

SPOTLIGHT ON:

Spotlight on: 1. Real Estate Market in Serbia Price Analysis

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In recent years, there has been a clear increase in the prices of newly built residential buildings in Serbia, and especially in Belgrade. This trend is not only characteristic of Serbia. Real estate prices have been on the rise since 2015 in most European countries, which is also a characteristic of most Central and Eastern European countries, with which, due to the large number of similarities, we can compare developments in Serbia. The reasons for rising real estate prices in Serbia may be different. The rise in living standard and average wage of the population has a positive effect on the rise in prices of all products, including real estate. Favorable interest rates on home loans also affect prices through demand growth. An increasing number of tourists organizing private accommodation in Serbia has increased the demand for apartments as a form of investment in the tourism sector, while the profit that can be earned through this business has increased the monthly rent, especially in Belgrade. The growth of real estate prices in Belgrade was also potentially influenced by the strengthening of Belgrade as a regional political and economic center, better working conditions in public administration and state-owned enterprises, mainly situated in Belgrade, increased quality of construction, the supply / demand ratio for apartments, and more. Whether these factors have actually occurred and what was their impact on the change in real estate prices can only be speculated, since the quantitative impact of individual factors on the rise in real estate prices is difficult to assess due to the lack of reliable data for most potential causes.

The level and rise in prices of newly built real estate in Serbia in the last two years is increasingly accompanied by the question of whether the real estate market in Serbia and / or Belgrade is in a price “bubble”, i.e. whether the value is unrealistic and whether a fall in prices can be expected. The same issues around the world have become relevant after the last major economic crisis, which began in 2007-2008, but the conditions for its emergence were created years before 2007 in the banking and real estate markets in the United States. At that moment, a price bubble was present on the real estate market, i.e. real estate value was significantly above the real and sustainable level, while the conditions for taking a home loan were very favorable. Just over a decade after the crisis in the banking sector, the conditions for housing loans are again favorable, and whether there is a “bubble” is a question to which a large number of institutional and private sector actors are trying to find an answer, but, as we have stated, the factors that influence the real estate market are numerous so it is very difficult to make a concrete conclusion.

During the years following the economic crisis, a number of indicators have been developed to track developments in the real estate market, which cannot give a definitive answer to the question of whether or not there is a price bubble, but can give clues as to how the market in some countries and cities is moving and whether there is a risk of market overheating.

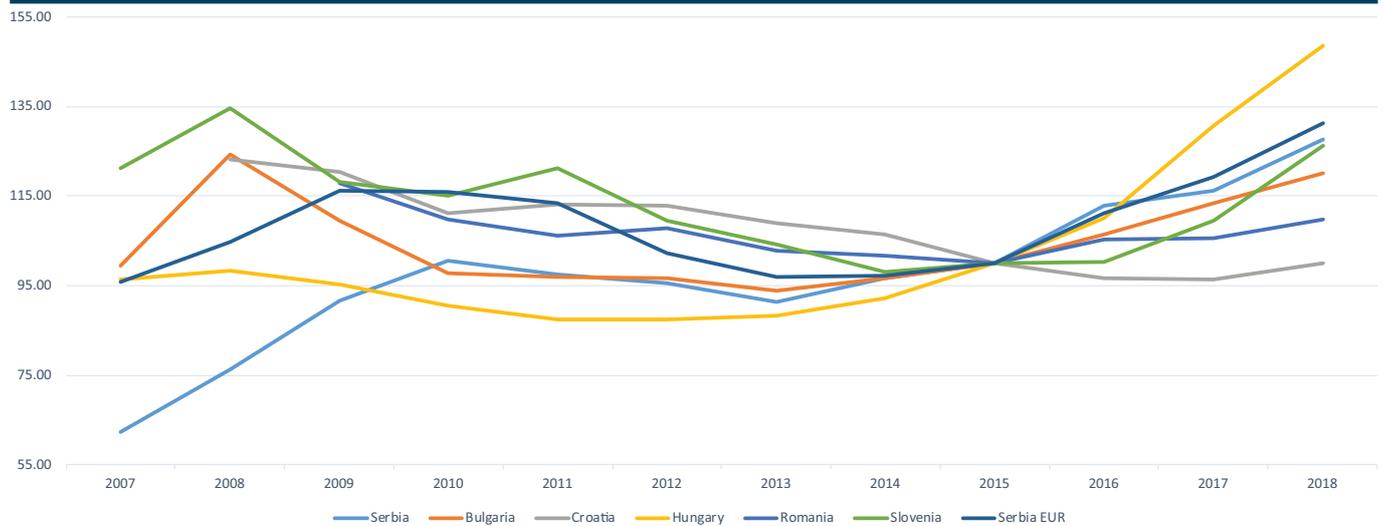
Within this analysis, we will analyze Serbia as a whole and Belgrade as the capital, economic center, regional center, and much more, which makes it significant for a specific analysis. The first part of the analysis observes the movement of prices of newly built residential apartments in the territory of Serbia and a number of indices that are often used as indicators that can point to a potential price bubble in the real estate market. These indices were then observed in relation to their values in the countries of the region. In the second part of the analysis Belgrade was observed through the analysis of the same and similar indices, while the comparison was made with other cities in Serbia, the capitals of the countries of the region and a number of international cities.

