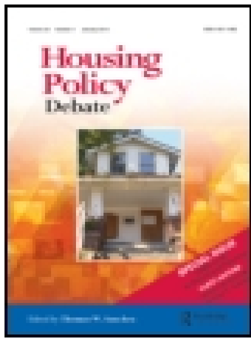

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Housing Financialization in the Global South: In Search of a Comparative Framework

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Housing Financialization in the Global South: In Search of a Comparative Framework

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ABSTRACT

The financialization of housing in the Global South (GS) and peripheries of the Global North (GN) develops in different ways than in the GN because the mechanisms underlying and pushing financialization are fundamentally different. We argue that subordinated financialization in the GS is the contemporary form of uneven and combined development, shaped by the financialization of the GN. The recycling of GN excess liquidity in countries lower in the global money hierarchy has contributed to the growth of mortgage lending in the GS and peripheries of GN. With the macrocomparative perspective in our article we provide a framework to rethink the relations between GN and GS in shaping distinct patterns of uneven and combined financialization, but also to rethink the varieties of capitalism and residential capitalism approaches. In the GS we can distinguish between at least two additional types: state-led market economies and less-financialized market economies.

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subordinate financialization; Global South; uneven and combined development; housing markets; mortgage lending; financial development

Since the outbreak of the global—or North Atlantic—crisis the financialization of housing has emerged as an important research theme in the field of housing studies (Aalbers, 2008; Lees, Slater, & Wyly, 2008). Financialization refers to “the increasing dominance of financial actors, markets, practices, measurements, and narratives at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states, and households” (Aalbers, 2016, p. 2). In relation to housing, the literature has focused on financial actors, including banks, lenders, private equity, and hedge funds (Fields, 2015; Wijburg, Aalbers, & Heeg, 2018); financial markets such as stock exchanges and the market for mortgage-backed securities (Aalbers & Engelen, 2015; Fernandez & Aalbers, 2016; Wainwright, 2012); financial practices including the provision of mortgages in foreign currencies and the use of derivatives beyond hedging risk (Aalbers, Van Loon, & Fernandez, 2017; Halawa, 2015; Pósfai & Nagy, 2017); financial measurements such as credit scoring (Aalbers, 2005; Langley, 2008); and narratives and ideologies that frame homes as investments (Aalbers & Christophers, 2014; Ronald, 2008). An important shift in the literature has been the focus on not only mortgage debt and mortgage securitization, but also rental housing, including (former) social housing (Wainwright & Manville, 2017; Wijburg & Aalbers, 2017), rent-stabilized housing (Fields, 2015; Teresa, 2016), student housing (Mendel, 2016; Revington & August, 2018), care homes (Horton, 2017; Killian, 2017), and single-family dwellings (August & Walks, 2018; Fields, 2018; Immergluck & Law, 2014), typically facilitated by government de- and reregulation (Aalbers, Engelen, & Glasmacher, 2011; Gotham, 2006, 2012; Waldron, 2018; Wijburg & Aalbers, 2017).

Although it is often assumed that housing financialization is a Global North (GN) phenomenon, it is increasingly researched in the Global South (GS; Aslan & Dinçer, 2018; Chua, 2015; Kutz & Lenhardt, 2016; Smart & Lee, 2003; Rolnik, 2013; also see the other articles in this special issue), in particular in

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Brazil (Fix, 2011; Klink & Stroher, 2017; Mosciaro, 2018; Pereira, 2017; Royer, 2014; Sanfelici & Halbert, 2018) and other parts of Latin America (López-Morales, 2016; Soederberg, 2015; Zapata, 2018), and has also been the subject of reports by two consecutive United Nations Special Rapporteurs on the Right to Adequate Housing (2012, 2017). The point is not that the financialization of housing is a global process per se, but that financialization is a multifaceted process and, empirically speaking, financialization in some domains may be happening alongside nonfinancialization in other domains.

We should therefore be cautious in concluding that financialization is everywhere or nowhere. From the literature on the GS, we know that in some countries the inflow of capital has resulted in booming housing and mortgage markets and that regulation has facilitated the spread of securitization and real estate investment trusts (REITs). The fact that some GS countries have underdeveloped and incomplete mortgage markets, securitization, or REITs is sometimes mobilized to suggest that financialization in the GS as well as in the peripheries of the GN is fundamentally different, but this argument strikes us as overly simplistic. These characteristics are not necessarily unique to GS countries. Indeed, many GN countries also have not introduced mortgage securitization or REITs, or have done so only recently, often around the same time as many GS countries. The defining component of the financialization of housing is the transformation of residential real estate into a financial asset, opening channels for extraction by rentiers. Mortgage debt is the most common way in which this happens, but—as we illustrated above—not the only way. Furthermore, some rapid changes have taken and continue to take place in the GS. We need to take these changes seriously and understand how it is possible that very different countries experience—or push—similar trends or common trajectories (Aalbers, 2017; Fernandez & Aalbers, 2016; Hay, 2004) in the early 21st century, and in particular since the North Atlantic financial and economic crisis of 2007–2009.

In this article we seek to go beyond simplistic notions of *the same* versus *incomparable*, and ask the question: Is the financialization of housing different in the GS, and if so, how exactly is it different and why? Is there something that these countries have in common? In other words: How can we explain parallel developments in housing and finance in different GS countries, and how do these relate to developments in GN countries? We do not use *relate* here as a synonym for *compare*, but to open up the debate to the possibility that differences between countries may not merely be the result of differences in economic development and path dependencies; rather, these differences themselves may be produced in the relations between countries. That is, we wish to explore whether the specific features of the financialization of housing in the GS are in part a result of the position of these countries within the global economy and therefore *in relation to* GN countries. In light of the call for more mechanism-oriented and contextualized understanding of financialization around the globe (Mader, Mertens, & Van der Zwan, 2019), we argue that the type of integration of the peripheries in hierarchical global monetary structures is the main mechanism to shape the process of subordinated financialization. This structural feature of core–periphery relations explains how the search for yield found its way into housing markets in the GS and peripheries of the GN on the back of quantitative easing (QE) policies in the GN. The impact, however, was not uniform across coutries in the periphery. To understand the variety in outcomes, we need to look at institutional differences that mediate between global monetary relations and domestic housing markets.

Our goal is to present a comparative analysis of the financialization of housing in GS countries in light of a more general process of subordinate financialization. This article presents a conceptual framework for analysis as well as empirical tools and numbers, meant as a key step in the process of coming to grips with the role of housing finance in financialization processes outside the core countries of the GN. It does not discuss the politics of financialization within individual GS countries. This is of utmost importance and should not be ignored, but it is beyond the scope of this macrocomparative article. Moreover, this important topic will be picked up in the other articles that make up this special issue. To facilitate a better understanding of housing financialization in the GS, it is important to read this article in dialogue with these other articles. Our selection of countries

in the GS is also inspired by the other abstracts that were accepted for this special issue, contributing to a comparative perspective among the articles in this issue.[1]

Together, the different theories and statistics we present feed our understanding of how and why the size of finance is proportionally smaller in the GS, something that is usually taken for granted. If we compare indicators of financialization, such as stocks of debt and financial assets and cross-border capital flows, we find that the volume and depth of the financial sector differ widely across all political economies. Fundamentally, however, we find that finance, according to different indicators, is significantly larger in core GN countries, not only in nominal terms but, most importantly, as a share of its economy, compared with peripheral GS countries (Fernandez, 2017; Karwowski, 2019; World Bank, 2009, 2012). This disproportionate weight of financial activity in the GN is a crucial part of the narrative detailing the character of the sociohistorical transformation that financialization entails—that is, a rising dominance of finance. The question, however, is how to assess financialization in the GS, given the smaller financial footprint or even nonfinancialization.

