

THE INSTITUTE FOR URBAN ECONOMICS



**Housing affordability in Russia
in 2022 and the 1st quarter of 2023**

(Prepared under funding by
The Institute for Urban Economics)

2023

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Introduction

The Institute for Urban Economics monitors the housing affordability in Russia and constituent entities of the Russian Federation, using the following main indicators¹:

1. Housing price to income ratio.
2. Percentage of households that can afford to buy a standard apartment (54 sq. m) using savings and a mortgage loan.
3. Housing affordability index.

The methods used for assessing such basic indicators for Russia and the constituent entities of the Russian Federation (estimates for a standard apartment with a total area of 54 sq. m., in which three people live with an average per capita income) make it difficult to draw comparison with the indicators of housing affordability according to the international UN-Habitat methodology, which is based on a median apartment price and median income. This variation in methodologies, due to limitations in available information, must be taken into account to avoid inappropriate comparative conclusions.

Furthermore, the Institute for Urban Economics monitors the housing affordability ratio (Median Multiple) in major Russian metropolitan areas². This indicator is calculated in accordance with international methodology as the ratio of the median price of an apartment on the market (that is, half of the transactions with apartments have a price below the median, and half above) to the median income of a three-person household. To estimate the median price of an apartment, data is gathered from real estate advertisements in open sources. Annual household income is calculated as the product of the median per capita income by three people. To calculate the median per capita income, information from the Database of Indicators

¹ Dynamics of housing affordability in Russia in 2006–2021. The Institute for Urban Economics, 2022. URL: https://www.urbaneconomics.ru/sites/default/files/dinamika_dostupnosti_zhilya_v_rossii_v_2006-2021_gg_0.pdf (date of application: 20.06.2023)

² Housing affordability in the major Russian metropolitan areas in the 1st and 2nd quarters of 2022. The Institute for Urban Economics, 2022. URL: https://www.urbaneconomics.ru/sites/default/files/dostupnost_zhilya_v_krupneishih_gorodskih_aglomeraciyah_rossii_v_i_i_kv._2022_g.pdf (date of application: 20.06.2023)

of Municipal Entities of Rosstat is used³ and the detailed methodology for estimating median income is described in the 2019 study⁴. Thus, estimates of the Median Multiple for Russian metropolitan areas can be compared with estimates in foreign metropolitan areas, as the assessments are carried out in accordance with generally accepted international methodology.

The purpose of this study is to update the housing affordability monitoring data of the main indicators, as well as to expand the set of assessed housing affordability indicators that would take into account the actual level of housing provision, in addition to the median income level of the population.

This report consists of two sections. The first section presents the calculation methodology and dynamics of housing affordability indicators in Russia and constituent entities of the Russian Federation for the period from 2006 to the 1st quarter of 2023. In this section, for the first time, the results of calculations for additional indicators of housing affordability in Russia are presented. The second section presents the dynamics of the Median Multiple in the seventeen major Russian metropolitan areas for the period from 2010 to the 1st quarter of 2023.

This analytical material was prepared in July 2023 by experts from the Institute for Urban Economics - Alexandra Gershovich and Tatiana Polidi.

1. Dynamics of housing affordability in Russia and constituent entities of the Russian Federation for the period from 2006 – 1st quarter of 2023

1.1. Main indicators of housing affordability for Russia

The housing price to income ratio (HPI) is calculated as the ratio of the average market price for a 54 sq. m apartment, to the average annual income of a three-person household. The value of this indicator corresponds to the number of

³ Database of indicators of municipalities. URL: https://rosstat.gov.ru/free_doc/new_site/bd_munst/munst.htm (date of application: 20.06.2023)

⁴ Housing affordability in the major Russian metropolitan areas in 2019. The Institute for Urban Economics, 2019. URL: http://www.urbaneconomics.ru/sites/default/files/dostupnost_zhilya_v_17_gorodskih_aglomeratsiyah_v_rossii_v_2019_g_1.pdf (date of application: 20.06.2023)

years a household needs to save enough money to buy an apartment, assuming that all income earned was saved for the purchase. This is the simplest ratio to calculate and is commonly used in Russia and other countries to estimate housing affordability. According to the international methodology, the following criteria should be used to assess the level of housing affordability based on the HPI value (Table 1).