Properties of the Real Estate Market in Serbia

As one indicator of developments in the real estate market in the EU Member States, Eurostat monitors the Housing Price Index, which shows changes in the price of housing purchased by EU households. This index monitors real estate prices, so it can indicate the regional trend and possible deviations of some countries from the trend, which are a consequence of the developments in the internal markets. Graph 1 shows the movement of the index values for Serbia and several countries in the region that are members of the European Union.

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Graph 1. Pricing Index of Newly Constructed Residential Buildings (2015 = 100), Serbia and EU Countries of the Region, 2007-2018



Source: Eurostat, House Pricing Index for European Union Countries, author calculation based on SORS data for Serbia.

It should be borne in mind that this index observes price movements in national currencies, so possible deviations from the trend may be due to high inflation rates or significant changes in the exchange rates over the years observed. Even so, we can see in the graph a somewhat common index movement for the observed countries. It can be seen that in most of the countries observed there is a tipping point in 2008, which marks the beginning of the global economic crisis in Europe, after which prices start to fall, after that indices slowly recover in the years after 2013. What is interesting from the perspective of Serbia is the fact that Serbia is the only country among the observed countries that in the years immediately following the crisis (2008 and 2009) did not experience a fall in the prices of newly built real estate, but an increase of 22% and 20%. These rates are much lower when observed in euros, which is a feature of the real estate market in Serbia, 9% in 2008 and 11% in 2009.

Real Estate Price to Earnings Ratio

In order to analyze the real estate market and the possible presence of inflated prices, various national agencies and financial institutions are monitoring indicators that may indicate potential problems. One commonly used index is an index that represents the ratio of real estate prices to average earnings. This index basically shows the number of years a citizen of a country has to spend working to buy a newly built housing unit. Index values fluctuate most often due to the choice of an analyst of the living space required for living. One of the most famous reports on the state of the real estate market “Global Real Estate Bubble Index” produced by UBS Bank annually defines the area of a residential unit at 60m².

Graph 2. Real Estate Price to Earnings Ratio, Serbia, 2003-2018

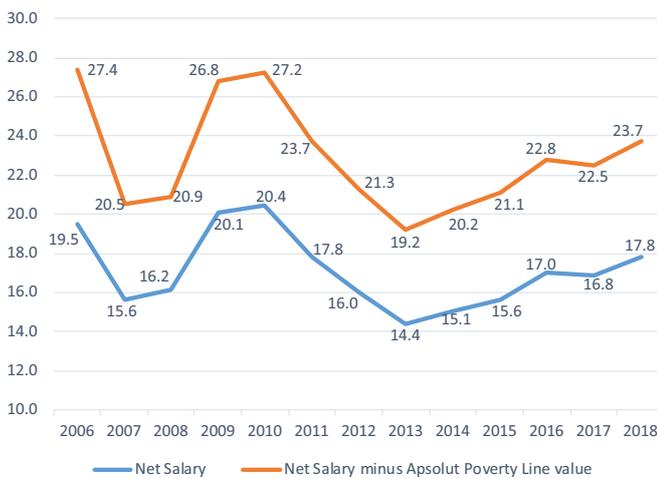


Source: Author calculation based on SORS data

In this analysis, we will also use this surface when calculating the index. The index is therefore calculated as the average value of a newly built housing unit of 60m² divided with the average annual net earnings. Graph 2 shows the movement of index values for Serbia in the period 2003-2018, that is, the number of years required to purchase a defined area dwelling unit if all net earnings are allocated to that purchase.

As we can see from the graph, the number of years required to buy newly built real estate in Serbia declined from 2003 to 2007, and in the next period 2007-2010 again registered growth. From 2010 to 2013 there was a further decline, until the best result was achieved in 2013, when the required number of years was 14.4. After 2013, in line with the rise in real estate prices in Serbia (Table 1),

Graph 3. Adjusted Real Estate Price to Earnings Ratio Serbia, 2003-2018



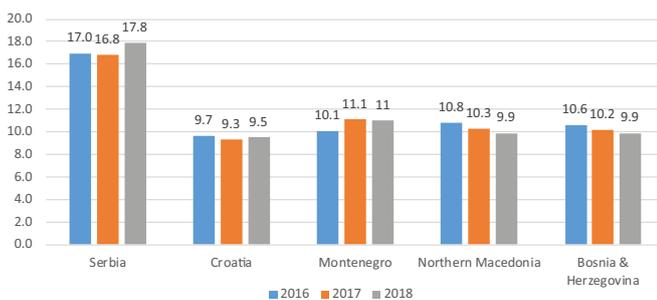
Source: Author calculation based on SORS data

estate of an average value of 60m², provided that only a minimal amount is allocated from the net salary per month that will bring that person just above the absolute poverty line.

