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Dependency Trends in the Globalization Era: Evidence from Export Partner Concentration

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Abstract

Social scientists have long identified export partner concentration as a key indicator of dependency in relationships between countries, particularly between poor countries and rich countries. This study explores trends in export partner concentration in the age of globalization using IMF DOTS data. Four different measures of export partner concentration are tracked for a constant panel of 156 countries over the period 1981-2008. Results are also reported for sub-panels of rich countries, poor countries, and poor countries by region. Export partner concentration remains high among poor countries, but with some decline associated with the rise of China (and, to a lesser extent, India) as alternative export partners in the 2000s. The increasing prominence of China and India as a major export markets for poor countries implies a shift in the meaning of export partner concentration as a measure of dependency, since "dependency" in this sense no longer necessarily implies dependency on the rich countries of Europe and the United States. Nonetheless, even as the specific patterns of export partner concentration have shifted, the overall structure of the world-economy has remained the same throughout this period of massive economic change.

Keywords

Dependency, trade, export partner concentration, globalization, structure of the world-economy, world-systems

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Introduction

Export partner concentration is the concentration of a country's exports among a small number of partner countries. When poor countries market their exports to a small number of partner countries, they are to some extent economically, politically, and socially dependent on those partners. Economically, private or government actors in the partner country may have an inordinate ability to influence export terms and prices for the exporting country. Politically, private or government actors in the partner country may be able to pressure the exporting country government through threats to restrict imports. Socially, private or government actors in the partner country may use their financial leverage to influence individuals and civil society in the exporting country. Moreover, export partner concentration is closely associated with investment partner concentration, since much foreign direct investment is driven by production for export (especially in the extractive industries). Through foreign direct investment private and government actors in the partner country can directly influence the character of society in the exporting country by imposing employment practices, undermining unions and other civil society organizations, creating (or undermining) local elites, etc. In short, export partner concentration is a reasonably well-grounded indicator of what might more broadly be labeled "dependency."

To make the concept concrete, consider the fact that the highest observed export partner concentration of any major country in the world today is that of Mexico with the United States: over 81% of Mexico's exports flow to the United States. Mexico's dependence on the US market for its exports gives US companies inordinate economic power over their Mexican partners; it gives the US government inordinate political power in negotiating trade and other treaties; it gives American institutions of all kinds inordinate social power over many aspects of Mexican life, including immigration, remittances, the availability of firearms, drug policy, etc. Mexico clearly exhibits patterns of dependency on and domination by the United States. This dependency-domination relationship exists for many reasons that extend well beyond export partner concentration, but export partner concentration is a useful summary indicator that can be used to represent that dependency in a single figure.

High levels of export partner concentration have long been considered indicative of relationships of dependency and domination. Writing in the midst of World War II, Hirschman (1945) used export partner concentration to measure national economic and political vulnerability, with specific reference to the expansion of German economic imperialism in the run-up to World War II. He argued that Germany's political influence throughout Eastern Europe and the Balkans expanded during the 1920s and 1930s as it became the dominant export market for the smaller countries in the region. Summing up his findings on trade concentration, he concluded emphatically that:

The existing pattern of world trade tends to correlate dependence upon a few countries which in turn depend on a few products; it also brings about conditions in which the availability of alternative markets is seriously impaired. Under the condition of unchecked national sovereignties, this pattern therefore provides large opportunities for the exercise of economic pressures. (Hirschman 1945:111)

Three decades later Galtung (1971) made a virtually identical argument in his neocolonial theory of imperialism. Galtung considered trade concentration the "first and most obvious" indicator of what he called a "feudal" economic relationship between countries, a pattern that "maintains and reinforces" economic inequality (p. 89). He characterized export partner concentration as one of the major constituent elements of dependency in relationships between countries. Other elements included import partner concentration and export commodity concentration (the specialization of a country's exports in a small number of different products, an indicator he shared with Hirschman). In Galtung's view, export partner concentration results in dependency because a dominant importing country could diversify its imports by sourcing them from different partners (some partners for fruit, others for oil, others for clothing, etc.)

while the dependent partner specializes in the production of a single commodity for export to a single country. In this arrangement the dependent country is a kind of latifundium of its dominant partner, producing to fill the needs of the dominant country's market (while the dominant country does not reciprocally orient its economy to the needs of the dependent country). Trade dependency is thus indicative of a wider core-periphery organization of the world-economy into what Wallerstein (1974) called a "world-system."

Subsequent to Galtung's publication of his theory of imperialism (which he considered a form of structural violence), a series of empirical studies by Chase-Dunn (1975), Rubinson (1977), and many others used export partner concentration as a primary or secondary indicator of dependency in poor countries. This dependency-inspired literature on export partner concentration extended into the 1980s and 1990s, with at least a dozen regression-based studies linking export partner concentration to low national income and depressed economic growth. More recently export partner concentration has been used in studies of economic growth (Kentor and Boswell 2003), economic inequality (Lee et al 2007), and environmental sustainability (Shandra 2007). A related measure called "vertical flow" or "weighted export flows" has recently been used extensively in the emerging literature on dependency and ecologically unequal exchange (Jorgenson et al 2009:266-267). Throughout these literatures, high levels of dependency are generally associated with negative outcomes for poor, dependent countries.

Understanding dependency is especially important because of its implications for the true, effective sovereignty of the dependent country. All 192 members of the United Nations enjoy internationally recognized formal sovereignty, but formal recognition does not guarantee true sovereignty of policy and action. For all countries except perhaps the United States (and increasingly China), sovereignty is always to some degree limited. Meyer et al (1997) have argued that national sovereignty is coming to be circumscribed by the global norms of world society, but this is a very generic form sovereignty limitation. The limitation of sovereignty by specific countries (as opposed to generically through the emergence of global norms) is much more problematic. Especially when coupled with poverty, dependency can compromise the sovereignty of the dependent country in favor of a particular dominant partner. This is qualitatively different from the decline of sovereignty associated with the rise of global governance: while the expansion of global society represents a general diminution of sovereignty, dependency relationships represent a transfer of sovereignty from the dependent country to the dominating country. The state as such is not necessarily weakened; the state may be as powerful as ever, but powerful in pursuing the interests of outsiders rather than the interests of its own citizens.

Five hundred years of Euro-American colonialism and imperialism from 1450-1960 spawned many such relationships of dependency, domination, and transferred sovereignty around the world. The historical American domination of Latin America has been institutionalized since 1951 in the form of the Organization of American States, with the US effectively retaining a right (or at least a power and precedence) of intervention in Latin American internal politics. The past decade has also seen the return of Spanish and Portuguese financial influence in South America. The continuing French influence in Africa is well-known, and of course the United Kingdom has its Commonwealth. In Asia, Japanese companies for much of the post-war period dominated the countries that were once ruthlessly exploited as imperial conquests of the Japanese Empire, in particular Korea and Taiwan (though in today's Asia the commercial influence of greater China—mainland China, Hong Kong, Macau, and Taiwan—is rising to take its place). Where once Germany and Austria sought to rule Central and Eastern Europe, they now dominate east-central European banking, investment, and trade. Clearly, the end of formal political colonialism and imperialism has not led to a concomitant end to relationships of domination and dependency.