This requires us to rethink the usual indicators used to study expressions of financialization in the GS: the relevant indicators, mechanisms, and expression of financialization may well be different. Comparatively low levels of mortgage debt, for instance, can still be an indication of a process of financialization of housing in developed countries, albeit confined to a specific demographic cohort and location. In studying the variegated nature of housing-centered financialization, we concluded that most countries in the GN and GS did not follow the type of financialization we witnessed in countries such as Spain, Ireland, the Netherlands, the United Kingdom, and the United States, that are characterized by extraordinarily large mortgage markets and typically faced declining house prices during the financial crisis (Fernandez & Aalbers, 2016).

Conceptually, we revisit theories of uneven and combined development, core and (semi)periphery, and subordinated financialization to come to an understanding of the structural differences between countries (Section 1). We then apply these literatures to money flows and show how loose monetary policies in the GN took shape in response to the North Atlantic financial crisis, thereby feeding a sharp rise in capital flows into select GS countries (Section 2). As the literatures discussed in Section 1 have barely focused on the issue of housing, we present empirical illustrations—typically based on publicly available, international statistics—to show the differences between GS and GN and, in particular, within the group of GS countries (Section 3). We focus on the structural monetary conditions of countries in the periphery and how global capital flows can coshape domestic forms of financialization In Section 3 we also show how the patterns of financialization in the GS call for an extension of the model of varieties of capitalism. We stress that our analysis is only a first step in the analysis we call for.

1. A Framework to Analyze Financialization in the GS

As also explained in the introduction to this special issue, the notions of GS and GN are inherently problematic. Like notions of developed and developing economies, industrial and nonindustrial, core and periphery, or high- and low-income countries, they present a binary view of the world, albeit sometimes with the addition of intermediate categories, such as the semiperiphery, newly industrialized, or middle income. This is not the place to deconstruct these concepts. One particular issue with these concepts and other master concepts is that regardless of how problematic they may be, they can serve as a useful shorthand in debates about differences among a large number of countries.

In this section, we will mobilize some of these older concepts to help us understand contemporary patterns of financialization in what, for reasons of convenience, we call the GS. In Subsection 1.1 we briefly summarize the literature on the varieties of capitalism in the GS. In the next Subsection (1.2) we revisit the concept of uneven and combined development, as it serves as a useful introduction to the concept of subordinated financialization (1.3), which could be considered a contemporary channel for uneven and combined development. Subordinated financialization was introduced in

the literature to make sense of uneven power dynamics in financialization processes across countries. In Subsection 1.4, we discuss the hierarchy of international money to explain subordinated financialization and its consequenses in an age of QE. In the next section we will apply these insights to analyze money flows between GN and GS and to understand the variagated outcomes.

1.1. Varieties of Capitalism in the GS

The *varieties of capitalism* literature was originally developed in, and applied to, a GN context. In response to a wider debate (Becker, 2013) to broaden the analytical tools of the *varieties of capitalism* approach to developing countries, Nölke, Ten Brink, Claar, & May (2015) introduced two additional national models of capitalism to capture distinctive institutional characteristics of emerging economies. The original typology, focused on developed economies, consisted of two varieties of capitalism, namely coordinated market economies and liberal market economies. In response to this dichotomy, the third model of dependent market economies (Nölke & Vliegenthart, 2009) was developed to conceptualize the subordinated integration of East-Central European countries into the larger European economy. Central features of this model are a very open economy (as a result of external pressures), with a high share of foreign direct investments, which creates a dependency on foreign multinational corporations since domestic economic structures are disassembled. Dependent market economies become fully integrated in global value chains, and the domestic financial sector becomes dominated by subsidiaries of foreign banks and other cross-border financial channels.

The fourth model distinguished by Nölke et al. (2015), state-led market economies—also known as state-permeated market economies (Nölke & Claar, 2013)—is also positioned outside the core of the global economy, but unlike dependent market economies, it is not dominated by foreign multinational corporations. Instead it is characterized by a resilient and close-knit national elite, exercising power through an authoritative state–market nexus.[2] In state-led market economies, corporate control by state institutions, through direct or indirect ownership, is a key element of the national political economy. Also, domestic banks and national financial institutions, such as pension funds, are central in providing credit. Moreover, the level of foreign direct investment and foreign control over domestic industries is significantly lower compared with the other three models of capitalism (Nölke et al., 2015). This fourth national model of capitalism is illustrated by Brazil, India, and China, and the authors argue the model is typical for large emerging economies.

This implies we may need at least a fifth type (and possibly more) to account for smaller emerging economies. For the moment, we will sideline this typology to focus on two other literatures: those on uneven and combined development, and on subordinate financialization. After we have used that lens to make sense of patterns of financializaiton in the GS (Section 2), we will, in Section 3, revisit and expand the typology introduced here. The inclusion of this literature allows us to make sense of the empirical varieties of subordinate financialization in the GS.

1.2. Uneven and Combined Development

We can think of financialization in the GS as a process that resembles the notion of uneven and combined development. More specifically, practices of financialization can coexist in nonfinancialized institutional environments, as a result of cross-border interlinkages, that in time can have a broader implication for domestic political economies. Leon Trotsky coined the concept of uneven and combined development to understand how Russia, a predominantly agrarian society, with preindustrial power relations revolving around land ownership, could be the stage for a revolt of the working class. Class struggle belonged to a capitalist set of social relations rather than a feudal political economy, orthodox Marxists argued at the time. The thesis of uneven and combined development provided an

explanation and justification for the Russian revolution (Van der Linden, 2007) and has been making a comeback in recent years (e.g., Antunes de Oliveira, 2019; Rosenberg, 2013).

The theory notes that capitalism is spatially variegated, leading to a process of uneven development across countries and regions. Yet there are also pockets of advanced capitalist modes of production or institutional arrangements that coexist in underdeveloped spaces of capitalism. Testimony to this historical law were the highly politicized urban-based workers' organizations that coexisted (combined) with a feudal tsarist Russian set of relations. Crucially, these pockets of advanced capitalist relations were impelled and organized by cross-border capital flows from advanced localities. By importing practices from advanced capitalist economies, less advanced economies may bypass intermediate developmental steps, a process also known as leapfrogging. Trotsky provides the examples of Germany and the United States to explain how they could surpass the superior technologies of the United Kingdom:

> Although compelled to follow after the advanced countries, a backward country does not take things in the same order. The privilege of historic backwardness—and such a privilege exists—permits, or rather compels, the adoption of whatever is ready in advance of any specified date, skipping a whole series of intermediate stages. . . .The development of historically backward nations leads necessarily to a peculiar combination of different stages in the historic process. Their development as a whole acquires a planless, complex, combined character. (Trotsky, 1930/2017, p. 3, cited in Van der Linden, 2007, p. 147)

Another essential element of the notion of uneven and combined development is the contradictory nature of adopting an alien capitalist practice from an advanced economy in a backward economy (Trotsky, 1930/2017). Advanced capitalist modes of production strengthened the position of the feudal class and suppressed the advancement of the capitalist class. A final issue to address is the transformative capacity of the combined developments. It is not sufficient for islands of developed forms of capitalism to be present in backward economies. These practices need to be part of as well as produce wider socioeconomic changes to imply a channel of uneven and combined development (Allinson & Anievas, 2009).

