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China and global economic stratification in an interdependent world

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ABSTRACT This article examines the contemporary rise of China and its new role on the global stage within the context of semiperipheral mobility. Unlike earlier discourse on the rise of China that revolved around questions of hegemonic ascent, the focus here is on the impact of China's advancement within the structural confines of the modern capitalist world-economy. What happens when a country like China, which makes up close to 20% of the world's population, moves from peripheral state to semiperipheral state in a short period of time? Immanuel Wallerstein had argued that stratification of the world-economy took the shape of a three-layered structure with majority of the world's population at the bottom, a decidedly smaller middle stratum, and a small percentage at the top of the hierarchy. Through an examination of global economic stratification from 1990 through 2015, China's movement into the semiperiphery is shown to dramatically change the shape of this three-layered structure. This change that sometimes causes the distribution to appear quad-modal or multimodal is primarily because of the movement of more of the world's population into the middle stratum of world-economy. This massive movement toward the middle is unprecedented. Furthermore, this new shape of the stratified world economy, will create an increasing amount of pressure on the countries in the middle that may translate into open military aggression and/or at the same time, a rise in regional and multilateral organizations such as the Asia Infrastructure Investment Bank, and the Bolivarian Alliance for the Americas.

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Introduction

In April and September of 1974, Immanuel Wallerstein published two articles that expounded on two fundamental tenets of what would later be called World-Systems Theory. In *Dependence in an Interdependent World: Limited Possibilities of Transformation within the Capitalist World Economy* Wallerstein argues that, for political and politico-economic reasons, the modern capitalist world-economy requires the existence of the semiperiphery, a middle stratum between the core and the periphery. In *The Rise and Future Demise of the World Capitalist System: Concepts for Comparative Analysis*, he further explains that the semiperiphery is an absolute necessity for the proper functioning of the modern capitalist world-economy and even for a world-empire with a redistributive economy. This three-layered structure, he argues, is the “normal condition” of the world-economy and when this “ceases to be the case, the world-system disintegrates”. Obviously, Wallerstein has since refined his ideas regarding world-systems theory. However, the concept of the trimodal structure remains essential and fundamental to his theory of the world-system. In this article, the primary concern is with the impact of the rise of China on this three-layered structure.

Some of the initial dialogue regarding the rise of China dealt with whether China would be able to break free of the peripheral status (which was accorded it by Babones and Alvarez-Rivadulla, 2007) or its semi-peripheral status (which was accorded it by Wallerstein, 1974(c); Chase-Dunn *et al.*, 2000 to name a few), to become a competitor to the United States’ diminishing hegemonic status (Gulick, 2004; Hart-Landsberg and Burkett, 2004; Gulick, 2007; Tabb, 2008; Panitch, 2010; Gulick, 2011), and/or serve as a new model for capitalist growth (Ramo, 2004). However, this article seeks to go beyond the question of hegemonic ascent and focus on the trimodal world-economic structure itself. What happens when a country like China which makes up close to 20% of the world population moves from peripheral state to semiperipheral state in a matter of a decade—decade and a half? Would it structurally legitimize and stabilize the world-system or would it wreak havoc? Arrighi (1994, 2007) or could it possibly cause systemic chaos or a complete reorganization of the system as suggested by Arrighi and Silver (1999).

This article demonstrates that the rise of China has drastically changed the shape of the stratified world-economy in that it is no longer a classic trimodal distribution (small core, slightly larger semiperiphery, and most of the world in the periphery). Instead, much of the world’s population (at the country level) has moved to the center. This in turn has created and will continue to produce a new type of pressure on the world-system. With overcrowding in the middle stratum, China and those in the middle, may be forced to move away from a doctrine of cooperation to one that is more aggressive or even confrontational.

During its rise to economic prominence China sought global legitimization through various means most unambiguously with the obligatory signing of the One-China policy. More recently, it has done so through the establishment of the Asia Infrastructure Investment Bank (AIIB), marshalling the support of initially reticent Western governments. Although many saw the AIIB as an affront to Bretton Woods Institutions such as the World Bank and the International Monetary Fund (IMF), China was in fact acting within the rules of the existing system but clearly demonstrating its commitment to a multipolar world. Of note too, is the fact that China has outspent all countries in the semiperiphery, including all its BRICS counterparts (Brazil, Russia, India, China and South Africa) in military expenditure. Furthermore, its obdurate stance regarding the South-China Sea

has become quite problematic in the region especially given its increasing military budget. China appears to be inching toward a more aggressive stance to protect the gains it has made within the last several decades. While it is often fool-hardy to make predictions about the world-system, I would venture to state that systemic crisis will continue and a peaceful reorganization of the system may not be likely.

The article is organized as follows: First, there is a discussion of Wallerstein’s understanding of the semiperiphery which he saw as a stabilizing factor in the world-system followed by a brief explanation of the method and data used in our study. Then, some general findings are presented and an in-depth discussion that situates China in the stratified world-economy is subsequently provided. After the presentation of the findings, there is an examination of those findings within the context of Wallerstein’s conceptualization of the semiperiphery. The article concludes with some thoughts on macro-political-economic trends.

The semiperiphery in the world-economy

At the time of Wallerstein’s writings, there were two schools of thought—modernization theorists and dependency theorists—that attempted to make sense and understand the ways in which “development” was occurring in the world and more importantly how and why the capitalist world-system was stratified in such an unequal manner. Both modernization and dependency theorists pursued a highly dichotomized discourse in which countries tended to be categorized as either backwards or modern; or either rich or poor. Modernization theorists understood the division in the world-economy to be based on whether a country could be considered modern/advanced or traditional/backwards. Modernity was attained through industrialization and for many like Rostow (1959,1960), Great Britain was held as the quintessential modern state. Additionally, modernization and industrialization were equated with “development”. For modernization theorists, any intermediate position between modernity and backwardness was transitory. Moreover, the whole process of industrialization could be jumpstarted through various means such as the transfer of technology and through direct capital investment. Dependency theory, which largely emerged out of discourse generated by the United Nations Economic Commission for Latin America (UN ECLAC) as a counter to modernization theory, focused primarily on the exploitative nature of the division of the world-economy. Countries were either developed or undeveloped but development or under-development was based primarily on a country’s position of center or periphery in the world economy. Dependency theorists (such as Raúl Prebisch and later Andre Gunder-Frank) saw a highly unequal global economy where countries at the center exploited those at the periphery for natural resources and raw materials to maintain the center’s wealth and position as well as to keep the peripheral countries in their place. They acknowledged that some countries could find themselves in between center and periphery but the structural pull toward center-ness and peripheral-ness was such that any intermediate position was a transitional one. Underdevelopment itself, was therefore a by-product of the modern capitalist order (Gunder-Frank, 1979).

