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Research article

Housing financialisation as a tool of managing dependent integration - the case of Hungary between 2008 and 2022

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Abstract

In this paper, we discuss the post-2008 long decade of housing financialisation in Hungary in the framework of dependent / subordinate financialisation. Our main argument is that in the long decade between 2008 and 2022, a self-reinforcing, synergetic system of housing financialisation had been built up in Hungary which served the interests of a populist government and local economic elite navigating the dependent economic position of the country. During this period, public debt was restructured towards domestic (and individual) creditors, and private debt massively expanded with the support of different programs subsidized by the government – mainly in the field of housing. This all happened in the broader context of a period of historically low interest rates and economic expansion. Currently, at the time of the multiple crises of 2022, this synergetic system of housing financialisation shows its flaws and starts to waver. As a result, a new, reorganised period of housing financialisation will likely emerge in the coming years.

Keywords

Financialisation, housing, dependent integration, Hungary

Introduction

This paper aims to understand the recent, post-2008, trends of housing financialisation in Hungary. We analyse how international financial subordination (Alami et. al 2021) or financialized dependence (Reis and Antunas de Oliveira 2021) is connected to the shifts on the Hungarian housing market. And vice-versa, how shifts on the housing market are instruments of the Hungarian state and its economic actors in mitigating the economically and financially dependent, or subordinate position of the country. The case of Hungary is illustrative because of the extremity of processes relating to housing financialisation both before and after the 2008 financial crisis. Before 2008, Hungary was a schoolbook example of internationally directly dependent housing financialisation, with a very high share of mortgages denominated in foreign currencies and a rapidly increasing mortgage penetration among households. After the crisis, from 2010 onwards the new conservative government implemented a number of measures severing the international dependency of housing finance. Some authors claim that this series of measures led to the de-financialisation of housing in Hungary (Ban and Bohle 2021).

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However, going beyond understandings of financialisation in Central and Eastern European peripheries as primarily a question of foreign bank ownership or debt denominated in foreign currencies, we understand financialisation as a multi-faceted process, a finance-led regime of accumulation. That is, we see housing financialisation not as external dependency in the field of housing finance, but as a result of subordinate and dependent relations also beyond the field of housing. According to some authors of the dependency school, financialisation can actually be seen as a new phase of dependency, where elites merely find new ways of mobilizing the state to maintain the super-exploitation of labour (Reis and Antunas de Oliveira 2021). Although Reis and Antunas de Oliveira discuss the cases of Mexico and Brazil, a large part of their conceptual framing is relevant for the case of Hungary as well, due to the structurally similar position in the global economy. They describe how financialisation has created a new phase of dependent relations; where debt relations (both public and private) are increasingly important (ibid). Scrutinizing the financialisation of housing in Hungary, we can understand how local elites exploit class relations to their political benefit, and also what role debt plays in this process.

The Hungarian case of housing financialisation in a context of international dependency is instructive to understand because the successive Fidesz governments' (in place since 2010) strategies can be seen as unorthodox to the dominant financialized order in international relations. However, within the country it is clear that instead of a decoupling from the financial logic, new capital concentrations are actually happening (also in the field of housing finance). These somewhat puzzling tendencies fall nicely into order if one seeks to understand them as strategies of the state in a semi-peripheral global position to manage processes of financialisation to the economic and political benefit of certain interest groups (which pursue their interests through the infrastructure of the state in different ways). For instance, in Hungary there is a very similar housing finance regime in place now as before the 2008 crisis, but as opposed to the pre-2008 period, the beneficiaries of this regime have become domestic economic elites. Thus, housing finance has become an important part of the rentier bargain that supports the government in maintaining its political power.

In the paper we will argue that we are in fact witnessing parallel processes of de- and refinancialisation, depending on the timeframe and the specific dimension of housing we are considering. Our claim is that the way instruments of de- and re-financialisation shift in the field of housing is strongly connected to how different interest groups (often through the state) seek to navigate a situation of broader economic and financial dependency / subordination to their benefit.

The focus of the article is the long decade between 2008 and 2022, and within that, especially the period between 2015 and 2022. During this latter period, a self-reinforcing, synergetic system of housing financialisation has been built up in Hungary which served the interests of a government and local elite navigating the dependent economic position of the

country. During this period, public debt was restructured towards domestic (and individual) creditors, and private debt massively expanded with the support of different programs subsidized by the government, and as a consequence of generally low interest rates. This all happened in the broader context of a period of economic expansion, and currently, at the time of the multiple crises of 2022, shows its flaws and starts to waver. This will most likely bring a new, reorganized period, where housing financialisation will need to take new forms. Non-financialized housing forms could also benefit from this crisis period and seek to expand, but the dominant political and economic interests do not serve this – thus, if it happens, it will be as a result of counter-hegemonic interventions.

Linking "domestic" processes of financialisation to international economic dependency

We take the conceptual approach of understanding local (national-scale) processes of housing financialisation in their connection to global processes and to the position of Hungary within the global economy and financial system. In doing so, we link up with the work of Alami et al. (2022) on their research agenda of international financial subordination (IFS), with Fernandez and Aalbers (2020) and their work on housing financialisation in the Global South, with Bonizzi et al. (2022) on their notion of financialised capitalism and financial subordination, with Becker et al. (2015) on their analysis of European-scale dependencies, and with Karas (2021) – building on the latter's precise analysis of financialisation in Hungary after the 2008 crisis. Common to these bodies of work is that they understand domestic economic processes inherently connected to unequal international relations and global economic hierarchies. In these unequal relations, finance plays a crucial role in contemporary capitalism, and is thus set at the centre of the analysis. Thus, as noted by Alami et al. (2022), Bonizzi et al. (2022) and others, finance also plays a crucial role in the transfer of value from subordinated economies to core economies. This chimes with the "financial chain" approach (Sokol, 2017; Sokol and Pataccini, 2020; see below). At the same time, the above-mentioned studies also scrutinize the role the peripheral or subordinated state can play in steering financialisation (or generally, financial relations) according to its political and economic interests.

