the TPP creates an alignment of twelve countries that multiplies the American economic presence in the region in a way that complements its military presence, but the pressure on China has lessened with the breakdown of negotiations in August 2015. Achieving the TPP alignment requires countries to surmount formidable domestic political interests as the politics of Congressional approval of fast track authority dramatically illustrate.

III.A.3 Finance

As mentioned above, FIEs are a critical component to China’s economy but how many of the enterprises and how much FDI originates in the U.S.? The total amount of U.S. investment has never reached the level of investment of Hong Kong, Korea, or Singapore, and the relative importance of U.S. direct investment is declining. In the early 1990s, American FDI in China averaged between 2 and 3 percent, but by 2000 it had reached approximately 4 percent of total

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54 USTR, 2006 Report to Congress on China’s WTO Compliance, 11 December 2006.
In 2002, the U.S. was the third largest investor in China, but U.S. investment as compared to other investors has declined since the early 2000s. In 2012, the United States was the fifth largest investor in China, and its share of total inward FDI was only about 3 percent of total inflows. While the U.S. remains the top destination in the world for FDI, at present, China only constitutes a small fraction of the United States’ inward direct investment. According to a recent report from the Department of Commerce and the President’s Council of Economic Advisors, “FDI from China averaged slightly less than $1 billion in 2010-2012, or 0.5 percent of total FDI into the U.S.”

In addition to various trade and investment linkages, China’s purchase of a large share of the United States’ debt has intertwined their macroeconomic policies. Economists Maurice Obstfeld and Kenneth Rogoff attribute the 2008 financial crisis to these global imbalances arguing that the “United States’ ability to finance macroeconomic imbalances through easy foreign borrowing allowed it to postpone tough policy choices” while “China’s ability to sterilize the immense reserve purchases it placed in U.S. markets allowed it to maintain an undervalued currency and defer rebalancing its own economy.” China now owns $1.317 of U.S. government securities - more than 23% of all foreign held U.S. debt and about 8% of total American debt. The sum makes China the largest foreign owner of U.S. government securities in the world. Feenstra and Wei note, “The big macroeconomic question is the sustainability of the current international equilibrium, whereby China (and other countries) are financing the current account deficits of the United States.” Will the United States implement reforms that will reduce its fiscal and financial deficits over the long-term? Will rebalancing and reform in China be implemented without causing a financial crisis? How will the process affect China’s willingness and capacity to finance American deficits? Domestic interests in each country will play in important role in shaping the outcome of these issues.

The changing balance in the global economy has created tensions between China and other rising powers demanding reform of key global economic institutions and the status quo powers reluctant to implement change. The United States Congress, in particular, has presented a roadblock. For instance, in 2010 agreement was reached on modest reforms to increase the representation of emerging countries in the governance of the IMF. Despite every country in the

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61 After Hong Kong, the Virgin Islands, Japan and Singapore.
62 However, there are some discrepancies as to which country is the top destination. The Department of Commerce FDI report states that the U.S. is the top destination for FDI but a recent OECD report states that in 2012 “China attracted the lion’s share [of FDI inflows] by USD 253 billion (or 18% of total) followed by the United States (USD 175 billion).” OECD, “FDI in Figures,” April 2013, http://www.oecd.org/daf/inv/FDI%20in%20figures.pdf, 1.
65 Feenstra and Wei, 2009, 14
world, including the executive branch of the U.S. government, agreeing to the reforms, Congress has refused to pass the necessary legislation. The president of the World Bank, Jim Yong Kim, has estimated that developing countries need an extra $1 to $1.5 trillion annual investments in infrastructure to accelerate their growth.\(^6\) Despite the obvious need, Congress has been a major roadblock for increased contributions to international financial institutions to meet this demand. It is in this environment that China announced the establishment of the AIIB in October 2013 with the pledge that it would put up a preponderant share of the Bank’s $50 billion in capital, later increased to $100 billion. The ostensible purpose of the AIIB is to fill the investment gap in Asia in a manner that is less hampered by bureaucratic procedures than the existing institutions are alleged to have. The United States has firmly opposed the AIIB, expressing concerns that the new bank will undermine the prudent lending norms of existing international financial institutions.

