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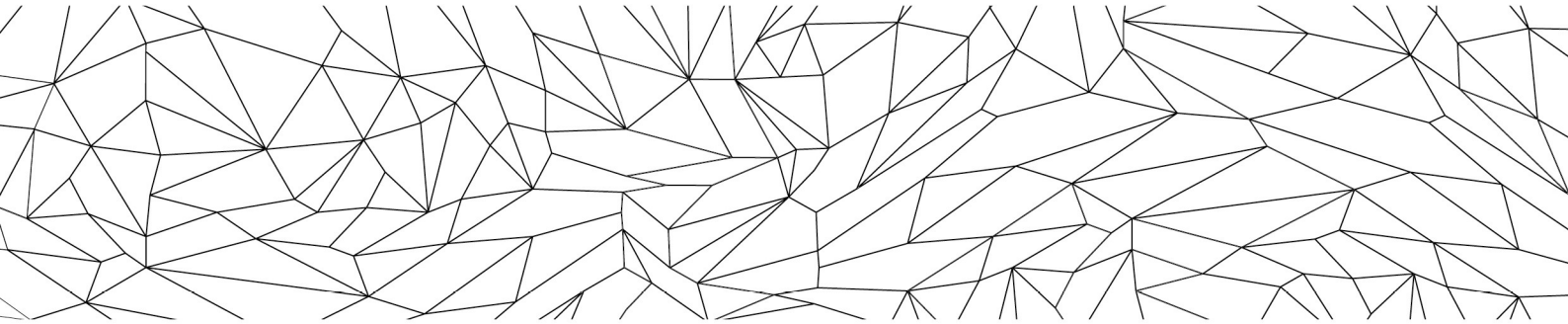

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Rethinking Financialisation from a Housing Industry Perspective: Delayed Asset Price Inflation in Turkey

Ezgi B. Unsal[1]

Abstract

This paper is an exploration of housing financialisation by drawing upon the productive dynamics of the housebuilding industry. Housing financialisation literature has two distinct branches, one focusing on the macroeconomic mechanisms through which the imbalances in the housing market could reflect deeper macroeconomic fragilities. The other branch puts the emphasis on the commodification of housing as a commodity, mostly due to the withdrawal of the state as a provisioner. This study bridges the gap between these two literatures on housing financialisation by introducing the productive dynamics of the housebuilding industry itself as an explanatory factor, which has not been addressed by either of those literatures. It has two distinct but interrelated contributions. First, it provides a case that can demonstrate the various ways in which the commodification of housing can take place without necessarily the withdrawal of the state by using Turkey as an example. Second, by showing how this development took place in the context of public land availability to accommodate increasing supply and the sectoral interlinkages with the more "productive" energy sector, it explains why the disruptive macroeconomic effects of that strategy could be delayed for a prolonged period.

Keywords: Financialisation in emerging economies, Political economy of Turkey, Asset price inflation, Housing sector, Energy sector

JEL classification: R31, P25, B50

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1. Introduction

The 2008 financial crisis revealed the significant role of housing markets in contributing to macroeconomic instability. While the connection between speculative asset markets and broader economic fragility has been well documented, less attention has been paid to the specific productive dynamics within the housing sector. This paper examines the Turkish housing market—where speculative growth occurred without the typical destabilizing macroeconomic effects—and explores the factors that delayed asset price inflation despite rapid expansion.

As Bernanke and Gertler (2000) argued, the relevance of the housing markets for economists, and of the asset markets in general, stayed limited to the extent they signal underlying inflationary and speculative forces. In the broadest sense, a speculative market can be defined as one in which agents seek profit through rapid price fluctuations—particularly upward ones. With the proliferation of secondary asset markets based on mortgages (such as mortgage-backed securities) and the increased availability of housing credit, modern housing markets have become more susceptible to speculation.[2] The financialisation literature extends the relevance of housing markets by establishing theoretical links between speculative asset markets and broader financial and macroeconomic instability.

Through a systemic lens, the financialisation literature does not only investigate the possible destabilising impacts of the underlying inflationary forces within the housing markets, but also explores how the development of speculative housing markets affects the composition of aggregate demand in favour of consumption during a period of declining productive investment levels and stagnant growth (Bernanke & Gertler, 2000; Borio & Lowe, 2002; Dymski, 2010; Toporowski, 2009; Wray, 2008).

From an international political economy and human geography perspective, housing financialisation literature also explores the ways in which housing consumption is commodified, without necessarily investigating the impacts of such commodification on a macroeconomic level (Aalbers et al, 2020; Montgomerie & Büdenbender, 2015; Fernandez & Aalbers; 2016; Harvey, 2012). In the context of Turkey's macroeconomic trajectory, housing commodification and the role of the housing industry in the changing composition of aggregate demand since 2002 has also been well documented (Çelik, 2023; Ergüven, 2020; Karacimen, 2014; Unsal, 2021; Yeşilbağ, 2020). The specific role played by the state in Turkish financialisation has also been well examined, for example by Apaydin (2024) and Tansel (2018), who explore the impacts of authoritarian interventions on the change of the growth regime from a demand-led regime in the 2000-2010s to a profit-led model during the macroeconomic downturn in 2017-2018.

However, although the macroeconomic importance of housing demand boom and the role of the state in this growth since 2002 are well documented in the context of

[2] In this paper, a housing market is accepted as a system of markets in which not only housing units are built, bought and sold, but also where secondary financial assets are traded, mostly based on mortgage securitisation. A housing system with a persistent upward pressure on prices that is not in line with the general inflation rate is accepted to be "speculative".

Turkey (Celik, 2023), the relative stability of Turkey's housing market -despite evident speculative growth- prior to 2018 macroeconomic downturn remains insufficiently explored. This paper addresses this gap by examining how Turkey's unique contextual conditions—specifically state ownership of land and inter-sectoral linkages—helped mitigate the volatile price effects typically associated with financialised housing markets.

Following the 2001 crisis,[3] Turkey experienced relative macroeconomic stability up to 2017. Gross fixed capital formation growing at a rate of 7 per cent from 2001 and 2008 and 3.4 per cent from 2009 to 2016.[4] Inflation, historically high throughout the 1980s and 1990s, moderated to around 7-8 per cent annually during this period.[5] Simultaneously, the construction sector expanded from 4.6 per cent in 2001 to 6.5 per cent in 2017. Housing credit borrowing also grew substantially, reflecting broader trends in household indebtedness, with the share of total consumer credits rising from under 2 percent of GDP in 2002 to nearly 20 percent by the end of 2012 (Karacimen, 2014). Yet, this expansion did not significantly affect the broader economy, as mortgage loans never exceeded 1 percent of GDP before the enactment of the Mortgage Law in 2007 and peaked at only 7 percent in 2017.[6]

The literature on financialisation and asset markets suggests that periods of "optimistic" credit expansion often leads to systemic imbalances, with housing markets serving as early indicators of asset price inflation in the form of speculative bubbles (Borio and Drehmann, 2009; Dymski, 2010; Minsky, 1992). While the relatively small size of Turkey's asset markets helps explain why increased housing demand did not result in a crash similar to the 2008 crisis, it alone does not fully account for the market's stability between 2002 and 2017, despite clear speculative growth. A study by Coşkun et al. (2020) confirms this, finding some overvaluation in Turkey's housing market, without an asset price bubble formation. This paper investigates why this was the case, even though indicators of financialisation were present. [7]

Although the exact definition of financialisation is widely contested, the paper accepts an abstract definition of the concept as the increasing presence of interest-bearing capital within a Marxian political economy framework (Fine, 2013) and taking

[3] Turkey experienced a deep financial crisis in 2001, which was triggered by a sudden capital flight following a political tension between president and prime minister. In many ways, this crisis was similar to the Asian crisis of 1997, underlined by the financial fragility of firms with increasing levels of indebtedness. See Cizre and Yeldan (2005) for a detailed analysis and discussion of the 2001 crisis.

[4] Gross fixed capital formation as a share of GDP reached 25 per cent on average between 2001-2008 and 28 per cent between 2009-2016, while the world average was 24 per cent. World Bank National Accounts Data (http://data.worldbank.org).

[5] TURKSTAT (www.tuik.gov.tr).

[6] BAT (The Banks Association of Turkey) consumer and housing credit statistics (www.tbb.org.tr). After the macroeconomic downturn in 2018, the share of mortgage loans in GDP declined back to 2.53 per cent in 2022.

[7] In economics, financialisation is often defined strictly as asset price inflation. See Toporowski (2009) for a detailed discussion.

its presence as given based on earlier studies conducted in the Turkish case, it discusses why its disruptive macroeconomic effects were not immediately observed.

The first explanation lies in the inherent characteristics of the housebuilding industry itself. Because the housebuilding industry is structurally characterised by high cyclicality and low profitability, as opposed to the land development industry, which is highly capital-intensive with higher profitability, the ways in which the land markets are incorporated into the housing sector play a crucial role for sustaining growth in a volatile sector with easy entry and exit conditions. Given its high return structure and unchangeable nature of land as a commodity, land development is also more prone to creating monopolistic conditions and hence asset price inflation as a result. In Turkey, wide-scale state-ownership (up to 16-17 per cent of all land available to use)[8] prevented private monopolisation in the land markets and enabled housing supply to grow in line with rising demand.

The second explanation concerns the inter-sectoral linkages between housing and energy. Many of the large firms operating in Turkey's construction sector are also heavily invested in energy. These joint investments contributed to a long-term asset/liability structure, which counter-balanced the short-termism that often characterises speculative housing markets. The long-term balance sheet structure of the construction firms contributed to the prevention of an asset price bubble during the 2002–2017 period of rapid sectoral growth.