Contrary to previous understandings of international dependent relations, recent studies suggest that export-led growth and financialisation are not contradictory to each other in (semi-)peripheral countries (Bonizzi et al. 2022, Gerőcs 2021). The conventional view in the domains of dependency theory was that countries which are in a globally dependent position usually rely on exports to finance their need for international currency, while debt-fuelled asset price growth was "traditionally" seen as the privilege of core countries. However, it is worth noting that in the European context, the growth model of some core countries (Germany) was based on exports, while much of the European periphery (including some post-

socialist countries) relied on debt-driven growth. Either way, it appears that the dichotomy between an export-led growth regime and a (debt-financed) consumption-led growth regime is no longer useful in the post-2008 environment (Kohler and Stockhammer 2022). Rather, the above can be seen as different "optimalization" strategies during different periods of time for governments and economic elites of countries in a dependent position (Reis and Antunas de Oliveira 2021). Indeed, contemporary empirical evidence suggests that now there is a mixing of these strategies and economically dependent countries have also started producing debt-fuelled asset prices increases. Karas (2021) also cites a number of cases of non-core economies, where these asset price booms are fuelled by state-led financialisation – underlining that this is indeed a part of the state's broader economic strategy as well. In this context, it is salutary to remember that Central and Eastern European economies (including Hungary) were described as "dependent market economies" (Nölke and Vliegenthart, 2009) where both production and finance are in the hands of foreign (mostly Western European) corporate groups. This dependence on Western capital is a source of both economic strength and economic vulnerability. The latter became painfully evident through the global financial crisis of 2008. In post-2008-crisis Hungary, the Fidesz government (in power since 2010) continued the FDI-based, export orientated "dependent production", but chose to radically tackle the "dependent finance" (Ban and Bohle, 2021). One of the key features of this strategy was to dramatically reduce the foreign ownership of financial institutions and to boost the domestic control of the banking sector. However, rather than achieving "definancialisation" (as implied by Ban and Bohle, 2021), it may be more accurate to describe the process as domestically-orchestrated state-led financialisation.

If we take the analysis of these instances of state-led financialisation further, we can see that in many cases, financialisation processes can actually serve the economic and political interests of illiberal regimes very well. Besides the contemporary cases of Hungary (Gerőcs 2021), Turkey, Russia or China (Karas 2021), the historical example of the connection between the 1931 banking crisis and the rise of Hitler has also been demonstrated (Doerr et al. 2021). In Central and Eastern Europe, such a case is perhaps more surprising, given the small size of the economies in the region. In the case of Hungary, different authors have labelled this "nationalised" form of financial capitalism in different ways. Geva (2021) uses the term of "ordonationalism", emphasizing how the conservative regime in power in Hungary since 2010 emerged from the 2008 crisis. However, Geva emphasizes that in economic terms, this regime is just as neoliberal as the previous ones, only through the enhancement of domestic capitalist markets. Sebők (2019) describes how the different strategies of financial capitalism in Hungary were the result of how different elite fractions and their ideologies competed with each other. He also uses the term "financial nationalism" to frame the regime that emerged after 2010. Likewise – and following Johnson and Barnes (2015) – the term "financial nationalism" is used also by Ban and Bohle (2021) in connection to Hungary. "Financial

nationalism" could be described as "an economic strategy that seeks to increase the national room for manoeuvre in financial matters, and to selectively reward economic insiders" (Ban and Bohle, 2021, p. 878). Again, it is worth adding that financial nationalism does not necessarily mean financial repression or the end of financialisation.

Meanwhile Karas (2021) frames this as the multi-dimensionality of financialisation in Hungary after the 2008 crisis. He identifies different domains (eg. housing, retail banking) and dimensions of financialisation, in which the processes that have recently unfolded are not homogenous. The broader framework of the analysis is how the Hungarian state manages external financial relations. Karas identifies a "financial vertical", in which different reactive and proactive channels were activated, influencing how financialisation rolls out in different domains. The different aspects and instruments of the reactive channel (such as reducing forex denominated debt and foreign holding of debt) have served to weaken financialisation, while aspects of the proactive channel (such as boosting the construction sector or providing subsidized loans for homeownership) have deepened financialisation (Karas 2021, p.6). This analysis can also be linked to the claim of Fernandez and Aalbers that "...empirically speaking, financialisation in some domains may be happening alongside nonfinancialisation in other domains" (Fernandez and Aalbers, 2020, p.681).

The idea of the reactive and proactive channels of the financial vertical can also be related to the concept of "financial chains" (Sokol, 2017). Financial chains can be understood both as "channels of value transfer (between people and places) and as social relations that shape socio-economic processes and attendant economic geographies" (Sokol, 2017, p. 683). The global financial crisis of 2008 and more recently the Covid-induced crisis of 2020, have shaken financial chains and almost brought down the entire financial system. The financial collapse has only been prevented through state interventions, including massive interventions of central banks (Sokol and Pataccini, 2020; Sokol, 2022). It is useful to note that these interventions have been happening in the context of increasing "state capitalist" tendencies around the world (Alami and Dixon, 2020; Alami and Dixon, 2021). Unconventional monetary policies by central banks can be seen as one of the features of "state capitalism" (Sokol, 2022). The role of the state and of the central bank is also pertinent in the Hungarian case. Indeed, as Ban and Bohle (2021) note, radical changes that the Hungarian government introduced in the 2010s would not be possible without a supporting muscle of the Hungarian central bank. The fact that Hungary is not part of the Eurozone gave the Hungarian state and its central bank the flexibility needed to intervene. The way in which financial chains have been remodelled in Hungary in different periods will be analysed in the subsequent sections relating to the financialisation of housing.

In an ambitious recent proposal for a research agenda on what they call international financial subordination (IFS), Alami et al. (2021) draw up a framework of six dimensions to dive into in order to understand specifically how this financial subordination rolls out in

different contexts. The six analytical axes around which they propose to organize the future study of IFS are: history; social relations of production; money; the state; non-state actors; and finally the importance of geography and spatial relations for understanding IFS (Alami et al. 2022). With regard to the role of the state, Alami et al. (2022, p. 16) specifically mention measures such as "re-nationalisation" of financial systems (which is highly relevant to the Hungarian case). However, rather than seeing such state actions simply as a way of reversing or mitigating IFS, they encourage to analyse it as "states' attempts to negotiate IFS in way that are more or less consistent with their accumulation strategies and attempts to engineer particular social contracts between classes" (Alami et al., 2022, p. 16). With regard to the geography of IFS, they emphasize that spatial manifestations of IFS can occur at numerous scales, including the urban scale. They argue (following Fernandez and Aalbers, 2020 and others) that housing finance and patterns of urban growth in subordinated countries can be linked to financial flows from advanced economies (and this has been an important feature in pre-crisis Hungary). Some of these dimensions can thus be usefully applied to the empirical evidence of housing financialisation and housing finance in Hungary, allowing us to go into the details of how housing financialisation unfolds in a variegated way.

