POST-SOCIALIST (URBAN) FINANCIALIZATION IN SERBIA: AN EMPIRICAL INSIGHT

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Abstract:
The paper explores Serbia’s post-socialist financialization based on the galloping urban real estate trends after the global crisis in 2008. Financialization as a global process had a significant role in the socio-economic development and urban changes in different contextual frameworks, including the post-socialist European countries. However, there are not enough studies on financialization in these countries, while in Serbia they are completely absent. Focusing on post-socialist Serbia in the post-crisis period, the paper situates the narrative of urban financialization into the broader context by: illuminating the financialization dimensions; identifying the indicators for selected financialization dimensions; analyzing concrete data for selected financialization dimensions by specific indicators, and comparing available indicators of financialization with those in some post-socialist countries of Central and Eastern Europe (CEE) and South-Eastern Europe (SEE). The empirical analysis provides insight into the complex nature of urban financialization which is measured by specific indicators. The findings point to a connection between the intertwining of global financial and macroeconomic trends and the urban development processes. It is assumed that there is a certain correlation and interconnection between (urban) financialization and developmental, monetary and financial policies and foreign financial inflows in Serbia.

INTRODUCTION

The general understanding of the process of financialization is based on a concept used to explore the increasing influence of financial markets, financial participants, and the importance of financial discourses in the functioning of economies and societies (Epstein, 2005). While in macroeconomics financialization is usually defined as “a pattern of accumulation in which profit making occurs increasingly through financial channels rather than through trade and commodity production” (Epstein, 2005), in urban development planning it is seen as the “increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of
economies, firms (including financial institutions), states and households” (Aalbers, 2017:3). Aalbers points to the financialization of public sector and public policy, which reflects the interests of some areas of financialization that are becoming increasingly privileged in the domain of public policies, including urban policy.

The financialization of real estate culminated with the 2008 global crisis and continued to strengthen in the post-crisis period. This process involves various financiers, who are interested in investing in residential and non-residential commercial properties in cities. Financialization as an economic recovery strategy has also encouraged some speculative approaches to real estate investment that directly affect the urban (re)development planning process.

Financialization has recently become the subject of numerous research, however, rarely focusing on the permeation of global financial flows and macroeconomic trends at the national level and in the domain of urban development. To shed light on urban development, especially housing, it is necessary to research the coupling of financial capital and territorial capital (urban resources), as well as the different ways of transitioning urban buildings and urban land into financial assets through the monetization of their values on the market. In the process, financialization can damage public interest and public goods (Horodecka & Zuk, 2021), territorial capital (urban resources), public interest and ownership, and often public finances as well (Lapavitsas, 2013).

In developed countries, financialization is interpreted differently in different disciplines, although it is generally considered as a global and externally-led process in a neoliberal framework (Epstein, 2005). The process of financialization in developing countries is focused on economic development and market-driven changes (Correa et al., 2012; Karwowski & Stockhammer, 2016), including non-financial corporations/NFCs (Becker et al., 2010; Gabor, 2012). In these countries as well as in the post-socialist countries, financialization is caused by financial liberalization and deregulation (Karwowski & Stockhammer, 2016; Gabor, 2012; Georgia & Janoschka, 2017). Both groups of countries have developed strong financialization of urban real estate, as well as increasing real estate prices, sometimes even without foreign capital inflows (Karwowski & Stockhammer, 2016).

There are many analyses of the financialization after the 2008 global mortgage crisis, but not enough examination of urban financialization in the former socialist countries of Europe (Büdenbender & Aalbers, 2019). Therefore, the paper focuses on dimensions of dependent financialization of (urban) development at three levels: global economic power and financial capital; national frame; and the urban level.

The research covers the financialization under the growing power of financial markets over companies, states, and individuals, and the different implications of global capital flows for urban (re)development. To address such a broad goal, we pose the following questions: What are the key dimensions of financialization? How to measure the different types, ranges of depth, and movements of the financialization process in Serbia? Finally, how is financialization in Serbia related to the same process in the countries of South-Eastern Europe (SEE) and Central and Eastern Europe (CEE)? The empirical research covers the impact of general financial, monetary, investment and macroeconomic developments under the influence of financialization at the national level and, also at, the urban properties level. Based upon the conceptual inputs on financialization, the paper interprets specific data for the post-crisis period (2008–2023) with a comparison of Serbia and SEE and CEE.
The paper is structured as follows. First, it provides a brief insight into the most important theoretical frameworks that elucidate the financialization, particularly the financialization of urban real estate and housing, in the post-socialist context. The main part presents the results of research on financialization in Serbia. Then follows a comparison of Serbian financialization with selected post-socialist countries of SEE and CEE. Finally, the paper summarizes the findings related to the indicators of financialization in the post-socialist countries.

FINANCIALIZATION: A CONCEPTUAL OVERVIEW AND THEORETICAL UNDERSTANDINGS

Financialization is part of a general transformation of the economy from production toward finance, driven by the growing possibility of financial activities and can be targeted at all sectors. The financial market has become a driver for other markets where “gambling and speculation with analysis, advice, appraisal, advertising and commission-charging are becoming a major growth industry”, with the growing dominance of financial activities in the overall economic structure, the growth of financial assets in total assets, marketable securities, especially the shares in financial assets.

The financialization of mortgage markets implies that houses and homeowners are put into financial exploitation, along with the securitization of mortgage loans and the determination of risk-based prices. Mortgage markets include local consumer markets (local demand) and global investment markets (global supply), making the financialization process a connecting mechanism. This increases the risks and uncertainties in the mortgage markets.

