

Financial subordination of peripheral emerging economies: A Keynesian-structuralist approach

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Luiz Fernando de Paula, Júlia Leal e Mateus Ferreira (Federal University of Rio de Janeiro - UFRJ)

Abstract: This paper aims to make two contributions to the debate on financial subordination. One is to develop a Keynesian-structuralist approach that takes into account both monetary asymmetries, in which different currencies are positioned in the currency hierarchy with different liquidity premiums, and financial asymmetry, directly related to the asymmetric international financial integration of peripheral emerging economies, subject to the instabilities of the international liquidity cycle. In this particular, insights made by southern authors could improve the development of this concept originally created by the northern authors. A second contribution is to show that peripheral emerging economies have different degrees of financial subordination, which depends on: (i) the form of international financial insertion, (ii) the type of productive structure (greater or less complexity).

Keywords: Financial subordination; peripheral emerging economies; monetary asymmetry; financial asymmetry; productive structure.

1. Introduction

The advance of financial globalization, the deregulation of markets, and the liberalizing measures adopted by most countries have engendered a new international economic configuration, characterized by the free mobility of capital and the supremacy of finance. This context gave rise to the phenomenon of *financialization*, broadly defined as "the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies" (EPSTEIN, 2005), or according to Krippner (2005, p.174): "a pattern of accumulation in which profits come primarily through financial channels rather than through trade and commodity production". This phenomenon is studied by different theoretical approaches, such as post-Keynesian, Regulationist, and Marxist.¹ In this sense, heterodox economists have defined this new accumulation regime as "finance-led growth regime" (BOYER, 2000), or a "finance-dominated accumulation regime" (STOCKHAMMER, 2010).

While the center advanced economies have a vast literature on the anatomy of their financialization, the study on the consequences of this process in the peripheral emerging economies is not yet satisfactory. Nevertheless, some authors (POWELL, 2013; KALTENBRUNNER and PAINCEIRA, 2017) have been studying the impacts of the financial subordination of peripheral emerging economies² (thereby PEE) in the global dynamics and how this factor contributes to a process of financialization with specific conditions. Although incipient, there is a growing literature that seeks to understand the specificities of financialization in peripheral emerging economies (BECKER et al., 2010; BONIZZI, 2014; LAPAVITSAS and SOYDAN, 2020).

In fact, one of the characteristics of the financial globalization process is the increase in capital flows between countries and of international and domestic investors involved in local and offshore markets, stimulated by the financial liberalization process. In this context, international financial integration has shaped the phenomenon of the financialization of peripheral emerging economies, which has as one of its main features the phenomenon called "subordinate financialization" (BONIZZI et al., 2019), "subordinated financial integration" (KALTENBRUNNER and PAINCEIRA, 2017), or simply "financial subordination". This concept is related to the subordinate and dependent character in which PEE integrate internationally within the International Financial System, given the pro-cyclical and unstable nature of capital flows, subject to boom-and-bust cycles strongly determined by exogenous factors, which generates macroeconomic instability in the periphery and reduces its "policy space". In the literature on financialization, some authors seek to relate this form of financial integration to the specific configuration of the domestic financial system of peripheral emerging countries (KALTENBRUNNER and PAINCEIRA, 2017). Our understanding is that such concepts are promising for understanding how these countries insert themselves in a subordinate way in the process of international financial integration, but they are still imprecise and lack greater analytical precision.

¹ In the Regulationist view, financialization is seen as a new regime of accumulation guided by financial forces, different from that observed during Fordism. This new arrangement alters the corporate governance structure by encouraging the generation of shareholder value to the detriment of the expansion of productive capacity. Moreover, it may generate a mismatch between productive and speculative investments. The Marxist political theory considers financialization as a new phase of capitalism, in which interest-bearing capital and fictitious capital become more relevant than productive capital.

² The terms 'peripheral emerging', 'emerging' and 'developing' will be used interchangeably as well as 'center', 'advanced' and 'developed'.

This paper aims to make two contributions to the debate on financial subordination. One is to develop a Keynesian-structuralist approach that takes into account both *monetary asymmetry*, in which different currencies are positioned in the currency hierarchy with different liquidity premiums, and *financial asymmetry*, directly related to the asymmetric international financial integration of peripheral emerging economies, subject to the instabilities of the international liquidity cycle (ANDRADE and PRATES, 2013; PAULA et al., 2017). In this particular, insights made by northern authors can fertilize with the development of southern authors. Ocampo (2001a, 2001b), for example, takes up the structuralist center-periphery approach, according to which the economic opportunities of the periphery are largely determined by its asymmetric integration in the international economy, either through international trade or in the financial markets. In turn, peripheral emerging countries have an excess of external liabilities compared to external assets, the opposite occurring in the case of center economies, which generates a flow of net financial income from the former to the latter. In this sense, the form of international financial integration of the PEE may be able to exacerbate an unequal development process between center and periphery, or as will be argued in this paper, between different regions and countries, including among emerging economies. In fact, while center economies are "business-cycle makers," peripheral ones are "business-cycle takers". (Ocampo, 2001a). Therefore, we can say that financial subordination is related to the external vulnerability of each country, but specifically to its susceptibility to changes in (external) international financial market conditions and the degree of autonomy of domestic policies vis-à-vis the external scenario. An additional dimension is that financially subordinated economies usually have a strongly negative flow of income and capital gains/losses in their external accounts (AKYUZ, 2018).

A second contribution also is to show that each PEE has different degrees of financial subordination, which depends on: (i) the form of international financial insertion, (ii) the type of productive structure (greater or less diversification). While commodity-exporting economies - such as those in Latin America - have an economy that is not very diversified and complex (low incorporation of technical progress) and have strong dependence on foreign capital - according to Akyüz (2020), capital flows move pro-cyclically with commodity prices, aggravating external shocks; emerging East Asian economies are diversified exporters of manufactured products with high added value, which allows them to have a strong position in their balance of payments, with persistent current account surplus and strong accumulation of foreign exchange reserves, and consequently a positive net external position, unlike the first group of countries. In this particular case, it should be stressed that PEE face two overlapping asymmetries in relation to the center economies: *productive asymmetry*, related to the asymmetry in the productive structure between PEE and center economies, which leads through international trade an unequal appropriation of productivity gains between the center and periphery; *monetary and financial asymmetry*, as we have already highlight above.

The paper is divided into four sections, in addition to this introduction. Section 2 develops the concept of financial subordination from a Keynesian-structuralist approach. Section 3 analyzes the differentiated forms of the productive structure of the periphery, between Latin American economies versus East Asian economies, making use of the Product Complexity Index (PCI) provided by the Observatory of Economic Complexity, and their relationship with international financial integration. Section 4 analyzes the different forms of international financial integration, comparing three South American economies with three Asian economies that export manufactured goods. Finally, section 5 concludes the paper.

2. Monetary and financial asymmetry: Keynesian-structuralist approach

The post-Keynesian approach to the hierarchy of currencies takes as its starting point the International Political Economy analysis developed by Cohen (1998, 2015) on the concept of a “monetary pyramid”, both in terms of the functions of the international currency and the emphasis on the problems derived from being an issuer of a peripheral currency (ORSI et al., 2020). According to this approach, the degree of liquidity of currencies determines their position in the hierarchy and, consequently, their ability to perform the functions of currency in the international level as well. The dollar is considered the most liquid currency and plays the role of key currency since it has a high degree of convertibility and is the most widely used monetary unit in international transactions. That is, it is considered by international investors as the safest currency to denominate their contracts, especially in times of uncertainty (DE CONTI et al., 2014). Thus, the United States assumes the role of 'banker to the world' (POWELL, 2013) in the international economic dynamics, because its currency has high liquidity and is the main means of payment used in global negotiations in financial markets.