Besides the above theoretical frameworks, we will also heavily draw on recent research which is more directly concerned with financialisation in Hungary (Karas 2021, Ban and Bohle 2021), with housing financialisation in dependent positions (Mikus and Rodik 2021a, Fernandez and Aalbers 2020), and with financial subordination in Eastern Europe (Mikus 2019, Pataccini 2021).

Variegated forms of housing financialisation in Hungary between 2008 and 2022

The reactive and proactive channels of state-led financialisation described by Karas (2021) in Hungary also have a temporality. While reactive measures were mostly applied between 2008 (specifically 2010, when the Fidesz government came to power) and 2015, proactive ones were dominant after 2015. Many of these measures – especially the proactive ones – were related to the housing market. Looking at the dynamics of the Hungarian housing market and the policies affecting it, we can distinguish two clearly different phases within the 14 years between 2008 and 2022. The first phase was between 2008 and 2015; characterized by stagnating or declining (depending on the geography) house prices, and a reduced housing market activity with reduced volumes of mortgage lending. In terms of housing policies, the majority of this period was dedicated to different interventions managing the consequences of the significant social and economic crisis caused by defaulting forex loan debtors.[1] In the

[1] In 2004, after a state subsidized mortgage program was discontinued, household loans denominated in foreign currencies (ie. forex loans) became increasingly popular in Hungary. These were predominantly loans in Swiss Francs, but to a lesser extent also in Euros. Forex loans needed to be repaid at the current exchange rate, which, in the case of weaker currencies (such as the Forint), usually meant that debtors ended up repaying more

second phase, from 2015 onwards, a new wave of mortgage lending was rolled out, which marked the beginning of a new upswing of the housing market; supported by strongly pro-cyclical housing policies and subsidies. House prices started to rise dramatically and the mechanisms of housing financialisation were rebuilt around a domestic economic elite. In this phase, a "synergetic feedback loop" (Karas, 2021) was created in the field of housing finance, which aligned different political and economic interests. In his broader analysis of financialisation in Hungary, David Karas calls these two phases the reactive and proactive channels of financialisation (Karas, 2021). However, in 2022, the synergetic system of housing financialisation built up in the previous phase gradually became increasingly difficult to sustain as the combination of different forms of crisis severely affected the Hungarian economy. The year 2022 could thus be seen as a beginning of the third phase.

In our analysis of the Hungarian housing market, we will focus on these distinct phases and the critical turning points (2008, 2015 and 2022), using them as a means of illustrating how housing financialisation is transformed under different economic circumstances within a semi-peripheral country. We will also highlight the spatial, geographical consequences of these different regimes of housing financialisation. Our analysis will particularly focus on the period between 2015 and 2022, aiming to elucidate how housing financialisation has contributed to the stabilization of the Fidesz government's power in Hungary.

1) Post-2008 crisis management

The 2008 crisis was an important turning point in how housing financialisation unfolds in Hungary. Before, starting from 2004, there was a quick build-up of household loans denominated in foreign currencies (forex loans). Once the financial crisis hit, this large stock of forex loans made Hungary one of the obvious cases for understanding the dramatic implications of direct external financial dependency in the field of housing finance (Florea, Gagyi and Jacobsson 2022). In this period, a series of measures aiming to manage the so-called forex crisis were introduced. These measures were discussed in detail by various authors (see eg. Hegedüs and Somogyi 2016, Czirfusz and Jelinek 2021). Thus, in this article we only highlight some key features of this phase.

The two main directions of interventions in the field of housing finance were the following:

(i) Managing the social consequences of debt default. This mainly meant different interventions that allowed debtors to repay or refinance loans with favourable conditions, and ultimately a possibility to convert forex loans to loans denominated in the Hungarian currency

(compared to their value in local currencies) than initially planned. After 2008, the Hungarian Forint drastically devaluated, which – among other factors – led to a serious crisis of over-indebtedness and default among Hungarian households. For more information on forex lending and ont he struggles of Hungarian forex debtors see: Florea, Gagyi and Jacobsson 2022.

Forint. The majority of these measures supported better-off debtors to a higher extent, while many lower income debtors continued to face difficulties of payment or foreclosure.

(ii) Reducing external (foreign) dependency in housing finance. This was mainly achieved through banning loans denominated in foreign currencies (unless the debtor had an income in the same foreign currency), and through supporting an increasing share of domestic ownership in banks.

A number of other – mainly macroeconomic – measures implemented in this reactive phase are discussed in the paper of Karas (2021). During this phase, actors within the state were also shifting. The function of financial market supervision and regulation was taken from an independent agency (Hungarian Financial Supervisory Authority) and put within the Hungarian National Bank (Magyar Nemzeti Bank), the central bank of Hungary.

Contrary to what the classical IFS / dependency school would expect, in this phase the Hungarian government largely discontinued the across-the-board de-risking for foreign investors and foreign financial institutions. Thus, de-risking and subsidies aimed at foreign actors continued and even increased in some sectors (e.g. in the automotive industry), while legal frameworks that benefit local investors were created in other spheres (e.g. in the real estate sector).

As a result of this, direct foreign dependency and capital outflows were reduced specifically in the field of housing finance through the measures described above. However, this happened together with a repositioning of dominant domestic economic actors, preparing – as we will see in the following section – the scene for a new form of housing financialisation, which then generated a domestic asset price bubble.

As noted earlier, these interventions aiming to reduce household indebtedness in foreign currencies (and decreasing dependence on foreign finance in the field of housing and real estate more generally) led some authors (eg. Ban and Bohle 2021) to claim that processes of de-financialisation have been happening in Hungary after 2008. However, an alternative interpretation is that these measures merely meant the repression of the financial logic in some specific fields and forms of housing finance, while preparing the ground for the unfolding of a new form of domestically based housing financialisation.

2) The housing market boom between 2015 and 2022

2015 brought a new turning point in housing financialisation in Hungary, since this year marks the beginning of a new housing market boom in the country (and across Europe to different extents). This phase of housing finance is characterized by increasing inequalities and socio-spatial unevenness on the housing market, which was intensified by pro-cyclical government interventions. We argue that this phase (called “proactive” in Karas 2021) is one of “national” housing financialisation, since it strongly builds on domestic economic actors

and it was also built up in a way to support the political power of the government. Domestically owned banks and real estate developers became the main beneficiaries of this regime of housing financialisation, besides middle class households who gained assets through homeownership.