Globalization was supposed to have changed all this. In theory, globalization has created a "flat" world (Friedman 2005) in which every actor in the world has easy access to every other actor in the world. In an

early and influential summation of the emerging globalization literature, Guillen (2001:236) influentially defined globalization as "a process leading to greater interdependence and mutual awareness (reflexivity) among economic, political and social units in the world." Applied to dependency, this implies that in the current era of globalization every actor should be (or be becoming) aware of opportunities to trade with every other actor. Multiplying opportunities for trade with different partners should be breaking down the five hundred year legacy of colonial trade patterns. Trade should be becoming less highly structured (in terms of neocolonial forms of imperialism) as globalization progresses.

Opposed to this vision is the Wallersteinian argument that while the specific patterns of world trade may change, the overall structure of the world-economy will remain the same. That is to say, individual countries may rise or fall, break their colonial bonds or forge new ones, but the overall structure of the world-economy will continue to be systemically organized into a dominant core and a dependent periphery. In this approach, globalization can be seen as a force that increases the pace of country-level change—the circulation of countries through different world-system statuses—without necessarily affecting the macro-level characteristics of the system itself. *Plus ça change.*

Against such a background, it is interesting to ask just how levels of dependency (operationalized as export partner concentration) have evolved in the globalization era. Though many studies use export partner concentration as an indicator of dependency, none since Hirschman have (to our knowledge) tracked trends in export partner concentration for a large number of countries over a substantial period of time. This paper uses longitudinal data on export partner concentration to investigate trends in the levels and patterns of export dependency in the globalization era.

In general, studies of time trends in export partner concentration (and thus of dependency) have been hampered by the large data processing demands involved. Studies of trends over time face the additional problem that potential trading partners both come into existence (e.g., Russia) and cease to exist (e.g., the Soviet Union) over time. In this paper, we examine levels of export partner concentration for a constant sample of 156 countries for which fully saturated time series data are available for the years 1981-2008 (inclusive). In the first section below, we describe the methods we used to convert the available raw data into usable concentration measures. We then report trends over time in export concentration according to four different measures, for poor versus rich countries, and by region of the world. In the ensuing discussion we examine what our results about export partner concentration say about dependency. We conclude that globalization has not had the expected effect of reducing export partner concentrations in poor countries. On the contrary: despite the shifting identities of dominant partners over time (in particular the rise of China and India), the overall structure of export partner concentration in the world-economy has been remarkably stable.

Measuring Export Partner Concentration

The underlying data for this paper come from the International Monetary Fund's Direction of Trade Statistics (DOTS) database and cover the years 1981-2008. We began our time series in 1981 because data for a large number of countries are missing for 1980 and earlier years. As of the time of data analysis 2009 and later DOTS data were not yet available. The DOTS database includes a matrix of export flows from and to each country. Our analyses focus on just the 156 countries that existed and reported trade data continuously over the 28 study years, but all 184 countries in the DOTS database are recorded in our data as possible trading partners for those 156 countries. As a result, our concentration figures include partners that are not among our sample countries; for example, the Soviet Union was a major export destination for Poland, and is included in Poland's export statistics for the years 1981-1991, but the Soviet Union is not itself among our study countries, since it did not exist as a country throughout the entire study period.

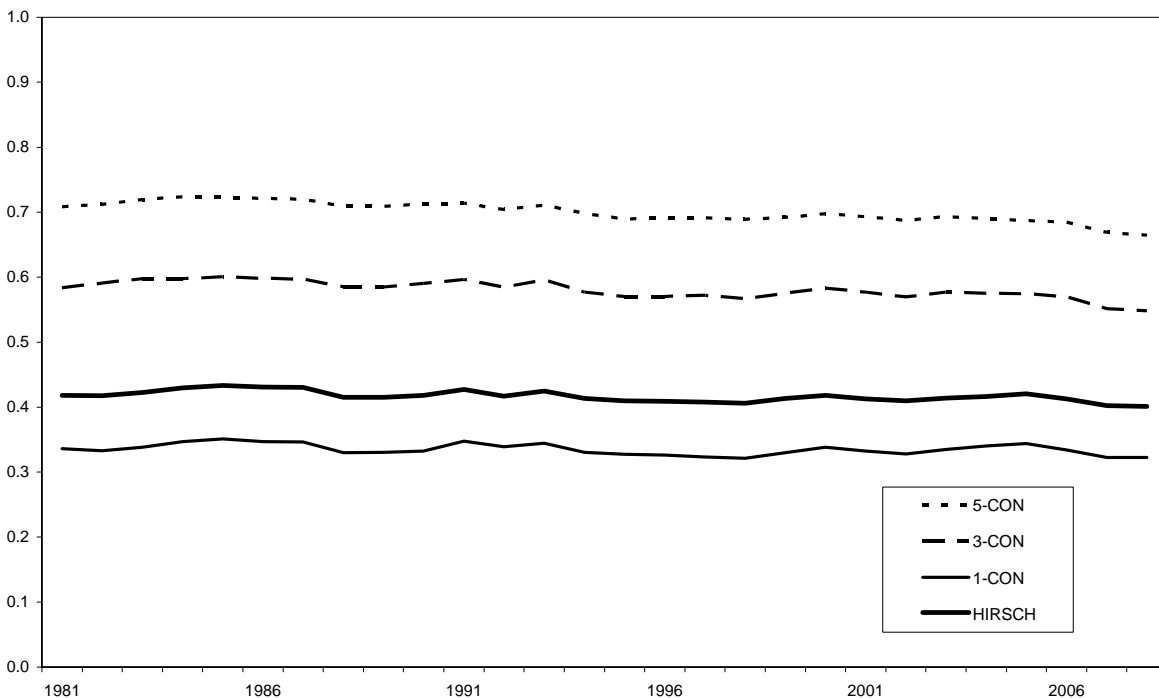
The 156 study countries collectively represented over 93% of the world's population in 2008. The only major trading country not included in the DOTS database is Taiwan. Taiwan data are reported only in hardcopy paper IMF publications and not in electronic IMF databases, and thus full matrix data are not available for Taiwan. As a result, Taiwan has been excluded from our analyses. The majority of the countries that are included in the DOTS data but excluded from our analyses (by population) are what are Soviet Union successor states, which in any case would represent problematic cases from the standpoint of dependency theory since they were not fully integrated into the larger capitalist world-economy. Yugoslavia, Czechoslovakia and their successor states have also been excluded because of their breakups in the course of the study period. South Africa is absent from the analyses due to missing data before 1998, and data are missing for many small island states as well. Germany has been included in the study sample through the aggregation of data from the former East and West Germanys for all years. Yemen has similarly been included as a single, composite state. Due to a quirk of IMF reporting, data for Luxembourg are subsumed within the data for Belgium.