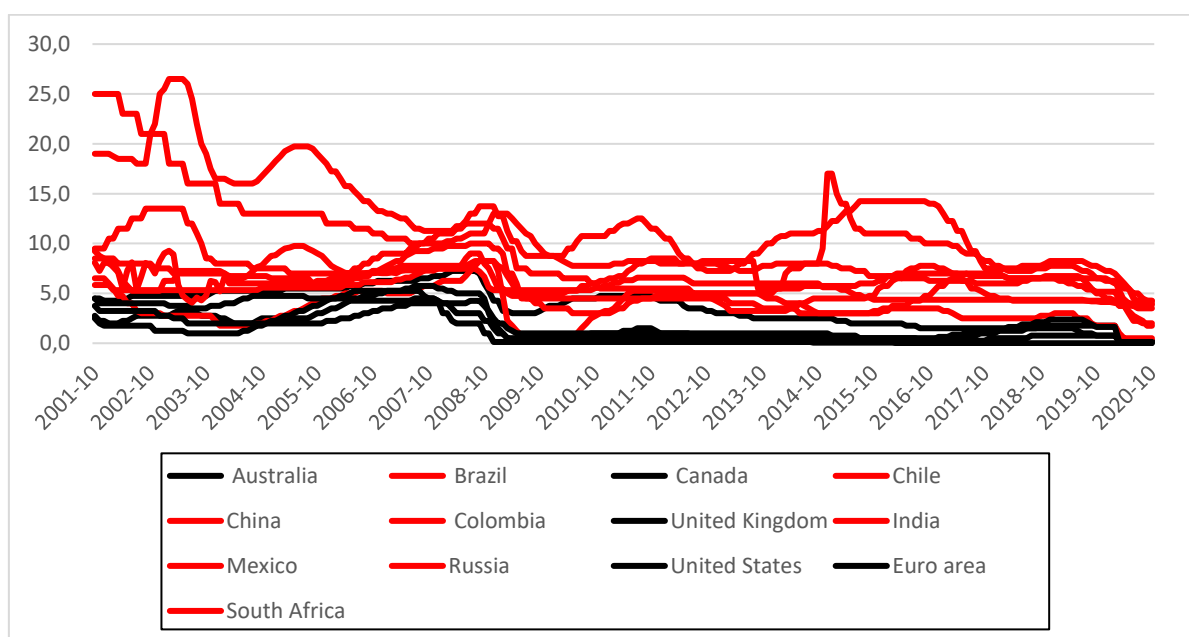
Conversely, the currencies of peripheral emerging economies are in the lower positions of the hierarchy, because they have the lowest liquidity premiums and do not offer the security of the central currencies. To compensate for this condition, these countries use high-interest rates policy to attract foreign investments and compensate for their low liquidity (DE CONTI et al., 2014; PAULA et al., 2017; KALTENBRUNNER and PAINCEIRA, 2017; FRITZ et al., 2018). Faced with a scenario of liquidity constraint and systemic risk, these countries can be affected through the foreign exchange market and the external liabilities of financial institutions and the non-financial sector. The asymmetric dynamics of the international monetary system and the existence of a currency hierarchy reduce the autonomy of peripheral emerging countries' economic policies, since they are dependent on international decisions of portfolio allocation investment. The United States, as the holder of the key currency of the current International Financial System, has great autonomy in its monetary, fiscal, and exchange rate policies. In a scenario of free capital mobility and flexible exchange rate regime, the North American hegemony becomes greater and reinforces the asymmetric insertion of the other countries (PAULA et al., 2017; FRITZ et al., 2018).

In addition to monetary asymmetry, characterized by the hierarchy of currencies, peripheral emerging countries are faced with *financial asymmetry*. The end of the Bretton Woods agreement has engendered a new global configuration, based on the U.S. dollar as the key currency, floating exchange rates, and free capital mobility. As Rodrik (2011) shows, the diffusion that financial liberalization and the end of limits on capital movements would be beneficial for economic growth was, in fact, a strategy for the United States to finance its deficits and ensure the supremacy of the dollar. At the beginning of the 1980s, neoliberal ideas were being disseminated among the countries in a scenario represented by the dollar-flexible standard. In this context, capital flows became freely mobile on a global scale and a new phase of globalization began, called “financial globalization”. However, peripheral emerging economies (PEE) became more vulnerable to speculative shocks and exchange rate volatility. Thus, financial globalization and the greater movement of capital engendered a process of financialization that in PEE occurs in a subordinate manner due to the form of international insertion that shapes the process of domestic financialization (KALTENBRUNNER and PAINCEIRA, 2017; LAPAVITSAS and SOYDAN, 2020).

With their appetite for higher risk in times of economic boom and euphoria, international investors seek to expand their gains by investing in PEE. As these countries

offer a high-interest differential, these investors bet on the appreciation of their assets. When the cycle reverses and uncertainty increase, the PEE are considered risky and the high returns no longer guarantee the permanence of foreign capital. Consequently, investors migrate to currencies of greater liquidity and protection, withdrawing their capital from the periphery. This pendular movement of capital flows makes the exchange rate of the peripheral emerging economies extremely volatile and sensitive to oscillations in the risk appetite. Due to the high degree of financial integration and dependence on foreign capital, the periphery promotes further increases in interest rates to seek to compensate for the low liquidity and security of their currencies, but when the scenario requires low level of interest to stimulate aggregate demand (KALTENBRUNNER, 2011; DE CONTI et al., 2014; PAULA et al., 2017; FRITZ et al., 2018). As Figure 1 shows interest rates in PEE are generally much higher than in center economies:

Figure 1. Policy rates – selected countries (% p.a.)



Source: BIS (2021).

Ocampo (2013) defines the concept of “balance of payments dominance” to show the way of insertion of emerging countries in the global financial cycle, whose movement of capital flows is strongly pro-cyclical and generates a Minskyan "boom and bust" cycle: the international financial cycle alters the internal dynamics of investment and consumption, which leads to a situation of growing financial fragility and reduced margins of safety in the balance sheet of economic agents (MINSKY, 1982).

Another specificity is that PEE tend to accumulate dollar-denominated reserves to protect themselves from possible sudden capital flight, particularly since the adoption of more flexible exchange rate regimes after the Asian crisis of 1997. Indeed, Kaltenbrunner and Paineira (2017) pointed out that subordinate financialization promotes the accumulation of foreign exchange reserves due to enormous inflows of foreign capital in good moments and the need for protection to confront the high volatility of capital flows and consequent abrupt movements in the exchange rate. However, the accumulation of reserves has high social costs for such economies, as these reserves receive low or no remuneration compared relatively to the high interest paid on domestic instruments (RODRIK, 2006). In addition, central banks, particularly those with inflation-targeting

regimes, have to sterilize the expansion of the monetary base arising from the purchase of foreign exchange, which is done mainly through public debt instruments. The growth of public debt, in turn, allows banks and investment funds to expand their balance sheets, giving rise to a process of domestic financialization. (KALTENBRUNNER and PAINCEIRA, 2017; LAPAVITSAS and SOYDAN, 2020).

Therefore, PEE face two overlapping asymmetries that reduce their policy space and shape their subordinate character to international financial integration: monetary asymmetry and financial asymmetry. These two asymmetries end up resulting in macroeconomic asymmetry, as explored in Ocampo's (2001a, 2001b) structuralist approach. This takes as its starting point the center-periphery concept developed by Raúl Prebisch, in which the periphery needs to adjust the economy activity due the effects of the shocks generated by the center when commodity prices collapsed. PEE have little productive diversification and end up absorbing trade shocks as well. Thus, the existence of macroeconomic asymmetry reinforces the disparity between the center and the periphery, as peripheral emerging economies absorb both the commercial and financial shocks generated by the center. According to Ocampo (2001a), central countries are 'business-cycle makers' while peripheral emerging countries are 'business-cycle takers'.

In summary, the subordinate integration of the peripheral emerging countries engenders macroeconomic instabilities and reduces degrees of freedom for governments to implement a macroeconomic agenda focused on domestic objectives. The United States, as the holder of the most dominant international currency, has more room to maneuver, while the PEE face policy constraints and absorb the external shocks generated by the center. Indeed, capital flows towards PEE mainly depend on exogenous sources, which render them permanently vulnerable to their reversal by virtue of changes in the monetary conditions of center countries, as well as the increased risk aversion of global investors. In this setting, international financial markets are highly volatile, resulting in boom-bust cycles. Therefore, the periphery has a limited scope of policies and, due to the high volatility of capital flows, suffers from constant exchange rate fluctuations (OCAMPO, 2001a).

Second, in financially integrated peripheral emerging economies, a floating exchange rate may not provide more room for the implementation of autonomous domestic policies. Recalling the macroeconomic trilemma (or impossible trinity), in an environment with free capital mobility, monetary policy can only act independently *if* the exchange rate is floating. That is, under fixed exchange rates, the country cannot have policy autonomy. However, this scenario is not feasible for peripheral emerging nations. In a globalized and financially integrated world, the decisions of the center countries end up impacting the domestic policies of the other economies, regardless of the exchange rate regime adopted.³ In this sense, even if the exchange rate is floating, the macroeconomic policies of the periphery are subordinated to the decisions of the center. Thus, peripheral emerging economies face an 'impossible duality' (FLASSBECK, 2001) or a 'dilemma' (REY, 2013): even with a flexible exchange rate and free capital mobility, there is no full economic policy autonomy without implementing complementary policies such as capital controls, because peripheral emerging economies are subordinated to financial globalization and subject to fluctuations in the perception of risk by international investors. In reality, the exchange rate regime of these economies ends up not being totally flexible, but denominated "dirty floating", given that most of them need to make

³ According to Tobin (1978), in a scenario of total capital mobility, exchange rate fluctuation is not a sufficient measure to ensure policy autonomy. Regardless of the exchange rate regime adopted, countries continue to face institutional, political, and economic constraints. In addition, the liberalization of markets and the binding of central banks to monetary targets hinder domestic policy autonomy.

frequent interventions in the exchange market to avoid the possible adverse effects resulting from high exchange rate volatility, a sort of behavior known as "fear of floating" (CALVO and REINHART, 2002).

