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Debate

The End of Peripheries? On the Enduring Relevance of Structuralism for Understanding Contemporary Global Development

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ABSTRACT

Despite repeated chronicles of a death foretold, centre–periphery analysis remains very relevant for understanding the challenges of contemporary development. It reveals certain common asymmetries and constraints that structure the integration, lagging and subordination of the global South in the current world order through ongoing technological, industrial and financial dissemination. The precise forms of lagging and subordination have changed over time and context, in symbiosis with changes in the overall capitalist system, although the systemic principles remain pertinent. These can be evaluated according to three propositions: technological lagging; declining terms of trade; and pro-cyclical macroeconomic adjustment in the peripheries. Accordingly, global imbalances are better understood as an evolution of US-centred hegemony and the subordinated accommodation of 'rising powers' including China, rather than a weakening and rebalancing of US power *vis-à-vis* these 'rising powers', as per conventional interpretations. The possibility that we might be witnessing a reinvigoration of US hegemony — for a second time in the post-war era — is one that needs to be taken seriously, particularly if this becomes associated with a deepening of imperialism rather than emancipation.

INTRODUCTION

The concept of peripherality was foundational to the emerging field of development studies in the late 1940s and 1950s. It served as one of the key rationales for making a distinction between developing countries (or 'underdeveloped countries', as was the common term then) and the advanced

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industrial countries (the centre). Peripherality in this sense is not merely spatial; it is an assessment of structural modes of integration into the world economy via the dissemination of technological and industrial development, and associated factors such as finance and ownership. Within these specific dimensions — which are vital to wealth and power in the global economy — centres generally emit and peripheries generally receive. This asymmetry was theorized by many of the initial pioneers of development economics, particularly Ragnar Nurkse and Gunnar Myrdal, although the most explicit exposition was made by Raúl Prebisch from his position as executive secretary of the newly created United Nations Economic Commission for Latin America and the Caribbean (CEPAL, as per the Spanish acronym). In UN (1950) Prebisch laid out the original formulation of what came to be known as the centre–periphery approach (as distinct from the idea of core–periphery in later world systems theory). The centre–periphery approach in turn became the foundation of the CEPAL school of Latin American structuralism in the newly emerging field of development economics.

This idea of peripherality has recently come under criticism from various quarters, albeit not for the first time. Structuralism was one of the prime targets of today's orthodoxy in development economics during the latter's rise to dominance in the 1970s and 1980s, as epitomized by Lal (1982). However, even while structuralism was banished from the academic mainstream, the havoc that neoliberal policies wreaked on most of Latin America and sub-Saharan Africa during the 1980s and 1990s reinforced the peripherality of these regions. With economic recovery in the 2000s, together with increasing confidence that opening and reform in China had set off a sustained epoch-shifting transformation, arguments have again been revived that the idea of peripheries is past its expiry date.

Bernanke (2006) exemplified this revival in a speech made on the eve of the global financial crisis, and the year he assumed leadership of the United States Federal Reserve. He argued that 'the traditional distinction between the core and the periphery is becoming increasingly less relevant, as the mature industrial economies and the emerging-market economies become more integrated and interdependent'. He noted in particular that the increasing share of manufacturing now taking place in these 'emerging markets' and the direction of capital flows from them to the United States both stand in contrast to the classic nineteenth century set-up in which Great Britain exported manufactures and finance to the peripheries in exchange for commodities. By using the nineteenth century international economic order as his litmus test, Bernanke more or less ignored the contributions of structuralism beyond the basic idea that peripheries began their insertion into this order as commodity exporters. Latin American structuralists were more precisely focused on the challenges of peripheral industrialization that had already commenced since at least the inter-war period.

The subsequent financial crisis over which Bernanke presided would have presumably emboldened his argument further given the conventional view that the crisis exposed yet further holes in Anglo-American and European dominance. The 'emerging markets' (especially China) also appeared to have taken over from Europe and North America as the growth engines of the world economy, particularly for commodities. This gave weight to arguments of 'delinking', that is, from a dependence on erstwhile central countries to drive economic growth in developing countries. Emphasis has been given to the considerable power that China wields over the US government as its creditor. Much punditry has also been spun from the recent World Bank announcement that China's economy surpassed that of the US in 2014 (albeit only in tenuous and contrived purchasing power parity terms).[1]

In parallel, the idea of peripherality has also come under attack from certain quarters of the Left, such as post-development and decoloniality scholars. Again, the more traditional left had already criticized structuralism and dependency theory in the 1970s, most famously, perhaps, Brenner (1977). However, these earlier criticisms were not directed towards the principle of peripherality per se, but towards the contention that underdevelopment in the peripheries could be construed as capitalist. The more recent criticisms go further than this. They contend that the notion of peripheries is fundamentally Eurocentric in its techno-scientific-industrial understanding of modernity.[2] It thereby contributes to a binary categorization of the world in which the 'Other' is conceived by its absences.[3]

While these latter criticisms raise a variety of important normative and epistemological concerns, they also somewhat overgeneralize the practical focus of the initial structuralist project in development economics (which included, it should be noted, a critique of Eurocentrism). It is true that there was (and continues to be) an acceptance of a techno-industrial imperative in modern development, although whether this necessarily constitutes Eurocentrism is open to question. It could simply represent a realist view of modern wealth and power, although this suggestion might be critiqued as 'logic of the dominant scale' (Sousa Santos, 2006: 17). Or it might represent what Sousa Santos refers to as counter-hegemonic practices resorting to hegemonic scientific and technological knowledge (ibid.: 14). Nonetheless, the leading authors of the coloniality research programme do not appear to dispute an understanding of capitalism as having a centre of power. Rather, as synthesized by Escobar (2007), they contest the understanding that capitalism emerged solely from internal causes within these centres. Yet, such contestation is hardly new; it was also a central contention of many of the original structuralist and dependency theorists, which tends to get overlooked in the less sophisticated renditions of these critiques.

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1. For one example of such punditry, see Stiglitz (2015).
2. For one example, see Gülalp (1998).
3. On the sociology of absences, see Sousa Santos (2006). This critique is also implicit in Quijano (2000) and Mignolo (2005).

The pincer movement from Right and Left has put pressure on the place of centre–periphery analysis in development studies, much like the decline of classical development economics in the late 1970s, as famously described by Hirschman (1981). Starting with an earlier wave in the globalization literature, many have argued that the traditional rationale of dividing the world between North and South, developed and developing, or any other binary, has become invalid as a conceptual basis for the field of development studies. At the very least, current global constellations and the rise of the BRICS (China in particular) force us to rethink the conceptual foundations of the field (see this argument, for example, in Heller et al., 2009 and Henderson et al., 2013). At the extreme, some argue that global transformations have rendered the field antiquated and moribund, best replaced by global studies, international studies, area studies, or other fields that offer a less bifurcated vision of the current world order.

Obviously, in calling for a reconceptualization of development, one must ask: from what prior conceptualization? The response should ideally eschew the caricatures that have come to be accepted as doctrine in much of the literature, such as the idea that the discourse of development started with Harry Truman in 1949, as is often parroted on both Left and Right.[4] Among the pioneers of development studies, development was primarily understood as processes of modern structural transformation, both social and economic. Only the more simplistic contributions (such as modernization theory, which was heavily criticized from its inception) imposed teleologies that these transformations would follow the same path as the 'advanced' countries or that the outcome would be more or less similar (such as the US circa 1960). Insofar as historical examples of late industrialization were formative influences on the field, the main lesson distilled was that the path would necessarily differ, increasingly so the later the comer. And of course those influenced by socialism did not conceive the liberal capitalist West as an end point. Indeed, drawing inspiration from Maoist theory, many believed that the Third World could lead the way where the West failed and the Soviet Union increasingly disappointed.

Seven decades later, there is no doubt that the world has experienced profound changes. Especially in the last three decades, global innovation and productivity have continued to revolutionize even despite criticisms that financialized capitalism has become divorced from the needs of the 'real' economy. As a result, production and consumption have transformed the world over, in rich and poor countries alike. A significant proportion of the world's largest corporations and billionaires are now based in the South, and it is often said that there is an increasing diversity among developing countries. The rise of China has been one of the most evocative — and for some, provocative — of these changes.

