1. Introduction

At the end of the Bretton Woods agreements in the 1970s, there was a profound reorganization of international financial order and the emergence of two combine process: financial globalization and financialization. The both phenomena promote a new pattern of accumulation with a macroeconomic dynamics centered on finance. In the case of emerging economies, the phenomena of financial globalization and financialization manifest themselves in a particular way, because of the peripheral financial integration. In the last two decades, with the advancement of these phenomena in emerging economies, there was the emergence of new mechanisms of transmission between the movements of international finance and macroeconomic dynamics in these economies.

The purpose and main contribution of this article is to introduce the concept of financial macroeconomics at the periphery, focusing on the cyclical and short-term impacts of the external financial cycle in emerging market economies. More precisely, to describe in a theoretical way the short-term effects of international liquidity cycle and commodity prices in the main four segments of domestic financial market and the four demand variables. Besides the short introduction, the articles have three sections: the first discuss the international finance, the second the financialization process and the third the financial macroeconomic at the periphery.

2. International finance

With the collapse of Bretton Woods, the capitalist system has undergone a series of transformations related to finances. Internationally, the process of financial globalization has increasing integrated the economies from a financial point of view. The following section discusses the concept of globalization and the external financial cycle, which describes the movement of international finance, and proposes an alternative concept, the external financial cycle for emerging markets.

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2.1. Financial globalization and international capital flows

The post-Bretton Woods period is characterized by the phenomenon of financial globalization described as an institutional change and the *modus operandi* of domestic and international financial markets. According to the French economist François Chesnais, the financial globalization can be described as the opening processes, or liberalization of domestic financial markets and the emergence of a global financial market as of integration between them (CHESNAIS, 1996; PRATES, 2005).

In qualitative terms, besides the liberalization and deregulation of financial markets, financial globalization is characterized by the predominance of market-based financial system, the widespread use of financial innovations such as derivatives, the securitization process and the emergence of large institutional investors. About capital flows, there is a predominance of private flows in foreign direct investment and portfolio flows and the increase in capital flows and foreign assets and liabilities stocks (CARNEIRO, 1999; BIANCARELLI, 2011).

The International Monetary and Financial System also assume a new configuration under the financial globalization. The international currency, in this case the US dollar, is described as *fiduciary, financial* and *flexible*. Since the first two characteristics refer, respectively, the absence of formal currency convertibility into gold and the centrality of the US financial system and the dollar's role as an international financial asset, main funding currency, the most liquid asset and the main store of value. The characteristic of flexible, in turn, expressed another feature of financial globalization, the dominance of the system of flexible exchange rates. The International Monetary and Financial System are also characterized by high degree of mobility of flows and hierarchical character (PRATES, 2005).

2.2. Peripheral financial integration of emerging economies

In the last two decades, emerging economies have become more integrated global finance as a result of the deepening of financial globalization and financialization process. While maintaining the central defining characteristic, the peripheral condition, emerging countries have increased their financial integration, as demonstrated by the dynamics of capital flows and foreign stocks of assets and liabilities. Changes in financial integration, in turn, were responsible for the emergence of new transmission

According to Akyuz (2015, 2017, 2019), due to deepening integration into the global financial market, emerging countries have become more susceptible to boom & bust cycles, from the emergence of new transmission mechanisms and change in the effectiveness of channels traditional influence. Under the new standard of integration, external financial cycle for emerging economies, defined from the correlated occurrence of the international cycle of liquidity and commodity price cycle, reaffirm its importance as a key factor to understand the macroeconomic dynamics of emerging countries. In the ascending phase, the capital inflows promote an asset price inflation, credit expansion and economic growth, but also financial fragility. In the downward phase, the sudden stops and capital reversals promote the asset deflation and the credit crunches.

Changes in financial integration of emerging economies include financial liberalization, openness and expansion of capital flows and foreign stocks, the presence of foreign banks in the domestic market and the opening of domestic financial markets to non-resident investors. On the side of external assets, there is greater freedom for residents to acquire assets abroad, the accumulation of international reserves and the increase in foreign direct investment by emerging economies. As for liabilities, there is the predominance of direct investments, which include intercompany transactions and investments in portfolio with assets traded in the country since the opening of the stock market and public debt to foreign investors (AKYUZ, 2015, 2017 and 2019).

With the new composition there is an increase of commitments denominated in the domestic currency and negotiable in the secondary market, so the value of external liabilities comes to depend increasingly to depend on the appreciation dynamic, investors are exposed to market risk. Also, it is emphasized the relative reduction of the external debt in the total composition of liabilities, the fall of the external public debt, the importance assumed by the issuance of debt securities at the expense of bank loans in the external debt profile, external debt issues in domestic currency in exterior and increased private foreign debt of non-financial companies, including the use of offshore subsidiaries and banks in foreign currency (AKYUZ, 2015, 2017 and 2019).
2.3. External financial cycle for emerging economies

With the financial integration of emerging markets emerges an extensive literature about international capital flows, focusing mainly on the determinants and macroeconomic impacts on recipient economies. At this discussion, Helene Rey made an important contribution to empirically identify the existence of the global financial cycle, defined as the occurrence of concomitant cycles of gross flows of international capital, risk asset prices and credit growth in several countries. The main determinants of the global financial cycle are the level of US interest rates and the degree of risk aversion in international financial markets, usually approached by the CBOE VIX index. Domestic factors relating to recipient countries of capital flows do not play an important role (REY, 2013, 2015, 2018). However, the concept proposed by Rey (2013) does not differentiate between the core countries and emerging and little distinguishes the interactions dynamics of international finance with domestic finances. In the case of emerging countries, the external financial cycle is manifested through the international liquidity cycle and commodity prices in the international financial markets.

Even before the identification of the Global Financial Cycle phenomenon, the cyclical nature of the availability of financing for emerging economies had already been highlighted in the literature, through concepts such as surges, bonanzas, waves, episodes, boom & bust cycles in capital flows, famine & feast or international liquidity cycle. Despite the different names, the description of the phenomenon is essentially the same, in summary; there are periods likely to expand the external financing offer, in the form of capital flows in various categories for emerging economies. The main determinants of this international liquidity supply would be the level of interest rates of funding currencies and the aversion/appetite risk in international financial markets (REINHART & REINHAT, 2008; BIANCARELLI, 2009, 2011; DE CONTI, BIANCARELLI & ROSSI, 2013; BLUEDORN et al, 2013; POWELL & TAVELLA, 2015).