Table 1. Classification of housing markets based on affordability

Market category based on housing affordability	HPI value
Affordable	Under 3 years
Moderately unaffordable	3 to 4 years
Seriously unaffordable	4 to 5 years
Severely unaffordable	Over 5 years

Note. <http://www.demographia.com/dhi.pdf> (date of application: 20.06.2023)

The analysis shows that in 2022 the reducing trend in the fundamental housing affordability observed in Russia during 2019-2021 continued (Figure 1), and that housing affordability in Russia in accordance with the HPI has not increased since 2019 (from 2008 to 2018 there was a steady increase in housing affordability, that is represented by a decrease in the HPI value). In the context of the corona crisis in 2020-2021 housing markets not only in Russia, but also in other countries experienced price pressure and in 2022, the increase in the level of prices in the housing market relative to the income of the population continued, which led to a further decrease in housing affordability (an increase in the value of the HPI). In the 1st quarter of 2023, according to preliminary estimates, there was a sharp increase in the price of housing relative to the annual value of 2022 (final conclusions about housing affordability in 2023 can be drawn based on the results of the year, thus far).

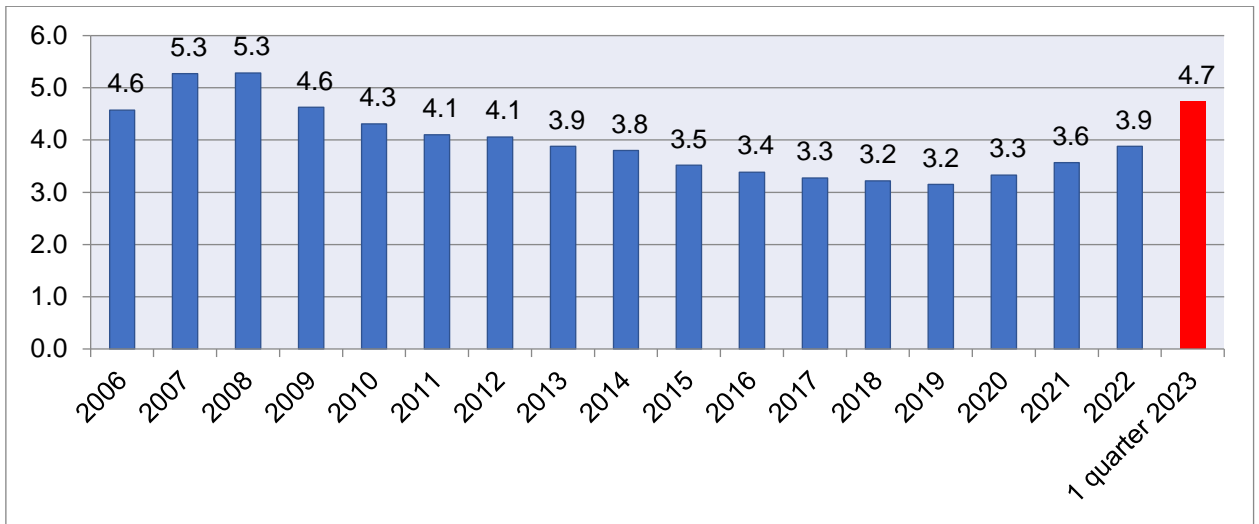


Figure 1. Housing price to income ratio across the Russian Federation, from 2006-1st quarter of 2023

Note. Authors' calculations based on Rosstat data.

The percentage of households that can afford to buy a 54 sq. m apartment using savings and a mortgage loan (PH) is calculated by determining the minimum monthly average income required to generate adequate funds for the purchase of standard housing, and then comparing the result with the distribution of average monthly household income approximated by the distribution of monthly income per capita. Due to the lack of official data on the distribution of average monthly household income, we use data on the distribution of per capita monthly income, with which the minimum total income of a three-person household is compared with the distribution of one household member.

Despite the continued rise in housing prices during 2022 and the worsening situation with regards housing affordability (an increase in the value of HPI), the value of the PH indicator increased from 55.1% in 2021 to 56.3% in 2022 (Figure 2).