The index correction increases the number of years on average (for the period 2006–2018) by slightly less than 6 years and follows the same trend. Accordingly, in 2018, it takes just under 24 years of life on the absolute poverty line to provide a newly built 60m² apartment, or one-third of life expectancy.

We can compare the index of real estate prices and average earnings for the countries of the region, which according to a large number of indicators represent comparable countries for Serbia, thus assessing whether the market of newly built real estate in Serbia is overvalued. Graph 4 shows the index values for 2016, 2017 and 2018 for Serbia, Croatia, Montenegro, Northern Macedonia and Bosnia and Herzegovina. The number of years required to buy

Graph 4. Real Estate Price to Earnings Ratio, Countries of the Region, 2016-2018



Source: Statistical Offices of Serbia, Bosnia and Herzegovina, Croatia, Montenegro and Northern Macedonia

the index, that is, the number of years required to buy a real estate, began to rise, which indicates a slower growth in average earnings than the rise in real estate prices. At the end of 2018, the index value was 17.8.

Although generally accepted, this index implies the absence of other expenses in earned income, that is, expenditure exclusively on real estate. The index defined in this way is used to compare different countries and cities, as well as to compare values with those generated during the “bubble” in the real estate market, and to indicate possible risks. However, this index does not indicate the actual time it takes to resolve the housing issue. Therefore, this paper presents an adjusted index in Graph 3, which shows the value of this index when earnings are reduced by the amount of cost of living that puts a person above the poverty line². Such index indicates the actual average number of years it takes an employed person with an average salary in Serbia to buy newly constructed real

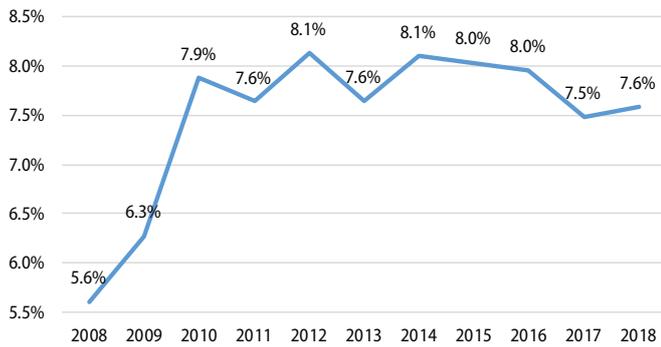
estate in Serbia is significantly higher than in other observed countries in the region. The smallest number of years is needed in Croatia (9.5), then in Northern Macedonia and Bosnia and Herzegovina (9.9), and finally in Montenegro (11). Croatia has the best result in terms of index value, despite the fact that the average value of real estate is the highest among the observed countries, due to the fact that the average net earnings are much higher than in other observed countries. In comparison to other observed countries (Montenegro, Northern Macedonia, Bosnia and Herzegovina), the price of real estate in Serbia is primarily the reason for such a high index value in Serbia compared to these countries, because the earnings in Serbia are similar to the earnings in these countries.

Trends in the Share of Mortgage Loans in GDP

The change in the share of mortgage loans in the gross domestic product is also one of the indicators of the overheating of the real estate market. In Serbia, the share of mortgage loans in GDP in 2018 was relatively low 7.6%. More importantly, there has been no significant annual variation over the last ten years. Compared to 2008, share is only 2 percentage points higher, while after 2010 it has been steadily moving in the range of 7.5% to 8.1%.

² The average net wage is adjusted by the amount that defines the absolute poverty line in each of the years observed.

Graph 5. Share of Mortgage Loans in the GDP of Serbia, 2008 - 2018



Source: NBS

Properties of the Real Estate Market in Belgrade

The prices of newly built apartments in Belgrade are two times higher in 2018 (RSD 248,058 per square meter) than in 2007 (RSD 113,813 per square meter). In the last 15 years, the growth rates have reached as high as 25%, and in 12 years where the price increase has been recorded, even in 6 years the growth rate was over 10%. Serbia has been in recession in three years in the observed period, fiscal consolidation was carried out, which included the reduction and freezing of public sector wages and pensions, the period was marked by the global economic crisis and other factors, while the price decrease was recorded only in 3 of the observed 15 years at rates of only -3%, -4% and -6% (Graph 6).