In a structuralist/Keynesian interpretation, the international liquidity cycle is understood as a Minskyan cycle. Boom phases, i.e., high international liquidity, would be afforded ultimately by the fall in interest rates associated with the funding currencies. On the one hand, the reduction in securities denominated in these currencies issued by central countries would encourage investors to relocate part of its portfolio in more
profitable assets. However, international liquidity cycles go beyond simple reallocation of portfolio, but also it involves creating financial wealth. Low interest rates encourage investors to take liabilities in funding currency and acquire assets that offer higher yields. The portion of the portfolio of international investors that will be allocated in emerging markets depends, in turn, the degree of risk aversion in international financial markets. The lower risk aversion, or greater appetite for risk, the greater will be the relative share and absolute amount of resources allocated to emerging countries. However, periods of high liquidity for emerging economies are essentially ephemeral and tend to be stopped abruptly (BIANCARELLI, 2009, 2011; DE CONTI, BIANCARELLI & ROSSI, 2013).

The reversal tends to be driven by a rise in interest rates of the currencies funding and the sharp rise in risk aversion. Thus, the phases of bust, investors tend to liquidate their positions in emerging markets and settle liabilities assumed in funding currencies. This movement takes a reconfiguration of the portfolio of international investors, an increase of safe assets, issued by central and denominated in hard currency countries, and reducing the share of assets denominated in peripheral currencies issued by emerging countries (BIANCARELLI, 2009 and 2011; DE CONTI, BIANCARELLI & ROSSI, 2013).

The second element of external financial cycle is commodity prices in the international financial market. Despite the commodities are not risky assets in strict sense, its price in the international financial markets approaches, largely, the logic of pricing financial assets, following the logic of activity of investors and speculative movements. As Akyuz (2017) pointed out, the global liquidity conditions are determining factors for the pricing of commodities in international financial markets.

From a structuralist and post-Keynesian framework, Resende & Amado (2007) argue that, because of the structural shortage of foreign currency, the growth of emerging economies would be heavily dependent on international liquidity cycles, setting up as a reflection cycle. The main factors are the expansion of the availability of external and domestic financing in the upward phase of the cycle and the impacts from external fragility of these in times of shortage of funding.
3. Financialization

The concept of financialization appears in works of various disciplines to describe a series of transformations in the capitalist system in recent decades, as well as to designate a step or specific configuration of the capitalist system. However, the definition of the concept, its manifestations and impacts vary depending on the approach taken by each field of knowledge and theoretical current².

In line with the proposed objectives, this literature review focuses discussions on the impact of financialization on macroeconomic dynamics, the international dimension of the phenomenon and the specific manifestations of financialization in emerging economies. Considering the adopted theoretical framework, financialization is discussed in a post-Keynesian side, including the valuable contributions of the French School of Regulation.

3.1. Financialization: concept and manifestations

The classic definition “financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies” (Epstein, 2005, p.3). As common as their presence in the literature is, however, the warning that the definition suggested by Epstein is considerably wide. However, a phenomenon of such complexity requires a sufficiently broad definition to encompass the multiple dimensions of the phenomenon. Therefore, it requires to first understanding that financialization is a multidimensional phenomenon. On the one hand, the definition of Epstein is that better reflects the financialization as a diverse phenomenon, on the other, the concrete analysis of the phenomenon requires considering more restrict definitions.

Based on the proposed objectives of this analysis, it is deemed appropriate to present two other financialization definitions. According Stockhammer (2010), "financialization is the term used to summarize the broad set of changes in the relation between the 'financial' an 'real' sector Which give greater weight than heretofore to financial actors and motives" (p.2 ). Braga et al (2017), in turn, defines the phenomenon as "a systemic pattern of wealth, which affects the spending decisions of the main

² For a critical analysis of the concept of financialization in different lines of thought see Lapavitsas (2011) and Van Der Zwan (2013).
economic actors, impacts economic policies and thus the ups and downs of business cycles, as well as leading to crises "(p. 830). Such definitions incorporate more clearly the central issue of financialization phenomenon in macroeconomic terms, the interaction between finance with the macroeconomics of employment and income, or via the spending decisions.

The definitions presented converge on Kregel (2017) statement that the full understanding of the concept of financialization demands questioning the dichotomy between the real side and the financial side. As the impacts of financialization on macroeconomic dynamics just occur because of communication channels, or transmission mechanisms, between these two spheres. The dichotomy between the two sides becomes inadequate for the analysis under financialization and modern capitalism. Rather, the understanding of contemporary capitalism requires increasingly understand the role of finance in macroeconomic dynamics.

Starting from the definitions above, financialization is understood as an increasing of the relative importance of domestic and international finance as determinants of macroeconomic dynamics in terms of output growth, employment and income distribution. The definition, directly derived from Stockhammer (2010) and Braga et al (2017), reinforces the importance of understanding the phenomenon of financialization is manifested in macroeconomic dynamics and encompasses domestic and international finance.

The increased importance of finance as an explanatory element of macroeconomic dynamics occurs, as highlighted Stockhammer (2004) and Lapavtsas (2009), due to a series of transformations in the financial systems in the domestic and international levels, as well as changes in the relationship between the financial sector and the non-financial sectors of the economy. Sometimes, financialization is defined from these changes, but it is valid differential the phenomenon of financialization of its manifestations or transformations that allowed finance to assume such a role.

Among the changes mentioned in the literature, it is highlighted the financial concentration, defined as "increased weight to the financial sector in the economy" (Guttmann, 2017, p. 840), ie, the financial sector grew at a faster pace than economy as a whole, as a result, there is an increase in the share of the financial sector in GDP. Internationally, the advancement of financial globalization promotes greater mobility
and intensifies international capital flows, promoting instability in exchange rates and external crises, endogenous tendency to fragility and financial crises and instability in exchange rates and asset markets. Within the agents, financialization changes the relationship of families and non-financial corporations with the financial sector. The financialization of new markets, such as foreign exchange and commodities (EPSTEIN, 2005; STOCKHAMMER, 2004, 2008 e 2010; PALLEY, 2013; KREGEL, 2017; BRAGA et al. 2017; GUTTMANN 2008, 2016 e 2017; RAMOS, 2017).