The article contributes to the housing financialisation literature in two distinct but interrelated ways. First, it provides a case that can demonstrate the ways in which the private consumption of housing is promoted to contribute to aggregate demand as a strategy in financialised economies, without necessarily a withdrawal of the state from the housing market. Second, it demonstrates that under certain structural conditions—such as the availability of public land and linkages to productive sectors like energy—speculative housing growth might not necessarily lead to destabilising macroeconomic consequences.

By drawing on multiple strands of financialisation literature and housing studies, this article fills a gap in the literature by investigating the productive characteristics of the housebuilding industry as a crucial explanatory factor as to how and why financialisation can be observed without associated macroeconomic changes.

[8] TURKSTAT (www.tuik.gov.tr). In gross terms, nearly 50% of all land in Turkey is owned by the state. Public land covers approximately 400,000 km², while the total surface area of Turkey is 783,562 km². However, more than 80% of this publicly owned land consists of forests, rivers, mountains, agricultural estates, and public building sites, which are not available for residential housing construction. (Private ownership of forests is not permitted in Turkey.)
In this context, the term *"land available to use"* refers to the portion of public land that can currently be sold to private developers or used by the state for residential housing purposes. It is important to note that these figures should be treated as rough estimates rather than precise statistics, as the status of public land in Turkey is subject to frequent changes. This is largely due to a legislative amendment introduced in 2012, which permits the sale of publicly owned forest land if it no longer qualifies as forest due to fires or other reasons (Official Gazette, 20 November 2012).
However, since these sales are conducted on an ad hoc basis by local administrators, the total volume of land sold under this provision since 2012 has not been publicly disclosed by the Turkish state.

The article plan is as follows. The second section provides a brief review of the financialisation literature, and discusses how housing studies can be placed within it theoretically, informed by the unique structural characteristics of the housing markets. Section 3 and 4 introduce the case of Turkey and discusses how the supply boom enabled by state-ownership in the land market and the inter-linkages with the energy sector gave rise to speculative activities within a relatively stable, growing sector, respectively. Section 5 concludes by emphasising the need for more context-specific analyses of financialisation.

2. Financialisation of Housing: what role to the housebuilding industry?

After the 2008 financial crisis, housing financialisation literature proliferated. Within the literature, two distinct branches with different disciplinary focus can be identified. The first branch is located within heterodox economics, mostly investigating the ways in which a Ponzi-like indebtedness structure and subsequent asset price inflation in the housing markets reflect some deeper macroeconomic imbalances and a precursor of declining productive investment levels (Borio & Drehmann, 2009; Dymski 2020; Onaran *et al.*, 2011; Palley, 2013; Stockhammer, 2004). Within that literature, the importance of the housing market comes from the relative ease of securitisation in the mortgage markets that enables agents to borrow money against rising housing prices and pay the debt when the assets are sold at a higher price (Dymski, 2010). In that respect, the primary emphasis is put on the availability of credit and secondary financial instruments as destabilising factors. Therefore, neither housing as a commodity nor the housebuilding industry as a sector is given a specific importance in that literature. The housing sector is treated as a mere intermediary vehicle for distribution, ineffective as an industry in and of itself with its unique productive characteristics. In other words, the housing market is just one of the many possible markets in which disruptive asset price appreciations can occur, irrespective of the structural ways in which revenues are generated within the housing markets, which can in fact partially explain persistent imbalances.

The human geography and international political economy literature, on the other hand, assigns housing a unique place in accumulation, primarily due to specific constraints related to land in the urban context. Within that literature, most contributions come from Marxist human geography, including Neil Smith's (1979, 1987) "rent gap theory" and David Harvey's (1982) seminal work on the Marxist theory of rent and "accumulation by dispossession".

It should be noted that both of these theories emerged in the early 1980s, during a period of rapid urban growth and transformation, with the aim of explaining broader urbanisation processes rather than the internal workings of the housebuilding industry itself. Smith's (1987) rent gap theory, specifically, seeks to explain

gentrification as a revenue-generating process driven by the difference between the current ground rent of a property and its potentially higher rent for future use. [9]

For Slater (2017), rent gap theory is not only useful for explaining gentrification processes in local urban contexts but also for understanding the recent planetary shift towards greater rent extraction and class-driven urban redevelopment. From a different conceptual perspective, Swyngedouw et al. (2002) discuss how large-scale urban development projects have served as tools for new forms of neoliberal governance in EU countries, particularly since the 1980s, resulting in increased rent appropriation and a greater concentration of social and economic power in the hands of the urban elite.

For Harvey (2012), the housing system holds a unique position in accumulation, primarily due to the availability of monopoly rent revenues upon urban land, which is both highly scarce and irreplaceable. Because land's 'unchanging (or more precisely, spatially fixed)' nature makes urban plots imperfect substitutes for one another, monopoly conditions easily emerge in contexts of high demand, making urban accumulation through land inherently speculative. Due to these special commodity-form characteristics, higher-than-usual rent revenues are often generated through gentrification in urban settings, giving rise to a process Harvey (1982) calls "accumulation by dispossession." Land, indeed, occupies a unique position in accumulation, as it is not considered a commodity in the traditional sense (it is not produced through capitalist production processes for profit) but rather a "commodity-form"—or a "fictitious commodity", alongside labour and money, according to Polanyi (1944).

Aalbers and Christophers (2014) also emphasise the unique spatial characteristics that make housing financialisation distinct. In other works, such as Montgomerie and Büdenbender (2015), Fernandez and Aalbers (2016), and Christophers (2017), the distinctive nature of housing as a commodity—especially its role in the maintenance of society—underpins its special role in financialisation. Aalbers (2017) stresses that although manifestations of housing financialisation vary across geographies, housing maintains a unique status within financialisation studies due to its special commodity character.

From another perspective, the availability of credit and the securitisation process further contribute to the housing market's distinctiveness, as these factors cause frequent price fluctuations in response to changes in credit demand/supply, irrespective of housing demand/supply (Aalbers and Haila, 2018).

[9] More specifically, "gentrification occurs when the gap is wide enough that developers can purchase shells cheaply, can pay the builders' costs and profit for rehabilitation, can pay interest on mortgage and construction loans, and can then sell the end product for a sale price that leaves a satisfactory return to the developer." (Smith, 1979, p. 545).

Although this article's empirical findings are in line with the arguments of the rent gap theory and accumulation by dispossession, especially with respect to higher than usual availability of monopoly profits upon landed property, it is not conceptually framed upon these theories, as it has a different purpose. These theories, and the literatures they belong to, were primarily developed within urban studies and human geography to explain urban development and change. This article, by contrast, does not aim to explain the dynamics of contemporary urban change in Turkey, but rather the relative stability of an otherwise speculative housing sector, despite the presence of a 'rent gap'.

In this respect, the article neither supports nor challenges rent gap theory directly, but instead aims to bridge the gap between the housing financialisation literatures in economics and human geography by using the internal dynamics of the housebuilding industry as an explanatory factor. It is now widely accepted in both heterodox economics and human geography that the availability of credit—not only in the form of mortgages but also via secondary financial markets—places upward pressure on housing prices. (This is, in fact, one of the main reasons why the housing market is considered 'inherently prone to speculation.')

However, while the increased availability of credit can explain upward pressure on prices, it is not regarded as a destabilising factor within mainstream economics discipline, unless it results in a full-blown asset price bubble. This article examines the Turkish case to demonstrate that upward pressure on housing prices driven by financialised tendencies can exist without resulting in an asset price bubble. In Turkey, this outcome was due to productive features of the housebuilding industry itself—such as the availability of public land to support housing supply and interlinkages with the energy sector—which helped prevent bubble formation despite rising housing prices and expanded credit access since the early 2000s and the introduction of a secondary mortgage market in 1998.

Because the housing financialisation literature in both economics and human geography does not deeply explore the structural productive characteristics of the housebuilding industry itself, certain unique formations of financialised housing markets are often overlooked. To address this, the article draws on the extensive theoretical work of Ball (1983, 1988, 1999, 2003) to suggest the ways in which the financialisation literature can benefit from housing studies.

In his seminal work, Ball (1983) develops a general framework for housing studies, in which some structural features of the housebuilding industry such as high cyclicality and low-scale economies, despite great institutional diversity across countries, are given primary importance. In Ball's (1983) framework, the rapid fluctuations in the housing market are not only explained by the supply-demand characteristics of the developed asset markets per se, but also by the way in which houses are produced materialistically.

Structurally, cyclicality with great volatility in output can be said to be typical of a consumer durable or investment goods industry where the existing stock of a good is greater than the current output. When new output cannot keep up with the increasing demand, as it is the case in housebuilding because construction is a long-term process, prices rise quickly in response to shortages in supply. However, in many industries with similar stock-adjustment processes, such as automobiles, firms are able to enjoy some mark-ups and protect themselves against these fluctuations due to capital-intensive nature of their industries. However, as a traditionally labour-intensive industry, housebuilding also faces high levels of competition with easy entry and exit conditions, which prevents them from imposing some mark-ups.

Such labour-intensive character of the housebuilding industry is precisely why land markets acquire a special position in the housing markets. Unlike housebuilding, land development and planning require substantial capital investment, requiring returns to be correspondingly higher in order to compensate for costs and uncertainty. Moreover, these initial investments tend to be riskier due to the commodity (form) characteristics of land. The specific fixed location of land plots makes them imperfect substitutes for each other, leading the demand in land markets to depend upon a wide range of determinants incorporating non-market elements, especially in the urban context.