According to Post-Keynesian fundamentals, exchange rate determination is influenced by capital flows and investor's expectations (PAULA et al., 2017; FRITZ et al., 2018). As exchange rates in PEE are more volatile, central banks carry out frequent interventions in a foreign currency, affecting the autonomy of economic policies. As capital flows are intrinsically volatile, the exchange rate instability of PEE is organically related to the instable nature of capital flows, and, consequently, these countries become subject to capital flows movements and more vulnerable to speculative shocks. Another important point is that PEE face difficulties in borrowing externally in their domestic currency, a phenomenon known in the literature as 'original sin'. This term was coined by Eichengreen and Hausmann (1999) and is used to show that PEE have a significant portion of their debt denominated in foreign currency, specifically the dollar. As Ocampo et al. (2008) points out, these countries borrow in hard currency and assume the exchange rate risks to attract international investors, since they are considered places of uncertainty and high volatility. In this way, PEE absorb foreign savings and incur currency mismatch risks. PEE that are financially integrated in a subordinate way use exchange and interest rates to attract foreign capital, becoming more dependent on international decisions and vulnerable to speculative shocks. Their financialization process develops through the external configuration and portfolio decisions of international investors. As a result, PEE have reduced policy autonomy, as they constantly need to attract foreign investment and shape their economic policy to generate investor credibility and confidence.⁴

In concluding, there is in our view a strong complementarity between the Post-Keynesian's hierarchy of currency approach and the structuralist approach of asymmetric financial integration of PEE: while the former emphasizes monetary asymmetry, the latter highlights financial asymmetry. The overlaps of these asymmetries define the subordinate financial character of emerging peripheral emerging economies.

3. Economic complexity and differentiated forms of productive structure

Another way of determining the degree of financial subordination is its connection with the productive structure of PEE especially related to their ability to export higher value-added products when integrated into global value chains, and as a result of the very nature of the productive structure of each country. We can initially understand this theoretical relationship with the contribution made by Latin American structuralism around the concept of "center-periphery". According to Prebisch (1949), the international division of labor could be characterized by two poles in which peripheral countries were concentrated in the production of primary goods, while central countries in the manufacturing sector. This dichotomy between the center and peripheral economies was expressed in a structural asymmetry between the productivity levels of these economies, which is the result of a tendency to terms of trade deterioration, derived from the higher price elasticity of demand for primary goods in the long term. In other words, this persistence of the center-periphery dichotomy would come from the different driving forces that explain its dynamics: While in the center countries economic growth would be driven by technical progress, in the periphery it would be predominantly determined by external demand. In this context, the heterogeneity of the productive structure was at

⁴ According to Campello (2015), international investors are able to actively influence the formulation of macroeconomic policies in Latin American countries such as Brazil, Argentina, Venezuela, and Ecuador.

the heart of the explanation for the underdevelopment and establishment of the peripheral condition.

It can be seen, using ECLAC's structuralist approach, that a higher degree of peripheral subordination would be related to a productive structure specialized in the production of commodities, such as oil, copper, soybean, etc. it should be pointed out that, in recent years, there is significant evidence of greater dependence on commodities in emerging economies that go through a process of "premature deindustrialization", that it is, a process that occurs before such economies have reached a high-income situation (CORREA and FEIJÓ, 2020). One of the causes for this phenomenon is the so-called "Dutch Disease" that would be associated with a change in the composition of a productive structure in which the sector that leads growth becomes based on the export of natural resources and the declining sector would be the industrial sector⁵. In the new-Developmentalism approach, it is considered a market failure that leads to a long-term cyclical trend of appreciation of the real exchange rate and that generates a competitive disadvantage that reduces the profitability of the manufacturing sector of tradable products (BRESSER-PEREIRA et al., 2015). In turn, Botta (2015) highlights this relationship for Colombia in a theoretical model caused by the financial side: the discovery of mineral resources would attract speculative capital and foreign direct investment that strongly appreciates the nominal and real exchange rate, as well as diminishing the country's risk perception for international investors. However, this fact would continually lead to a reduction of industrial sector competitiveness in the long term, greater exchange rate volatility, an increase in current account deficit, and external vulnerability via foreign currency debt. This analysis finds results similar to those developed in the new-developmental approach (BRESSER-PEREIRA et al., 2015), according to which commodity-exporting peripheral economies have a tendency for currency appreciation derived both from the phenomenon of Dutch Disease and from the differential interest rates that attract external capital to peripheral emerging economies. It ends up contributing to the existence of current account deficits and the disincentive to the development of the manufacturing sector.

Akyuz (2020) also shows that capital flows are pro-cyclical in the global financial cycle, with a strong correlation with the evolution of prices of commodities listed on the international market, denominated "commodity-finance nexus." A relevant factor that influences this scenario would have originated mainly in the conduct of monetary policies of the central economies. The United States monetary policy plays a key role because most commodities are quoted in dollars and most commodity contracts are settled in dollars (AKYUZ, 2020). For instance, low-interest rates and the weak dollar tend to encourage capital flows to peripheral economies in search of short-term gains of the most speculative type, in particular, in operations called "*carry trade*".⁶

Changes in interest rates in center economies also affect commodity prices through their influence on the rate of exploitation of non-renewable resources, such as oil and minerals: when interest rates fall producers would be more willing to leave them

⁵ According to Bresser-Pereira (2013, p.372), "The Dutch disease is a country's chronic exchange rate overvaluation caused by the exploitation of abundant and cheap resources, whose production and export is compatible with a more appreciated exchange rate than the exchange rate that makes internationally competitive the other business enterprises in the tradable sector that use the most modern technology existing worldwide. It is a structural phenomenon that creates obstacles to industrialization or, if it was neutralized and the country industrialized, but later ceased to be, provokes deindustrialization."

⁶ There are two types of carry-trade operations: (i) *canonic carry-trade*, characterized by loans in currencies with low-interest-rate and investment in high-interest-rate currencies, (ii) *derivative carry trade*, characterized by taking leveraged positions in the foreign exchange derivative market (BORTZ AND KALTENBRUNNER, 2018).

underground for exploitation later, and prefer to invest in assets that yield interest. Thus, lower interest rates tend to reduce commodity supply and increase commodity prices.

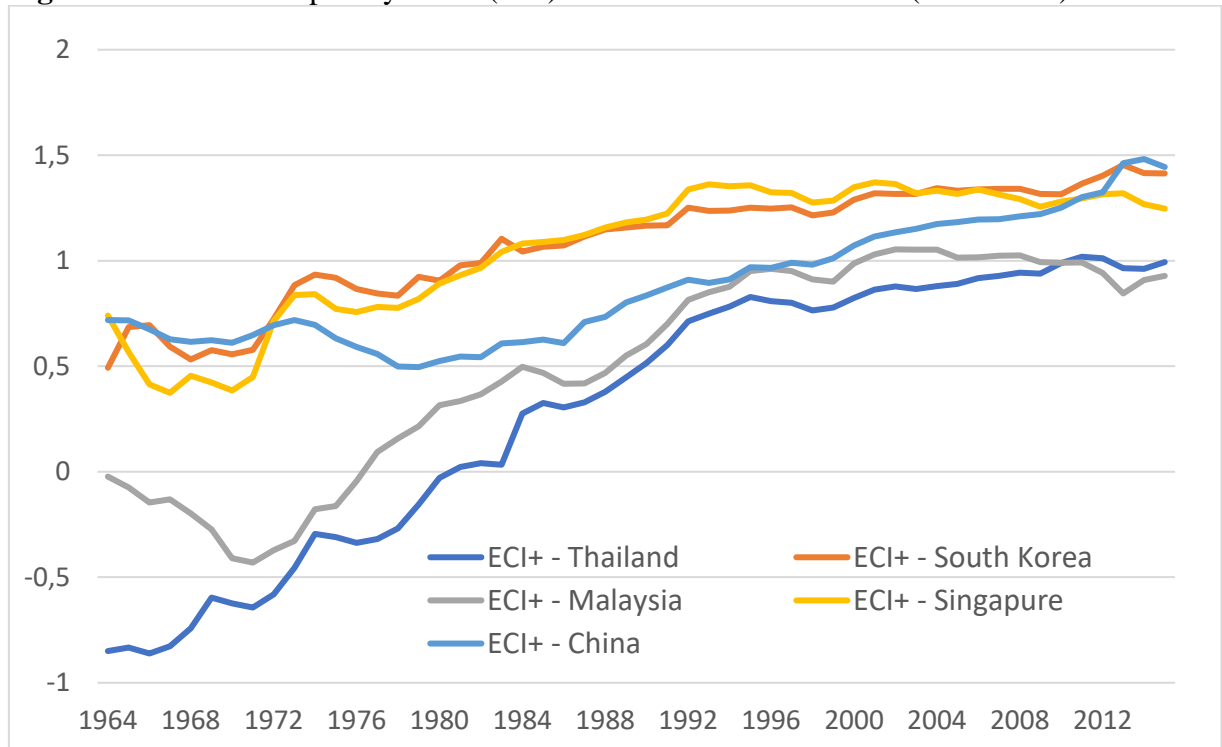
his scenario would generate strong “*boom and bust*” cycles over the asset prices of these peripheral emerging economies and influence the preference for liquidity of international investors. Commodity and financial cycles tend to move together and reinforce each other, as a common set of global macroeconomic factors influences both capital flows and commodities prices in the same direction: For one hand, during the boom a rising international commodity prices stimulate capital inflows to peripheral emerging economies, whereas increases in capital inflows tend to raise the demand and commodity prices; on the other hand, during the bust, this commodity-finance nexus operates in the opposite direction: a vicious circle may arise in which a fall in commodity prices leads to capital outflows in the event of a global crisis that, in turn, would provoke a recessionary adjustment of aggregate demand, further weakening the economic growth of peripheral commodity-specialized economies (AKYUZ, 2020).