Graph 6. Growth Rates of the Average Price of Newly Build Apartments in Belgrade and Inflation, 2004-2018



Source: Author based on SORS data

Real estate prices in Serbia are almost completely defined in euros in reality, so it is important to observe the movement of prices of newly built dwellings in euros for the analysis of prices in the real estate market in Belgrade. When the values in dinars are converted into euros according to the official middle exchange rate of the National Bank of Serbia on the last day of the observed year, we see a slightly more moderate trend in growth rates (Graph 7).

Graph 7. Growth Rates of the Average Price of Newly Build Apartments in Belgrade, in Dinars and Euros, 2008-2018



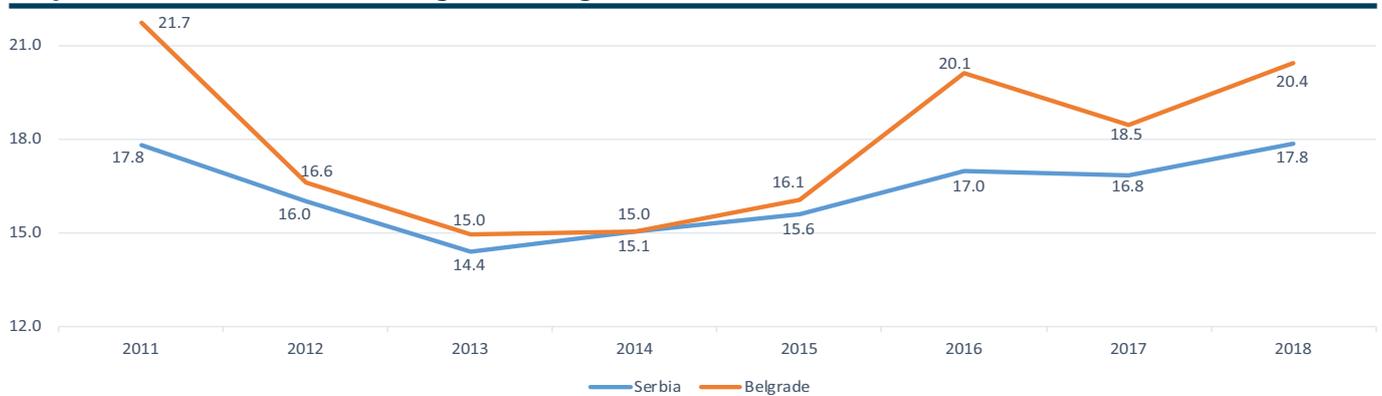
Source: Author based on SORS and NBS data

However, growth rates, in dinars or euros, do not provide sufficient information on the market situation, due to the fact that any growth rate, even 25% in one year, may be differentiated depending on other developments in the country or the city. For example, a 25% increase in the price of newly built square meters may be extremely low if average wages have increased by 200% in that year, or extremely high if there has been a high decline in average wages, economic growth, employment, living standards, etc. Therefore, as for Serbia, below we present indicators that describe in more detail the state of the market with a focus on the citizen as the end user of the housing space. Indeks odnosa cena nekretnina i prosečne neto zarade.

Real Estate Price to Earnings Ratio

Graph 8 shows the index representing the ratio of real estate prices and average income in Belgrade compared to the data already presented for Serbia as a whole. The number of years required to buy a newly built 60m² apartment in Belgrade in 2018 was 2.6. years higher in relation to the entire territory of Serbia. In the observed period (2011-2018), in Belgrade on average, compared to Serbia as a whole, an additional 1.6 years of work was needed in order to buy a newly built 60m² property.