As a result, a structural divide often exists between the housebuilding and land development industries, each with different risk-return profiles. In many contexts, this has led actors to integrate both land development and housebuilding to stabilise operations and benefit from the longer-term dynamics of the land market. In contexts where landowners hold significant market power and are not ‘forced’ to sell during downturns, housebuilders can benefit from monopoly power by acquiring land banks. Enabled by monopolisation in the land market, these actors can ‘hold’ prices during busts, shielding themselves from volatility but placing upward pressure on prices.

Ball (1988) argues that this has been a consistent strategy in the British housing markets following a bust of the market in 1973, when ownership was centralised in the hands of a few large housebuilders with access to their own land banks. As land functions as a debt-free wealth source during housing market upswings, firms with their own land banks gain the ability to respond to fluctuations with a certain degree of control over the timing of their market activities. In the long-run, this strategy alters the nature of the housebuilding industry by enabling the holders of residential land sites to develop a degree of monopoly power in a market which is by its nature highly cyclical and not prone to monopolisation. As a result, the British housing market has been characterised by these dynamics in which chronic supply shortages became a norm (Robertson, 2017) and new building permits averaged only around 15 per cent a year of total owner-occupied house sales even long before the Great Financial Crisis of 2008 (Ball, 2003).

Thus, the unique nature of the British housing market and its proneness to volatility is not only the result of macro-level financialisation, but also a direct consequence of the structural formation of the housing market itself. A detailed exploration of the housebuilding industry helps us understand why monopolisation is more common in housing than in other sectors, going beyond a simplistic identification of land as a scarce input.

Anne Haila (1988, 2022) critiques Ball's framework, arguing that abstract rent theories fail to account for the spatial consequences of geographical change. Specifically, she highlights how changes in firm location behaviour, public land-use interventions, the identity of landowners, and the development of rent and investment markets have so drastically transformed modern real estate markets that classical rent theory alone cannot fully explain them (Haila, 2022).

While Haila (2022) is correct in noting the unprecedented global transformation of urban space, a structural understanding of housing markets does not necessarily exclude an analysis of contextual specificities. Indeed, this article argues that because each housing market forms uniquely, context-specific analysis helps explain why in some cases, speculative housing markets do not empirically result in asset price inflation—despite underlying speculative tendencies. The following section introduces the Turkish context, where the state's strong presence in the land market has prevented private monopolisation (and thus sharp price increases) while simultaneously integrating the land development and housebuilding sectors to promote greater market stability.

3. The case of Turkey I: The state and the land markets

Housing financialisation in Turkey has been studied by many scholars, especially with respect to the specific the role of the state in the process (Celik, 2023; Erguven, 2020; Erol, 2019; Ocakli, 2018; Yesilbag, 2020).

All authors agree that the transformation of the Turkish housing market represents a state-orchestrated financialisation process, facilitated by incoming financial flows since the 2000s. Yesilbag (2019) claims the Turkish case is crucially different from the developed country cases of financialisation because the size of the mortgage markets is negligible in comparison. Ergüven (2020) links the recent macroeconomic trajectory of the Turkish economy to the rapid growth of the housing market. Erol (2019) also finds a link between the boom in the credit markets and housing construction, claiming that these twin booms gave rise to two distinct phases of housing financialisation in Turkey: 2002-2007 housing-finance consumption nexus, and 2010-2014 government reregulation of the housing market. Ocaklı (2018), on the other hand, compares the hydroelectric power industry with the housing sector to demonstrate the state's decision-making strategies in both industries.

Although these studies reveal the extent of housing financialisation in Turkey, their primary focus is on the public sector's contribution to housing demand—and, by extension, to housing financialisation—without exploring the stabilising implications of such contributions via increased housing supply and land provision. Building on the previous section, which analysed the structural characteristics of the housing industry, this section investigates how specific features of the Turkish housing market—such as the availability of public land—enabled state-led, market-enhancing policies without generating destabilising macroeconomic or sectoral impacts.

From a macroeconomic perspective, it has been argued that most of the developing and emerging country success stories since the 1980s -including Turkey- were dependent on unprecedented inflows of foreign capital (Bonizzi, 2013; Demir, 2009; Karacimen, 2015; Subaşat, 2014). As many countries experienced a disproportionate turn to foreign capital, indebtedness levels increased and a consumption-driven demand structure emerged. This trend was especially visible in Turkey since the late 1980s and early 1990s, as Demir (2009) finds that in order to attract capital flows, Turkey offered very high interest rates and uncovered interest arbitrage returns, which increased from 10 per cent between 1989-1994 to 40 per cent during 2002-2007; as opposed to 8.5 per cent in Argentina and 3.6 per cent in Mexico during the same period.

While this resulted in increasing indebtedness of the public sector in the 1990s through securitisation, the period between 2010 and 2017 was characterised by an optimistic growth trend with an annual growth rate of 6-7% on average. This trend has been reversed in 2018, following an exchange rate crisis which resulted in Turkish Lira to lose its value for more than a third, and the global Covid-19 crisis in 2020, which pushed inflation rate above 70 per cent in 2021 and unemployment above 11 per cent (Tekgüç *et al.*, 2022).

Among the non-financial institutions which benefited from the expansionary macroeconomic environment during 2002-2017 was the construction sector, of which investments increased cumulatively by 80.6 per cent from 1998 to 2014. Table 1 shows that the fixed capital investments made by the construction sector constituted 14.7 per cent of the GDP in 2017, following the manufacturing and transportation sectors.

[insert Table 1 here]

As expected, the construction sector growth has been very much in line with the real GDP growth, reaching a peak in 2010 at 18 per cent. Although its share in in total GDP stays limited given its labour-intensive nature; it still increased from 4.6 per cent

in 2000 to 6 per cent in 2016, while its contribution to employment increased from 6.3 per cent to 7.3 per cent.[10]

As a middle-income level country with growing infrastructure needs, Turkey's construction boom was also associated with the growth of the energy sector. Between 2003 and 2017, 919 hydroelectric and 565 thermal power plants had been issued licences for electricity generation. As the credits given to the construction sector increased from 3.5 per cent of all credits in 2004 to over 8 per cent in early 2017, the energy sector in total (including the electricity, petroleum and coal and mining industries) used on average 12.8 per cent of all domestic and foreign exchange credits issued. In 2016, the energy sector projects have received 52 per cent of all total project credits, while the share of real estate and infrastructure has been 13 per cent and 12 per cent, respectively.[11]

The strong performance of these sectors in attracting project finance is striking, especially considering that the aggregate share of all other sectors in total project credits was 23 per cent in the same year. It is also worth noting that the rising trend in energy and construction investments coincided with the decline of some traditionally powerful industries, such as textiles, of which credit share was only 4 per cent in 2016, decreasing from 13 per cent in 2000.[12]

What demands closer investigation, however, is the role of housing supply growth in this construction boom. The rising residential consumption demand can be accepted as a signal of growing consumption in the composition of aggregate demand with possible future macroeconomic repercussions, as discussed in the financialisation literature (Onaran & Stockhammer, 2005; Toporowski, 2010). Since 2002, more than 70 per cent of all construction permits on average were given for residential purposes.[13] Figure 1 demonstrates that the housing supply boom follows the

[10] It should be noted that this picture does not suggest an interesting result in itself, as the contribution of the construction sector to GDP tends to be in accordance with the country development levels traditionally: usually increasing from an average of 4.6 per cent in lower-income countries to over 7 per cent in middle-income countries. This is because while the manufacturing sector is given a boost during the early stages of development, construction follows to keep up with the infrastructural needs of industry when countries experience rapid industrialisation at the middle-income level. Low productivity and higher wages, however, slow down the growth of the construction industry as the economy advances. See the classical study by W. P. Strassmann (1970). A more recent World Bank study in 2011 also supports the classical argument by finding that the construction activity in China is almost double that in the world's largest economy, the USA, with real expenditures in international dollars of $2,623,761 million and $1,341,500 million, respectively. See ICP 2011 regional results reports at <https://www.worldbank.org/en/programs/icp/brief/reports>

[11] Disaggregated biannual project finance statistics are collected and released by The Banks Association of Turkey (BAT) since December 2014 (www.tbb.org.tr)

[12] Banking Regulation and Supervision Agency (BRSA) Interactive Monthly Bulletin (http://ebulten.bddk.org.tr)

[13] Building permit statistics are collected and released by TURKSTAT annually. See TURKSTAT website for more details: www.tuik.gov.tr.

reorganisation of the state institution Mass Housing Administration (MHA) during 2002-2004 and the establishment of Mortgage Law in 2007.

The growth in housing demand is also reflected in the striking increase in housing credit. The share of housing credit in total credit rose from under 5 per cent in 2001 to 34.4 per cent by March 2017. As Figure 2 illustrates,[14] Turkey recorded the fastest real credit growth in housing globally in 2015.

[insert Figure 1 here]

[insert Figure 2 here]

The impact of the increasing demand on prices could not be denied, as from 2010 to 2017, residential prices in Turkey increased by 37.7 per cent in real terms.[15] Price to rent ratio also increased from the base in 2010 (=100) to 139 by 2015, which is among the highest in OECD countries of which average stayed at 103 in 2015 from the base in 2010.[16]

[insert Figure 3 here]

An important aspect of the Turkish housing market is, however, is the fact that despite increasing prices, the price-to-income ratio remains relatively low[17] and the homeownership rate is quite high at 56 per cent.[18] In other words, despite considerable price increases, Turkey doesn't experience a housing deficit crisis as many advanced nations do. According to Aalbers and Haila (2018), that is because the recent inflationary trend in housing prices globally were driven not by the housing supply shortages, but rather by the availability of finance.