To determine the degree of productive complexity of a given country, Hausmann et al. (2011) introduce an algebraic methodology to build an index that involves the degree of diversification of the exported composition and its interaction with the global value chains and the degree of ubiquity or rarity, i.e., consisting in the number of other countries in the world that have the capacity to replicate the production of a specific good. In this sense, an airplane is more ubiquity than sugar cane because in reality only few countries can produce them. According to Gala (2017, p. 25), an advantage of this type of index is to represent coherently the technological changes that occurred over time, but without making any value judgment on what would be considered complex. Regarding the empirical evidence found in the literature, Hausman et al (2011, p. 29) point out significant importance to explain economic growth and per capita income level: "In short, economic complexity matters because it helps explain differences in the level of income of countries and more important because it predicts future economic growth. Economic complexity might not be simple to accomplish, but the countries that do achieve it, tend to reap important rewards".

Thus, using 2019 data from the Product Complexity Index (PCI), found in the Observatory of Economic Complexity (OEC) database (2021), Figures 2 and 3 show that the Asian countries selected here have a relatively higher degree of economic complexity than their respective Latin American pairs between 1964 and 2017. In the case of Asian countries, the PCI reached the spectrum between 0.5 to 2, and it can also be divided into two subgroups: South Korea and Singapore reaching more than 1.5 from 2006, and China, Malaysia, and Thailand, further down reaching between 0.5 and 1,5. In particular, all selected Asian countries have increased the PCI since the 1990s, which highlights a trend toward diversification and productive sophistication in these countries. In the case of Latin American countries, there was an overall tendency for PCI growth in the 1970s, the period of the region's greatest GDP growth, stagnation in the 1980s and 1990s, and a downward trend from the 2000s onwards. The stagnation and reduction of ECI in the largest Latin American economies have resulted in a significant trend toward deindustrialization in the region (PALMA, 2005). Brazil and Mexico are the economies with the highest PCI among the countries in the region, expressing a greater diversification of the their productive structure compared to the other economies, and in the 2000s, although Brazil had a stagnation in the index, Mexico maintained a growth trend, due mainly to the growth of so-called "*maquiladoras*" industries, i.e., export-oriented durable goods assemblers to US market. Finally, Venezuela had a negative performance in this period: PCI declined to levels close to -1, an outcome correlated with

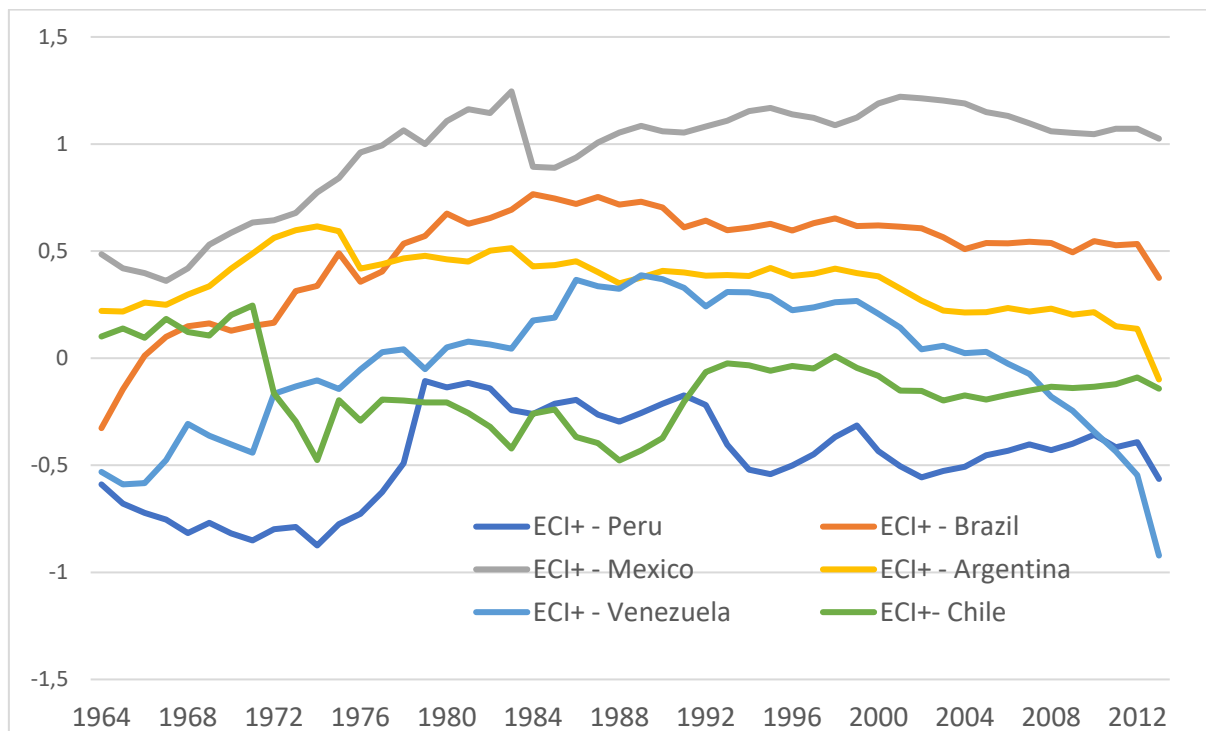
the increase in its dependence on oil exports, and also Peru, an economy strongly specialized in the export of natural resources commodities.

Figure 2. Product Complexity Index (PCI) – selected Asian countries (1964-2017)



Source: OCE (2021), elaboration of the authors.

Figure 3. Product Complexity Index – selected Latin American countries (1964-2017)



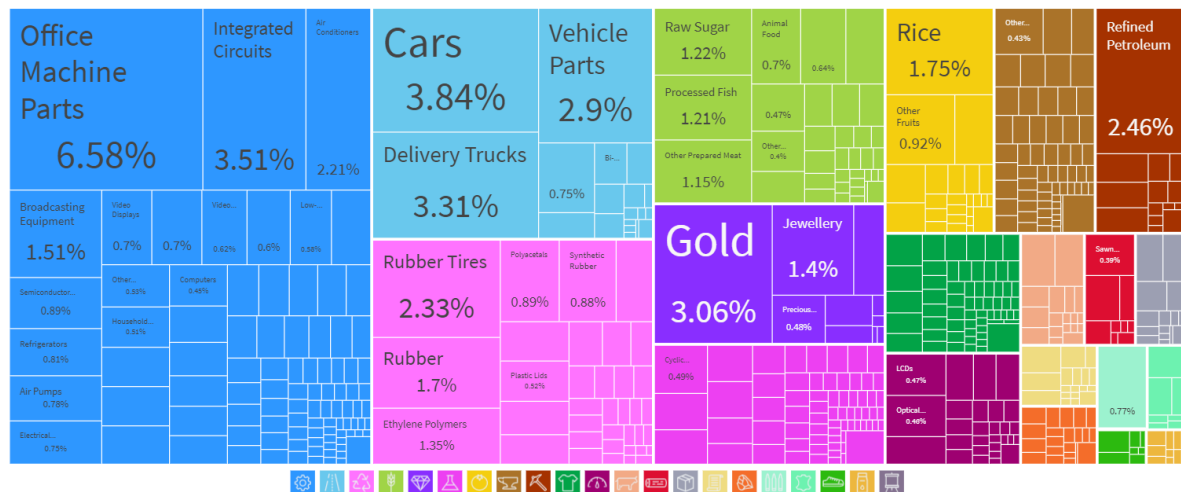
Source: OEC (2021), elaboration of the authors.

The degree of sophistication of the productive structure can be evidenced - according to the concept of economic complexity - by analyzing the components of the export composition of a specific country. Using the same database (OEC), it can be observed in the 2019 data that the greater or lesser degree of productive diversification results in greater or lesser diversification of the export composition of goods and services, or even the greater or lesser degree of productive sophistication⁷ toward the production of goods and services of higher added value. For a brief comparison, we selected three Asian countries (China, South Korea, and Malaysia) and three Latin Americans (Argentina, Brazil, and Chile), as shown in Figures 4 and 5.