The establishment of the AIIB accomplishes a number of important Chinese goals. In addition to enhancing China’s soft power, it will be a major source of funding for China’s ambitious OBOR and Maritime Silk Road initiative, designed to link China with Central Asia, the Caucasus, Europe and elsewhere. Funding through this multilateral institution will help defuse criticism that has accompanied infrastructural projects directly funded by the Chinese. The AIIB and OBOR will serve to enhance Chinese exports and are a destination for China’s excess industrial capacity. China’s geostrategic interests underpin the geo-economics driving the AIIB. By increasing its linkage to other Asian economies, China hopes to enhance its leadership in the region. The AIIB unexpectedly succeeded in attracting the membership of countries outside of the region, including the some of the United States closest allies such as the U.K., Germany, and Israel. As the AIIB illustrates, static alliances are replaced with more fluid alignments. The bandwagon of countries joining the AIIB illustrates that if the United States is to sustain its international alignments it must remain sensitive to the interests of the countries in them.

III.B United States and India: Increasing Security Collaboration but Persistent Indian Assertiveness in Economic Affairs

The rise and growing assertiveness of China has aligned India’s interests closer to the United States than ever before. However, even in security matters, India has hedged its alignment in ways that preserve its room for maneuver. Economic relations provide an interesting contrast. Despite the United States’ ability to meet vital Indian needs, Indian policy-makers have feistily resisted United States pressure for concessions in trade, finance, and nuclear liability.

III.B.1 Security

In matters of security, the interests of India and the United States have become closely aligned in the last two decades. Each country has profound concerns about the rise of China even as they rapidly become more interdependent with the world’s fastest growing economy. Each is committed to maintaining the security and freedom of navigation in the Indian Ocean. Having experienced traumatic attacks by international terrorists, each country share concerns about global terrorism. India has strongly supported the American presence in Afghanistan. India has

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provided $2 billion in foreign assistance to Kabul and, in 2011, signed a mutual security treaty with the Afghan government. Perhaps the strongest testimony to the shared security interests of the U.S. and India is the fact that by 2012, the United States conducted more joint military exercises with India than with any other country in the world.\textsuperscript{68}

The United States has embraced India as “a linchpin” in the American strategy to “expand our military partnerships and our presence in the arc extending from the Western Pacific and East Asia into the Indian Ocean region and South Asia.”\textsuperscript{69} Despite its shared interests with the United States, India’s initial response was surprisingly tepid until the spring of 2014 when the Narendra Modi government more openly aligned itself with the U.S.\textsuperscript{70} The Obama-Modi Delhi summit in January 2015 underscored India’s growing alignment with the United States. During the summit the countries agreed to renew the 10-year framework for the U.S.-India Defense Relationship. The “U.S.-India Joint Strategic Vision Statement,” released at the end of the summit, took a surprisingly strong stance with regard to China by affirming “the importance of safeguarding maritime security and ensuring freedom of navigation and overflight throughout the region, especially in the South China Sea,” (italics added) and by calling “on all parties to avoid the threat or use of force and pursue resolution of territorial and maritime disputes through all peaceful means…”\textsuperscript{71}

Despite the strong coincidence of security interests between the United States and India, India has taken measures to provide it with flexibility in its security position. In July 2015, India joined the Chinese and Russian-led SCO designed to promote coordination on military and security affairs. During the Modi-Obama summit, there were reports that Narendra Modi resurrected the idea, earlier suggested by Japanese Prime Minister Shinzo Abe, of forming “the Quad” to coordinate security collaboration between India, the United States, Japan, and Australia.\textsuperscript{72} While