In practical terms, a new set of subsidies was rolled out in 2015. Although this set of housing subsidies became very important in the political communication of the Fidesz government, pretending to allocate the largest amount of housing subsidies in Hungarian history, it was actually, in its essence, very similar to the one that existed before, since the early 1970s, and which was stopped in 2009 (Czirfusz and Jelinek 2021). The central element is a subsidy for families based on the number of children they have, which is available for building or purchasing property for their own residential purposes. This kind of housing subsidy, which usually goes together with a subsidized mortgage loan has historically always been important in structuring the Hungarian housing finance market. Similar government incentives contributed to the housing market upswings of the 1980s and early 2000s, as well as more recently, since 2015 - demonstrating that housing-purpose lending to households has historically always been determined by state policies and subsidies (Pósfai et al 2022). It has, however, been demonstrated that the current phase of subsidies is more unequal than previous forms; being more biased towards financially better-off families (Czirfusz and Jelinek 2021).

Since 2015, this subsidy is called the "Home Creation Subsidy for Families" (in Hungarian: Családok Otthonteremtési Kedvezménye or CSOK). It is available for couples (married or in a legal partnership) and single parents, and the sum depends on the number of children they have. Individuals who are less than 40 years old can also access the subsidy based on children they promise to have in the future. A subsidized mortgage loan that goes together with the subsidy can be accessed by those recipients who have (or promise to have) at least 2 children. The interest rate of this loan is fixed 3% for the whole loan duration, and the loan amount is maximum 25.000 or 37.000 euros (depending on the number of children). Some banks also limit the maximum price of a property purchased with such a loan.

Another type of subsidized home loan is for renovation - this involves smaller sums and can be accessed by couples or single parents with at least one child. This loan acts as a bridge loan for a post-financed subsidy (“Home Renovation Subsidy”) available for renovation with the same conditions attached (ie. at least one child).

A third type of subsidized mortgage loan is the “Green Home Loan”, which can be used for purchasing newly built housing (or building housing) with a very high (BB or higher) energy performance. This subsidized loan was only available between October 2021 and May 2022, but during this period was extremely popular among high income people buying housing, since it had a very high maximum loan amount compared to other subsidized loans (170.000 euros), and had a fixed interest rate of 2,5% for the entire loan duration. In the

second quarter of 2022, this loan product accounted for 33% of all newly issued housing loans, and 85% of loans issued for a newly constructed property (MNB 2022a).

A fourth type of subsidized loan (not mortgage) is the "Baby Expecting Loan", which is a free-purpose consumer loan, but many families use it for housing purposes. This is a zero-interest loan of maximum cc 25.000 euros, available to married couples, which they need to apply for before the baby is born. If the baby is born, the loan becomes interest free (it not, after 5 years it transforms into a market-based consumer loan, and a penalty must also be paid), if a second child is born, one third of the loan capital is cancelled (that is, it is transformed into a subsidy), and if a third child is born, the entire remaining loan amount is transformed into a subsidy. This loan has been extremely popular in past years, and in June 2022 accounted for 18% of the total outstanding loan volume among households (MNB 2022a).

These subsidies and subsidized loans were rolled out in a period of historically low interest rates, which boosted new lending for housing purposes independently from subsidies. As a result of the combination of these factors, Hungary experienced the most dramatic house price increase (+128% nationally and +134% in Budapest) among all EU countries between 2015 and 2021 (EMF 2022).

In early 2022, there was a new record of newly issued housing-purpose loans; showing even higher quarterly volumes of newly issued loans (with over 400 million euros within one month, in May 2022) than before the 2008 crisis. House prices were constantly rising since 2015 until mid 2022, with the Covid-19 pandemic also not having a deflating effect on house prices. On the contrary; corresponding to global trends (IMF 2021), Hungarian house prices continued to rise during the pandemic period. This does not come as a surprise if we consider that the Hungarian central bank had a general policy over the past years to increase lending. Even in early March 2022, the governor of the central bank appraised their debt-based crisis management strategy during the two years of Covid (Matolcsy 2022). This debt-based strategy was, on the one hand, a quasi quantitative easing instrument introduced by the Magyar Nemzeti Bank during the Covid-19 pandemic, and on the other hand, the sustained system of subsidised household loans.

A further aspect of state-led financialization in this period was the introduction of a framework for domestic individuals to buy state bonds at favourable conditions. This scheme became very popular, and new series of state bonds continue to be issued until today. This mechanism also contributed to the synergetic system of strengthening the electoral base (only financially better off citizens had resources to channel into this very favourable savings scheme), while decreasing foreign debt dependency. After the Covid-induced crisis, and during the inflationary period starting in 2022, the Hungarian state continued to issue state bonds available to the public at ever higher interest rates as part of their debt-based crisis management strategy.

The cycle between 2015 and 2022 was, altogether, characterized by a self-reinforcing regime of housing financialisation in Hungary, based on a quickly expanding stock of new housing loans, also boosted by a system of state subsidies coupled by subsidized mortgages for childbearing families. Beside families, real estate developers also benefited from the stream of new finance available on the housing markets, and the subsidies quickly translated into house price increases. House prices increased in Hungary during this period at the fastest pace within the European Union. Even though house price increases were strongly diversified geographically, by the end of the cycle (between 2020 and 2022), house prices in secondary cities were increasing even faster than in the capital city of Budapest. Domestically owned banks benefited the most from this period, since they were the main players in the field of subsidized mortgages.

These factors meant that a "synergetic feedback loop" (Karas, 2021) was created, which supported a system of national financialisation on the level of the voter base of the government, of domestic companies in the real estate industry, and of nationalized and domestically owned financial institutions. The voter base element of the system manifested itself through continued electoral successes of the Fidesz government in the intervening period. In all elections since 2010 (thus 2010, 2014, 2018 and 2022) Fidesz acquired 67 or 68% of all parliamentary mandates thus ensuring super-majority in the parliament. This concentration of power has had severe political, social and economic consequences in the past "long decade" in Hungary, leading to strengthening authoritarianism and economic clientelism. Beyond its political benefits, this system could solidify the positions of domestic capital in specific strategic economic sectors. However, due to its oligopolistic nature (especially in the field of construction materials and real estate development) it also led to drastic (well above EU average) increases in construction prices, which also contributed to the house price increases which were also fuelled by the credit boom.