1.3. Contemporary Processes of Uneven and Combined Development

The present face of financialization in developing countries echoes elements of the notion of uneven and combined development. Gabor, for example, analyzes how financialization developed in Romania, eventually evolving into ever stronger core–periphery relations (Gabor, 2013). The external institutional pressures to take a shortcut toward neoliberal arrangements—lifting restrictions for foreign capital flows and deregulating markets—were overwhelming after the fall of communism in the 1990s. The National Bank of Romania became a Trojan horse in the process of achieving systemic change, its policies shaping the conditions for financialization. It led to two interrelated processes that would define the establishment of subordinate financialization: first, eliminating the favorable conditions for patient capital and traditional banking; second, orchestrating the influx of foreign banks and market-based or nondeposit-based banking models (Gabor, 2012b). We find similar islands of highly advanced practices of financialization in the built environment of Brazil (Fix, 2011; Klink & Stroher, 2017; Mosciaro, 2018; Mosciaro, Pereira, & Aalbers, 2020; Pereira, 2017; Royer, 2014).

Another recent example of this principle is the World Bank agenda to "maximize finance for development," which is a coordinated attempt to institutionalize the logic and calculative practices of global capital markets in low- and middle-income countries on the back of infrastructure projects (Gabor, 2018). The World Bank claims that it needs to create an asset class that appeals to sophisticated institutional investors to attract sizable funds to meet the targets set by the millennium goals. Part of the proposal is to securitize loans of multilateral development banks (MDBs), as specified in a G20 statement:

> The MDBs should collaborate to enable system-wide securitization so as to mobilize institutional investors. Securitizing on a large scale, across the MDB system, will in effect create new asset classes and attract a wider range of investors. Equally important, planning for securitization downstream confers significant benefits upstream in the project cycle, by driving standardized documentation and commercial discipline. (G20, 2018, p. 4)

In the view of the World Bank, this push toward adopting the language, logic, and organizing principles of capital markets is a necessary move, because public funds, donor countries, and multilateral organizations fall short by $2.5 trillion annually of meeting the investments that are required to achieve the millennium goals. The type of investments the World Bank promotes include synthetic securitization, which was explicitly banned in the European Union Capital Markets Union legislation (Fernandez & Aalbers, 2017; Gabor, 2018). The promotion of securitizing development projects is a compelling example of how advanced techniques from highly financialized contexts are channeled to low- and middle-income countries. Infrastructure projects in developing countries are transformed into liquid investment objects. These projects are often managed through public–private partnerships that privatize profits and publicize losses. In the process, risks and costs are passed on to public authorities, whereas decision-making arrangements are essentially outside of democratic control (Griffiths & Romero, 2018).

1.4. The Hierarchy of International Money and Subordinated Financialization

Next to the particular channels that disseminate advanced practices of financialization to low- and middle-income countries, there are underlying structural elements that shape the process of financialization internationally. The embeddedness of low-income countries in uneven global financial and monetary relations creates a position of subordination. This relationship is rooted in historical colonial and imperial relations but also transcends these in several ways. The existing hierarchy of money restricts noncore countries to attract foreign loans denominated in the domestic currency. In his seminal work on the geography of money, Benjamin Cohen (1998) discusses how, from the start of the current phase of globalization in the 1970s, even developed economies faced problems in accessing global capital markets in their own currencies. Although largely ignored in the financialization literature, it could be argued that Cohen—and Susan Strange—discuss what is labeled *subordinate financialization* in contemporary debates.

One of the essential features of U.S. hegemony was the creation of a monetary hierarchy, with the U.S. dollar at the center. For the periphery, this resulted in the inability to emit foreign debt in their respective domestic currencies. Whereas debt on global markets can be denominated in U.S. dollars, Euros, British pounds, Swiss francs, and Japanese yen, it is far more difficult to sell domestic bonds to foreign investors in other currencies. For low-income countries this is simply impossible. GS countries are forced to borrow in a foreign currency, pushing them into subordinated relations. The role of the U.S. dollar in shaping the postwar U.S. hegemonic structure is a central theme in many of the classic studies in international political economy, throughout the 1970s, 1980s, and 1990s (Cohen, 1996, 2017; Helleiner, 1994; Strange, 1971). The linkages of the dollar-based global monetary hierarchy with developments in the periphery were less pronounced in these debates, except for the debt crises in the 1980s and late 1990s (Strange, 1998).

The effect of having a lower ranked position in the global monetary pecking order was discussed by Keynes (1929). In his investigation of the problems Germany faced in its payment of reparations after the World War I, Keynes spoke of a *transfer problem*. It was not sufficient for the German state to raise taxes; it required foreign currency to repay its debts. This remains the central problem that countries toward the lower end of the monetary hierarchy face. First, debt denominated in a foreign currency generates a reliance on liquidity conditions in other countries. This means that foreign economic conditions become dominant factors for the domestic macroeconomic and financial cycle. When there is a slowdown in foreign capital inflows, domestic markets restrain the refinancing of foreign debt, thereby increasing overall risk. Second, and more importantly, there is a currency

mismatch. Unlike debt denominated in domestic currencies, low-income countries need to expand exports to receive payments in foreign currencies that then allow them to pay off their debts.

Since the global financial crisis, a number of heterodox, post-Keynesian and Marxist economists have theorized the notion of subordinated financialization. This literature, developed largely parallel to the international political economy and housing studies literature, has tried to illustrate the broader systemic nature that pushed for a specific type of financialization across the GS (Hudson, 2010; Kaltenbrunner & Painceira, 2018a, 2018b; Karwowski & Stockhammer, 2017; Lapavitsas, 2009b; Powell 2013). A central part of their analysis shows how the interaction of the GS with the GN, under conditions of an uneven monetary system, shaped a process of subordinated financialization. One of the visible effects of the process of subordinated financialization is the observation that since the turn of the century, *net* financial movements have been flowing uphill, from the periphery to the core, and that this flow has accelerated since 2007 (Kaltenbrunner & Painceira, 2018a; Lapavitsas, 2009a). The literature on subordinated financialization points at the transformation that occurred after the debt crises in the late 1990s, resulting in an adjustment "from the accumulation of deficits to the accumulation of reserves," to explain the net transfer of capital from the South to the North (Painceira, 2008, p. 1, 2010, 2012; cf. Pósfai & Nagy, 2017 on the transfer from semiperiphery to core). The accumulation of reserves was partly driven by the experiences of dealing with the International Monetary Fund (IMF) structural adjustment programs and the aspiration to attain sovereignty in the future (Rodrik, 2006). The growing financial flows to the GS were another element that expanded the accumulation of reserves by central banks in the GS.

In the housing studies literature, we find another example of subordinated financialization, namely mortgage loans denominated in foreign currencies in both Southern Europe in the late 20th century (Ave, 1996; Casini, 1995; Villosio, 1995) and East-Central Europe in the early 21st century (Bohle, 2014; Büdenbender & Lagna, 2018; Buszko & Krupa, 2015; Rodik & Žitko, 2015). In both subcontinents and periods, devaluation of domestic currencies vis-à-vis the currency of the loan (Deutsche Mark, Swiss franc or Euro) resulted in increasing mortgage payments, financial stress, and (in some cases) losing one's home. Pósfai and Nagy (2017) and Rodrigues, Santos, and Teles (2016) have theorized these developments in terms of core and (semi)periphery relations, whereas Büdenbender (2017), Soederberg (2014), and again Pósfai and Nagy (2017) have argued that (semi)peripheral countries absorb globally mobile capital from the core and thereby function as a spatial fix: "Subordinate financialization…deepens global economic hierarchies through the one-sided export of financial profits from the semi-periphery to the core and the exposure of the former to the risks and discipline of financial markets" (Büdenbender & Aalbers, 2019, p. 671).

2. Subordinate Financialization Since the Financial Crisis

In the previous section we presented subordindated financialization as the contemporary face of uneven and combined development. In this section that notion will be used to analyze how money flows into the GS. Our argument here could be simplified as follows: Loose monetary policies in the GN took shape in response to the North Atlantic financial crisis, thereby feeding a sharp rise in capital flows into select GS countries, which contributed to the financialization of housing in these countries.