Wallerstein agreed with dependency theorists on the unevenness of the world-economic system; but went a step further concluding that this inequality was a necessary condition of the modern capitalist world-economy. Unequal exchanges were “necessary for the expansion of a world market if the primary consideration is profit. Without unequal exchange, it would not be profitable to expand the size of the division of labor. And

without such expansion, it would not be profitable to maintain a capitalist world-economy, which would then either disintegrate or revert to the form of a redistributive world empire” (Wallerstein, 1974a: 5). However, Wallerstein’s real breakthrough was his conceptualization of the semiperiphery and its crucial role in the modern world-system. Unlike the dependency theorist who saw countries either at the stage of core-ness or peripheral-ness, and the modernist who saw countries as either fully mature or totally backward, Wallerstein held that many countries in the world-system were, permanently or for an extended time period, in an intermediate position—the semiperiphery. For Wallerstein, this persistent global structural stratification went beyond rich-poor comparisons. This semiperiphery was neither, as the dependency theorists saw it (a transitional point) nor as the modernist theorists saw it (a residual effect of the world-system). And, most importantly, the semi-periphery was a permanent fixture of the modern world-system.

In the world-system, core countries are those that benefit significantly from the surplus derived from global commodity chains while peripheral countries see no benefit. The economic activities of core countries are capital-intensive as opposed to the labor-intensive ones of peripheral countries. The core engages in reproductive accumulative strategies as opposed to the primary accumulation strategies of peripheral countries. Unequal exchange then is enforced by the strong states on the weak ones; that is by the core on the periphery. In the world-system, the semiperiphery acts as a stabilizing fixture, engaging in an equal amount of core and peripheral activities, leading them to benefit just enough from global commodity chains to avoid falling back into the periphery but not enough to move into the core. Furthermore, the semiperiphery is both the exploiter and the exploited.

Wallerstein provides economic-historical evidence for the emergence of the semiperiphery and the trimodal modern capitalist world-economy and claimed that there were limited possibilities for transformation within the system. To put differently, unlike the modernization theorists whose solution for development is through rapid industrialization, Wallerstein sees a more rigid system with the ability to move from one sector (for example, semiperiphery to core) to another as extremely challenging. And Wallerstein is correct. In fact, there is a diminishing return with industrialization. As more countries in the world embraced industrialization as a means of moving out of the peripheral zone, the pay-off became less significant. In the case of Latin America, it is particularly striking that both import substitution industrialization and primary/secondary export industrialization, which Wallerstein argues were possible means to move ahead in the world-economy, were ineffective. Still, Wallerstein acknowledges that states *are* able to move from one position to another in the world-economic hierarchy over time. He writes, “the fact that particular states change their position in the world-economy...[however] does not itself change the nature of the system... the key factor to note is that within the capitalist world-economy, all states cannot “develop” simultaneously *by definition*, since the system functions by virtue of having unequal core and peripheral regions” (Wallerstein, 1975: 24).

After establishing the existence of the semiperiphery, in *Rise and Future Demise*, Wallerstein discusses the three mechanisms responsible for the stability, proper functioning and very survival of the trimodal world-system. This includes (1) concentrated military strength of the dominant, (2) widespread commitment to the system, and (3) a system that is three layered in structure). In *Dependence in an Interdependent World* he spends a significant amount of time discussing this third mechanism (why the capitalist world-system needs the semiperiphery) and provides two reasons for this: (1) economic reasons and (2) political-

economic reasons. These stabilizing features of the modern capitalist world-system which lie in the semiperiphery, and China’s role in this, is the focus of this article, which will be addressed shortly.

Approach and data

In their 1986 inquiry into the stratification of the world-economy Giovanni Arrighi and Jessica Drangel rather effectively, provided empirical evidence to support the general existence of the three-layered structure over a 50-year time period. Their ability to adequately track and glean broad systemic changes between 1938 and 1983 is the catalyst for this study and a starting point to ask specific questions regarding drivers of contemporary systemic change. The use of the Arrighi and Drangel method in this study to determine global economic-stratification is by no means a rejection of the other empirical studies (Snyder and Kick, 1979; Arrighi and Drangel, 1986; Kentor, 2000; Babones, 2005; Mahutga and Smith, 2011) into the subject. In fact, all these studies, including this one, can be seen as enriching the sub-field and generally should be seen as complementary and engaging. For this study, the Arrighi and Drangel method is used to determine global economic stratification for the period 1990 to 2015—a period of time that is equated with the effective rise of contemporary China.

Empirically demonstrating trimodality (periphery-semiperiphery-core) over time is essential to World-Systems Analysis but this has been a source of consternation for World-systems theorists and analysts. In fact, even Wallerstein (1974a) was cognizant of this challenge illustrated by his very own query “how can we tell a semiperipheral state when we see one” (5). He did not believe the answer lay in focusing on any one type or particular product since a peripheral product today could end up being a core product tomorrow and vice versa. This is especially true today with the rapid flow of technology across national borders. So, Wallerstein (1974b) suggested observing “the wage patterns and margins of profit of particular products at particular moments of time.” Theoretically, this makes sense but poses special empirical challenges. The same is true of Chase-Dunn’s (1984, 1989) suggestion in which he writes that “only carefully operationalized empirical research on changes over time in the global distribution of military power capabilities, state access to resources and level of economic development can resolve this problem” (Chase-Dunn, 1989: 79).¹ Furthermore, for Chase-Dunn, the lines clearly demarcating core, semiperiphery and periphery were not as rigid and was in fact quite fluid.

As indicated above, Arrighi and Drangel (1986) did take on the challenge of ascertaining empirically whether the three-layered structure of the world-economy persisted over time. They devised a simple and clear method that produced complex and interesting results. Their approach was to use gross national product (GNP) per capita as a proxy for measuring a state’s mix of core-peripheral activities in the world division of labor. They explain, “core activities command aggregate rewards that incorporate most, if not all the overall benefits of the world division of labor, whereas peripheral activities command aggregate rewards that incorporate few, if any, of those benefits... The differences in the command over total benefits of the world division of labor must necessarily be reflected in commensurate differences in the GNP per capita of the states in question” (Arrighi and Drangel, 1986: 31). The key to their argument is that if command over total benefits of the world division of labor represents where one falls in the global economic hierarchy, then the GNP per capita is a reasonable measurement to determine stratification.