In 2022, this synergetic system of housing finance was shaken by different forms of economic turmoil. Although the government intervened in a regulatory way to prevent a quickly escalating crisis on the housing market; corporate actors have already halted their housing market activities, and important shifts in how finance is channelled into housing can be expected.

3) Unfolding economic turmoil and its consequences for the Hungarian housing market from 2022

In Hungary, the economic and energy crisis started to unfold very rapidly in the spring of 2022. Inflation rate is among the highest in EU countries (preceded only by the three Baltic member states), and was moving around 25% during spring 2023.[2] Market-based gas prices

[2] See: https://tradingeconomics.com/hungary/inflation-cpi

have increased 7-fold, and electricity prices 3-fold when the state subsidy for these utilities was restricted over the summer of 2022. The value of the Hungarian currency, the Forint has dropped significantly compared to the Euro. While at the beginning of 2022 the exchange rate was 368 Forints to one Euro, at the end of September 2022 it was 421 Forints to one Euro. This severe devaluation also affects the level of inflation in the country. Inflation and currency devaluation were aggravated by the lack of political agreement between the Hungarian government and the European Commission on issues of transparency and human rights, which resulted in the blockage of resources from the Recovery and Resilience Fund, and also in a lack of agreement on Cohesion Policy funds for the 2021-2027 period. An agreement was eventually reached in December 2022, which led to a strengthening of the Forint, but international trust is still not entirely established, and the usage of funds is connected to the implementation of certain new institutions and guarantees by the Hungarian government. Hoping to curb inflation and currency devaluation, the central bank started raising base interest rates at the beginning of 2022. Since July 2022, the base interest rate in Hungary is at 13% - which is extremely high compared to the very slowly raised Eurozone base interest rate (which was still 1,5% in Autumn 2022, and was raised to 3,25-4% in May 2023).

This broader context has a number of implications for the housing market and for housing finance. On the one hand, existing loans that had a variable interest rate, or a fixed interest rate only for a limited period of time will be experiencing severe interest rate hikes. The government has managed this temporarily by introducing a freeze on interest rate levels of existing loans (at the level of interest rates in October 2021). This has been prolonged several times, and is currently in effect until the end of the year 2023. Independently from this regulation, interest rates of newly issued household loans have not entirely followed the hikes of the base interest rate. This means that banks are currently (in late 2022/early 2023) lending to households on a negative margin. Such a decision is due to several factors, such as competition between banks, the hope of banks of increasing their market share during this turbulent period, and efforts to sustain their internal human capacities working on household lending (Pósfai et al 2022). However, this is not sustainable financially for more than a temporary period.

On the other hand, inflation and general economic recession – and before that, the Covid-19 pandemic and its economic consequences – have taken a toll on the financial situation of households. Financial institutions expect that existing debtors might experience financial difficulties due to the increasing costs of living. Thus, banks are counting on a deteriorating loan portfolio in the coming period (MNB 2022a). During the Covid-19 pandemic, the government introduced a loan repayment moratorium, which was in place between March 2020 and December 2022. This was a response to the immediate difficulties of payment, but since interest accumulated during the moratorium period, debtors eventually ended up with

more debt as a result. Nevertheless, this was a mechanism that staved off the immediate visibility of the effects of the currently unfolding crisis.

Market-based lending is contracting as it is becoming too expensive for households. According to data published by the Magyar Nemzeti Bank, the central bank of Hungary, there has been a steady decline in new household lending since May 2022 (MNB 2023, Chart 26). This decline is mainly due to a radical drop in the volume of new housing loans, while the volume of new consumer loans declined to a much lesser extent. As a result, the volume of new consumer loans is higher than the volume of new housing loans since July 2022 (MNB 2023, Chart 26). This could be an indication of the varied effects of the current economic crisis: in parallel to the housing market coming to a halt, many households experience difficulties of meeting living costs, or want to implement renovations because of the energy crisis. For both situations, a consumer loan can be the option households have.

The duration and the outcome of the currently unfolding crisis is yet to be seen, but even the most optimistic expectations have predicted summer 2023 as the earliest moment when market-based lending may resume – and this can be delayed.

In sum, the current situation exposes the fragile nature of the system of "national" financialisation set up since 2015. Most subsidized loans (such as the Home Creation Subsidy and the Baby Expecting Loan) are kept open, but their overall volume, and even their share in total lending is decreasing (MNB 2023, Chart 26). This shows that they are actually not designed in a way to resist market shocks, or to balance housing finance systems out in crisis periods. Thus, apart from being extremely costly for the public budget, these financial mechanisms are not even efficient in securing streams of housing finance, since they act in symbiosis with and serve the interests of market mechanisms. In spite of the postponing measures introduced by the government since 2020, it is apparent that a shift is happening in the housing finance landscape, and that the system in place since 2015 will not be able to continue in the same way.

Consequences of shifting regimes of housing financialisation

Tying our empirical findings to the conceptual framework outlined in the beginning of the paper, we have identified three issues which we see as consequences of the above-described shifting regimes of housing financialisation. The three dimensions we discuss in the following sections shed light on the social and spatial inequalities underpinning the dependent form of housing financialisation which is characteristic of Hungary.

1) Using housing financialisation to strengthen the economic basis of the governing party

Locally variegated forms of financialisation can be understood as the result of the strategies of local elites and of the state to optimize the dependent position they are in through channelling finance and exploiting labour through debt (Reis and Antunas de Oliveira 2021).

The class interests of domestic elites will determine how international financial subordination is mediated by the state; how it sets the frameworks and the rules (Alami et al 2022). This is because the locally specific forms of financialisation largely reflect the state's efforts to navigate relations of international financial subordination in a way that is most beneficial to social groups that underpin its power locally. Thus, the state can be understood as an intermediary between global economic processes and local social relations and class interests (Gerőcs 2021).