As the growth trend in the economy slowed down since 2017, dropping from 6 per cent in 2015 to 3.1 per cent in 2016 and 2.8 per cent in 2018, the rising trend in residential prices due to demand stimulation seemed to be reversed for a while. In the first quarter of 2019, real house prices decreased by 13.8 per cent.[19] However, as the credit growth continued to increase (Turkey had the fastest credit growth rate

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[14] The biggest share in all consumption credits however is taken by the personal finance credits, which constitute 63.5 per cent of all household credits in March 2017 according to BAT (The Banks Association of Turkey) consumer and housing credit statistics (www.tbb.org.tr). Housing credit only refer to mortgages that are taken for the purposes of buying housing units.
[15] BIS Residential property price statistics (https://www.bis.org/statistics/pp.htm?m=6 per cent7C288).
[16] OECD Analytical House Price Database (http://www.oecd.org/eco/outlook/focusonhouseprices.htm)
[17] According to IMF Global Housing Watch, price-to-income ratio in Turkey decreased from a base of 100 in 2015 to 90 by the end of 2021, indicating that incomes increased faster than the prices, which supports the fact that an asset price bubble was not present despite increasing housing prices. In the same year, real housing prices increased by 26.9%, making Turkey the country with the highest annual increase in housing prices.
[18] EUROSTAT
[19] IMF Global Housing Watch

among 48 countries at 13.8 per cent in 2021), and the macroeconomic outlook worsened with the inflation rate according to average consumer prices reaching 73 per cent, the prices rapidly increased back to 2016 levels and above. In 2021, Turkey had the highest rate of annual per cent change in real house prices at 26.9, among an IMF dataset of 48 countries across the globe.[20] This is especially striking in a recessionary global environment, which led many countries to experience falling residential prices according to IMF Global Housing Watch.

Figure 4 demonstrates the sharp real increase in housing prices in Turkey since 2021 (following the exchange rate crisis in 2018 and COVID-19 crisis in 2020). The figure also demonstrates the relative stability of the prices prior to 2018, despite an upward pressure.

[insert Figure 4 here]

In this regard, the continued rise in housing prices after 2018, despite a macroeconomic downturn, is a clear indicator of speculative tendencies. This article asks why such sharp and rapid price increases did not lead to bubble formation during the relatively optimistic growth period of 2001–2017—given that, as Minsky (1992) argues, asset price bubbles typically form during optimistic expansions fuelled by credit availability.

The article argues that the relative stability of the housing market—despite speculative growth—was primarily due to two factors: first, the prevention of land market monopolisation via large-scale state ownership; and second, the interlinkages between housing and the long-term energy sector. The next section will explore how the extent of state land ownership enabled an expanding housing supply without monopolistic price inflation, thereby contributing to relative market stability.

3.1. MHA: A state agent as the primary land owner?

The housing markets in Turkey are characterised by the dominance of the public ownership in the land markets (16-17 per cent of all available land is public), which shape the housebuilding industry accordingly. This structure occurred mostly due to land market practices of the Ottoman Empire, where private land ownership was subject to strict regulations and was practically inaccessible to the majority of population. Oyvat (2016) finds that, as a result, agricultural land distribution has not been as unequal as in its developmental counterparts in Latin America. Tekguc (2018) argues that this relatively equal division of land, which functions as a surrogate social policy, has contributed to a high rate of home ownership in Turkey.[21] Bugra (1998) also argues that during the rapid process of urbanisation after the

[20] IMF Global Housing Watch
[21] Home ownership rate is 56% in 2025 in Turkey despite sharply increasing prices, according to EUROSTAT.

1960s, availability of public land allowed for low-income groups to occupy land and build squatter settlements *(gecekondus)* in the absence of large-scale mass housing projects. Strikingly, over 75 per cent of all squatter settlements in Istanbul and 88 per cent in Ankara had been built on enclosed public land by the early 1990s (Bugra, 1998).

In this respect, the most distinctive and defining feature of Turkish housing financialisation is state ownership of land—similar to the case of housing financialisation in China, as analysed by Chen and Wu (2022)—although the processes of accumulation through housing are structurally very different.

Although the public sector has been the biggest actor in the land markets, land subdivision and urban development were not highly regulated until the early 2000s. The Urban Development Law stated that the municipalities were responsible for land provision through public subdivision up to 40 per cent of city land. However, the parcel creation process proceeded on an ad hoc basis, as some municipalities did not want to engage in costly parcel creation and left the task to landowners and house-builders (Turel & Koc, 2015). As a result, land development process in Turkey has not been uniform and has varied significantly depending on the bureaucratic and financial choices of individual municipalities.

As urbanisation accelerated throughout the 1990s, the need for faster and more cost-efficient creation of urban plots became increasingly urgent. During this period, a public institution known as the Mass Housing Administration (MHA) became responsible for land development and gained crucial importance in the sector due to its multiple responsibilities. The role of the state—particularly the role of the MHA—in Turkish housing financialisation has already been demonstrated by Çelik (2023). This section provides a brief summary of the lasting impacts of this institution's activities to support the argument that the state played a central role in the rapid commodification of housing in Turkey after 2002. More specifically, this section demonstrates how the state's presence contributed to the relative stability of the Turkish housing market despite increasing financialisation and commodification.

MHA was established in 1984 to provide mass housing and housing credit to the low- and middle-income families. For almost 20 years until 2002, its functions were limited to these areas, and it built a total of 43,125 houses and provided credit for 950,000 housing units obtaining funding from the Housing Development Fund. In 2001-2002, the Housing Development Fund was abolished along with Urban Land Office (responsible for the management of the public land bank) and Emlak Bankasi (The Real Estate Bank of Turkey), which was a public bank specialised in real estate and housing credits.

In 2003, The Emergency Action Plan for Housing and Urban Development was passed, the goal of which was to build 250,000 housing units through renovation, transformation and production by the end of 2007. Meanwhile, Housing Development

Fund, Urban Land Office and the Real Estate Bank of Turkey were abolished. Their tasks and assets were gradually transferred to MHA, increasing its land bank from 16.5 million m^2 to 65 million m^2 (approximately 16-17 per cent of total land available for use in Turkey). In 2004, MHA was also authorised to conduct planning and zoning activities on Treasury estates, without requiring any further permission from local or central governing bodies, as long as the plans are not in direct conflict with the activities of municipalities.[22] In 2007, the Mortgage Law prevented MHA from providing housing credits, but its unique position in the housing market was protected, given its huge land bank as well as its special subdivision and planning responsibilities.

Within that context, MHA's involvement in the housing market has been instrumental to provide stability to a highly volatile sector with low levels of profitability and to contribute to aggregate demand through individual consumption. MHA is involved in the housing markets through several channels with an ability to directly influence supply/demand mechanisms given its near monopoly power in the land market. During the 2000s, 78 laws and 10 by-laws were passed concerning the production of the built environment (Topal *et al.*, 2015). The majority of these pieces of legislation were aimed at regulating the land market, mostly through MHA.

MHA's specific functions in the housing market can be summarised as follows. First it engages in direct land sale, zoning and planning activities to facilitate housing supply and provides housing supply for low- and middle-income groups, which contribute to managing output volatility in a sector known for its cyclicality. Second, it undertakes large-scale urban transformation projects and public-private partnerships for luxury housing projects to cross-subsidize social housing projects, which generate demand in inner city urban areas.[23] Finally, it issues asset-backed securities through its partner real estate investment trusts as a way of being directly involved in the financialisation process. These functions of MHA are discussed more in detail below.

First, the MHA is involved in the housing market through the direct provision of housing and land, although its share in total housing supply remains limited. Most

[22] This gave MHA exclusive decision-making rights in the land markets without proper checks and balances. Indeed, the Ministry of Finance Turkish Court of Accounts Audit Report in 2015 revealed that there were some breaches of the legislation in the practice of estate transfers as, although the Law only allowed for the transfer of the estates that had not undergone land development, some land plots that were already suitable for housebuilding were also transferred to MHA (This report is no longer accessible to public, accessed in 2017 through https://www.sayistay.gov.tr/tr/Upload/62643830/files/raporlar/kid/2015/Genel_B%C3%BCt%C3%A7e_Kapsam%C4%B1ndaki_%20Kamu_%C4%B0dareleri/MAL%C4%B0YE%20BAKANLI%C4%9EI.pdf).

[23] Today, among MHA's total housing projects, 40 per cent is addressed for middle-income families, 23 per cent is for low-income families while 15 per cent is for urban development projects. Among all urban regeneration projects, 85 per cent of funds are used for affordable housing, while 15 per cent is used for luxury housing (www.toki.gov.tr).

housing in Turkey is supplied by the private sector, which increased its share of total housing starts from 70 per cent in 2000 to 92 per cent in 2015. [24] Among the 800,000 housing units constructed annually since 2002, according to TURKSTAT, only about 50,000 per year are social housing units—amounting to roughly 6 per cent of total housing production.[25]

However, these figures do not fully capture the role of the state in the housing market. Apart from its regulatory role, the state's primary function in the housing markets is fulfilled through the sale of public land to private developers. There are no official statistics to capture the total volume of public land sales in Turkey, as these take place on an ad hoc basis, organised by the local authorities. Once the sales occur, the resulting construction on formerly public land is classified in official statistics as private production (on private land). Given that the state is the biggest actor in the land market, we can safely claim that these sales play an important role in determining the supply/demand in the Turkish housing market.

Despite being quantitatively negligible in terms of gross output, MHA's social housing projects—particularly those developed in peripheral urban areas where housing demand has traditionally been low—play a significant stabilising role. These projects help smooth out market fluctuations and establish new neighbourhoods (and, in effect, new demand zones), creating a foundation upon which private housebuilding can subsequently occur.