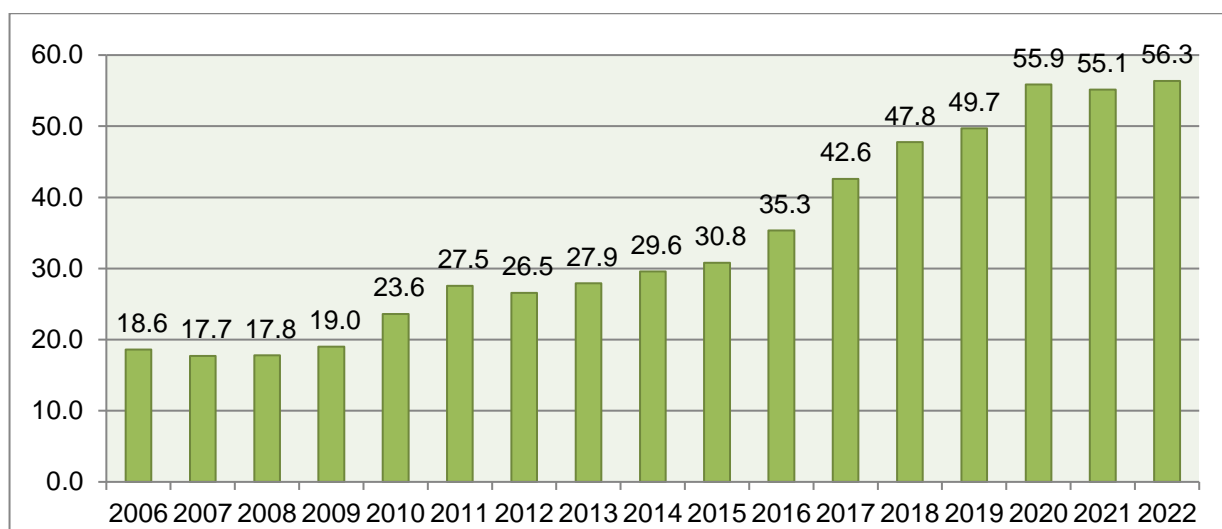


Figure 2. The percentage of households that can afford to buy a 54 sq. m apartment using savings and a mortgage loan across the Russian Federation, from 2006-2022⁵

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

Such dynamics of the PH indicator in 2022 is associated with a decrease in weighted average mortgage rates due to continued mortgage programs with government support (“Family Mortgage”⁶, “Preferential Mortgage”⁷, “Far Eastern Mortgage”⁸ and “IT Mortgage”⁹), as well as preferential program mortgages from

⁵ There is not enough data to estimate the VA for the past period of 2023 (to calculate this indicator, the distribution of the population by level of average per capita monetary income, published for the year, is used).

⁶ Decree of the Government of the Russian Federation of December 30, 2017 No. 1711 “On approval of the Rules for providing subsidies from the federal budget to the joint-stock company "DOM.RF" in the form of contributions to the property of the joint-stock company "DOM.RF", which do not increase its authorized capital, to compensate Russian credit institutions and the joint-stock company "DOM.RF" for reimbursement of lost income on issued (acquired) housing (mortgage) loans (loans), granted to citizens of the Russian Federation with children, and the Rules for compensation to Russian credit organizations and the joint-stock company "DOM.RF" for lost income on issued (purchased) housing (mortgage) loans provided to citizens of the Russian Federation with children”.

⁷ Decree of the Government of the Russian Federation of April 23, 2020 No. 566 “On approval of the Rules for compensation to credit and other institutions for reimbursement of lost income on issued (acquired) housing (mortgage) loans (loans), granted to citizens of the Russian Federation in 2020” as amended on October 24, 2020.

⁸ Decree of the Government of the Russian Federation of December 7, 2019 No. 1609 “On approval of the terms of the Far Eastern Mortgage program, the Rules for the provision of subsidies from the federal budget to the joint-stock company DOM.RF in the form of contributions to the property of the joint-stock company DOM.RF, which do not increase its authorized capital, to compensate Russian credit institutions and other organizations for reimbursement of lost income on issued (acquired) housing (mortgage) loans, granted to citizens of the Russian Federation for the purchase or construction of residential premises in the territories of the constituent entities of the Russian Federation that are part of the Far Eastern Federal District, and amendments to the decree of the Government of the Russian Federation dated September 2, 2015 No. 1713-r”.

⁹ Decree of the Government of the Russian Federation of April 30, 2022 No. 805 “On approval of the Rules for the provision of subsidies from the federal budget to the joint-stock company "DOM.RF" in the form of a contribution to the property of the joint-stock company "DOM.RF", which does not increase its authorized capital, for the purpose of compensating credit and other institutions for reimbursement of lost income on issued (acquired) on housing

developers. If in 2021 the weighted average mortgage rate was 7.49%, then in 2022 it decreased to 7.15%¹⁰, which had a greater impact on the value of the PH than the increase in housing prices.

Table 2 highlights the dynamics of indicators (personal income, housing prices and mortgage rates) that influenced the value of the PH in 2021 and 2022. As can be seen from the data presented in Table 2 and Figure 2, the increase in housing prices in 2021 and 2022 outpaced the growth of household incomes. Moreover, if in 2021 the reduction in mortgage rates due to their subsidizing could not compensate for the multidirectional dynamics of housing prices and mortgage rates (PH in 2021 decreased to 55.1% compared to 55.9% in 2020), then in 2022 the ratio of the dynamics of such factors was more favorable, and made it possible to increase the PH to 56.3%.