4. See Helleiner (2014) for an excellent discussion of this.

It is nonetheless still useful to frame the contemporary challenges of development in terms of peripherality. The concept reflects certain common asymmetries and constraints that continue to structure the lagging and subordination of the global South in the current world order, even despite the monumental changes and variations, and without denying the importance of Southern agency. Precise patterns and forms might differ from the past, especially in Asia. However, the systemic principles remain relevant, with respect to the functioning of a hegemonic centre and the structural integration of peripheries into this centre through ongoing technological, industrial and financial dissemination.[5] This requires a qualification: many of the lags in structural transformation that many poor countries faced relative to rich countries have dissipated, particularly in dimensions of human development (e.g. Costa Rica now has a higher life expectancy than the USA). However, lagging has not dissipated in the dimensions most crucial to wealth and power, such as those related to technology, industry and finance. Similarly, subordination has not necessarily dissipated, even though it has been transmuted by contemporary globalization. Economic practices of domination have also become more refined, parallel to the resurgence of quite blunt forms of military invasion and intervention by leading powers since 2001.

Peripherality remains relevant in this precise understanding of persistent lags and subordination within key structural dimensions that constrain (rather than determine) national strategies of development and self-determination in the global South. The challenge of contemporary development studies — and a key task for critical development studies — is to understand this transmutation of lagging and subordination, rather than prematurely succumbing to euphoric narratives of paradigms undone. The latter are usually associated with exaggerated assessments of global levelling and power equalization, most typically framed in terms of the decline of US (and, more broadly, Northern) power versus the rise of China and Asia more generally. Such assessments need to be addressed in order to clarify how even China, as a 'most likely' case, is still better understood through a lens of peripherality despite its unparalleled rise.

This case for the continued relevance of peripherality is made in the following three sections. The first offers a recollection of some of the original propositions and debates of the Latin American variant of structuralism. Second, these are evaluated in light of the present, focusing on three propositions: technological lagging, declining terms of trade, and the pro-cyclical nature of macroeconomic adjustment in the peripheries. Third, conventional interpretations of rebalancing between the US and China are challenged,

5. Hegemony in this sense follows the Gramscian usage by Arrighi (1994: 27–9), as the additional (non-coercive) power that accrues to a dominant state by virtue of its ability to lead a system of states in a manner that is perceived as pursuing a general interest. This article does not engage with debates about hegemony, such as the contention by Desai (2013) that the US has not been a hegemon.

as a means to illustrate the enduring salience of peripherality even in this most-likely case. The conclusion returns to the importance of reaffirming centre–periphery analysis as a foundation of contemporary development studies.

RECALLING CENTRE–PERIPHERY THEORY AND ITS EVOLUTION

In evaluating the continued relevance of the centre–periphery approach, it is important to briefly recall the original propositions first set out by Raúl Prebisch and his colleagues. In his famous CEPAL manifesto (UN, 1950), Prebisch aimed to elucidate the challenges posed by the historical integration of Latin America into the international economy through the propagation of technical progress, in particular in the last quarter of the nineteenth century. Without denying the importance of preceding periods of mercantile colonialism, the distinguishing feature of the late nineteenth century was its association with industrialization in the centres, in particular in capital- and technology-intensive industries such as chemicals, steel, petroleum and eventually electrification. The pattern of propagation, Prebisch argued, favoured technological development in the centre and dependence on this technological development in the peripheries. It established the outward-directed and externally propelled development of the peripheries, including disarticulated production structures, sharp polarizations of productivity and wages, and tendencies for higher income inequality than in the centres.[6] On this basis, he proposed four characteristics of peripheral capitalist economies: declining terms of trade; marginalization of disadvantaged populations in the peripheries; imitative metropolitan consumption patterns of periphery elites; and macroeconomic instability in the form of inflationary pressures and balance of payments gaps.

It might be argued that Prebisch exhibited a degree of technological determinism, although his analysis was more precisely oriented towards an identification of structural constraints facing peripheral economies in their growth paths, as distinct from those facing central economies. The focus was policy oriented, with an aim to endogenize technological development in the peripheries. This uphill struggle could only occur through determined Southern agency, of which he was a leading international advocate well into the 1970s (as exemplified by his founding role in UNCTAD). As such, the centre–periphery prognosis was not intended as a statement of inevitabilities within capitalist development, unlike later neo-Marxist versions of dependency theory. Agency in this sense was admittedly understood as state-led industrial policy, and Prebisch and colleagues initially emphasized import substitution industrialization (ISI) as a key strategy.

6. See Polanyi Levitt (2005) for an excellent summary of the theorization of Prebisch.

Some of the earliest criticisms of the ISI strategy in Latin America, however, also emerged out of CEPAL as early as the mid-1950s, as best represented by the work of Celso Furtado and Osvaldo Sunkel. Their critical reappraisal of the ISI strategy was stimulated by the chronic balance of payments problems that leading industrializers in the region, such as Brazil, were already confronting. Both criticized the initial optimism of Prebisch, Arthur Lewis and other early development economists that foreign direct investment (FDI) could lead or finance an autonomous process of industrialization. Instead, they contended that the increasing dominance of FDI in key industrial sectors of leading countries undermined national processes of accumulation in these countries. Furtado argued that economic growth based on the polarized structures characteristic of Latin American industrialization tended to be maximized by policies that effectively intensify income inequality, and by investments that increasingly rely on the transfer of technical progress through transnational corporations and on the inflow of foreign resources. The resultant growth (as in Brazil in the late 1960s) would thereby tend to intensify both polarization and dependence, in contrast to the experiences of Europe and North America.[7] Sunkel similarly argued that the massive penetration of foreign firms from the 1950s onwards accentuated the uneven nature of development in Latin America despite the acceleration of growth rates driven by industrialization, and he elaborated on some of the highly negative effects of FDI (e.g. see Sunkel, 1972). As such, both were among the first theorists of the expansion of northern transnational corporations (TNCs) into the South.[8] They brought particular attention to the structures of ownership and the resultant control over flows of value that ensued from these increasingly transnationalized forms of industrial organization.[9]

Tangents, Convolutions and Debates

Many of the subtleties of these insights were subsequently obscured by the conflation of structuralism with dependency theory and the reduction of dependency theory to its most radical neo-Marxist variant. There was, of course, plenty of reason to associate dependency theory with Marxism given the Marxist orientation of many of its key disseminators (many of whom nonetheless argued that analysis must be based on concepts of social class rooted in indigenous realities rather than being simply imported from European social thought; see, e.g., Cardoso and Faletto, 1979, originally

7. In Furtado (1973) he offered a corrective to his earlier predictions of stagnation, such as in Furtado (1956), and explained how growth could occur within such dependent contexts.
8. Cardoso (2009: 299) claims that, in the late 1960s, the notion of multinational corporations was not in use and that Raymond Vernon first coined the expression only in 1971. However, Sunkel (1972) synthesized an already well-established literature on multinational corporations in Latin America at that time.
9. For more detailed discussion, see Fischer (2010b).

published in Spanish in 1969). Even Furtado and Sunkel expressed themselves in a language that was informed by a Marxist intellectual tradition, although apparently neither was Marxist.[10] Prebisch was clearly not Marxist, although he has been commonly portrayed as such in the US literature, which in turn seems to have ironically influenced some post-development and coloniality scholars despite their critiques of Eurocentrism.[11]

For recollection of past taxonomies, Palma (1978) synthesized dependency theory into three broad approaches. One was the lineage that emerged from the CEPAL structuralism. It was generally considered reformist, with a cautiously positive view of the possibilities of self-reliant development through alliances of popular forces with nationally minded business classes, and the state guiding a process of endogenous industrialization. The second approach derived from a Latin American Marxist lineage that was critical of CEPAL reformism, as best represented by Cardoso and Faletto (1979).[12] It nonetheless adopted a similar historical structuralist approach by concentrating on obstacles to capitalist development within concrete situations of dependency, while recognizing the possibility of (dependent) development within peripheral capitalism. The third approach was the neo-Marxist strand, started by Andre Gunder Frank and his Latin American colleagues, who focused on constructing a formal theory of underdevelopment and capitalism aimed at finding 'laws of motion' based on patterns of integration into the world economy. Palma (1978) called this 'mechanico-formal' theory; Cardoso (1977) referred to it as 'structural-mechanical formal models'. It was the most radical in its politics insofar as it did not accept the possibility of capitalist development in the peripheries and advocated that nothing short of socialist revolutionary change could overcome economic underdevelopment. As such, it had little interest in the discussion of policy issues.

