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Latin America at a Crossroads: Controversies on Growth, Income Distribution and Structural Change

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1 Introduction

The dramatic impact of the 2008 financial crisis on output growth around the world has renewed interest in the relationship between growth, economic structure and income distribution in capitalist economies. Heterodox analyses of the crisis point to financialization, rising income inequality, and the expansion of global trade and production networks as among the main structural transformations leading to the "Great Recession" of 2008 (Foster and McChesney 2012, Lavoie, Stockhammer, 2012, Palley, 2011).

Increasing income concentration over the past two decades was not restricted to industrialized economies such as the US. Inequality increased significantly in Asia as well, particularly China (Medeiros 2012a). For many analysts, rising inequality has been a crucial feature of Chinese economic growth, generally regarded as both profit and export-led and, consequently, highly dependent on low wages (ILO 2013; Foster and McChesney 2012).

Outsourcing and the increasing fragmentation of supply chains, a consequence of economic liberalization and the transition to capitalism in formerly communist countries, set off a process of "global labor arbitrage" that replaced unskilled and semi-skilled labor in the North with cheaper labor in developing countries (Akyuz 2010; Foster and McChesney 2012). The result was a substantial fall in the wage share in both the industrialized and developing worlds (ILO 2013).

In the era of global value chains, the relationship between growth, technical progress and export diversification seems to have changed for developing countries. Unlike first-generation Asian developers like South Korea, export diversification in Mexico and Southeast Asia has not reduced their dependence on cheap labor costs, nor has it allowed these countries to escape their subordinate roles in the world economy. Despite the growth of industrial employment in these countries, their shallow growth trajectories (Glassman 2007)—characterized by weak internal demand and limited real wage growth—have led to greater inequality and done little to diversify job skills.

Lower output growth in high-income countries over the past decade, relative to the postwar era and even with respect to the 1990s, has intensified South-South competition (Palley 2011; Freeman 2008) and reduced the growth rate of manufacturing exports from

developing countries. As Akyuz (2010) argues with regard to China, maintaining high growth in these countries in an era of weak external demand requires the substitution of an "export-led growth" model (Palley 2011; Blecker 1989) with a wage-led growth strategy focused on domestic market growth (UNCTAD 2010, 2011; ILO 2013)[2].

In other large developing countries such as Argentina, Brazil, and Russia, all primary exporters and, unlike China, not relevant players in global manufacturing networks, GDP per capita grew rapidly in the 2000s. In fact, compared to previous decades, the 2000s were a period of rapid output growth for most of Latin America, as well as Africa. Though the financial crisis of 2008 interrupted this growth trajectory, anticyclical policies adopted in 2009 led to a revival of growth rates in many of these countries, albeit at lower levels than before. Furthermore, and contrary to what took place in China, economic growth in Latin America was accompanied by reduced income inequality and increases in the wage share (Cornia and Martorano 2012). In Russia as well, where income distribution did not change much, both real wages and domestic consumption increased substantially.

Despite the apparent success of wage-led growth in several large primary exporters in the 2000s, several authors (Bresser-Pereira 2010; Palma 2005; Popov 2009) claim these countries suffer from "Dutch Disease" and are reproducing unsustainable growth trajectories. Though commodity exports stimulated real wage growth, they argue, such exports also caused currency appreciation, which weakened manufacturing competitiveness and led to deindustrialization. To correct this, policymakers in developing countries should discourage primary exports, devalue their currencies (lowering real wages) and adopt accumulation strategies favoring industrial profits and exports.

Based on the policy recommendations cited above, it would seem that, for China and the wealthy countries, the restoration of sustainable growth requires greater income equality, a higher wage share, and an increase in consumer demand (UNCTAD 2013), whereas for

[2] In Thailand, this change of strategy was expressed by the government soon after the crisis of 1997. "Thailand's Prime Minister Thaksin Shinawatra, for example, announced upon taking the helm of government in January 2001 that he was determined to move the country away from mass manufacturing for exports into domestic demand-led growth through a series of policies" (Felipe and Lim 2005).

middle-income primary exporters, sustainable growth requires currency devaluation and a redistribution of income from wages to industrial profits. This, proponents of "New Developmentalism" (Bresser-Pereira 2015; Bresser-Pereira and Gala 2010) argue, will stimulate investment and increase the competitiveness of industrial firms.

This paper discusses the connections established in recent literature between growth, structural change and income distribution in large developing economies. We argue that, though many analyses have the unquestionable merit of reintroducing income distribution as a factor in economic growth, these analyses rely almost exclusively on macroeconomic theory, and as a result ignore both the structural changes that have taken place in recent decades and the ways in which structural aspects of an economy (such as resource availability, internal market size, geopolitical factors) affect policy options and growth. In addition, we argue that Latin American countries face today the same challenge that historically has constrained their development trajectory: to diversify their economic structure through new technological capabilities and greater equality and social progress. In a period of lower global growth and intense competition in industrial markets, growth strategies based primarily on manufacturing exports, as defended by New Developmentalism, seem inappropriate, particularly for large countries that have in their internal markets their main economic asset.

2 Growth, Distribution and Structural Change

From the perspective of structuralist development economics, in the tradition of Lewis, Rosenstein-Rodan, Prebisch, Singer, Hirschman and others, output growth depends on the growth of internal demand, exports, import substitution, and changes in input-output coefficients (Syrkin 2008). As an economy evolves, interaction between these components alters the structure of growth and income distribution and leads to changes in industrial and technological policies. Conversely, income distribution and industrial policies also affect economic growth, and there is no fixed causal relationship that holds for all countries between accumulation and distribution, or between accumulation and the choice of industrial policy.

Ever since Bhaduri and Marglin (1990), it has been common among Post-Keynesian or Post-Kaleckian macroeconomists to assume accumulation is positively-related to the profit share[3]. A variant of this assumption plays a key role in the arguments of "New Developmentalist" authors today in Latin America, who claim that the investment rate is a function of the difference between the expected profit rate and the interest rate on new capital investments, and thus increases in the industrial profit rate in developing countries will stimulate growth and technical advance.