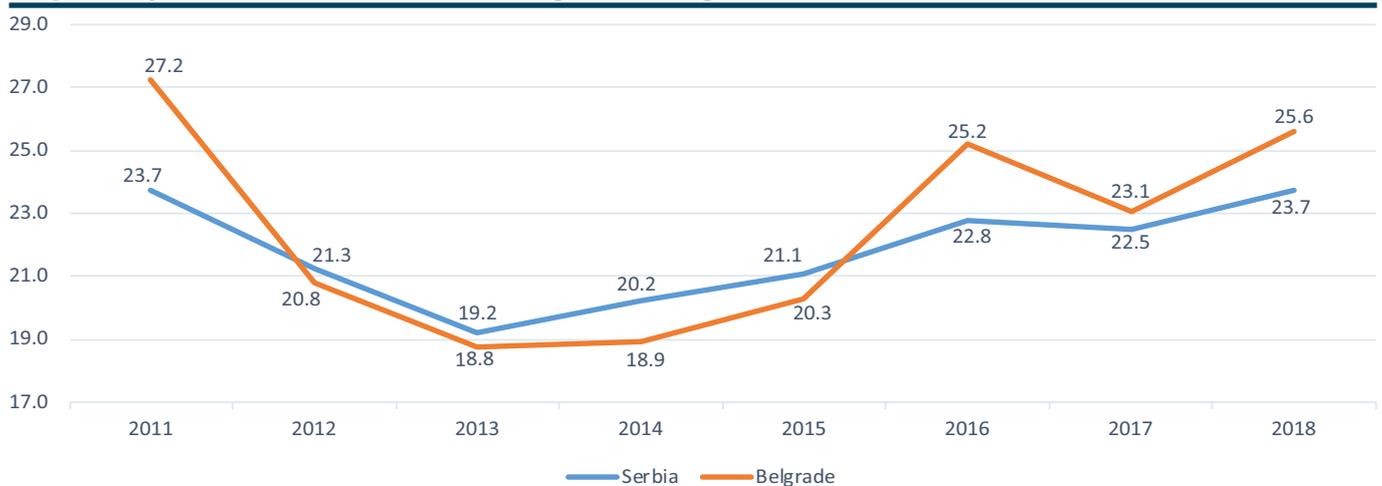
Graph 8. Real Estate Price to Earnings Ratio Belgrade, and Serbia, 2011-2018



Source: Author calculation based on SORS data

When looking at the values of the index corrected for the amount of the absolute poverty line, the number of years in Belgrade increases by an average of 4.6 years in the observed period, and in 2018 it was by 5.2. years higher and amounted to 25.6 years (Graph 9).

Graph 9. Adjusted Real Estate Price to Earnings Ratio, Belgrade and Serbia, 2011-2018

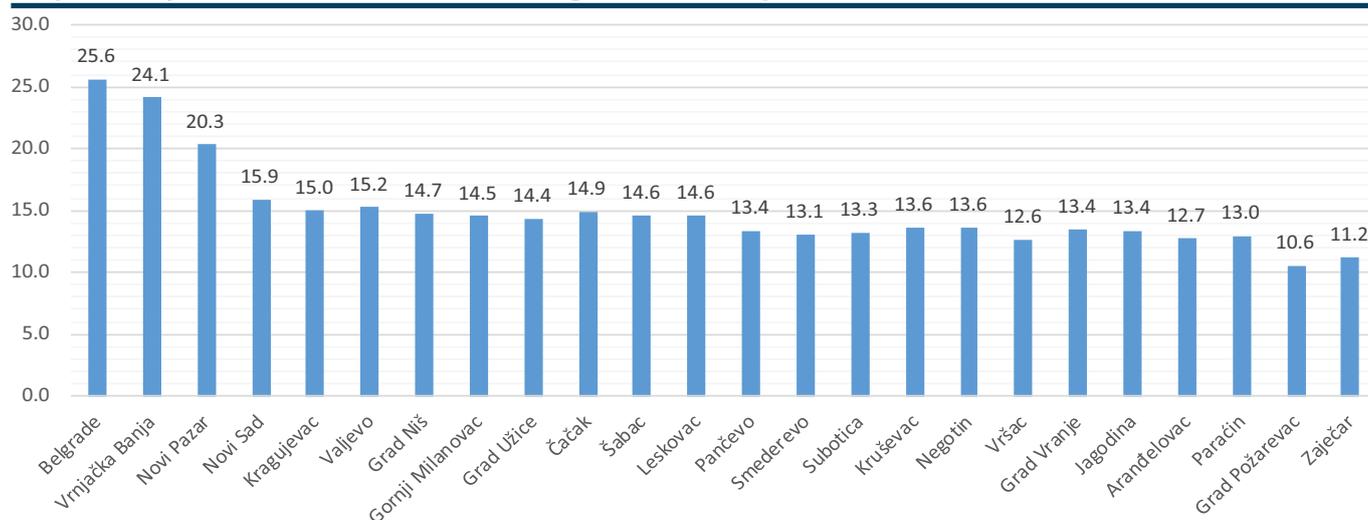


Source: Author calculation based on SORS data

According to this indicator, Belgrade can be compared with other cities and municipalities of Serbia. Index values, where the average wage is reduced for the value of the absolute poverty line, are shown in Graph 8. The graph shows that the number of years needed to buy a newly built apartment of 60m² is largest in Belgrade. Vrnjacka Banja, as one of the most important tourist places in Serbia, ranks second with 24,1 years. Significant regional centers Novi Pazar, Novi