Second, it undertakes large-scale urban regeneration and revenue-sharing projects to facilitate demand through public land sale/use especially in the urban context. According to Topal et. al (2019), these projects create a new form of rent revenue, which could be classified as "rent gap".[26] Among its large scale urban transformation projects, *Tarlabasi Renewal Project* covers 20,000 m^2 of land with 278 certified historical buildings (Kuyucu & Unsal, 2010). Located at the very centre of Istanbul, the *Tarlabasi Project* has been the symbol for the rapid urban transformation process taking place in Turkey since the early 2000s, with a tender worth $500 million won by Calik Holding in collaboration with Beyoglu Municipality in 2007. It should be noted that the making of such projects particularly is in favour of the bigger firms with sufficient capital to engage in costly and risky land development investments, which also explains why there are strong inter-linkages between the housebuilding and

[24] All housing construction data in the Turkish context is retrieved from TURKSTAT construction and housing dataset, retrieved from https://data.tuik.gov.tr/Kategori/GetKategori?p=insaat-ve-konut-116. Also can be retrieved from TURKSTAT central database platform in Turkish: https://biruni.tuik.gov.tr/medas/?kn=135.

[25] TURKSTAT only releases data for building permits (Yapi Ruhsat Izinleri) on a national level, as opposed to occupancy permits (Iskan Belgesi) as these are provided by the local municipalities and not by the central government. In general, building permits are a more reliable measure for total housing stock in Turkey, as these permits are tightly regulated by the central government, while residents sometimes may fail to provide occupancy permits for their properties despite living in them for years.

[26] Please refer to Section 2 for a detailed discussion of rent gap.

energy companies. In fact, Calik Holding is one of the biggest companies in Turkey with substantial investments in the energy sector, namely Aras EDAS (Eastern Anatolia Electricity Distribution Company) and Yesilirmak EDAS (Northeastern Anatolia Electricity Distribution Company), and has been involved in the construction and management of eight power plants in Turkey; including Cankiri Thermal Power Plant (TPP), Yatagan TPP, Kizkayasi Hydroelectric Power Plant (HPP), Adacami HPP, and four power plants based on renewable (solar and wind) energy.[27]

Third, MHA facilitates securitisation and contributes to the deepening of capital markets through partner Real Estate Investment Trusts (REITs) operating under its umbrella since 1998. Today, among a total of 31 REITs seven are participation companies of MHA, including Emlak Konut, which is among the top fifty largest companies listed on Istanbul Stock Exchange with a market value just over $3 billion in July 2017 and $5 billion as of early 2025. Although the extent of securitisation still stays negligible in Turkey on an aggregate level, as it did not exceed one per cent of the GDP until 2017 (even as of today in early 2025, the total share of mortgage securities is just below two per cent of GDP),[28] the state's active involvement through MHA in the facilitation of the securitisation process is worth noting. As discussed by Rethel (2010), a similar process was observed in Malaysia, where a quasi-public agency, Cagamas (National Mortgage Corporation) contributed significantly to the corporate bond market through issuing mortgage-backed securities and has become the largest issuer of asset-backed securities in Malaysia with a market share more than 50 per cent. The striking similarities between the activities of Cagamas in Malaysia and MHA in Turkey can exemplify how these public institutions function as agents of market facilitation.

In summary, MHA fulfils several market-facilitating functions in the housing market, which made it the key actor in the emergence of a simultaneously output-facilitating and speculative market structure. While the housebuilding industry continued to grow during the 2000s, large-scale state ownership in the land markets and MHA's presence as both a regulatory and direct participant facilitated an increasing housing supply, preventing private monopolisation in the land market, which is usually one of the primary reasons for sharp asset price increases in the housing market, as discussed in detail in Section 2.

There is another factor, however, which delayed the disruptive inflationary process: the inter-linkages with the capital-intensive energy sector, which helped the bigger firms in the housing industry (which have joint investments with energy) to protect profitability without restricting output within a highly competitive and low-economies of scale industry.

According to the Company Accounts Statistics collected by the Central Bank of the Republic of Turkey (CBRT), as shown in Table 2, from 2009 to 2023, most firms

[27] See Calik Holding website: www.calikenerji.com.
[28] BAT website: www.tbb.org.tr.

operating in the construction industry were very small. [29] Large firms accounted for only 0.3 per cent (493 firms in total), while SMEs made up 22.2 per cent (33,508 firms), and micro-sized firms comprised 77.4 per cent (116,622 firms). A micro-sized firm is defined as a company with fewer than 10 employees and annual sales and revenues below 500 million TRY.

This observation aligns with the general structure of the housebuilding industry, which is predominantly composed of small-sized enterprises – as discussed in detail in Section 2. Firms engaged in joint investments with the energy sector are primarily large firms, which are also responsible for the largest share of total sales. Although the number of large firms is relatively small, they hold a disproportionately high share of resources: their total assets constitute 34.6 per cent of all assets in the construction industry, and they account for 25.6 per cent of total sales.

[insert Table 2 here]

The next section will explain how the big firms in the construction industry also have investments in the energy sector, and the structural impacts of these linkages on the housing market in Turkey.

4. The case of Turkey II: What role to the energy sector?

This section explains how the strong inter-linkages between construction and energy sectors in Turkey have been an important factor for accommodating increasing housing demand without immediate output volatility and short-termism. As argued before, this is due to the long-term capital-intensive characteristics of the energy sector contributing to the housing market. In order to examine firm characteristics and detect the long-term nature of their investments, this section makes use of the Company Account Statistics, which is the most systematically kept data available for sectoral level financial statements collected by the Central Bank of Turkey (CBRT)[30].

[29] See CBRT website (www.tcmb.gov.tr).

[30] Company Accounts statistics are collected and released by the CBRT based on the voluntary participation and cooperation of firms that send comprehensive financial statements since 1990. The data are released yearly, each dataset covering the three previous years. The panel data are unbalanced as there is a substantial increase in the number of firms participating in the survey from 1999 to 2015. The electricity generation, natural gas and hydraulic resources industry is used as a proxy for the energy sector, as it is the biggest industry in the sector with the highest levels of investment and closest links to the construction sector. This article shows a total of 38 (31 SME, 7 big) electricity generation firms from 1999 to 307 (291 SME, 16 big) firms in 2015. During the same period, the number of total firms in the dataset increased from 7445 to 9341. All figures in Section 4 are derived from this dataset, unless otherwise stated. See website https://www.tcmb.gov.tr/wps/wcm/connect/TR/TCMB+TR/Main+Menu/Istatistikler/Reel+Sektor+Istatistikleri/Sektor+Bilancolari/

The strong overlap between the energy and construction sectors is not a surprising phenomenon, given the existence of backward linkages between these two sectors. In other words, the output of the construction sector, which is the built environment, is an input for the energy sector. However, in many advanced economies, where the demand for new construction is not as high[31], these linkages may not be observed as strongly. In emerging economies, on the other hand, as the demand for new built environment and energy is increasing simultaneously, there are strong economic incentives for firms to operate in both of those sectors which are backwardly linked. This section demonstrates this phenomenon in Turkey.

Figure 5 demonstrates that during the optimistic macroeconomic period between 2002 and 2017, construction firms' short-term liabilities decreased while their long-term liabilities increased, contrary to expectations.[32]

[insert Figure 5]

The activities of the firms operating in the energy sector in Turkey have been closely tied to the activities of the construction sector, due to the simple fact that these firms are the same. Table 3 shows all the companies operating in electricity distribution industry, of which privatisation was completed in 2013. These firms are the biggest companies within the electricity sector and all actors displayed in Table 3 have operations in the construction sector without an exception. For example, the Limak-Kolin-Cengiz consortium which is responsible for the operation of four distribution companies, namely Camlibel, Uludag, Bogazici and Akdeniz, is also responsible for the construction of Istanbul Airport by the Black Sea coast, of which 22 billion Euros worth tender in 2013 made it the most expensive single investment project in Turkey. Similarly, Yesilirmak EDAS is owned by Calik Holding, which is also responsible for the most extensive urban regeneration project, Tarlabasi, as discussed in Section 3.1. Alarko Holding, which won the tender for Meram Distribution Company together with Cengiz Holding, is responsible for parts of the Istanbul and Ankara Metro systems extension, as well as other extensive construction investments in Turkey and abroad. The winner of Vangolu Distribution Company tender, Turkerler Insaat, on the other hand, is responsible for extensive MHA social housing projects in Ankara.

[insert Table 3 here]

[31] See Footnote 8. The size of the construction sector tends to be highest in middle-income economies, reaching around 7% of the GDP, in comparison to lower- and high-income countries (not exceeding 4-5%) (Strassmann, 1970).

[32] Same long-termist tendency is also observed in total assets, with fixed long-term assets category increasing its share from less than 30 per cent in 2006 to just over 40 per cent in 2016 (according to CBRT Company Account Statistics). However, Figure 5 only demonstrates the liability structure of the firms, as the tendency towards short-term indebtedness could be captured more easily in the breakdown of total liabilities.

In short, there is incredible overlap between energy and construction sectors, all of the biggest energy sector actors also having investments in the construction sector (with housebuilding activities) without an exception. Given the necessity of extensive civil work for energy investments, the existence of close ties between the energy and construction sectors is far from being surprising. Therefore, the purpose of this section is not to further prove the existence of these inter-linkages, which is far from surprising in an emerging country case. However, as the existence of these sectoral interlinkages will necessarily impact the risk/return structure in the housebuilding industry, this section aims at emphasising the fact that big construction firms (with joint investments with the energy) do operate in the housebuilding industry in Turkey, which will likely to reduce cyclicality and prevent volatility in the housing market.