In their study, Arrighi and Drangel use world population as a function of GNP per capita from 1938 to 1983 to test for the

stability and persistency of the semiperiphery over time. For the most part, they found trimodality to exist within the capitalist world-system throughout the time period under review with some years such as 1983 and 1938 as clearly trimodal and other years such as 1965 and 1970 to be less so. Taylor (1988), tested the robustness of the Arrighi and Drangel study by keeping the GNP per capita proxy and changing the “areal base of the data”. That is, instead of aggregating the population data based on nation states/countries, state boundaries were removed and the population rearranged into cells of approximately equal populations. Taylor’s “cell” grouping method is based on Cole’s (1981) alternative non-state world population data. Taylor found that despite the extreme spatial reorganization of the population data, trimodality persisted.

For Arrighi and Drangel, the GNP per capita was the closest proxy to representing a country’s overall benefit from the world division of labor. The gross national income (GNI) per capita is used in this study. GNI unlike GNP measures a country’s entire economic growth, and considers income and taxes earned both at home and abroad. It is important to note that in this study, the World Bank’s GNI per capita data using the Atlas Method (the purpose of which, according to the World Bank is to minimize exchange rate fluctuations in cross-country comparisons) is employed.

There are two reasons for using GNI per capita in the study. The first being that the linkages between nation states, corporations, and peoples in the world-economy have become more profound and complex because of globalization and transnationalization in particular (see Robinson, 2004, 2010). The second reason is that countries in the periphery and semiperiphery (the main economic regions on which this article focuses), place a strong emphasis on remittances. For China, overseas remittances have always been important but was significantly affected when United States officially banned in December 1950 (Peterson, 2012). However, according to the World Bank’s remittances data, in 1990, China received US\$175 Million in remittances. By 2000 that figure was at 5,237 Million and the estimate for 2010 is 51,300 Million and a significant portion of its GDP (World Bank Development Prospects Group, 2011).

All the data comes from the World Bank and the period of study spans 1990 to 2010. Like Arrighi and Drangel the log of the GNI per capita is used, not only because of the skewed nature of the raw GNI per capita data but also because the primary interest is in the relative rather than the absolute differences amongst countries. The fact that the GNI is calculated using the Atlas Method in USD also allows for the measurement of differences in command over world economic resources rather than differences in standards of living.

Each country’s population is plotted as a percentage of total world population by its log GNI per capita in intervals of one-tenth. The (population) distribution is then smoothed by a three-interval moving average. It is important to note that time (the period 1990–2010) and not geographic space (countries in the study on a year to year basis) is held constant because the study is mostly concerned in movements in the periphery and semiperiphery and there is a general paucity of data for those countries. Therefore, for any given year, all the data points are retained if both population and GNI per capita information is available. Furthermore, since the total population is being examined as a function of GNI, logically, the total world population for any given year in the distribution is based only on the total population of the countries included in the study for that given year.

At the beginning the study, the assumption is that of a trimodal distribution but with the understanding that it may not always hold. The priority is to examine the peripheral and

semiperipheral economic zones. To track which countries (and here the focus is on China) moved from one zone to another, a cutoff point for each economic zone (that is, periphery, semiperiphery, core) is initially established. This is done by first determining the median point (or median cluster of countries) in the distribution for each year. Then, the local minima in the immediate right and left of the median is determined. Those are the cut-off points for the semiperiphery for that specific year. So, for example, in 1990, the median cluster was 3.45 and the semiperipheral economic zone would be countries falling within the 3.15 to 3.65 cluster; to the right of that would be the general core zone and to the left of that the general periphery zone (see Fig. 1). This also means that it is possible that a country could remain in one particular economic zone from 1 year to another, but the shape of the distribution and where each country falls in that distribution might change. Starting in 2001, the distribution becomes chaotic with instances of more than one local minima to the left and right of the median point. In those cases, the lowest of these points is used as the cut-off points for the semiperiphery as shown in Fig. 1 for the 2010 and 2015 distributions.²

During the early years of the study’s time period, the findings support a trimodal distribution consistent with Wallerstein’s World-Systems theory; over time, the shape of the distribution veers away from trimodality and toward a quad-modal or generally multi-modal distribution. This movement away to what looks like a multi-modal distribution is even more obvious given the cut-off points imposed throughout the study. Still, this enables us to visually see that much of the messiness in the distributions especially in the 2000s involves a pronounced and general move to the middle. China, which experienced significant economic growth well into the 2000s, is a major driver of this change, irrespective of the global economic recession which began circa 2007. Within this context, the central concern of this paper, which is to engage with and reconcile Wallerstein’s statements regarding the impossibility of the modern capitalist world-system without a semiperiphery and the legitimizing role of the semiperiphery, is pursued. The results of the study force us to stop and re-examine some basic principles of world-systems theory.

China and the stratification of the world-economy

As can be seen in the 1990 distribution of Fig. 1, the distribution of the world-economy started out with a classic three-layered structure. Majority of the world is in the periphery and therefore, had the least amount of command over global economic resources. In this first year, not only is China (with 21% of the world population in the study) included in the periphery, but so is India (making up 16% of the world population), and almost all Sub-Saharan African (SSA) countries. In fact, both China and India are in the same cluster along the distribution (the middle point of the semiperipheral peak) with five Sub-Saharan countries and Guyana.

It is also quite apparent (see Fig. 2) that the world’s economic power and influence lay in the core and with a very small percent of the total world population. This, is of course not all that shocking but the numbers are still quite stark. The rest of the world’s population was still working through the residual and actual effects of the world-economic crises of the late 1970s, which one can argue lingered on well into the early 1990s when our study begins.³

Noteworthy in this initial distribution in the stratified world-economy is India’s presence with China in the same cluster of countries. These two populous countries are flanked by SSA countries and Bangladesh to the left and more SSA countries plus