While this third approach made important contributions, it also dominated Northern awareness of dependency theory. Cardoso (1977) pointed out that the more nuanced analyses that had originally emerged in Latin America were largely overlooked by US scholarship because most were written in Spanish and Portuguese and hence were ignored until later translated into English. Because Frank wrote in English and also offered a framework that was easy to recount, he was widely adopted as representative of the dependency tradition, which was additionally seen as possessing a close relationship with the world systems theory of Immanuel Wallerstein, both stemming from the

10. I am indebted to Kari Polanyi Levitt for insights on these matters. Also see Kay (2005).
11. For instance, Quijano (2000: 540) appears to imply that Prebisch was Marxist. The possibility that Quijano himself might have adopted a US-centric reading of Prebisch is intriguing.
12. Kay (2005: 1204) notes that Cardoso was critical of Furtado for having an exaggerated confidence in the ability of the state to lead an endogenous process of development.

work of Paul Baran (1957).[13] Indeed, Brenner (1977) reinforced this impression in his classic critique of Frank and Wallerstein as 'Neo-Smithian Marxists' on the basis that both focused on modes of exchange or incorporation to identify systems of capitalist exploitation, rather than on modes of production and internal social structure. Hirschman (1981) similarly stylized dependency theory as neo-Marxist. As a result, it has been easy for the casual reader to conclude that dependency theory was exclusively the product of neo-Marxism.[14]

These disputes from the Left merged well with the more mainstream critiques of dependency theory from Northern scholars, who typically charged that it put undue emphasis on external factors to explain poor development outcomes. As a result, the common understanding of dependency theory that has been regurgitated into the new millennium has generally been reduced to a simplistic and deterministic straw man proposition that degrees of dependency are inversely correlated with development performance. For instance, in an attempt to dismiss dependency theory, Kohli (2004: 5) portrays it as a proposition that performance across developing countries reflects greater or lesser dependency on global capitalism. Similarly, Alice Amsden (2003: 37) alleges that 'dependency theorists have tended to dismiss the possibility that the Third World state may act as an agent of growth . . . Whatever happens in the South thus becomes a function of "the world system"'. In the recent words of Cardoso (2009: 297), these critiques reduced structuralism and dependency theory to 'a vulgar version of the theory of imperialism'. As he argued thirty years earlier in Cardoso (1977), this misread the original purpose of the dependency approach, which started as an inductive and case-oriented historical approach to understanding the dialectic between internal and external factors and social relations that conditioned the development of various countries but that could nonetheless lead to economic growth. In this sense, the original Latin American theorists can be understood as having already pre-empted many of the later Marxist critiques, such as those from Brenner (1977), insofar as they were primarily concerned with internal social structures.

Several other simplifications have been passed on to the contemporary development studies literature. One is that structuralism and dependency theory are associated with the idea that peripheries are identified by specific forms, such as primary commodity exporters or agro-mineral economies. This has led to the designation of countries that have managed to partially industrialize as 'semi-peripheries', a terminology that draws from world system theory rather than structuralism. As noted above, the CEPAL dependency approach had originated out of a critique of ISI policies in countries that

13. For instance, Alice Amsden (2003) traces the origins of dependency theory to Paul Baran (1957), ignoring altogether its Latin lineages, and clearly associates dependency theory with world systems theory.
14. For a retrospective and reformulation of the Eurocentricity criticism, see Kay (1989).

were already quite industrialized, and hence industrialization was already integrated into the conceptualization of peripherality.

Second, structuralism and dependency theory have also been accused of being deterministic and denying agency, as noted above. As Heller et al. (2009: 288) emphasize (although only with respect to Cardoso and Faletto, ignoring similar emphases by their contemporaries), the historical structuralist tradition actually emphasized agency as an important contingency of dependent development. Furtado (1983: 16–17) contended that even outcomes such as rising real wages in tandem with rising productivity in advanced industrial countries were not historical necessities but simply historical possibilities, which were actualized by the power exercised by social majorities. Ongoing political activism is 'the necessary condition for the manifestation of creativity in the institutional sphere, in other words, for the creation of new social forms capable of reducing the tensions generated by accumulation' (ibid.: 9). Pre-empting the capability approach, he argued that development 'is no more than this: to enlarge the space within which human potentialities can be realized' (ibid.: 8). As such, these authors aimed to clarify the constraints of such realization, rather than to suggest a deterministic understanding of how structures impose specific outcomes.

The non-determinism of these Latin American structuralist thinkers was quite unlike the characterization of structuralism in sociology (or structural Marxism), which is a distinct tradition of thought. Indeed, later post-development scholars have largely drawn from post-structuralist debates with structural Marxism, while ignoring the structuralism of development economics or else simplistically characterizing it as a strand of modernization or Marxist theory. This has led to much conflation between these two separate traditions. It has also ironically reinforced a Eurocentric understanding of structuralism in contemporary development studies, even from within the post-development and coloniality literature.

The particular salience of the structuralist centre–periphery approach and its elaborations on dependency is that it provides clear conceptual principles for an empirical research agenda without being overly burdened by static characterizations or by doctrinal theoretical debates on the existential characteristics of capitalism. While perhaps not as sophisticated in its intellectual critique as the Marxist approaches, the CEPAL approach was nonetheless stronger in its policy focus and in its openness to the demands of practical necessity. This proved especially germane as capitalism turned particularly virulent under neoliberalism, while the collapse of the Soviet Union and the exhaustion of local revolutionary movements in Latin America removed the realistic possibilities for socialist alternatives. In comparison with the more pessimistic Marxist approaches, the CEPAL approach also provided a better framework to understand the successes of East Asia. Indeed, while South Korea and Taiwan are often evoked as cases to refute dependency theory, they could alternatively be understood as having implemented much of the policy advice from the structuralist CEPAL tradition (and other early development economists), which in effect had much less traction in Latin America.[15]

EVALUATING PERIPHERIES IN THE PRESENT

As noted above, the structuralist tradition focused on systemic vulnerabilities and constraints faced by peripheries, as distinct from those faced by centres, that potentially undermine national processes of development in combination with broader social and political economy dynamics. These vulnerabilities and constraints are historical, in that they necessarily change and evolve over time in synergy with change and evolution in the centres. Three essential propositions can be identified for the purpose of evaluating the relevance of this approach in the present: technological lagging and dependence on capital-intensive imports; declining terms of trade; and a pro-cyclical nature of macroeconomic adjustment.

Technological Lagging and Dependence on Capital-intensive Imports

The first proposition arguably applies increasingly to most of the South, in particular with respect to the ICT revolutions since the 1980s. Very few countries have pierced through this condition and become 'central', in the sense of endogenizing technological progress at the frontier and emanating rather than receiving lead technologies. South Korea and Taiwan are the two celebrated cases. Wade (2014b: 796) extends this list of non-Western countries ('stretching the categories of "non-Western", "country", and "developed"') to also include Japan, Russia, Singapore, Hong Kong and Israel. However, Japan and Russia were the last through the gate of the original nineteenth century 'late-industrializers'; they do not fit into the category of post-war industrialization. Hong Kong and Singapore are more accurately portrayed as city-states, both with legacies as colonial outposts for trade and finance (until quite recently in the case of Hong Kong). The three remaining (South Korea, Taiwan and Israel) have all served as strategic geopolitical bulwarks for US power.