Within the agents operating in the financial system, financialization has reinforced the importance of non-bank financial institutions such as mutual funds, pension funds and the so-called shadow banking system, as well as the emergence of institutional investors. Commercial banks change their logic operations and profitability sources, acting as a "financial supermarket." Moving loans from companies to families and start to act as intermediaries of funds in the financial markets, seeking profitability in fees, commissions and fees and not mainly in loan interest (STOCKHAMMER, 2008 e 2010; LAPAVITSAS, 2009 e 2011; RAMOS, 2017; GUTMANN, 2016 e 2017, BRAGA et al 2017).

In the case of non-financial actors, financialization can manifest through several channels that shows the changing relationship between finance and these corporations. The first channel is that Guttmann (2017) defined as the financial centralization, a phenomenon consisting of two highly related core elements. The first is “a process whereby non-financial actors, both firms as well as households, “financialize” in as much as they end up accumulating much larger stocks of financial assets and liabilities.” (p. 860). If the first element was related to stocks, the second mentions' flows, as “structural changes making non-financial actors more dependent on debt-financing as well as financial-income sources” (p.857), ie, the non-financial corporates starts to depend on a higher level of indebtedness, but improve the financial gains.

On the asset side, these corporations have acquired skills to operate in the financial markets and become holders of financial assets, as a result, financial income have become an important element in the profitability of corporations (KRIPPNER, 2005; EPSTEIN, 2005; STOCKHAMMER, 2004 e 2010; LAPAVITSAS, 2011; PALLEY, 2013; KREGEL, 2017; RAMOS, 2017; GUTMANN, 2017). On the liabilities side, the increase in financial liabilities is a result of higher debt of these

Finally, financialization also affects families, by increasing the importance of access to credit and debt as a determinant of the level of consumption in addition to current income. Inflation assets, such as stocks and homes, also provide a wealth effect those impacts on the borrowing capacity and level of consumption (COUTINHO & BELLUZZO, 1998; AGLIETTA, 2001; STOCKHAMMER, 2008 e 2010; TREECK, 2012; PALLEY, 2013; BRAGA et al 2017; GUTTMANN, 2017).

3.2. Financialization and macroeconomic dynamics

The main issue of financialization in macroeconomics dimension is the influence of finance on growth. The question of the role of finance in macroeconomic dynamics is present in the literature on financialization through series of concepts, such as finance-led capitalism (GUTTMANN, 2008, 2016, 2017), financial macroeconomics (AGLIETTA, 2000), financialized accumulation regime or financialized accumulation regime (CHESNAIS, 2002) and the financial regime of accumulation (PLIHON, 1999) and finance-dominated accumulation regime (STOCKHAMMER, 2008).

Through the concept of the bubble economy, Guttmann (2008, 2016) points out that the valuation of shares and stocks can influence companies spending decisions. The higher market value improves the capacity of indebtedness via wealth effect. However, the deflation of financial wealth would undermine the ability of indebtedness agents to meet its obligations and therefore the health of the banking system, causing potentially discontinuation of credit lines (COUTINHO & BELLUZZO, 1998; AGLIETTA, 2000; STOCKHAMMER, 2010; BRAGA et al, 2017, GUTTMANN, 2016, 2017). The performance of non-financial corporations as investors and / or speculators in the financial markets are also an important channel indeed can be crucial for the profitability and spending decisions (EPSTEIN, 2005; STOCKHAMMER, 2010; LAPAVITSAS, 2011; PALLEY, 2013; KREGEL, 2017; RAMOS, 2017).
In addition to the asset inflation, Guttmann (2008, 2016) highlights the concept of debt economy, when the indebtedness becomes a central element in the expansion of spending. The increase in financial liabilities is a result of increased indebtedness of corporations for various credit instruments. On the one hand, the largest debt can lead to expansion of spending and revenues also on the other can create also a financial fragility scenario (GUTTMANN, 2008 e 2016; PALLEY, 2013).

There is also a part of financialization called Money Manager Capitalism that connects directly with the issue of shareholder value. Developed by H. Minsky and his followers, the core concept is the emergence of institutional investors as shareholders and private debt securities and their subsequent influence on non-financial corporations. In a scenario of market-based finance and securitization, the interests of shareholders in capital gains affect the spending decisions of non-financial corporations (MINSKY, 1996; MINSKY & WHALEN, 1996; WHALEN, 2017; WRAY, 2009).

The rise of shareholder value, the impact on income distribution and increased macroeconomic volatility may also adversely affect the investment (STOCKHAMMER, 2008). The shareholder value logic appears as a way to deal with conflict in the discrepancy of interests between owners (shareholders) and management, usually manifest in contention for the cash flow. While investors are interested in short-term gains, such as the valuation of stocks and higher return on invested capital, managers want to accumulate power and expand the company. Following this logic, there is in the first group the trend for higher dividends, while the second would tend to channel resources to productive investments to the company's growth. The logic of maximizing shareholder value aims to solve this agency conflict by the supremacy of financial markets. Managers are co-opted, including through new compensation practices, and start to act in the interests of shareholders. Large corporations now operate through short-term profitability of course, focusing on the appreciation of the shares and return on equity. This approach would tend to reduce the growth rate of firms, via possible reduction of productive investment as well as increase the financial fragility due to the increase of the degree of indebtedness (STOCKHAMMER, 2004 e 2010; HEIN & TREECK, 2010; TREECK, 2012; PALLEY, 2013).