Translating this to the specific case of housing financialisation in Hungary, and specifically to the synergetic system of housing financialisation in place between 2015 and 2022, we can clearly track these class dimensions. Domestic elites and middle classes benefited in various ways from this system. A politically loyal middle class was financially strengthened through subsidies for homeownership, which reinforced the electoral base of the governing party. Domestically owned real estate companies (especially those in oligopolistic positions) benefited from preferential corporate loans, from the boom in the construction sector, and from the demand side subsidies provided to their end-user customers. Financial institutions which were transferred to domestic and public ownership (through preferential lines of financing) during the reconciliation phase after the 2008 crisis benefited from a new boom of lending, which was supported not only by central bank policies of low interest rates, but also by a variety of subsidised household loans. The domestically owned banks were the dominant ones in issuing the various subsidised loans, even though all banks participated in these schemes to some extent.

Thus, evidence suggests that strengthening authoritarianism has actually gone together with deepening financialisation in Hungary; in which the financialisation of housing played an important role.

In order to better understand how the positioning of certain economic elites happens through housing financialisation, it can be worthwhile to specifically scrutinise the sector of real estate development and construction, since this has become a strong economic basis for the ruling party in Hungary in the past years. With the state subsidies and subsidised loans in place, a lot of money is being poured in on the demand side of the housing market, but since there are serious limitations on the supply side (eg. in construction materials), the state subsidies are practically being channelled towards the construction / real estate development companies on the housing market (Pósfai et al 2022). Another important characteristic of the subsidies is that they push different actors towards the segment of newly constructed housing both on the demand side and on the supply side. On the one hand, a family receives more subsidies if they buy newly constructed homes (but this will of course need more capital from their side as well). Some subsidised loans (the Green Home Program) were only available for new-build. On the other hand, there is also a favourable, 5% VAT in place for purchasing newly constructed homes (the regular level of VAT in Hungary is 27%). This does not mean that

developers would sell these properties at a 22% discounted price, but on the contrary, are able to sell these units for a higher price because the buyers will have less tax burden. All of these factors also contributed to the extreme price hikes in housing prices, and to a relatively more profitable residential real estate business.

2) Social groups falling out of mortgage lending, and thus out of housing finance

In the latest cycle of housing financialisation between 2015 and 2022, there was a dualization in the field of lending to households (Pósfai 2018, Jelinek and Pósfai 2019). While higher income households could benefit from safer and better regulated mortgage loans (thanks to various debt brake regulations introduced after the 2008 crisis), lower income people were taking higher and higher volumes of more risky forms of debt (consumer loans, personal loans, credit overdraft). This is similar to the tendency that can be observed in other Central and Eastern European countries (Gagyi and Mikus, 2022).

Non-mortgaged forms of loans have grown faster than mortgage debt, and according to central bank statistics are much more prevalent among lower-income groups. While 60% of all mortgage loans were taken by the highest-income quintile in 2021, over 30% of personal loans issued by non-bank financial actors were taken by the lowest-income quintile (MNB 2022b, p.30). This highlights two important tendencies. The first is that mortgage loans are indeed the privilege of higher-income households. The poor do not feature as customers of mortgage loans (mortgage loan issuance in the lower two income quintiles is entirely negligeable), but their debt dependence is nevertheless growing. The second issue to highlight is the importance of non-bank financial institutions in lending to lower-income households. These financial institutions are subject to very little research, and the focus on international banking groups – which are, essentially, the dominant financial institutions in the region – has overlooked the class dimension of whom these different types of institutions provide services to (Mikus and Rodik, 2021b).

These characteristics of the indebtedness of lower-income households is important from the perspective of housing financialisation because often these loans are also used for housing purposes. Furthermore, they demonstrate that the debt-based strategies of the government can increase the social gap between those households who are able to use debt as a leverage for wealth creation, and those who become involved in more risky forms of debt.

The state subsidies which were available in Hungary since 2015 were all tied to long-term employment (or self-employment), and the debtor also needs to qualify for the regular loan-testing criteria of the banks (which can be stricter than the legal minimum). Thus, middle-class families with stable and regularized income are most able to benefit from them. Banks which provide these subsidies and subsidised loans have confirmed in previous research (Pósfai et al 2022) that there are some social groups who are systematically being missed by these instruments. Furthermore, there are others, who are currently slipping out of the

bankable category due to the rapidly deteriorating economic environment in the country. The non-bankability is in itself not an issue, but combined with the fact that there is practically no other public financial support available for housing purposes, it strongly increases social inequalities. Thus, if a household is not eligible for the subsidy programs, they do not have any form of state support in their quest for a housing solution. This pattern once again indicates that facilitating housing financialisation has actually been at the forefront of the Hungarian government's interventions in the field of housing – as opposed to actual housing provision.

3) Increasing spatial inequalities on the housing market: a strengthening urban-rural divide

As previously argued, dependent integration in international financial relations results in more volatile cycles on the housing market in Hungary (Bródy and Pósfai 2020). This volatility has also marked spatial consequences. In other words, there is an urban (and regional) dimension to these processes. In expansive periods of housing finance – during cycles when finance is abundant – spatial inequalities increase, and specific localities experience dramatic house price increases and an increase in the pace and number of transactions (Pósfai 2018). However, it is inherent to the dependent / financially subordinate position of the country that in crisis periods these financial flows abruptly stop, and many aspects of the housing market (mainly the speed and number of transactions) begin to stagnate or to decline. Thus, between 2008 and 2015 stagnation was the main characteristic of the Hungarian housing market, which meant that spatial inequalities decreased somewhat. Nevertheless, spatial mobility was not made easier for households, since this stagnation was always more characteristic of rural housing markets than core urban ones, making mobility to urban centres (with more employment) difficult in the context of a housing market dominated so much by individual ownership.

Then, between 2015 and 2022 there was an unprecedented increase in new lending volumes and in house prices. During this period, spatial inequalities and thus the polarization of the housing market increased, with preferential localities of the housing market experiencing the boom to the highest extent. These preferential spaces were somewhat varied: for investment purposes they meant mainly the inner districts of the capital city of Budapest, while for beneficiaries of state housing subsidies and subsidized loans, they were the external districts of Budapest and other larger cities, as well as towns in the agglomeration areas. This is because these were the locations where new-build projects could be realized, and where – despite the increase in prices – the subsidies could still mean substantial support. Towards the end of the cycle, in 2021-2022, prices in secondary cities were already increasing at a faster pace than in Budapest, which indicated a somewhat saturating housing market and already high house price levels in the capital city.

