

WORKING PAPER 2306

The changing financial practises of Brazilian and Turkish firms under financial subordination, a mixed-methods analysis

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May 2023



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Abstract

This article investigates the changing financial behavior of non-financial corporations (NFCs) in emerging markets (EMs) with a particular focus on Brazil and Turkey. Studies analysing new financial operations of EM NFCs have been cursory and few in number, focusing either on aggregate balance sheet analysis or single case study countries. Additionally, these studies have paid little attention to what underlying motives are and how structural pressures facing the EM NFCs mediate financial behaviours of NFCs. This lacuna is significant as specific manifestations of NFCs changing interaction with financial markets are highly variegated and shaped by the hierarchic world economy. Undertaking a comparative analysis of financial behaviours of NFCs in Brazil and Turkey based on balance sheet analysis and semi structured interviews, this paper shows how EM firms behaviour differs from that of their developed counterpart due their subordinate integration into the world economy. It departs from explanations focusing on carry-trading in order to account for high levels of debt and liquid resources. On the contrary, this article argues that firm financial behaviour in EMs takes a dualistic and heterogenous nature manifested in the type of firm engaged with financial markets and its sectoral belonging. The paper also shows not only the crucial but also the contradictory role state play in mediating the behaviours of EMs firms.

Acknowledgements: The authors are very grateful to Cristiano Duarte, Firat Demir, Luiza Betina Petroll Rodrigues, Rodrigo Fernandez, Ronen Palan, Sophie van Huellen and also the participants of the 31st EAEPE conference in 2019, 33th Annual Meeting of SASE in 2021 and the Historical Materialism Conference in 2022. All errors remain our own.

1. Introduction

A by now extensive literature discusses the increasing financial operations of non-financial corporations (NFCs) in developed economies, including: the holding of financial assets; increased financial payments in the form of dividends, interest rates, or shareholder buybacks; and, more arguably, the generation of financial income (Davis, 2016; Fiebiger, 2016; Rabinovich, 2019). So far, we know much less about the financial operations of NFCs in emerging markets (EMs). Recent empirical evidence shows that firms from EMs have also increased their holdings of short-term financial assets, though largely in the form of very liquid assets (Bruno & Shin, 2017; Rabinovich & Pérez Artica, 2022). At the same time, the literature has pointed to the surging debt levels of several EM NFCs, both onshore, in the domestic financial market, and offshore, in international financial centres (Avdjiev et al., 2020; McCauley et al., 2015). In principle, this behaviour seems paradoxical. Why should firms accrue large levels of debt if they hold the liquid resources to invest?

The existing mainstream/corporate governance explanations have largely focused on the microeconomic motives – precautionary and investment - of (US) firms to account for the concomitant increase in liquid assets and debt. According to these approaches, firms are prone to accumulate cash and equivalents out of current cash flows to meet future investment opportunities and/or debt repayments, especially when they are financially constrained and/or financing costs are expected to rise (Acharya et al., 2007; Almeida et al., 2004; Denis & Sibilkov, 2010; Opler et al., 1999; Shin, 2014). Another explanation that has been put forward, particularly for large US firms with foreign subsidiaries and profits accruing outside their jurisdiction, are tax motives. In these cases, where firms want to avoid paying repatriation tax, issuing debt becomes an alternative way of paying back to their shareholders (Farre-Mensa et al., 2021; Pinkowitz et al., 2015).

Whereas these explanations largely focus on US firms (or are indistinct to the geographical location of those firms), the most prominent hypothesis put forward about recent EM firm behaviour – particularly by authors in or related to the Bank for International Settlements - is that of carry trade operations. Here, EM firms are seen to borrow cheaply on international financial markets -facilitated by recent quantitative easing policies (Shin, 2014)-, and intermediate those funds into domestic (financial) markets to take advantage of profitable investment opportunities; either in the form of very liquid financial investments (Bruno & Shin, 2017; Caballero et al., 2016), or as trade credit to domestic firms effectively acting as financial intermediaries (Hardy & Saffie, 2019; Shin & Zhao, 2013).

This paper contributes to this debate/literature with a detailed comparative, mixed-method case-study analysis and conceptualisation of the changing financial relations and practices of NFCs in two key EMs: Brazil and Turkey. These countries are two of the largest EMs, with significant domestic financial markets and increasing levels of integration into the global economy. They also host world-leading companies competing in several countries (Khanna & Palepu, 2006) with potentially explosive external debt levels (IMF, 2015). In contrast to existing studies, which are largely based on quantitative estimations, we combine detailed aggregate and firm-level data analyses with extensive semi-structured interviews with company representatives and financial sector experts to provide a comprehensive mapping and explanation of the financial operations of NFCs in EMs. The semi-structured interviews provide important insights into the motives,

expectations, and potential contradictions in firm decision making, which cannot be fully captured with secondary quantitative data. Conceptually, rather than focusing on the microeconomic motives of a representative firm, we provide a macro-structural account of firm behaviour in financialised capitalism which foregrounds the uneven and hierarchic structures of the global economy – both in trade and production – which fundamentally shapes firm decision making in those economies.

We show that rather than paradoxical, the “wasteful” combination of holding very liquid and lower yielding assets (at times denominated in foreign currency) and issuing higher yielding debt (to a large extent denominated in foreign currency), is a normal outcome of the subordinate integration of EM firms into the global economy. Since the crises of 1999 and 2001, Brazilian and Turkish firms have been accumulating substantial amounts of low yielding cash, whilst increasing their borrowing in foreign currency. In contrast to what would be predicted by the carry trade hypothesis, our results show that rather than making financial profits, Brazilian and Turkish firms have incurred substantial financial losses over the period under observation,¹ as payments on their liabilities exceeded the returns on their financial assets. Cash holdings, rather than speculative, have been largely precautionary to protect against macroeconomic volatility and global shocks. The dynamics of international borrowing, on the other hand, has been driven predominantly by conditions on international financial markets, as loose monetary conditions allowed – some – EM firms to access international financial markets. We also observe some variation: whereas Brazilian firms borrowed offshore, Turkish firms did so from (foreign banks) onshore.

By highlighting the distinct nature of firm behaviour in Brazil and Turkey and its relation to the global structures of production and finance, our paper contributes to the growing literature on subordinate financialisation and international financial subordination (Alami et al., 2022; Bonizzi et al., 2022; Kaltenbrunner & Paineira, 2018; Musthaq, 2021; Pataccini, 2022; Powell, 2013). These literatures analyse the particular way the systemic and structural subordination of EMs in the global economy conditions the behaviour and autonomy of economic actors. More specifically, this paper makes three contributions to that literature. First, whereas the literature on subordinate financialisation is relatively strong on conceptual macro-structural accounts and identifying the constraints on macroeconomic policy making, there is still relatively little work on how international financial subordination shapes the day-to-day operations of private economic agents in those economies (Alami et al. 2022). In particular, there is surprisingly little work which analyses firm behaviour from that perspective (exceptions are Andreoni et al., 2023; Itaman & Wolf, 2022; Kaltenbrunner, 2017; Powell, 2013). More generally, there is a lack of systematic analysis of the liability side in corporate financialisation (Klinge et al., 2021). Our detailed empirical analysis of firm behaviour in two key EMs contributes to filling that gap.

Second, our results show the dualistic and heterogenous nature of firm financialisation in EMs. Previous research has highlighted that exporters tend to be more indebted in foreign currency than non-exporters (Bacchetta et al., 2023, p. 13). It has also recognised that the ability to conduct financial operations is often limited to large firms belonging to sectors such as oil, utilities and telecom (Bruno & Shin, 2017, pp. 721–723). However, these findings have been

¹ As discussed in more detail in the text, this is in contrast to the evidence for the presence of financial gains in the 1990s -a period outside the scope of our paper- especially from investing in short term investment in Turkey (Akkemik Özen 2014; Demir 2009b).

typically interpreted from a limited sectorial perspective. We argue that this sectoral distribution is a manifestation of structural conditions that underpin EMs' subordinate integration into the world economy. Given EMs' structural balance of payments constraint and subordinate integration into international money and product markets, only firms with secure access to foreign exchange – either through exports or active internationalisation – have the collateral to interact with global – dollar dominated – financial markets. In Brazil these are largely located in traditional comparative advantage sectors with relatively secure access to foreign exchange.

Third, our results confirm the crucial – yet at times contradictory - role of the state in mediating and shaping financialisation in EMs (Alami, 2019; Bedirhanoglu, 2020; Gungen, 2019; Marois, 2012). Our findings show that where foreign exchange generating activities in the private sector are not given, as it is the case for Turkey, the state assumes a crucial role in enabling firms' engagement with global financial markets. In Turkey this has been particularly the case in the infrastructure and construction sector. However, we also observe some contradictions in those state interventions, which are arguably the outcome of these economies' subordinate integration into the global economy. Dependent on transnational finance, the Turkish state has at times facilitated the excessive (foreign exchange) borrowing of its large corporates. Yet, at other times – in particular during moments of financial crisis when the risks and constraints imposed on its autonomy grew too large - it had to actively restrain that borrowing by changing legislations and/or operate through public banks.

Finally, on a more general level, our results confirm the observation in the literature that financialisation both reflects and cements existing dualistic and dependent accumulation regimes in EMs. Indeed, it is mainly national champions or large economically important groups that can access (global) financial markets either through access to foreign exchange or state support. The risks of these processes of subordinate financialisation, however, are borne by the country/society as a whole, either through macroeconomic instability or the direct socialisation of private losses.

We develop these arguments in 5 sections. Section 2 reviews the relevant literature and explains our contribution. Section 3 describes the methodology and data. Section 4 presents stylised facts of asset and liability structure in Brazil and Turkey using detailed data analyses, whilst section 5 draws on further quantitative data and semi-structured interviews to present a macro-structural account of firm behaviour in both countries. Section 6 focuses on the heterogeneous financialisation patterns and the mediating role of the State for Brazilian and Turkish firms, while Section 7 concludes.