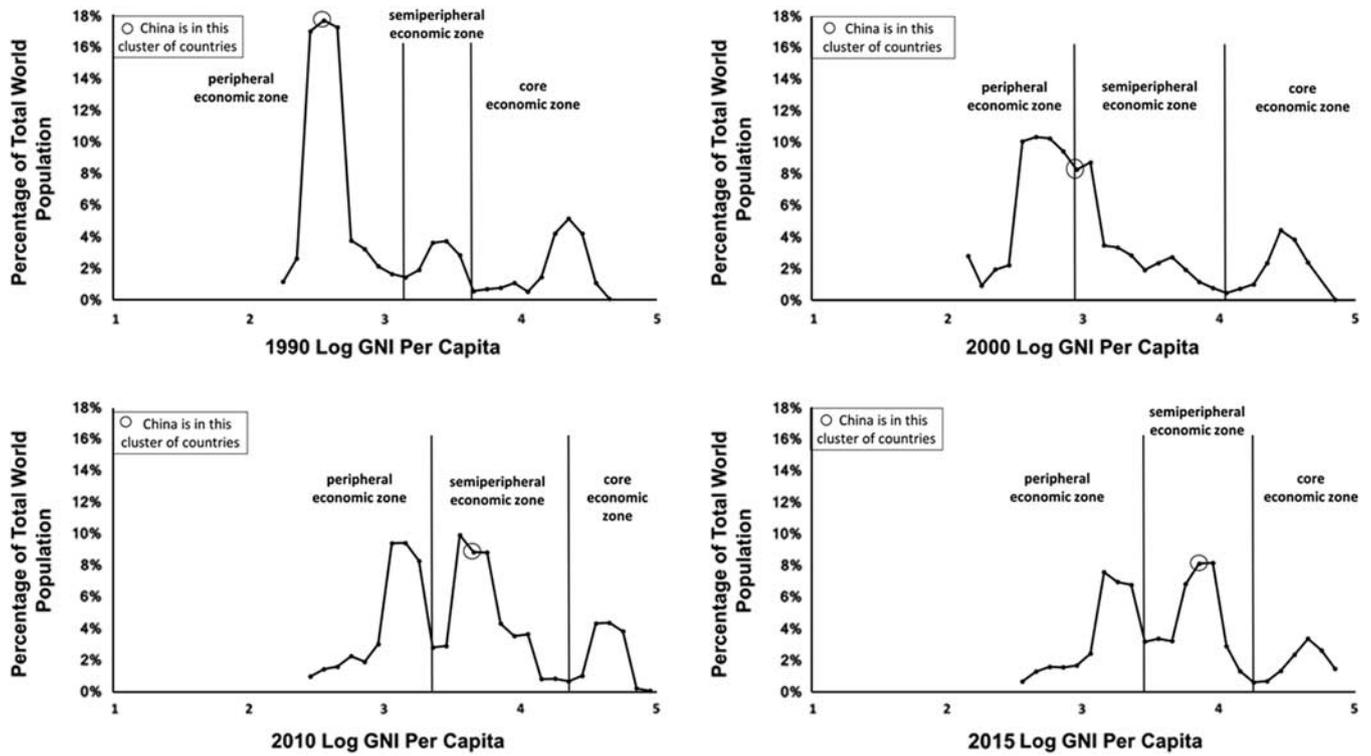


Figure 1 | Cut-off points for economic zones for the years 1990, 2000, 2010 and 2015.



Figure 2 | Country positions in the world-economy for the year 1990. Map generated using the study's data and MS Excel Power Map Add-On.

Pakistan and Sri Lanka to the right. These are all countries with elevated population figures. Most of these states were desperately dealing with continued economic crises and beginning to implement various economic policies to cope with those crises. Many, submitted to the more powerful core by adopting neo-

liberal programs in their domestic policies and international relations agendas.

However, within a 5-year period the classic trimodal distribution of the world-economy changes rapidly and dramatically. But the defining year is 1996, when although majority of the world's

population is in the periphery, the periphery is divided into two distinct blocs with India on one side and China on the other. And in 2001, the year after China enters the semiperiphery, the classic trimodal distribution becomes fully undone as witnessed in Fig. 3.

In the last three years of the study, an attempt is made to test this movement away from trimodality by applying a 6-degree polynomial regression function (which for all intents and purposes should capture trimodality) to the distributions. The end results were abysmal *R*-squares of approximately 0.4, 0.36 and 0.48. This change in the distribution is rendered more obvious when the initial 1990 trimodal setting of peripheral and semiperipheral points are held constant. In Addition, it is found that over the study's time period, a considerable amount of the world's population moved in the direction of the semiperiphery. This became clear as the study progressed and in 1999, there were eight more countries in the semiperiphery than the periphery. For the first time, in 2000 there is a significantly larger number of countries in semiperiphery than in the periphery (see Fig. 4.)

and China's role in this is quite critical as it too, enters the semiperiphery.

Taking the entirety of the study's time-span, it is obvious that changes are occurring throughout the global economic distribution, particularly in terms of the upper and lower bounds of the semiperipheral distribution. However, most of the significant changes in global stratification is occurring in the peripheral and semiperipheral zones. It is in those zones that you see multiple modes forming, shifting, and disappearing. Yet, on some level though, this is to be expected. Those with economic power (the core) will pursue policies to maintain the power structure of the status quo. Furthermore, to some extent, Chase-Dunn (1989), Chase-Dunn and Hall (1997) and Chase-Dunn and Grell-Brisk (2015) have all argued that the semiperiphery has always been the seedbed of change in the world-system. Chase-Dunn and Grell-Brisk, for example, maintain that a significant portion of socio-historical systemic transformation happened within the semiperiphery and sometimes even in the periphery and that this is in

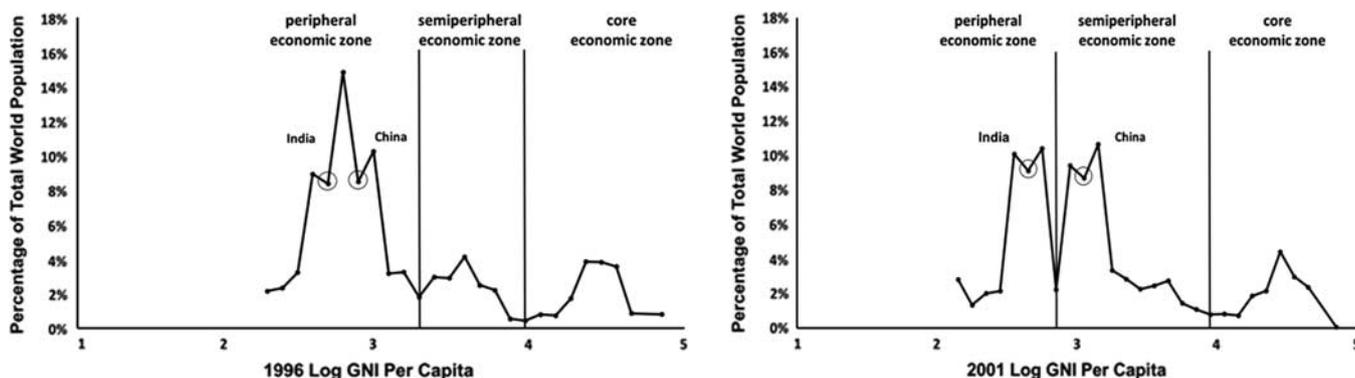


Figure 3 | China moving out of the periphery into the semiperiphery.



Figure 4 | Country positions in the world-economy for the year 2000. Map generated using the study's data and MS Excel Power Map Add-On.

part because of uneven and combined development that occurs within particular world-systems. It has been argued too, that semiperipheral states and regions are more likely to implement risky new technologies (Toynbee, 1946) and invest in organizational innovation (Lattimore, 1980).