One problem with this hypothesis is that it is not entirely convincing on the level of a private firm. Though periods of rapid technical advance and lively "animal spirits" are often associated with increases in business investment, private investment decisions must eventually conform to actual growth of sales and sales expectations. An increase in the profit rate (or expected profit rate) alone will not justify the creation of new productive capacity if sales expectations have not increased. It would be irrational, for example, for manufacturers to expand productive capacity simply because their employees have accepted large wage cuts or because currency devaluation has increased the profit rate on foreign sales.

Bhaduri and Marglin's (1990) original formulation on profit-led growth ignored public investment and autonomous consumption as sources of effective demand (Pariboni 2015).

[3] See Pariboni (2015). In an open economy, this theory assumes a negative net exports correlation with the wage share. See the end of this session.

By taking into account these autonomous demand sources, it becomes reasonable to assume that their growth rates (or expectations concerning the growth of autonomous demand) will determine the overall investment rate (Freitas and Serrano, 2015). As Garegnani (2015) observed, the "rate of profit on new investments appears not to be a factor that influences investment independently of the two (the growth of final demand and technological innovations); it seems rather, to be how the influence of those two factors manifests itself (p. 121)". Though an increase in demand growth will tend to raise the profit rate, it is the increase in autonomous demand, rather than in the profit rate (or profit share) itself, that will justify the creation of new productive capacity

The relationship between accumulation and distribution depends on the structure of the economy in question. Though the non-neoclassical literature recognizes the central role of industrial policy in economic growth, no consensus exists on the relationship between accumulation, distribution, and growth.

Assuming that economies are either profit- or wage-led, the growth regime compatible with any given economy will be determined by structural and institutional factors, such as the propensity to consume and the sensitivity of business investment to changes in costs and profit margins. Structural change, thus, would result from changes in the behavior of parameters linking distribution to accumulation. In other words, as noted in Lavoie and Stockhammer (2012), structural features of the economy define whether the economy is "profit-led" or "wage-led".

Bhaduri and Marglin (1990) made the distinction between profit and wage-led growth regimes in order to argue that the crisis of the "golden age" in industrialized countries was a result of profit squeeze. Analyzing capitalist growth in the wealthy countries in recent decades, Lavoie and Stockhammer (2012) and UNCTAD (2013) arrived at the opposite conclusion: most economies are wage-led and the slowdown in world economic growth in recent decades relative to the postwar era is largely the result of the changes in distribution favoring capital. Slow growth, in other words, is the result of an inconsistency between a distribution regime favoring capital and growth regimes which are, for the most part, wage-led.

ILO (2013) compiles a large amount of information on the evolution of wages, distribution and growth in the world economy over the past decade. According to the

report, wages grew quickly in Asia between 2000 and 2008, but this trend essentially reflected wage growth in China, where the real wage grew by a factor of three. In Thailand, India and South Asia in general, wage growth was very limited. In Latin America, on the other hand, real wages increased significantly, especially in Brazil. There was also positive real wage growth in Eastern Europe—notably Russia—and moderate growth in Africa. Outside of these regions, GDP grew faster than wages in the 2000s, causing a fall in the wage share.

In most countries, especially the US, the productivity-wage gap increased after 1990. Lavoie and Stockhammer (2012) and Akyuz (2012) argue that these reductions in the wage share reflect not only changes in labor market institutions (such as the decline in unionization rates) but also technological change, trade liberalization, and "financialization" of the economy (broadly defined as an increase in the power of banks and the financial sector).

Cornia and Martorano (2012) found that personal income inequality fell in the 2000s in almost all of Latin America and in parts of Southeast Asia and Sub-Saharan Africa. The opposite occurred in the OCDE, Eastern Europe, North Africa, the Middle East, China, Vietnam, and Cambodia. The cause of the reduction in inequality in the former regions was the combination of higher growth rates with government policies more favorable to workers, such as increases in social transfers and the minimum wage. In most countries in which inequality fell, the currency appreciated, despite the abandonment of fixed exchange rate regimes and the devaluations of the late 1990s and early 2000s.

In Asia, inequality generally increased after the 1997 crisis, with the exception of Thailand and Malaysia, where an increase in social transfers, public investment, and agricultural policies directed toward the rural poor helped improve income distribution (Cornia and Martorano 2012; see next section).

Why did inequality increase in much of Asia while decreasing in other parts of the developing world? A typical response in the heterodox literature points to growth regimes. Countries specializing in manufacturing exports, such as China and much of Southeast Asia, are assumed to have "profit-led" and "export-led" growth regimes, requiring low unit labor costs and the suppression of real wages relative to productivity (Palley 2011; UNCTAD 2012, 2013). Large developing countries like Brazil, on the other

hand, have “wage-led” or “demand-led” growth regimes, allowing for output growth together with an increase in the wage share.

Onaran and Galanis (2012), like Lavoie and Stockhammer (2012), find that most countries are “wage-led”. In “profit-led” countries such as China (ILO 2013), the positive effect of an increase in the profit share on output growth was caused entirely by the effect of a decline in unit labor costs on net exports. This approach to growth regimes treats “export-led” economies essentially as special cases of profit-led growth. Since most economies are “wage-led”, it is in open economies that the “happy coincidence of wants” (Blecker 1989) between workers and capitalists disappears and the conflict between functional income distribution and labor cost sets in. The conflict emerges in cases where a fall in profit margins, resulting from an increase in real wages, would make certain exports non-profitable while an increase in prices, necessary to restore profit margins to acceptable levels, would make such exports uncompetitive.

For exchange rate variations to have a strong effect on net exports requires a high price elasticity of exports and imports. This ambiguous nature of this effect is widely recognized in the literature (ILO 2013). Policies intended to increase external competitiveness through devaluation and reductions in unit labor costs became widespread in the 1990s and 2000s with the extraordinary expansion of outsourcing and supply chains. For many analysts of Asian economies, this phenomenon constitutes the main obstacle to growth with social inclusion (as we discuss in Section 4, New Developmentalism regards this income polarization as confined to the short run).

The principal merit of contemporary approaches to growth regimes is the introduction of income distribution and labor relations into the analysis of development trajectories. Nonetheless, given the ambiguities concerning the relationship between profitability and investment—a common theoretical assumption but not verified in practice—this literature focuses on the link between income distribution and exports in national growth trajectories. As discussed below, the role of exports in growth trajectories has structural and technological dimensions that transcend changes in income distribution.