\textsuperscript{70} Deepa Ollapally, “Assessing India’s Foreign Policy Choices: the Role Power, Identity and Economics,” in the forthcoming volume Economic Interdependence and Strategic Interest: China, India and the United States in the New World Order edited by John Echeverri-Gent points out that Indian Defense Minister A.K. Anthony tepidly responded to Panetta’s declaration that India was a linchpin of the U.S. strategy by acknowledging “the need to strengthen the multilateral security architecture in the Asia-Pacific”, but he added that measures to do so “should move at a pace comfortable to all countries concerned.” Six months later Indian Ambassador to the United States, Nirupam Rao welcomed “the recent transformation in India-U.S. relations”, but after noting India’s long historical ties with China and the shared values of the two countries, Rao spoke approvingly of the idea of an “Asian concert of powers” and the need for “inclusive balancing.


\textsuperscript{72} Lisa Curtis, “Takeaways from the Obama Visit,” The Hindu January 30, 2015. India has already conducted joint naval exercise with the U.S., Japan, and Australia. See Ajai Shukla, “Naval exercise lead up to high-level US-India visits,” Business (July 24, 2014).
this alignment would strengthen the overall security position of each country the inclusion of Japan and Australia would also limit American dominance. Although the United States has become India’s largest source of arms imports in recent years, the Obama-Modi summit produced only modest advances in the countries Defense Technology and Trade Initiative. India retains a relatively diversified structure of military imports and frequently gives key projects to other countries as shown by its recent decision to purchase 32 Rafale jet fighters from France and its ongoing negotiations to purchase 126 more. India’s long term goal, as the world’s largest arms importer, is to increase domestic production, but it continues to nurture its fledgling domestic industry by maintaining restrictions on foreign investment – in August 2014, it increased investment ceilings for FDI in the defense sector from 26% to 49% – that have limited inflows of investment and technology to very modest levels.

III.B.2 Trade

Trade between India and the United States reflects the asymmetry that more generally characterizes their economic relationship. Overall trade has grown by almost 12 times from $5.6 billion in 1990 to $62.3 billion in 2012. Nonetheless, India’s share of total United States trade remains relatively small with India’s 1.6% share of total U.S. trade making it the United States’ 13th largest trade partner. The American market is much more crucial to India, though its relative importance has declined since 1990. In 2012, the United States’ share of Indian merchandise trade was 7.9% making it India’s third largest trading partner, behind the UAE and China. In 1990, the U.S. was India’s largest trading partner with 12.4% of India’s total trade. The importance of U.S. trade is enhanced by the fact that India, a country with persistent current account deficits in recent years, has consistently run a substantial trade surplus with the United States. In 2012, the Indian surplus was more than $13 billion from total trade of $61 billion. In 2013, it reached an all-time high of nearly $20 billion on total trade of $63.7 billion. This covered more than half of India’s current account deficit in its fiscal year 2013-14.

From 1990 to 2012, U.S. exports to India evolved in a manner that, for the most part, reflects broad changes in the American economy. Industrial manufactures dropped from 70% of the total to 60%. Interestingly, “Chemicals and related materials” explains most of this drop. The

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73 In the three years prior to 2014, the share of India’s arms imports from its leading sources was 39% for the U.S.; 30% for Russia; 14% for France, and 4% for Israel. Computed from Rajat Pandit, “U.S. Pips Russia as Top Arms Supplier to India,” Times of India (August 13, 2014). For the Rafale purchases see Pranav Kulkarni and Subhajit Roy, “For PM Narendra Modi, 36 ready-to-fly Rafale jets wrapped in Paris red carpet,” The Indian Express (April 11, 2015).
74 Rajat Pandit, ” Hike in defence FDI cap fails to lure investors,” Times of India (March 11, 2015).
75 India’s predicted future growth elevates its importance somewhat. The U.S. National Intelligence Council projects that India will become “the world’s biggest driver of middle class growth by 2030.” See Daniel Twining, “U.S. Trade Can Help India Reform,” The Wall Street Journal Online (March 26, 2013).
77 “India, U.S. trade in goods touch an all-time high of $63.7 billion in 2013,” The Economic Times (February 7, 2014).
79 The grouping of industrial manufacturers includes the following SITC single digit commodity groups: “chemicals and related Products, NES” Manufactured Goods”, “Machinery and Transportation Equipment”, and Miscellaneous Manufactured Articles”.