The main difference between the two groups of countries is that China, Korea, and Malaysia have a predominant share of manufactured products in their list of exports (dark blue and light blue products), while Argentina, Brazil, and Chile have a predominant share of commodities. Among Asians, China has the most diversified export composition (machine component, integrated circuits, cars, trucks, car parts, tires, etc.), expressing a very broad and diverse industrial structure, Korea has a strong value-added manufacturing agenda (integrated circuits, semiconductors, cars, vehicle parts, ships, telephones, etc.), while Malaysia has an export composition divided between manufactured goods, with a predominance of integrated circuits (23.1% of the total), and agricultural commodities (refined petroleum, gas, oil palm, etc.). In Latin American countries, Argentina's exports are mainly composed of agricultural commodities (corn, soybean and meat), while Brazil, that until recently had its exports comprised of manufactured goods, have the predominance of natural resources commodities (mainly crude petroleum and iron ore) and agricultural commodities (soybean and derivatives, corn, meat, etc.),

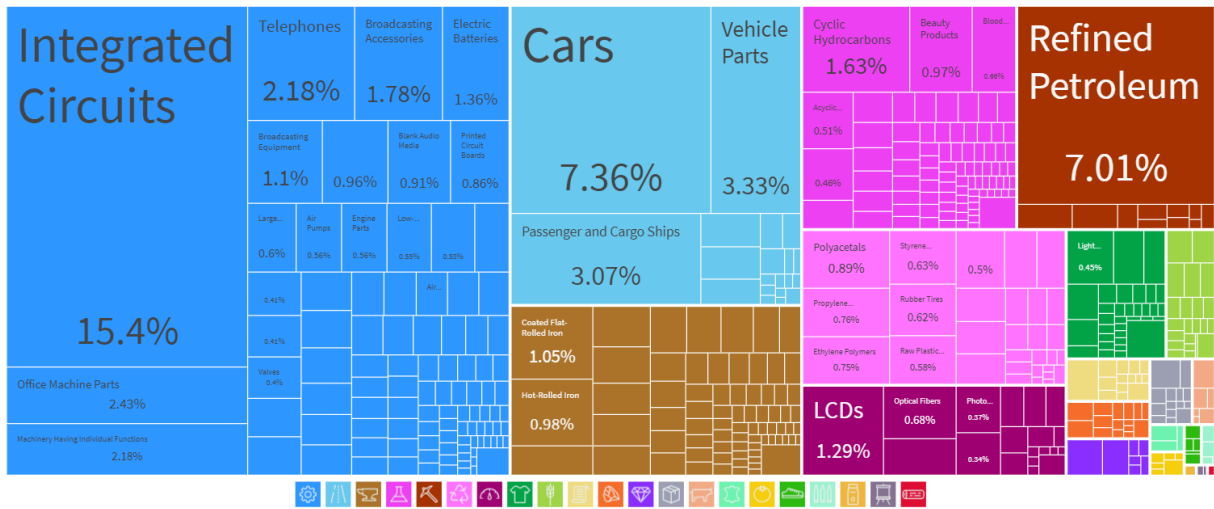
Figure 4. Asian countries export composition – 2019 (%)

China



⁷ According to Bresser-Pereira et al (2015, cap. 2), *productive sophistication* is related to the increase in productivity resulting from the industrialization process, with a structural change occurring towards sectors with higher aggregate per capita value. The increase in productivity occurs not only in the goods and services produced but also in the transfer of labor to technologically more sophisticated goods, which pay higher wages and thus result in higher aggregate value per capita.

South Korea



Malaysia

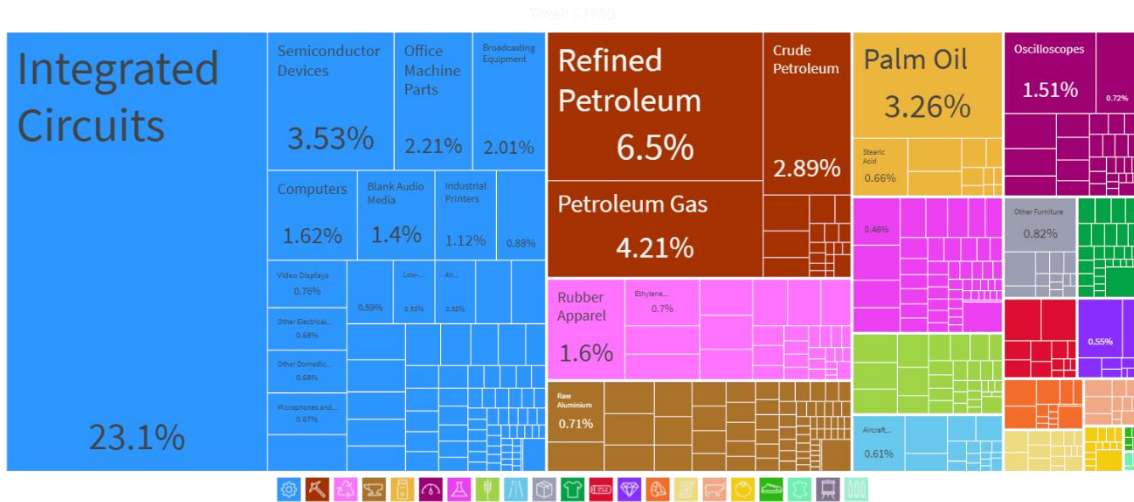
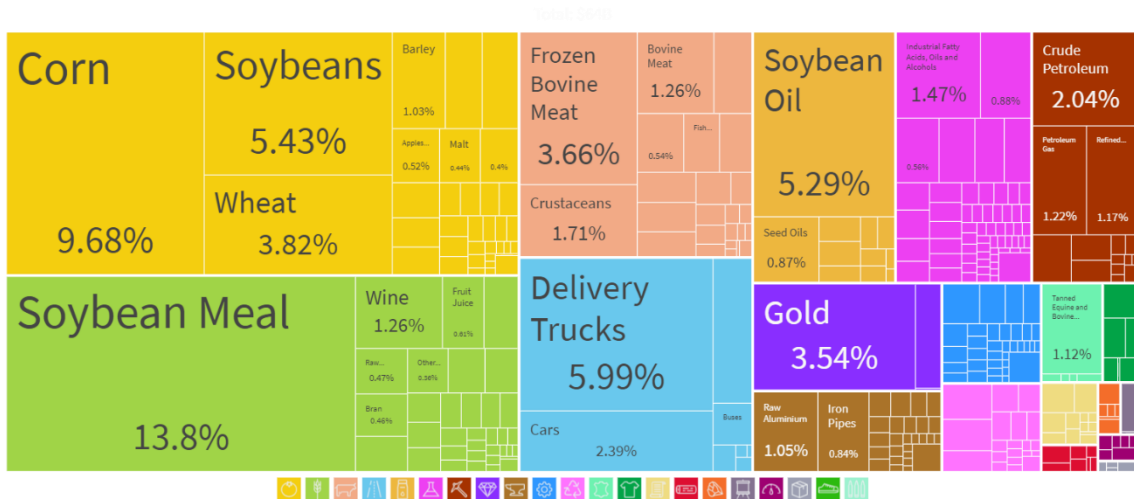
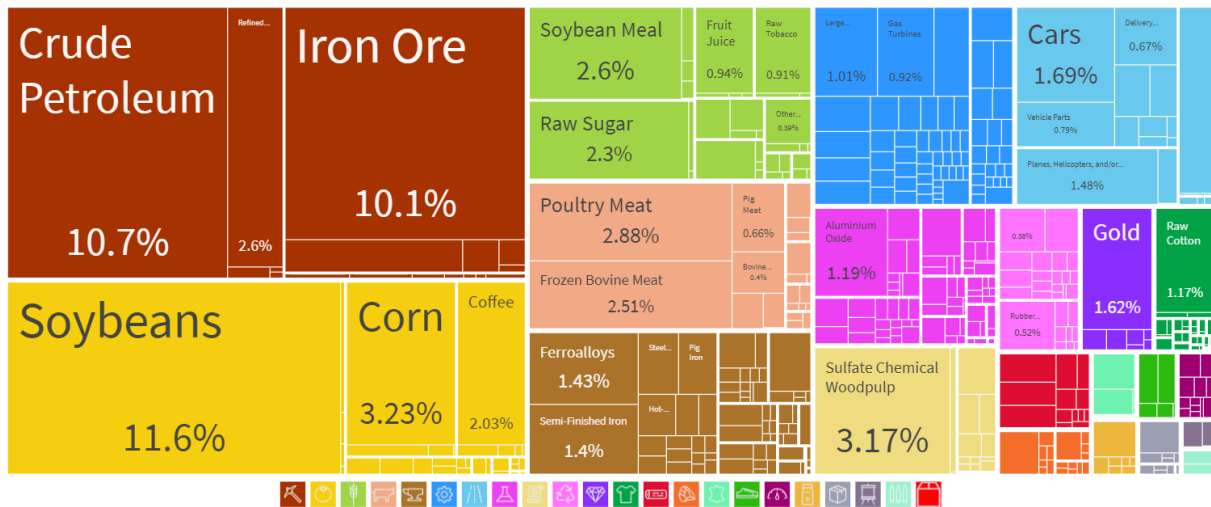


Figure 5. Latin American export composition– 2019 (%)