After the financial crisis the composition and size of capital flows to developing countries changed. Cross-border banking deglobalized in response to the crisis, the flight to quality, and need to shrink balance sheets (BIS, 2017b). In this context of a decline in cross-border bank lending, the international bond market replaced bank loans as the main channel of funding toward developing countries (Caldentey, 2017). This shift toward capital market-based finance fits a broader pattern observed by the IMF (2015). Whereas investment funds became ever more dominant players in global capital markets, loose monetary policies in the form of QE in developed economies injected trillions of dollars in the global financial system. The loose postcrisis monetary policies in the GN (the United States, the European Union, and Japan) injected roughly $11 trillion into the global financial system between the collapse of Lehman Brothers in 2008 and 2018 (Yardeni Research 2018). This

monetary response in the GN had a sizable impact on the allocation of capital through bond markets to the GS (Apostolou & Beirne, 2017; Fernandez, Bortz, & Zeolla, 2018).

According to statistics from the Bank for International Settlements (BIS), the stock of international bonds from Latin America and the Caribbean region increased from $297 billion in 2009 to $757 billion in 2017 (BIS, 2017a). In the Asia and Pacific region, the stock of international bonds increased from $253 billion in 2009 to $637 billion in 2017 (BIS, 2017a). Once the period of QE ends, these capital flows may reverse, leaving behind a stock of unpayable debt as we have already witnessed in Turkey. Figure 1 displays the increase in bonds across developed economies, Latin America, and Asia. It clearly shows how, since the financial crisis, the outstanding value of international bonds in developed economies stalled and increased in Latin America. Developments in Asia were mainly pushed by growing Chinese foreign indebtedness. In a report by the World Bank (Lim, Mohapatra, & Stocker, 2014, p. 2) released prior to the European Central Bank's (ECB's) QE program, the following was noted about reinvestments in developing countries:

> Although QE was meant to be an expansionary monetary policy for the U.S. economy, the program had profound implications for developing countries. Faced with near zero-returns in the U.S. and other high-income countries—many of which were implementing unconventional monetary policies of their own—financial capital began to seek alternative sources of yield. Emerging economies, which had enjoyed heady growth rates and stable political-economic environments over the past decade, appeared to be an ideal investment alternative.

The World Bank report, based on data covering 60 developing countries, estimates that the contribution of QE from the United States amounted to at least a 13% increase of cross-border capital flows of a total 62% increase during 2009–2013. Economists at the Asian Development Bank

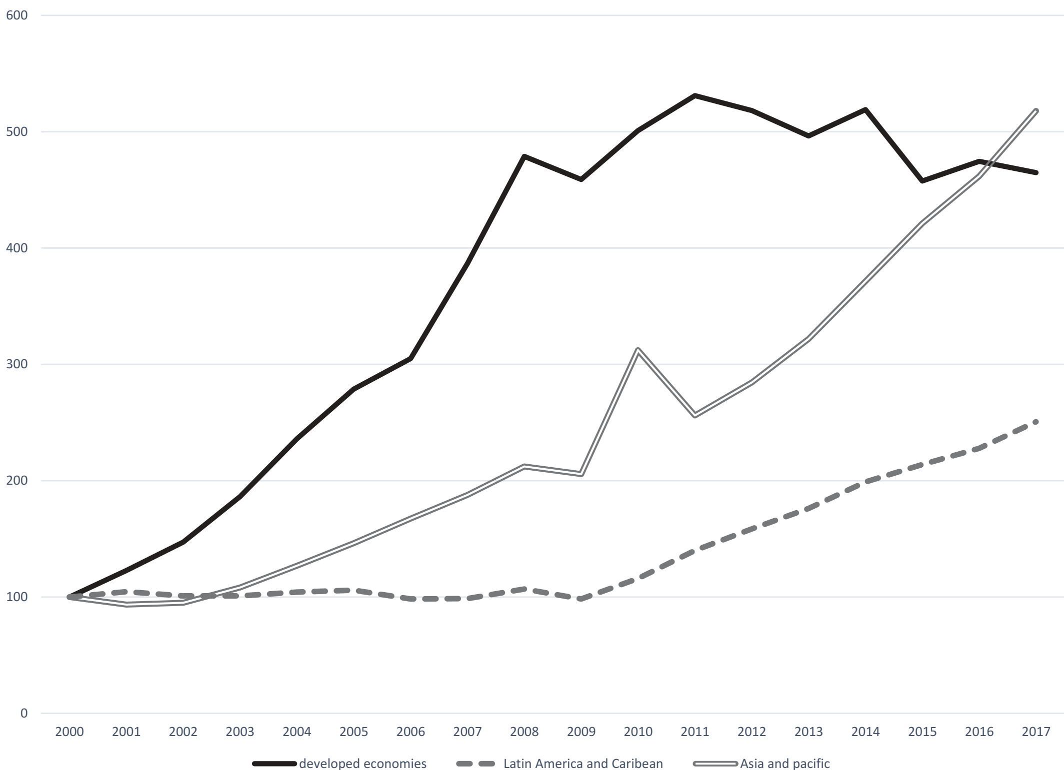

Figure 1. Outstanding stock of international bonds, indexed 2000 = 100.

Source: Authors' calculations based BIS (2017a).

(Morgan, 2011) and the United Nations Economic Commission for Latin America and the Caribbean (Abeles, Caldentey, & Valdecantos, 2018; Caldentey, 2017) have made similar analyses.

Another critical element of the capital flows that emerged since the financial crisis is the rising share of corporate bonds and the decrease in the share of public bonds (Fernandez et al., 2018). This made nonfinancial corporations the main channel of the increasing foreign liquidity into developing countries. Instead of higher levels of fixed capital formation (investment in the real economy) this increase was largely used for speculative purposes (carry trade). In 2000, governments represented 66% of total issuance of international bonds across all GS countries, whereas nonfinancial corporations' debt issuance amounted to only 15% of the total. In 2016 the proportions reversed, with governments representing 13% of borrowing, and nonfinancial firms more than 45% of total bond issuance (Fernandez et al., 2018, p. 35).

Larger financial flows into developing countries resulted in the need for central banks to sterilize (i.e., to take out of circulation) this liquidity (Hudson, 2010; Kaltenbrunner & Painceira, 2018a, 2018b; Lapavitsas, 2009a, 2009b; Rodrik, 2006). Sterilization meant exchanging the incoming foreign liquid assets with domestic bonds to prevent inflation and to stabilize the exchange rate. In return for liquid assets, central banks offered domestic government bonds to domestic banks through repurchase agreements (repo).[3] This monetary exchange in response to the large influx of foreign capital had a twofold effect on the domestic process of financialization of countries outside the core of the global economy.

First, the buildup of reserves, by central banks from developing countries, resulted in the purchase of government bonds from mature economies, particularly the United States (Lapavitsas, 2009b; Rodrik, 2006). The purchase of foreign government bonds and the sale of domestic bonds, with a higher interest in the sterilization process, resulted in the net transfer of funds from GS to GN. This essentially means that the GS has been financing the deficits of the GN, in particular of the United States, by purchasing its sovereign bonds. Dani Rodrik (2006) estimates the costs of these transactions to be in the range of 1% of gross domestic product (GDP) annually for developing countries. This calculation was made before the sharp increase in reserves held by developing countries that commenced after the financial crisis, pushed by QE policies, which implies it is a very conservative estimate and costs are likely to be substantially higher. Figure 2 provides a nominal indication of the rise of the reserves of central banks across a number of GS countries. It shows the geographically variegated impact of capital flows on the buildup of reserves, but also the synchronized rise in reserves since the mid-2000s, and accelerating directly after the financial crisis.