In the case of families, financialization is manifested by increasing the importance of credit and asset prices for current consumption. Families also affected by
the financial centralization (GUTTMANN, 2017), deepen their relationship with finances. On the asset side, now hold financial assets for the liabilities side, extend the level of indebtedness due to the increased access to credit. The concepts of debt economy, in which the expenses are guided by debt, and bubble economy, when expenditures are driven by asset inflation, also apply to consumption. As in the case of non-financial companies, there is a direct link between the two movements, as the appreciation of wealth allows greater access to credit by households. Yet, the possible devaluation of wealth and growth of the share of income committed to the payment of interest may result in reduced consumption. In short, the consumer becomes increasingly dependent on access to credit and asset inflation and less current income (COUTINHO & BELLUZZO, 1998; AGLIETTA, 2001; STOCKHAMMER, 2008 e 2010; TREECK, 2012; PALLEY, 2013; BRAGA et al 2017; GUTTMANN, 2017).

According to Stockhammer (2010), financialization enabled the emergence of two growth models. The first, based on consumption via indebtedness, mainly developed in Anglo-Saxon countries, and second model centered on exports, export-oriented growth regime, countries like Germany and Japan. While the former would be a deficit in current transactions, while consumption via credit as the main vehicle for growth in the countries of the second group the export-led growth, with a current account surplus. As pointed out Lapavitsas (2009) and Bonizzi (2013) in the case of emerging countries the dynamics of exports depends on the international commodity prices, the influence of global liquidity conditions, and the international demand level.

According to Guttmann (2008, 2016 and 2017) and Stockhammer (2010), the long run effects of financialization growth model are ambiguous and source of innumerable debates. In opposite of the stagnationist view, the financialization forms of manifestations increases the instability and tendency to financial crises, without necessarily reducing the long-term growth (BRAGA et al, 2017). Indeed, there is a coexistence of contractionary and expansionary factors in financialization process (TREECK, 2012; PALLEY, 2013).

3.3. Financialization: international dimension

In the international dimension, the financialization phenomenon connects directly to financial globalization. Besides being to different phenomena, they are not independent, because both have common origin and forms of manifestation. According
to Palley (2013), the international dimension of financialization is derived from external financial liberalization, "there is a strong international dimension to financialization that centers on the elimination of capital controls, encouraging all countries to deregulate their internal financial markets" (p. 36). Similarly, Ramos (2017) defines the international dimension of financialization as "the increasing magnitude of finance in the international sphere, where the prior function of financing trade and production are substituted by the strengthened speculative motive" (p. 983).

From the historical point of view, the genesis of the financialization process is the financial changes that occurred after the end of the Bretton Woods agreements in the 1970s, many of which also determine the rise of financial globalization. The manifestations of financialization at the international level include characteristic of financial globalization, such as increased mobility of international capital flows, the emergence of institutional investors, the internationalization of the big banks and increased external financial integration (Lapvitasas, 2009; Epstein, 2005; Stockhammer, 2004 e 2010; Braga et al, 2017; Bortz & Kaltenbrunner, 2017; Ramos, 2017).

3.4. Financialization in emerging economies

Because of peripheral financial integration and less development stage of domestic financial market, financialization in emerging economies has particular and specific forms of manifestation. The introduction of financialization in emerging economies derives directly from the international dimension of financialization and consequences of integration of these countries with financial globalization. Due to the monetary asymmetry, financialization takes a subordinate way in those countries, in contemporary center-periphery dimension (Lapvitsas, 2009; Becker et al, 2010; Correa, Vidal & Marshall, 2013; Bonizzi, 2013 e 2018; Karwowski & Stockhammer, 2017; Bortz & Kaltenbrunner, 2017; Kaltenbrunner & Panceira, 2017 e 2018; Santos, 2018; Bonizzi, 2018).

According Karwowski & Stockhammer (2017), the literature of financialization in emerging economies considers two dimensions to explain the origin and characteristics of the phenomenon, the external driven, or financialization guided by external factors, and country specific, with a predominance of internal factors understand the phenomenon. The two dimensions are relevant to understand financialization in
emerging economies. However, as the authors point out that there are different degrees of influence and a dynamic feedback between the factors. The financialization in emerging economies is directly derived from the integration of these countries in financial globalization, ie, the external financial liberalization is a key channel for the introduction of financialization in these countries. Even the development of the domestic financial system is conditioned by monetary asymmetry and the external financial integration. However, it adds that local institutional characteristics also influence how financialization is manifested in every emerging economy (KARWOWSKI & STOCKHAMMER, 2017; BORTZ & KALTENBRUNNER; 2017; KALTENBRUNNER & PAINCEIRA, 2017 e 2018; BONIZZI, KALTENBRUNNER & POWELL, 2019).

Even with the local institutional characteristics that can influence the manifestations of financialization in each county, it is possible to summaries the financialization in emerging economies. Domestically, financialization in emerging economies presents common manifestation forms of the central economies, such as the transition from economy based on domestic credit to a capital market economy, household debt and wealth effect under consumption, the emergence of shareholder value on non-financial corporations, growth of financial income in non-financial corporations and the change in the pattern of banks operations (DEMIR, 2007; RETHEL, 2010; BONIZZI, 2013 e 2018; KARWOWSKI & STOCKHAMMER, 2017).

As the financialization phenomenon in emerging economies derived from financial globalization and the international dimension of financialization, the financialization impacts on macroeconomic dynamics are related to external financial cycle. Unlike developed economies, where the pattern of growth in the financialization is centered on low interest rates, inflation of assets and growing household debt to sustain consumption in emerging economies dynamics depends on a positive real interest rate and the international capital inflows, because the external financial liberalization and financial cycle for emerging economies are key drivers of financialization in these economies. The macroeconomic dynamics of financialization in emerging economies are directly associated with boom & bust cycles of international finance. As a result of increased external financial integration, fluctuations in the external financial cycle promote cycles of asset price, including the currency, and domestic credit (LAPAVITSAS, 2009; BECKER et al, 2010; BONIZZI, 2013 e 2018;
The vulnerability and the external financial fragility, consequences of the financial integration, also influence the manifestations of financialization in emerging economies. On the liabilities side, these economies are subject to volatility of capital flows and the external financial fragility. In this scenario, corporations are exposed to fluctuations in international finance and related financial fragility to the phases of the external financial cycle, requiring the performance in the derivatives market to form of protection. In the asset side, emerging economies seeking to accumulate international reserves for precautionary reasons. With a result, there is the expansion of public debt, via sterilization operations, development of the domestic government bond market and expansion of bank balance sheets (LAPAVITSAS, 2009; BECKER et al, 2010; BONIZZI, 2013 e 2018; KALTENBRUNNER & BORTZ, 2017; KALTENBRUNNER & PAINCEIRA, 2017 e 2018; KARWOWSKI & STOCKHAMMER, 2017; SANTOS; 2018; BONIZZI, KALTENBRUNNER & POWELL, 2019).