We computed four measures of export partner concentration. The first measure, the percentage of a country's total exports that goes to its single largest export destination country, is the measure most commonly used in the sociology and dependency literatures. It is also the measure used by Galtung (1971). We call this measure 1-CON, short for "top 1 partner CONcentration." In our view, however, the same logic that applies to dependency on a single export partner would also apply to dependency on a small number of export partners. Accordingly, we have computed 3-CON and 5-CON measures as well (top three and five partner concentrations, respectively). While we do not make detailed use of the 3-CON and 5-CON figures in this paper, we do have the data available and refer to them when necessary. The 1-CON measure ranges from a theoretical low of less than 0.0055 (if a country's exports were equally divided among all 182 potential partners) to a theoretical high of 1 (were a country's exports all concentrated with a single partner). Since the other CON measures include more partners, they have correspondingly higher minimum values.

It seems reasonable to extend the logic of additional partners beyond five. From a dependency standpoint, it is the concentration of trade with a single partner that matters most. Nonetheless, there is a difference between (on the one hand) a country that has one important partner and 181 other evenly-represented partners and (on the other hand) a country that has one important partner, a second important partner, and no other partners at all. The reasoning here is that while concentration with one export partner is clearly the ideal type of dependency, other concentration patterns also represent dependency, though to a lesser extent. This reasoning can be traced to Hirschman (1945), who argued that the appropriate measure of inordinate power in trade partnership relationships was geometric mean concentration: the square root of the sum of the squares of the concentrations with each partner. Our HIRSCH series implement this equation. A particular advantage of the Hirschman index is that it uses all of the available data (including even that for the 182nd trading partner), weighting each partner according to its dominance. The Hirschman index ranges from a theoretical low of 0.0741 to a theoretical high of 1 when applied to 181 partners.

In Figure 1 we report average levels of all four measures of concentration (1-CON, 3-CON, 5-CON and HIRSCH) for our 156 study countries for the years 1981-2008. Though the four series are different in scale, they all track very closely over time. The 2008 cross-national correlation of 1-CON and HIRSCH concentration is $r = 0.985$, and annual percent changes in global average 1-CON are correlated $r = 0.975$ with annual percent changes in the global average HIRSCH index. Thus, in our detailed cross-national analyses to follow, we report only results for the HIRSCH index, since it is the most inclusive and theoretically sound of the four. Results for the other measures are substantially the same. We return to 1-CON when discussing the dominance and dependency relationships of specific countries.

Figure 1. Four Measures of Average Export Partner Concentration, 1981-2008



Global Levels of Export Partner Concentration

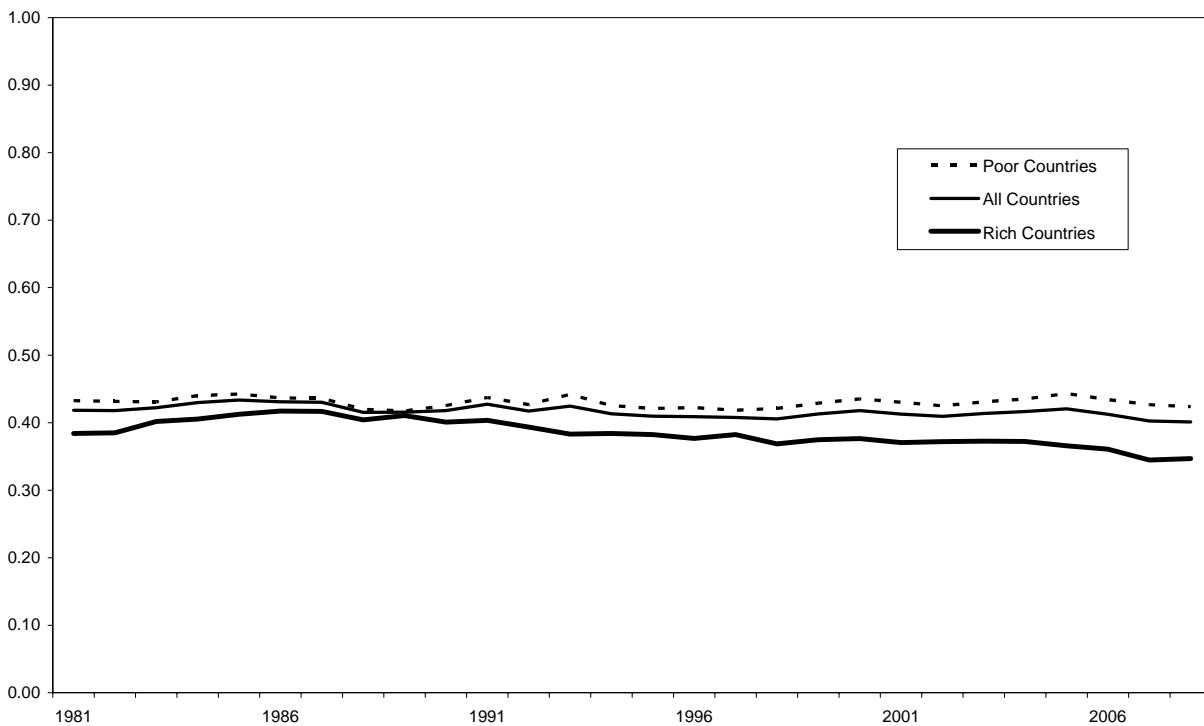
World average export partner concentration levels for the period 1981-2008 are reported in Figure 1. Despite minor fluctuations, all series are roughly flat. There is a slight rise in concentrations from 1981-1985, followed by a slight fall over the remainder of the 28-year study period. Though slight, the slope of the regression-fit trend line is statistically significant for the period 1985-2008, so it is not incorrect to say that dependency levels are declining. It is not known whether the slight rise at the beginning of the series represents a continuation of a longer, earlier rise or just a temporary anomaly. It is also unknown what affect the collapse of global trade in the 2008-2009 financial crisis might have had on concentrations. Despite the mild declining trend, however, the most striking feature of the chart is its constancy over time. All four series are visually flat. During a period in which total world trade increased by 370% and world trade as a percentage of world income increased by 48%, average global export partner concentration declined by only 4% (or 7% from its peak in 1985). This unremarkable result is quite remarkable. The 1980s Latin American debt crisis, the 1997 Asian financial crisis, the collapse of the Soviet Union, the global spread of neoliberal trade policies under the aegides of the IMF and World Trade Organization (WTO), and the globalization of the world-economy over the study period seem to have had no effect whatsoever on world average levels of export partner concentration.