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category fell from 27% to 18% of all exports. This decline, in turn, was driven by reduction in fertilizer exports from 20% to 3.1% of the total. Not surprisingly, American exports of crude materials dropped from 19% to 7%. The decline was driven by a decrease in exports of metal ores and scrap from 12.4% to 3.6% and in pulp and waste from 3.9% to 1.5%. Perhaps most surprising is the growth of American exports of “commodities not classified” from 5% of the total to 22%. The growth is largely accounted for by an increase in gold exports from virtually no exports in 1990 to 13.1% of total exports in 2012 and an increase in “special transactions” from 5% to 8.9%.

There are many areas of complementarity in the United States trade with India, but there are also substantial conflicts. American firms have strong links with Indian firms in the areas of software development and business processing services. Sixty percent of Indian software and services exports go to the U.S., and Indians or Indian-Americans own nearly 49% of the high-tech start-ups in Silicon Valley and Washington, DC. The United States, as the world’s largest arms exporter, faces a lucrative prospect presented by India’s plan to purchase $100 billion in new weapons by 2021. At the same time, India’s effort to enhance the technological prowess of its industry has been a source of considerable friction. In 2012, the Government of India granted its first compulsory license to an Indian company to produce a generic version of Bayer’s anti-cancer drug Nexavar on the grounds that its price placed the drug out of reach of most Indians. India’s Controller General of Patents, Designs and Trademarks revoked the patent on Pfizer’s Sutent, an anti-cancer drug, though the Intellectual Property Appellate Board overruled the order and asked for a review of the decision. In March 2013, the Indian Supreme Court rejected a patent for Novartis’ anti-leukemia drug Flivec on the grounds that the drug involved insufficient innovation.

India’s actions have incited a response from American business and U.S. policy makers. The U.S. Chamber of Commerce’s Intellectual Property Center issued a report ranking India’s intellectual property system last among a select group of emerging markets in the enforcement of patents, copyrights and trademarks. Representatives from the biotech, pharmaceutical, technology, and motion pictures sectors as well as officials from the National Association of Manufactures and the U.S. Chamber of Commerce formed the “Alliance for Fair Trade with India” in 2013, and lobbied the Obama administration to pressure the Indian government to maintain the legitimate rights of U.S. manufactured exports and innovative products. As a consequence of the concern among American business, the U.S. Special Trade Representative has placed India on the “Priority Watch List” included in his annual Special 301 Report. In February 2014, the USTR decided to take India to the WTO’s dispute resolution mechanism for the local content and technology transfer requirements under the Jawaharlal Nehru National Solar Mission Program.

The United States and India have been at loggerheads in multilateral trade negotiations. The most outstanding example was India’s opposition to the Trade Facilitation Agreement reached at

45 World Bank, World Development Indicators, 2013.
Bali in 2013. Because the agreement’s “peace clause” protected India’s $12 billion food subsidy program only until 2017, India dug in and held up the agreement and the estimated $1 trillion dollars in growth that it would bring to the world. India relented only after the United States unilaterally conceded that the “peace clause” would be extended indefinitely until a solution for India’s concerns was found.\textsuperscript{83}

\textbf{III.B.3 Finance}

India urgently needs more investment in its infrastructure to accelerate its economic growth. It is projected to need one trillion dollars investment in infrastructure every five years for the next two decades. This was before Modi introduced his “Make in India” policy, his plans to build “smart cities” and upgrade urban and rural infrastructure. Attracting foreign investment is more urgent than ever if India is to achieve the ambitious goals of its new Prime Minister.