2. The financialisation of Non-Financial Corporations

The changing financial operations and practices of NFCs in advanced economies have received considerable attention in the literature. These changes, often analysed under the umbrella of financialisation, can be documented in the balance sheets and income flows of the firm (Davis, 2016; Fiebiger, 2016; Klinge et al., 2021; Krippner, 2005; Orhangazi, 2008; Rabinovich, 2019). On the asset side, financialisation comprises a rise in financial assets relative to total assets. These financial assets mostly include cash and very liquid assets, financial investments, accounts receivables (trade credit), and other investments. On the liability side, the literature has observed a general increase in debt/equity ratios and a rise of securities issued on markets rather than bank

credit. Finally, in terms of financial flows, authors have pointed to the rising payments to financial markets, in the form of interest rates, dividends, and share buy-backs and, more controversially, a rise in the income and profits generated from financial operations rather than underlying real operations (for a critical discussion of the relevance of financial profitability in the nonfinancial sector see Fiebiger, 2016; Rabinovich, 2019). These financial operations, the literature shows, can affect the underlying operations of firms negatively either through offering more attractive investment opportunities (the crowding out hypothesis), increasing payments to financial markets, and/or changing the incentive structure of managers (the shareholder value story) (Davis, 2016). According to the financialisation literature, these financial operations of firms arose as a result of both of changes in the productive sector (Crotty, 2005; Krippner, 2005; Lapavistas & Powell, 2013), and in institutional governance and financial market policies that shifted power in favour of shareholders (Lazonick & O'Sullivan, 2000; Orhangazi, 2008; Rabinovich, 2019; Stockhammer, 2004).

There is significantly less work on the financialisation of NFCs in EMs. Some studies point to the increased holding of financial assets of those companies too (Araújo et al., 2012; Demir, 2007, 2009; Demiröz & Erdem, 2019; Levy-Orlik, 2012; Powell, 2013; Seo et al., 2016). In particular, there is evidence that EM NFCs have substantially increased their holding of cash and very liquid short-term financial assets (Correa et al., 2012; Kalinowski & Cho, 2009; Powell, 2013). At the same time, there is widespread empirical evidence - and policy concerns - that (large) corporations from EMs have borrowed extensively on international financial markets predominantly in foreign currency (Duarte, 2019). Since the Global Financial Crisis, the total debt of NFCs in EMs has grown faster than that of other non-financial borrowers such as governments and households. In absolute terms, the numbers are significant as well: at the end of 2019, NFCs resident in some of the biggest EMs had outstanding debt of \$28.6 trillion, up from \$10.5 trillion at end of 2009 (Avdjiev et al., 2020).

In principle, the concurrent increase in relatively low yielding financial assets/cash, and debt seems paradoxical. Why should EM firms borrow heavily – often at the expense of substantial foreign exchange and international market risk - if they hold the liquid, monetary resources to invest? Two main explanations have been put forward in the context of EMs. The traditional corporate governance literature has pointed to precautionary and investment reasons. According to these explanations, firms will typically hold cash to hedge against macroeconomic risks and uncertainty (Akkemik and Özen, 2014), especially when those firms face risky cash-flows and poor access to capital markets (Acharya et al., 2007; Almeida et al., 2004; Opler et al., 1999; Song & Lee, 2012). Firms will also hold more cash when facing promising investing opportunities, be that expanding their productive capacities via capital expenditures or buying existing firms through acquisitions.

Another explanation, made particularly prominent by authors related to or from the Bank for International Settlements, is that EM firms engage in speculative carry trade operations. In this explanation, EM firms are thought to borrow on international financial markets at lower interest rates to invest those funds in highly liquid assets (cash) in the domestic economy at higher interest rates (Acharya & Vij, 2020; Bruno & Shin, 2017; Shin & Zhao, 2013), or lend it to related partners (Hardy & Saffie, 2019). NFCs have comparative advantages in bypassing capital controls compared to financial institutions mainly through intracompany loans (Avdjiev et al.,

2014; McCauley et al., 2013). From the point of view of EM firms, bond issuance has come at better terms (lower yields, longer maturities) - especially in the wake of quantitative easing.

The two explanations above, however, might be observationally very similar and hard to disentangle using only quantitative data. Different studies have found that higher spreads increase cash holdings when firms issue hard currency bonds which is consistent with both speculative and precautionary motives (Bruno & Shin, 2017; Chui et al., 2014; De Gregorio et al., 2017). Moreover, those two explanations largely focus on the microeconomic motives of firms, rather than considering the macro-structural context EM firms are operating in. Indeed, as highlighted by the literature on subordinate financialisation, EM actors do not operate on a level playing field, but see their operations fundamentally shaped by, constrained, and at times enabled by the asymmetric structure of the international monetary, financial, and productive system (Alami et al., 2022; Bonizzi et al., 2022; Gabor, 2021). For example, EMs' international monetary subordination might mean that agents from those economies find it difficult to issue debt in their own currency, have to offer higher yields to do so, or are subject to more acute selling pressures when international market conditions change. These tendencies are exacerbated by their relatively weaker and dualistic production structures, which make them more vulnerable to changes in international prices.

So far though, the literature on subordinate financialization has largely focused on the macroeconomic level, including phenomena such as excess financial volatility and external vulnerability, persistent interest rate differentials, reserve accumulation, and constraints on macroeconomic policy making. As highlighted by Alami et al. (2022), we still know relatively little how these subordinate monetary, financial, and indeed productive structures shape the distinct operations of different EM actors, both across different EM regions and countries, but also in their variation between them. Exceptions to this lacuna are Powell (2013), Kaltenbrunner (2017), and more recently Andreoni et al. (2023), who discuss the important role of monetary subordination to explain carry trade operations, and the structural finance and balance sheet constraint of Mexican, Brazilian and South African firms respectively. We build on this emerging literature to present a systematic, comparative analysis and theorization of EM firm behaviour in Brazil and Turkey. Yet, we innovate vis-à-vis those studies by following a mixed-methods methodology that combines different sources of quantitative data with interviews that allow us to make two analytical contributions to the literature on subordinate financialisation.

First, we argue that one characteristic of subordinate financialisation is its dualistic and heterogenous nature, shaped by EMs' structural balance of payments constraint. In particular, we show that firms' ability to operate in (international) financial markets is fundamentally shaped by their ability to generate foreign exchange, in particular US Dollar. This is especially obvious in the case for Brazil where financialisation phenomena are largely concentrated in national champions located in traditional comparative advantage sectors with access to foreign exchange. Thus, conceptually, our analysis complements studies of subordinate financialisation with that of Latin American structuralism and dependency theory, which have highlighted the structural heterogeneity and dualistic nature of economic structure in the region (Bielschowsky, 2009; Marini, 1973; Prebisch, 1949). Peripheral countries tend to be competitive only in goods and services which are at the lower end of the technology ladder, those in natural resources or cheap labor (Reinert, 1995). While previous studies have looked at the relation between financialisation

and the economic structure, they have mostly focused on the expansion of finance (Bresser-Pereira et al., 2020; Déniz & Marshall, 2018; Finello Corrêa & Feijo, 2022; Levy-Orlik, 2022). Our paper not only studies closely the nonfinancial sector, but also continues a tradition that highlights how some specific local actors gain from the global power structure that subordinate financialisation expresses (Bambirra, 1978; Reis & de Oliveira, 2021).

Second, we show the crucial, but also contradictory, role of EM states in enabling, mediating, and shaping financialisation patterns of NFCs in Brazil and Turkey. A growing literature has focused on the role of the state within the context of financialized capitalism (Alami, 2019; Bedirhanoglu, 2020; Güngen, 2019; Marois, 2012). Adopting a historical materialist approach, this body of research has shown how forces emanating from the world market have helped to restructure the state in a manner subservient to the interests of finance capital. This restructuring has been realized through various ways including the reconfiguration of the regulatory and supervisory framework for financial activities (Lapavitsas, 2013), the creation of sovereign debt markets (Painceira, 2021), the assetization of public properties (Adisson & Halbert, 2022), the formulation of new fiscal and monetary policy frameworks (Karwowski & Centurion-Vicencio, 2018), and the socialisation of private risks (Marois, 2012). A distinct feature of these studies is their definition of the state as a social entity (in direct opposition to conceptions of a “neutral state”), that is circumscribed by the contradiction which emerge from the global character of capital accumulation, and the national form of the state (Clarke, 1988). These contradictions are particularly manifest in financially subordinate EM, where the structural dependence on transnational finance and continuous efforts to attract and ensure a steady flow of foreign capital create tension between the legitimacy of policy makers to the needs of transnational capital, and to poorer segments of society (Soederberg, 2004). As a result, inconsistent and controversial state interventions are rule rather than the exception, and – we would argue – a distinct manifestation of subordinate financialisation (see, for instance, Alami, 2019 for Brazil; and Apaydin & Çoban, 2022 for Turkey).

While gaining valuable insights from this literature, we know little about the role of the state in enabling, shaping and mediating the financialization of NFCs. Here we intend to close this gap by examining the state’s active and contradictory involvement in financial markets and the direct impact of such actions on corporate activity, in particular regulations related to NFCs financial behavior.

3. Methodology and Data

We contribute methodologically in comparison with previous studies on financialisation, which have either used micro (Auvray & Rabinovich, 2019; Davis, 2016; Demir, 2009; Hecht, 2014; Orhangazi, 2008; Tori & Onaran, 2018) or macro (Karwowski & Stockhammer, 2017; Kohler et al., 2019; Onaran et al., 2011; Stockhammer, 2004) quantitative data. In our case, we take one step further and conduct an extensive mixed-method study of firm behaviour in two case study countries, Brazil and Turkey.

Regarding our quantitative analysis, we use all active and inactive, publicly listed firm-level data from NFCs incorporated in Brazil (1998-2018) and Turkey (1996-2018), excluding financial

firms identified by the primary SIC codes from 6000 to 6799 and firms without sectoral information from Compustat Global. We make sure that all information is expressed in the same currency, converting it otherwise; and further filter the remaining list of firms checking that firms belong to the correct sectors. This data is then aggregated nationally. We complement and reinforce our findings with aggregate data about NFCs' income structure. For Brazil, these come from the *Pesquisa Industrial Annual* (although it is limited to the primary and manufacturing sector); for Turkey, the data is provided by the Central Bank.

From these three sources of quantitative data, we take different sub-categories of financial assets and liabilities in local and foreign currency according to their availability, including cash, short-term investments, and deposits for the assets, and short-term and long-term loans and bonds for the liabilities. We complement the bond data with aggregate information from the Bank of International Settlements and firm-level data from Thomson Eikon. Finally, in terms of quantitative data, we evaluate financial profitability by different variables such as interest and foreign exchange income and expenses. The full description of all these variables is available in Appendix A.

We complement this quantitative analysis with extensive semi-structured interviews in Brazil, Turkey, and the UK with representatives from non-financial corporations, financial institutions, and experts involved in offshore financing activities in Brazil and Turkey (e.g. business representatives of offshore subsidiaries of Brazilian and Turkish NFCs, etc.). Please see Appendix B for details. In total we conducted 25 interviews; nine in Brazil, twelve in Turkey and four in London. Whereas interviews in Brazil and Turkey focused on the determinants of observed balance sheet operations of firms, interviews in London were mainly targeted at gaining insights into the supply side of the financing, including conditions NFCs face in international financial markets. We mainly targeted listed firms (to complement our quantitative data) and purposively sampled firms across different sectors. London was chosen because of its key role as financial centre and location of offshore financing for EM non-financial corporations. The interviews took place between 2012 and 2019 and were mostly conducted in person. All interviews were transcribed, translated and coded, and subject to ethical approval.