Overall, the study highlights the significant shift from a largely classic trimodal or three-layered structure to something more akin to a quad-modal or generally multi-modal structure. This happens as China slowly divorces itself from the initial clusters that included India, and other South Asian countries. Of course, given the population sizes of both China and India, any movement they make in the world-economic distribution would be significant. But, even by 1993, China was already no longer in the same cluster of countries as India with both countries sitting at the top of the peripheral zone peak with India to the left and China to the right. In the mid-nineties and early 2000s both China and India were seen as having the potential to exert significant influence on the global stage. Yet, China is generally seen as having established a larger role in the global economy than India. And although this might seem obvious, by the end of the 2000s China had outperformed India almost 3:1 in terms of GNI per capita and GDP per capita.

In broader political economic terms, China was able to expand in a way India could not for a number of reasons. The economic reforms under Deng Xiaoping and continued under Jiang Zemin which produced unprecedented growth rates for China, included an initial decentralization and privatization measures. Hung (2016) has argued that the economic reforms should be periodized between those of the 1980s and 1990s since they were so distinct (the first being more market-oriented and the second being more statist). He also argues that these reforms thrived because of the effective groundwork laid by Mao Zedong. While I would not dispute Hung's argumentation, I maintain that the end result is practically the same—economic reforms leading to success and economic growth for China in the 1990s.

On the other hand, India's politico-economic reforms of 1991 were not as effective, producing instead, a continued rise of the elite contrary to the public call for the opposite and a concurrent de-peasantification which contributed to rising inequalities. Kumar (2000) has argued that events such as the fall of the Union of Soviet Socialist Republics (USSR), one of India's largest trading partner at the time, and the first Gulf War, contributed to India's liquidity crisis circa 1990. However, unlike China, much of India's economic reforms in 1991 were driven by structural-adjustment-type initiatives encouraged by the IMF and World

Bank. Industry, trade, and financial sectors along with exchange rates and the capital market were all liberalized and opened (Kumar, 2000) with the support of the World Bank and IMF in an effort to solve India's balance of payment crisis and its declining international credit rating. Some such as Kohli (2006), Nagaraj (2003), DeLong (2001), and Rodrik (2002) have argued that the reforms were ineffective or a complete failure. Others like Panagariya (2004) believed that more systemic economic changes implemented in the nineties proved better for the Indian economy. Reasonably, China was already attracting several magnitudes more in FDI than India in the early 1990s along with a considerably larger percent of its GDP in exports and imports in goods and services than India. And China's economic growth was driven by an export-oriented model. Obviously, in both the China and India case, there are also other socio-political issues at play but at the end of the day, it is China that steadily rose up in the stratified world-economy.

Remarkably, it is not until 2000 that China finally makes it into the semiperipheral economic zone. Given its incredible economic growth spurt and changing role in the global economy, one would have expected China to have jumped by leaps and bounds into the semiperipheral economic zone. Yet its movement into the semiperiphery, as can be seen in Fig. 5., is steady and moderate, highlighting the ever-real difficulty and challenge that many peripheral and semiperipheral countries face in terms of upward mobility. It is not until 2006 that China appears to be fully part of the larger middle stratum and continued to rise in the hierarchy all through the end of the study in 2015.

This challenge of upward mobility in the world-economic hierarchy is even more pronounced in the case of India. While China jumped two plot points (two full country clusters) ahead by 1995, India remained in the same cluster as it was in 1990. India has moved up in the global economic hierarchy but has never moved out of the peripheral economic zone.

China's march into the semiperiphery

In thinking about the results of the study, and Wallerstein's claims about the structure of the world-system, the first thing that comes to mind is Arrighi's (1994) assertions that given the population of China, any dramatic economic rise would be subversive to the world-system. He writes that "given China's demographic size, its economic expansion is far more subversive of the global hierarchy of wealth than all of the previous East Asian economic "miracles" put together" (382). And

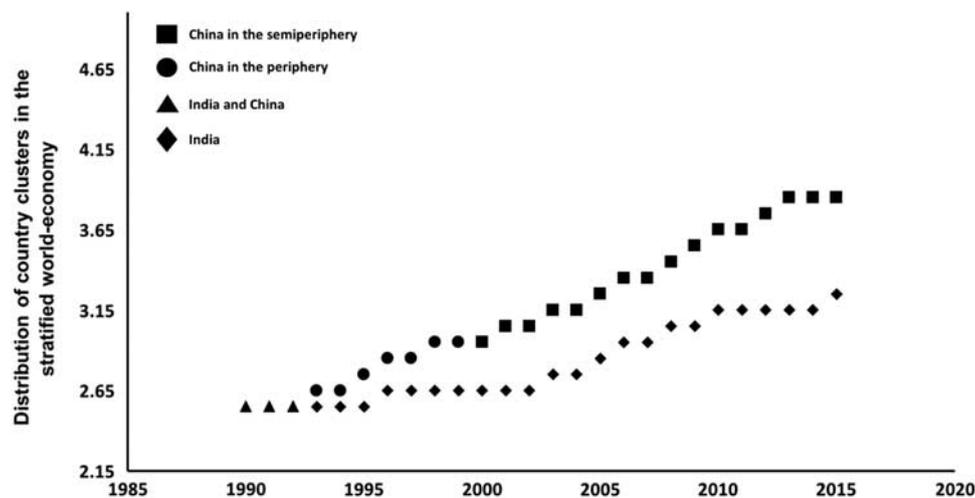


Figure 5 | China and India's movement within the stratified world-economy.

“accommodating the upward mobility of a state that by itself accounts for about one-fifth of the world population is an altogether different matter” (382–383). Arrighi was fundamentally right. As seen in the study, the very shape of the distribution changed with the economic rise of China. This goes back to Wallerstein’s statements on the trimodal distribution which is meant to be interrogated here but leads back to Wallerstein’s own question. “How then, can we tell a semiperipheral state when we see one? To which I would add, based on Wallerstein’s criteria from those two initial articles in 1974, how well does or can China fit the role of semiperipheral state? This also raises questions about the stability of the three-layered structure.

I will start by examining the mechanisms that Wallerstein states are necessary for the political stability of the system. The first of which is the concentration of military strength in the hands of the dominant. As Wallerstein (1974c) and several others including Chase-Dunn have pointed out, a country’s military power can go a long way in coercing cooperation and submission. In fact, when thinking of world-systemic hegemony or domination, military power is typically an important feature. All three hegemonies of historical capitalism—Dutch—British—United States—were military powerhouses. Despite questions about the effectiveness of the United States’ military, no one can ignore that its military spending/budget is three times more than the second largest military budget in the world—China.