Export Partner Concentration in Rich vs. Poor Countries

The concentration indices reported in Figure 1 are for the world as a whole. Dependency, of course, is not really an issue for rich countries. Using the official World Bank (2010) income categories, we have divided our 156 study countries into 110 poor countries and 46 rich countries. The cutoff between poor and rich countries here represents a level of national income per capita of around \$15,000 per year (approximately the level of Hungary, which is classed as rich; its neighbors to the east are classified as poor). Average levels of export partner concentration for poor versus rich countries are reported in Figure

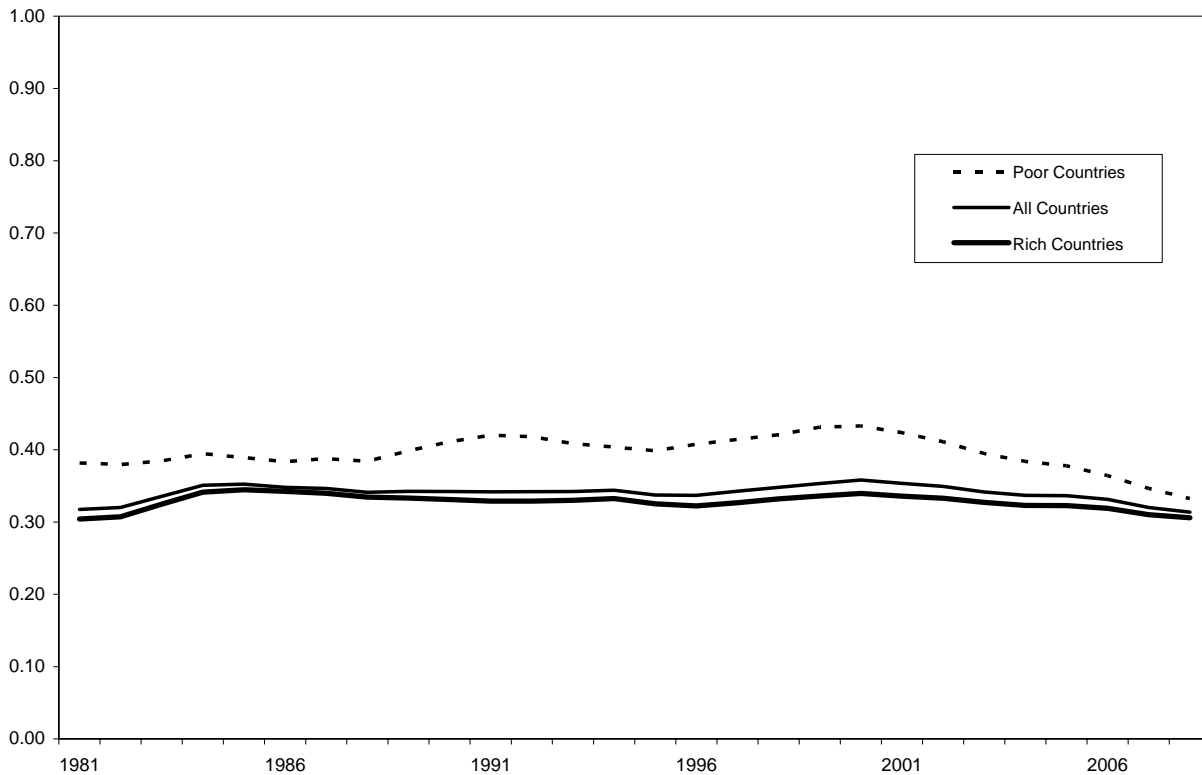
2. Only the Hirschman index is reported; trends for other measures are similar. Here the story is slightly different from the global story. Average levels of export partner concentration for poor countries are at all times higher than those for rich countries. The two series converge until 1989, when they come close to equalizing. In the years after 1989, however, levels of export partner concentration decline 15.5% for rich countries but rise 1.5% for poor countries. The divergence in the two series is decisive by the mid-1990s. This timing is consistent with trends in globalization and the history of the WTO, which came into operation in 1995. Over the full 28-year period the trend in poor-country export partner concentration is not statistically significant, though the downward trend in rich-country concentration is (again based on a linear regression fit line).

Figure 2. Average Export Partner Concentration for Rich vs. Poor Countries, 1981-2008



The series represented in Figure 2 are global averages. In these series, every country is treated as an equal case. An alternative way to view the figures is to use weighted averages. We have calculated trade-weighted averages by weighting each country's HIRSCH index by its level of total exports. The resulting trade-weighted series are graphed in Figure 3. These series tell a very different story than the unweighted global averages. In Figure 3, poor country export partner concentration remains much higher than rich country concentration until the 2000s. Then, starting in 2001, weighted average export partner concentration in poor countries declines rapidly toward the rich country level. This can likely be traced to the rise of China as a major trading partner for major poor country exporters like Argentina, Brazil, and Thailand. China's rise has apparently resulted in a diversification of export partners (lower concentrations) for large exporters, but not for small exporters. As a result, it has a much bigger impact on the trade-weighted series than on the global average series.

Figure 3. Weighted Export Partner Concentration for Rich vs. Poor Countries, 1981-2008



The picture on export partner concentration levels in poor countries is thus mixed. Overall there has been no reduction in concentration, but there has been a reduction for the largest exporters. In other words, recent changes in the structure of the world-economy seem to have reduced concentration among those countries that were, in any case, best positioned to avoid external domination. Once known as merely "less-developed countries," the "BRICs" (Brazil, Russia, India, and China) are now "emerging markets" with increased economic autonomy. This may be a permanent change, or it may represent a moment of transition from one set of dependency relationships to another. Either way, large middle-income countries seem to have more options today than they did in the 1980s. For most of the countries of the global south, however, levels of export partner concentration have remained essentially unchanged over the past three decades.