The United States is the biggest source of foreign portfolio investment providing over 25\% of all funds in 2012, though measuring the sources of portfolio investment is made difficult by the fact that a quarter to one-third of portfolio investment comes through the tax haven of Mauritius.\textsuperscript{84} The United States is also an important source of FDI. In 2012, it held the third largest stock of FDI assets in India with at least 15\% of the total, trailing only the Mauritius tax haven (26\%) and the United Kingdom (16\%). These investments have gone into strategic sectors in the Indian economy with 22\% going into services, 14\% into computers and 8\% into automobiles.\textsuperscript{85} In contrast, India provides only a very small share of portfolio investment in the United States, and India’s total FDI stock in the U.S. at $5.1 billion in 2012 is a miniscule share of the United States’ $2.65 trillion total FDI stock.\textsuperscript{86}

Can the United States leverage these financial asymmetries to influence Indian policy? One might think that India’s need for investment would give the United States leverage, but American influence in economic affairs has been quite limited, in part because of India’s cultivation of other sources of trade and investment. The United States has made little headway in securing Indian concessions in its negotiations for a bilateral investment treaty (BIT). Although negotiations have been ongoing since 2009 and the United States has published its model BIT, India has not publicly announced its position on the substantive issues involved in the negotiations. The issues of concern include provisions for investor-state arbitration, the inclusion of environmental and labor regulation, the breadth of the most favored nation clause,


recognition of pre-entry national treatment, and the inclusion of measures protecting intellectual property rights.  

Perhaps no issue represents the challenges to greater economic cooperation between India and the United States more than the nuclear power sector. As Teresita and Howard Schaffer describe, the Civilian Nuclear agreement required a break with a decades long, bipartisan consensus on nuclear non-proliferation. Finalizing an agreement took no less than three years of tumultuous negotiations in both the United States and India. In Washington, a powerful coalition consisting of American business groups, including the U.S.-India Business Council and the Contractors International Group on Nuclear Liability, an alliance of Indian American community and professional groups, and Indian business associations, was central to passing the legislation. Opposition to the agreement in New Delhi was even more powerful. India’s nuclear establishment, which had been built up over the decades as a bastion of Indian self-reliance, feared that the agreement was a trap. In Parliament, the opposition was led by a coalition of strange bedfellows – the Hindu nationalist Bharatiya Janata Party and the Communist Party of India (Marxist). During the negotiations with the U.S., Prime Minister Manmohan Singh promised to pass legislation that would make Indian law consistent with the international Convention on Supplementary Compensation for Nuclear Damage, which eliminated the liability of nuclear equipment makers in the case of accidents. In 2010, the Indian government introduced the Civil Liability for Nuclear Damage Bill that exempted nuclear suppliers from liability. After vehement testimonies in parliamentary committee and heated debate on the floor of parliament, sections 17(b) and 46 were inserted into the in order to enable victims of accidents to seek damage from suppliers. Ever since, India has been looking for a compromise that would satisfy the demands of nuclear suppliers while avoiding a return to its adamant parliament. The latest attempt came with the “breakthrough understanding” reached by Barack Obama and Narendra Modi at their January 2015 summit where it was announced that an Indian Nuclear Insurance Pool would be established to serve, according to India’s Ministry of External Affairs, as “a complete risk management solution for both operators and suppliers.” Despite these claims, the details of the agreement are sketchy, and there remain serious questions about whether this attempt to work around the strong domestic parliamentary opposition will satisfy the skeptical scrutiny of American and foreign suppliers of nuclear power equipment.

III. C  China and India:  Growing economic interdependence leads to greater complexity

As China and India have become more economically interdependent, their relationship has grown ever more complex. For China, India has historically been a marginal security concern –

89 Teresita C. Schaffer and Howard B. Schaffer, op. cit.
albeit one with which it has a festering border dispute since 1962. In recent years, China’s western development strategy and its OBOR have had significant and not fully appreciated consequences for its relations with India as its commitment to invest $46 billion in the China-Pakistan Economic Corridor (CPEC) and its plan for a Maritime Silk Road have profound implications for Indian security. China’s economic ascent forces India to confront the challenge of protecting its security interests against its increasingly confident and assertive rival to the north, while taking advantage of the lucrative opportunities provided China’s economic dynamism. India’s efforts to address this challenge are complicated by its desire to deepen its relations with China’s most powerful rivals – the United States and Japan, and by the fact that the trajectory of its growing trade with China has led to an immense and unsustainable trade deficit.