While Wallerstein does not mention the function of military capacity in the semiperiphery, given its role of exploited and exploiter, one can deduce that a semiperipheral country must also have a strong military. The main challenger to the United States’ domination after the Second World War was the Soviet Union, which incidentally was also in the semiperiphery for most of the Cold War, spent almost as much, if not more money on its military as the United States (Stockholm International Peace Research Institute, Ostrom and Marra, 1986; Higgs, 1988). China is nowhere near those levels but it is still outspending all other major countries in military expenditures. In November of 2015, Chinese President Xi Jinping announced a major overhaul to its military to make it more combat ready and better prepared for military operations outside its national boundaries that included increasing its military budget (Bloomberg News). And while China’s announced in March of 2016 that it would increase its military spending, the total percentage increase is less than the last 6 years.

One can interpret China’s continued increasing military spending, as a commitment to the stable exploitative nature of the modern capitalist world-system (Mearsheimer, 2014) but China’s continued choice of soft-power in its relationships with the Global South paints a different picture. Still, there is no reason for a semiperipheral state like China not to increase its military, and given the general move toward the middle in terms of global economic stratification, China could simply be feeling the pressure of a crowded semiperiphery. In fact, how China chooses to use its ever-growing military apparatus will determine either this commitment to the system or a push for radical systemic change. A commitment to the system does not necessarily mean acquiescing to the United States and other core countries. In fact, this could entail China asserting its ideas (such as its state-based market economics) and itself within the semiperiphery and periphery in much the same way that the United States forced its ideas of market-based economics and democracy unto Latin America and the Middle East through overt and covert military action. One could argue that China has already laid the groundwork for this type of behavior within South-East Asia and Africa, but China has preferred other means to influence these regions. Furthermore, forcing a multipolar world through military engagement is not the same as deserting the world-

system. In fact, I would argue that a multipolar world could relieve some of the political-economic pressure from the overcrowding in the semiperiphery albeit without the military interventions.

The second mechanism which allows for the relative stability of the world-system is the pervasiveness of an ideological commitment to the system as a whole. This means the full support of the countries in the world-system that believe “their own well-being is wrapped up in the survival of the system” (Wallerstein, 1974b). I would argue that the entire post-Mao period has been an example of this commitment. The economic reforms which started with Deng Xiaoping and Jiang Zemin opened China to the rest of the world and ushered in unprecedented economic growth. Since, China’s pseudo-capitalist economic system has been named “capitalism with Chinese characteristics” and “state-based capitalism.” Here, Wallerstein’s argument that nationalization or socialization of all productive enterprises within the bounds of a nation-state is not enough to identify that state as outside the bounds of the capitalist world-system, is quite relevant. “As long as these nations remain part of a capitalist world-economy, they continue to produce for this world market on the basis of the same principles as any other producer” (Wallerstein, 1974a). It is therefore easy to see that China through its economic system would be committed to the modern capitalist world-system and contribute to its continued stability and persistence. In fact, scholars such as Hung (2015) and Kumral and Karatasli (2015, 2017) have also argued that China wants and needs to maintain the status quo and the current world-economic structure. That is not to say that Chinese leaders themselves have not called for a multipolar world or for a system where economic power and influence is not concentrated in the Global North. China is heavily invested in the capitalist world-system as it exists. China wants to be part of world-economy but wants a world-system it deems more beneficial to it—and sometimes for the rest of the world.

The third mechanism that Wallerstein (1974b) documents, which creates political stability and durability of the modern capitalist world-economy is the system’s three layered structure which he claims, is its “normal condition”. He explains that “neither [military] force nor ideological commitment... would suffice were it not for the division of the *majority* (my italics) into the lower stratum and a *smaller* (my italics) middle stratum. Whatever way one interprets the results of this study in terms of macro-economic trends (taken up a little later), the results do show that the middle stratum of the world-economy is growing; meaning that more and more of the world population (at the national level) is finding itself in the middle. However, I would argue that this does not necessarily mean a complete collapse of the trimodal/three-layered structure. Only the shape of the distribution of the stratified world-economy will be different.

This brings us to the role of the semiperiphery. For Wallerstein (1974b), given the small middle stratum, their role would involve some form of inadvertent policing of the system. The small middle is both the exploited (by the core) and the exploiter (of the periphery) making it harder for a coordinated revolt against the core. Wallerstein (1974a) explains that the capitalist world-system needs a semiperipheral sector for two reasons: the first being political and the other politico-economic. The political reasons go back to Wallerstein’s idea of “cultural stratification” (Wallerstein, 1974b). This means that given the highly unequal nature of the system, a bipolar world would be prone to revolts and volatility. A small semiperiphery would help to stabilize the system because the countries in this middle stratum have a tendency to think of themselves as primarily better off than the periphery (Wallerstein, 1974b). The implication here is that if peripheral countries rose in rebellion against this highly unequal system, the semiperipheral

countries would identify with and advocate for the position of the core countries.

Firstly, not only has this study demonstrated an increasingly larger semiperiphery, but the major driver of this change—China—for the most part, takes a completely different attitude toward the periphery and other semiperipheral states. Whether or not one believes it to be true or sincere, China's foreign policy attitude toward other developing or underdeveloped countries has mostly been one guided by post-colonial solidarity and its principles of equality and mutual benefit, diversity, practical results, common progress and so on. Naturally, this doctrine of cooperation is couched in China's own desire to continue to climb up in the global political-economic hierarchy. Arguably, it maintains that extreme inequality is not necessary to moving ahead. Since November of 2014, Chinese President Xi Jinping have in fact been touting the idea of a multipolar world in which global power is more diffuse. This does not mean a rejection of the basic capitalist world-economy. It simply means that China is interested in a system where power is shared amongst *more* countries or blocs of countries.

Within the last two decades, there has been an increasing amount of multilateral cooperation between not only semiperipheral states (such as the creation of the BRICS and the BRICS's own bank, the creation of the AIIB) but also across semiperipheral and peripheral states such as the Bolivarian Alliance for the Americas (ALBA), and the ASEAN Free Trade Area (AFTA). In today's world-economy, Wallerstein's "cultural stratification" reasoning, may be less convincing. Still, there has also been a proliferation of these regional and multilateral organizations as a necessary adaptation to the changing form of stratification in the world-economy. It appears that semiperipheral and peripheral countries are acutely aware of the ongoing changes in the world-system and have determined it best to protect their own interest but with the understanding that regional and multilateral alliances matter.

As far as the politico-economic reasons for the periphery, in the first case, Wallerstein (1974a) argues that the absence of a single political authority made it impossible to legislate the general will of the world-system or curtail the capitalist mode of exploitative production. However, the wage-productivity squeeze in the core, in part because of their strong state machineries, forces capitalist to shift focus to the semiperiphery. Wallerstein (1974a) further argues that, given that semiperipheral states trade or seek to trade with both core and periphery, their economic decisions tend to conform more to state based methods of market control. One can concede here that China more than conforms to this politico-economic semiperipheral role. China has kept strong state control and management of its economy since the 1990s (Hung, 2015) including its currency.