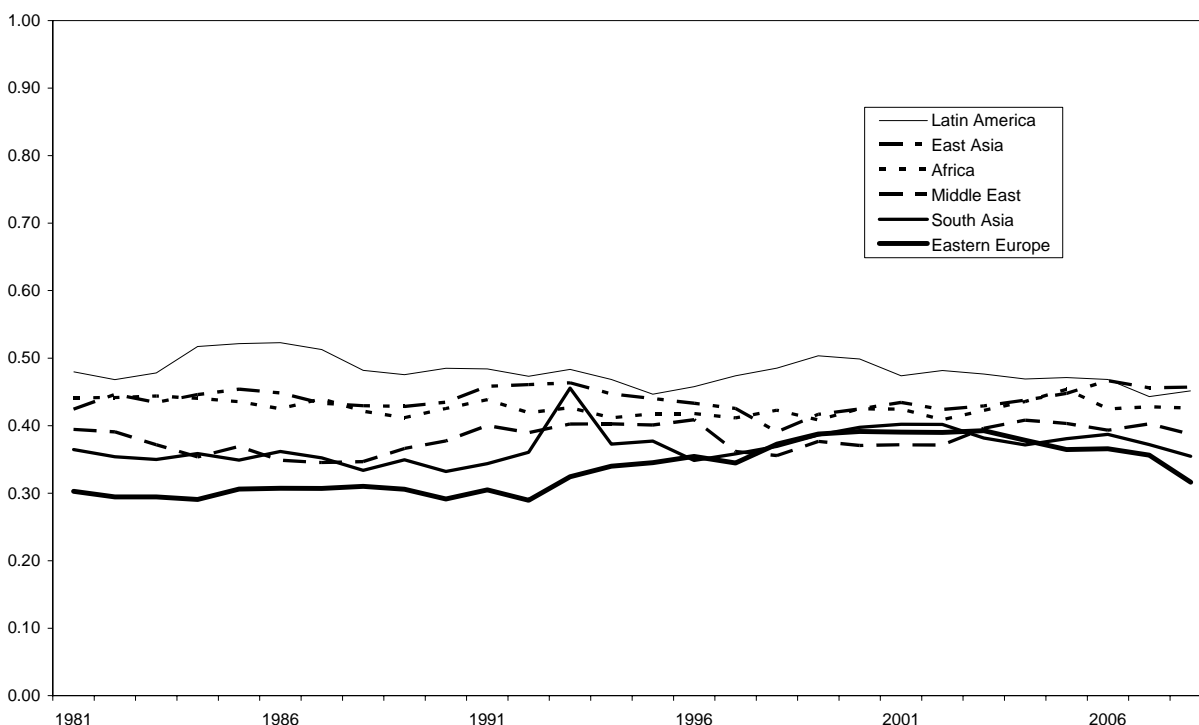
Export Partner Concentration in Poor Countries by Region

Poor countries are hardly a homogeneous group. Though all of the poor countries in the periphery of the world-economy share a similar structural relationship to the rich countries of the core, in themselves they are highly heterogeneous. After all, they represent the vast majority of the countries (and the population) of the world. The poor-country data represented in Figure 2 are broken out by region in Figure 4. Once again, official World Bank (2010) regions have been used. Note that the World Bank region of Eastern Europe and Central Asia (ECA) includes the post-Soviet states of central Asia, but since these are excluded from the analyses (due to the fact that they only came into existence after 1991) only European ECA countries are represented in the data graphed in Figure 4. The numbers of countries represented in Figure 4, by region, are reported in the first column of Table 1.

Table 1. Numbers of Countries Included for Each Region in Figures 4/5 and Figure 6

Region	Figures 1-5	Figure 6
All Countries	156	132
Poor	110	100
Africa	40	37
East Asia	17	14
Eastern Europe	5	5
Latin America	29	29
Middle East	12	10
South Asia	7	7
High-Income	46	32

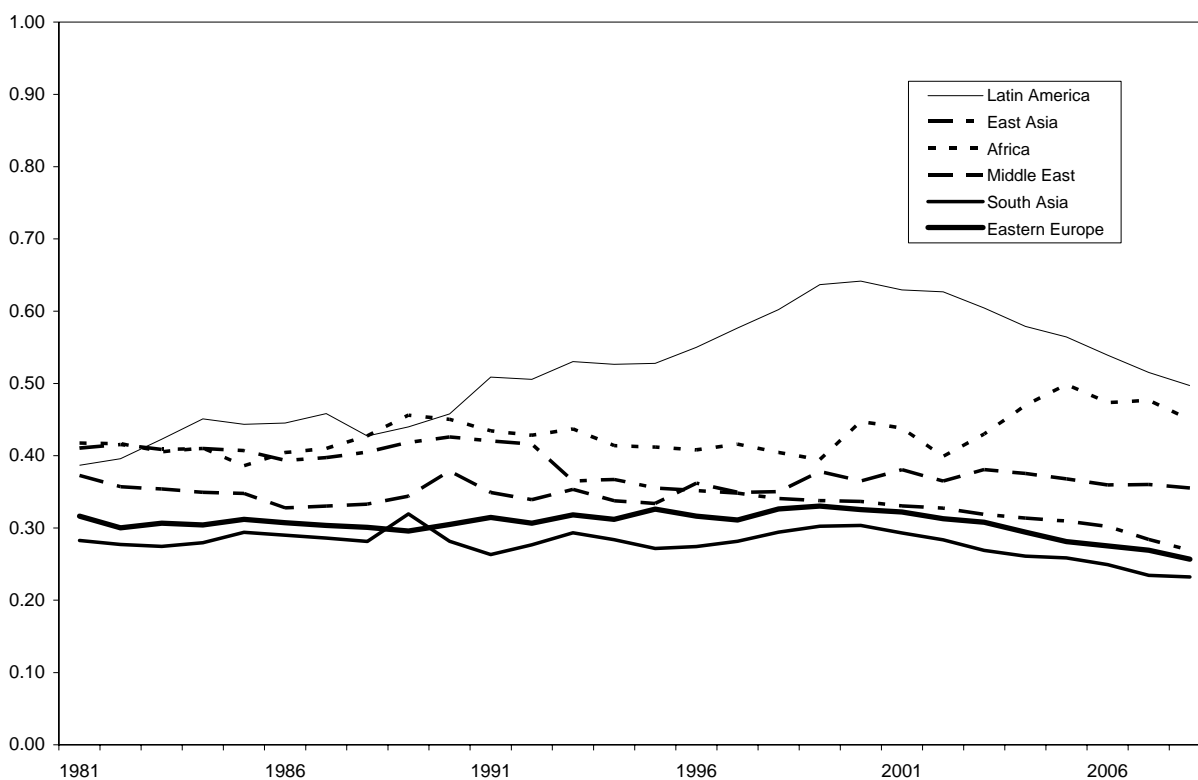
Figure 4. Average Export Partner Concentration for Poor Countries by Region, 1981-2008



It is difficult to identify clear trends in the regional data because the individual series are so volatile, but some general patterns distinguishing the regions are clear. Latin America, East Asia and sub-Saharan Africa show consistently high levels of export partner concentration, while the Middle East and north Africa, South Asia and Eastern Europe show consistently low levels. Note that the 1993 spike for South Asia is due to a massive one-year spike in Afghan exports to Russia recorded in the raw IMF data. Since the data are unweighted, Afghan figures count the same as (say) Indian ones in determining the South Asian regional average.