3 Growth, Exports and Structural Change in Developing Economies

In the last decade, commodity prices soared and large capital flows were directed towards developing countries (Ocampo 2015). In addition, world export growth far exceeded the growth rate of world GDP. Given this favorable environment, many developing countries—both primary exporters and exporters of manufactured goods—launched expansionary economic policies and to measures to reduce wealth and income inequality.

Exports play two key roles in national economies. First, they generate the foreign exchange necessary to pay for imports and other expenditures abroad. Second, they constitute an autonomous source of aggregate demand. Though both aspects are essential for long run economic growth, for most countries the former is more important: exports generate the foreign currency necessary for growth to take place. Though exports remain the main component of final demand in several countries (Medeiros and Serrano 2001), notably in East Asia, the possibilities for export-led growth have become more limited in recent years with the growing fragmentation of world trade and the emergence of a new model of production characterized by increased specialization and a high import content of manufactured goods exports. The share of domestic value added in industrial exports has been shrinking in many economies, particularly poor and middle-income countries lacking the technological capabilities necessary to diversify production and specialize in more complex activities such as design or branding of final products.

Tables 1 and 2 show GDP data for several countries from 2003 to 2011. As evidenced by the tables, household consumption (HC) is the dominant component of GDP in virtually all economies. The exception is China, where household consumption is structurally low. The share of exports and imports in GDP is high in South Korea, Thailand, and China. There is an obvious correlation in these economies between capital formation, exports and imports. The export and import shares are also high in Argentina, South Africa, Russia, Indonesia, and Mexico. Export and import shares are lower in Brazil and India.

Table 1: Average Growth of GDP and GDP Components in Selected Countries, 2003-2011

	GDP	HC*	GC**	Capital Formation	Exports	Imports
Argentina	7.7	7.7	6.3	17.1	7.8	20.1
Brazil	3.9	4.7	3.1	6.6	5.9	12.4
China	10.7	8.4	8.9	13.4	16.8	17.7
India	8.1	7.2	7.3	11.2	13.8	17.2
Indonesia	5.6	4.5	7.1	7.7	9.2	9.9
Mexico	2.4	2.9	1.6	0.9	5.9	5.2
South Korea	3.8	2.4	4.3	2.2	10.6	8.2
Russia	4.8	8.2	1.5	10.5	5.3	15
South Africa	3.5	3.9	4.9	7.4	2	7.2

*Household Consumption
**Government Consumption
Source: United Nations Statistics Division, National Accounts Database, http://unstats.un.org/unsd/snaama/selCountry.asp.

Countries as diverse as Argentina, China, India and Indonesia experienced rapid growth between 2003 and 2011, followed by Russia, Brazil, South Korea and South Africa. The breakdown of output growth between 2003 and 2011, however, differed across countries (Table 1). In China, India, and South Korea, exports, imports and investment grew faster than GDP. In Argentina, South Africa, Russia and Brazil, import growth exceeded export growth by a wide margin. This evolution changed the structure of GDP in these countries. In China, exports and net exports, as well as investment, increased their shares in GDP between 2003 and 2011 (Table 2). The shares of exports and investment increased substantially in India as well, but the share of net exports in GDP became sharply negative (-5%). In South Korea, the export share increased substantially, but that of investment fell slightly. In Argentina and Brazil, the export share fell, and, as in Russia, the investment share increased. As a share of GDP, household consumption fell in all these economies, while government consumption increased or remained stable.

A key question, in light of the data, is the role played by exports in developing economies. There is no consensus in the literature about the meaning of "export-led growth" or what such a growth regime entails for a country's production structure. The reason is perhaps because studies of growth regimes place little emphasis on the structure of production.

Table 2: GDP Component Shares (2005 prices), 2003 and 2011

	HC	GC	Capital Formation	Net Exports	Exports	Imports
Argentina						
2003	63	12	11	11	25	14
2011	56	15	26	2	22	20
Brazil						
2003	62	19	16	2	15	12
2011	60	21	20	-1	12	13
China						
2003	42	15	41	2	29	27
2011	35	13	49	4	31	27
India						
2003	62	11	27	-1	15	16
2011	56	12	36	-5	25	30
Indonesia						
2003	68	8	26	7	30	23
2011	55	9	33	1	26	25
Mexico						
2003	67	12	23	-2	25	27
2011	65	11	25	-1	32	33
South Korea						
2003	55	13	30	2	35	33
2011	53	15	29	2	56	54
Thailand						
2003	56	13	24	7	35	24
2011	63	16	25	4	31	22
Russia						
2003	51	18	21	11	28	26
2011	50	18	25	9	29	29
South Africa						
2003	62	19	17	2	62	55
2011	59	21	20	0	72	68

Source: United Nations Statistics Division, National Accounts Database, http://unstats.un.org/unsd/snaama/selCountry.asp.

Data on value-added by economic sector can increase our understanding of the changes taking place in developing countries over the past decade. Table 3 below compares value-added for the main economic sectors in several countries in 2003 and 2011.

Over the 2000s, the main changes in the composition of value-added in the group of countries analyzed in Table 3 were: 1) relative decline in agriculture, as a percentage of GDP (with the exception of Argentina and Thailand; 2) increase in the share of extractive industries in GDP in all oil-producing countries (exporters or not)—Brazil, China, Indonesia, Mexico, Russia, South Africa and Thailand; 3) reduction in the manufacturing share of GDP in almost all countries, with the exception of South Korea, Russia and Thailand. The relative decline of manufacturing as a percentage of GDP was particularly sharp in South Africa, Argentina, Brazil, India and Indonesia—all major commodity

exporters, with the exception of India, where services account for a large percentage of total exports.

The data suggests that the connection between real wages, the manufacturing share, and the investment rate was not systematic. Among the countries where the manufacturing share of GDP fell, real wages and the wage share grew only in Argentina and Brazil. In Thailand and Russia, wages increased and the manufacturing share remained constant between 2003 and 2011. In Argentina, the fall in the manufacturing share was accompanied by an increase in investment by a factor of two. In all other countries analyzed, investment increased, especially in China, India, Indonesia and Russia.