Secondly, the sterilization programs by central banks had important implications for the type of financialization it produced domestically. It created a liquid domestic bond and repo market, providing the essential infrastructure for local and foreign banks and intermediaries to engage in a broader set of financial transactions (Abeles et al., 2018; Kaltenbrunner & Painceira, 2016, 2018a, 2018b). The sterilization program by the Central Bank of Brazil, for example, took shape through repo transactions, which increased in tandem with the growing reserves, from R$58 billion in 2004 to R$858 billion in 2014 (Kaltenbrunner & Painceira, 2016, p. 16). In Brazil, domestic banks and financial intermediaries used the collateral that the central bank provided (bonds) to offer more loans, in particular mortgages to households (Kaltenbrunner & Painceira, 2018a, 2018b). Figure 3 shows a chain of transactions starting with incoming financial flows, particularly after QE policies in the core, resulting in domestic banks receiving government bonds from the central bank in exchange for the foreign liquidity. This chain continues all the way to housing. The bonds that the Central Bank of Brazil exchanged for excess liquidity were used by the banks to extend more mortgages. This shows how capital markets and monetary policies in the core directly created a pathway to extend credit to households in the GS. This process has been well documented in Brazil, where the growth in financial reserves was large, but there is reason to believe that other emerging economies may have responded to these external structural conditions in a similar manner.

This is one of the faces of contemporary, subordinated financialization. In response to the loose monetary policy of developed economies, central banks in developing countries were obliged to do the contrary (diminish circulating liquidity), resulting in substantial losses for these countries. The bonds that were exchanged for liquidity through repo transactions led to the creation of

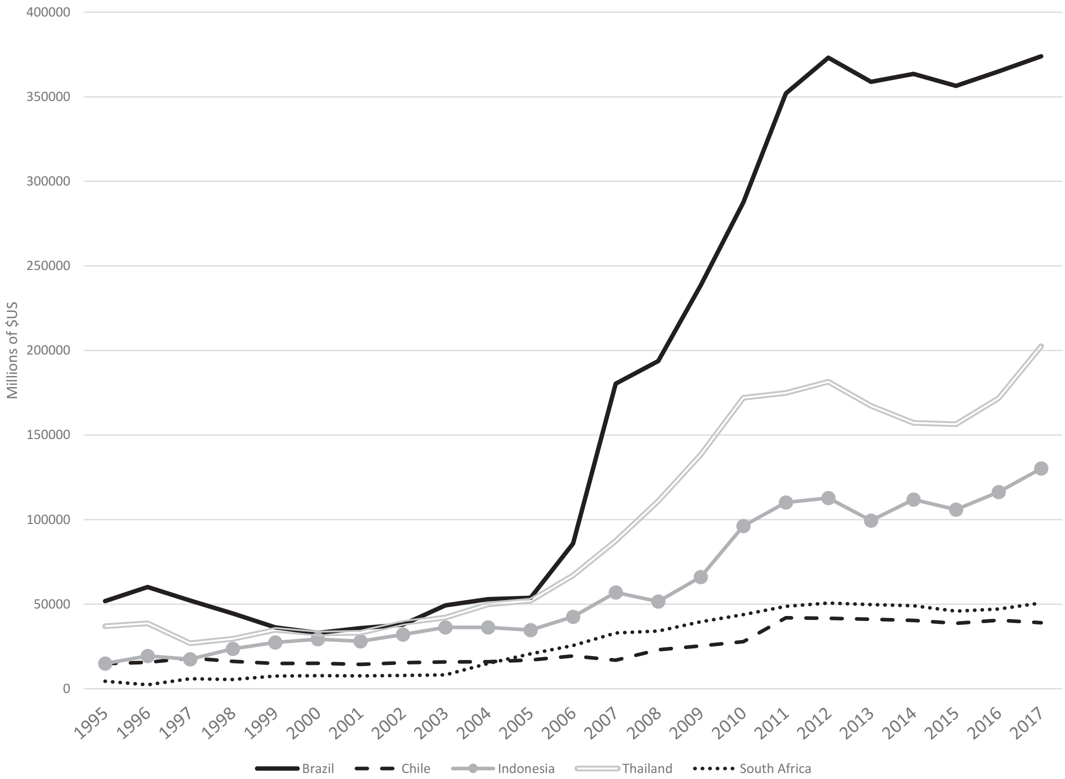

Figure 2. Total reserves of central banks in billions of U.S. dollars.
Source: World Bank financial development database.

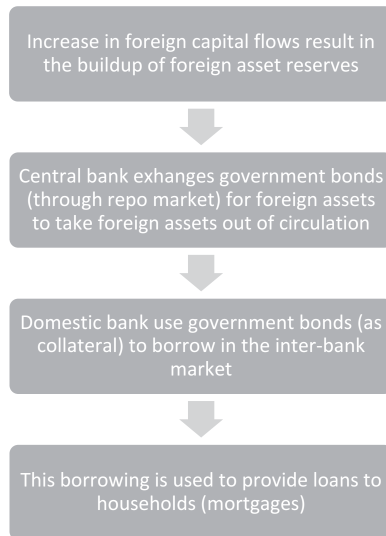

Figure 3. From international capital flows to domestic housing-centered financialization.
Source: Adapted from Kaltenbrunner and Painceira (2016).

a sophisticated financial infrastructure that allowed for the increase in mortgage debt. The structural element is the monetary hierarchy that requires central banks to behave this way in response to the postcrisis monetary landscape shaped by monetary authorities in the core.

In countries like Brazil, this new monetary landscape was complemented by housing policies, through which the state facilitated the financialization of housing. In particular, the *Minha Casa Minha Vida* (MCMV, My House My Life) housing program has become a vehicle of the Brazilian state to roll out housing finance to populations formerly excluded from it (Klink & Denaldi, 2014; Marques & Rodrigues, 2013; Soares, de Carvalho, Ribeiro Filho, & de Almeida Pinto, 2017). The first two phases of the program resulted in 3.9 million units by 2014, with the goal of building 27 million units by the end of 2018 (Governo do Brasil, 2015). Researchers have argued that the program, launched in March 2009, was primarily a subsidy for construction firms to avert the looming economic crisis (Fernandes & Novy, 2010; Fix, 2011; Rolnik, 2015; Sanfelici, 2013). Furthermore, although MCMV has created ownership rights for many households who lacked such rights, it has also sucked a lot of low- and moderate-income people into more mortgage debt than many can afford on (extremely) low incomes and weak —if any—labor protection. It could be argued that this financialization of low-income households is part of the ongoing transformation of the welfare system which has collateralized welfare policies to facilitate new credit relationships (Lavinas, 2019). Arguably, MCMV is the largest homeownership and construction/mortgage subsidy scheme ever launched in the world (Aalbers, 2019).

3. Typologies of Financialization in the GS

In the preceding section we argued that the notion of uneven and combined development can be useful in understanding recent money flows between GN and GS. Subordinated financialization is the contemporary face of uneven and combined development, a process we could also call *uneven and combined financialization*. This may result in the selective financialization of domestic economies in GS countries, including the rise of mortgage lending to specific sections of the population. In this section, we will first analyze changes in private debt data as one possible indicator of housing financialization. In the second part we will revisit the varieties of capitalism model, that we introduced in Subsection 1.1, and argue that it is necessary to expand this model to make sense of the GS. Not only do we need to understand the GS in relation to the GN, we also need to make sense of the variation between GS countries, as we do for differences between GN countries.