The process of financialization can be also considered a prolonged split between the divergent real and financial economies, implying a significantly expanded role of financial motives, financial markets, financial actors and financial institutions in the functioning of domestic and international economies (Epstein, 2005: 3). The financialization is a process whereby financial markets, financial institutions, and financial elites gain greater influence over economic policy and economic outcomes. This leads to an exponential increase in various asset categories, the diffusion of speculative investments that are often at odds with the investments in the real economic sector, as well as an urban development based on consumption and credit-driven growth.

Financialization can be understood as the financial expropriation, or “growth of extractive logics” (Sassen, 2017:8). Financialization of all types of property, especially urban real estate, is a valid proof of its nature, i.e., accumulation-centered development through financial channels, but without an alternative view of activity-centered urban-economic development. The broader notion of financialization as a deeply spatial phenomenon includes core-periphery relations and spatially uneven development, as well as different regulatory frameworks and multi-scalar markets that follow the spatial character of financialization. This process shows that it is a useful concept in difficult theoretical issues of mainstream economics. The theory of neoclassical economics, financial theories and the theory of new institutionalism are the broadest frameworks for explaining urban financialization in the post-socialist context, as well.

Financialization also includes a key reliance on non-financial corporations (NFCs). The convergence of financial and non-financial corporations under financialization is evident, as well as the growing dependence of NFCs on financial activities as a source of income, which makes them look like financial corporations.
Financialization has become crucial in urban development. The economic uncertainty is a consequence of the key goal of neoliberalism: financialization. Therefore, this concept offers recommendations for policies and institutional changes to encourage the democratization of decision-making, economic opportunities, environmental sustainability and individual well-being. The global crisis has shown that highly funded accumulation regimes are extremely vulnerable to crises and financialization, which focuses on “centre” economics, periphery or (semi)periphery (Büdenbender & Aalbers, 2019). The policy changes or lack thereof are key to financialization on the European periphery (Becker et al., 2010).

Also, the financial crisis revealed the systemic effects of financialization in the urban space. It also revealed an increase in the financial value of urban properties/assets. Gabor (2012) showed that central bank interventions were crucial in boosting financialization. This process is also present in the post-socialist countries classified as the European (semi)periphery (Becker et al, 2010; Büdenbender & Aalbers, 2019), as well as in the European “super-periphery” - the so-called Western Balkans (Bartlett & Prica, 2013). Some researchers think that “open peripheralization” is practically the only perspective for the Balkan countries because those countries are seen as European “inner peripheries” (Göler, 2005).

Financialization includes a wide range of constituent elements, whereas we emphasize: a) general investing in real estate sectors; b) maximization of investor resources and power, and efforts to maintain or raise asset prices; c) market-based financial system and new financial products; d) huge credits as a system of lending financial resources, not investing in development. Huge credits and globalization play special roles in neoliberal financialization, which has increased the available financial resources and expanded and intensified business activities around the world with an emphasis on its speculative dimension (Elhefnawy, 2020).

Neoliberal financialization is rooted in a concept of monetary policy based on “targeting inflation”, and the creation of a central banking structure in line with the main pillars of the economy such as: weak governmental control, private companies, open financial markets and labor market flexibility. What is intended with a loose monetary policy is to keep asset prices rising. However, it may create real estate bubbles, with a bailout policy of the financial sector as an imperative (Zeković et al, 2023).

Analyses point to the benefits of the financial actors at the expense of local (urban) communities (Guironnet et al., 2016; Savini & Aalbers, 2016), as well as a certain subordination of urban development to the logic of the financial sector and investors’ expectations (Lake, 2015). Research on the financialization of urban policy (Anguelov et al., 2018; Waldron, 2019) indicates that this process transforms financial circles, institutions and actors, introducing financial markets’ evaluation methods into urban financialization.

**METHODOLOGY AND DATA**

The paper applies a comprehensive empirical analysis of different financialization dimensions at the macro level using quantitative indicators. The applied approach is informed by the previously given theoretical framework and includes compatible tools as a frame that critically connects macro-economic, financial, institutional, socio-political and urban dimensions of financialization in a post-crisis context (2008–2023).

Keeping in mind the research goal and key research questions, the main methodological steps are as follows: a) typologizing and structuring the financialization dimensions in the analyzed period; b) identifying the possible indicators for the selected financialization dimensions; c) analyzing concrete data for the selected financialization dimensions by specific indicators; d) comparing them with those in similar countries in CEE and SEE. Precise methods used in each step are given below.
First, as the process of determining the way of measuring complex socio-economic and urban/spatial phenomena cannot be directly observed, we emphasize the circular nature of the interrelationship between financial indicators on the one hand, and indicators of urban properties on the other, to explain their strong conditionality. Consequently, based on the review of different understandings of financialization as introduced in the conceptual section (Karwowski & Stockhammer, 2016; Aalbers, 2017; Becker et al., 2010), we identify several dimensions of financialization, such as: (1) Changes in the structure and operation of financial markets; (2) foreign financial inflows; (3) Changes in the behavior of NFCs; (4) financialization of housing and households; and (5) urban financialization.

Second, to measure the type, scope and dynamics of the financialization process according to the identified dimensions, we introduce the quantitative indicators at the macro scale for the five selected dimensions of financialization identified in the first step. This research is based on the analysis of mainly primary sources (publicly available data, legislation, statistical data, public policies, and national documents).