By the late nineties and early 2000s when it became clear to the world that China had to be taken seriously at the global level, China had already clearly benefited from this wage-productivity squeeze especially because of its "state-based capitalism" but also because of its large, healthy, and educated population. Many including Lindbaek (1997), Glyn (2006), and Foster *et al.* (2011) referred to China as being the world provider of a "reserve army of labor" particularly given China's exceedingly sizeable population. Lindbaek (1997) claimed that, on the labor supply side of globalization, China "clearly had a reserve army of labor" that would be "released gradually" keeping the wage differential between developed and lesser developed countries high. According to Foster *et al.*, given China's large labor supply, wages could be suppressed leading to vast amounts of profits for multinational corporations, but also provide a competitive edge for China over other areas of the Global South with massive amounts of low-wage workers.

For others, a significant percentage of China's population could invariably be seen as a latent reserve army of labor and they attributed China's rapid economic expansion in the mid 1990s to this phenomenon. Of course, this very idea, like all things Chinese, is also the source of much debate and scrutiny. This seemingly unlimited supply of labor to be tapped into for the non-agrarian industry allowed China a competitive edge in the global value chain. Hung (2016), asserts that China's "reserve army of labor" developed as a result of Maoist era health and education policy (resulting in a large population of educated and healthy workers); the unique Chinese system of hukou (that bureaucratically kept the rural workers in the countryside); and the leeching of power from "township and village enterprises" (that took away the livelihood and earning potential of the rural workers). All these facts helped create an atmosphere in which China could benefit significantly to the wage-productivity squeeze.

Although Wallerstein's arguments regarding the role of the semiperiphery and the countries within may hold true even today, one must also note here that the politico-economic landscape has been considerably transformed and modified by transnationalization, the extent of which Wallerstein could/had not anticipated. The emergence of a transnational capitalist class (TCC) has certainly had an effect on the lack of a single political authority to regulate the capitalist world-economy. Robinson (2004) has argued that the TCC has transcended nation-state boundaries and despite being in competition amongst themselves for cheap labor and access to the means of production have managed to work together to maximize their profits. The implication of an existing TCC is two-fold. First, through the TCC, a single global political authority could emerge. However, this political authority would only seek to curtail the capitalist mode of exploitative production only if the negative effects were so great as to result in plummeting profits.

Despite the fact that the rise of China has changed the shape of the distribution, I would anticipate the persistence of the capitalist world-economy. China does not seek to fundamentally transform the system. Everything China has done, from opening its market, to its major economic reforms and most recently, a supposed move toward domestic consumption to stimulate economic growth (Canton, 2015), has been with the goal of profiting from the world-economic system as it stands. It has pursued a strategy that seeks a relative advantage to "develop". Hung (2016) has argued that China will most likely not continue to grow as spectacularly as it did in the nineties and first half of the 2000s. He contends that optimistically, China could stabilize economically and grow at a steady pace or alternatively, it could slide back into economic decline and backwardness. Given the strength of China's ties with the core and its supposed move to a market directed at domestic consumption, China will hopefully remain somewhere in the middle. It is also possible that its many geopolitical moves around the Global South, especially in Sub-Saharan Africa and Latin America could boost its chances of remaining in the middle stratum.

China's engagement especially with Sub-Saharan Africa, has implications for the stratified world-economy in terms of unequal exchange and exploitation. In classic world-system analysis, a large periphery is necessary since it is not only exploited by the core, but also by the semiperiphery. Majority of the peripheral countries are in Sub-Saharan Africa—a region that China has spent significant time and resources designed at developing a well-established relationship. This means that China has the advantage of prime access to much of the periphery. Still, this also allows China the unique opportunity to implement alternative modes of accumulation that are less destructive than the current neoliberal order promoted by the West.

Final remarks on macro-political-economic trends

Operationalizing the empirical measurement of the semiperiphery has always been a point of contention in world-systems analysis. This study takes one approach and method. We believe that with this method can reasonably help shed light on questions dealing with the general distribution of the contemporary global-economy. Karatasli (2017) developed an enhanced version of the Arrighi and Drangel approach to study global economic wealth distribution. His study begins from 1500 to 2008, and for the period of his study which overlaps with ours, he found a general transformation of the world-system into a quatro-modal distribution. Karatasli argues that the world-system has undergone several similar such transformations—first being bi-modal, then trimodal and finally quatro-modal—thus implying that there is a strong possibility based on historical evidence for the stability of this quatro-modal type of distribution. However, as observed in this study, with both China and India, along with several SSA countries moving toward the center, it is more likely that the world-system will return to a tri-modal distribution, albeit one with a larger middle stratum and two smaller extreme points.

Arrighi and Silver (1999) put forth a series of hypothesis regarding the US's hegemonic transition period, one of which was that the bifurcation of military and financial capacity under US hegemony was unique. This bifurcation, they argued, would not reduce the chances of a possibly long period of hegemonic crisis and systemic chaos. I agree, and maintain that this study, in part, demonstrates not only continuing systemic and hegemonic crisis but also, that the current world-economic distribution, with so much of Asia in the middle stratum, is a result of this bifurcation of US military and Asian financial capabilities.

As previously intimated, this larger middle stratum, could have a crowding effect with geopolitical implications. China's increased influence in the global economy has allowed it to also increase its military spending (although a distant second, second nonetheless to the United States' military budget). Although China has not used its military for covert operations that involve overthrowing and installing governments, like the United States did during the beginning and especially at the height of its hegemonic domination, it does appear to be emboldened by its military capacity and taken more aggressive positions. Not only, has it begun to sell and provide military weapons to regions in conflict in the Global South (such as Sudan), it has also heightened its military presence in traditional areas of conflict such as the South China Sea. The geopolitics of the South China Sea is extremely important vis-à-vis this increasing middle stratum of the world-economic system. China's hardline view regarding its claim to sovereignty of strategic islands in the region, and its unwillingness to submit to international rulings on the conflict, places it at odds with some of its semiperipheral peers and their allies, and even Japan (De Castro, 2013; Xu, 2014; Yuzawa, 2014).