3.1. Private Debt Trends in the GS

Existing typologies of residential capitalism (Blackwell & Kohl, 2018; Fernandez & Aalbers, 2016; Schwartz & Seabrooke, 2009) primarily examine variations across developed, high-income economies and do not capture the diversity in modes of financialization in less developed, low- to middle-income countries. A central denominator, nonetheless, of the generic model of residential capitalism in the GS is a combination of relative low mortgage debt, high homeownership rates, and low housing quality, including a large informal sector (Hansen & Vaa, 2004; Payne, 1989: Van der Linden, 1986). Comparative data on private debt levels show considerable differences, indicating that we need to account for variation or variegation across the GS. That is, there is no single GS model of residential capitalism, but rather a range of residential capitalisms. Private debt statistics include credit not only to households but also to nonfinancial corporate sectors. Private debt data are available for a longer period of time and cover more countries than the household debt and mortgage debt data. Therefore, it serves as a best-available proxy for tracking financialization in low- and middle-income countries.

In the past four decades there has been an increase in private debt as a share of GDP across all types of economies, as illustrated in Figure 4. Although overall private debt levels in low-income countries remain significantly lower than those in high-income countries, we see signs of a global common trajectory, moving toward higher debt levels (Thorsten, Demirgüç-Kunt, & Levine, 2009). The growth rate of private debt is related to GDP per capita (Čihák, Demirgüç-Kunt, Feyen, & Levine,

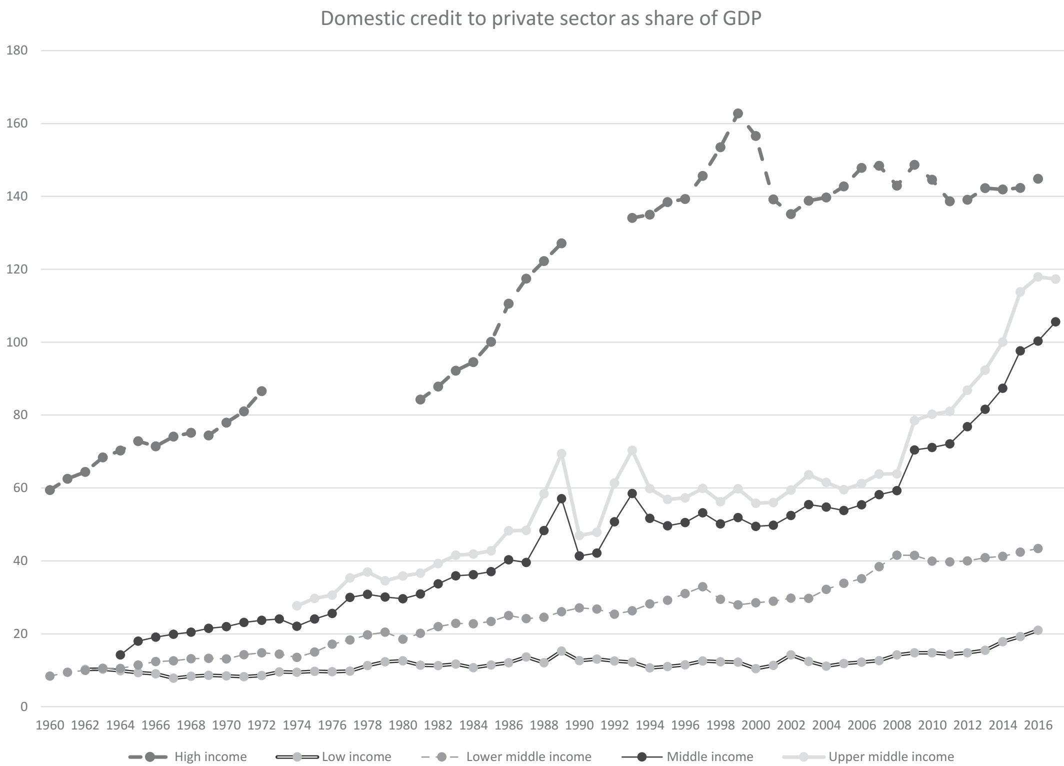

Figure 4. Domestic credit to private sector as share of gross domestic product.
Source: World Bank, Global Financial Development data: http://data.worldbank.org/indicator/FS.AST.PRVT.GD.ZS.

2012). Middle- and high-income countries have experienced a disproportionately larger increase in debt as shares of their respective economies. The result is that the range between top and bottom has increased: whereas private debt levels as shares of GDP in middle-income countries and low-income countries were, respectively, 49% and 10% in 1995, they increased to 106% and 20%, respectively, in 2016. Yet this implies that in two decades debt levels have doubled in both types of countries, notwithstanding the crisis of 2007–2009.

Next to income levels, the World Bank and IMF also have established links with institutional characteristics that support financial development, such as legal characteristics (common law), corruption, and the protection of deposits (Čihák et al., 2012; Thorsten et al., 2009). However, the causal mechanisms between debt levels and institutional variables remain underdeveloped in this literature. The correlations between private debt levels and the broader concept of financial development are strong, but the direction of causality is unclear and measurements of financial development include private debt, so the correlation is spurious. Data show that the development of mature, diversified, and internationally connected financial markets also implies higher debt levels (Čihák et al., 2012; Thorsten, Demirgüç-Kunt, & Levine, 2000). On the one hand, deeper and more diversified capital markets imply more efficient banks, better access to cross-border capital flows, and more diversified cross border financial flows, creating the conditions for an increase in private debt levels. On the other, these structural transformations are triggered and pushed by an increase in the number of transactions and accumulated assets and debt.

The IMF *financial development* indicator, which is based on World Bank data, includes over 20 variables covering the depth of financial markets and institutions and the accessibility and efficiency of finance, such as profitability and lending rates (Svirydzenka, 2016). The depth of financial markets is measured by diverse types of debt, stock market capitalization, total assets of the financial sector,

and different indicators for international indebtedness. Accessibility is measured by indicators of how companies can access credit and what type of collateral is needed. Efficiency is measured through indicators of market concentration as well as bank profitability statistics. This bundle of diverse statistics, covering most countries in the world and spanning several decades, is the most comprehensive comparative measurement available for financial activities.

The financial development index combines all these indicators into a single scale with a range from 0 to 1 (Svirydzenka, 2016). Between 1992 and 2008, countries around the globe experienced an increasing score on this index. Mirroring private-debt-to-GDP portrayed in Figure 4, the financial development index shows that high-income countries experienced a larger increase, followed by middle-income countries. Low-income countries experienced a significantly smaller increase in their score on the financial development index, producing greater variation between countries. Whereas the score on the index was around 0.1 for low-income countries and higher middle-income countries in 1980, and 0.3 for developed economies, the respective scores for these country groups were roughly 0.1, 0.3, and 0.8, respectively, in 2008 (Svirydzenka, 2016, p. 26). Interestingly, selected emerging economies show higher scores on the financial development index compared with some developed economies. In 2008, Malaysia and Brazil, for instance, had higher scores than did Portugal, Greece, and New Zealand (Svirydzenka, 2016, p. 27).

3.2. *Varieties of Capitalism in the GS*

The pattern in the scores on the financial development index, as presented in the previous subsection, reiterates the typology developed by Nölke et al. (2015) that we introduced in Section 1.1. We find that countries that are characterized in this typology as dependent market economies tend to have a lower score relative to countries, in the same income category, that resemble state-led economies. The group of state-led economies, if expanded to include economies such as Turkey, Malaysia, Thailand, Chile, Russia, and South Africa (see Figure 5), portrays higher scores on the financial development index, compared with East-Central European countries such as Bulgaria, Poland, Hungary, the Czech Republic, and Croatia.

This disparity only holds for middle- to high-income countries. Low-income countries all share a low score on the financial development index. India, for instance, with a per capita income of about 20% that of China, has a score on the financial development index of 0.39. Although it is classified as a state-led economy by Nölke et al. (2015), India does not show signs of extraordinary financial development.