4. The evolving asset and liability structure of Brazilian and Turkish firms

Figure 1 presents the financial asset structure in both countries. Panel A plots the evolution of cash and short-term investments and receivables of listed firms in Brazil and Turkey. We consider these two assets as they only contain clear financial assets. Other categories like “other current assets”, “other assets” and “investment and advances” include both financial and nonfinancial assets.²

In the case of Brazil, two phases can be identified: first a positive trend of cash and short-term investments until the global financial crisis, followed by stagnation or even a decline after that.

² For instance, ‘other assets’ include both long-term financial investments but also long-term inventory. In the case of ‘investments and advances’ it comprises investments in other firms’ equity but it is not possible to distinguish whether the purpose of that investment is related to the real operations of the firm or merely financial. For a discussion of these categories see Davis (2016, 2018), Orhangazi (2008) and Rabinovich (2019), among others. See also Appendix A.

Despite the more recent decline, cash and short-term investments remained at around 10% of total assets, higher than the 6% at which it started. In the case of Turkey, the data shows more fluctuations, switching from declining periods (1996-2002) to increasing (2002-2010) and back to decreasing (2010-2018). On average, however, the trend of for Turkish firms is stable around 13%. Finally, for both countries, receivables – that is trade credit to clients – has been decreasing.

While Compustat does not allow to further distinguish between cash and short-term investments, nor the currency in which those assets are held, the Turkish Central Bank disaggregates them. Here we observe a shift from marketable securities (mainly interest-bearing government bonds) to more liquid alternatives, mostly bank deposits, at the time of the 2001 financial crisis (Panel B).³ Additionally, Panel C illustrates the increasing prominence of domestic deposits held in foreign currency in the total structure of foreign-denominated asset holdings.

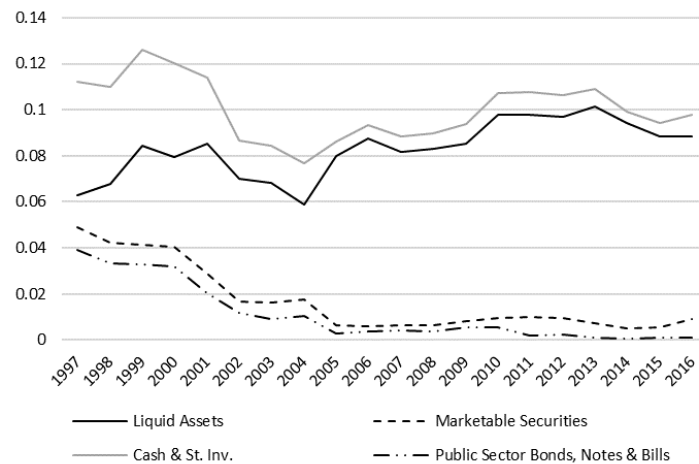
Figure 1. Financial assets

Panel A. Financial asset holdings of Brazilian and Turkish nonfinancial listed firms as percentage of total assets. Source: Compustat



³ Turkish data from Compustat and the Central Bank for cash and short-term investments show some similarities and differences. The former includes a growth in the 2000s and a decrease after the global financial crisis (albeit with different rates). Important differences, on the other hand, concern the levels: they are higher using Compustat but the peak of the series is verified at the beginning with Central Bank data

Panel B. Liquid financial assets and marketable securities held by Turkish nonfinancial firms as percentage of total assets. Source: Turkish Central Bank



Panel C. Foreign-denominated assets holding by Turkish nonfinancial firms, million USD. Source: Turkish Central Bank

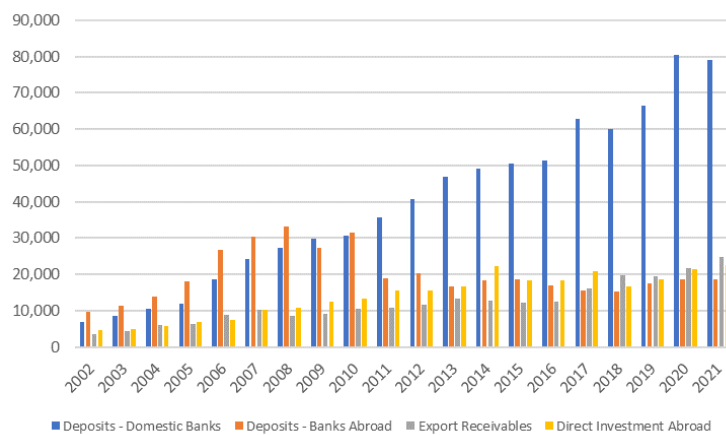
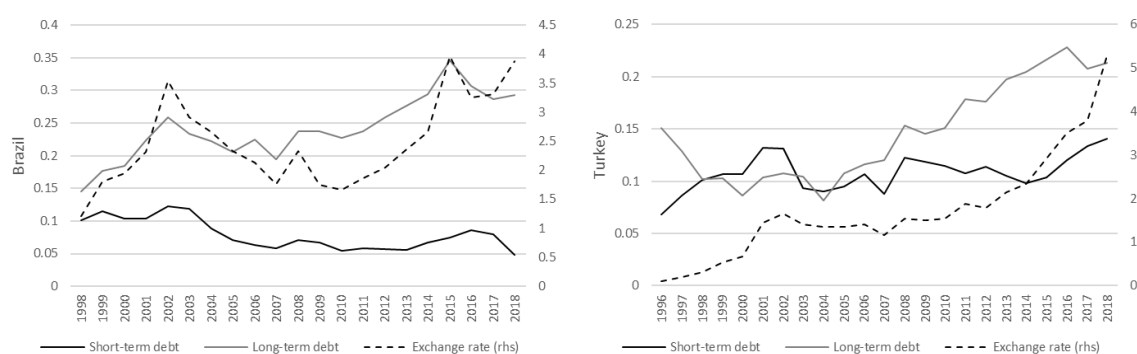


Figure 2 focuses on the liability side of NFC's balance sheets, in particular debt dynamics. In line with the results of previous studies (Bastos et al, 2015; IMF, 2015; Mc Cauley, 2015), our data show that in both countries long-term debt has nearly doubled as a proportion of total assets, although at a higher level in Brazil (Panel A). Although Compustat does not provide data on currency denomination, Panel A shows that in both countries the long-term debt level increases after currency depreciation, evidencing the potentially high share of foreign currency debt. Using other sources of data confirms this trend. Absolute values on bond issuances from the Bank of International Settlements in Panel B (for Brazil) and data from the Central Bank in Panel C (for Turkey) show how foreign-denominated liabilities started growing in the 2000s but accelerated sharply after the global financial crisis. This general upward movement of foreign currency debt throughout the decade should not underestimate the role of locally denominated liabilities though. Panel B in Brazil shows in fact a faster increase of locally-denominated bonds until 2014. Panel D for Turkey also portrays an increase in locally-denominated debt in the overall liability structure up to the global financial crisis and its aftermath.

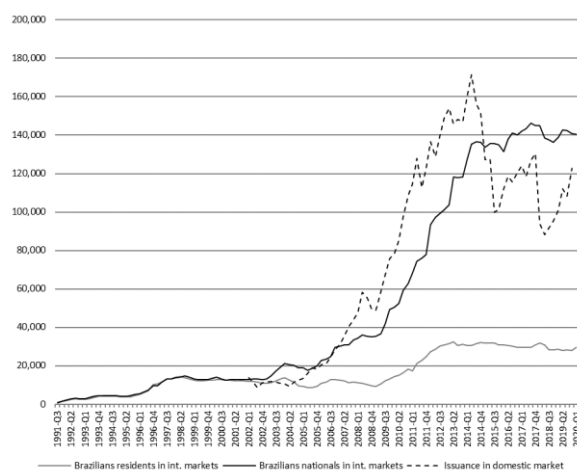
The second dimension of firms' liabilities highlighted in the financialisation literature is the distinction between bank and market-based finance. While in both countries bank credit remains the most important source of finance, bond issuance expanded significantly in Brazil (Panels B and E). In the case of Turkey, according to the information from the Central Bank, issued bonds represent less than 1% of total liabilities. For historical reasons, Turkish firms still rely almost exclusively on the banking sector when looking for external sources of funding (Güngen, 2019). In this country, when opportunities of making profit from financing the public deficit declined in the post-2001 crisis, banks increasingly turned to the private sector, including both NFCs and households (Karaçimen, 2014). Importantly, as can be seen in Panel D - although declining - a substantial share of this bank borrowing has also been in foreign currency. This channel was legally closed for Brazilian firms until 2022.⁴ Instead, Brazilian firms have turned to offshore markets for their foreign leveraging (Panel B), often through the opening of offshore financial subsidiaries to gain cheaper foreign currency financing (McCauley et al., 2013).

Figure 2. Financial liabilities

Panel A. Exchange rate and long-term and short-term debt of Brazilian and Turkish nonfinancial listed firms as percentage of total assets. Source: Compustat and Bank of International Settlements

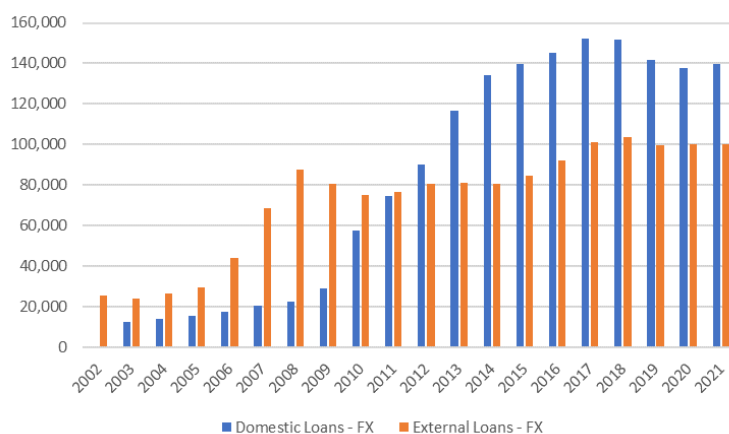


Panel B. Bond issuance in domestic market, Brazilian nationals in international markets and Brazilian residents in international markets, million USD. Source: Bank of International Settlements

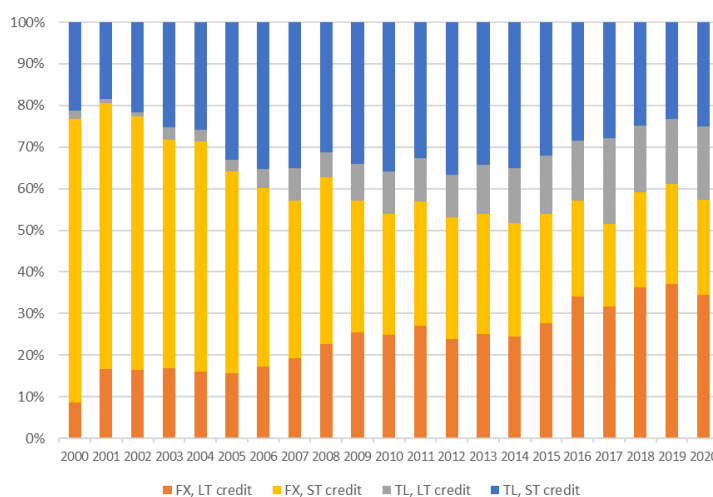


⁴ In end of 2022 it came into force a new Brazilian law that removes several barriers on operations in foreign currency. Among them, it is now allowed for Brazilian banks to offer foreign-denominated loans to foreign and local firms, to fund the purchase of a good/service exported or imported from abroad. However, domestic bank accounts denominated in foreign currency will continue to be restricted to some specific sectors, requiring previous central bank authorization.