Finally, there is an export-led pattern in the dynamics of financialization in emerging economies. The first manifestation is the export destined to core countries, where demand growth is sustained by household debt, or debt-led financialization. The core countries sustain current account deficits, due to the growth in consumption debt-led, and keep low interest rates. Emerging markets, in turn, receive capital inflows, driven by low interest rates in developed countries accumulate reserves and become surplus in current account because of exports. In a second manifestation, in the case of the commodity-based economies, the external financial cycle improves the exports revenues because the rise of commodity prices in the international market (STOCKHAMMER, 2012; BONIZZI, 2018; LAPAVITSAS, BONIZZI, KALTENBRUNNER & POWELL, 2019).

4. Financial Macroeconomics at the periphery

The concept of financial macroeconomics at the periphery interacts directly with the literature of growth and accumulation regime in the financialization framework, described by many concepts, such as finance-led capitalism or accumulation regime.
centered on finances\(^3\). The term, however, derives from Michel Aglietta, that mainly discusses the wealth effect under consumption. However, the concept of *financial macroeconomics at the periphery* is a broader concept, it incorporates a range of forms of manifestations and impacts are not restricted to the dynamics of accumulation and growth, also including the impact on domestic financial markets. Considering that growth and finances in the emerging markets are influence by the external financial cycle, the financial macroeconomics at the periphery analyzes the transmissions mechanism. The analysis focuses on the impacts of external financial cycle on the domestic financial market and the cyclical growth in emerging economies.

### 4.1. External financial integration

The first dimension of financial macroeconomics at the periphery, the external financial integration, is about the impacts of external financial cycle in the domestic financial markets, considering the four segments.

*Foreign exchange markets*

It begins by analyzing the foreign exchange market, in which it will be discussed the impacts of the external financial cycle on the dynamics of the nominal exchange rate in emerging economies that adopt flexible exchange rate regime. As described in previous sections, the external financial cycle for emerging economies is composed of two elements, the international liquidity cycle and the commodity prices cycle. There, for each component, a specific analysis based on the literature on determining the short-term nominal exchange rates.

In terms of the impact of the international cycle of liquidity on the dynamics nominal exchange rate in emerging economies, adopts the equation's own interest rate originally proposed by Keynes in Chapter 17 of the General Theory of Employment, Interest and Money, in line with Andrade & Prates (2012; 2013), De Conti, Biancarelli & Rossi (2013), Kaltenbrunner (2015), Ramos & Prates (2017) and Marins & Prates (2018). In common, the studies presented a version of the Keynesian equation own interest rate of an asset and discuss the dynamics of exchange rates in emerging economies.

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\(^3\) As discussed in section 3.2, there is in the literature a number of concepts related to dynamic macroeconomics under financialization, as the finance-led capitalism (Guttmann, 2017), financialized accumulation regime (Chesnais, 2002) and finance-dominated accumulation regime (Stockhammer, 2008).
economies that adopt flexible exchange rate regime through a Keynesian/Minskyan and structuralist framework. The adopted theoretical proposition is that the price of currencies issued by emerging economies varies depending on the availability of international liquidity and portfolio decisions of international investors. Therefore, exchange rate movement in these economies is in line with the international liquidity cycle.

However, the studies show differences in the form and components of the equation. Andrade & Prates (2012; 2013) and De Conti, Biancarelli & Rossi (2013), adopted the equation as described by Keynes, but reinterpret its components according the view of the exchange rate:

\[ r = a + q - c + l \]

Since \( r \) is the total expected returns of an asset denominated in the peripheral currency, \( q \) is nearly incomes as expected interest and dividends associated with ownership of the asset, \( a \) is the expected appreciation of the asset, which includes value of the exchange rate, \( c \) is the carrying cost and \( l \) is the liquidity premium. According to the authors, there is a cyclical component, as expected monetary return \( (a + q - c) \) and the liquidity premium \( l \) to vary according to the liquid phase of the international liquidity cycle. In the ascending phase, it reduces the liquidity premium and rises expected monetary return, valuing the exchange rate. The descending phase, there is the devaluation due to the increase of the liquidity premium and reducing the expected monetary return.

Kaltenbrunner (2015) proposes another alternative adaptation of Keynes equation by introducing two important changes. The first assumes that the returns expected from the different active tend equal in equilibrium, so that it is possible to consider that there is only one value \( r \). The second change is to explain the existence of a currency that holds the full liquidity premium at the international level, the key currency and the major funding currency. Given the changes the equation is written as:

\[ r = (q - c) + a + l = (q^* - c^*) + l^* \]

Since the variables marked with an asterisk (*) represent the values associated with the key currency, the variables \( q \), \( c \) and \( l \) refers to the peripheral currency and \( a \) the exchange rate value considering the exchange rate between peripheral currency
and the key currency. With a simple algebraic manipulation the function can be represented as:

\[ a = (q^* - q) + (l^* - l) \]

Ramos (2017), Ramos & Prates (2018) and Marins & Prates (2018), in turn, introduce the parameter \( \beta \), which expresses the liquidity preference, the equation. According to the authors, the parameter \((l)\), which expresses the liquidity premium, has structural and cyclical characteristics in its original meaning. The inclusion of the \( \beta \) parameter is specifically designed to differentiate these elements. The lower liquidity premium of peripheral currencies is a structural feature, the last expression monetary hierarchy. The liquidity preference, that is, the desire of investors to hold illiquid assets in search of income, however, is cyclical. This movement even provides the international liquidity cycles. Even if the peripheral currencies remain illiquid, structurally, there is for them a cyclical speculative demand.