Table 3: Value-Added by Economic Sector (2005 prices)*

	Agriculture	Industry (mining, manufacturing, utilities)	Manufacturing	Construction	Retail	Transport and Communications
Argentina						
2003	11	31	24	3	14	8
2011	11	25	21	6	15	8
Brazil						
2003	7	23	18	5	18	8
2011	5	22	15	6	21	8
China						
2003	13	40	33	6	11	6
2011	10	40	32	7	1	5
India						
2003	21	20	15	8	15	8
2011	17	18	14	8	18	7
Indonesia						
2003	15	38	29	7	17	6
2011	15	37	24	10	14	7
Mexico						
2003	4	27	19	7	19	9
2011	3	30	18	7	19	9
South Korea						
2003	4	29	26	8	13	8
2011	3	34	31	6	12	7
Thailand						
2003	9	35	30	6	19	8
2011	12	36	30	7	17	7
Russia						
2003	7	27	16	3	23	11
2011	4	30	16	5	20	9
South Africa						
2003	3	29	26	3	14	10
2011	2	26	31	3	14	8

*Shares do not add to 100 because Table 3 does not include the category "Other".
Source: United Nations Statistics Division, National Accounts Database, http://unstats.un.org/unsd/snaama/selCountry.asp.

In the Keynesian literature based on McCombie and Thirwall (1994), export-led growth is described as a regime in which external demand growth determines GDP growth. Export-led growth is generically understood as a "strategy" in which exports are the main object of economic policy (Felipe and Lim 2005; Palley 2011). For Akyuz (2013), export-led growth takes place when exports grow faster than domestic demand. But the means by which a strategy merely favorable to exports becomes an export-led growth *regime* (implying a particular kind of production structure) is rarely discussed.

The expansion of global supply chains in recent years dramatically increased the importance of labor costs in industrial production in activities intensive in unskilled labor. As noted above, though world exports increased significantly as a result of this expansion, the production of goods for export also became more intensive in import content, lowering the domestic value added of such production. Thus, despite its importance, price competiveness based on low labor cost does not alter the basic Keynesian-Structuralist observation that export growth depends essentially on the income elasticity of demand and on the type of product exported. Before discussing evidence concerning the relationship between growth and structural change, we examine some analyses of the link between growth, exports and distribution.

According to Felipe and Lim (2005), export-led growth strategies aim for two things: a high growth rate of exports and output and an increase in net exports. The authors' definition of export-led growth is straightforward: if net exports increase in an expanding economy while domestic demand falls, then growth in this economy is "export-led". If, on the other hand, net exports increase, domestic demand falls and output growth is negative, the economy is regarded as led by internal demand. Finally, if output growth is accompanied by an increase in both domestic demand and net exports, then growth is "weakly" led by internal demand.

With this conceptual framework, Felipe and Lim (2005) investigate the growth regimes prevailing in China, India, South Korea and the Philippines in the periods 1973-1983, 1983-1993, and 1993-2003. The study concludes that these countries performed best

when internal demand grew simultaneously with net exports—constituting a growth regime "weakly-led" by internal demand. This is the authors' description of the strategy in place in China and India. Interestingly, among the countries analyzed in Felipe and Lim (2005), net exports increased only in China in the period 2003-2011. In the remaining countries, net exports either remained stable, as in South Korea, or fell, implying, according to Felipe and Lim's methodology, regimes in which output growth is led by internal demand.

A drawback of Felipe and Lim (2005) and similar studies is that neither the export share of GDP nor net exports accurately measure the contribution of exports to economic growth. Given the extraordinary expansion of the import content of exports—especially high in the supply chains that have emerged in Asia—the export share of GDP may significantly overestimate the true contribution of exports to GDP. Net exports, on the other hand, underestimate the contribution of exports to aggregate demand growth by treating a country's total imports as if they were used solely in the production of exports.

More accurate measures of the contribution of exports to output growth can be obtained by subtracting from export revenues only the value of those imported goods used in the production of these exports. Using this methodology, Akyuz (2010) concludes that exports accounted for roughly 40-50% of Chinese output growth in the 2000s, far higher than the export contribution in other large countries. This makes China, according to Akyuz, an "export-led" economy, implying that continued Chinese growth in an era of weak demand growth in the rest of the world requires a departure from this growth model. Future expansion thus depends on industrial restructuring and an increase in domestic consumption induced by a reduction in income inequality.

The expansion of trade in intermediate goods within global supply chains in recent decades has weakened the virtuous connections between export growth, investment and technical progress witnessed in the cases of South Korea and Taiwan in the postwar era. This becomes evident when we analyze the recent growth trajectories of Mexico, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, and China itself. The integration of these countries into supply chains organized by multinational companies occurred not only as a result of national strategies, but because of their prior production structures and by arrangements and dynamics initiated by American, Japanese, Korean and Taiwanese firms. Since global supply chains are particularly well established in the production of

automobiles, electronic equipment, electric machinery, clothing and chemicals, the integration of second-generation Asian developers into consumer goods supply chains was influenced by the strategies and experiences of Japan, South Korea and Taiwan. As a result of the expansion of these vertically-integrated production networks, not only did competition based on low unit labor costs (in dollars) become more intense, but the capacity of exports to generate output growth became more limited—as the Mexican case illustrates clearly—because of income leaks due to imported parts and components. As noted above, the countries that joined these supply chains witnessed a growing gap between real wages and productivity and, consequently, a fall in the wage share.

In Cambodia, Malaysia, Thailand, Singapore and various Central European countries, foreign value-added constituted more than 25% of GDP in 2009 (OECD 2013). Though somewhat lower, this percentage was still very high in South Korea, Taiwan, and Mexico, in contrast with the very low share of imports in final demand observed in Indonesia, China, Argentina and Brazil. In South Korea, Taiwan, the Philippines, Vietnam and Thailand, the share of foreign value-added in exports was over 40% in 2009.