Third, the dimensions of financialization are analyzed through sets of relevant indicators in order to explore the galloping growth of financialization in Serbia after 2008. Additionally, the findings are explained through the connection between macroeconomic trends and urban development processes. The analysis of different financialization dimensions is based on the use of publicly available data (from the database of national institutions), as well as secondary sources.

Finally, a comparative analysis of urban financialization between Serbia and some countries of CEE and SEE was made by combining some indicators and using the Spider approach. The Spider is an analytical tool used to compare and visualize the relative preferences or characteristics of a particular territory based on many factors. In using this tool, quantitative data on each indicator are standardized (their absolute and relative values are aggregated on a 10-point scale), after which they are mapped on axes. This analysis is based on the available data obtained from the database of international institutions (the Bank of International Settlements/BIS, CEIC, World Bank, Eurostat).

THE FINANCIALIZATION IN POST-SOCIALIST SERBIA: RESULTS AND DISCUSSION

In this section, the general trends of financialization are presented, and the basic characteristics of (urban) financialization in Serbia are described. Financial liberalization and privatization in Serbia, similar to other CEE countries, began in the early 1990s, and they have intensified since 2000.

The economic reforms enabled the attraction and rapid expansion of foreign direct investment (FDI), with the largest share of FDI directed towards financial activities, real estate and construction (33.6% in 2020, NBS, 2023b). The structure of FDI by sector showed a significant jump in the participation of construction and real estate - to 45.4% in 2022 (NBS, 2024).

Privatization was mostly completed by 2005, however, with significant failure (about 30% of unsuccessful privatizations, see Social and Economic Council of the Republic of Serbia, 2011:84). According to data from the Ministry of Economy and Regional Development of the Republic of Serbia, from 2002 to 2011, the overall success rate of company privatization was 66% (Mitrović, 2013:29). The main drivers of high rates of gross domestic product (GDP) from 2000 to 2008 (an average 6.5% per year) were increased by FDI and credit inflows, while the real sector stimulated this.
Liberalization of monetary policy enabled the expansion and dominance of foreign banks in Serbia (87% in 2021; 83.6% in 2022; 81.8% in 2023; see NBS, 2022; NBS 2023a). Borrowing cheap money has created a significant increase in housing and other household loans until 2008. It was accompanied by an extremely high degree of currency substitution (dollarization or euroization). Foreign currency and deposits related to the total cash and deposits in Serbia amounted to 88% in 2009 (Becker et al., 2010).

The initiative to analyze the post-socialist financialization arose from the complete absence of research on this issue in Serbia, very rare research in the SEE countries, and a somewhat more prevalent one in CEE countries. Only the after-crisis period was studied, although foreign financial inflows had been very intense before 2008, especially in some post-socialist countries (Gabor, 2012; Radošević & Cvijanović, 2015; Mikuš, 2019). Therefore, the analysis of Serbian financialization and its comparison with the selected SEE and CEE countries covers the period from 2008 to 2023.

The analysis is based on five diversified theoretical understandings and interpretations of financialization dimensions, including the measurement of their main components by relevant indicators, based on available data. The indicators are selected for each domain/dimension of financialization: (1) changes in the structure and operation of financial markets; (2) foreign financial inflows; (3) changes in the behavior of NFCs; (4) financialization of housing and households; and (5) urban financialization. Based on available data from national and international sources, the selection and results of the analysis of Serbian quantitative indicators of financialization are presented and summarized in Table 1.

Table 1. Serbian indicators of financialization in the post-crisis period (2008-2023)

<table>
<thead>
<tr>
<th>Financialization domains</th>
<th>Indicators</th>
<th>2008</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in the structure and operation of financial markets</td>
<td>The ratio of stock market value traded (% GDP) and bank credit (% GDP)²,1⁷</td>
<td>0.6912</td>
<td>0.1468</td>
</tr>
<tr>
<td></td>
<td>The market capitalization of listed domestic companies (% of GDP)²,1⁷</td>
<td>29.38</td>
<td>8.5</td>
</tr>
<tr>
<td></td>
<td>Share of credit in GDP (%)¹⁹</td>
<td>42.5</td>
<td>57.87</td>
</tr>
<tr>
<td></td>
<td>Share of the financial sector in GDP (%)³</td>
<td>3.04</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Interest rate²</td>
<td>10.0</td>
<td>1.5-4.5</td>
</tr>
<tr>
<td></td>
<td>Mortgage interest rate in %, average, yearly for 20 years fixed-rate¹,1¹²</td>
<td>8.3</td>
<td>3.6-4.5</td>
</tr>
<tr>
<td></td>
<td>Loan affordability index¹</td>
<td>n/a</td>
<td>0.68</td>
</tr>
<tr>
<td></td>
<td>Degree of dinarization of public debt (in %)²,2⁰</td>
<td>2.6</td>
<td>34.4</td>
</tr>
<tr>
<td></td>
<td>Degree of dinarization placements to household and economy (%)²,2⁰</td>
<td>29.2</td>
<td>53.1</td>
</tr>
</tbody>
</table>