These geographies, especially that of agglomeration areas are blueprints for understanding the spatial consequences of unstable channels of housing finance, because

housing market booms and busts systematically affect the same (or similar) types of spaces (Gagyi, Jelinek, Pósfai and Vigvári 2021). The neighbourhoods in agglomeration areas (or "intermediary spaces") expand in expansive phases of housing finance, but without urban planning being able to follow the pace of developments, thus leading to a lack of services. The more marginal parts of agglomeration areas also become homes to financially more vulnerable households, who risk ending up in financial difficulties or loan default during a crisis (ibid). The second half of 2022 again brought a dramatic fall – mainly in new housing loans and housing transactions numbers. We are yet to see the socio-spatial consequences of the current contraction of housing finance.

The state intervenes in these spatial processes in various ways. First of all, the way in which the housing subsidies and subsidized loans are designed pushes money towards specific segments of the housing market. The Hungarian government has done this in a pro-cyclical way in the past decades, thus reinforcing the dis-equalizing tendencies of market processes. Furthermore, in the case of some large real estate development projects, it has become a practice to give preferential regulatory frames, which allow the developer to act outside of the local zoning regulations of the given municipality. This makes it possible for real estate developers enjoying these benefits to construct in localities (especially within Budapest), where this would not be possible, or would not be profitable for other companies.

There have been several calls to take space more seriously in processes of international financial subordination (Sokol 2017, Alami et al 2022), but this aspect is nevertheless seldom integrated. Especially not with a multi-scalar understanding, that would explain how local spatial inequalities (including those at the urban level) are constituent to broader international dependencies (Hürtgen 2015, Gagyi, Jelinek, Pósfai and Vigvári 2021). Thus, the currently unfolding crisis will be especially interesting to scrutinize, and Hungary will undoubtedly again be a specific and instructive case in the coming shifts of how housing financialisation is reorganized.

Conclusions and looking forward

In our paper, we analysed how housing financialisation in Hungary connects to broader economic processes, what the underlying political rationales are, as well as what class structure it builds on. We argued that different distinct measures connected to housing financialisation can be seen systematically, and that they are connected to broader dependent relations under capitalist cycles. The interest of scrutinizing the rather specific case of housing financialisation in Hungary lies in the fact that it "tells a story" about one of the tools that the elite of a small country, in a globally dependent position can apply in its quest to stabilise its internal political power and its underlying economic base. This comes at the price of increasing internal inequalities, and an increasingly financialised housing market.

We want to draw attention to the conundrum of what will come after the current turning point in housing financialisation, introduced by the economic turmoil of 2022-2023. The current economic environment, with the end of the period of historically low interest rates, and an increasing pool of households who cannot access conventional mortgages, the question is very urgent: what new forms of housing finance can emerge, and can these facilitate more accessible and affordable forms of housing? Will we merely experience a period of very reduced housing market activity, and then – pushed with a new set of state intervention – come back to the business-as-usual of individual mortgage loans? Will investment-based housing finance expand, due to an upcoming period of inaccessibility of the housing market to anyone who does not have sufficient capital upfront, without needing to borrow? Will the coming crisis period open the political and economic possibility of new, nonprofit forms of housing finance in Hungary and in the region?

In Hungary, and elsewhere in Central and Eastern Europe, this question is also a question of new forms of housing tenure. As long as these countries remain locked in super-homeownership structures, housing financialisation through individual household debt will prevail, reproducing the same controversies outlined throughout this article. There is a dire need for new forms of tenure (rental and cooperative), and for a response to the housing crisis which escalated in countries of the region in the past decade. This means that new organizations of housing provision need to emerge, which, in turn, need new forms of housing finance (Pósfai et al 2022). In the absence of these new forms, we are most likely merely facing a new period of housing financialisation which will benefit a new round of beneficiaries, but will not change the fundamental structure of accumulation through the housing market or disrupt “financial chains” on which this structure rests.

References

Alami, I., Alves, C., Bonizzi, B., Kaltenbrunner, A., Koddenbrock, K., Kvangraven, I. and Powell, J. (2022) International financial subordination: a critical research agenda, *Review of International Political Economy*, DOI: 10.1080/09692290.2022.2098359

Alami, I. and Dixon, A.D. (2021) Uneven and combined state capitalism. *Environment and Planning A: Economy and Space,* 0(0): 1–28. Online first DOI:10.1177/0308518X211037688

Ban, C. and Bohle, D. (2021): Definancialization, financial repression and policy continuity in East-Central Europe, *Review of International Political Economy*, 28:4, 874-897, DOI: 10.1080/09692290.2020.1799841

Becker, J., Jäger, J. and Weissenbacher, R. (2015) 'Uneven and dependent development in Europe: The crisis and its Implications', in Jäger, J. and Springler, E. (eds) Assymmetric Crisis in Europe and Possible Futures. New York: Routledge, pp. 81–93.

Bonizzi, B., Kaltenbrunner, A. and Powell, J. (2022) Financialised Capitalism and the Subordination of Emerging Capitalist Economies. *Cambridge Journal of Economics*, 46:4, 651–678. https://doi.org/10.1093/cje/beac023

Bródy, L. S., Pósfai, Zs. (2020) Household debt on the peripheries of Europe: New constellations since 2008, *Periféria Working Papers 3*. Available at: https://www.academia.edu/43243057/Household_debt_on_the_peripheries_of_Europe_New_constellations_since_2008

Czirfusz, M. and Jelinek, Cs. (2021) Housing policies and housing affordability in Hungary after 1990. In: Vankó, L. (Ed.) *Annual Report on Housing Poverty 2021*. Habitat for Humanity Hungary. Available at: http://real.mtak.hu/150673/1/Czirfusz_Jelinek_Habitat_AnnualReport_2021_EN_FINAL.pdf

Doerr, S., Gissler, S., Peydró, J-L. and Voth, H-J. (2021) *Financial crises and political radicalization: How failing banks paved Hitler's path to power*. BIS Working Papers No 978. Available at: https://www.bis.org/publ/work978.pdf

EMF (2022) *Hypostat 2022: A review of Europe's mortgage and housing markets*. European Mortgage Federation. Available at: https://hypo.org/emf/publications/hypostat/

Fernandez, R. & Aalbers, M.B. (2020) Housing Financialization in the Global South: In Search of a Comparative Framework, Housing Policy Debate, 30:4, 680-701, DOI: 10.1080/10511482.2019.1681491

Florea, I., Gagyi, Á. and Jacobsson, K. (2022) *Contemporary Housing Struggles: A Structural Field of Contention Approach*. Palgrave Macmillan.