To address these volatility and measurement issues, we have also calculated export-weighted export partner concentration averages by region. These are plotted in Figure 5. In Figure 5 the cross-region patterns are the same as in Figure 4, but more accentuated. All regions except sub-Saharan Africa show declining concentration in the 2000s (note that the sub-Saharan Africa data do not include South Africa). In the poor countries of sub-Saharan Africa export partner concentration levels have risen sharply in recent years. The most striking feature of the weighted series, however, is the rise and fall of export partner concentration in Latin America. The rise is driven by Mexico and NAFTA, the fall by emergence of China as an export outlet for Brazil and Argentina after 2000.

Figure 5. Weighted Export Partner Concentration for Poor Countries by Region, 1981-2008



Given the high levels of export partner concentration in Latin America, it is perhaps not surprising that the post-war dependency literature has its roots in scholarship from and about the region. The trade-weighted series confirm the high levels of export partner concentration already observed in the unweighted series for Latin America. The fact that levels of export dependency have been and still are much higher in Latin American than in the rest of the less-developed world may have led Latin American scholars to focus on its potentially destructive effects to a much greater extent than scholars elsewhere in the world. It will be interesting to see if the rise of export partner concentration in East Asia sparks similar interest there in coming years.

The Shifting Structure of the World-Economy

The regression-based literature on dependency and development tends (of necessity) to discuss dependency in generic terms, but in operationalising export partner concentration as dependency it seems important to ask "dependency on whom?" We have calculated for each country in our dataset the number of other countries for which it is the top export destination. We did these calculations for 1988 (the height

of Soviet influence), 1998 (the height of US hegemony), and 2008 (the most recent year for which data are available to track China's rise). The results for all 156 countries are reported in Table 2. Unsurprisingly, the United States is the top export destination for a larger number of countries than any other country. As would be expected, its prominence peaks in 1998, but it remains by far the leading export destination even in 2008. The overwhelming dominance of the United States as an export destination well-illustrates at least one facet of its continuing hegemony over the world-economy.

Table 2. Top Export Partners for all 156 Study Countries, 1988, 1998, and 2008 (countries that are dominant partners for at least 3 other countries)

1988		1998		2008	
Dominant	Dependents	Dominant	Dependents	Dominant	Dependents
United States	46	United States	49	United States	44
Germany	22	Germany	15	China	16
France	15	United Kingdom	14	Germany	15
Japan	15	Japan	13	Japan	12
United Kingdom	14	France	10	India	9
Soviet Union	8	Italy	8	France	5
Italy	3	India	5	United Kingdom	5
Netherlands	3	Australia	4	Brazil	4
Singapore	3	Brazil	4	Canada	4
Thailand	3	Belgium	3	Italy	4
Other	24	China	3	Thailand	4
		Other	28	Australia	3
				Spain	3
				Greece	3
				Netherlands	3
				Other	22

If Table 2 illustrates continuing US hegemony, it also illustrates the rising Chinese challenge to that hegemony. In 1988 China was the top export partner for fewer countries than Thailand. In 1998 it still barely registered in the standings. By 2008, however, it had leapfrogged to second place, just ahead of Germany. Moreover, most of Germany's partners are its rich European neighbors. Table 3 replicates Table 2 but using data for only the 110 poor countries in our dataset. Both US hegemony and the Chinese challenge are even clearer in Table 3 than in Table 2. By 2008, China and India were the dominant trading partners for more poor countries than any of the historical colonial powers other than the United States. The United States is still by far the most ubiquitous export partner, but China and India are now its challengers, not the former colonial powers of France, Germany, Japan, and the United Kingdom.

Interestingly, the rise of China (and to a lesser extent India) seems to be stemming what might otherwise be a decline in the dominance of the top few global export partners. In 1988 the top five dominant partners (the US, Germany, France, the UK, and Japan) had among them 75 dependents. In 1998, a similar top five (with Italy replacing Germany) had only 67 dependents, a substantial drop. In 2008 a very different top five—now including China and India—still accounted for 66 dependents. While the universe of potential export partners does not seem to be as concentrated as it was in the 1980s, the pace of its diversification has slowed dramatically in the 2000s. In other words, a new pattern of dependency relationships is consolidating that differs from historical colonial patterns but is nonetheless structurally similar in both the scale and the distribution of dominant partners.

Table 3. Top Export Partners for 110 Poor Study Countries, 1988, 1998, and 2008 (countries that are dominant partners for at least 3 other countries)

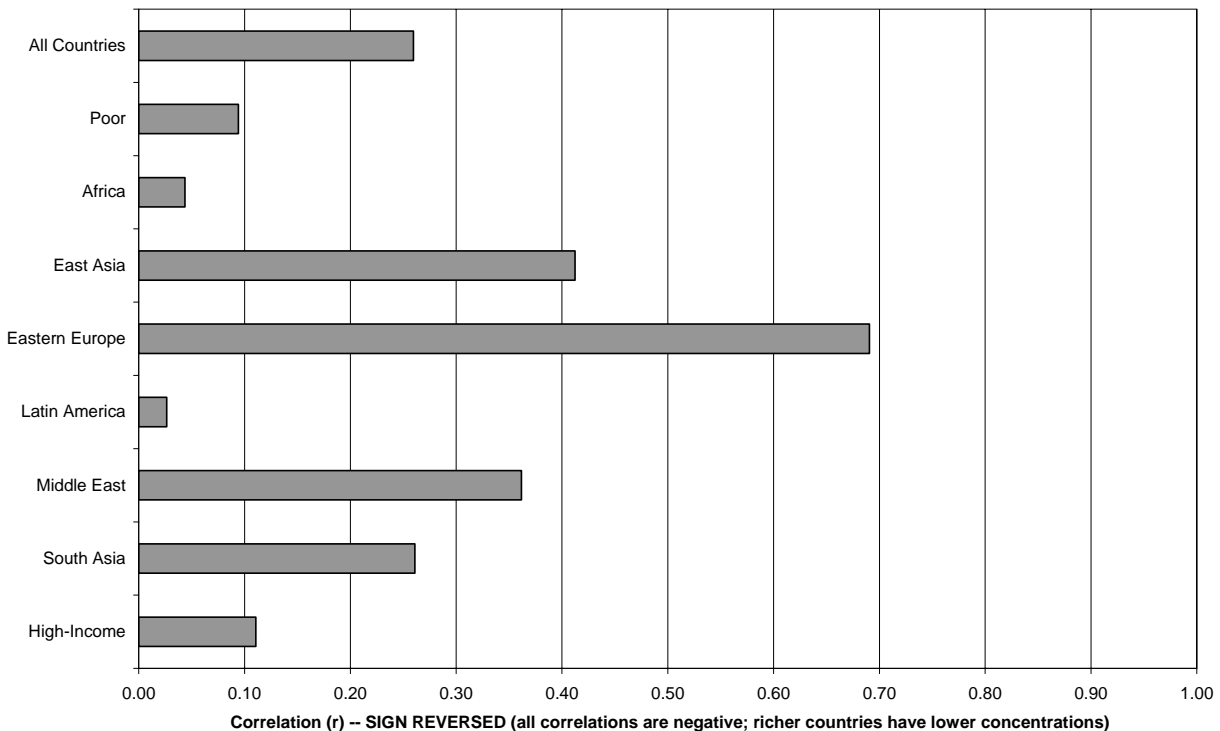
1988		1998		2008	
<u>Dominant</u>	<u>Dependents</u>	<u>Dominant</u>	<u>Dependents</u>	<u>Dominant</u>	<u>Dependents</u>
United States	33	United States	35	United States	33
Germany	13	United Kingdom	9	China	14
France	10	France	8	India	8
United Kingdom	10	Italy	8	Japan	6
Japan	9	Japan	7	Germany	5
Soviet Union	6	Brazil	4	United Kingdom	4
Italy	3	Germany	4	Thailand	4
Netherlands	3	India	4	Brazil	3
Singapore	3	Australia	3	Canada	3
Thailand	3	Belgium	3	France	3
Other	17	Other	25	Italy	3
				Other	24