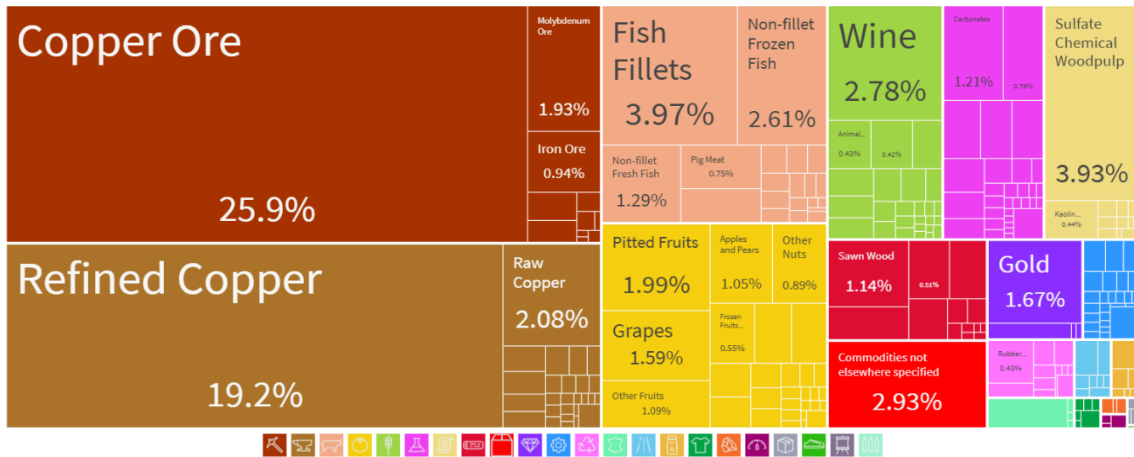
Argentina



Brazil



Chile

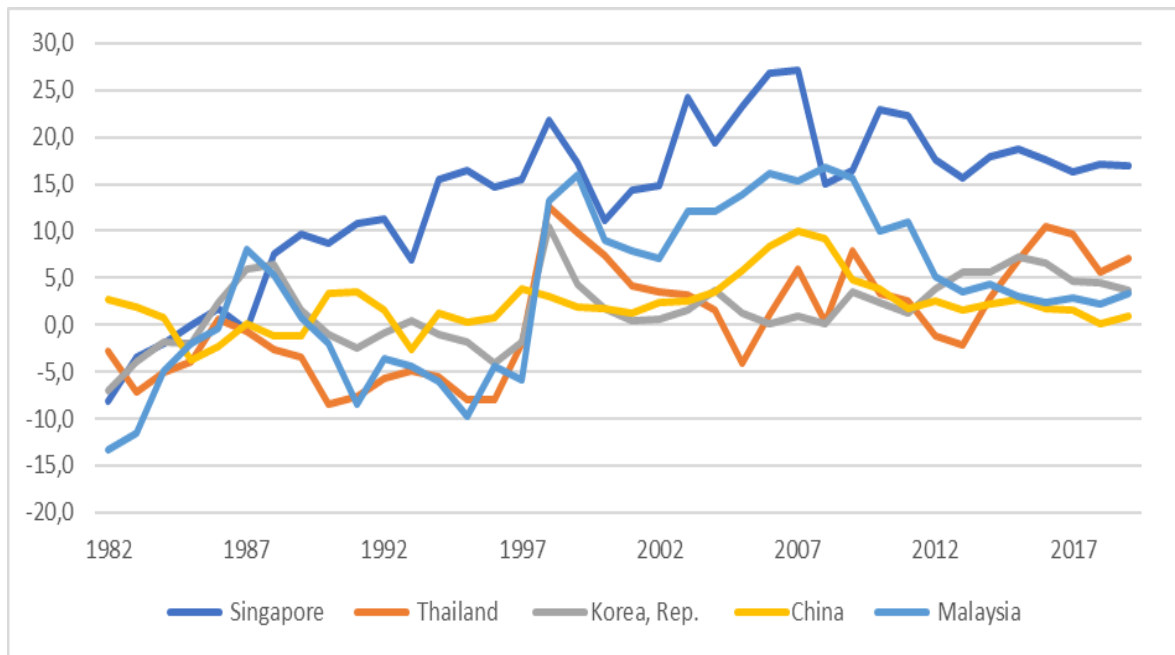


Source: OEC (2021)

One of the consequences of the productive asymmetry between commodity-producing Latin American economies and manufacturing producing Asian economies is that the former tends to have a much more volatile trade and current account performance dependent on the commodity cycle, while the latter tend to have a more sustainable trade and current account surplus, with lower volatility, which allows them to accumulate high foreign reserves.

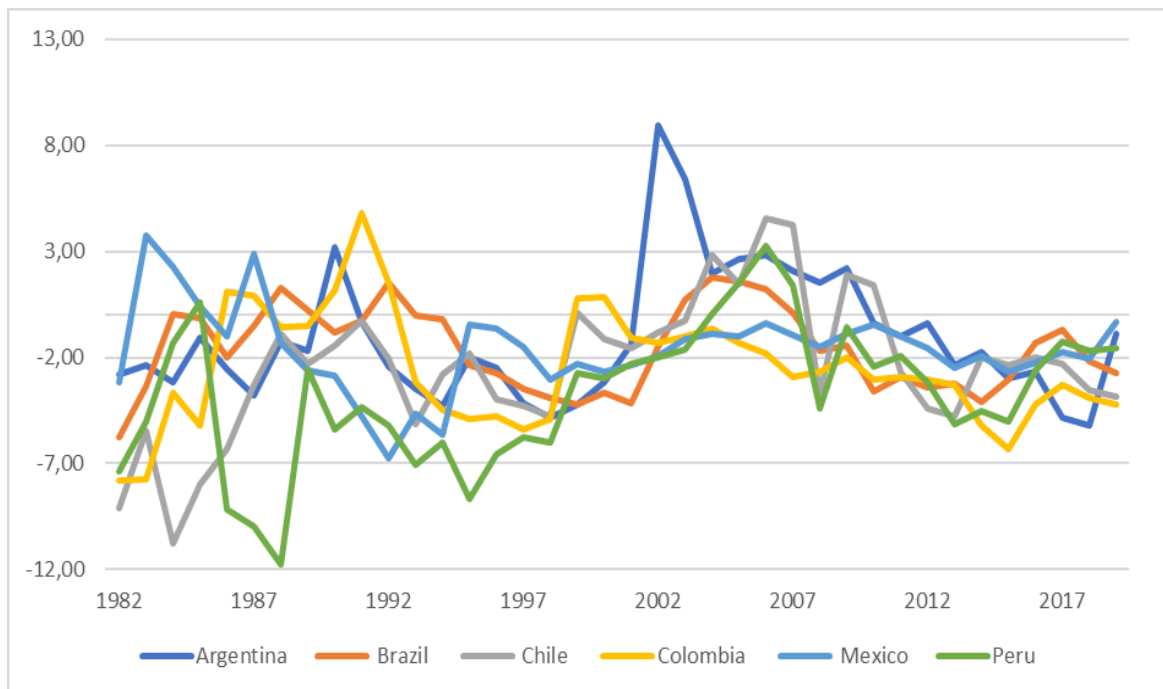
Figures 6 and 7 show, respectively, the balance of payments' current account balance as percentage of GDP for a group of Asian and Latin American countries selected in the period 1982 to 2017. In the first group of countries, in addition to a trend toward an improvement in the current account until more or less the 2010s, it reaches positive levels from the end of the 1990s, with some countries with quite high levels, such as Singapore, while in the second group of countries the current account-over-GDP ratio is in general negative, except for the period of commodity boom in the 2000s. Latin American economies, with less economic complexity and as commodities exporters are subject to oscillation of the commodities prices, that results in greater volatility of current account as their trade performance is mainly determined by the external demand.

Figure 6. Current account result (% of GDP) - selected Asian countries (1982-2017)



Source: World Bank (2021)

Figure 7. Current account result (% of GDP), selected Latin American countries (1982-2017)

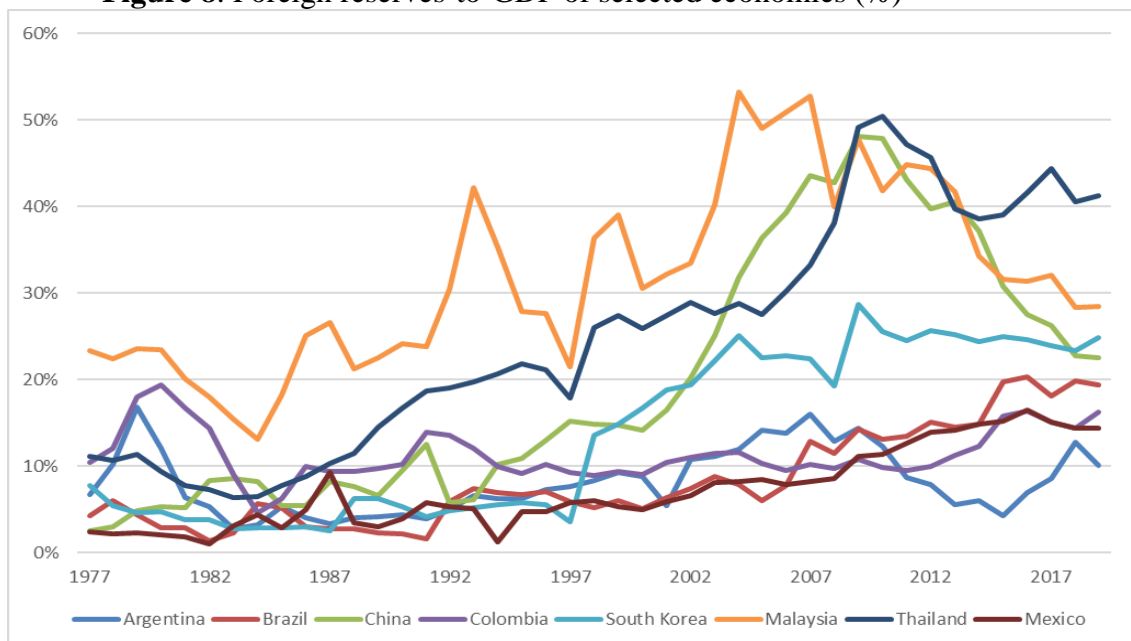


Source: World Bank (2021)

When analyzing the ratio of foreign exchange reserves-over-GDP, a very different pattern is observed between the two groups: In the first group, there has been a growth in foreign reserves since the 1990s, reaching a percentage above 20% of GDP from the

2000s; in Latin America, though there is a growth trend foreign reserve ratio from the early 2000s (except for Argentina, which reduced in the 2010s), this ratio is below 20% of GDP in the whole period. Foreign reserve accumulation in the group of Asian economies originates from either cumulative current account surpluses and capital inflows, while in Latin American economies are mostly related to capital inflows.