China is a crucial case in this regard given the conventional view that it has the most potential and critical mass among all rising countries of the South to overcome technological lagging. It has definitely made huge strides in terms of diversifying and upgrading its manufacturing exports, to the extent

15. Ironically, the developmentalist era in Latin America is typically labelled as structuralist, even though much of the structuralist advice was not heeded (such as land reform and other forms of radical redistribution). The epochal appellation is more appropriate for representing the more mainstream structuralism of US economists such as Hollis Chenery, under whose leadership the World Bank actually endorsed economic planning and against whom the neoliberal counter-revolution within the Bank itself was aimed.

that it has become a major exporter of capital goods (i.e. machines), at quite impressive levels of sophistication as well as price competitiveness (e.g. see Felipe et al., 2010). Nonetheless, the extent to which China has actually managed to catch up to the technological frontier is debatable, especially in a commercial capacity. Mu et al. (2010) argue that China was still far behind the developed countries up to 2007, in terms of a poor conversion of crude research and development inputs (in which China performs well) to effectiveness in national innovation. The latter includes considerations such as a low ratio of invention patent applications that were granted, and poor commercial application of granted patents, as well as the overall fact that the rates of patents filed and granted per thousand researchers were far lower than in leading or even first-tier industrial countries such as Germany, Japan and South Korea. China has continued to progress in these indicators since 2007 (e.g. see an updated discussion in Fu and Mu, 2014), although wide gaps remain.[16] To a certain extent, Chinese companies have been able to buy their way into accessing more advanced technologies via acquisitions made with their ample accumulation of foreign currencies, although their success in this strategy has also been actively resisted and has had lukewarm results (e.g. see Caniglia, 2011). Overall, it still remains significantly behind the curve in terms of national levels of technological innovation, particularly in comparison with the USA, even in gross measures.

Moreover, China's massive expansion of manufacturing exports has been heavily based on its integration into global production networks, particularly in its structural shift away from traditional labour-intensive exports and towards ICT exports in the 1990s and 2000s. Within these networks, China is still considered to be third or even fourth tier, depending on the industry, occupying positions at relatively lower levels of value-added and technological sophistication. This is compensated in the export sector through scale rather than mark-up, which is achieved through the consolidation of final-assembly stages within East Asian centred global production networks, based on high technology inputs developed and produced elsewhere within these networks (e.g. see Athukorala, 2011, 2014; Athukorala and Kohpaiboon, 2012; Athukorala and Yamashita, 2009; Li et al., 2007; Sung, 2007; Yao, 2009). For instance, in one of the most comprehensive and intricate studies to date, Upward et al. (2013) found that 40 per cent of China's export value in 2006 was derived from imported intermediates. The share was higher in processing exports, driven by the very high foreign content share of 61 per cent in the electronics industry in 2006. On this basis, they question

16. For instance, see some updated data on patents in a recent report by *The Economist* (2014). Although the report is vague regarding dates, it details that only 5 per cent of Chinese patent applications were registered abroad in 2005–09 (this being important for commercialization, particularly for a country oriented towards exporting), versus 27 per cent in the USA and 40 per cent in Europe. China's export revenues from its 'core intellectual property' activities (as per China's copyright agency) were only 4 per cent of those of the USA (year not indicated).

the degree to which China's massive expansion into this high technology sector represents catch-up.[17] As argued by Yao (2009) in a strong critique of Rodrik (2006),[18] the implication is that much of the apparently increasing technological sophistication of China's exports reflects this processing trade regime rather than technological upgrading per se.[19]

While China receives most of the attention in these debates, South East Asian countries are typically considered to be in a higher tier within these networks than China. Malaysia, Thailand and Philippines, for instance, produce many of the intermediate inputs that are then supplied to China for final processing, and which contain higher domestic technological input and more potential for adding value. The recent upgrading advances made by Chinese firms are more of a threat to these countries than to lead or even first-tier countries such as South Korea or Taiwan, given that they aim at capturing this second tier within the networks. This effectively produces more intense competition at these tiers, thereby putting pressure on the value added accrued. Hence, while upgrading has also been impressive in these South East Asian countries, they are locked in relatively subordinate and vulnerable positions within these production structures. They undoubtedly accrue benefits (although relatively less than would have been associated with equivalent degrees of industrialization in the past, as argued by Arrighi et al., 2003) and their positions do not preclude a degree of autonomy in determining styles of development, such as with respect to industrial policy, capital controls, taxation, or welfare state regimes. However, as with earlier propositions of dependent development (e.g. Cardoso, 1973 or Evans, 1979, both focused on Brazil), benefits and autonomy do not preclude the peripheral character of development along these specific technological and industrial dimensions.

Beyond this world region, however, the trend of technological lagging has been in the opposite direction. For instance, Abdon and Felipe (2011) analyse the evolution of productive structures in sub-Saharan Africa based on the concept of product space developed by Hidalgo et al. (2007). They conclude that the majority of countries are trapped in the export of unsophisticated, highly standard products that offer little potential for upgrading through diversification. Moreover, in their cross-regional comparison of export sophistication (Abdon and Felipe, 2011: 15), the performance of South Asia was about the same as sub-Saharan Africa by 2007 (despite India's reputation for software and services exports). Notably, Africa's sophistication collapsed with structural adjustment in the 1980s and only recovered to the levels reached in the late 1970s by the late 1990s, whereas South

17. *The Economist* (2014: 6) reports that foreign companies make up 82 per cent of China's high-tech exports, presumably referring to a recent year of data.
18. Rodrik (2006) commits a fundamental error by treating export values as the actual value added to those exports within China, and product categories of exports as if these represent levels of domestic technological sophistication. It is perplexing why he fell prey to this mistake.
19. Also see the same point in Ferrarini and Scaramozzino (2015).

Asia's sophistication gradually rose from a lower starting point. Relative to high-income countries, the lag of Africa was greater in 2007 than in the late 1970s; South Asia had closed the gap somewhat, but from the lowest level of all regions.

Similarly, there is a general consensus that Latin America has experienced deindustrialization and regression back into primary commodity export dependence over the last thirty years, although there is much debate about the causes. The impact of China receives much of the attention, such as from Gallagher and Porzecanski (2009). Jenkins and Barbosa (2012) are critical of the hypothesis that China is causing deindustrialization, at least in the case of Brazil, the most industrially advanced country in the region. They suggest that a hollowing out is occurring instead, whereby Brazil is possibly 'jumping into *maquiladora* type industry based on simply assembling final goods' (ibid.: 71–2). Brady et al. (2011) and Bogliaccini (2013) both highlight the impact of trade liberalizations since the 1980s on deindustrialization in Latin America, while the data from Abdon and Felipe (2011: 15) also show that regional export sophistication stagnated from about 2000 onwards. Despite the variety of views, the implicit consensus is that even the most industrially advanced economies in the region are stuck in a middle-tier position within the global industrial hierarchy, pressured from below and yet with strong constraints on upgrading. Moreover, foreign ownership and/or control of the industrial structure are substantially deeper now than they were at the time of the earlier structuralist and dependency theory debates on these issues several decades ago.

On the twist-side of all of these regional cases, the frontier of complex technologies has moved further out of reach of most developing countries in comparison to the 1950s, when frontier technologies were easier to reverse engineer. In particular, core technologies in frontier industries such as ICT have evolved to such an extent that they have gone beyond the capacities of most national economies, even among advanced industrial countries, with the exception of a few dominant leaders. Instead, we need to think of regional industrial capacities, organized and led by transnational firms predominantly centred in the North, and in which states play collaborating and, in most cases, quite subordinated roles.

Indeed, in this narrow but vital dimension, one might argue that there is less variety among developing countries today than in the past, in contrast to the conventional view that there is more variety.[20] There is effectively much more homogeneity in technological production and consumption today than in the past. This is an expression of the degree of monopoly that has been achieved by lead global firms in cutting edge technologies and the winner-takes-all microeconomic foundations of their emergence, together

20. For instance, Heller et al. (2009: 290) assert that the nature of insertion and the conditions under which the 'BRIC' economies 'have been catapulted out of the periphery, are marked by far more variation than was the case of the original industrializers'.

with the scales involved in the Southern firms producing the output for these lead firms. The extreme example of the latter is the largest Foxxcon factory in China, located in Shenzhen, which employs hundreds of thousands of workers (estimates vary). Even Russia, once considered an industrial rival to the US and now increasingly reliant on oil exports, apparently depends on US and European technology and expertise via various oil majors to develop new oil fields, particularly in the Arctic and in shale formations (Caroll et al., 2014). The development of the pre-salt oil fields in Brazil similarly relies on the participation of the oil majors. Even Chinese oil companies in Africa have often required a similar dependence on Western oil majors for more advanced technologies and expertise, as pointed out by Teka (2010) in the case of Angola.[21] The complexity of both advanced technologies and the post-Fordist industrial organization involved in their production has also rendered the more blunt institutional measures such as intellectual property rights or investor-state arbitration less vital to protect the Schumpeterian monopoly position of lead firms from competition. Such institutional arrangements nonetheless further entrench barriers of entry (and are probably motivated more by surplus extraction than by patent protection). As argued by Wade (2014b: 792–3), their enforcement also implies that the developmental state models of Japan, Taiwan or South Korea are no longer replicable for the rest.