III.C.1 Security

Since the 1962 conflict along their 2400 mile-long border, China and India have negotiated several agreements, including the 2013 Border Defense Cooperation Agreement to mitigate the potential for border clashes. However, the countries have made only limited progress in demarcating a mutually acceptable border. For China, the issue is closely tied to its interest in Tibet as the Aksai Chin area includes a strategically important highway constructed by China in the 1950s to connect Tibet and Xinjiang, while the other important disputed sector involves China’s claim to Tawang region, a sight of a monastery important to Tibetan Buddhists that is now administered by India as part of Arunachal Pradesh. India, feeling strongly about its historical claim to the British demarcated border, is reluctant to cede these territories. Nationalist public opinion makes concessions difficult for both countries. Although India’s Prime Minister Narendra Modi urged the two countries to settle it quickly, the dispute remains an impediment to advancing relations between China and India, and it is a contributing factor to China’s low favorability rating in Indian public opinion and to the widespread fears that territorial disputes with China could lead to military conflict.93

Even with this persistent conflict, there is more intergovernmental coordination on security issues than ever before. There have been annual summits of top leadership since 2013. Annual defense dialogues have been convened since 2011, and the countries have held dialogues on Afghanistan and counter-terrorism. Since 2013, Chinese and Indian military forces engage in regularly scheduled joint exercises. In the summer of 2015, India was admitted into the SCO.

Though China’s OBOR initiative is primarily intended to expand China’s economic presence, support development in Western China, and establish supportive alignments with other Asian countries, it has raised serious security concerns in India. During a visit to Pakistan in April 2015, Xi Jinping announced a commitment to invest $46 billion in Pakistani infrastructural projects. The focal point of this investment is the CEPC that will eventually create road, rail, and air links

between the Chinese city of Kashgar and Gwadar, a Pakistani deep water port constructed and managed by China on the Arabian Sea. The CEPC has the potential to greatly reduce China’s reliance on transporting its trade through the much lengthier and strategically vulnerable route through the Malacca Strait. If successful, it will also be a source of Chinese soft power in Pakistan and the Middle East. However, in India’s view, it violates Indian territorial claims on Kashmir and tightens the linkage between China and its arch-rival Pakistan. China’s proposed Maritime Silk Road would greatly expand its presence across the Indian Ocean all the way to Africa. India views China’s extensive presence as a challenge to its security.

Rivalry between China and India has also appeared in various multilateral fora. Although China has successfully coordinated with India in various multilateral settings such as the G20, global climate negotiations, and BRICS meetings, China has repeatedly refused to express strong support for India’s campaign to become a permanent member of the UN Security Council. China has also not supported Indian efforts to gain membership in the Nuclear Suppliers Group.

**III.C.2 Trade**

Greater economic interdependence can be a source of tension as well as coordination. Trade between China and India reflects the different developmental trajectories the countries have taken. China has been more successful in promoting its industrial sector. Its value added was 41% of GDP in 1990 and 45% in 2012. Within the industrial sector, manufacturing value added comprised 32% of GDP in 2012. Industry comprises a smaller share of the Indian economy – 26% in both 1990 2012, and manufacturing declined from 16% of Indian GDP in 1990 to 14% in 2012, less than half the share of Chinese manufacturing. India’s service sector accounts for a much larger share of its economy at 57% in 2012 compared to China’s service sector, which comprised to 45%.