Traditional exports with higher local content increased significantly in both Indonesia and Thailand in the 2000s (Medeiros and Reis 2013), and contrary to what took place in Mexico, investment and internal demand growth also increased in these countries. Nonetheless, and despite the adoption of strategies to promote domestic markets and product diversification, the final result for Indonesia, Thailand and other developing countries has been far worse in this era of highly fragmented supply chains than in the case of first-generation Asian developers such as South Korea and Taiwan.

The relationship between exports and output growth depends largely on technological capabilities and the domestic content of exports (CEPAL 2007). As amply documented in OECD (2013), which examines the fragmentation of modern industry into global supply chains, wealthy countries dominate the initial and final stages of these supply chains. Services—R&D, design, branding, and sales—predominate in these lucrative stages of production. “Companies no longer sell goods alone, but bundles that include design, development, marketing, warranties and after-sales care”, and these are the activities where most of industry value-added is appropriated (p. 194). Lower value-added activities with a high import content, including manufacturing, have largely been transferred to less developed countries. As a result, technological sophistication is today

located more in complex activities and productive systems than in manufacturing and production sectors *per se*.

As observed in Medeiros (2012b) and Felipe and Lim (2005), an economy in which exports account for a large percentage of GDP is not necessarily "export-led"—understood as a regime in which income growth is positively and persistently correlated with export growth. Though this has indeed been the case for various Asian countries, it is not so with China, whose growth cycles are more closely related to the investment rate, led by public investment (Medeiros 2012b). In the same decade in which net exports increased—taking place amidst a strengthening of the renminbi relative to the dollar and a significant increase in real wages and labor costs (Ceglowsky and Golub 2011)—, state-owned firms in China embarked on a major cycle of investment in housing and public infrastructure, generating jobs and income which more than compensated for job loss related to slower export growth. The import content of these investments is much lower than that of exports, and their expansion, particularly sharp after 2008, explains in large part China's recent growth.

As discussed below in more detail, the role of public and state-directed investment in Chinese growth contrasts starkly with the case of Mexico, which, like China, is integrated into global supply chains as a producer of manufactured goods. In Mexico, the export sector became an "enclave economy" (Gallagher and Zarsky 2007) detached from the domestic economy, with roughly 70% of manufactured exports coming from the *maquiladora* sector (Moreno-Brid, Valdivia, and Santamaría 2005).

As discussed in Section 4, it is commonly assumed that a country's exports and overall macroeconomic performance depend on a set of key "prices" closely related to income distribution, including unit labor costs and the exchange rate. However, when one takes into account the structure of production in a given economy (as understood in structuralist development economics), along with a country's geopolitical position, it becomes clear that the role of exports in economic growth and their material composition depend on many other factors over which policymakers sometimes have little control and which are relatively independent of distributive variables. Exports are generally much more important for small economies than for large ones. On the other hand, specialization in international trade is dependent on the existence of natural resources, on technology and market size. Economies that do not have natural resources or large internal markets (such

as South Korea and Taiwan) have no choice but to produce and export manufactured goods, the complexity of which depends on available technologies and, of course, on the growth strategy adopted. The pressing need to export manufactured goods does not exist in resource-rich economies with large domestic markets (Brazil, Mexico, Russia, Indonesia), and which can produce primary and industrial goods for both domestic and foreign markets. The composition of these two sources of demand is conditioned by the prevailing economic strategy and by external circumstances, including geopolitical factors (South Korea and Taiwan's postwar success, for example, had much to do with their special relationship with the US; see Medeiros and Serrano 2001). Countries with natural resources and small internal markets (like Chile and Peru) tend to specialize in primary exports, and abandoning this specialization is difficult because there is no large internal market to allow for initial industrial learning and diversification (UNCTAD 2013). Though global supply chains have altered somewhat the potential for specialization, different structures and natural resources continue to influence the choice of growth strategies.

As noted above, a key structural parameter determining whether external competitiveness is compatible with expansion of the internal market is the income elasticity of demand of exports and imports. This, in turn, depends on the level of diversification of the production structure. As observed in the classic literature of the UN's Economic Commission for Latin America and the Caribbean (CEPAL, using the Spanish acronym), the fragile position of developing countries in the international division of labor generates systematic external imbalances and distributive conflict in these countries. If world economic growth slows down and the income elasticity of exports is relatively low, rapid growth in a developing economy will lead to unsustainable foreign debt levels or chronic distributive conflict, as the need to export or substitute imports leads to tensions between workers, on the one hand, and firms on the other attempting to suppress labor costs.

CEPAL (2007) discusses the relationship between production structure, exports and technical progress in 31 industrialized and developing countries. The taxonomy used in this study classifies productive sectors as: 1) natural resource-intensive; 2) labor-intensive; and 3) engineering-intensive (such as machinery and equipment and other industries intensive in technology). The study observes that between 1970 and 2003, the Latin American economies, along with the Philippines, Egypt and South Africa, lost

ground relative to the US in terms of the share of engineering-intensive sectors in industrial value-added. Latin America's increasing divergence relative to the US was much greater in the 1980s than in the previous decade, though the divergence was much less pronounced in Brazil and Mexico. Despite the much higher growth that took place after 2003, the engineering-intensive sector in these countries did not change very much or alter this negative tendency. (Ocampo 2015)

These transformations shed light on the role of natural resources and economic diversification in output growth. CEPAL (2007) discusses the extent to which export specialization in natural resources can be associated with weak production structures. The study examined eight Latin American economies, six Asian economies, seven developed countries (such as Australia, Canada, and Norway) whose natural resource exports exceed 40% of total exports, and six developed economies not specialized in natural resources. The main conclusion is that the index of structural change in Latin America between 1982 and 2003 was much lower than the other economies, regardless of the relative importance of natural resource exports in the latter (Ocampo 2015). Unlike Latin American countries specializing in primary goods exports, the developed countries specialized in natural resources experienced major changes in their production structure in the period, and the share of engineering-intensive sectors in manufacturing value-added, as well as the share of high-tech exports in total exports, was much higher.

Primary exports, thus, are not incompatible with technical progress and increasing sophistication in science-based sectors. What matters, it appears, is not whether a country is specialized or not in natural resources, but whether it invests in and maintains a presence in engineering-intensive sectors. The lack of such a presence, and not a specialization in natural resources, as is commonly argued in New Developmentalist literature (Section 4), is what distinguishes the Latin American economies from more developed ones.