This is not to say that globalization has made state intervention or industrial policy irrelevant or futile, as many have been keen to argue. Rather, even though nationally contained industrial systems have not been sustainable for a while, states are as important as ever in maintaining the centripetal conditions to attract and absorb capital within the globalized economy, thereby maintaining their positions as centres. This is highlighted, for instance, in the budding literature on implicit industrial policy in the US, to the extent that several have referred to the US as a disguised developmental state (cf. Block, 2008; Mazzucato, 2013; Wade, 2014a; also see Vernon, 2006).

Similarly, the ability to attract skilled expertise has been a crucial attribute of hegemonic centres since early mercantilist times. In this respect the US is far from waning, as it is still able to rely on inflows of highly skilled workers (including scholars of post-development and coloniality teaching in US universities rather than in the South). If anything, the lure of the US has strengthened as Europe becomes increasingly uninviting to non-Europeans, while Japan has never exhibited much propensity for absorbing immigrants. It is notable that, in a study by the Chinese Academy of Social Sciences of over one million Chinese students who had studied abroad between 1978 and 2006, 70 per cent never returned to China (Watts, 2007). A more recent report from the Academy indicated that the situation improved after 2004, although only in the midst of a huge increase in the number of Chinese studying abroad: 2.6 million Chinese left to study abroad from 1978 to

21. See Caniglia (2011) for a more general discussion on this point.

2012, versus 1 million who returned from studies abroad. It was also noted that the deficit was deepest among the cream, i.e. 90 per cent of overseas Chinese students graduating with doctoral degrees in science or engineering chose to stay abroad in the 1990s, and the situation showed no sign of changing up to 2012 (Yang, 2013). Similarly, in recent research by Cheung and Xu (2014) among Chinese students in elite US universities, more than half of respondents did not intend to return to China after graduation. For now, China continues to play a role of net emitting skilled workers to the North. Like India, it is definitely more peripheral than central under this light. Inversely, the persisting dynamism of US-centred capitalism has been its ability — supported by a liberal ideological order — to absorb such skilled workers.

Declining Terms of Trade: The Prebisch-Lewis Hypothesis

Another proposition of the centre–periphery approach is the issue of declining terms of trade, shared with other early development economists such as Hans Singer and Arthur Lewis.[22] This proposition has been much debated, especially in the past. Measuring trends in commodity terms of trade depends in large part on choices, such as the beginning and end points selected and whether these begin or end in slumps or peaks. A good example is the recent commodities boom that now appears to have ended. Trends can also vary depending on the commodities chosen for study and are complicated by the fact that some of the leading industrial countries such as the US are also major commodity exporters. For instance, Fuglie and Wang (2013) estimate that, on average, real food prices have fallen 1 per cent a year between 1900 and 2010. This decline would have been primarily driven by (labour) productivity in Northern industrialized agriculture, which accounts for the large majority of surplus food production traded on international markets. Hence, the inclusion of such food exports into a basket for measuring North–South terms of trade would logically distort the insights that could be derived from such a measure.

Many of these debates, however, have missed the original point of Prebisch or other pioneers such as Lewis. Much of the discussion has focused on one type of terms of trade: commodity price terms of trade, along the lines typically presented in the 'Prebisch-Singer hypothesis'.[23] The structural cause of decline is the lower demand elasticity of primary commodities than manufactured goods, which was in fact first argued by Ragnar Nurkse (1944). Prebisch's second explanation for declining terms of trade focused on the structure of labour and goods markets, which were monopolistic in the centre and competitive in peripheries. As a result, productivity increases in the

22. For reviews, see Kaplinsky (2006) or Ocampo and Parra (2010).
23. See a discussion of this and related measurement issues in Erten (2011).

exports of peripheral countries accrued to central countries through falling prices, whereas productivity increases in central countries were captured by labour and capital in the centres in the form of higher wages and profits. This second argument implies that the issue is not so much about commodity terms of trade per se, but about a country's terms of trade.

Prebisch's third argument reinforced this point, in that the declining terms of trade of peripheral export economies were fundamentally rooted on the divergence of labour productivities, which underlie diverging living standards. This third version was similar to the more theorized argument of Lewis (1954) on factoral terms of trade. Lewis also argued that the benefits of increasing productivity in the export sectors of open and poor countries with substantial supplies of labour available to work at given wages in these export sectors will accrue chiefly to the (Northern) importers of these exports by way of lower prices. Based on this logic, he similarly predicted later in his life that even as developing countries would move into manufacturing exports, these new exports would function in a manner similar to their previous agricultural export commodities (see Lewis, 1978: 36). Increasing productivity would simply reduce the prices of such manufacturing exports, and thereby continue to result in declining terms of trade.

This third explanation — which we might call the 'Prebisch-Lewis hypothesis' — provides a much stronger lens to analyse more recent trends, particularly as Southern countries have moved massively into manufacturing through their integration into international production networks dominated by transnational corporations. For instance, Erten (2011) adopts a country rather than commodity approach to measuring terms of trade from 1960 to 2006, adjusted to the changing composition of exports during this time period, and finds a sharp reduction in South–North terms of trade from the mid-1970s onwards, which deteriorated at a rate of almost 1.5 per cent per year from the late 1970s onwards. The deterioration was highest for the least developed and highly indebted countries, and much more severe for major exporters of manufactures than for the rest of the non-oil exporting developing countries. This supports the view, expressed successively by Sarkar and Singer (1991), Kaplinsky (2006) and Ocampo and Vos (2008), that the terms of trade of manufactures from developing countries have been adversely impacted by intense global competition at the lower-skill and labour-intensive end of the international production networks in these manufactures.

The impact of China is regularly highlighted as a major competitive pressure for other countries, although it is well established that China has also been experiencing deteriorating terms of trade in its manufacturing exports, even within single product categories.[24] According to Zheng and Zhao (2002), this reflects China's lower-tier position within international production networks, based on leveraging its supply of cheap, low-skilled labour

24. For example, see Li et al. (2007); UNCTAD (2002: 119; 2007: 11–12; 2008: xx); Zheng and Zhao (2002).

even within high technology exports, as discussed above, which results in a fallacy of composition within its manufacturing exports.[25] Similarly, Li et al. (2007: 94) link the deterioration of China's terms of trade since the 1990s to large FDI inflows into labour-intensive export sectors. China has been able to amass immense value-added in the process, although as noted above, this has been achieved largely through scale rather than mark-up.

These insights correspond to the tendency within such production networks of squeezing value at the lower parts of the chain and concentrating it in the upper parts, which in developing countries are largely owned and/or controlled by foreign (Northern) corporations, as analysed by Akyüz (2003) and UNCTAD (2002).[26] Moreover, given that the upper parts are mostly composed of the service components of the value chain rather than manufacturing per se, they are not even captured by analyses of North–South terms of trade in manufactures. The situation is further exacerbated by various practices of siphoning value from Southern-based subsidiaries to TNC headquarters located overwhelmingly in the North, usually via various offshore financial centres (e.g. see Bernard et al., 2008). The repertory of such practices was already well established when analysed by Sunkel (1972) over forty years ago, such as transfer-pricing and brand name royalty fees; neoliberalism in turn has allowed for their mostly-unregulated proliferation and ease of use.

Even in countries with more lucrative exports that have not experienced consistent declines in terms of trade (such as oil exports, up to the price collapse in late 2014 and early 2015), these issues express themselves through segmentation and specialization in value chains. For instance, there is perhaps no better expression of the classical centre–periphery relation within a single commodity than the fact that refined oil products make up about 35 per cent of the import bill of Nigeria, a major oil producer and exporter (Nwanma, 2014: 40). This reflects a product structure whereby oil majors have specialized in and/or controlled the most technically advanced and lucrative parts of the value chain, to the extent that resource-rich countries can experience monetary and energy austerity even within a resource boom.