The equation proposed by Ramos (2017) and Ramos & Prates (2018), then it is represented as:

\[ r = a + q - c + \beta l \]

\[ r - r^* = (a - a^*) + (q - q^*) - (c - c^*) + \beta(l^* - l) \]

Since again, the values marked with an asterisk (*) refers to the key currency.

Finally, Marins & Prates (2018), following the proposal of Kaltenbrunner (2015) and assume that there is a steady trend of total income, then \( r - r^* \) tends to zero, and consider that the expected appreciation, as . Therefore, it tends to equation:

\[ a = S_{t+1}^e - S_t \]

\[ S_t = S_{t+1}^e + (q^* - q) - (c^* - c) + \beta(l^* - l) \]

Alternative and based on the foregoing discussion form, it proposes the equation:

\[ a = (q^* - q) - (c^* - c) + \beta(l^* - l) \]

Based on the literature presented, the external financial cycle can influence the dynamics of the nominal exchange rate through changes in the preference for liquidity,
the expected income and the carrying cost. Due to the decrease of liquidity preference, the lower cost of the loading and return expectations, the ascending liquid phase of the cycle is associated with the appreciation of the domestic currency. On the other hand, the downward phase of the liquidity cycle would lead to currency depreciation.

As for the impact of commodities price on the exchange rate, there is the currencies of commodity literature, studies examining the short impact and long-term commodity prices on the exchange rate, nominal and real, in countries whose export basket is concentrated in products (Kenneth Clements & Fry, 2008; Cashin, Cespedes & Sahay, 2003; Belasen & Demirer, 2019; Chen and Rogoff, 2002; Coudert, Couharde & Mignon, 2015; Kohlscheen, Avalos & Shrimpf, 2017). Although most of the literature is oriented to evaluate the real exchange rate and long-term, there are important elements to understand the dynamics of the nominal exchange rate in the short-term. In the traditional mechanism, revenues from exports impact the foreign exchange market at export-based commodities countries, resulting in an appreciation of nominal exchange rate in periods of higher revenues and depreciation in those with lower revenues and falling commodity prices. Alternatively, as highlighted Prates (2015), the impact of raising the prices of commodities in the exchange rate may occur indirectly. The valuation of commodity prices attracts capital flows and creates expectations of appreciation of the exchange rate, leading to positions in derivatives markets.

**Money markets**

About the money market, the main variables are the policy interest rate, fixed by the monetary authority, and the interest rate of the interbank market. The influence of external financial cycle in this case derives from the dual role that the interest rate plays in emerging economies: controlling domestic inflation and attracts external funding.

First, there is the issue of reduced autonomy of monetary policy in emerging economies. Denying the assumption of the impossible trinity, Rey (2018) states that given the external financial liberalization, there is no autonomy of monetary policy, regardless of the adopted exchange rate regime. In the case of emerging economies, considering a floating exchange rate regime associated with external financial liberalization do not guarantee the monetary policy autonomy, as stated by the theory of the impossible trinity. The emerging economies interest rates, and attend domestic management functions of aggregate demand and inflation control, is used as instruments
to attract capital flows, in order to avoid abrupt devaluations and movements of capital flight (KALTENBRUNNER & PAINCEIRA, 2017; DE CONTI, PRATES & PLIHON, 2014).

As highlights the currency hierarchy literature, due to the need to attract external funding or influence the exchange rate level, the basic interest rate in emerging economies stands at level higher than the interest rate of funding currencies, as should incorporate elements of risk country and a premium due to the illiquidity of the domestic currency (CARNEIRO, 1999; PRATES, 2005; DE CONTI, PRATES & PLIHON, 2014). Since the risk premium and the interest rate of the currency funding are reduced in the upward phase of the external financial cycle, there is the possibility of reducing the domestic interest rate.

Global liquidity conditions affect the rate of domestic inflation through the nominal exchange rate, a phenomenon known as foreign exchange pass-through. In a second branch, changes in the level of inflation may engender movements in nominal interest rates by the monetary authority, is the rise in interest rates to contain rising inflation derived from a sharp depreciation of the exchange rate, is the possibility of reduce nominal interest rates due to the fall in inflation associated with periods of currency appreciation.

Capital markets

In the capital market, the central point is the importance of external financial cycle for the pricing of shares and papers. In the definition of the global financial cycle, Rey (2018), there are the prices of risky assets vary together with capital flows. Most financial liberalization and the significant presence of non-resident investors in these markets reinforce the relationship between asset prices and the phases of the global financial cycle. Demand for non-resident investments for these assets tend to have a cyclical character, soon rise phase of the global financial cycle are associated with high demand and inflation of these assets while declining phases promote the falling prices and the liquidation of commitments. A second mechanism is the commodity prices on the stock price of export-based commodity companies (KALTENBRUNNER & PAINCEIRA, 2015; BONIZZI, 2015; DE CONTI, BIANCARELLI & ROSSI, 2013; AKYUZ, 2015, 2017 e 2019).
Credit markets

Finally, the last segment of the domestic financial system to be analyzed is the credit market, that is, as the external financial cycle impact on the availability of credit. First, are considered two dimensions credit, foreign credit, with the international financial market, and domestic credit via local financial market. Domestic institutional sectors can obtain foreign credit in the form of bank loans, raising funds through the issuance of securities abroad and intercompany operations. With respect to domestic credit, include loans of resident banks.

The external financial cycle impacts the availability of foreign credit under the direct influence of the international liquidity cycle on capital flows aimed at an emerging economy. The rise phase of the external financial cycle is, by definition, associated with greater availability of external financing to emerging economies, expanding access of residents to various external credit instruments. In the domestic case, however, the impacts are indirect and involve the movements of monetary policy, the availability of external funding for domestic banks capturing external resources to conduct internal transfers and the wealth effect, when derived from external financial cycle (RESENDE & AMADO, 2007; BIANCARELLI, ROSA & VERGNHIANINI, 2017, 2018).

4.2. Cyclical growth dynamics

In terms of economic growth, financial macroeconomics at periphery discusses the main transmission mechanisms between external financial cycle and demand variables in emerging economies. As point out for Resende & Amado (2007), the international liquidity cycle explains the cyclical growth in emerging markets, known as reflex cycle hypothesis. The purpose of the section is to understand, from a theoretical point of view, what are the channels of influence of the external financial cycle on domestic demand variables in emerging economies.