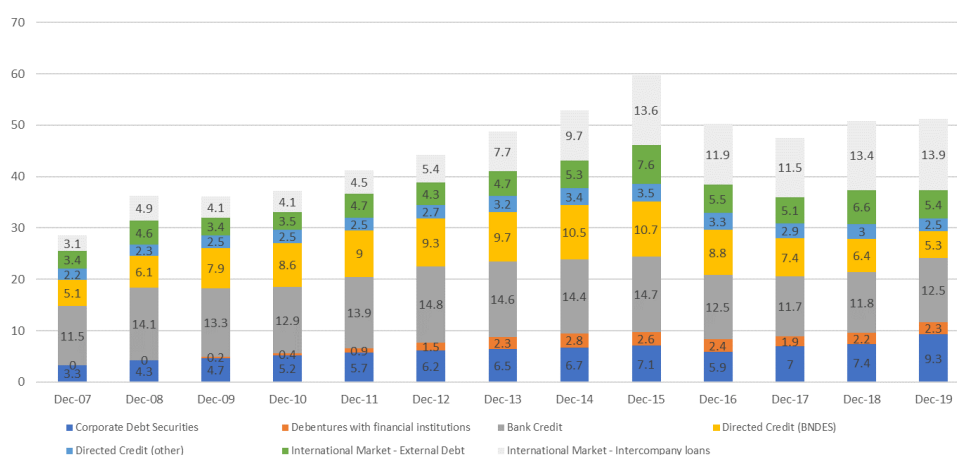
Panel C. Foreign-denominated loans held by Turkish nonfinancial firms, million USD. Source: Turkish Central Bank



Panel D. ST and LT credit to Turkish firms. Source: Turkish Central Bank



Panel E. Financial liabilities of Brazilian NFCs. Source: Centro de Estudos do Mercado de Capitais



The final dimension of Brazilian and Turkish firms' liability structure worth highlighting is the crucial role of public banks for firm financing. Panel E shows an increase in directed loans by the national development bank in Brazil (BNDES) after the global financial crisis. In the case of

Turkey, Table 1 shows that the increase in foreign currency borrowing has been mostly through public banks.

Table 1: Composition of Bank Loans to NFCs (except small and medium enterprises), Turkey. Source: Turkish Central Bank

	2004	2009	2018	2019	2020	2021
Public (%)	57,3	61,1	73,4	71,2	70,1	73,9
Public Turkish Lira (%)	74,5	63,6	36,2	40,4	42,6	35,2
Public foreign currency (%)	25,5	36,4	63,8	59,6	57,4	64,8
Private (%)	42,7	38,9	26,6	28,8	29,9	26,1
Private Turkish Lira (%)	57,4	54,7	63,9	62,6	58,2	65,5
Private foreign currency (%)	42,6	45,3	36,1	37,4	41,8	34,5

In sum, the above section has shown that Brazilian and Turkish firms have accumulated large cash holdings, whilst at the same time borrowing heavily both in local (mostly before the global financial crisis) and foreign currency (increasingly after quantitative easing policies in the US and Europe). In Brazil this borrowing has taken place largely offshore, whereas in Turkey local banks have provided foreign currency lending onshore. Moreover, the above section has shown the continuing importance of public banks in both economies. As discussed in Section 2, there are different explanation of why this is happening; the predominant hypothesis in the context of EMs being the carry trade hypothesis. The next section further investigates this firm behaviour digging deeper into firms' balance sheet and triangulating it with semi-structured interviews.

5. A macro-structural account of firm behaviour in Brazil and Turkey

An important piece of information to assess whether liquid assets have been held for speculative purposes is the distinction between different types of financial assets. In Figure 1, Panel B, we already showed a shift from marketable securities to more liquid alternatives over the last years casting doubts on the speculative nature of those holdings. Still, even if short-term investments will typically report higher interest rates than deposits, both instruments can be conducive to carry-trading given the relatively higher interest rates in EM. We therefore examine interest income and structure of expenses, along with nonoperating income (net of interest income), to establish whether firms actually made profits on these operations. Figure 3, Panel A shows that there are remarkable similarities in both countries. First, interest and related expenses are higher than interest income practically in all years, indicating that Brazilian and Turkish firms made losses – rather than profits as implied by the carry trade hypotheses - on their financial operations. The difference is higher in Brazil which has a permanent negative financial profitability.⁵ This is also the case for nonoperating income, which is a net category and comprises income and expenses from secondary activities such as foreign exchange income and losses.⁶ Here, Turkey also presents a better performance with various years of positive values – in particular the 2002-2007 period -, whereas for Brazil the indicator is always negative. Second,

⁵ Using data from Economatca, Attilio (2016) finds the same patterns (although different levels) for Brazil. To recall, not all financial expenses are related to financial assets' holding and trading but it is still relevant that they have been higher throughout the whole period.

⁶ As it is the case with other variables, it includes different nonfinancial items so it has to be taken cautiously.

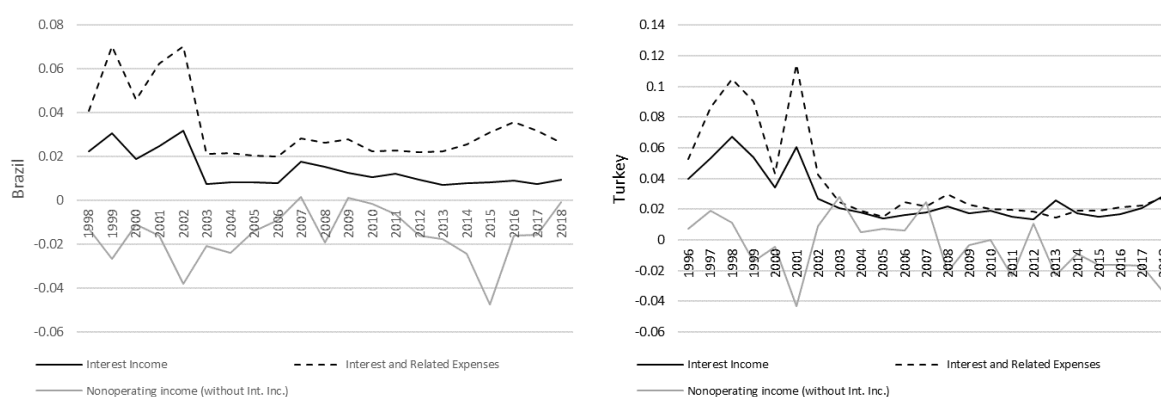
both interest income and expenses share a common decreasing trend given by their local interest rates which, at the same time, largely follow the decreasing trend of the US rate (Panel B).⁷

These results are also confirmed by aggregate data. Results for Brazil come from the database *Pesquisa Anual Industrial* in Panel C (full definitions are available in the appendix). Although it is indicated as operating income, rather than nonoperating as in Compustat, the evolution of financial income largely replicates interest income from Panel A.⁸ When we compare the profitability or net value of these categories and compare it with the nonfinancial one, we can see both the negative financial and nonoperating profitability along with a positive nonfinancial in almost all years. The Turkish Central Bank provides similar aggregate information but with foreign exchange income and losses as separate items (Panel D). While the growth in foreign exchange income accelerated in 2012 with the depreciation of the Turkish Lira (Figure 2, Panel B), it was consistently surpassed by foreign exchange losses after 2010 (except 2012 and 2014).

The relevance of financial profitability may have been higher in the 1990s rather than the period we study for Turkey. NFCs made a strategic decision under volatile growth and high-interest rate conditions by trying to compensate for the potential losses from investing in real investment by investing in high-yielding government bonds. As stated in Boratav et al. (2000), during the 1994 crisis, Turkish car manufacturers suspended production for a few months and invested their working capital into high-yielding government debt instruments and made financial profits.⁹ The opportunities of making profit from investing in government bonds declined in the post-2001 crisis era as a result of the IMF-led public austerity policies, leading to a decline in public debt.

Figure 3. Financial Flows

Panel A. Interest income and expenses, nonoperating income calculated as proportion of total revenues, Brazilian and Turkish listed nonfinancial firms. Source: Compustat

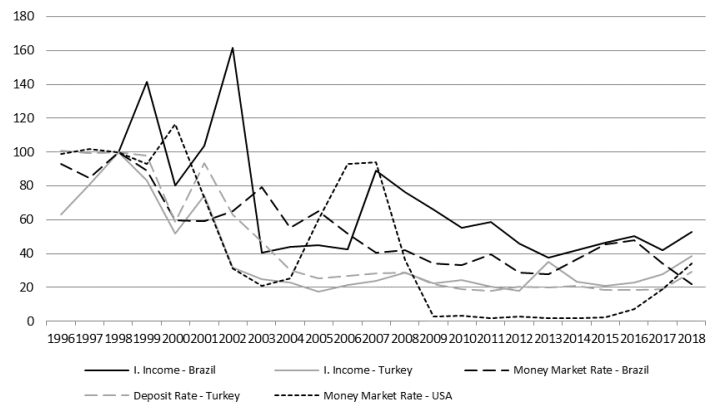


⁷ It is worth mentioning that both the negative interest rate profitability and the common income and expense trends have been found for US nonfinancial firms indicating more passive behaviour than an active search for financial profitability (Fiebiger, 2016; Rabinovich, 2019). The same is found here for Turkey and Brazil.