Interpreting Export Partner Concentration as Dependency

In light of the regional and partner variability in levels of export partner concentration, it may be advisable to exercise caution in the simple equation of export partner concentration with "dependency" as such. While export partner concentration on the United States as a partner is likely an indicator of dependency, it is not obvious that similar levels of concentration on (say) India as a partner mean the same thing. Despite its long pedigree in the literature, it may be inappropriate to use export partner concentration as an operationalization of dependency in regression models, whether alone or alongside other indicators (like commodity concentration). Instead of considering export partner concentration to be an indicator of dependency itself, it might make more sense to think of export partner concentration as a factor that, in interaction with poverty, can cause dependency in situations where the dominant partner is capable of exercising the power that exists in potential in the trading relationship. This is, of course, a much more complicated notion than concentration as a simple indicator of dependency, but there are several reasons to think that the usual approach is inadequate.

For example, Latin American countries consistently exhibit the highest export concentration levels of any world region. For most Latin American countries, the top export destination is the United States, long resented throughout the region as an imperialist power. East Asia, however, also exhibits high levels of export partner concentration, and as in Latin America the chief export destination is also the United States. In East Asia, however, there has been little accompanying rhetoric of dependent underdevelopment. This may be attributed by some to East Asia's perceived economic success, but East Asia is, in fact, poorer on average than Latin America. National income per capita in Latin America is about three times that in East Asia (excluding Japan and Korea, which are categorized as rich countries in the dataset used in this paper). Latin America is not only the richest region of the global south, but also the most lightly colonized region. In contrast to Latin America, where formal colonization mostly ended 200 years ago, direct colonial exploitation lasted across the Middle East, North Africa and South Asia right up through the mid-twentieth century. Yet these regions exhibit levels of export partner concentration that are lower even than in rich countries. There is no obvious link (among poor countries) between national income, colonial legacy, and export partner concentration.

Figure 6. Correlations of Export Partner Concentration with National Income per Capita 2008 (by region)



In fact, across the 100 poor countries in our constant sample for which national income data are available from the World Bank (2010), the correlation between the HIRSCH index and logged national income is a meager $r = -0.09$. Figure 6 reports correlations between our HIRSCH series and logged GNP per capita for all of our panels of countries. Note that all the correlations reported in Figure 6 are negative (poorer countries within each group have higher levels of export partner concentration than richer countries), though the correlations vary dramatically in magnitude across panels. The overall correlation between national income and concentration for all 132 countries with national income data available, which mainly captures the difference between rich and poor countries, is $r = -0.26$.

Across the 29 poor Latin American countries, however, the correlation is just $r = -0.03$, while for the 37 African countries it is $r = -0.04$. These are trivial and non-significant figures. On the other hand, among the 17 East Asian countries the correlation between national income and export partner concentration is a very robust $r = -0.41$. This implies that nearly all Latin American and African countries are similarly dependent (without regard to national income), while in East Asia the poorest countries are by far more dependent than the richer countries. In Eastern Europe, the Middle East, and South Asia there are also strong correlations between national income and export partner concentration, but the numbers of cases available for analysis in these regions are small.

In Latin America and Africa (where the dependency and world-systems schools originated) high export partner concentration is something of a universal phenomenon, while in other regions it seems to be more a phenomenon of the poorest countries. This seems to complicate the simple equation of export partner concentration with dependency. A further complication is the fact that export partner concentration can only reasonably be linked to dependency if the most important export destinations are rich (or at least regionally powerful) countries with the wherewithal to exploit their dominant trade relationships. Tables

2 and 3 show that for the most part it is rich countries that are the top export destinations, but there are exceptions. For example, Brazil's top export destination is the United States, while Argentina's top export destination is Brazil. Argentina's 1-CON export partner concentration is 19%, versus only 14% for Brazil. This would indicate a much higher level of dependency in Argentina than in Brazil, but surely it means something that Argentina's top partner is a poorer regional neighbor while Brazil's is a much richer global hegemon. China is Argentina's second partner (9% of exports) and the United States its third (8% of exports); both combined take a smaller percentage of Argentina's exports than Brazil does. Given this context, it seems more reasonable to characterize Brazil's 14% export concentration with the United States as "dependency" than Argentina's 19% concentration with Brazil, which sounds more like simple neighbor trade. Contextualization is crucial.

The problem is that contextualization is near-impossible in regression-based research using panels of 50 or 100 countries—or, indeed, even in the kind of trends-based research reported in this paper. As a result, probably the most that can be said is that low levels of export partner concentration imply low levels of dependency, while high levels of export partner concentration leave open the possibility of dependency in relationships between countries. This is not really very different from Hirschman's (1945) seminal thesis, in which he was careful to describe the power of dominant trading countries in terms of potential, not actual domination. He viewed Germany's accumulation of dominant relationships with its poorer neighbors in the interwar period as just as likely to have been driven by commercial considerations as by political calculations. He observed, however, that once accumulated this power was used by the ruthless Nazi regime to promote friendly governments and pursue its own foreign policy interests in the region. High levels of export partner concentration did not constitute dependency, but opened the door to dependency.