Following the Keynesian-structuralist theoretical framework, the growth is led by the demand in a short and long-run. The proposition then is an interpretation of the determinants of demand in the short term, identifying the variables possibly affected by external financial cycle and the impact in terms of short-term economic growth. However, do not rule out the hypothesis that the financial macroeconomics at the
periphery, namely that financialization, financial globalization and the financial integration also has impacts on long-term growth.

**Consumption**

Household consumption (C) is the first variable of the demand to be analyzed. The goal, as outlined, is to describe the possible mechanisms of transmission between the external financial cycle and household consumption in the short term within the framework of the financial macroeconomics at the periphery. The first step is to present a consumption function compatible with the financialization growth regime. The second is to assess the need to adapt it to an open peripheral economy. Finally, identify the possible transmission mechanisms.

As noted in sections 3.1 and 3.2 in terms of household consumption financialization is manifested by the increased importance of debt (debt economy) and the wealth effect (bubble economy), and the relationship between them, as determinants of consumption, to the detriment current income. According to the literature review of Brochier & Macedo e Silva (2017), post-Keynesian literature on the determination of the consumption advanced in the last two decades to incorporate these elements, especially in the analysis of financialization in developed economies. In short, the work converge where there is a positive impact of the debt in the short-term aggregate demand, but does not necessarily imply positive results in the long term, mainly due to the debt impacts on income distribution.

According to the authors, it is possible to identify three approaches: the first is debt-led consumption, the second incorporates both debt and wealth effects and the third-one focus mainly in the wealth effects, which does not remain independent of credit mechanisms. With regard to debt-led consumption, highlight the contributions of Dutt (2006) and Hein (2012), in the case of consumer credit and via wealth effect, the work of Onaran, Stockhammer and Grafi (2011). The models are presented below.

Second Dutt (2006), the consumption function can be written as:

\[
C_w = (1 - \sigma)Y - iD + \frac{dD}{dt}
\]

---

Where $C_w$ is the workers' consumption, $C_p$ is the consumption of the capitalists, $D$ is the stock of debt in real terms, $i$ is the interest rate, $\sigma$ is the share of profits in income and $s$ is the share of income saved by the rentiers.

Similarly, Hein (2012) presents the consumption functions as:

$$C_w = W + \Delta B_w - iB_w$$

$$C_r = c_r(hY + iB_w)$$

Where, $C_w$ is the workers' consumption, $W$ is wage ($W = (1-h) Y$), $\Delta B_w$ is the new credit, $iB_w$ is the interest payments of workers to rentiers, $C_r$ is the consumption of the rentier and $hY$ is profit.

In the second group, which incorporate the debt and the wealth effect, the model Onaran, Stockhammer and Grafi (2011). The consumption function which is described as:

$$C = c_0 + c_wY + (c_\pi - c_w)\pi Y$$

Where, $c_0$ is the autonomous consumption, $c_w$ is the propensity to consume wages, $c_\pi$ is the propensity to consume profits, $Y$ is income and $\pi$ is the share of profits in income. According to Onaran, Stockhammer and Grafi (2011) financialization affects consumption through income distribution in favor of the rentier class, the wealth effect, i.e., the influence of the prices of assets such as stocks and houses, on consumption current and the possibility of borrowing. Including these elements in the equation, present the complete consumption function:

$$C = c_0 + c_wY + (c_\pi - c_w)\pi_r Y + (c_{\pi_{nr}} - c_w)\pi_{nr} Y + c_{FW}FW + c_{HW}HW$$

$\pi_r$ is the share of income of the rentier, $\pi_{nr}$ is the portion of the non-rentier income, $FW$ is the net financial wealth and $HW$ is the real estate wealth, the value of homes.

Based on the two models presented and the preceding discussion on the dynamics of growth in the standard of financialization, it is suggested to adopt the following consumption function, slightly differently:
\[ C = c_0 + c_1 Y_{wage} + c_2 Y_{Wea} + c_3 \Delta B + c_4 W - iB \]

\(c_0\) is autonomous consumption, \(Y_{wage}\) is the wages, \(c_1\) is the marginal propensity to consume from wages, \(Y_{Wea}\) is the income from wealth in the form of profits, interest, rents and dividends, \(c_2\) is the propensity to consume of the wealth income, \(\Delta B\) is new credit, and \(c_3\) is the propensity to consume of new debt, \(W\) is the wealth, both real and financial, and \(c_4\) is the propensity to consume out of wealth and is \(iB\) the amount of interest paid on the basis of past debt. Combining elements of literature, the proposed function has the advantages of presenting simply current consumption depends on various sources of income, wages, profits, rents, interest, dividends and proceeds from loans. In terms of stocks, there is a positive function of consumption in relation to the stock of accumulated wealth and negative due to the need to bear the financing costs.

There are the traditional impacts of real wages, wealth effect and access to credit. In the ascending phase of the external financial cycle consumption would stimuli to growth due to the appreciation of the real wage resulting from the impact of external financial cycle in the nominal exchange rate and the reduction of domestic prices; due to the appreciation of the domestic wealth in the possession of families derived from asset inflation promoted by external financial cycle; due to greater access to credit by households resulting from external financial cycle.

**Investment**

The second component of demand, the Investment (I), is analyzed from two contributions of Hyman Minsky, the investment function based on the two price system and Financial Instability Hypothesis (MINSKY, 1975; 1986; 1992). According to the investment function based on two price system, macroeconomic investment depends on the expectations of future profitability associated with the use of capital good production and the conditions for the acquisition of capital goods (MINSKY, 1986; DEOS, 1998).

The demand price of capital assets, \(P_k\), is the present value of expected future incomes derived a use of capital asset in the production, discounted by the interest rate. It’s value varies in direct proportion to \(Q\), the almost expected revenues from the use of capital assets, and \(M\), the amount of money in circulation. However, the acquisition of capital assets depends on internal resources, retained earnings, revenues from the sale of
liquid assets, cash flows or external resources, such as the issuance of new shares and debt. Thus, while the investment advances, firms become less liquid because there is a reduction of net assets in favor of non-liquid assets, as well as the possible expansion of the debt. This movement is known as borrower’s risk, and manifests itself due to the increasing use of external resources to finance investment. As a result, \( P_k \) tends to fall after a certain amount of investment (MINSKY, 1986; DEOS, 1998).