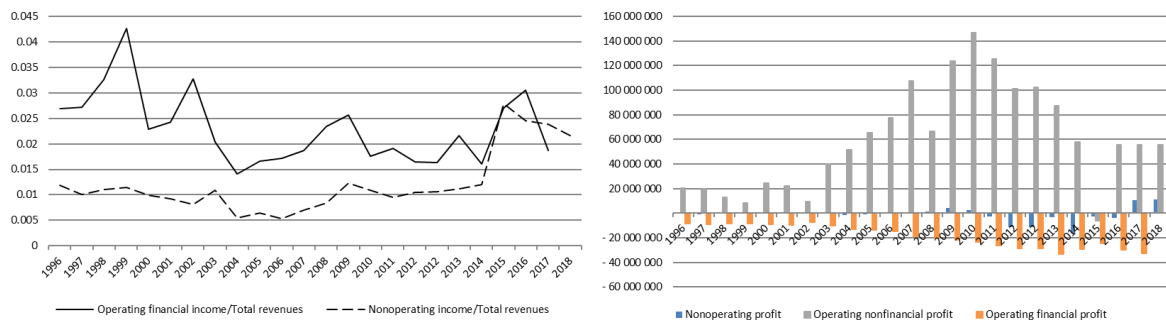
⁸ This database also distinguishes between nonoperating income and expense rather than a net value as in the case of Compustat.

⁹ One of our interviewees also stated that "a friend of mine who had been working with textiles back then, stopped the work in the company, burying all the funds in government bonds all season. No production. No activity. Think about it. You totally get government bonds. While the profit margin is 30% in textile, by this way he could earn 50-60 more." (Interviewee 8).

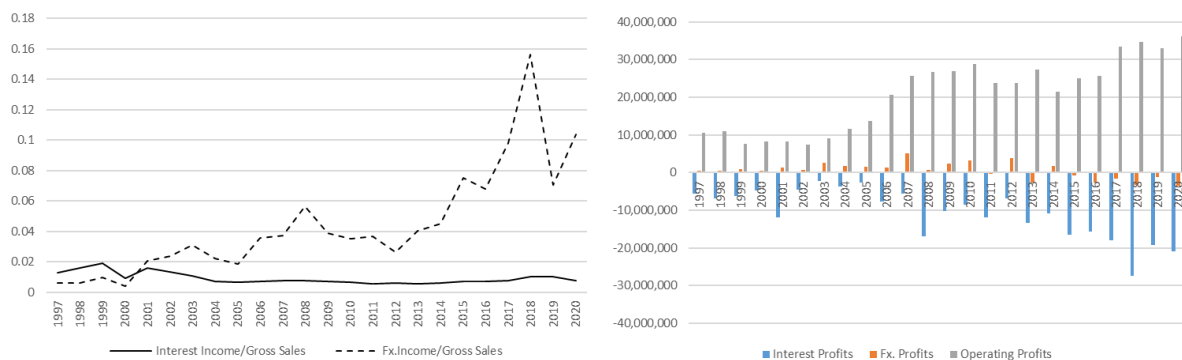
Panel B. Interest rate and interest income, 1998=100. Source: Compustat and IMF



Panel C. Operating financial and nonoperating income as a proportion of total revenues (left side). Nonoperating, operating nonfinancial and operating financial profits in thousands reais (right side). Source: Pesquisa Anual Industrial



Panel D. Interest and foreign-exchange income calculated as a proportion of gross sales (left side). Interest, foreign-exchange and operating profits in million USD (right side). Source: Turkish Central Bank



From this preliminary analysis, we see that over the period investigated interest income and expense have moved together with the latter being permanently higher than the former, that is, firms have not made profits from their holding of liquid assets. These results speak against the carry trade hypotheses, where firms make profits from the interest rate differential on their borrowing and higher yielding investments.

This result is also confirmed by the interviews. Very few interview partners thought that their firm and/or other firms in the market pro-actively engaged in such carry trade operations.

Indeed, most of them argued that they tried to hedge their foreign currency exposure as much as possible, either through derivatives or exports as natural hedge. One Turkish interviewee thought that even if Turkish NFCs would have wanted to hold more higher yielding government debt securities, they were crowded out by foreign investors who bought them on bulk and only sold them if the country risk rose to unbearable levels (Interviewee 5). One of our interviewees from a Turkish bank also confirmed that (Interviewee, 12):

“High financial income is not a good sign for valuation of listed firms in the stock exchange market. It creates the perception that a firm does not focus on its main job. It is evaluated negatively.”

Instead, firms argued cash holdings – accumulated from previous profits - were important as protection against changing macroeconomic and international market conditions. Panel A from Figure 4 shows how both in Brazil and Turkey the profit rate and cash and short-term investments moved closely together: the growth in the latter up to the Global Financial Crisis practically coincides with an increase in the profit rate (see also Özmen et al., 2012 for Turkey).

Our interview results again corroborate this. In the case of Brazil, high commodity prices and buoyant demand before the global financial crisis meant that the economy was booming and that firms were faced with a sudden gush of cash. Firms reinvested part of those earnings or used it to buy imported commodities. However, large parts of the profits were held as a cushion to protect against changes in the economic environment. As one Brazilian interviewee observed (Interviewee 24):

“What I feel is that even in terms of investments, companies are very scared, like that. They simply put a very conservative model, especially multinationals...They're scared of what's going to happen, so they... just base themselves on the most conservative policy. The leftover cash will then be out there, even with the low interest they pay abroad, the security is greater.”

The Global Financial Crisis strengthened the incentives for companies to hold onto their large liquid cash holdings. Quoting again from one of our interviews with a large Brazilian company (Interviewee 18, translated from Portuguese):

“our cash register is gigantic...So, we still maintained the policy of keeping the cash flow. It is the policy of large American companies.... The difference is that cash costs a lot here, right....But in terms of security for the market, it's been worth it. The scare of 2008 was very big..... (So this big cash liquidity is because of the crisis?) Yes, it started there. But we try to maintain, as we say, whether we wanted it or not, the market associates this as ahow shall we say?...the company having a large cash mattress is a good sign....(Security?) Security, exactly. We've been keeping it because of that too. The crisis only increased...”

However, as the quote also shows, firms didn't only hold cash to protect themselves against changing economic conditions, but also to secure continued – and indeed more favourable – access to international funding markets. This was confirmed by another large Brazilian firm (Interviewee 19):

“.....if you talk to our largest shareholder here which is a fund, a hedge fund in Brazil, a private equity fund actually, he's going to say that if you're an interested investor and you look at y(company name) you should be looking at our cash flow generation because cash flow is the first KPI that shows if the strategy is being successful”

Reflecting the same rationale for the large cash holdings, in 2009, when evaluating Efes International Brewery listed on the London Stock Exchange, Fitch (2009) reported that the refinancing risk of the highly leveraged company was mitigated by the large cash balances held by the company.

Besides these precautionary purposes and accumulation of collateral to be able to access international financial markets, our interviews also showed that some - large - firms accumulate cash holdings to take advantage of profitable investing opportunities, in particular abroad. For example, in Turkey, Anadolu Efes - ranked 11th on the international beer market - used approximately US\$ 187 million of its cash reserves to conduct one of the greatest M&A transactions (US\$ 1.9 billion) performed by a Turkish company abroad (Anadolu Efes, 2010). Similarly, other leading Turkish firms like Arcelik (Ayden et al., 2018) and Koc Holding (Finans Gündem, 2016) took advantage of their cash-rich position to expand through acquisitions.

Internationalisation is key for (EM) firms to diversify risks and revenue streams, generate foreign currency, and access international funding markets. As highlighted in the literature (e.g. Coe & Yeung, 2015), it is also increasingly demanded by international investors. For example, as one large Brazilian firm noted (Interviewee 19):

“...So if you have sort of this international, global footprint you’re able to sort of mitigate these risks, and that’s kind of where we are right now, we have a lot of presence in the Middle East, we have a lot of presence in Japan, a smaller presence in what we call South America, and then Africa and Europe and a much smaller presence in Russia”.

If firms have been profitable and accumulated cash reserves, this makes it even more surprising that they have indebted themselves at the same time. This, our interview results indicate, can be at least partly explained by the favourable international market conditions and strong international liquidity at that time. Structurally finance constrained firms in both countries, especially in foreign currency, borrowed because they could. External markets offered both longer terms and lower interest rates than local financial markets. As one representative from a large Brazilian firm noted (Interviewee 17):

“So, there wasn’t a market for long term funding for many many years, long here was like 2 years, 3 years, 5 years, whatever, right. So that has evolved significantly, the capital markets with the improvement of Brazil and risk perception pertaining to it, and all companies that recently had access to the decision to go to market. I recall one day a shareholder asked me he said “look, when do you think we should go to the market?” and I said “well, we should always go to the market when there’s a market. Because when there’s a good market there’s a good deal”.

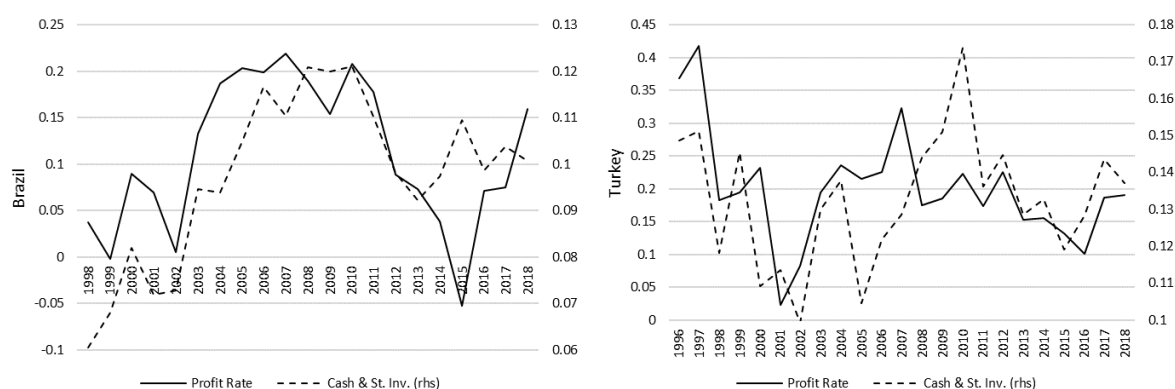
Interviewee 7 reported that Koc Holding, the leading corporation in Turkey with many subsidiaries in different sectors, used every opportunity to borrow in the beginning of 2019 thinking that the market liquidity would diminish in the long term.