Pro-cyclicality

Another proposition from the centre–periphery tradition concerns the pro-cyclical nature of adjustment in the macroeconomies of countries dependent on openness to trade and capital flows for their growth momentum. In these

25. See UNCTAD (2002: 113–39) for a more general discussion of fallacy of composition within developing country manufacturing exports.
26. Akyüz was the lead author of UNCTAD (2002), which was an important *Trade and Development Report* released in the lead-up to the failed Doha round of WTO trade talks in 2003.

cases, when export markets deteriorate, financial flows also cease, and countries have difficulty compensating for deteriorating exports by increasing investment because of the outflows of finance.[27]

Much of the recent debate about the continued relevance of peripherality implicitly concerns this point about pro-cyclicality given that Southern economies were generally counter-cyclical in the immediate aftermath of the 2007–09 global financial crisis, meaning that they experienced strong rebounds in economic growth even as the US and Europe slid into recession. This led many to speculate that delinking was occurring, at least in the case of China, which proved itself able to orchestrate a massive stimulus package in addition to loose monetary policy as a means to stave off an economic slowdown. In turn, this has led to speculation that China would replace the North in driving the global economy, especially for other Southern countries. Some leading structuralists such as Ocampo (2011) and Akyüz (2012) have nonetheless cautioned against such optimism with regard to the sustainability of these short-run responses, including the adoption of various mixtures of expansionary fiscal, monetary and credit policies in many other developing countries.

That the Southern performance should be considered as counter-cyclical also needs to be questioned. The 'counter' is only relevant with respect to Northern business cycles, not necessarily with respect to transnational financial flows largely stemming from the North. The surge in financial flows from North to South immediately following the crisis was driven by the massive injection of liquidity into the global financial system, primarily by the US and supported by the UK and Japan, despite (or precisely because of) the financial crisis and ensuing recession. The relatively higher interest rates offered by most 'emerging economies' presented tremendous opportunities for arbitrage *vis-à-vis* these low interest rate central economies. The international carry trade resurged as a result, reaching levels in 2009 that exceeded the pre-crisis frenzy in carry trading (RGE, 2009). Concerns about asset price bubbles were soon raised in many of these countries, such as Brazil and Turkey, compelling some governments to impose capital controls on short-term speculative inflows (rather than outflows). The extent of the southward financial surge, also riding on rebounding commodity prices and resource exploitation, drove the costs of commercial borrowing for developing countries in booming international bond markets to levels not seen since the 1970s, although these costs still remained relatively higher than in central economies. For example, Ghana raised US$ 1 billion in September 2014 for a 12-year bond at 8.125 per cent, which is hardly concessional lending, versus a rate of 2.3 per cent for an equivalent US Treasury bond at the time (Hakim, 2014). The fact that many of the bond issues have been denominated in domestic rather than foreign currencies has added the prospects of currency

27. See Ocampo (2009) for contemporary expression of this insight for Latin America.

speculation into the mix.[28] The dangers have already been witnessed in several African countries. Notably, Ghana increased its policy interest rate to a peak of about 25 per cent in September 2014 (where it remained at the time of finalizing this article in January 2015) as a means to stave off a currency and balance of payments crisis while continuing to commit to an open financial account and to honour its international creditors. The conjuncture thereby reinforces the quandary inherited from colonial financial systems whereby domestic banks are effectively quite marginal to financing the needs of the indigenous domestic economy, as was the classical quandary of the highly polarized colonial and early post-colonial financial systems in Africa.

There have been debates about the risks of these post-crisis financial flows. The IMF has warned repeatedly about the risks of boom–bust cycles leading to external and financial crises as in the past. Frenkel and Rapetti (2012) argue that the Latin American economies are far more robust than they were leading up to previous episodes of crisis, although they caution that the danger of the current flows is found more in their impact on real exchange rate appreciation, hence undermining profitability in tradable sectors. Nonetheless, despite these nuances of qualification, there is little doubt that the driving dynamic factor of economic growth in most of these 'emerging economies' — perhaps with the partial exception of China, as discussed below — remains exports and/or financial flows. Echoing the original problematic set out by Prebisch, Akyüz (2012) notes that these two key determinants remain largely beyond the national control of developing countries.

Moreover, this is not the first time that an apparently counter-cyclical Southern boom has ridden on the back of Northern recession and financial havoc. While many have compared the 2007–09 economic crisis in the North to the 1930s, the better comparison is to the 1970s, as I have argued in Fischer (2009b, 2012). The global instability and restructuring of the 1970s marked a decisive turning point in US global hegemonic revival. It was the last time that US hegemony was seriously challenged, domestically by stagflation and internationally by increasingly assertive challenges to its military domination, including the defeat of the US in the Vietnam War in 1975 and the loss of strategic regional allies in Iran and Nicaragua in 1979. US hegemony was then dramatically and aggressively revived through monetarism and militarism, effectively ending the 'Golden Age' of Keynesianism in the North, as well as developmentalism in most of the South outside South and East Asia (the only two regions of the South that experienced substantial poverty reduction in the subsequent two decades). Then, as now, there was a tendency to assume that systemic crisis signals the end of hegemony. Then it did not, but instead served for a reconstitution and reinvigoration of hegemony, supported by the new ideology of neoliberalism (or, in more innocuous terms, the 'Washington Consensus').

28. For an excellent analysis of these issues, see Akyüz (2015).

The origins of this reconstitution were located in US fiscal and monetary policy changes in the 1960s, amplified through the liberalization of international banking and the subsequent exponential growth of the offshore Eurodollar market in the same decade. Triffin (1978/79) famously clarified that these were the fundamental sources of increased international dollar liquidity and inflation in the 1970s, not the first oil shock in 1973.[29] Or, the trends typically categorized as financialization started well before the US went off gold, and they precipitated the end of the Bretton Woods system rather than followed as consequences, as is often argued in the financialization literature.[30] The radical move by the US (in the perspective of the time) of going off gold in 1971, to a new regime of floating exchange rates, allowed it to adjust its growing imbalances through devaluation, particularly *vis-à-vis* the rising competition from Germany and Japan.[31] However, subsequent oil price shocks gripped popular imagination as obvious and convenient scapegoats for inflation and recession.

A similar combination of events unfolded then as now: stubborn recession in the centre (albeit with consumer price inflation, unlike now) combined with rock-bottom real interest rates; a commodity boom for oil producers that everyone thought was here to stay; and booming Southern economies riding on waves of liquidity emanating from the centres in recession (then in the form of bank lending). From this perspective, the current counter-cyclicality of 'emerging' or 'rising' yet still peripheral economies following the 2007–09 financial crisis could possibly be a sign of another prelude — both structural and ideological — for a systemic reassertion of hegemony in the emergence and consolidation of a new power paradigm. The paradigm is still centred in the US, albeit with extensive (and ongoing) internationalization and accommodation of rising powers, particularly of China (much as the US accommodated Japan and Germany in the 1960s and 1970s).

BEYOND BUBBLES AND BACK TO STRUCTURAL BASICS

Prophecies of declining US power generally rely on conventional balance of payments analysis regarding the question of whether the 'bubble' of US trade deficits must necessarily deflate, dragging US dominance along with it. Advocates of this bubble-bursting line of argument, which is prominent among many scholars of the Left and Right,[32] have had to deal with an increasing dissonance with post-crisis events, in particular the fact that the US dollar did not collapse but instead surged in strength, even in the midst

29. For more on Triffin, see Fischer (2009b, 2012). Also see D'Arista (2009) and Kregel (2008).
30. For instance, the latter interpretation is implied by Varoufakis (2013: xi).
31. See Arrighi (2003), Brenner (1998) and D'Arista (2009) for analyses on the US strategy of devaluation *vis-à-vis* the catch-up of Germany and Japan.
32. See Nederveen Pieterse (2011) for an example from development studies.

of the crisis in late 2008.[33] This was quickly explained as a flight to security, although it confounded the conventional wisdom that pinned the sustainability of US deficits on the confidence of foreigners to continue financing the US economy, particularly once the rebound of 'emerging economies' became evident amidst prolonged recession in the US and Europe. Indeed, merely the threat of tapering by the US Federal Reserve was enough to throw many 'emerging economies' into currency and balance of payments crises in 2013 and 2014, from Brazil and Turkey to India and Ghana. The same effect required far greater and blunter actions by the Federal Reserve in the early 1980s, namely, a tripling of US interest rates, which threw the US and the rest of the world into recession. One might argue that the foremost efficiency achieved by neoliberalism has been this refinement of disciplinary power to offset the burden of adjustment towards the peripheries, whose macroeconomic set-up is increasingly designed to absorb the global reverberations of US monetary policy decisions and financial sector largesse.