Sad and Kragujevac follow. Belgrade is the city in which the most years of work is needed due to the significantly higher price per square meter of the newly built apartment compared to other cities in Serbia. Namely, the average net salary is the highest in Belgrade in the observed period, which should have resulted in less required years than in other observed cities (index = price of square meter / average net salary). However, the average salary in Belgrade deviates the most compared to Novi Pazar (1.62 times higher) and Vrnjaska Banja (1.57 times higher), while on the other hand the least deviation of the average price of a newly built square meter in Belgrade compared to other observed cities is 1.84 times compared to Novi Sad and 1.96 times compared to Vrnjaska Banja. In all other observed cities, the price of the newly built square meters of the apartment is by more than 2.4 times lower. These data show that the reason for this position of Belgrade is precisely the much higher price of the square meters compared to other cities in Serbia. Vrnjaska Banja, which ranks second on this list, has an average net earnings higher only than Novi Pazar among the cities surveyed, while the price of square meter is higher only in Belgrade and Novi Sad. The reason for such a high index for Vrnjaska Banja is the low net average salary and the high price of newly built real estate.

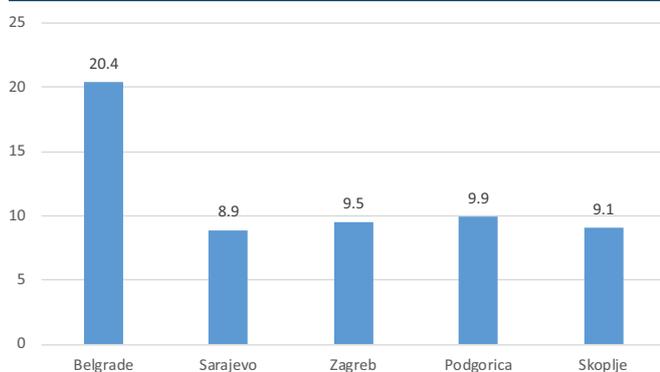
Graph 10. Adjusted Real Estate Price to Earnings Ratio, Municipalities and Cities of Serbia, 2018



Source: Author calculation based on SORS data

Another indicator of the overestimation of apartment prices in Belgrade may be the comparison with other cities in the region, Sarajevo, Skopje, Zagreb and Podgorica. According to the official statistics of the countries of the observed cities, the number of years required to buy a newly built apartment of 60m² is more than twice as high in Belgrade than in other observed cities. The minimum number of years required is in Sarajevo - 8.9. It takes 9.1 in Skopje, 9.5 in Zagreb, 9.9 in Podgorica, and 20.4 in Belgrade. According to the value of this indicator, Belgrade deviates more than twice from Zagreb due to a much higher average salary in Zagreb than in Belgrade, while in comparison with other observed cities the reason is much higher (slightly more than twice) the average price of squares in Belgrade, while the average salary is at about the same level.

Graph 11. Real Estate Price to Earnings Ratio, Comparable Cities of the Region, 2018

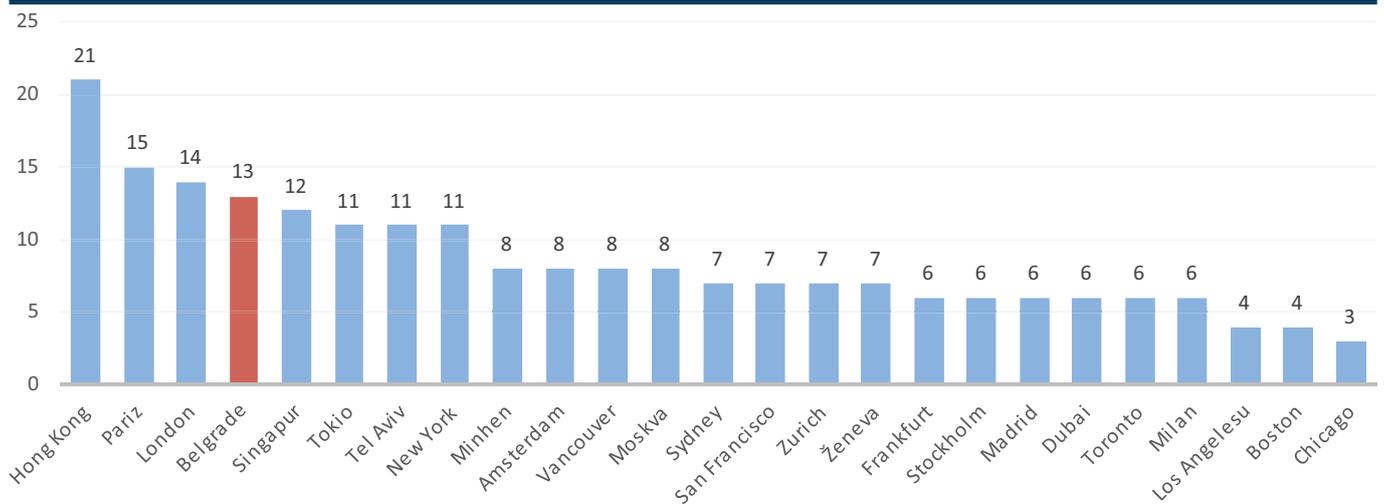


Source: Statistical Offices of Serbia, Bosnia and Herzegovina, Croatia, Montenegro and Northern Macedonia

deviates more than twice from Zagreb due to a much higher average salary in Zagreb than in Belgrade, while in comparison with other observed cities the reason is much higher (slightly more than twice) the average price of squares in Belgrade, while the average salary is at about the same level.