The interpretation of export partner concentration as dependency thus hinges on one's position on the much larger philosophical question of whether power exists in latency or only in action. If unexercised power is considered a form of political domination, then export partner concentration is an indicator of dependency. If, on the other hand, unexercised power does not constitute domination, then concentration does not constitute dependency. This distinction is clearest when considering partner concentration among rich countries. Canada's 1-CON with the United States for 2008 is 78%, nearly as high as Mexico's. This surely gives the United States much potential power in its political relationship with Canada. For many reasons—historical, racial, normative, etc.—the United States does not exercise this power vis-à-vis Canada to the same extent that it does vis-à-vis Mexico. Is the relationship between Canada and the United States one of Galtungian feudal imperialism? While there are certainly aspects of domination and dependency in the relationship, we suspect that it would be a stretch to go that far. On the other hand, it is much more reasonable to characterize high export partner concentration in poor countries as dependency, even when the details of specific cases might suggest mitigating factors. In short, we endorse the use of export partner concentration to operationalize dependency, but with the caveat that researchers should take some care in doing so.

Conclusions

Though accompanied by a massive expansion of world trade, globalization has largely failed to change long-established structural patterns of global trade. For rich countries, which already exhibited relatively low levels of export partner concentration before the globalization era, the globalization era has been associated with further declines in concentration. This generally accords with expectations: rich countries have taken advantage of globalization to diversify the outlets for their products. With regard to rich countries, globalization seems to have reinforced existing patterns rather than driving any great change in patterns. The rich world is "flatter" than ever, at least in terms of export partner concentration, but the flattening has been slow and slight. Globalization has not led to a radical restructuring of rich countries' export patterns.

Average levels of export partner concentration in poor countries were relatively stable over the 28-year period 1981-2008. Nonetheless, despite little overall structural change the export patterns of poor countries have not been static. The rise of China as a major export partner in the 2000s has led to a diversification of poor countries' exports, especially for the largest exporters. It is an open question whether this diversification represents a permanent change in dependency structures or merely an intermediate stage in the transition from dependency on European markets to dependency on the Chinese market. The answer depends on whether the swing from Europe to China stabilizes at current levels or continues to shift towards China.

The smart money would seem to be on a continued shift toward China, and thus a restoration of higher global levels of export partner concentration (though with a different dominant partner than before). The fact that China is itself technically a poor country does not mean that these new trade relationships are not—and will not be—characterized by dependency. Though currently poor (on a per capita basis), China is certainly powerful, both economically and politically, and it has the potential to act as the dominant partner in a feudal trading system. In many cases the Chinese government seems to be actively encouraging the development of this kind of relationship as it seeks to secure dedicated supplies of natural resources around the world.

All this suggests that the age of globalization that began with the Thatcher/Reagan revolution of 1979-1981 and ended (?) with the global financial crisis of 2007-2009 consisted of two broad phases: the general phase and the China phase. In the general phase of globalization, the world really was flattening: long-established post-colonial relationships were slowly dissipating over time. In the China phase of globalization (which continues to today) much of the world is rapidly "re-orienting" (Frank 1998) toward potentially dependent trading relationships with China. It is important to note, however, that poor countries' gains in export market differentiation have come mainly at the expense of European domination, not of American domination. The old patterns of post-colonial feudalism continue to dissipate, but perhaps not the newer pattern of American hegemonic imperialism.

The 2008 global financial crisis is generally viewed in rich countries as a major event marking the end of the first age of globalization, but seen from a Chinese perspective it may turn out to have been little more than a blip in this second, China phase of globalization. If this turns out to be the case, it will be necessary to reexamine the conceptual foundations of dependency. Galtung's (1971) theory of imperialism is just as relevant whether the dominating power is European, American, or Asian, but our mental models of what export partner concentration actually means in our data will have to be adjusted to the new reality that China is now the second most prominent partner and on an upward trajectory. When we use export partner concentration to operationalize dependency, our mental models assume that "dependency" means "dependency on the west." In today's world it increasingly means "dependency on the east."

The implications of this shift for the effective sovereignty for poor, dependent countries are not clear. For all their history of domination and exploitation, western countries have since the end of World War II bounded their power to some extent through the creation of rules-based treaty organizations like the WTO. While WTO rules and dispute resolution mechanisms strongly favor rich, powerful countries, poor, weak countries at least have some ability within the WTO framework to have their cases heard. Though a member of the WTO, China seems less committed than western countries to pursuing its national objectives through the rules-based mechanisms of international organizations. Thus, while the rise of China may diversify other countries' export partner opportunities, it may also replace more rules-constrained partners with a less rules-constrained partner. Unsurprisingly, the future prospects for poor, dependent countries will be determined not by their own actions but by those of a larger power, though in this case that power is a fellow poor country. We can only hope that China in the future will evolve to become more of an advocate for pro-poor policies than western countries historically have been.

References

- Chase-Dunn, Christopher K. (1975). "The Effects of International Economic Dependence on Development and Inequality: A Cross-National Study." *American Sociological Review* 40: 720-738.
- Frank, Andre G. (1998). *Re-Orient: Global Economy in the Asian Age*. Berkeley: University of California Press.
- Friedman, Thomas. (2005). *The World Is Flat*. New York: Farrar, Straus & Giroux.
- Galtung, Johann. (1971). "A Structural Theory of Imperialism." *Journal of Peace Research* 8: 81-117.
- Guillen, Mauro F. (2001). "Is Globalization Civilizing, Destructive or Feeble? A Critique of Five Key Debates in the Social Science Literature." *Annual Review of Sociology* 27: 235-260.
- Hirschman, Albert O. (1945). *National Power and the Structure of Foreign Trade*. Berkeley: University of California Press.
- Jorgenson, Andrew, Kelly Austin and Chris Dick (2009). "Ecologically Unequal Exchange and the Resource Consumption / Environmental Degradation Paradox: A Panel Study of Less-Developed Countries, 1970-2000." *International Journal of Comparative Sociology* 50: 263-284.
- Kentor, Jeffrey and Terry Boswell (2003). "Foreign Capital Dependence and Development: A New Direction." *American Sociological Review* 68: 301-313.
- Lee, Cheol-Sung, Francois Nielsen and Arthur S. Alderson (2007). "Income Inequality, Global Economy and the State." *Social Forces* 86: 77-111.
- Meyer, John W., John Boli, George M. Thomas and Francisco O. Ramirez (1997). "World Society and the Nation-State." *American Journal of Sociology* 103: 144-181.
- Rubinson, Richard. (1977). "Dependence, Government Revenue, and Economic Growth, 1955-1970." *Studies in Comparative International Development* 12(2): 3-28.
- Shandra, John M. (2007). "Economic Dependency, Repression, and Deforestation: A Quantitative, Cross-National Analysis." *Sociological Inquiry* 77: 543-571.
- Wallerstein, Immanuel M. (1974). *The Modern World-System, Vol. I: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century*. New York: Academic Press.
- World Bank (2010). *World Development Indicators 2010*. Washington: The World Bank Group.