Gagyi, Á., Jelinek, Cs., Pósfai, Zs. and Vigvári, A. (2021) Semi-peripheral financialization and informal household solutions - Embedded scales of uneven development in Hungarian urban fringes. In: M. Mikuš and P. Rodik (Eds.) *Households and Financialization in Europe: Mapping Variegated Patterns in Semi-Peripheries*. Routledge.

Gagyi, Á. and Mikuš, M (2022) Housing Finance in the Aftermath of the Foreign-Currency Mortgage Crisis in Eastern Europe: Editorial. *Critical Housing Analysis*, 9(1), 39-47. DOI:10.13060/23362839.2022.9.1.539

Gerőcs, T. (2021) *Magyarország függő fejlődése*, Helyzet Műhely könyvek, Napvilág kiadó

Geva, D. (2021) Orbán's Ordonationalism as Post-Neoliberal Hegemony. *Theory, Culture & Society* 0(0) 1–23

Hegedüs, J. and Somogyi, E. (2016) Moving from an Authoritarian State System to an Authoritarian Market System: Housing Finance Milestones in Hungary between 1979 and 2014. In: Lunde, J. and Whitehead, C. (Eds.) *Milestones in European Housing Finance*. Wiley. https://doi.org/10.1002/9781118929421.ch12

IMF (2021) *This is how much house prices have increased in countries around the world*. World Economic Forum. Available at: https://www.weforum.org/agenda/2021/10/housing-prices-continue-increase-countries-europe-world/

Johnson, J., & Barnes, A. (2015). Financial nationalism and its international enablers: The Hungarian experience. *Review of International Political Economy*, 22(3), 535–569. https://doi.org/10.1080/09692290.2014.919336

Karas, D. (2022). Financialization and state capitalism in Hungary after the Global Financial Crisis. *Competition & Change*, 26(1), 29–52. https://doi.org/10.1177/10245294211003274

Kohler, K. and Stockhammer, E. (2022) Growing differently? Financial cycles, austerity, and competitiveness in growth models since the Global Financial Crisis. *Review of International Political Economy*, 29:4, 1314-1341, DOI: 10.1080/09692290.2021.1899035

Matolcsy, Gy. (2022) *Eredményes válságkezeléstől a fenntartható felzárkózásig (From successful crisis management to sustainable catchup)*. Magyar Nemzet. Available at: https://magyarnemzet.hu/pc19/2022/03/matolcsy-gyorgy-eredmenyes-valsagkezelestol-a-fenntarthato-felzarkozasig

Mikuš, M. (2019) 'Contesting household debt in Croatia: the double movement of financialization and the fetishism of money in Eastern European peripheries', *Dialectical Anthropology*, 43(3), pp. 295–315.

Mikuš, M. and Rodik, P. (2021a) *Households and Financialization in Europe: Mapping Variegated Patterns in Semi-Peripherie*s. Routledge.

Mikuš, M. and Rodik, P. (2021b) Introduction: Households and peripheral financialization in Eastern and Southern Europe. In: M. Mikuš and P. Rodik (Eds.) *Households and Financialization in Europe: Mapping Variegated Patterns in Semi-Peripheries*. Routledge.

MNB (2022a) *Hitelezési folyamatok 2022 szeptember (Lending processes September 2022)*, Magyar Nemzeti Bank. Available at: https://www.mnb.hu/letoltes/hitelezesi-folyamatok-2022-szeptember-hu.pdf

MNB (2022b) *Pénzügyi stabilitási jelentés 2022 május (Financial stability report May 2022)*, Magyar Nemzeti Bank. Available at: https://www.mnb.hu/letoltes/penzugyi-stabilitasi-jelentes-2022-majus.pdf

MNB (2023) *Lakáspiaci jelentés 2023 május (Housing market report May 2023)*, Magyar Nemzeti Bank. Available at: https://www.mnb.hu/letoltes/lakaspiaci-jelentes-2023-majus-hun.pdf

Nölke, A., & Vliegenthart, A. (2009) Enlarging the varieties of capitalism: The emergence of dependent market economies in East Central Europe. *World Politics*, 61(4), 670–702. https://doi.org/10.1017/S0043887109990098

Pataccini, L. (2021): Europeanisation as a driver of dependent financialisation in East-Central Europe: insights from the Baltic states, *New Political Economy*, DOI: 10.1080/13563467.2021.1994542 Alami, I. and Dixon, A.D. (2020) State capitalism(s) redux? Theories, tensions, controversies. *Competition & Change*, 24(1): 70–94.

Pósfai, Zs. (2018) *Reproducing uneven development on the Hungarian housing market*. PhD dissertation. Szegedi Tudományegyetem. Available at: http://doktori.bibl.u-szeged.hu/9753/1/p%C3%B3sfai%20zs_phd%20final_2018.04.05..pdf.

Pósfai Zs, Jelinek Cs (2019): Reproducing socio-spatial unevenness through the institutional logic of dual housing policies in Hungary. *Local and Regional Development in Times of Polarisation: Re-thinking spatial policies in Europe*; eds: Th. Lang, F. Görmar, Palgrave, series: New Geographies of Europe.

Pósfai, Zs., Jelinek, Cs., Dević, S., Tomašević, A. and Pavlović, I. (2022) *Catalytic capital investment as an enabler of affordable rental and cooperative housing in Central and South-Eastern Europe: Full Research Repor*t. Periféria Policy and Research Center. Available at: http://real.mtak.hu/163650/1/full_research_report_2303_final_pages.pdf

Reis, N. and Antunas de Oliveira, F. (2021) Peripheral financialization and the transformation of dependency: a view from Latin America, Review of International Political Economy, DOI: 10.1080/09692290.2021.2013290

Sebők, M. (2019) *Paradigmák fogságában*. Társadalomelméleti Műhely, Napvilág kiadó

Sokol, M. (2017) Financialisation, financial chains and uneven geographical development: Towards a research agenda. *Research in International Business and Finance,* 39: 678–685.

Sokol, M. (2022) Financialisation, central banks and 'new' state capitalism: The case of the US Federal Reserve, the European Central Bank and the Bank of England. *Environment and Planning A: Economy and Space*. DOI 10.1177/0308518X221133114

Sokol, M. and Pataccini, L. (2020) Winners and losers in coronavirus times: Financialisation, financial chains and emerging economic geographies of the COVID-19 pandemic. *Tijdschrift Voor Economische en Sociale Geografie,* 111(3): 401–415.