| Foreign financial inflows | Share of FDI in GDP (%)²,1⁷                                               | 7.0   | 7.2  |
|                          | Share of portfolio investment in GDP (%)⁸ (2021)                           | 0.25  | 3.1  |
|                          | Share of financial derivatives in GDP (%)⁸ (2021)                         | 0.0000 | 0.163|
|                          | Share of real estate and construction in FDI (%)⁷                         | 28    | 40.0 |
|                          | Share of the foreign affiliates in GVA of real estate sector (%)³          | 30.0* | 40.0**|

| Changes in the behavior of non-financial corporations (NFCs) | Share of NFCs loans in GDP (%)⁸ (2021)                           | 22.8  | 27.9 |
|                                                            | Share of NFCs in non-performing loans (NPLs) (%)¹⁴,1⁵,1⁶ (2021)     | 72.0  | 3.1  |
|                                                            | NPL ratio: share of gross NPLs in total loans (%)¹⁴,1⁸               | 15.7  | 3.1  |
|                                                            | Share of construction in NPLs of NFCs (%)¹⁴                         | 19.0  | n/a  |
|                                                            | Share of construction in NFCs loans (%) (2021)                      | 5.7   | 5.1  |
|                                                            | Share of real estate and construction in GDP (%)²                  | 15.4  | 15.9 |
## Financialization Domains

<table>
<thead>
<tr>
<th>Financialization of Housing and Households</th>
<th>Indicators</th>
<th>2008</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of housing loans in total household loans (%)</td>
<td>38.0</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>Household debt (% of GDP)</td>
<td>14.7</td>
<td>21.6-19.9</td>
<td></td>
</tr>
<tr>
<td>Price to income ratio</td>
<td>9.0</td>
<td>16.62</td>
<td></td>
</tr>
<tr>
<td>Mortgage as % of income</td>
<td>n/a</td>
<td>147.9</td>
<td></td>
</tr>
<tr>
<td>Number of built apartments/1000 inhabitants</td>
<td>2.6</td>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Urban Financialization (only residential real estate)</th>
<th>Indicators</th>
<th>2008</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential property prices, nominal, index 2010=100</td>
<td>68.69</td>
<td>131.37</td>
<td></td>
</tr>
<tr>
<td>Serbian real estate index DOMex (average 2002–2010=100)</td>
<td>95</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>Price to income ratio in largest cities (Niš, Novi Sad, Belgrade)</td>
<td>n/a</td>
<td>138.20.5</td>
<td></td>
</tr>
<tr>
<td>Mortgage as % of income in largest cities (Niš, Novi Sad, Belgrade)</td>
<td>n/a</td>
<td>119.7-187.9</td>
<td></td>
</tr>
<tr>
<td>Loan affordability index in largest cities (Belgrade, Novi Sad and Niš)</td>
<td>n/a</td>
<td>0.53-0.84</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s modification according to Karwowski & Stockhammer (2016)

1. Numbeo (2023); 2. World Bank data (2022); 3. BIS (2023); 4. SORS (2015; 2020); 5. NKOSK (2021); 6. NBS (2021b); 7. Ministry of finance (2021); 8. BELEX (2022); 9. SORS (2022); 10. NBS (2021c); 11. NBS (2022); 12. NBS (2014); 13. NBS (2010); 14. SORS (2021); 15. NBS (2020); 16. CEIC (2021); 17. NBS (2021d); 18. Eurostat (2021a); 19. NBS (2023a) *2015; **2019

## Changes in the structure and operation of financial markets (shift from a bank-based financial system to a market-based system)

In assessing the financialization through the changes in the structure and operation of financial markets (as a shift from a bank-based to a market-based financial system), several indicators were used: the main measure is the ratio of values traded on the stock exchange (expressed as a share in the GDP) and the share of loans in total GDP. Since 2008, the ratio of stock market value traded (as % of GDP) and bank credit (as % of GDP) decreased from 0.6912 to 0.1468 (Table 1). This indicates that the financial system of Serbia is more based on banks, due to a significant decline in the volume of stock market value traded after the global crisis of 2008. The financial system has remained with pronounced characteristics of bank-centricity, similar to other post-socialist countries. In other words, “the financial system is characterized as a bank-based system” (Kaličanin & Terzić, 2023:107)

Real estate-driven financialization has developed as a key instrument for achieving development goals based on three intertwined concepts/logics: “strategy of accumulation,” “rent-seeking” and “technology of governing” (Shatkin, 2017). The state and its institutions are often the drivers of urban real estate and urban land use. Real estate investment trusts (REITs) most often channel profit capital into building and developing real estate, directly extracting rents and incomes from these properties and urban land (through income from leases, rental income, property sales, guarantees, interest rates) and through financial capital trading. The relationship between the state and various investment actors/funds (such as REITs) is usually supported by a loose monetary policy based on “targeting inflation” and open financial markets (either unregulated or partially regulated, as in some countries in SEE). “Targeting inflation” usually allows sustaining speculation and rising of real property prices, as well as bailing out the financial sector as an imperative. Epstein (2005) points to one extremely important aspect of financialization – the increased use of “inflation targeting” by central banks - concluding that this approach used by central banks concentrates more on the relative interests of finance and industry than on macroeconomic policy.
The National Bank of Serbia (NBS) relies on the monetary policy of “targeting inflation”. Although this paper does not address the impact of monetary policy on the real estate market and prices of commercial properties, it points out that the benefits of assetization of residential and non-residential (commercial) properties are becoming a priority for the stability of the financial system. Investing in properties and monitoring the real estate market remains a priority for the Serbian authorities, allowing them to react quickly if the market conditions worsen further in the future (IMF, 2021) by using the stability index related to the growing foreign exchange risk (FX), credit risk, profitability, liquidity and solvency risks. Current credit risks in Serbia represent a common risk in the banking sector with the largest share in risky assets (86.7%), while the share of market risks was 13.1% (NBS, 2021).