4 Growth, Real Exchange Rates, and New Developmentalism

As observed in the Introduction, the rise of primary exports as a share of total exports in South Africa, Brazil, Russia, and other developing countries in the 2000s has led analysts to conclude that these economies are victims of "Dutch Disease" (Bresser-Pereira 2010; Popov 2009) and premature deindustrialization. The main hypothesis is based on the association between primary export specialization (measured as the ratio between primary exports and total exports) and a weakening of the production structure (as evidenced by a decline in the ratio of industrial employment to total employment or industrial value-added to GDP)[4].

New Developmentalism (Bresser-Pereira 2015; Bresser-Pereira and Gala 2010) ascribes enormous importance to the real exchange rate (RER) as a determinant of output growth and technical progress. Bresser-Pereira attributes the structural change witnessed in Brazil and other developing countries in recent years (such as the expansion of the services sector) to real exchange rate appreciation taking place in the 2000s. While primary exports remained competitive, currency appreciation made industrial exports uncompetitive. The overvalued exchange rate reduced profitability for manufacturing exporters, causing a decline in manufacturing investment[5]. Though real wage increases in developing countries stimulated household consumption, these wage gains increased the propensity to import and weakened the production structure.

[4] Proponents of "New Developmentalism" (see Bresser-Pereira (2015) and Bresser-Pereira and Gala (2010)) claim their theories are a revision of Classical Developmentalism as originating in the works of Prebisch, Furtado, Pinto and others. The main flaw of Classical Developmentalism, Bresser-Pereira argues, is a lack of awareness of the damage caused by overvalued currencies in developing countries. In economies specializing in commodities exports, he argues, the exchange rate tends to remain at a level appropriate for exporters of primary goods but too high for domestic manufacturers to compete effectively with foreign producers. The recurrence of stop-and-go cycles in developing countries, in which growth leads to current account deficits and balance of payments crises, reflects this tendency for currency appreciation which stimulates imports and limits manufacturing exports.

[5] These arguments with regard to Brazil's recent experience have been disputed in many empirical studies likeDos Santos et. al (2016) finding an inverse correlation between manufacturing investment and the RER. Serrano and Summa (2015) offer an alternative explanation of the deceleration of Brazil's investment rate, pointing to contractionary domestic policies.

Although the emphasis on the need for a competitive and stable real exchange rate is valid, the exclusive focus on RER in terms of industrial policy, irrespective of the evolution of external markets and its impact on the domestic market, generates inconsistent policy prescriptions. One drawback of New Developmentalist thought is the assumption that demand for industrial production in developing countries always exists and requires only a competitive RER in order to be transformed into "effective demand" (Bresser-Pereira 2015, p. 9). This approach excludes the possibility, well-documented in the international literature, that currency devaluation can cause a reduction in aggregate demand, mainly through the effect of devaluation on domestic markets.

Though devaluation can in some cases provide a vital stimulus to exports, devaluation can also cause inflation in the domestic currency and increase costs for domestic producers, thus counteracting, at least to some extent, the benefit of devaluation in terms of export competitiveness. More importantly, exchange rate devaluation in developing countries can be severely contractionary because of the negative effects on domestic consumption and real wages, as well as on government and business spending as a result of an increase in foreign debt loads (Blecker and Ramzi 2008).

Devaluation in developing countries raises the price (in domestic currency) of both tradables and non-tradable goods dependent on tradeable inputs, such as food and fuel (Karadam 2014, p. 3). The relative price increases raise profits in these sectors, which New Developmentalist authors claim will stimulate industrial investment (Bresser-Pereira 2015). The flipside of this increased profitability, however, is a reduction of real wages and consumption and an increase in income inequality. Independent of its effect on domestic demand, the latter effect alone should raise doubts about the merit of devaluation as the centerpiece of industrial policy in already very unequal developing countries such as Brazil or South Africa[6].

[6] Well aware of the negative effect of currency depreciation on real wages, Bresser-Pereira (2015) argues the effect will be entirely compensated for in the medium run by an increase in investment and output resulting from the impact of devaluation on expectations and industrial exports.

Bresser-Pereira's policy prescriptions, furthermore, appear somewhat at odds with the experiences of successful developers in the past. It was not on the basis of cheap labor costs or currency devaluation that the US and other mid-to-late 19thcentury developers rose to prominence. In fact, manufacturing wages in 19th century America were higher than in Britain and other wealthy countries at the time (Field 1985). What made the difference for the US, which specialized in natural resource exports until the 1890s, was the successful development of new technologies that eventually enabled its firms to compete in higher value-added sectors of the world economy.

These remarks are compatible with Freeman's (2004) analysis of national innovation systems, which emphasizes "non-price" factors and highlights the importance of scientific research, access to foreign technology and "various types of infrastructural investment, especially education" (p. 552) in successful development trajectories. Citing research from the late 1970s, Freeman points to "'perverse'" relationships between measures of 'price competitiveness' and development of export shares" in Japan and Germany, who "managed to combine a deterioration of relative prices and labor costs per unit of output" after 1950 with "improved export performance, whilst the UK in particular showed a fall in world export shares when her relative export prices and costs were apparently improving". The author concludes "that the success of the leading countries in international technology and trade competition is heavily related to the long-term policies which they have pursued over many decades, rather to any short-term manipulation of currency exchange, or exploitation of relative factor-cost advantages" (p. 565).

Econometric studies of the relationship between real exchange rates and economic growth show mixed results. The traditional Mundell-Fleming model, based on the Marshall-Lerner conditions, suggested currency depreciation was expansionary. Several studies in the 1960s and 1970s questioned this approach, arguing that exchange rate devaluations in developing countries can be contractionary (Diaz-Alejandro 1963, Cooper 1971; Krugman and Taylor 1978), mainly because of the effects of devaluation on income distribution and foreign debt burdens. More recent studies have arrived at similar conclusions (Cespedes, 2005; Bleaney and Vargas, 2009).

Dollar (1992), on the other hand, using an adjusted real exchange rate as the measure of a country's "outward orientation", offered evidence suggesting that the more open or "outward-oriented" an economy, the faster it grows. A distinguishing feature of Dollar's

methodology was the use of GDP per capita to "correct" for the Balassa-Samuelson effect, which refers to the positive correlation between labor productivity and the price level across countries[7].