A revision of the conventional analysis is sorely needed. Global imbalances — such as those between the US and China — are not imbalances in the manner we would understand processes of market equilibration between countries. Rather, they are signs of the restructuring of production, distribution and wealth circulation underlying global power relations. This restructuring has been led by transnational corporations, predominantly centred in the North and with a strong allegiance to maintaining US dominance. The bulk of the discussion on global imbalances avoids this reality; imbalances are mostly framed in terms of countries rather than in terms of the more disaggregated and increasingly transnationalized units of ownership and power that are embedded within and transcend the inter-state system.

Accordingly, the shift to systemic deficits in the international accounts of the US is best understood as a reflection of the internationalization of US-centred TNCs. As argued by Kregel (2008: 25–8), this is poorly reflected in the existing system of international accounts because the system is based on an antiquated conception of the post-war Bretton Woods world, in which national economies traded final goods and services with each other, and private capital flows were limited. The difficulties such a system faces in accounting for activities between a transnational parent company and its foreign affiliates, for instance, help to explain the dissonance between the deterioration of recorded US trade balances and the increased profitability of US companies operating in the global market (ibid.). The national framing of this antiquated accountancy system thereby serves to obscure the very resilient and virulent foundations of US power.

Moreover, the radical reversal of US imbalances in the late 1970s also disguises an element of continuity in the expansion of Northern-centred TNCs

33. See Wade (2009) for an attempt to explain this dissonance, and Fischer (2009b, 2012) for a critique.

during both the so-called 'Golden Age' up to the early 1970s and the neoliberal era thereafter. In the first, the US economy was in slight trade surplus and hence it was net exporting goods and finance to the rest of the world. It thereby supported developmentalism in the South by providing net finance for the import intensity typical of late industrialization (see Fischer, 2009a). Developmentalism and dependency were thus related in a dialectical manner — a point that was originally emphasized by the Latin American dependency theorists (reformist and Marxist alike) but generally overlooked by the contemporary literature on developmentalism. South Korea and Taiwan escaped the dialectic because, for geopolitical reasons, they were provided abundant foreign finance in aid and loans, in a manner that did not dilute national ownership of the industrialization process (the latter point was consistently made by the late Alice Amsden, e.g. Amsden, 2008). In the more typical experience of Latin America, the most industrially advanced region of the South at the time, the main channel of foreign finance was FDI, resulting in the denationalization of key strategic industries. The liberalization of international bank lending from the mid-1960s onwards extended the contradictions of the dialectic into the 1970s by allowing for developmentalist attempts to counteract the constraints of dependency through debt accumulation, with varying degrees of success. However, the strategy became untenable with the dramatic change in US monetary policy from the late 1970s onwards.

The reversal of global imbalances was not yet evident during the transition decade of the 1970s given that the US trade balance swung in and out of slight surpluses and deficits. However, US gross imports and exports increased rapidly as a proportion of US GDP in the 1970s — as rapidly as the increases associated with the globalization era in the 1990s and 2000s. The expansion of US-centred corporations and their affiliates also continued throughout this decade, as highlighted by the Latin American dependency literature. Indeed, as noted by Sunkel (1972: 527), once subsidiaries were well established in a host country, they could draw on domestic public and private resources to expand operations without necessarily needing new injections of FDI. Such horizontal expansions would not even appear on the external accounts of the US or other source countries. Nonetheless, the consequences might appear as profit remittances or financial flows into the US, thereby providing the structural undertow for the eventual financial account surpluses that financed increasing US trade deficits.[34]

The persistently large and growing current account deficits and financial account surpluses of the US from the late 1970s onwards are now well known, as are the further waves of financial liberalization in the US and globally that accompanied these imbalances. However, net outflows of US

34. This is similar to the observation in the contemporary literature that horizontal FDI in transition and developing economies has typically had a negative impact on the balance of payments, as opposed to vertical FDI, which tends to have a more positive impact; see, e.g., Hunya (2002).

FDI continued despite the overall net absorption of finance from abroad (see Kregel, 2008 on this point). The FDI flows occurred with characteristic boom–bust patterns, such as the major wave of FDI flowing to Latin America in the early 1990s following the Brady Plan in 1989. Bilateral and multilateral trade deals are best understood as further facilitating these underlying structural trends rather than causing them. For instance, the industrial restructuring of Mexico towards *maquiladora*-style processing started in the 1980s and was reinforced by the wave of FDI that preceded the North American Free Trade Agreement in 1994. The increasing dominance of foreign-funded firms in China's export sector was also well established before China joined the WTO in 2001. Even in the context of the 2007–09 financial crisis, the US non-financial corporate sector as a whole actually emerged out of the crisis in strong shape, with a healthy balance sheet and cash savings to rival the reserves of emerging economies, and much of them earned by foreign affiliates operating in these emerging economies. After a short post-crisis lull, the US also regained leadership in the share of global FDI outflows, reaching 24 per cent of global outflows in 2013.[35]

In other words, the globalization of US-centred TNCs that started in the early post-war period has continued unabated despite the reversal in US imbalances. The corporate sectors of other lead countries have similarly continued to expand abroad, albeit with different balance of payments patterns, e.g. German, Dutch and Japanese corporate expansions have occurred through the more conventional pattern of current account surpluses (although in 2011 Japan started to run an annual trade deficit for the first time since 1980). Hence, while the neoliberal period ended developmentalism everywhere outside of Asia, it did not end dependency. Rather, dependency has been reinforced through the pro-cyclical discipline and liberalizations characteristic of neoliberal conditionalities imposed on those unlucky enough to require the treatment that is worse than the disease.

The idea that China's surpluses and accumulation of foreign exchange reserves constitute increasing power is also in part based on this same flawed understanding of international accounts. A rarely acknowledged attribute of the explosion of China's surpluses from the early 2000s until about 2007 was their rapid denationalization. In 2000, 'foreign-funded enterprises' (FFEs) in China accounted for only 9 per cent of China's trade surplus in goods, which at the time amounted to about 2.9 per cent of GDP converted at market exchange rates. This minor share was despite the fact that FFEs accounted for 48 per cent of exports in the same year (up from 14 per cent

35. Together, the USA, Europe and Japan accounted for just over half of FDI outflows in 2013. As discussed above, the investments of foreign affiliates are not calculated as part of such outflows, and thus these shares underestimate the global weight of foreign investments by US, European and Japanese based TNCs. In contrast, China rapidly increased its share of global FDI outflows from a negligible base of less than 1 per cent in 2004 to just over 7 per cent in 2013. These data were accessed from UNCTADstat: my thanks to Ben Radley for providing them.

in 1990). By 2007, the year that China's goods surplus peaked at about 9.3 per cent of GDP, FFEs accounted for 51 per cent of China's trade surplus, and for 57 per cent of exports. By 2012 the FFE share reached 66 per cent of the goods surplus (which fell back to about 2.8 per cent of GDP).[36] This sudden domination by FFEs of the ballooning trade surplus is reflective of the increasingly deep integration of China's foreign trade into international networks dominated by Northern-based TNCs, as discussed in the previous section. The model has resulted in exceptional export performance, although this has occurred through relinquishing national control over the country's main means of earning foreign exchange.

Moreover, the idea that China's reserves represent savings proper is problematic because they more accurately represent the credit side in a complex portfolio of assets and liabilities managed by the Bank of China. Considering the extent to which FFEs earn the trade surplus, in combination with the surplus on the financial account that by definition represents foreign claims on domestic assets, the bulk of China's reserves in effect do not represent Chinese savings. Instead, they represent foreign claims on domestic financial assets (i.e. the renminbi held by foreigners in exchange for foreign currency) or, as Yu (2013) explains, the accumulation of foreign liabilities. Contrary to popular conception, the government is actually quite limited in how it can use these reserves given the need of the Bank of China to match, as much as possible, the reserve assets on its balance sheet with the domestic liabilities that it used to purchase these reserves, in addition to the domestic liabilities (i.e. bonds) issued to sterilize the monetary effects of these purchases.[37] Meanwhile, surpluses generated through foreign forms of ownership effectively serve as vehicles for the expansion of foreign acquisitions in the domestic economy. As argued by Yu (2006, 2013) and Zheng and Yi (2007: 21–2), the resulting balancing act amounts to an effective subsidy to foreign finance in China.[38] This situation is analogous to earlier structuralist critiques that ISI policies were effectively subsidizing the expansion of TNC operations in Latin America, as discussed in the first section. The difference is that an important implicit channel for the entry and horizontal expansion of foreign corporations into the domestic economy of China has been through the trade account, rather than through the more restricted financial account, as would conventionally be the case.