The policy of the NBS emphasizes the role of securitization (conversion of assets into securities traded on the stock exchange). The economy and financial system in Serbia show a high level of euroization of the loan portfolio - the majority of bank loans in RSD were denominated in euros. Becker et al (2010) indicated that Serbia was characterized by far-reaching financialization and a significant degree of currency substitution (dollarization and euroization - even 88% in 2009). The effective interest rates are more affected by the European Central Bank (ECB) than the NBS (BTI, 2022) as evidenced by the NBS’s low reference interest rate (1%) from 2020 to May 2022 (2%). After that, NBS’s reference rate was increased and in November 2023 it reached 6.5%. The NBS has refocused on exchange rate targeting: high euroization effectively involves a strong impact of the exchange rate on prices, imports, wages and the cost of capital. The national currency (RSD) is relatively stable, although it is overestimated by 20–30% (BTI, 2022). Inflation has been low and stable (around 2%) until 2022, after its maximum of 16.1% in 2023 (in October 2023 it returned to 8.5%). Since 2017, the scope of inflation targeting has been narrowed to 3-4% (+/- 1.5%).

Financialization implies a significant increase in the financial sector in the overall economy. From 2012 to 2023, the share of assets in the Serbian banking sector increased from € 25.3 billion to € 48.7 billion, the deposits increased from € 14.9 billion to € 37.3 billion, the loans increased from € 17.3 billion to € 28.7 billion, while profit rose 220% from 2021 to 2023 (NBS, 2023a). Also, “due to mergers and acquisitions in the last few years the number of the banks decreased significantly”, while “the market is highly fragmented, with many small non-competitive banks that have not reached the volume of deposits and loans which provides sufficient potential for profitable business” (Kaličanin & Terzić, 2023:107, 118). From 2012 to 2022 the share in total employment decreased (from 2.92% to 1.87%) with an increase in share in GDP (from 3.2% to 3.8%). There was a moderate share of loans in the GDP (57.87%), (NBS, 2023a).

The loan affordability index (LAI) measures how affordable housing is for residents, i.e., the level of earnings of an average family needed to qualify for an average mortgage loan based on the latest data of price and income as given in Table 1. The average LAI value of 0.68 on the national scale indicates insufficient accessibility of housing loans to families in 2023.

**Foreign financial inflows**

A significant degree of financial deregulation, changes in monetary and fiscal policies, liberalization, and financial support for the FDI are all stimulating the entry of foreign capital, and different financial and non-financial corporations in Serbia. Since 2000, transitional transformations and a new institutional framework have attracted huge FDI, mainly in the service sector and urban properties. After the global crisis and collapse of real estate, this sector is rapidly recovering and developing, usually with the support
of the state. Serbia has attracted over 50% of FDI in the Western Balkans from 2018 to 2022 (NBS, 2023a). In 2022, the inflow of FDI amounted to 4.4 billion € (NBS, 2023a). From 2018 to 2022, the total inflow of FDI was € 18.6 billion, € 10 billions of which was directed to the tradable sectors, while about 40% of FDI was invested in commercial properties and construction industry. Due to the significant inflow of FDI into Serbia, net foreign assets have extremely increased: from 0.48 billion € in 2008 to 1.346 billion € in 2021 (World Bank, 2022).

The state of foreign liabilities in Serbia (FDI, portfolio investments and other financial inflows) in the post-crisis period is shown through several indicators. The average stock of FDI in Serbia was 7.2% of GDP in 2022 (Table 1). From 2008 to 2021, the share of portfolio investments in the GDP increased even 12 times – from 0.25% to 3.1% (Table 1), while the share of financial derivatives increased dramatically from 0.000028% to 0.163%. The participation of foreign affiliates in the GVA of the real estate sector reached 40%.

Foreign financial inflows contribute to the financialization of national economies and the increase in household debt (Karwowski & Stockhammer, 2016), conditioning shifts in domestic NFC investment from productive to short-term and speculative financial investment. The banking in Serbia, mostly financed by domestic deposits, has led to more intensive investment in securities (primarily low-risk government securities), with a share of 11.2% net assets of the banking sector in September 2023. Serbia’s credit rating is at BB+, “although Serbian government bonds remain non-investment and speculative ‘junk bonds’ (BTI, 2022:23). In order to reduce the currency risk, three transactions with financial derivatives were concluded in 2021, by which liabilities in USD, Chinese Yuan and UAE Dirhams were converted into Euro. Additionally, three Eurobond issues on the international financial market were realized, with a total value of 2.75 billion € (Ministry of Finance, 2022a).

Financialization of non-financial corporations

Financialization implies a changed behavior of NFCs, banks and households, and a profit extracted from income streams and cash reserves (Lapavitsas & Mendieta-Munoz, 2016). The financialization of NFCs measured through the share of NFC loans in the GDP (%) is an indication of financial vulnerability and indebtedness. The achieved level of this indicator (27.9%) shows a stable and relatively moderate share of NFCs in the GDP in the analyzed period. At the same time, the participation of NFCs in non-performing loans (NPLs) dropped from 72.0% to 3.14% (Table 1). Also, the participation of gross NPLs in total loans decreased from 15.7% to 3.4%, with the participation of construction in NPLs of NFCs around 19%. In September 2023, the largest share of NPLs is held by the population (55.2%) and enterprises (31.1%), (NBS, 2023a).