Using similar methodology, Rodrik (2008) and Gala (2008) argue exchange rate devaluations have a positive effect on economic growth in developing countries. Following Dollar (1992), Gala (2008) defines a country's real exchange rate relative to its per capita income level. Thus a currency is "undervalued" or "overvalued" if the domestic price level in US dollars is low or high, respectively, relative to what regression analysis indicates is the "neutral" level of the real exchange rate, given the country's per capita GDP.

A few brief observations are in order. First, the standard definition of the real exchange rate, defined as the nominal exchange rate multiplied by either a ratio of consumer price indices or a ratio of manufacturing prices, is itself an index of a country's relative price competitiveness. Since price competitiveness is one of the factors determining overall economic performance, it is not surprising that some kind of association exists between real exchange rates and output growth (Karshenas 2005). It is even less surprising that such an association is found in regression analyses, such as Gala (2008), that essentially change the definition of the real exchange rate to account for a country's GDP per capita.

Wealthy countries generally have better infrastructure, better technology and higher productivity in a wide range of sectors than underdeveloped ones. Thus, though higher productivity and wages tend to raise price levels in developed countries relative to poor ones (the "Balassa-Samuelson effect"), superior technology and infrastructure in the former will counteract this effect. As a result, the discrepancy between price levels in the developed and underdeveloped countries will not be as great as one would expect if, given the higher wages in the former, productivity levels in the two groups were roughly the same.

Dollar (1992) noted, for example, that even before correcting for GDP per capita, the average price level in dollars in Africa is higher than the average price level in Latin

[7] A result of higher wages in developed countries resulting from higher productivity, relative to poorer countries, in tradables.

America. This implies, if we were to use Gala's methodology, that exchange rates in Africa are "overvalued" relative to Latin America. It does not necessarily follow, however, that Africa suffers from even more Dutch Disease than Latin America, or that African governments are even more prone to "populist" measures such as maintaining overvalued exchange rates or high real wages (Bresser-Pereira 2015). The differences in the real exchange rates may simply reflect the presence in Latin America of countries such as Brazil, Mexico, and Argentina that, though not wealthy, are more advanced technologically and have higher productivity levels than the average country in Sub-Saharan Africa.

These observations suggest that the identification of a negative correlation between "overvaluation" and output growth does not imply that "overvaluation" itself is the cause of poor economic performance. A relatively high real exchange rate may reflect much deeper problems—high transport costs, backward agriculture, low public investment, greater inequality—that stall productivity growth in undeveloped countries.

Arguing along different lines, Woodford (2008) argues Rodrik's methodology imparts a strong upward bias to "undervaluation" as a determinant of output growth. By adjusting real exchange rates for the Balassa-Samuelson effect, Woodford observes, Rodrik's (2008) specification is in part a regression of the growth rate on growth itself. Though "not purely an artifact", Rodrik's results may not "indicate any association between real exchange rates and growth at all—it may simply reflect the positive correlation between the growth rate and itself" (422). Given the similarities between Rodrik's and Gala's methodology, Woodford's criticism would appear to apply to New Developmentalist findings as well.

Studies that do not adjust real exchange rates for the Balassa-Samuelson effect find devaluations have negative or, at best, inconclusive effects on developing countries (Karadam 2014). As noted above, Blecker and Ramzi (2010) find that, while low real exchange rates appear to have played a role in East Asia's rapid growth in recent decades, real depreciations relative to wealthy economies "generally have contractionary effects" in developing countries".

The notion that devaluation and suppression of unit labor costs constitute viable growth policies relies, according to these authors, on a "fallacy of composition". The

manufacturing success of East Asian countries such as South Korea and Taiwan took place under specific historical and geopolitical conditions and their examples do not imply that all developing countries will achieve the same success simply by keeping costs down in an attempt to stimulate industrial exports. In a context in which many developing countries aim simultaneously to expand exports toward the same group of wealthy countries, it is not enough to devalue one's currency relative to the dollar or some other currency of reference. One must devalue relative to competitors in other developing countries, and barring a major upsurge in world economic growth, one country's success will only be achieved at the expense of another.

In a world economy that has lost much of its pre-2008 dynamism, dependence on export promotion as a growth strategy ends up being a zero-sum game for developing countries as a whole, leaving even "winners" vulnerable to the ups and downs of growth in the developed world. For these reasons, Blecker and Ramzi (2010, p. 393) recommend policies that mix export goals with initiatives to expand the internal market as well as "South-South" trade, in order to reduce instability and dependence on wealthy economies.

In analyzing the effects of Dutch disease in developing countries, New Developmentalist authors often use the manufacturing share of GDP serves as a measure of the degree of industrialization. As observed in the previous section, changes in the global economy over the past several decades have made this approach harder to defend. Indeed, the misguided identification of industrialization with the size of the manufacturing sector is one of the key shortcomings of New Developmentalism. As a result, there is little emphasis in this line of research on National Innovation Systems (NIS) as an instrument of technical change, and undue emphasis is placed on price and labor cost competitiveness. Manufacturing employment and the aggregate share of manufacturing in GDP are regarded as almost synonymous with industrialization and development. From this narrow perspective, there would appear to be little difference between South Korea and Taiwan, on the one hand, and Malaysia, Thailand or the Philippines on the other, all of which had manufacturing shares between 25 and 35% of GDP in the mid-2000s.

Low labor costs in China and other Asian countries such as Vietnam constitute a major challenge to countries with higher relative wages, particularly those specialized in natural resources. In addition to the negative effect of currency devaluation on income distribution, devaluation will have an uncertain impact on industrial exports and the

manufacturing share of GDP in these countries because of China's extraordinary advantage in terms of manufacturing labor costs. It would appear, thus, that the only way for middle-income countries like Brazil and Argentina to diversify their production and export structure is to increase productivity and focus on goods and services of greater complexity. The main reason for the dependence of these countries on primary exports is their lack of presence in advanced sectors and the higher value-added stages of global supply chains. Progress in these areas depends more on ambitious industrial and technological policies than on labor cost competitiveness.