Figure 8. Foreign reserves-to-GDP of selected economies (%)



Source: IMF (2021)

In the next section, we will look at how these two groups of countries are part of international financial integration. We seek to show that there is a financial asymmetry between these countries and that such asymmetry is connected with productive asymmetry.

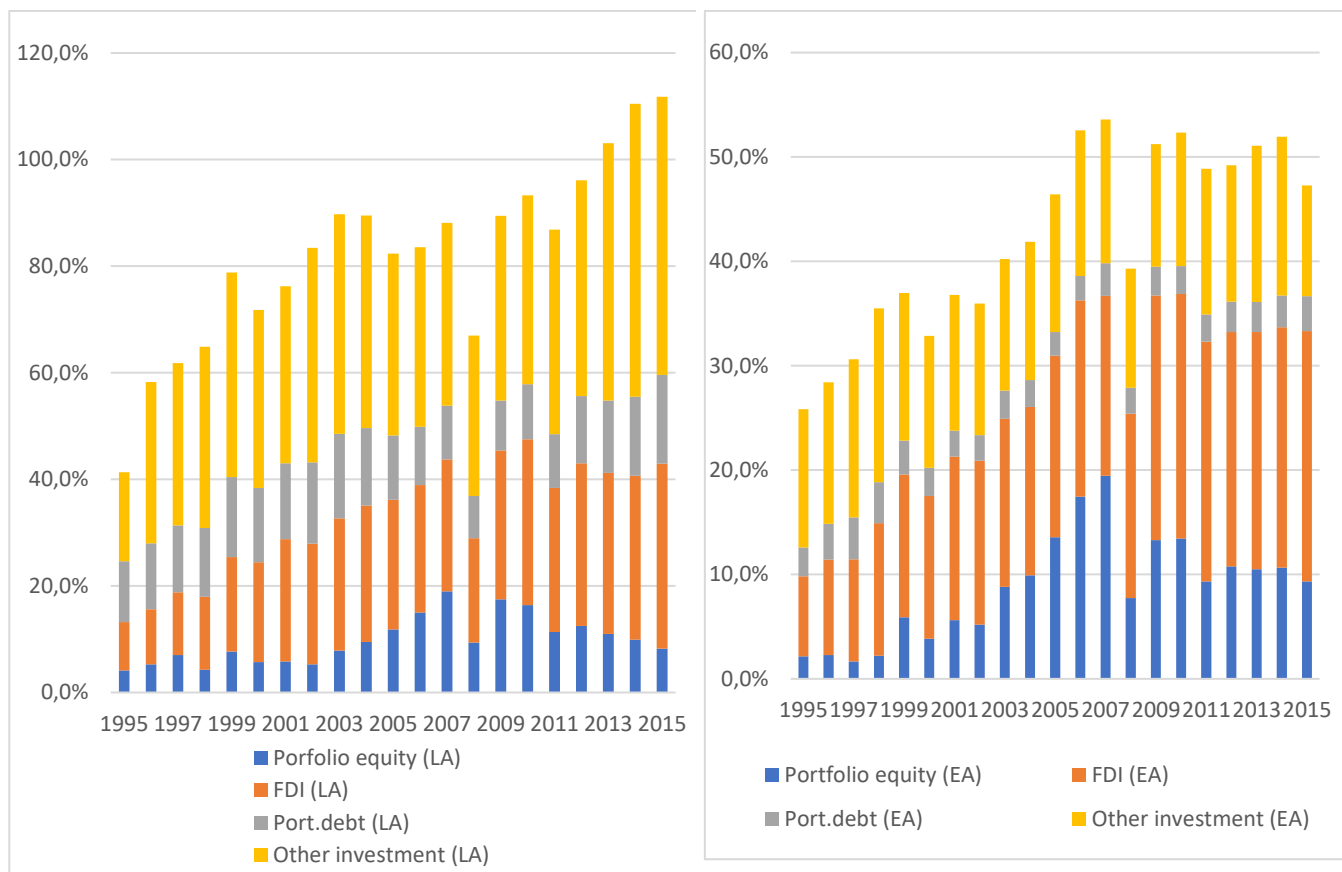
4. International financial integration: Latin America and East Asia

In addition to the productive asymmetry between center and peripheral economies, as we have seen in the previous section, a productive asymmetry that also occurs within the peripheral emerging economies (between economies specialized in commodity exports and exporters of manufactured goods with diversified productive structure), there is also a financial asymmetry between these countries that generate a different type of financial subordination. The latter is directly related to the form of international financial integration of peripheral emerging economies, which characterizes the degree of financial subordination of each economy, and also to the nature and degree of diversification of the productive structure. For instance, more diversified economies tend to attract mostly foreign direct investments, while more specialized economies (commodity exporters) tend to attract relatively greater and more speculative capital inflows. In other words, productive asymmetry and financial asymmetry are two sides of the same coin.

Figure 9 compares the external liabilities as a percentage of GDP of the three largest Latin American economies (Brazil, Mexico, and Argentina) and three East Asian

countries (China, South Korea, and Taiwan) in the period 1995-2015. In general, two aspects call attention: (i) in relative terms, the external liabilities of Latin American external liabilities in both groups of countries, in the first group there is a predominance of foreign direct investment and other investments, while in the second group there is an even greater predominance of FDI, followed by portfolio equity and other investments.

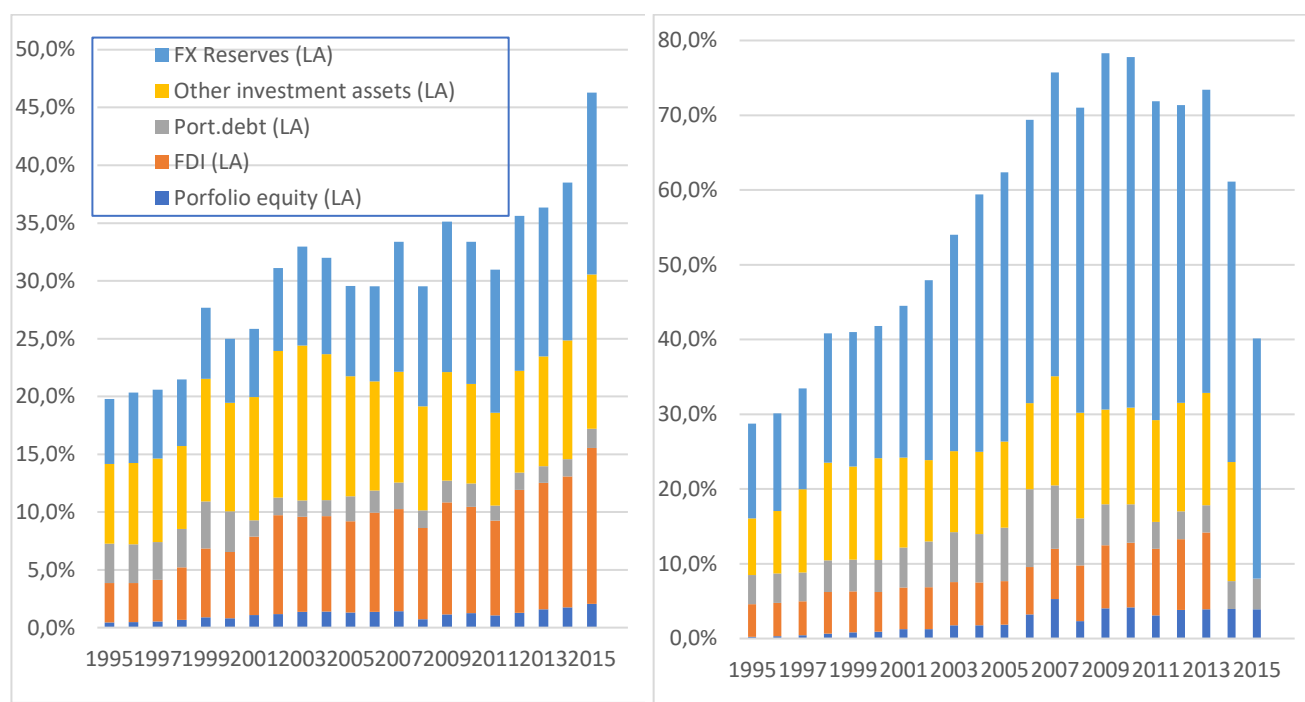
Figure 9. External liabilities – selected countries of Latin America * and East Asia** (percentage of GDP)



Source: Authors' elaboration with data from Lane and Milesi-Ferreti (2017).
 (*) Argentina, Brazil and Mexico; (**) China, South Korea and Taiwan.