The Philippines took its case against China's continued claims to the South China Sea to the Permanent Court of Arbitration (PCA) Tribunal. In mid-July 2016 in *Philippines v. China*, the court found that China's "historic rights" claim to waters beyond its territorial sea had previously been relinquished, that China's interference in Filipino fishing and oil exploration violated Filipino sovereignty, and that China's "artificial islands" were also in violation of its obligation not to irreparably damage the marine environment (Batongbacal, 2016; Daiss, 2016). In its July 13, 2016 press release, Fitch Ratings—one of the Big Three credit rating agencies—noted that importance of the geopolitics of the South China Sea, claiming that the US's declining influence in Asia plus with China's efforts to expand its presence in the region was "fundamentally changing the region's security paradigm" (Fitch Ratings, 2016). Furthermore, that shifts in the regional balance of power meant geopolitical risks that had the "potential

to cause significant economic and political instability." China's reaction was one of anger claiming that the PCA's decision was "naturally null and void" and the People's Daily editorial declared that "the Chinese government and the Chinese people firmly oppose the ruling and will neither acknowledge it nor accept it." While China has not responded by military invasion or open war, it has made a point of displaying its military capacity by engaging in military drills in the South China Sea. Christopher Bodeen reported in the *Navy Times* that just days of the PCA ruling, China closed part of the South China Sea for military exercises (Bodeen, 2016).

Despite its potential for and sometimes overt efforts at asserting its military dominance amongst peripheral and semiperipheral countries, China has continued its use of soft-power to strengthen its ties with the rest of the Global South. This is quite consistent with its maintenance of the world-system's status quo (Kumral and Karatasli, 2017). The emergence of multilateral organizations within the Global South and China's seemingly acceptance of them supports this view. China may however, find itself at a crossroad in the near future. It has always called for a multipolar world even as the semiperiphery becomes more crowded. Still, other countries in the semiperiphery are also trying to demonstrate their own power and prominence in the world-system, highlighting the fact that moving up and down the world-system hierarchy is also dependent on the nature of the relationship established between states (see Babones, 2005).

This is particularly so with Russia. Russia, unlike China has used overt military action in recent years—in Georgia (beginning 2008) and Ukraine (beginning 2014), and continues overt and thinly veiled covert military operations in both areas. Unlike China, Russia has called for a bipolar world, one in which it could share power with the United States (although one could argue about the veracity of Russia's call for "shared" power and the implications of this). I would argue that Russia's recent behavior in the world-system can also partially be seen as a response to and geopolitical consequence of the reshaping of the stratified world-economy. For the last two and a half decades, China has risen in global prominence economically and politically. Its sphere of influence is not only in South Asia, but also Africa and Latin America. China created the AIIB (which appears to be more successful than the BRICS Bank) to help mitigate the risks involved in investing and providing foreign aid in peripheral and semiperipheral countries. Meanwhile, although Russia did not fall into semiperipheral status, it did lose, or rather Kremlin saw the fall of, the USSR. Now, Russia's newfound admiration for America and its new anti-China government is perplexing. Still, one can trace modern Sino-Soviet discord as early as the 1950s and the Bandung Conference as the point at which China sought to influence and assert itself, amongst the peripheral states, as the rightful alternative to the existing core establishment. How China responds to Russia's aggressive posture in the semiperiphery and the US's inability to deal with its diminished hegemonic status remains to be seen. In today's high-tech military world, only time will tell. And as Arrighi and Silver (1999) rightly stated, non-catastrophic transition to a new world order is dependent on US's "adjustment and accommodation to the rising economic power of the East Asian region" (289). I would add, that more than anything, multipolarity is needed to secure a peaceful system.

This article has demonstrated that the shape of the distribution of the stratified world-economy has changed dramatically but believe this is indicative of continued systemic crisis not a necessarily full transformation to a different mode of distribution. I argue that although the shape of the distribution sometimes appears quad-modal or multimodal, primarily because of China's movement within the distribution, that what we are actually witnessing is the movement of more of the world's population

into the middle stratum of world-economy. This massive movement toward the middle is unprecedented. However, despite the appearance of quad-modality or multi-modality, the system will eventually readjust back to a trimodal distribution but will look different; that is, there will be a medium periphery, large semiperiphery, and small core. I also argue that because of this new shape of the distribution, there will be an increasing amount of pressure on the countries in the middle that may translate into open military aggression and at the same time, a rise in regional and multilateral organizations such as the AIIB, ALBA and AFTA.

In this article, the focus has been primarily on the changing modes of distribution as it relates to China and the semiperiphery. Equally important, are the implications for the periphery. With a much smaller periphery, how does unequal exchange play out? What will exploitation within the world-system look like with this diminished periphery? Will this drive up the value of primary resources that are generally found in the periphery? How can peripheral countries turn this into an advantage to attract either more foreign direct investment or foreign aid? Can they use their diminished status to ramp up the industrialization process and what are the ecological ramifications?

There is still much research to be done with regards to the role of China in the changing stratification in the world-economy especially *vis-à-vis* those countries at the bottom of the world-economic hierarchy. There is room for more research not only on the diminished periphery but also for the implications for the core given that this study also shows that some core countries are slowly falling into the semiperiphery such as Greece and Portugal. Additional research might address some of these issues but could also include how to interpret results such as the ones found in this study and address questions of operationalization and empirical measurements to determine world-economic stratification.

Notes

- Chase-Dunn was at the time responding to Daniel Chirot's (1977) claim that decolonization eliminated the periphery. Chase-Dunn agrees that although some formerly peripheral countries did become semiperipheral, core states had in fact gained additional power.
- The method for determining the general economic zones is applied consistently throughout the study. When multiple modes begin to appear, the method's limits are tested but remain fairly robust except in two extreme cases—2004 and 2007—where the number of clusters within the semiperiphery contracts significantly. This is because of the fact that the lowest local minima to the left are fairly close to the median. Therefore, in 2004 the lower bound is 3.35 (compared to 2.95 in 2003 and 3.05 in 2005) and in 2007, the lower bound is 3.55 (compared with 3.15 in 2006 and 3.25 in 2008).
- Academics have used countless time-frames to determine the major global economic crises from the 1970s to present. For example, José Tapia (2013) has argued that there have been five distinct crises of the world economy—mid 1970s, early 1980s, early 1990s, early 2000s, and the Great Recession of 2007–2009. Others such as Michael Roberts (2015) have argued that in the late 1970s there was a global recession in 1974 a double-dip recession in 1980 and a Long Depression beginning in 2007. Many more have described the global economic woes in terms of the global debt crisis of the 1970s, the saving and loan crisis of the 1980s and the recession which began circa 2007. However, what still remains is that in 1990 when our study begins, majority of the world's population was in the peripheral zone and majority of the world economic power rested with a few countries in the core.

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Data availability

The data used in this study is based on a World Bank dataset download of 13 October 2016. This includes the GNP per capita data and world population data. Since the World Bank is continuously updating its datasets, this particular download is available from the corresponding author upon reasonable request.

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Additional information

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