Gallagher and Shafaeddin (2009) reinforce these observations in their comparison of industrial policy in China and Mexico since 1980. Prior to the 1980s, Mexico was home to a moderately successful electronics and information technology (IT) industry, a result of technological policies designed to promote domestic capabilities and limit foreign control over advanced sectors. Mexican firms in 1980 accounted for around 20% of domestic computer manufacturing. Industrial policies required firms to invest 3%-6% of gross sales in R&D, and domestic parts and components had to account for 45% of value-added for personal computers. Market-oriented reforms in the late 1980s and early 90s dismantled these and other policies related to foreign investment and technology transfer. Though Mexico subsequently received significant inflows of FDI in electronics and IT, by 1997 the local electronics and IT industry had been essentially wiped out.

"Built-up during the ISI period, Mexican electronics firms were virtually eliminated after trade liberalization and replaced by a foreign enclave economy with few linkages, minimal R&D, and limited partnerships with universities beyond process innovation" (p. 15). By 2000, "only a few of the original 50 Mexican IT firms were still in business", and less than 5% of inputs in Mexican IT production were sourced locally (Gallagher and Zarsky 2007, p. 7). Multinationals, furthermore, transferred very little to Mexico in terms of technology and R&D facilities. All this happened despite a competitive RER in Mexico (Ocampo 2015) assured through wage repression and contractionary economic policies.

The Mexican case contrasts starkly with that of China, where the implementation of market reforms also began in the 1980s. In China, state-owned enterprises maintained a central role in high-tech research, as planners understood that technology transfer was an "automatic" process. To promote the absorption of foreign technical progress by domestic firms, China imposed conditions on foreign investors and invested heavily in training,

education and infrastructure. Even in a more restricted policy environment following WTO accession in 2001, China continued to pursue industrial policies encouraging domestic suppliers to form joint-ventures with and act as suppliers to the multinationals. The central government also dramatically increased funding after 2001 for science and high-tech research. As a result, Chinese electronics firms have been able to survive and in several cases prosper in domestic and world markets. Domestic manufacturers control 70% of the domestic PC market, and according to Gallagher and Shafaeddin (2009, p. 34), Chinese-owned firms supply over 20% of the inputs of foreign firms operating in China.

The development of information and communications technology (ICT) in Brazil in the 2000s also compared favorably to that of Mexico, and for essentially the same reasons as those outlined above. Brazilian ICT firms retain a greater share of value-added in the industry than their Mexican counterparts, in large part because "Brazil's strategy differs from that of Mexico...it has promoted the expansion of the domestic market for ICT goods and services...and fomented national integration of this sector" (Schatan and Rodriguez 2015, p. 161). Though also implementing market reforms in the 1990s, "Brazil has maintained a sector-specific industrial policy for ICT goods, in addition to stimulating the domestic market" and maintaining, "public policies focused on long-run technical progress" (p. 170). While Mexico placed its bets on exports, "industrial policies have been comparatively more vigorous" in Brazilian ICT, explaining the latter's superior performance over the course of the 2000s (p. 171).

State technological policies in Brazil, however, pale in comparison to that of China as well as the US, where the federal government plays a key role in stimulating innovation in high-tech sectors. Federal spending accounts for roughly 50% of all basic research conducted in the US and 25% of total R&D for ICT (Andersen and Coffey 2011). Discussing the US strategy to guarantee its leadership role in ICT, Schatan and Rodriguez (2015) notes that in almost all countries, "public policies regard the development of ICT as a priority". However, in developing countries such as Mexico and Brazil, public sector policies "to stimulate sectors such as ICT are much more modest" than those adopted in the US (p. 170). After the dotcom crisis of 2001, the "US repositioned itself in global value chains in notorious fashion, increasing substantially" the US share of value-added

as a percentage of gross production value of ICT products, from 38% in 2003 to 63% in 2009 (p. 173).

5 Conclusion

This paper analyzed the links established in the literature between growth, distribution and production structure. In the Structuralist-Keynesian literature, the dominant explanation is that the growth regime based on profits led, in the central countries and especially the US, to a sharp decline in real wages and the wage share. In Asia, particularly China, the profit-centered growth regime led, according to this view, to excess export capacity. In particular, in this region, the maintenance of growth after the 2008 crisis requires replacing the strategy based on exports and low labor costs by one based on wage increases and internal demand growth. If in these economies distribution favoring profits is identified as the cause of structural imbalances, in the primary exporters, where output grew quickly over the past decade, it was the distribution in favor of wages that—according to current analyses regarding "Dutch Disease"—that caused excessive export specialization and increasing dependence on imports. We discussed above limits to these analyses.

Based on some evidence and experiences of growth observed in selected countries, we argued that the link established between distribution and accumulation and between distribution and exports and economic growth is problematic. With regard to the supposed positive effect of higher profits on investment, the empirical evidence for this is weak or non-existent. Regarding the alleged effect of a fall in real wages and unit labor costs on exports, we argue this view does not take into account key features of the world economy, particularly the role of the Asian economies in global supply chains and the enormous advantage of countries such as China in terms of labor cost.

We discussed, based on recent literature, some evidence regarding the influence of internal demand and the income elasticity of demand on the production and export structure. We also discussed and contrasted the experience of natural resource exporters with several explanations and evidence concerning the changes in the link between product and export diversity, given the significant expansion of supply chains in other parts of the world (particularly in Asia).

Most Latin American countries today fall into two broad groups. In the first group are Mexico and several small countries of the region, such as Honduras, which have adopted growth strategies based on industrial exports and low unit labor costs. Given the high

import content of these exports and meager levels of public investment in infrastructure and technological capabilities, these strategies have delivered low and unequal growth. The second group is composed of larger primary exporting countries such as Brazil and Argentina, where expansionary policies in the mid-2000s delivered higher growth but failed to promote structural diversification and higher productivity in engineering-intensive sectors. Given the deceleration in world trade and the intense competition between developing countries in cheap manufactured goods, we argued that policies promoting internal markets and greater investment in technological capabilities constitute a much more reliable strategy for bringing about faster, more inclusive growth than those focused on industrial exports and real wage suppression.

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