Total loans to NFCs and households in Serbia increased from € 13,393.9 mil. in 2008 (NBS, 2021b) to € 25,015.7 mil. in 2021 (Ministry of Finance, 2021; 2022b), or € 28.68 mil. in 2022 (NBS, 2023a). The extraction of value from urban resources and monetization of urban land or commercial properties (residential and non-residential) is a key factor in the financialization of cities. The share of real estate and construction in the GDP increased from 15.4% to 15.9% after 2008.
Financialization of housing and households

After 2008, the average annual housing supply (the number of constructed dwellings) was between 9,815 to 25,326 units (SORS, 2010; 2022). The number of built apartments per 1000 inhabitants increased from 2.6 in 2008 to 4.5 in 2022. The main causes for the exponential growth of the construction sector are primarily the easier and faster obtainment of building permits, etc.

In Serbia, there were 45,000 of housing loans in 2008, but their number tripled to 152,000 in 2022 (NBS, 2023a; NBS, 2010). Also, there were 969,323 mortgages or 19.8% of 4.9 million buildings (RGA, 2023). The property price-to-income ratio (as the ratio of the average housing price and average annual net salary) reached 16.62 (Numbeo, 2023). In the same period, the average price per m² of housing/residential space increased to 1,500 €/m² (RGA, 2023), while it was 2,430 €/m² in Belgrade, 1,845 €/m² in Novi Sad, and 1,385 €/m² in Niš.

From 2008 to 2021, household debt increased from 14.7% to 22.9%, respectively, while the participation of housing loans in the total of household loans reached 45% (Table 1). Additionally, the participation of gross NPLs in total loans was 3.14% in November 2023 (NBS, 2023a), which is the lowest level since 2008. The main approaches to reducing NPLs were repayments, write-offs, and transfers (sales) to third parties. Although the measures of the Strategy for Resolving NPLs (OGRS 72/2015) contributed to a significant reduction of “toxic” loans, the NPLs of households doubled in the period 2019–2020 compared to the period 2008–2010 (NBS, 2021a). The IMF (2021:12) pointed to the same trend, warning of the possibility of NPL growth in the future, especially after the expiration of the moratorium on loan repayments in Serbia. The real estate markets have been transformed through global capital markets. Financialization occurs when housing is treated as a commodity, rather than as a social good.

Financial instruments such as stocks, derivatives, bonds and mutual funds are traded separately on the stock exchange. Trading with both standard and new financial instruments takes place in an organized trading system.

There were 2.0 mil. illegally constructed buildings in Serbia in 2017 which are outside the formal market mechanisms, thus contributing to the limited total supply of apartments. Housing financialization and mass illegal housing construction result in a limited supply of flats on the legal market, while maintaining high prices of new residential and existing stock. Illegal construction could be crucial for financialization due to its stabilizing role in reducing the supply of real estate and maintaining or increasing the price of legal properties (Zeković et al., 2020).

Urban financialization

Mass investment in urban real estate has not been the focus of financial capital for a long time, however, market changes in the mechanism of supply and demand have deeply embedded real estate development in global and national financial markets. Various international financial actors and corporations are encouraged by global flows to invest in large-scale urban development projects. That encouragement was followed by the growing interest of financial corporations towards financing urban properties. The amount and cost of capital available for commercial property development in cities are related to the relative performance of different financial assets (such as stocks, bonds, etc.). The ability of for-profit capital to engage in real estate development has been enhanced by financial innovation, particularly by REITs.
The mobility of financial capital is also enhanced by new high-tech urban design and smart city concepts, with a global agreement on regulatory changes in favor of development. Huge investments in urban redevelopment or urban renewal through large-scale urban development projects (urban real estate projects) are increasingly determined by the global principles of sustainability, energy and environmental efficiency, and resilience in urban planning and governance.

As anywhere else, the Serbian practice of urban financialization is stimulated by the increasing interest of capital and numerous investors in real estate activities. Main financial actors, and often the external financial power (FDI, FPI), direct national interests towards urban real estate (Waldron, 2019). Mainstream investors are often involved in the decision-making process, the preparation of public policy documents, regulations, urban plans and urban management, usually through a regulation state-led approach (Zeković et al., 2023).

The financialization would be almost impossible without the participation of international capital in residential and non-residential commercial real estate. The financialization of cities, especially housing, is a rapidly expanding economic activity based on the use of new financial sources, products and instruments. However, there are no new financial regulations that would neutralize the speculative tendencies of investing in urban properties on the market.

Urban financialization is generated by the financial capital in urban (re)development through the extraction and then monetization of urban values and common goods. It is notable that financialization includes various aspects of the extraction of values such as: “invisible” extraction, as a consequence of the “invisible hand of the market” (in the sense of Adam Smith’s words); the “visible” or “hidden” hand of the state supporting financialization; and the “long arm” of finance (which includes the growth of borrowing) (Hendrikse, 2016; Zeković, et al., 2023). These largely “invisible” or “hidden” dimensions contribute to the sudden surge in money lending. Consequently, the sudden increase of urban real estate, especially the large urban projects, is a product of these predominantly “invisible” domains of urban financialization. In other words, he financialization through extracting the value of urban resources implies the creation of new value and income in cities and the financial appropriation from the urban resources (as an imperative of “alpha” profit).