The Global Real Estate Bubble Index produced by UBS Bank annually in 2019 identified 7 cities in which the real estate market bubble is present (Munich, Toronto, Hong Kong, Amsterdam, Frankfurt, Vancouver, and Paris). It defines the area as 60 m² and includes several sub-indices, including the Real Estate Price to Salary Ratio, the Rental Value to the Real Estate Value Ratio, and the movement of mortgage loan to GDP ratios, some of which will be observed for Belgrade.

The real estate price to earnings ratio used by UBS Bank differs from the standard ratio as it does not use the total average earnings, but the average earnings in high paying industries (financial sectors, etc.). As UBS does not analyze Belgrade, for the sake of comparability, the index in this case was calculated as the ratio of the average value

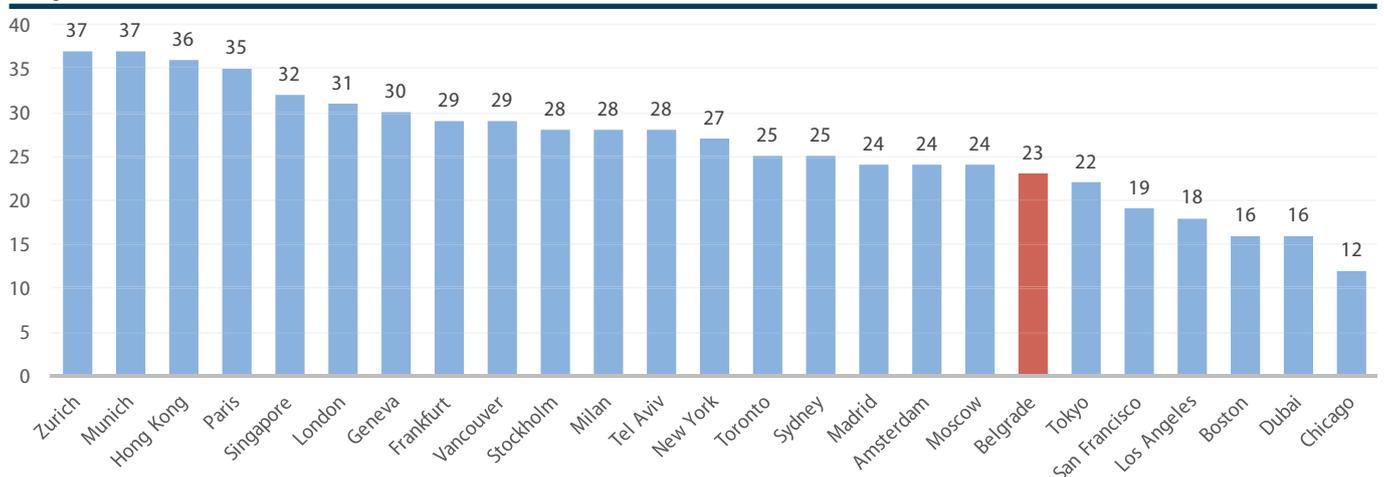
Graph 12. Real Estate Price to Earnings Ratio, 2018

Source UBS report, Author estimate for Belgrade.

of a newly built apartment of 60m² and the average net earnings of an employed person with a university degree in Belgrade. The number of years required for an employee with a university degree in Belgrade to purchase such a defined housing space is 13. In Graph 10 we can see that this value is high on the scale of cities observed by UBS, and above the value of 5 of the 7 cities that UBS qualifies as cities at risk of having a “bubble” in the real estate market. It should be borne in mind that this is one of several indicators that UBS is looking at, but also that London, which also has a value higher than Belgrade, though not at risk of ballooning, is nevertheless ranked as a city with an overestimation of real estate prices

Rental Value to the Real Estate Value Ratio

Similar to the indicator of the relationship between the price of real estate and average salary, the indicator of the relationship between the price of real estate and the amount of annual rent of the same real estate indicates essentially the number of years required to rent a newly built property in order to pay off its purchase value. The obtained value of this indicator for Belgrade was calculated by analyzing the value of renting apartments on specialized websites for renting in Belgrade and estimating the value of individual apartments depending on location, square meters, equipment, etc. The value for Belgrade, i.e. number of years of renting in order to compensate for the money invested. is 23. If compared to the values of cities observed by the UBS report, Belgrade occupies a relatively good place according to this indicator (Graph 11), which means that the funds invested in the apartment return relatively quickly compared to other observed world cities.