The situation of China is quite unlike that of central surplus countries such as Germany, The Netherlands or Japan. Current account surpluses in the latter are mostly earned by private corporations headquartered in these central economies, which compensate the surpluses earned with private

36. Calculated from National Bureau of Statistics (2013: Tables 6-3 and 6-11), and equivalent in older *China Statistical Yearbooks*. See Fischer (2010b) for further discussion up to the 2008 data.
37. See Pettis (2010) for a discussion on this point, although he does not consider the dimension of ownership as discussed here.
38. Akyüz (2015) discusses similar dilemmas for developing countries more generally.

financial outflows. The surpluses thereby become an instrument of corporate expansion abroad without burdening public monetary authorities. Even where ownership is technically not national, the key is the degree to which head offices are located in the national economy and/or the degree to which high value-added business operations gravitate towards the national economy, especially with the increasing importance of financial operations in the non-financial corporate sector.

Inversely, the bulk of China's surpluses do not become a vehicle for Chinese corporate expansion abroad, except by way of the limited share of reserves that the government diverts towards this end. The trade surpluses earned by national Chinese corporations do provide this vehicle, although these are now minor in comparison to the FFE-earned surpluses, as noted above. China's reserves are also relatively minor in comparison to the ability of Northern financial systems to create liquidity, which is then leveraged by the TNC networks controlling the majority of China's trade. Recall, for instance, that the daily trading volumes in international foreign exchange markets, which are increasingly concentrated in a small collection of Northern financial centres and banks, exceed the entirety of the accumulated foreign reserves of China.[39]

Hence, despite the evident achievements of China, its rise has exhibited a dialectic of vulnerability that is more peripheral than central in nature, even if the precise mechanisms are quite different from the past, such as those operating in Latin America during the Golden Age of developmentalism.[40] Indeed, much like with discourses of Soviet rivalry in the 1960s and 1970s, discourses of US decline and the rising rivalry of China (and other BRICs) might actually serve a useful ideological purpose within the continuing transmutations of US-centred power and hegemony. Similarly, as with past financial crises in the peripheries, much of the recent discourse about China, such as with respect to currency undervaluation or capital account liberalization, has been aimed at shifting the burden of adjusting to global realignments onto China and increasing the scope for the profit-making power of TNCs operating within China, while camouflaging the US-centred, TNC-led restructurings of global production systems that underlie China's surpluses and US deficits in the first place.[41] A key question once asked by dependency theorists about Latin America and relevant again here, is the degree to which the incentives of the Chinese ruling classes have already been skewed towards vested interests enmeshed with foreign ownership and against the interests of national development, as is already being argued by many Chinese scholars (e.g. Ho-Fung, 2009; Wang, 2015).

39. According to the Bank for International Settlements (2013), trading in foreign exchange markets averaged US$ 5.3 trillion per day in April 2013, up from US$ 4 trillion in April 2010 and US$ 3.3 trillion in April 2007.
40. See further elaboration of this argument in Fischer (2010b).
41. See Fischer (2009b, 2011, 2012) for critiques of the conventional arguments regarding China's saving glut, and Fischer (2010a) for a short comment on the currency debates.

CONCLUSION

Much emphasis in this article has been given to China because the country serves as a *cause célèbre* — or in comparative research terms, as a 'most likely' case — for the rise of the South, the geopolitical shift to the East, the decline of the West/North and, in particular, the waning of US hegemony. However, through the lens of the centre–periphery approach updated to the present, the vulnerabilities still faced by China are more peripheral than central in nature. This contrasts with the leading countries of the centre, which continue to dominate in the dissemination (especially commercial) of technological change. The central countries also continue to retain the privilege of being the primary sources and regulators of international liquidity, and to display strong drawing power over this liquidity in times of crisis (and over other resources more generally, such as highly skilled migrants). This distinction is important given that premature delusions of power might well serve the leading global economic powers quite effectively, much as the ambitions of leading Latin American countries in the 1970s or South Korea in the 1990s left them exposed to subsequent financial turmoil. While the precise channels of vulnerability might be different, the underlying logic is similar.

Such perspective provided by centre–periphery analysis is still very relevant for development studies. The rise of China and other 'emerging economies' might well challenge various narrow mainstream conceptions of development and development policy. However, to suggest that this then challenges the field of development studies as a whole, including its more critical lineages, succumbs to the amnesia that current orthodoxy has tried hard to induce over the last three decades with regard to the foundational literature of development studies (or else the misrepresentation of this literature, such as by Lin, 2009). Notions of peripherality must obviously be adapted and modified to the current context. However, as discussed in the first section, structuralist and dependency theory scholars were already in the process of making these adaptions and modifications. Indeed, insofar as structuralism was built on the central conceptual principle of technological and industrial lagging in the peripheries, the approach was necessarily dynamic given that lagging will always be relative to the constantly transforming frontier in the centre. Subordination must also be understood relative to evolving practices of domination. The challenge of contemporary development studies — and a key task for critical development studies — is to understand this transmutation of lagging and subordination into the present.

Peripherality in this sense serves as an interpretative aid to understand certain fundamental yet dynamic and contextualized principles facing the economic development of Southern countries in the post-war era, based on distinct structural patterns of integration into the global economy. While these distinctions help to clarify that we cannot simply assume that dynamics in centres will be reproduced in peripheries, they also imply that peripheries share some fundamental commonalities that justify having an interdisciplinary field of studies that focuses on these commonalities. The truism that development needs to be understood as context-specific runs the danger of diverting our attention away from systemic global processes that constrain peripheries in similar ways despite their diversity. Indeed, the failures of development over the last three decades have not necessarily been due to a one-size-fits-all approach to development policy per se, but instead to the fact that the neoliberal one-size was particularly detrimental to national development strategies in countries that attempted to wear the size.

The second section of this article focused on three essentialized propositions with which to evaluate the centre–periphery approach in the present. The proposition of technological lagging and dependence on capital imports still applies, arguably even more than before the neoliberal period. The second principle of declining terms of trade is also still relevant when applied to an understanding of country rather than commodity terms of trade. Lastly, the principle of pro-cyclicality might not be associated with business cycles in central economies, although it definitely continues to apply to the cyclicality of monetary emissions from these central economies. This pattern of pro-cyclicality was already well entrenched by the 1970s and has been reinforced ever since by the neoliberal preference of relying on monetary rather than fiscal policy to counteract recessions, in combination with financial liberalization.

Indeed, this monetary form of pro-cyclicality has entrenched the position of peripheries in the centre–periphery system. Successive waves of finance from the centre transform the productive, consumption, financial and ownership structures of peripheral economies, which subsequently become increasingly dependent on continued refinancing and increasingly import-intensive.[42] As a result, they become ever more vulnerable to changes in external conditions, as demonstrated by the fact that it has taken so little — such as the mere hint of monetary tapering by the US Federal Reserve — to throw a variety of 'emerging economies' into currency and balance of payments crises in 2013 and 2014. Such peripheral crises ultimately serve to buttress the central countries, even whilst the latter are still in the midst of recession.

From this contemporary perspective, we ignore the lessons of structuralism at our own peril, particularly as the US and other central countries seek to aggressively bolster their dominant positions, conveniently legitimated by discourses of decline and of rivalries with rising illiberal non-Western powers. The fact that the scenario might be leading to a reinvigoration of US hegemony — for a second time in the post-war era — is one that needs to be taken seriously as we enter a world of post-neoliberal possibilities, one of which could be a deepening of imperialism rather than emancipation.

42. See an excellent discussion of this in Akyüz (2015), published during the final edit of this article.

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