A shift from bank-based to market-based financial instruments is needed (Peck & Whiteside, 2016). Consequently, this could provide better mechanisms to change the relationship between different actors and establish new forms of financial investment, fiscal (urban) governance and revenue-generating urban projects. This is especially visible in the example of large development urban projects that are the product of a mixture of all dimensions of financialization.

In the empirical analysis of the galloping growth of the financialization of urban real estate in Serbia in the post-crisis period, the financial indicators on a macro scale and specific indicators on housing are crossed and compared.

According to RGA (2023), in Q3 2023, on the real estate market in Serbia, about 29,200 purchases and sales amounted to €1.5 billion of which 52% were apartments, 9% were residential buildings, 7% were urban construction land, 5% commercial, 5% agricultural land, etc. In 2023, Belgrade participated with 81% of the total value of the real estate market turnover. Both the nominal and real residential property price indices in Serbia show moderate volatility (Table 1). Serbian real estate index DOMex indicates the stability of prices of apartments built with a state guarantee (NKOSK, 2021). The property price-to-income ratio in Serbia has achieved 16.62 (Numbeo, 2023), which is the highest in Belgrade (20.52). The mortgage indicator as a share of income achieved a higher level in Belgrade (187.95%), as well as the lowest loan affordability index (0.53).
The post-socialist institutional framework has provided a better business environment for attracting FDI and portfolio investments in various areas of urban real estate (mainly in commercial and residential properties). A comparative analysis of the financialization process in the countries of SEE and CEE relies upon the use of common data from international sources (the Bank of International Settlements, Eurostat and CEIC) for better comparability. The comparative analysis of financialization covered seven CEE countries (Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia, and Slovenia), six SEE countries (Albania, Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia, and Serbia), as well as the average values of variables for the EU. The analysis included several indicators within the two financialization dimensions: financialization of housing and households, and urban financialization, according to the latest available data. A comparison of the indicators shows significant variations in the financialization process at the national level. The empirical results of the comparison of several indicators of urban financialization in Serbia and selected countries of CEE and SEE are given in Table 2 and Figure 1.

The favorable conditions for lending money have been observed in the increase in the indebtedness of households through the financialization of housing. The household debt is relatively high in the EU (47.7% of GDP) and Slovakia (47.9%), while slightly lower in other CEE and SEE countries, and the lowest in Albania, Serbia, and Romania (Table 2).

The real residential property price index in 2022 showed extreme volatility in Hungary, the Czech Republic, and Croatia, and low volatility in Romania, North Macedonia, Poland and Serbia (Table 2).

The indices showed that in the countries that were more exposed to high residential property price volatility, the foreign financial inflows were also much higher. In the post-crisis period, the credit debt of the households and private sector in Serbia has doubled, i.e., it has achieved the fastest growing trend compared to all European countries, not only in the CEE and SEE regions.

Bulgaria, Slovenia, Slovakia, Bosnia and Herzegovina and Croatia have the best accessibility to housing loans (indices from 1 to 1.3), Romania, North Macedonia and Montenegro have slightly lower values of the loan affordability index, while Hungary, Poland, the Czech Republic, Albania and Serbia have the lowest level of accessibility to the loans (Table 2).

The ratio of property price-to-income (as the ratio of the average housing price to the average annual net salary) is the most unfavorable in Serbia (16.6), Albania (15.7), the Czech Republic (14.9) and Hungary (14.6). Bulgaria, Romania, Bosnia and Herzegovina and Slovenia are characterized by a favorable price-to-income ratio. Financialization, asset price inflation, and a strong increase in household debt are emphasized in all countries.
Table 2. Comparison of financialization dimensions in the selected countries of the CEE and SEE by specific indicators (2023)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Financialization housing and households</th>
<th>Urban financialization (only housing stock)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Household debt as % of GDP &lt;sup&gt;1&lt;/sup&gt;   Real residential property price index &lt;sup&gt;2&lt;/sup&gt;   Residential property prices, nominal, index &lt;sup&gt;100=100&lt;/sup&gt;   Loan affordability index &lt;sup&gt;2010; 2023&lt;/sup&gt;   Price to income ratio &lt;sup&gt;2009; 2023&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>European Union</td>
<td>47.7   107.5   142.3   n/a   n/a</td>
<td></td>
</tr>
<tr>
<td>CEE region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>27.4   116.1   175.3   1.6   9.2</td>
<td></td>
</tr>
<tr>
<td>Czech Republic</td>
<td>37.1   139.6   221.6   0.8   14.9</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>20.6   158.3   280.1   0.7   14.6</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>24.7   104.0   165.7   0.8   13.3</td>
<td></td>
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<tr>
<td>Romania</td>
<td>15.4   72.7   121.3   1.0   10.9</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>28.1   119.4   158.0   1.3   12.1</td>
<td></td>
</tr>
<tr>
<td>Slovakia</td>
<td>47.9   117.4   178.0   1.3   13.2</td>
<td></td>
</tr>
<tr>
<td>SEE region</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albania</td>
<td>11.7   n/a   n/a   0.8   15.7</td>
<td></td>
</tr>
<tr>
<td>Bosnia &amp; Herzegovina</td>
<td>24.4   n/a   n/a   1.3   11.4</td>
<td></td>
</tr>
<tr>
<td>Croatia</td>
<td>33.1   121.0   162.6   1.1   13.2</td>
<td></td>
</tr>
<tr>
<td>Montenegro</td>
<td>25.4   n/a   n/a   1.0   13.1</td>
<td></td>
</tr>
<tr>
<td>North Macedonia</td>
<td>26.5   94.2   138.5   1.0   13.3</td>
<td></td>
</tr>
<tr>
<td>Serbia</td>
<td>19.9   106.3   203.4   0.9   16.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: <sup>1</sup> CEIC (2023); <sup>2</sup> BIS data (30 VI 2023); <sup>3</sup> Numbeo (2023)