Graph 13. Rental Value to the Real Estate Value Ratio, 2018

Source UBS report, Author estimate for Belgrade.

Is the Price of Real Estate on the Belgrade Market Overpriced?

As in the case of Serbia, during the global economic crisis in Belgrade, there was a significant increase in the prices of newly built square meters of 25% in 2008 and 22% in 2009, which is significantly higher than the inflation rate in those years (Graph 6). The increase in average prices per square meter of newly built apartments in Belgrade in 2009, the year in which the global economic crisis reached Serbia and the Serbian economy went into recession, is partly due to the large decrease in the number of built square meters, by as much as 31%. This decline continued in the coming year when price growth was 9%. It was only when the quantity of newly built apartments started to rise (2011 6%, 2012 28%, 2013 0%) did prices fall by -3%, -4% and -6%. As in 2009, the market did not allow for a larger decrease in the price of square meters, reducing the amount of newly built square meters by as much as -38% (2014), -18% (2015) and -9% (2016) this time, which affected price growth up to as much as 18% in 2016. Following the resurgence of the housing supply, as measured by the number of newly built square meters, price growth declined from 18% in 2016 to 5% and 12% in 2017 and 2018, respectively.

What follows as a conclusion is that the Belgrade real estate market is characterized by a decrease in the amount of newly built square meters in periods when the price begins to decline. After a period of decline, the price drops and the number of square meters built decreases supply relative to demand, which returns the market to positive rates of price growth. Although there is increasing talk of the existence of a “bubble” in the real estate market in Belgrade, based on the movement of data on newly built apartments, we can talk about a possible overestimation of the price, but based on previous trends, we cannot expect a significant fall in the price of the newly built apartments, even if the market starts to record negative growth rates (as we saw in 2011-2013).

As there are a number of additional factors affecting the growth of real estate prices, which is related to the country to which the city belongs, in order to obtain additional information on the state of the real estate market in Belgrade, we can observe the movements within the country, i.e. differences in the movement of average prices of newly built apartments in Serbia by city. In 2018 compared to 2011, the average price per square meter of a newly constructed apartment in Belgrade increased by 36%. In Vrsac this growth was 59%, in Smederevo 54%, Gornji Milanovac 34%, Vrnjacka Banja 30%, Pirot 29%, Cacak, Sabac and Subotica 27%, Novi Sad 26%, etc. These data show that the price increase in Belgrade does not essentially deviate from the price increase in other cities, considering that it is the capital of Serbia.

As we have seen, the indicator of the share of mortgage loans in GDP is at a relatively low level, and its movement shows no significant worrying growth. Favorable conditions in the banking market have recently been referred to as the main factor that has increased demand and raised property prices in Serbia. However, the number of mortgage loans in Serbia decreased by 1% in 2017, increased by 8% in 2018, and in 2019 according to the latest available data, it achieved a growth rate of 1.3%.

As we saw the citizen of Serbia, especially Belgrade, it takes many more years of work to buy a newly built property in the city where they live in relation to the countries of the region (Northern Macedonia, Bosnia and Herzegovina, Croatia, Montenegro), and when this is compared to other cities in the world, Belgrade occupies a high place, and a higher number of years needed to purchase the apartment is only in cities which are characterized as the ones with overestimated prices. Therefore, there is no doubt that the value of real estate prices, not only in Belgrade but in some other municipalities and cities in Serbia, is overestimated.

However, the Belgrade real estate market has the ability to adjust to price reductions by reducing supply, due to the fact that a high supply may lead to a certain fall in prices, followed by a drop in supply. The share of mortgage loans in GDP is not a concern in terms of size or trend. The ECB's policy will continue to favor lending in the coming period to respond to the slowdown in European Union growth, and favorable trends in the banking sector are expected to continue. The increase in the number of tourists and the lack of implementation of the regulation of “apartment for one day” accommodation and monthly renting of apartments, have led to a relatively good position for investing in the purchase of an apartment for profit on the basis of renting and increased value (Graph 11), this type of investment is additionally interesting because of the high risk of investment in other economic activities due to poorly developed market mechanisms. Belgrade is increasingly positioning itself as the regional center of the Western Balkans, which is driving increase in home buying as an investment and an increase in foreign demand. As we have seen the rise in the prices of newly built apartments in Serbia in recent years, not only is it not limited to Belgrade but it is not even the largest in Belgrade. Considering all mentioned, we should not expect a significant decrease in the prices of newly built apartments, primarily in Belgrade, even if the value, at this point, is certainly overestimated according to the indicators presented in this paper.