The supply prices of capital assets, \( P_i \), depend on the conditions of production. Its determinants, of objective character, involve the wage rate, the interest rate, productivity and mark-up of the sector. Analogous to the demand price, a certain volume of investments incorporated into an element of risk, which is defined as the lender's risk, which explains the growing indebtedness of the investing firm and, above all, the increase in production prices capital goods due to increases in production costs. Under the proposed investment function, the purchase of new capital goods occurs when \( P_k \) higher than \( P_i \) (MINSKY, 1986; DEOS, 1998).

About the Financial Instability Hypothesis, Minsky (1992) points out that investment decisions necessarily imply in funding decisions, which usually result in the assumption of external liabilities that requiring future payments. The comparison between expected income and the cost of funding determines the classification of economic unity between hedge, speculative and Ponzi. The first of which occurs when expected returns are higher than the total cost of liabilities, principal and interest, with no maturity mismatch. At the other extreme, in the case of Ponzi units, the proceeds would be insufficient to bear the financial commitments, including interest. Such units would present increased financial fragility, depending on the financial market for loans that are entitled to the commitments, being exposed to higher interest rate and switching the lines of credit. The degree of financial fragility of an economy depends on the relative presence of hedge units, speculative and Ponzi. Also, prosperity moments lead to reduction of hedge units and provide increased Ponzi units in an endogenous process (MINSKY 1986; 1992; DEOS, 1998).

In the case of financially open economies, the currency denomination of external liabilities is crucial, because a currency mismatch improve the financial fragility to the units to exchange rate movements and sudden stops. In addition to changes in interest rates, exchange rate movements would be responsible for the transmission of economies
of hedge positions for speculative and Ponzi (PAULA Jr. & ALVES, 1999; ARESTIS & GLICKMAN, 2002).

As highlighted for Deos (1998), the dynamic cycle begins with periods of tranquility and prevalence of hedge units in the expectation of future income results in new investments and increase future profits. There is a double movement favorable to investment, the greater the expectation of future and lower cost of financing income. However, the biggest assumption of liabilities tends to generate financial structures with a higher degree of fragility. Banks at any given time raise interest rates in response to the increased risk associated with lending to economic units in higher financial fragility. The rise of interest rates reduces $P_k$ and increases $P_i$, as a result, there is a reduction in the investment.

In the ascending phase of external financial cycle, there are better external financing conditions and reduced acquisition costs of imported capital assets. In line with financialization discuss, such as Guttman (2008, 2016, 2017) and Stockammer (2010), the valuation of commodity prices and the stock market, in turn, amplify the conditions of access to domestic and foreign credit and positively impact the expected future rents (MINSKY, 1975; DEOS, 1998, BLACK, 2015). However, as noted, the expansion of the debt, especially in foreign currency exposes the units to reversal of the cycle, with asset deflation, devaluation and interruption of external financing (PAULA Jr. & ALVES, 1999; ARESTIS & GLICKMAN, 2002).

*Government spending*

The third component of demand, Government spending (G), is considered autonomous, with no limitations for expansion in the short term, *a priori*. However, there are factors related to the dynamics of public spending, such as fiscal rules and adjacent macroeconomic factors that can influence the fiscal policy. The fiscal rules may contain the dynamics of government spending. As a determinant of the level of aggregate demand, government spending can serve as instruments to stimulate growth or to contain it, for example, in order to curb inflation and the current account deficit.

Thus, the impact of external financial cycle in the dynamics of Government spending is directly related to the fiscal rules and the adjacent macroeconomic factors. The external financial cycle can influence the level of revenues, mainly through
appreciation of commodity prices depend on the fiscal rule specifies adopted, the expansion of the collection may favor the growth of expenditure (BLACK, 2015; AAKYUZ, 2017). The external financial cycle allows the expansion of spending if there is space in terms of inflation and current account deficit. As highlighted by Black (2015), if the international liquidity cycle and the commodity price cycle enable a smaller reduction of short-term external constraint, it would be possible for the government to adopt stimulus policies income, but only in Government spending, but also allow the expansion of consumption and investment.

Exports

Finally, the last component of demand is the Exports (X). Following Thirlwall (1979), the demand function for exports is:

\[ X_t = \left( \frac{P_{d,t}}{E_t} \right)^{\eta} P_{f,t} Z_t^{\epsilon} \]

Where:
- \( X_t \) is the quantity exported;
- \( P_{d,t} \) is the domestic price of exports,
- \( P_{f,t} \) is the price of goods that compete with exports,
- \( Z_t \) is the world income,
- \( E_t \) is the exchange rate,
- \( \eta \) is the price elasticity of demand of exports (\( \eta < 0 \)),
- \( \delta \) is the cross-elasticity of demand for exports (\( \delta > 0 \)),
- \( \epsilon \) is the income elasticity of demand for exports (\( \epsilon > 0 \)).

In a later version, Thirlwall (2011) proposes a slightly modified equation:

\[ X = \beta \left( \frac{P_d}{P_f E} \right)^{\eta} Z^{\epsilon} \]

In terms of the impact of external financial cycle stand out two transmission mechanisms: the rising price of commodities in the international arena expand export revenues and an expansion of exports due to the global growth. The growth of commodity prices increases export revenues and may also generate dynamic effects on aggregate demand. On the other hand, exports may grow due to the growth of world income, including core countries that grow via debt-led or asset-inflation or other commodity-exporting countries (BLACK, 2015; BONIZZI, 2018).

5. Final remarks

As mentioned in the introduction, the contribution of this article is to introduce the concept of financial macroeconomics at periphery, based on the impacts of
financialization and financial globalization in emerging markets. In this first approach, the focus is short-term impacts of the external financial cycle is the domestic financial markets and demand variables. In a theoretical way, it is possible to identify the transmission mechanism in each case. Concluding, there are several channels of influence between the external financial cycle and the emerging markets.

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