The destinations of the borrowed funds varied over the period. Before the Global Financial Crisis, firms increased their indebtedness mainly to support their capital expenditures given high growth rates and profitable investment opportunities (see the discussion above and Finello Corrêa et al., 2017; Özmen et al., 2012). Gross fixed capital formation and credit to the NFC

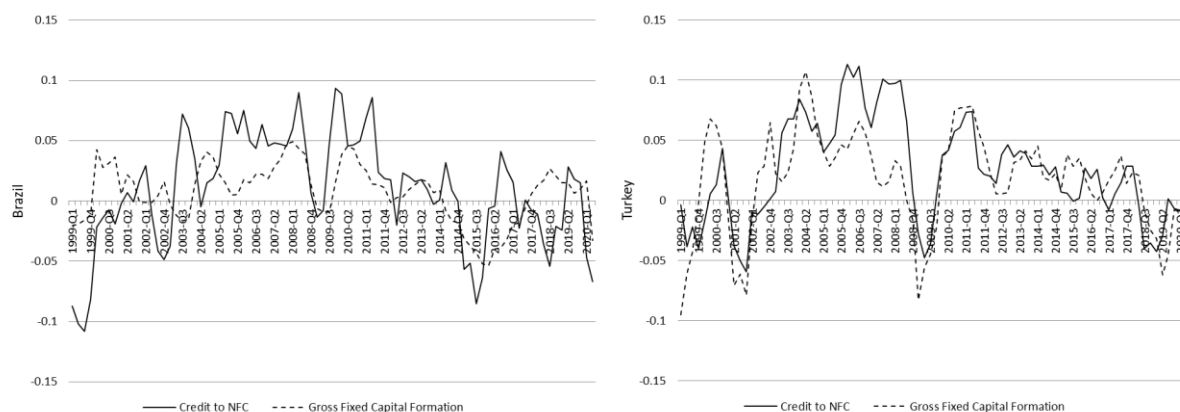
largely co-moved as it can be seen in Figure 4, Panel B. After the global financial crisis, firms tended to take advantage of the particularly favourable condition in the context of QE policies. Between 2015 and 2019, Brazilian companies and subsidiaries issued US\$82.7 billion in the international market, at an average coupon of 6.6% p.a.¹⁰ and an average term of approximately ten years. The main destination of these funds was the refinancing and extension of debt: 84.3%, 83.8% and 85.6 in 2017, 2018 and 2019 respectively (Banco Central do Brasil, 2020, box 7).¹¹

Figure 4. Profitability, cash holdings, credit and capital formation by nonfinancial firms

Panel A. Operating income and cash and short-term investments of Brazilian and Turkish nonfinancial listed firms as percentage of total assets. Source: Compustat



Panel B. Credit to nonfinancial firms and Gross Capital Formation. Source: Bank of International Settlements and OECD



In sum, above section showed that rather than speculative carry trade operations – as put forward by the Bank for International Settlements - the financial behaviour of Brazilian and Turkish firms were more shaped by precautionary and opportunistic behaviour within hierarchic international monetary structures. Despite large cash holdings - accumulated during profitable years before the Global Financial Crisis - firms borrowed heavily on international financial markets - largely in foreign currency - because they were able to access those markets and do so more cheaply. At the same time, they held onto low yielding and “unproductive” cash reserves

¹⁰ In that period, the average rate from the BNDES was around 10% (CEMEC, 2020).

¹¹ We have also analysed other potential uses of funds that characterise corporate financialisation in advanced economies such as buybacks and acquisitions (Klinge et al., 2021). The former are nil in both countries for almost all years whereas the latter averages 1% of total assets in both countries.

(in the Turkish case often in the form of US dollar denominated bank deposits) to protect themselves against changing international economic and funding conditions – or indeed – as a collateral to be able to access cheaper international funding markets. Some firms also used the cash to strategically internationalise. The next section shows how these financial operations were limited to specific firms, which we argue is a further reflection of EMs’ subordinate nature of firm financialisation.

6. Heterogenous financialisation patterns and the mediating role of the State

The first additional finding in terms of the heterogeneity of firm financialisation comes from the recognition that in both countries borrowing in foreign currency has been dominated by a handful of large firms, concentrated in certain sectors. With regards to the size of the companies, Table 2 indicates that although the value of issuance in foreign currency in Brazil has, in many years, surpassed that in local currency, the number of issuers was far smaller. Size was important to diversify and hedge income streams, but also to develop the financial and regulatory expertise to access international financial markets (Maggiore et al. 2019). As a Turkish financial advisor explained (Interviewee 7):

“in February 2019 expecting a decline in liquidity in the market Koc Holding collected eurobond, private bond, loans whatever it could find in the market. It is a big firm.”

Moreover, Interviewee 23 noted that international investors preferred companies with a significant credit history, which also benefits larger and more traditional firms.

Table 2. Bond issuance by Brazilian and Turkish NFC, 2000-2020. Source: Thomson Eikon.

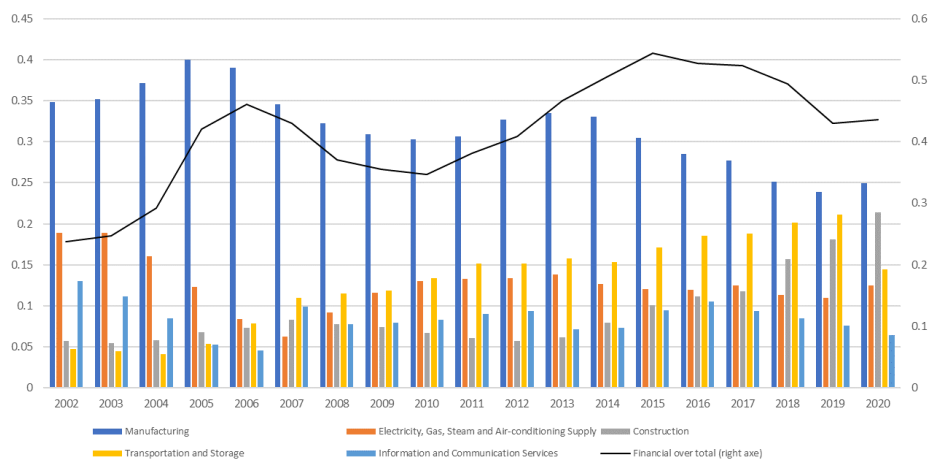
	Brazil				Turkey			
	Value (US\$ bn.)		Number of issuances		Value (US\$ bn.)		Number of issuances	
	Foreign Currency	Local Currency	Foreign Currency	Local Currency	Foreign Currency	Local Currency	Foreign Currency	Local Currency
2000	1,196.11	3,721.43	14	27	217.58	0.00	2	0
2001	2,252.83	4,721.25	10	49	0.00	0.00	1	0
2002	9,746.82	3,173.38	7	36	298.67	0.00	2	0
2003	7,281.66	1,695.86	44	26	0.00	0.00	0	0
2004	9,868.10	2,309.26	17	34	174.15	0.00	1	0
2005	1,474.39	3,807.53	16	27	223.27	0.00	7	0
2006	7,397.76	14,608.61	22	40	305.57	0.00	5	0
2007	4,671.79	8,375.41	20	29	0.00	0.00	1	0
2008	5,684.42	24,313.33	11	63	1.50	0.00	1	0
2009	17,182.07	11,195.44	29	61	0.00	0.00	0	0
2010	13,601.94	18,015.55	29	98	196.14	0.00	1	0
2011	22,579.16	21,390.39	22	120	40.12	0.00	1	0
2012	23,295.92	25,405.52	38	156	1,192.34	0.00	2	0
2013	18,732.28	15,908.28	24	136	1,987.05	189.16	7	4
2014	22,724.33	18,303.74	35	199	447.98	0.00	3	0
2015	4,923.70	8,398.83	9	128	825.82	0.00	2	0
2016	15,183.16	11,182.92	13	117	1,048.85	68.47	4	1
2017	21,239.52	15,560.54	31	143	1,800.00	141.85	4	1
2018	7,534.42	21,478.59	17	208	787.35	170.10	3	1
2019	15,236.54	11,945.39	27	115	1,895.34	0.00	3	0
2020	11,527.36	7,787.91	22	77	574.52	0.00	3	0

The fact that the biggest firms are in a better position to issue debt in international markets is valid both for advanced economies and EM firms (OECD, 2019). The similarities, however, end there. The biggest firms from advanced economies tend to be at the technological frontier in the most complex industries. The pattern that we observe in Brazil and Turkey in Table 3 is that firms belong to two types of sectors: either the primary, commodity-related one (mostly relevant for Brazil), or the state-supported one (more relevant for Turkey). The full list of firms that borrowed on international financial markets can be found in Appendix C. In both cases, foreign currency bond issuance has been dominated by: energy and power; materials, and consumer staples, all sectors with low capacities for generating and transmitting technical progress and, consequently, for boosting the economy's productivity (Ocampo, 2014). On the other hand, healthcare and high technology show an almost negligent number of firms issuing bonds in foreign currency. More generally, within the top ten industries in long-term and intercompany lending received in Brazil during 2010 and 2020, eight belong to the two types of sectors described (Brazilian Central Bank, 2023). A more relevant data for Turkey, as NFCs mostly borrow from banks, is the sectoral breakdown of loans borrowed from overseas. Figure 5 shows that apart from the manufacturing sector, transportation, energy (electricity, gas, steam), construction and telecommunication respectively are among the top 5 sectors that borrowed from abroad between 2002 and 2020. While the share of manufacturing declined in recent years, shares of construction and transportation increased significantly.

Table 3. Number of Foreign Exchange denominated bonds' issuers per sector, 2000-2020. Source: Thomson Eikon

Sector	Brazil	Turkey
Energy and Power	22	3
Materials	24	2
Consumer Products and Services	3	1
Consumer Staples	19	8
Telecommunications	4	2
Industrials	14	5
Healthcare	4	2
High Technology	2	1
Retail	1	0

Figure 5. Share of top five sectors in total long-term loans borrowed by the nonfinancial sector from abroad and proportion of bank borrowing over total long-term borrowed from abroad. Source: Turkish Central Bank



Given EMS’ structural balance of payments constraint, (relatively) secure access to foreign exchange thus remains a key factor for firms to integrate into global financial markets. As a representative from a large natural resource conglomerate noted (Interviewee 17):

“...but the fact is that given our debt profile and our cash generation year in year out, and per period of time, whatever you say, to quarter, whatever, we’re always long dollar, or neutral, we’re never short. Even considering our liability. So, we’re able to make use of dollar-denominated even one euro-denominated bond that we could actually match with cash flow generation....”