The distinct ways in which China and India are linked to the global economy are important causes of these sectoral differences. China’s FIE’s turned the country into an export platform integrated into global commodity production chains. India’s service sector was bolstered first by outsourcing to Indian software developers and business service providers and now increasingly by “in sourcing” as multinational companies set up Indian affiliates. These distinct developmental trajectories are reflected in differences in patterns of overall trade. In 2012, China’s service trade equaled only 5.8% of GDP while in India the share was 14.9%

Sino-Indian trade is growing rapidly, and each country is becoming a more important trading partner. Bilateral trade between the countries has grown much faster than their overall global trade. Over the period from 2000-2012, both China and India’s bilateral trade increased by more than 22 times, among their fastest growing trade relationships. In 2012, China was India’s second largest trading partner after the United Arab Emirates. India has become China’s

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94 Bensidoun, Lemoine and Unal, pp. 142-43.
96 UN Comtrade, accessed 2/16/14.
97 In 2012, India imported more than $14 billion in petroleum and $9.5 in gold from the United Arab Emirates.
seventh largest export market, but remains only its 23rd largest source of imports providing slightly more than one percent of the total.

At the same time that Sino-Indian trade has boomed, China’s trade surplus with India has multiplied, especially since 2000. While total trade increased from $2.2 billion to $68.9 billion, China’s surplus grew from $0.7 billion to $39.4 billion, more than 57% of total trade. The most recent data for 2014 shows total trade growing to $70.6 billion with the trade balance in China’s favor at $37.9 billion.

Another key dimension of the asymmetry is composition of trade. Ninety seven percent of Chinese exports to India are comprised of industrial manufacturers, with the leading products being telecommunications equipment (10% of the total), electric machinery – primarily computers (9%), and general machinery 8%. The share of industrial manufacturers grew from 50% in 1990. India, in contrast, sent raw materials to China. In 2012, 43% of India’s exports to China were in the category of “Crude Materials, Inedible, Except Fuels.” The share for 2012 was unusually low. In 2011 and 2012, the share of crude materials was 68% and 60%, respectively. Metal ores and scrap comprised 22% of all Indian exports to China in 2012. Textile fibers accounted for 17%. In 2011, the shares of these commodities were 44% and 12% respectively. The share of India’s exports of industrial manufactures has risen since 1990 from 28% to 40%, but at a rate much slower than China’s industrial manufactures.

The trade deficits are not sustainable. As Chandrajit Banerjee, director-general of the Confederation of Indian Industries, India’s most dynamic business association, has pointed out, India’s exports are not commensurate with its economic strengths. The disparity results from structural barriers to Indian exports in areas such as IT services, pharmaceuticals, auto components, and agro products. The Government of India also alleges that it derives in no small measure from Chinese dumping. One hundred fifty-nine of the 290 anti-dumping cases initiated by India since 1992 have involved China. In his trip to Beijing in May 2015, Indian Prime Minister Narendra Modi pointed out the imbalance in trade could undermine China and India’s dynamic economic relationship if China did not improve India’s market access. The Joint Statement issued by China and India during the summit resolved to “take joint measures to alleviate the skewed bilateral trade” specifically mentioning the IT, pharmaceutical, textile, tourism, and agro-product sectors and charging the India-China Joint Economic to address these issues.

### III.C.3 Finance

Financial interdependence between China and India has been minimal until very recently. For instance, between April 2000 and December 2013, Chinese FDI amounted to just $313 million.

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98 Standard industrial classification categories for “Manufactured Goods, Machinery and Transportation Equipment, Miscellaneous Manufactured Articles and Chemicals and Related Products.”

99 Chandrajit Bannerjee, “Indian industry must seize the opportunities the PM’s visit to China promises to create,” The Indian Express (May 14, 2015).

100 “India initiated 159 anti-dumping cases against China,” The Economic Times August 12, 2013.

0.15% of India’s total FDI during the period. Nonetheless, Chinese investment appears to be ready to increase. During Modi’s May 2015 visit to China, Chinese firms signed agreements to invest more than $22 billion for projects in renewable energy, power infrastructure, steel, etc. As costs in China rise, relocating production in India may become an attractive option if India can improve its investment climate. The possibility is a prominent consideration in Modi’s “Make in India” campaign, and China has already agreed to set up four industrial parks in India. In addition, India hopes that China will make an important contribution to fulfilling India’s need for infrastructural investment through the AIIB and the BRICs New Development Bank.