In Section 2, it was discussed from a theoretical perspective that the housebuilding industry is prone to rapid cyclical price movements, as small firms generally lack the capacity to 'hold onto' prices during economic downturns—unless a monopolistic structure emerges, typically due to concentrated land ownership. The industry is characterised by low barriers to entry and exit, with a large number of small firms operating in a highly competitive environment. By contrast, the energy sector, which requires risky long-term initial investments, tends to exhibit an opposite structural pattern.

In the case of the Turkish housebuilding and energy sectors, large firms have operated in both markets simultaneously without an exception. This dual presence may explain why short-term liabilities in the housing sector declined during the period of macroeconomic growth, contrary to typical expectations. Although these large firms constitute only 0.3 per cent of all firms in the construction industry in terms of total number, they hold approximately 35 per cent of total assets – referring to a high degree of market concentration in a traditionally labour-intensive (hence competitive) industry. Moreover, although the construction sector includes other activities than housebuilding, more than 70 per cent of all construction permits since 2002 have been issued for residential purposes in Turkey.[33] Therefore, it is safe to claim that housebuilding is the primary revenue-generating activity of the construction firms. As a result, their ability to make long-term investments in other sectors influences their behaviour in the housing market, as they will not be 'forced' to cut down prices during downturns. In other words, the presence of long-term investment tendencies of the firms operating in the market can reduce price volatility in that market. [34]

[33] TURKSTAT.

[34] Unfortunately, there isn't an empirical method to isolate the impact of long-term energy sector investments of big construction firms on housing prices (as the sectoral balance sheets collected by the CBRT do not reveal whether the revenues come from housebuilding or energy investments unless we individually examine each individual firm balance sheet, which is not possible to do on a sectoral level). The purpose of this section, however, is to reveal a long-term tendency and not to measure this quantitatively.

As this section demonstrates the long-term investment orientation of the firms operating within Turkey's construction and energy industries, it is reasonable to suggest that the Turkish housing sector is not as short-termist as in many other countries. This structural feature may help explain why Turkey has not experienced a housing asset price bubble, despite upward pressures on prices.

The long-term structure of the energy investments is demonstrated in Figure 6, which shows the exponential increase in the long-term liabilities of the electricity industry firms since 2002, coinciding with the joint growth of the energy and construction sectors as discussed above. From 2013 to 2015, the energy sector in total (including the sum of electricity, petroleum and coal and mining industries) used on average 12.8 per cent of all domestic and foreign exchange credits issued (which constitutes the second largest share after the manufacturing sector, which has used 42.3 per cent of total domestic and foreign exchange credits).

[insert Figure 6 here]

To demonstrate the growth of the productive capacity, Figure 7 shows the breakdown of the shares of tangible fixed assets in total assets.

[insert Figure 7 here]

Although Figure 7 demonstrates a decreasing trend in the total share of tangible assets in total assets since 1996, which could be interpreted as a decrease in productive capacity at first glance, a closer observation reveals that the decrease is mostly due to the decrease in land improvements item until 2001. On the other hand, there is a sharp increase in the plant, machinery and equipment item from 2000 to 2006, reflecting the growth of the energy investments, reaching almost 70 per cent of all assets at its peak. The following decrease reflects the fact that once the initial fixed investments are made, the firms in the electricity generation industry can operate without requiring new physical investment.

Surprisingly, the decrease in the plant, machinery and equipment item can be in favour of the increase of long-term productive capacity of the sector, due to the increasing share of the hydropower capacity in comparison to the thermal power in total electricity generation capacity. Figure 8 shows the increasing share of hydropower investments in comparison to thermal power in Turkey, especially since 2010. Although the share of thermal power in total electricity generation in Turkey is almost 50 per cent, which is still much higher than the hydropower, of which contribution does not exceed 20 per cent in 2017, the cumulative investments in hydropower during the period 2003-2016 (contributing to total capacity by 14475

MW) grew much faster than the cumulative investments in thermal power (contributing to total capacity by 28276 MW).[35]

Figure 8 shows how the hydropower investments raised their share in total annual electricity generation investments from less than 20 per cent in 2003 to almost 40 per cent in 2016.

[insert Figure 8 here]

This is an important development to depict the increasing productive capacity of the sector as a whole. As Table 4 depicts, conventional hydropower technology has a higher capital intensity than gas and oil combined cycle thermal plants with a unit variable cost of 2.62$ per unit of MWh as opposed to 14.7$ fixed operating costs per one MWh. Typically, the cost of a hydro power plant is 100 to 200 per cent more than a thermal power station (Head, 2000). However, the cost of constructing hydro power plants is only higher in the beginning (if it involves the construction of a dam), and it has much lower long-term operating costs as the absence of fuel is an important cost minimising factor. As a result, in order to cover the early costs that might span a period of five to fifteen years, a more rapid expansion of the market will favour hydropower (World Bank, 1957). As a crude rule of thumb, this will result in capital intensity to increase rapidly in the expansion, and more slowly in the diffusion period, as seen in the Turkish case depicted in Figure 8.

[insert Table 4 here]

In short, unlike the short-term cyclical nature of the housebuilding industry, the energy sector (until the end of a macroeconomic cycle of growth by the end of 2017) reveals an increasing long-term productive capacity. This article argues that because the biggest actors in these two sectors with a degree of market power are mostly the same, an increasing productive capacity in the energy sector could also translate into the prevention of rapid entry and exit in the housing market despite increasing speculation and rapid growth.

The next section will conclude the article by emphasising these findings in light of a need for case-specific analyses of financialisation.

[35] See TEIAS website www.teias.gov.tr.

5. Conclusion

Despite disputes over its exact definition, financialisation has long been acknowledged as a process with distinct disruptive impacts on accumulation. The process of financialisation in Turkey has been well documented, both at the macroeconomic level and within the housing markets—broadly characterized by the increasing presence of interest-bearing capital since the early 2000s. However, because an asset price bubble, in the classical sense, did not occur during the optimistic growth period of 2002–2017, a disruptive market crash associated with housing financialisation was not observed in the Turkish case. Although the relatively small size of asset markets may explain the lack of broader macroeconomic repercussions, it does not fully account for the relative stability of the housing market, which experienced no prolonged downward trend despite substantial speculative demand growth.

This article addresses that question by examining the productive characteristics of the housebuilding industry.

I find that this relative market stability was due, first, to the availability of land, which allowed supply to match increasing demand. The housing industry is known to be highly cyclical, and the structural inability of firms to achieve greater returns to scale often results in many firms exiting the industry during downturns, creating output volatility. However, if firms manage to combine the labour-intensive aspects of housebuilding with the capital-intensive aspects of land development (particularly by acquiring land banks or engaging in other long-term investments) they can respond to fluctuations in demand with a certain degree of monopoly power that enables them to restrict output instead of cutting down prices (hence a speculative structure emerges).

In Turkey, a state actor named MHA has been the primary agent in combining these activities and fostering the emergence of a speculative housing market. Following a legal re-organisation process between 2002 and 2004, MHA became the largest player in the land market. Its control over land availability meant that a monopolistic risk/return structure could emerge without associated price increases or output restrictions (as it is ultimately not a private but a public agent). MHA also played other price stabilising roles in the housing market, such as smoothing output fluctuations in this cyclical industry through social housing projects in peripheral areas with traditionally low demand, while simultaneously stimulating demand through large-scale urban regeneration and revenue-sharing projects in metropolitan areas.

The second factor that prevented the acceleration of inflationary forces in the housing asset market before the 2018 macroeconomic downturn was the involvement of large construction firms in the energy sector. These investments

contributed to a more stable long-term balance sheet structure for firms operating in both sectors.

The existing literature on housing financialisation in Turkey highlights how the rapid growth of the sector has been an indicator of an unsustainable, financialised growth regime. This article does not dispute those findings. However, as financialisation is often associated with asset price bubbles empirically, the reasons behind the absence of asset price inflation prior to the 2018 downturn—despite evidence of speculative structure—have remained underexplored. This article contributes to the literature on housing financialisation in Turkey by providing a detailed explanation of how inflationary pressures in asset markets were delayed due to structural factors not directly related to the financialisation process, but rather to the internal dynamics of the housebuilding industry itself. By doing so, it emphasises the need for a deeper understanding of the workings of the housebuilding industry for financialisation studies.

The delay in asset price inflation was due to, first, a state-led land market that prevented private land monopolisation, and second, the strong connections to the energy sector, which mitigated the structural short-termism of the housebuilding industry. By highlighting the specific role played by these contingent factors in the Turkish context, the article brings insights from broader housing studies into the financialisation literature and highlights the need for more context-specific analyses of financialisation.