The last point of the distinctive character of financial subordination in both countries, but in particular in Turkey, is the crucial - yet contradictory - role played by the state in shaping and mediating the financialisation of NFCs through various ways. Our results showed that while the share of manufacturing in the loans borrowed from abroad decreased over the last 20 years, the shares of construction and transportation increased in Turkey. This is mainly because external funds were made accessible to these sectors via PPPs (Public Private Partnership) arrangements. One of our interviewees in Turkey reported (Interviewee 7):

“The lender, who gives credit abroad, must be convinced of which sector can pay back the long-term loan, I’m talking about the majority in Turkey... mostly companies with government guarantees can find long-term borrowing. These are PPPs”¹²

In both countries, government support (e.g. transfer of public resources via Program to Accelerate Growth I-II (PAC) in Brazil and public tenders in Turkey) especially for construction, energy transport and mining sectors increased in the wake of the global financial crisis (Ebenau & Liberatore, 2013; Orhangazi & Yeldan, 2021). As shown in Section 4, in both countries the state also supported firms directly through public and development banks. In Brazil, the rise in BNDES financing was due to the increasing unwillingness of private banks to engage in lending and the government’s attempt to use BNDES lending as a counter-cyclical policy during the

¹² According to data from the World Bank, Turkey and Brazil are among the top five countries with the highest amount of investment via Public Private Partnerships.

global financial crisis (Torres Filho, 2018). Active BNDES financing came to an end in 2016 with the imposition of strict austerity policies under the government of Temer (Torres Filho, 2018). A direct consequence of that was not only the increased issuance of both domestic and international securities (evidenced in Figure 2, Panel E), but also a deleveraging process with the BNDES and national banks (Comissão de Valores Mobiliários, 2019). The BNDES also played a key role in providing funds to acquire international firms and support the internationalisation efforts of Brazilian firms (Masiero et al., 2014).

In Turkey, regulations introduced in 2009 directly allowed borrowing in foreign currency for NFCs which did not have foreign-denominated earnings. Additionally, the so-called reserve option mechanism designed and implemented by the Central Bank in 2011 allowed banks to hold a certain part of their required reserve in foreign-denominated and thereby facilitated the credit expansion of domestic banks via their borrowing from international markets at lower interest rates (Boratav & Orhangazi, 2022). After that point, Turkish NFCs did not borrow much directly from banks abroad as previously; but the Turkish banking sector, mostly through public banks, increased its international borrowing channelling it to NFCs (Table 1).

However, these macroeconomic and regulatory policies also reflect how the State takes a more prominent role in a subordinate financialised economy to contemplate and accommodate the interests of, not only various fractions of domestic/transnational capital, but also other segments of society. For example, in Turkey, faced with significant economic pressure due to the build-up of excessive external debt, sudden capital outflow and the depreciation of the Turkish Lira that resulted in a currency crisis in 2018, the government introduced a limit for NFCs' borrowing in foreign currency during that year which resulted in a decline in foreign-denominated loans to a certain degree (Table 1).¹³ In the Brazilian case, the political shift starting with president Temer in 2016 was translated, among other things, into reduced lending and higher rates by the BNDES that led some firms to borrow internationally to finance early repayments to the BNDES (Centro de Estudos de Mercados de Capitais, 2019, pp. 11–12).

7. Conclusion

This article has presented a detailed analysis of the financial practises carried out by Brazilian and Turkish NFCs for the last 20 years focusing specifically on the concomitant increase in liquid financial asset and borrowing, both local and specially international. The most extended explanations of this (seemingly paradoxical) financial behavior are of two types. First, the traditional corporate governance literature has pointed to investment and precautionary reasons such as hedging against macroeconomic risks and uncertainty, typically when those firms face risky cash-flows and poor access to capital markets. Second, speculative motives have been highlighted for EM firms in different publications within the Bank of International Settlements. According to this explanation, firms borrow on international financial markets at lower interest rates to invest or lend those funds in the domestic economy at higher interest rates (the carry

¹³ This was accompanied by other capital control measures, including limits on currency swap operations involving the Turkish lira, a gradually increasing of tax on the purchase of foreign currency and increasing import tariffs on a wide array of products (Orhangazi and Yeldan, 2021).

trade). Besides the evident differences, both explanations rely ontologically on a decision-making process based on firm-level incentives without paying enough attention to why only certain firms can access international funding -besides size- and how they were able to do that, both from a structural and institutional perspective. Moreover, both explanations have been evaluated through quantitative mechanisms which only tell a part of the actual motives behind firm decisions.

Thanks to an original methodology that combines different sources of aggregate and firm-level quantitative data with 25 interviews with executives from large firms and financial advisors, this paper shows that the financial behavior of Brazilian and Turkish firms can be better understood by locating that decision-making process in the context of hierarchical financialised capitalism. First, we do not find evidence for sustaining generalised claims on speculative purposes: differences between interest income and interest expenses as well as foreign-denominated income and expenses have been either negative or slightly positive but far lower than income from regular activities. Second, while traditional explanations provide a better basis for the movements we see in financial assets and liabilities, these valid micro explanations miss two key dimensions.

Turkish and Brazilian NFCs accumulated cash holdings during profitable years before the global financial crisis and borrowed heavily on international financial markets because they could do so more cheaply. In both countries, however, firms that were able to access international funding and provide collateral largely belonged to two sectors: either the primary -mostly for Brazil- or state-supported, non-tradable sectors such as construction and telecommunications -mostly for Turkey. This is not random but rather reflects EMs' subordinate integration into the world economy. Finally, the State has played an important role in shaping the financial practises of NFCs in both countries as evident in changing regulations, increasing role of public banks, and guaranteeing foreign-denominated loans. This role is more prominent and contradictory in comparison to their developed counterparts due to the tension between EMs' dependence on transnational finance and the legitimacy of their policymakers to the needs of society.

We can only advance here some implications of these findings as future lines of research. First, issuing debt in international markets reinforces the (already) powerful position of some firms vis-à-vis the rest in their home country. This can translate into larger political and lobby capacity to influence economic policies that cement the productive subordination of their home countries. In the case of Brazil, for example, the prominence of these firms is part of a broader economic reprimarisation in which the share of soybeans, iron ore, crude oil, beef, poultry and pork in total exports went from 12.4% in 1997 to 38.8% in 2019 (Finello Corrêa & Feijo, 2022). Second, we can further differentiate among the sectors described in the previous paragraph. Whereas commodity producers are naturally hedged against exchange rate fluctuation and can ultimately provide for the essential foreign currency needed to upgrade EMs in the international division of labour, non-tradable sectors do not even have these potential benefits. Third and lastly, by being able to issue debt in international markets, these firms introduce one source of financial fragility to the economy since, in most cases, public institutions will end-up providing the foreign currency they need to pay back their foreign-denominated loans or, in extreme cases, nationalizing their foreign-denominated debt. Indeed, this risk is already present in both countries as seen by the increasing participation of the Brazilian Treasury in BNDES' total

funding up to 2016, or the rising share of foreign-denominated loans in public banks in Turkey. In fact, nationalization of private sector debt has not been alien to this country where in 2001 the Banking Sector Restructuring Programme both socialized the losses and foreign-related risks of the banking sector.

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Appendix

Appendix A. Definition of variables

Compustat

Cash and short-term investments: “this item represents cash and all securities readily transferable to cash as listed in the Current Asset section.”

Receivable: “this item represents claims against others collectible in cash.”

Long-term debt: “The item represents debt obligations due more than one year from the company's balance sheet date. This item includes: 1. Purchase obligations and payments to officers, when listed as long-term liabilities; 2. Notes payable, due within one year and to be refunded by long-term debt when carried as a non-current liability; 3. Long-term lease obligations (capitalized lease obligations); 4. Industrial revenue bonds; 5. Advances to finance construction; 6. Loans on insurance policies; 7. Indebtedness to affiliates; 8. Bonds, mortgages, and similar debt; 9. All obligations that require interest payments; 10. Publishing companies' royalty contracts payable; 11. Timber contracts for forestry and paper; 12. Extractive industries' advances for exploration and development; 13. Production payments and advances for exploration and development.”

Debt in current liabilities: “This item represents the total amount of short-term notes and the current portion of long-term debt (debt due in one year). This item includes: 1. Bank acceptances and overdrafts; 2. Loans payable to the officers of the company; 3. Loans payable to stockholders; 4. Loans payable to parents, and consolidated and unconsolidated subsidiaries; 5. Notes payable to banks and others; 6. Installments on a loan; 7. Sinking fund payments; 8. Brokerage companies' drafts payable.”

Interest and related income: “This item represents the revenue received from interest-bearing obligations held by the company, included in Nonoperating Income (Expense). This item excludes: 1. Capitalized interest; 2. Dividend income.”

Interest and related expense: “This item represents the periodic expense to the company of securing short- and long-term debt. Where possible, this item is collected as a gross figure. This item includes: 1. Interest expense on both short-term and long-term debt; 2. Amortization of debt discount or premium; 3. Expenses related to the issuance of debt (i.e., underwriting fees, brokerage costs, advertising costs, etc.); 4. Financing charges; 5. Discount on the sale of receivables of a finance subsidiary; 6. Factoring charges, unless included in Cost of Goods Sold or Selling, General, and Administrative Expenses; 7. Interest expenses related to non-debt items; 8. Capitalized Interest.”

Nonoperating income: “This item represents any income or expense items resulting from secondary business-related activities, excluding those considered part of the normal operations of the business. Nonoperating income and expense will be reported as a net figure. This item includes: 1. Income; 2. Discount on debt reacquired; 3. Dividend income; 4. Equity in earnings of a nonconsolidated subsidiary; 5. Franchise income when corresponding expenses are not included in the Income Statement; 6. Interest charged to construction, interest capitalized; 7.

Leased department income when corresponding expenses are not included in the Income Statement; 8. Other income; 9. Rental income; 10. Royalty income; 11. Interest income; 12. Expense; 13. Amortization of deferred credit; 14. Amortization of negative intangibles; 15. Foreign exchange adjustments; 16. Idle plant expense; 17. Miscellaneous expense; 18. Moving expense; 19. Other expense.”

Profit rate = (Operating income after depreciation-Interest expenses-Taxes)/Net property, Plant and Equipment.

Pesquisa Anual Industrial (translation)

Operating financial income: financial income realized in the year, relating to interest, discounts, nominal income from fixed-income financial investments and investment funds, net gains on variable-income market operations, redemption premiums on securities or debentures, profits on repo operation, etc.