Indian enthusiasm for Chinese investment is mitigated by its security concerns. As Tanvi Madan has elaborated, Indians have expressed concern over Chinese companies’ operations in the telecom sector. The Home and Defense Ministries have expressed reservations about Chinese investment in India’s railways. Intelligence bureaus have cautioned about Chinese software such as WeChat, a messaging application. They also have raised questions about Prime Minister Modi’s initiative to allow e-tourist visas for Chinese. Reports of Chinese cyber-espionage against the Indian government agencies and the military have increased suspicions.

The Modi government’s approach to this problem is attempt to build trust by improving inter-government communication not only at the top levels but also by increasing communication at lower levels including the provincial government through the establishment of the State and Provincial Leaders’ Forum. Modi also hopes to promote better mutual understanding among the intelligentsia with the creation of a Bi-lateral Think Tanks Forum and the establishment of the Centre for Gandhian and Indian Studies in Shanghai. In discussing Modi’s China policy, analyst C. Raja Mohan has insightfully observed, “Modi’s real problem is in Delhi, where the resistance to new ways of engaging the Chinese is entrenched. Whether it is liberalizing visas, attracting Chinese investments or jointly developing Silk Roads in Asia, Modi has his work cut out in getting the Indian establishment to think more creatively about China.”

IV. Concluding Remarks

We have shown that the development of global markets has transformed the structure of the global economy. The dramatic growth in the volume of global trade and financial flows has decentralized the global economy. The spread of markets has increased exports and investment from developing countries and generated greater South-South trade and FDI flows. As a result, the global trading system is now far more decentralized than at the end of the Cold War.

These changes have consequences for the way countries define and pursue their strategic interests. We have utilized insights from social network theory to map the changing structure of the global economy. Network analysis augments our understanding of strategic interaction in the new global order by introducing the concepts of indirect and systemic dependence. Indirect

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103 Unless otherwise noted, the information in this paragraph comes from Tanvi Madan, “Friend? Enemy? Rival? Investor?” pp. 8-10.
104 “Intel agencies object to e-tourist visa for Chinese,” Times of India (May 7, 2015).
105 C. Raja Mohan, “Modi is abandoning the old approach to China, But he needs to get the Delhi establishment to play ball,” The Indian Express (May 11, 2015).
interdependence illuminates how actors are affected by actors beyond their immediate dyadic partners. Systemic interdependence shows how changes in broader network structures affect many actors in the network. We have suggested that these concepts help us to develop a more sophisticated understanding of the causal complexity generated by international structures.

Our study uncovered cases of both indirect and systemic interdependence. The success of the United States efforts to promote the TPP demonstrates how even the world’s most powerful country has become more dependent on securing the cooperation of other countries as part of its response to the rise of China. Developments in countries across Asia and beyond will affect the success of China’s OBOR and in so doing shape China’s relations with both India and the United States. India finds itself in a strategic triangle where its relations with the United States will affect its relationship with China and vice versa. Furthermore, relations between these three powers will be shaped by their relations with countries like Japan, South Korea, Australia, etc.

The rise of Asia itself is an example of systemic interdependence. Our study shows that the global system is undergoing two more subtle systemic changes. As global markets decentralize the global economy, they increase the number of viable economic and strategic partners thereby reducing the opportunity costs of switching partners. By increasing the complexity of bilateral relations and enhancing the importance of indirect interdependence, the advance of global markets also increases uncertainty. Policymakers address this uncertainty with strategic hedging. These systemic changes have created a more fluid global order. Durable alliances are undermined and replaced by less stable alignments of self-interested actors. These changes may increase the strategic flexibility of powers like China, India, and the United States but also increase the importance of sustaining alignments with supporters in order to achieve a country’s strategic objectives.