Figure 1. Comparison of urban financialization in some countries of SEE by indicators (2023)

Source: Author modification of data CEIC (2023); BIS data (30 VI 2023); Numbeo (2023)
CONCLUSION

The process of financialization and new financial trends have spread deep into the urban structures, fueling uncontrolled urban development and property growth in Serbia, CEE and SEE region. Quantitative analysis indicates the complex nature of the different dimensions of (urban) financialization measured by specific indicators, and compared with selected countries of CEE and SEE. Key findings indicate an increase in loans, growing credit indebtedness of the private sector and population, and emphasized volatility of real estate prices.

The analysis of domain financialization related to the structure and operation of financial markets in Serbia showed the following: 1) the financial system is dominantly based on banks, with an almost five-fold reduction in the volume of stock market value traded in the postcrisis period; 2) growing participation of the financial sector (assets, deposits, loans), especially housing loans in GDP; 3) insufficient accessibility of housing loans to households, measured by the loan affordability index.

Macroeconomic and financial stability combined with structural reforms have established suitable conditions for foreign financial inflows, as one of the domains of (urban) financialization. In the previous period, the key sources of investment financing mainly relied on FDI (40-70% from 2014 to 2019), with a high share of construction and real estate in total FDI (45.4% in 2022, NBS, 2024).

Regarding the key research question: how is financialization in Serbia related to the same process in SEE and CEE countries in the post-crisis period, the answer is that Serbia achieved a similar level of urban financialization measured by several indicators, which were compared to the EU average.

The attractive conditions for borrowing money encouraged a strong increase in the indebtedness of households through the financialization of housing and households. The household debt is relatively high in the EU and Slovakia, while other countries of CEE and SEE have a below-average level. In the period after the global crisis, the credit debt of households in Serbia doubled, i.e., it achieved the fastest growth compared to all European countries.

Almost all countries of CEE and SEE already reached similar values of the real residential property price index compared to the EU average. The real residential property price index shows its extreme volatility in Hungary, the Czech Republic, and Croatia, and low volatility in Romania, North Macedonia, Poland and Serbia, i.e. in countries that were more exposed to high residential property price volatility and greater foreign financial inflows. All countries except Romania and North Macedonia have an above-average increase in the residential property price index, compared to the EU average.

Bulgaria, Slovenia, Slovakia and Croatia have the best accessibility to housing loans, while Hungary, Poland, the Czech Republic, Albania and Serbia have the lowest value on the loan affordability index. The property price-to-income ratio is the most unfavorable in Serbia, Albania, the Czech Republic and Hungary.

It is concluded that institutional changes should prevent new systemic crises and establish standards for the acceptable use of financial capital in the process of urban development, as well as provide new control mechanisms for the real estate market.

The findings point to the connection and intertwining of the global financial and macroeconomic trends and urban development processes. Although a certain correlation and interdependence between the (urban) financialization and developmental, monetary and investment policy in Serbia is assumed - it has not been sufficiently studied and represents a new possibility for future research.
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POST-SOCIJALISTIČKA (URBANA) FINANSIJALIZACIJA U SRBIJI:
EMPIRIJSKI UVID

Rezime:
U radu se istražuje post-socijalistička finansijalizacija Srbije zasnovana na brzorastućim urbanim trendovima u sektoru nekretnina nakon globalne krize 2008. Finansijalizacija kao globalni proces imala je značajnu ulogu u socijalno-ekonomskom razvoju i urbanim promenama u različitim kontekstualnim okvirima, uključujući post-socijalističke evropske zemlje. Međutim, ne postoje opsežna i brojna istraživanja finansijalizacije u ovim zemljama, dok ih u Srbiji jednostavno nema. Fokusirajući se na post-socijalističku Srbiju u postkriznom periodu, rad smešta narativ urbane finansijalizacije u širi kontekst osvetljavajući dimenzije finansijalizacije, identifikujući indikatore za odabrane dimenzije finansijalizacije, analizirajući konkretnе podatke za odabrane dimenzije finansijalizacije po specifičnim indikatorima i upoređujući dostupne indikatore finansijalizacije sa onima u nekim post-socijalističким zemљama Centralne i Istočне Evrope (CIE) i Jugoistočне Evrope (JIE). Empirijska analiza pruža uvid u kompleksnu prirodu urbane finansijalizacije koja se meri specifičним indikatorima. Nalazi ukazuju na povezanost između prožimanja globalnih finansijskih i makro-ekonomskih trendova i procesa urbanog razvoja. Pretpostavlja se da postoji određena korelacija i međusobna povezanost između (urbane) finansijalizacije i razvojnih, monetarnih i finansijskih politika i priliva inostranog kapitala u Srbiji.

Ključne reči:
finansijalizacija,
komercijalne i stambene nekretnine,
urbana finansijalizacija,
post-socijalističke zemљe,
Srbija

JEL klasifikacija:
R51, R12, R20, R32