Nonoperating income: Gain on the sale of permanent assets, represented by the difference between the sale price and the book value (historical and depreciated costs), as well as revenues from reversal of the balance of the provision for probable losses on the realization of investments, insurance indemnities and other revenues considered non-operating. They include the amounts considered as revenue, in accordance with the accounting legislation established by Law 11.638, of 12.28.2007, and by Law 11.941, of 05.27.2009

Turkish Central Bank

There is no glossary of variables definition.

Appendix B. Interviews

Interviewee	Interviewee's Attributes			
	Role	Location	Mode	Date
1	Financial Manager, Construction Sector	Turkey	In person	July 2019
2	Member of Board, Electricity Sector	Turkey	In person	July 2019
3	Financial Analyst, Chemical and Fertilizer Sector	Turkey	In person	July 2019
4	Financial Advisor, Mining Sector	Turkey	In person	July 2019
5	Trader, Telecommunication Sector	Turkey	In person	July 2019
6	Chief Financial Officer, Energy Sector	Turkey	In person	July 2019
7	Financial and Board Consultant	Turkey	In person	July 2019
8	Financial Analyst, Istanbul Stock Exchange	Turkey	In person	July 2019
9	Executive Vice President in charge of Treasury, Banking Sector	Turkey	In person	July 2019
10	Deputy CEO, Insurance Sector	Turkey	In person	July 2019
11	Vice President for Leasing, Banking Sector	Turkey	In person	July 2019
12	Financial Analyst at Treasury, Banking Sector	Turkey	In person	July 2019
13	Financial Advisor	London	In person	February 2019
14	The Turkish British Chamber of Commerce and Industry	London	In person	February 2019
15	Chairman of a Turkish Business Association in UK	London	In person	February 2019
16	Senior staff, Brazilian Embassy in London	London	In person	February 2019
17	Financial Analyst, Risk Department, Metals and Mining Company	Brazil	In person	August 2012
18	Financial Analyst, Risk Department, Meat Processing Company	Brazil	In person	August 2012
19	Financial Analyst, Food Processing Company	Brazil	In person	August 2014
20	Financial Analyst, Steel Producer	Brazil	In person	August 2014
21	Investors Relations Officer, Meat Processing Company	Brazil	In person	August 2014
22	Manager, Cookie and Cracker Manufacturing Company	Brazil	In person	August 2014
23	Financial Analysts, Oil Company	Brazil	In person	August 2014
24	Financial Analyst, Luxury goods company	Brazil	In person	August 2014
25	Former Officer, Brazilian National Development Bank	Brazil	In person	August 2014

Appendix C. Brazilian and Turkish firms issuing fx-denominated bonds.

Brazil

Name	Industry	SIC description
Eletropaulo Eletricidade	Energy and Power	Electric services
CSN	Materials	Steel works, blast furnaces, and rolling mills
Acesita SA	Materials	Steel works, blast furnaces, and rolling mills
Eletrobras	Energy and Power	Electric services
Cia Vale do Rio Doce	Materials	Iron ores
Cia Petrolifera de Marlim	Energy and Power	Crude petroleum and natural gas
AES Tiete SA	Energy and Power	Electric services
Petrobras	Energy and Power	Crude petroleum and natural gas
Localiza Rent A Car SA	Consumer Products and Services	Passenger car rental
CESP	Energy and Power	Electric services
Ambev	Consumer Staples	Malt beverages
Aracruz Celulose SA	Materials	Pulp mills
Sabesp	Energy and Power	Water supply
Braskem SA	Materials	Industrial organic chemicals, nec
Usinas Siderurgicas de Minas	Materials	Steel works, blast furnaces, and rolling mills
Tele Norte Leste SA	Telecommunications	Telephone communications, except radiotelephone
Cia Vale do Rio Doce SA	Materials	Iron ores
Votorantim Industrial SA	Materials	Cement, hydraulic
Embratel Participacoes SA	Telecommunications	Telephone communications, except radiotelephone
Ultrapar Participacoes SA	Materials	Chemicals and chemical preparations, nec
Metalurgica Gerdau SA	Materials	Steel works, blast furnaces, and rolling mills
Grupo Cosan	Consumer Staples	Cane sugar, except refining
TAM SA	Industrials	Air transportation, scheduled
Braskem SA	Materials	Industrial organic chemicals, nec
Inbev Participacoes SA	Consumer Staples	Bottled & canned soft drinks & carbonated waters
Cosan Ltd	Materials	Industrial organic chemicals, nec
Gol Linhas Aereas Inteligentes	Industrials	Air transportation, scheduled
Textilia SA	Consumer Staples	Yarn spinning mills
CEMAT	Energy and Power	Electric services
Embraer SA	Industrials	Aircraft
Cataguazes Forca e Luz	Energy and Power	Electric services
Bertin Ltda	Consumer Staples	Sausages and other prepared meat products
OdontoPrev SA	Healthcare	Offices and clinics of dentists
Independencia Alimentos LTDA	Consumer Staples	Meat packing plants
Rede Empres de Energia	Energy and Power	Electric services
New Allied Electronics	High Technology	Electronic components, nec
CM Industria e Comercio Ltda	Industrials	Special industry machinery, nec
Sadia SA	Consumer Staples	Sausages and other prepared meat products
Lupatech SA	Industrials	Industrial valves
Arantes Alimentos Ltda	Consumer Staples	Meat packing plants
Independencia SA	Consumer Staples	Meat packing plants
DASA	Healthcare	Medical laboratories

Comanche Clean Energy Corp	Materials	Industrial organic chemicals, nec
Vale SA	Materials	Iron ores
MMX Mineracao e Metalicos SA	Materials	Iron ores
Cosan Ltd	Materials	Industrial organic chemicals, nec
Centrais Eletricas Brasileiras	Energy and Power	Electric services
Cia Siderurgica Nacional	Materials	Steel works, blast furnaces, and rolling mills
Cia Energetica de Minas Gerais	Energy and Power	Electric services
CTEEP-Cia de Transmissao	Energy and Power	Electric services
Unidas Sa	Consumer Products and Services	Passenger car leasing
Embraer SA	Industrials	Aircraft
Petroleo Brasileiro SA	Energy and Power	Crude petroleum and natural gas
Brasil Telecom SA	Telecommunications	Telephone communications, except radiotelephone
JBS SA	Consumer Staples	Beef cattle, except feedlots
Fibria Overseas Ltd	Materials	Pulp mills
Braskem SA	Energy and Power	Industrial organic chemicals, nec
BRF Brasil Foods SA	Consumer Staples	Poultry slaughtering and processing
JBS SA	Consumer Staples	Sausages and other prepared meat products
Fibria Celulose SA	Materials	Paper mills
Suzano Papel E Celulose SA	Materials	Pulp mills
Magnesita Refratarios SA	Industrials	Nonclay refractories
Minerva SA	Consumer Staples	Meat packing plants
Marfrig Alimentos SA	Consumer Staples	Sausages and other prepared meat products
Energisa SA	Energy and Power	Electric services
OGX Petroleo e Gas	Energy and Power	Crude petroleum and natural gas
Grupo Virgolino de Oliveira SA	Healthcare	Biological products, except diagnostic substances
Polimix Concreto Ltda	Materials	Concrete products, except block and brick
Hypermarcas SA	Consumer Staples	Soap & other detergents, except specialty cleaners
Oi SA	Telecommunications	Telephone communications, except radiotelephone
Schahin Petroleo e Gas SA	Energy and Power	Drilling oil and gas wells
BRVias SA	Industrials	Highway and street construction
OAS SA	Industrials	Highway and street construction
USJ Acucar e Alcool SA	Consumer Staples	Cane sugar refining
Andrade Gutierrez SA	Industrials	Residential construction, nec
Aralco Industria e Comercio SA	Consumer Staples	Cane sugar, except refining
BRF SA	Consumer Staples	Poultry slaughtering and processing
Synergy Group Corp	Industrials	Air transportation, scheduled
RioPrevidencia	Energy and Power	Petroleum refining
Strattus Software	High Technology	Prepackaged Software
Tupy SA	Industrials	Motor vehicle parts and accessories
Marfrig Global Foods SA	Consumer Staples	Sausages and other prepared meat products
Aegea Saneamento	Energy and Power	Water supply
GMR Energia SA	Energy and Power	Cogeneration, alternative energy sources
Azul SA	Industrials	Air transportation, scheduled
Rumo SA	Industrials	Trucking, except local
Natura Cosmeticos SA	Consumer Products and Services	Perfumes, cosmetics, and other toilet preparations

Rede D'Or Sao Luiz SA	Healthcare	General medical and surgical hospitals
Light SA	Energy and Power	Electric services
Suzano Sa	Materials	Pulp mills
Klabin SA	Materials	Paper mills
Lojas Americanas SA	Retail	Department stores
Fs Agrisolutions Industria De	Materials	Industrial organic chemicals, nec

Turkey

Name	Industry	SIC description
Dogan Sirketler Grubu Hldg AS	Energy and Power	Petroleum and petroleum products wholesalers, nec
Vestel Elektronik Sanayi Haci Omer Sabanci Holding AS	High Technology	Household audio and video equipment
Zorlu Holding AS	Consumer Staples	Broadwoven fabric mills, cotton
Yasar Holding AS	Consumer Staples	Textile goods, nec
Profilo Holding AS	Materials	Paints, varnishes, lacquers, & allied products
Global Yatirim Holding AS	Consumer Staples	Household refrigerators and home and farm freezers
Marti Otel Isletmeleri AS	Energy and Power	Marine cargo handling
Yuksel Insaat AS	Media and Entertainment	Hotels and motels
Anadolu Efes Biracilik & Malt	Industrials	Residential construction, nec
Koc Holding AS	Consumer Staples	Malt
Coca-Cola Icecek AS	Industrials	Single-family housing construction
Arcelik AS	Consumer Staples	Bottled & canned soft drinks & carbonated waters
Altinbas Holding AS	Consumer Staples	Household appliances, nec
AKLease	Energy and Power	Liquefied petroleum gas (bottled gas) dealers
Pakpen Plastik	Consumer Products and Services	Equipment rental and leasing, nec
Eregli Tekstil Turizm Sanayi	Materials	Plastics products, nec
EastPharma Ltd	Consumer Staples	Lace and warp knit fabric mills
Turk Hava Yollari Ao	Healthcare	Pharmaceutical preparations
Turkcell Holding AS	Industrials	Air transportation, scheduled
Ronesans Holding AS	Telecommunications	Telephone communications, except radiotelephone
Elazig Hospital PPP	Industrials	Residential construction, nec
Cukurova Telecom Holdings Ltd	Healthcare	General medical and surgical hospitals
Istanbul Metro	Telecommunications	Radiotelephone communications
Yildiz Holding AS	Industrials	Local passenger transportation, nec
	Consumer Staples	Poultry slaughtering and processing