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Tables

Table 1: Fixed Capital Investments Made by Different Sectors in Turkey

Sectors	Fixed Capital Investment (Nominal Prices, Million TL)			Percentage Share of GDP		
	2015	2016	2017	2015	2016	2017
Manufacturing	119,478	131,573	145,720	29.6	29.9	29.3
Transportation	90,285	100,407	112,888	22.3	22.8	22.7
Construction	53,222	63,175	73,068	13.2	14.3	14.7
Education	23,976	25,187	29,377	5.9	5.7	5.9
Health	20,543	21,614	25,271	5.1	4.9	5.1
Other	37,865	45,024	50,575	9.4	10.2	10.2

Source: Republic of Turkey, Ministry of Development

Table 2: Construction sector composition according to firm size

Firm Size	Firm Number	Total Employment	% of Total	Net Sales		Total Assets		Net Equity	
				Thousand TRY	%	Thousand TRY	%	Thousand TRY	%
Micro	116,622	262002	77.4	231,255,780.7	11.7	735,643,431.4	15.4	154,880,363.6	21.4
Small	28,882	480166	19.2	697,206,124.5	35.4	1,143,230,453.7	23.9	222,131,171.4	30.7
Medium	4,626	372425	3.1	534,916,549.4	27.2	1,245,047,081.9	26.1	154,691,581.5	21.4
Big	493	211463	0.3	504,840,135.3	25.6	1,652,539,863.3	34.6	191,764,664.1	26.5
Total	**150,623**	**1,326,056**		**1,968,218,589.9**		**4,776,460,830.3**		**723,467,780.6**	

Source: CBRT Company Account Statistics (2009-2023)

Table 3: Companies operating in the electricity distribution industry

Distribution Company	***TOR Agreement***	***Tender Value (million $)***
Baskent	EnerjiSA	1225
Sakarya	Ak Enerji	600
Meram	Alarko-Cengiz	400
Aras	Kiler Holding	128
Coruh	Aksa Enerji	227
Firat	Aksa Enerji	230
Trakya	IC Holding	575
Osmangazi	Yildizlar SSS	485
Yesilirmak	Calik Holding	441
Camlibel	Limak-Kolin-Cengiz	258
Uludag	Limak-Kolin-Cengiz	940
Gediz	Elsan-Tumas-Karacay	1231
Bogazici	Limak-Kolin-Cengiz	1960
Goksu	AKEDAS	60
Akdeniz	Limak-Kolin-Cengiz	546
Menderes	Aydem-Bereket	110
Anadolu Yakasi	EnerjiSA	1227
Dicle	Iskaya Dogu OGG	387
Vangolu	Turkerler Insaat	118
Toroslar	EnerjiSA	1725

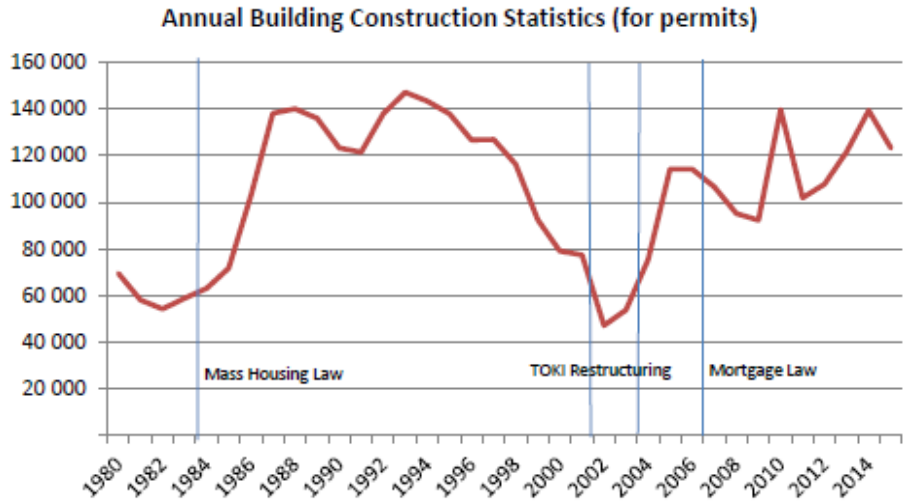
Table 4: Fixed and Variable Cost Characteristics of Various Electricity Generation Technologies in 2015

Technology	Size (MW)	Variable Operating & Management Costs ($/MWh)	Fixed Operating & Management Costs ($/MWh)
MSW Landfill Gas	50	9	403.97
Geothermal	50	0	116.12
Biomass	50	5.41	108.63
Adv Nuclear	2234	2.25	98.11
Wind Offshore	400	0	76.1
Solar Thermal	100	0	69.17
Wind	100	0	45.98
Conventional Hydropower*	500	2.62	14.7
Conv Gas/Oil Comb Cycle	702	3.42	10.76
Adv Gas/Oil comb Cycle (CC)	429	1.96	9.78
Adv Comb Turbine	237	10.46	6.65
Fuel Cells	10	44.21	0

Source: EIA (2017), Assumptions to the Annual Energy Outlook

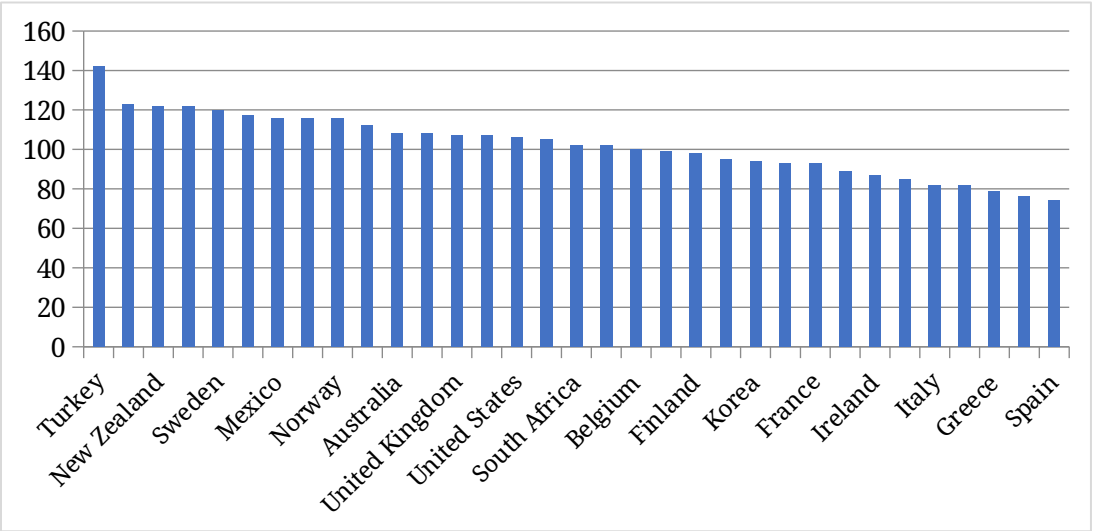
Figures

Figure 1: Annual Building Construction Permits (Residential and Commercial) Issued in Turkey



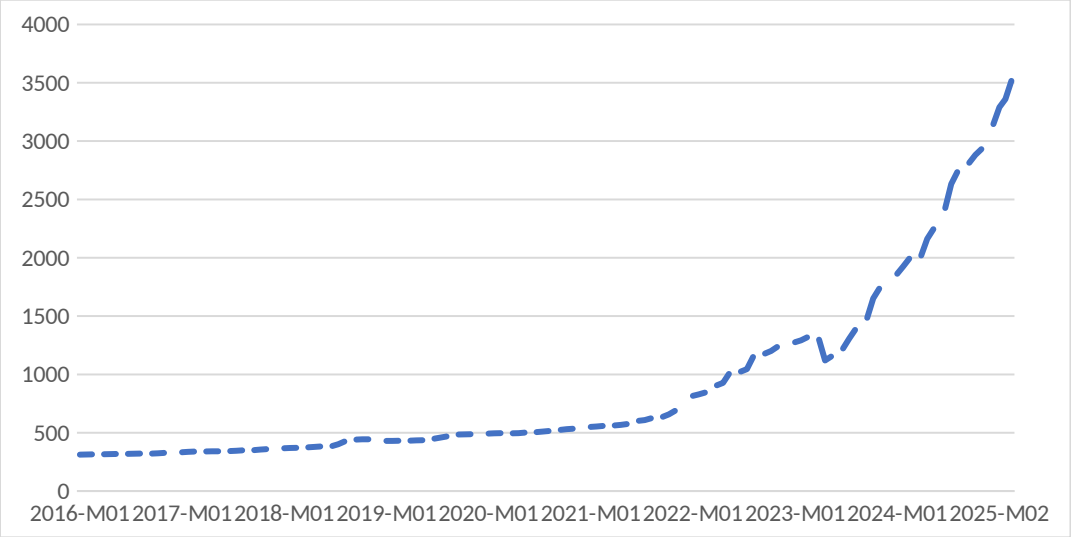
Source: TURKSTAT

Figure 2: Real Credit Growth in Housing in 2015



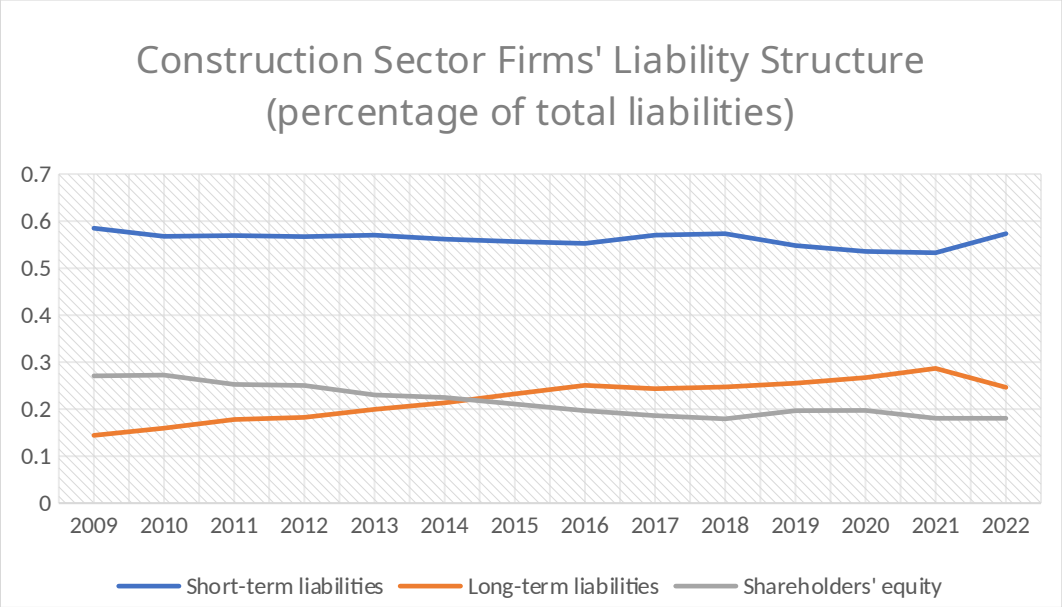
Source: IMF Global Housing Watch

Figure 3: Price-to-rent ratio 2015 (2010=100)