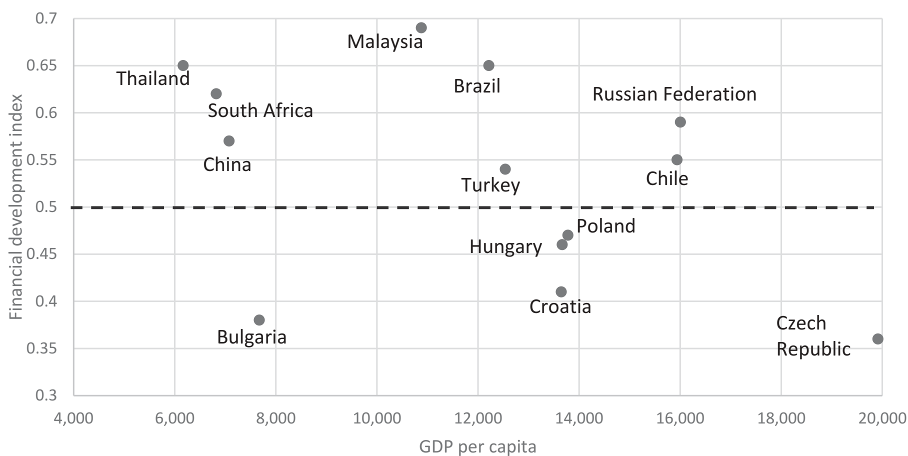

Figure 5. Gross domestic product (GDP) per capita in current U.S. dollars, in 2013; and score on financial development index, 2013.
Source: Authors' calculations based on Svirydzenka (2016, pp. 31–32) and World Bank data.

Furthermore, the distinction is far from being waterproof. There are several exceptions, such as Venezuela and Iran, possibly classified as state-led economies but having low scores on the financial development index. Furthermore, most countries cannot be classified straightforwardly in this simple dichotomy and would require a more detailed analysis. This suggests there may be two (sub)types of state-led economies, one characterized by increasing financial development and one characterized by stable financial development. The latter group combines elements of Nölke, Ten Brink, Claar, and May's (2015) state-led and dependent market economies. An additional type may refer to nonstate-led, low-income dependent economies, which would include low-income countries where the state has not been able to take the lead and financial development remains constrained. Table 1 summarizes the characteristics discussed and provides an overview of the separate institutional models that can be differentiated.

If we move to the field of housing finance, which is part of these broader developments in finance and financial development but typically largely ignored in the literature on financial development, we observe similar patterns. Table 2 displays key housing finance statistics for the countries included in this special issue. Please note that some data (e.g., homeownership rates) are difficult to compare because informal housing makes up a large part of the housing stock in many of these countries and may be included in or excluded from the official homeownership rate. It becomes clear that income levels are essential to understanding levels of mortgage debt. Several housing finance elements move together, such as the lending rate, income levels, and mortgage-debt-to-GDP ratios, essentially reaffirming the multidimensional character of finance. Indeed, for mortgage debt to increase in

Table 1. Typologies of financialization in (semi)peripheral economies.

Institutional model	State-led market economies	Dependent market economies	Less-financialized market economies
Financial development	Medium to high	Low	Extremely low
Private debt levels	Medium	Medium	Extremely low
Position in global hierarchy of money	Medium	Medium	Lowest
Income level	Low to medium	Low to medium	Low

Table 2. Selected housing finance indicators.

	Mortgage debt to GDP	Year	Homeownership rate	Year	Interest rate	Year	Typical LTV ratio	Year	GDP PPP	Year
Argentina	0.35	2016	69	2010	31.32	2016	NA		20,047	2016
Brazil	9.14	2015	68	2015	12.62	2015	60	2015	15,614	2015
Cambodia	5.64	2016	85	2013	NA		65	2016	3,711	2016
Chile	21.39	2015	83	2012	5.51	2015	80	2015	23,459	2015
China	18.37	2015	80	2012	4.35	2015	80	2015	14,107	2015
Ecuador	2.11	2014	72	2006	14.93	2007	70	2015	11,263	2015
Egypt	0.26	2013	37	2011	13.6	2016	70	2007	12,113	2016
India	7.67	2015	87	2011	10.01	2015	80	2016	6,161	2015
Indonesia	2.85	2016	67[a]	2007	11.89	2016	85	2016	11,720	2016
Kenya	3.24	2015	18	2009	16.09	2015	90	2014	3,207	2015
Mexico	9.92	2016	64	2015	3.42	2015	80	2016	17,905	2016
South Africa	18.35	2015	53/62	2014/2012	9.42	2015	NA		13,165	2015
South Korea	31.05	2015	56	2005	3.53	2015	56	2012	36,511	2015
Taiwan	41.13	2016	84	2016	2.61	2016	60	2016	47,811	2016
Turkey	7.80	2016	67[b]	2011	NA		75	2015	20,437	2015
Uruguay	3.96	2015	83	2011	15,84	2015	NA		21,506	2015

Note. GDP = gross domestic product; LTV = loan-to-value; PPP = purchasing power parity.
Source: Housing Finance information network. Country index. http://hofinet.org/countries/index.aspx (Mortgage debt, homeownership rates, Interest, Typical LTV); World Bank Data (GDP PPP).
[a]http://www.hofinet.org/countries/description.aspx?regionID=2&id=76 (urban households only).
[b]Turkish Statistical Institute (2013). http://www.turkstat.gov.tr/PreHaberBultenleri.do?id=15843.

proportion to GDP, efficiency of the banking sector, cross-border connectivity of capital markets, and diversity of financial intermediaries are imperative.

Although loan-to-value restrictions have limited the growth of mortgage lending in some GN countries, we expect that such restrictions would be less effective in many GS countries where growth is already bounded by high interest rates (e.g., 16% in Kenia, 12% in Indonesia, and 10% India). Of course, high and fluctuating interest rates can also stabilize at a lower level, as happened in Southern European countries, largely as a result of their integration in the European Union. Yet high interest rates in domestic currencies may also be a push factor for lenders to offer mortgage loans in foreign currencies, as we have seen in both Southern and East-Central Europe, thereby trading high interest payments for high currency risks. This is a significant risk, in particular in countries where the expansion of finance coexists with the persistence of high interest rates.

The mortgage-debt-to-GDP data, shown in Figure 6, suggest that the relation between income and mortgage ratios becomes stronger above a certain threshold. This is consistent with financial development data, which show that the development of financial activities is not linear but increases disproportionately in high-income economies. These different types of data show that income levels, as well as the type of integration into the global economy, are part of shaping the level of financialization in developing countries. As a result, intra-GS differences, in terms of both debt levels and financial development, have been amplified in the age of financialization, reflecting the problematic nature of focusing on the GS as a single category.