When we analyze the external assets of the two groups of countries, we observe a composition quite different from the previous one: (i) unlike external liabilities, such assets in relative terms (percentage of GDP) are much larger in the group of East Asian economies (since 2005 above 60% of GDP) compared to the large Latin American economies (except 2015 always below 40%), which is mainly due to the higher volume of foreign exchange reserves of the Asian economies, which in a great extent results from the better in net exports (larger and less unstable); (ii) in both groups of countries, there is a growing trend of internationalization of resident companies, that has resulted in an increase of direct investment abroad.

Figure 10. External assets – selected countries of Latin America * and East Asia** (percentage of GDP)

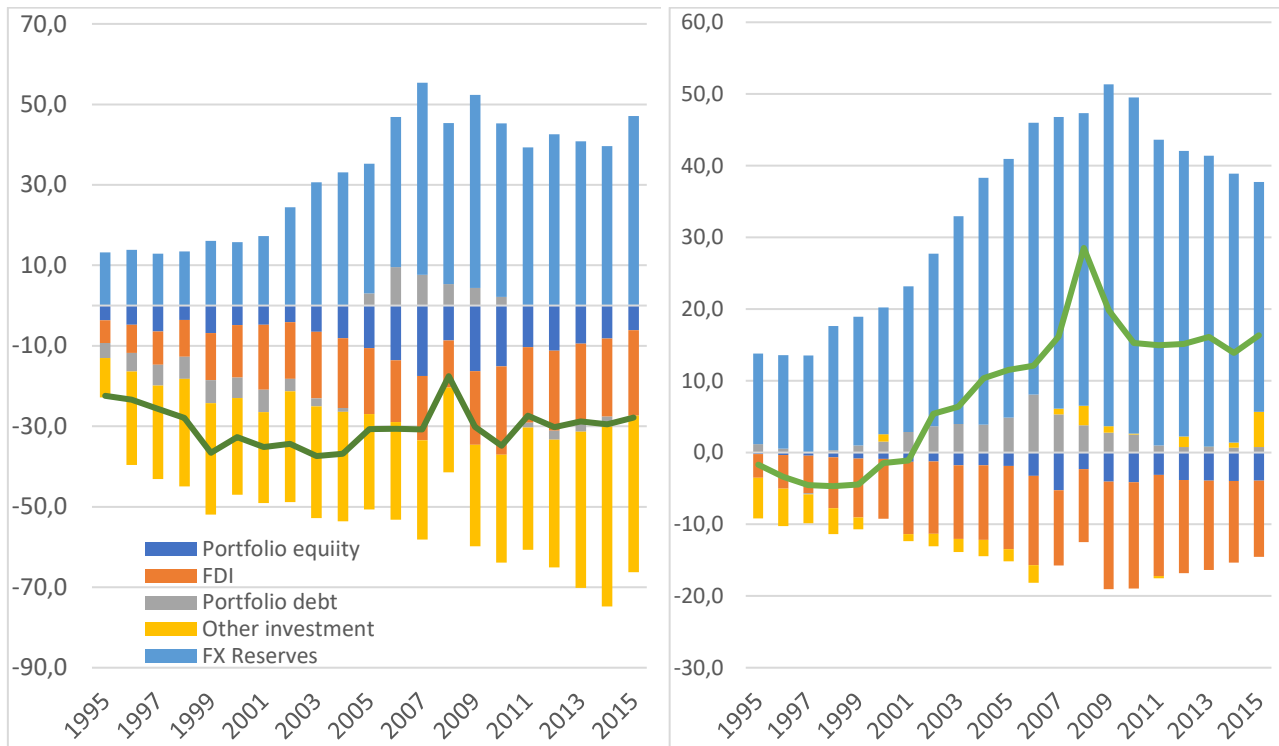


Source: Authors' elaboration with data from Lane and Milesi-Ferreti (2017).
 (*) Argentina, Brazil and Mexico; (**) China, South Korea and Taiwan.

Finally, Figure 11 compares the net financial assets (NFA) of the two groups of countries, which allows a better understanding of the differences in international financial integration. In both groups of countries, there is a clear predominance of net assets comprised of foreign exchange reserves, which as we can see above consists only as an asset. The main difference, as already pointed out, is in the relative amount of foreign exchange reserves - as can be seen in Figure 10 (see also Figure 8). On the other hand, in the Latin American economies, there is a negative balance of FDI and mainly and increasingly of other investments, while in the Asian economies, the negative balance is mainly of FDI, given that they are large receivers of this type of foreign capital, that has contributed to domestic capital (domestic private and state-owned firms), especially associated to the productive diversification of these economies. It should be also highlighted that the NFA/GDP ratio is highly negative for the first group of countries (in general more than 30% of the GDP) and since 2002 it has been positive for the Asians, reaching more than 10% of the GDP since 2004.

It is clear, therefore, the difference in the nature of the international financial integration between the two groups of countries: the first one with foreign liabilities much higher than foreign assets, and with a predominance of other investments; in the second, foreign assets higher than foreign liabilities and with large amount of FDI, a type of capital that is less volatile than other investments.

Figure 11. Net financial assets – selected countries of Latin America * and East Asia** (percentage of GDP)



Source: Authors' elaboration with data from Lane and Milesi-Ferreti (2017).

(*) Argentina, Brazil and Mexico; (**) China, South Korea and Taiwan.

This profile of external assets and liabilities generates a greater external vulnerability for the first group of countries, characteristic of a financial subordination, given the greater dependence on external liabilities, while in the second group of countries this vulnerability is lower, either because of the smaller magnitude of external liabilities (and with a predominance of FDI) or because of the larger volume of external assets, mainly in the form of foreign exchange reserves. Given that the external assets for both groups of countries are predominantly composed of foreign exchange reserves, which yield little, a negative flow of income and gains/losses of foreign capital are to be expected for both groups of countries. Table 1, based on the estimates of Akyuz (2019), calculates the income and capital gains/losses of emerging economies and advanced economies, where it is clear that there is a return differential between foreign assets and liabilities favorable to advanced economies⁸. However, considering the two groups of countries analyzed above, a larger differential is to be expected for Latin American economies relative to East Asian ones, either because of the difference in the magnitude of net financial assets or the difference in the composition of capital flows.

⁸ According to UNCTAD's (2019) estimates, in the 2000-2018 period the ensuing resource transfer from sixteen major EMEs amounted on average to roughly US\$ 440 billion per year or 2.2% of these countries' GDP, as a result of return differentials between safe external assets held to insure against risky external liabilities.

Table 1. Returns, yields and capital gains and losses of EMEs and AEs (percentage)

	Yield*			Capital gains/Losses**			Total returns***		
	Assets	Liabilities	Differential	Assets	Liabilities	Total	Assets	Liabilities	Differential
2000-2016									
EMEs	3.1	5.7	-2.6	-1.0	-1.7	-2.7	2.1	7.4	-5.3
AEs	3.5	2.7	0.8	2.1	-1.3	0.8	5.6	4.0	1.6
2000-2007									
EMEs	3.3	5.9	-2.6	1.3	-5.3	-4.0	4.6	11.2	-6.6
AEs	4.3	3.4	0.9	4.9	-2.8	2.1	9.2	6.2	3.0
2008-2016									
EMEs	3.0	5.4	-2.4	-3.1	1.4	-1.7	-0.1	4.0	-4.1
AEs	2.8	2.0	0.8	-0.5	-0.1	-0.6	2.3	2.1	0.2

Source: Akyüz (2019, p. 66).

Note: (*) Yields (dollar rates) on gross assets and on gross liabilities.

(**) Capital gains and losses result from changes in assets prices and exchange rates.

(***) Sum of yield and capital gains/losses.

5. Conclusion

This paper sought to develop a Keynesian-structuralist approach on the financial subordination of emerging peripheral economies (EPEs), and on the center-periphery relationship applied to the process of international financial integration. To this aim besides developing an analytical basis for understanding the process of monetary and financial asymmetry, based on the literature on the hierarchy of currencies and on the structuralist approach, it aimed to show that the productive and financial asymmetries are related to each other, in which those EPEs with low complexity productive structure and as commodity exporters tend to be much more volatile economies – that is, more subject to the boom and bust of the commodity cycle and of the liquidity cycle (which as we have seen are strongly co-related) - and therefore more financially subordinated than those EPEs with more complex productive structures and exporters of manufactured goods. As we have seen in the paper, the latter, consisting of Asian economies with greater economic dynamism, tend to have current account surpluses (and with less volatility than the Latin American economies) and high levels of foreign exchange reserves, and attract mainly foreign direct investment with principal foreign capital, which provides them a more robust external position.

An important aspect about financial subordination that has not been addressed in this paper is whether countries integrate financially with an open financial account or integrate by imposing restrictions on capital flows. In fact, so-called "capital account regulation", which can include a broad spectrum of regulation on capital flows, if well designed can contribute to widening the policy space of EPEs (Gallagher, 2015). This is the case of China, which even though it has a robust external position, uses extensive capital controls on residents and non-residents in order to control its exchange rate and increase monetary policy autonomy.

Another aspect that can be further explored in other works, done here only tangentially, is to what extent the Keynesian-structuralist approach developed here is

compatible with the new-developmental approach, developed by Bresser-Pereira and other authors. In conclusion, this paper does not intend to exhaust the subject treated here, only to give some contribution to the understanding of the phenomenon of subordinate finance in EPEs.

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