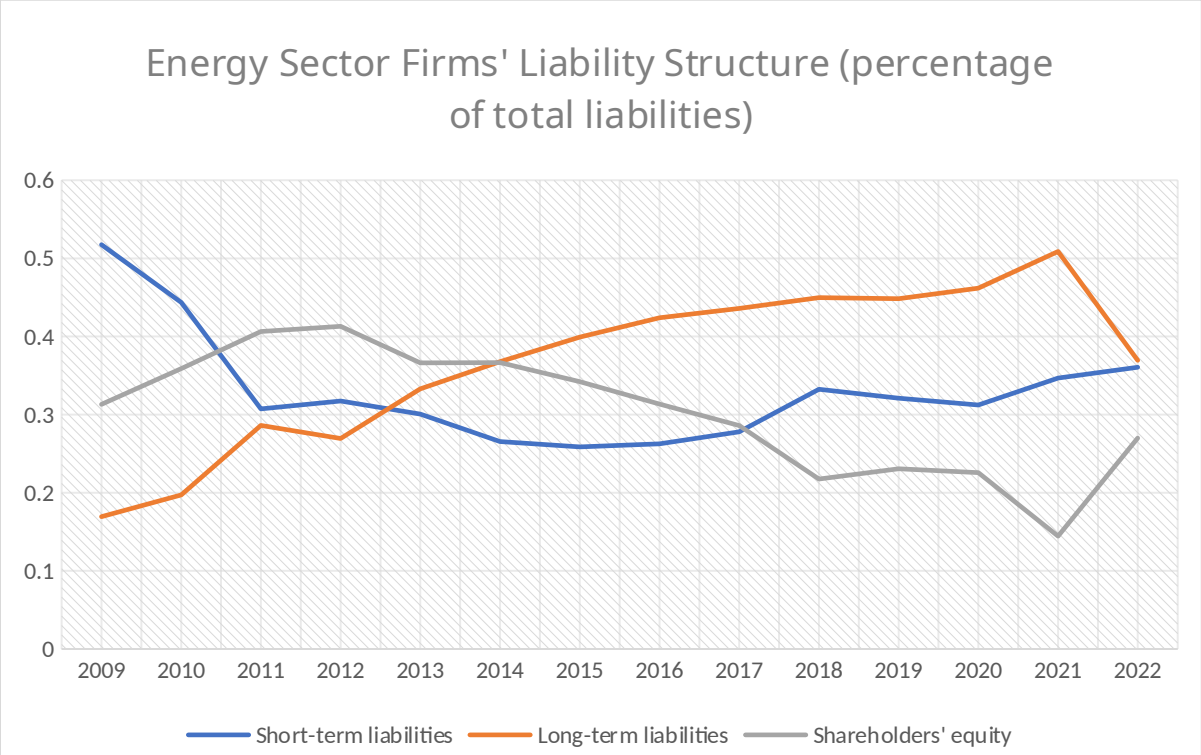
Source: IMF Global Housing Watch

Figure 4: Consumer Price Index (CPI) for housing, water, electricity, gas and other fuels



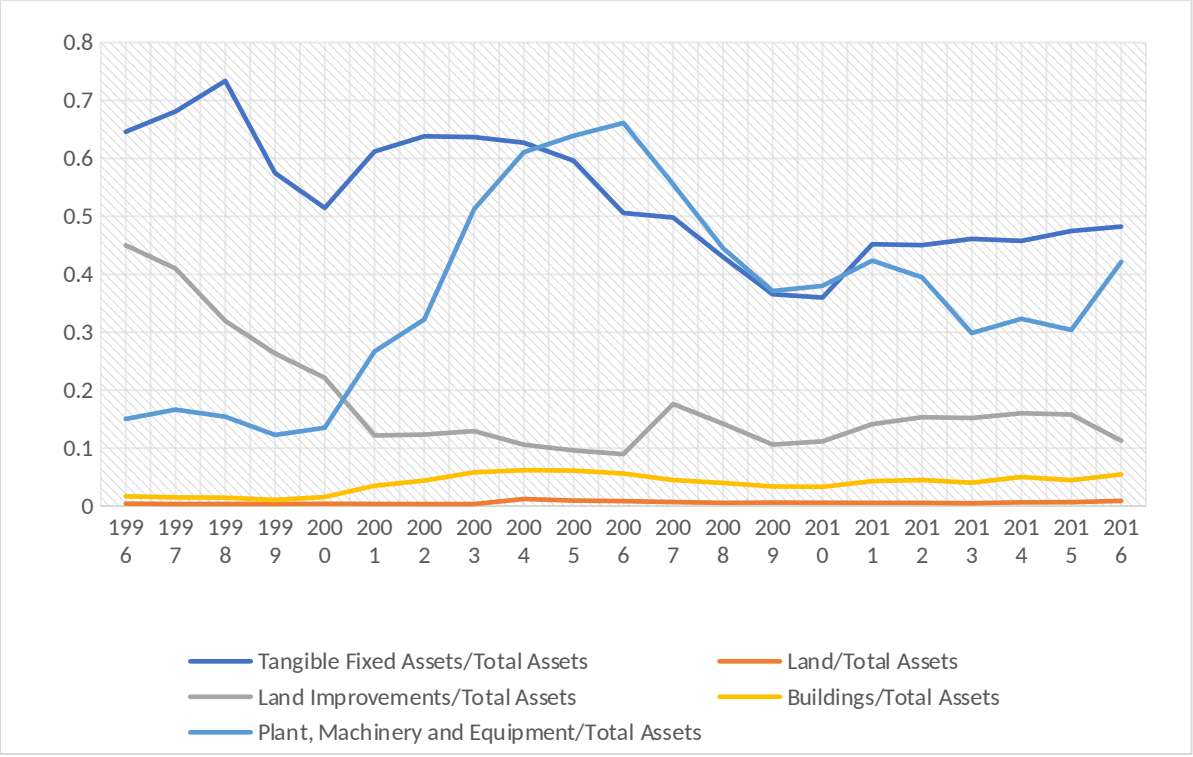
Source: IMF

Figure 5: Construction Sector Firms Liability Structure (percentage of total liabilities)



Source: Author's own calculation based on Company Account Statistics

Figure 6: Energy Sector Firms' Liability Structure



Source: Author's own calculation based on Company Account Statistics

Figure 7: The Share of Tangible Fixed Assets in Total Assets (Electricity Industry)

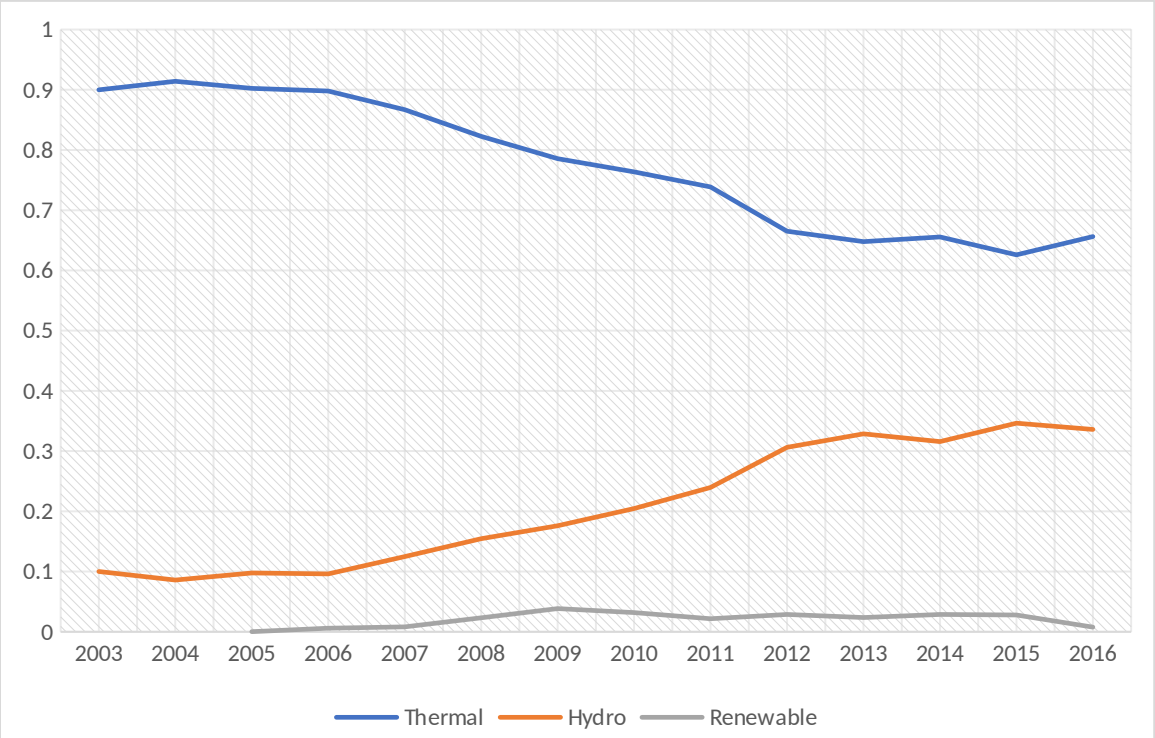


Figure 8: Evolution of electricity generation investments in terms of contribution to the total installed capacity (as a percentage of total annual investment)