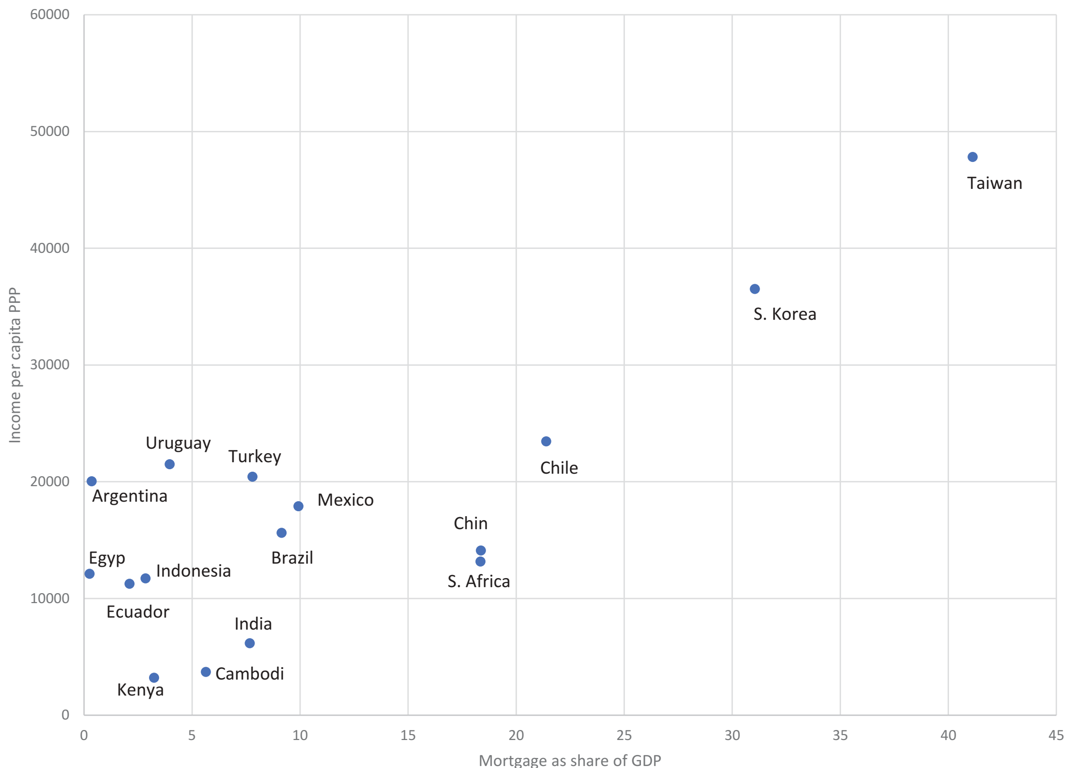

Figure 6. Income per capita purchasing power parity (PPP) and mortgage as share of gross domestic product (GDP).
Source: Housing Finance Information Network, country index (Mortgage as share of GDP); World Bank data (Income per capita ppp).

4. Conclusion: Uneven and Combined Financialization

The financialization of housing in the GS and peripheries of the GN develops in different ways than in the core of the GN because the mechanism underlying and pushing financialization is fundamentally different. To understand the origins and workings of this mechanism, we need to understand the uneven relations between different countries in the world, how they have changed under conditions of financialization, and how liquidity and capital flows from the GN feed financialization in the GS.

In this article we have argued that subordinated financialization is a contemporary form of uneven and combined development. Practices of financialization can coexist in otherwise nonfinancialized institutional contexts, but over time these practices can become launching grounds for a wider financialization of the economy, extending to different sectors, different places, or different classes of people. We find advanced financial practices, for example in the securitization of infrastructure and foreign currency mortgage loans, along otherwise only moderately financialized developments—clear signs of what we could also call uneven and combined financialization.

It is important to understand that this pattern of financialization in the GS is, at least in part, shaped by the financialization processes in the GN. The more general development of the financialization of the economies of many GN countries—not limited to mortgage lending but extending into a range of nonfinancial sectors—has resulted in overaccumulation and crisis. Part of the solution to the North Atlantic financial crisis of 2007–2009 has been the rolling out of loose monetary policies, such as QE, from the United States to the European Union and Japan. Among many other developments, this resulted in growing financial flows to select GS countries. The excess liquidity that was created as a result needed to be managed by the central banks of GS countries, and one typical way to do so was to sterilize this liquidity by exchanging incoming foreign liquid assets with domestic bonds, to prevent inflation and stabilize the exchange rate. The buildup of reserves by the central banks of the GS resulted in the purchase of government bonds from GN countries, thereby financing the deficits of the GN, in particular the United States. But the sterilization programs by GS central banks also created a liquid domestic bond and repo market, thereby providing the essential infrastructure for banks to expand lending activities, in particular mortgage lending (see Figure 3). Essentially, central banks in GS countries that were flooded by foreign liquidity were forced to do the opposite of what the central banks in the core did, namely decrease liquidity. Paradoxically, this intervention created favorable conditions for domestic banks to provide mortgages.

Although we have mobilized the idea of core–periphery relations to make sense of global financial flows in general and the financialization of the housing markets of the GS in particular, our article could also be read as a critique of the traditional core–periphery literature, which primarily revolves around trade and foreign direct investment. Our argument is that contemporary core–periphery relations are also—and perhaps predominantly—shaped by financial flows and debt relations (i.e., subordinated, or uneven and combined, financialization). Housing plays a double role in this process. On the one hand, subordinated financialization takes the form of rapidly developing mortgage markets; on the other, the inflow of capital is aligned with national policies to promote homeownership for the middle and in some cases also working classes. Together, these global and national tendencies result in the growth of mortgage homeownership.

Different countries respond differently to the combined challenges of liquidity flows, money hierarchies, and of course national political and economic realities. To understand the particular national strategies that GS countries take, it is necessary to study these countries both individually and from a comparative-institutional perspective, something that is beyond the scope of our article but that is the focus of the other articles that make up this special issue. With the macrocomparative perspective in our article, we have provided a framework that helps us not only to rethink the relations between GN and GS in shaping distinct patterns of uneven and combined financialization, but also to rethink the varieties of capitalism and residential capitalism approaches.

The original varieties of capitalism typology focused on a dichotomy of developed economies: liberal market economies and coordinated market economies. A third type, dependent market

economies, was added to make sense of the subordinated integration of East-Central Europe into the larger European economy (Nölke and Vliegenthart, 2009). More recently, a fourth type, state-led market economies, was added for large GS economies that, contrary to dependent market economies, are not dominated by foreign multinational corporations but characterized by a national elite that exercises power through an authoritative state–market nexus (Nölke et al., 2015). Our analysis of financial data shows that these state-led market economies—which from our perspective include not only large but also mid-sized GS economies—have a higher level of economic development than do the dependent market economies of East-Central Europe.

Our analysis also suggests that we need at least a fifth type to account for other GS countries in which financial development in general, and the growth of mortgage debt in particular, have been more moderate. It could be hypothesized that this fifth group would include countries that are not, or less, favored as places to recycle the liquidity produced in the GN. In other words, what distinguishes these countries from state-led market economies is an even lower position in the global hierarchy of money. This fifth type is not necessarily nonstate-led, and we also cannot conclude that they are less (or more) dependent than the countries of East-Central Europe. In fact, this group may be too diverse to consider it a single type and give it one label. Future research on the countries will need to establish whether they can be captured as a distinct group. For now, we dub them *less-financialized market economies*. Indeed, we do not label the fifth type nonfinancialized. Although financial development remains constrained, debt levels still doubled between 1995 and 2016, suggesting financialization has not been averted but is taking place in limited sectors, places, and classes, underlining our argument about uneven and combined financialization.

In this article we have presented a first step in a systematic and comparative analysis of the dynamics of financialization in GS countries. Housing is part of these finance-dominated processes, as object, collateral, and sociopolitical domain. To understand the financialization of housing, we believe that we need to understand the broader context in which it is embedded. A lot of work remains to be done, not only to understand the different types of (residential) capitalism, but also to understand the national politics that to a large extent coshape patterns of uneven and combined financialization. Furthermore, our analysis has primarily focused on mortgage finance; future research would also need to present a systematic and comparative analysis of mortgage securitization, residential REITs, and other forms of housing financialization. Such studies could build on our conclusion that the type of integration of the periphery in hierarchical global monetary structures is the key mechanism shaping the process of subordinated financialization.

Notes

1. Not all accepted abstracts materialized as articles, which explains why we have included more countries than are covered in the other articles in this special issue.
2. This type shares some characteristics with the hierarchical market economies, a type developed by Schneider (2013) for Latin America, but with less emphasis on the role of the state.
3. A repo involves the sale of a security with an agreement to repurchase the same security back at a higher price at a later date. Repo transactions have become the main funding channel for banks in developed economies in the age of financialized capitalism.

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