Table 2. Dynamics of indicators that had an impact on the percentage of households that could afford to buy a 54 sq. m apartment using savings and a mortgage loan across the Russian Federation in 2021 and 2022

Indicator	2021	2022
Dynamics of nominal per capita income compared to the previous year	+10.8%	+12.6%
Dynamics of nominal housing prices per 1 sq. m compared to the previous year (average primary and secondary housing market)	+19.6%	+22.7%
Dynamics of the weighted average mortgage interest rate (including rates on programs with government support) compared to the previous year	- 0.2 p.p.	- 0.3 p.p.

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

(mortgage) loans (loans), granted to employees of accredited organizations operating in the field of information technology, and the Rules for compensation to credit and other institutions for reimbursement of lost income on issued (acquired) on housing (mortgage) loans (loans), granted to employees of accredited organizations operating in the field of information technology”.

¹⁰ Calculation according to the table “Mortgage loans granted to resident individuals and acquired claims thereon”. URL: https://www.cbr.ru/eng/statistics/bank_sector/mortgage/ (date of application: 27.07.2023)

It is also important to mention that the decline in mortgage rates observed over the past few years was accompanied by an increase in the weighted average mortgage maturity: from 196.8 months (16.4 years) in 2010 to 287.2 months (23.9 years) in January – May 2023 (Figure 3). These dynamics of mortgage maturity leads to a slight reduction in the current burden of servicing the mortgage loan on household income in the absence of free funds for a higher down payment, monthly payment or early repayment. On the other hand, an increase in the mortgage maturity with annuity payments leads to an increase in the full nominal amount of all payments on the mortgage loan during its repayment period¹¹.

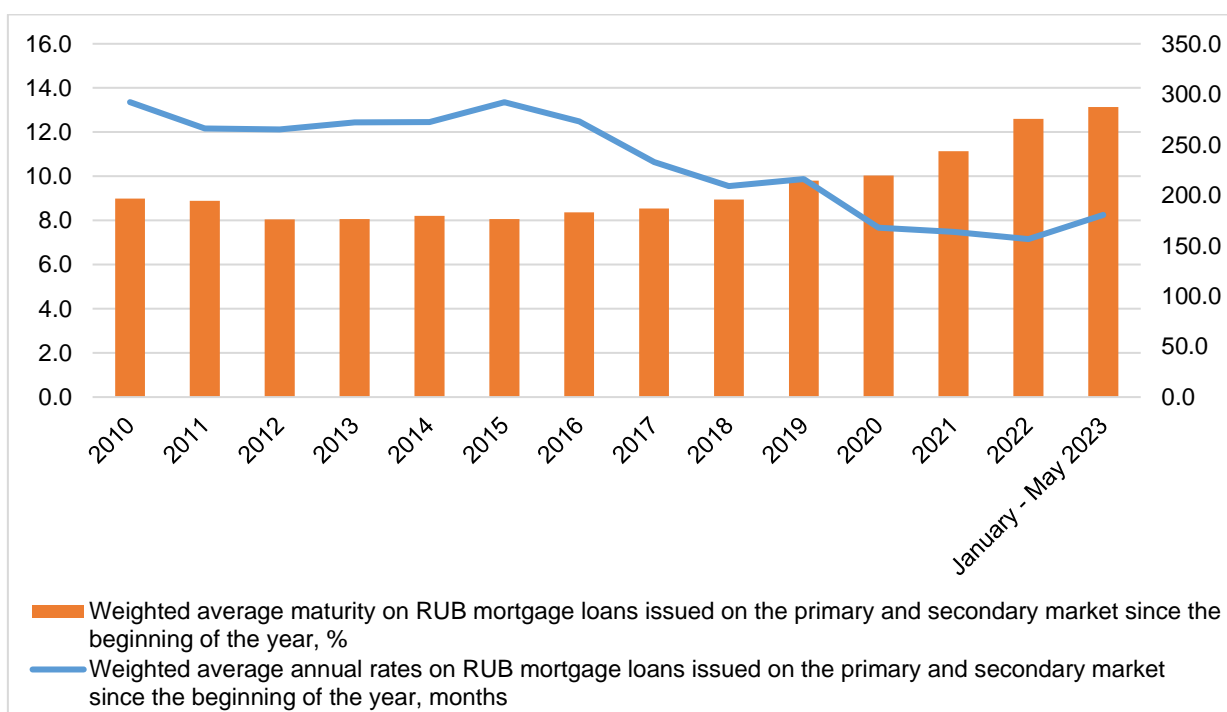


Figure 1. The trend in weighted average annual rates (%) and weighted average maturity (years) on RUB mortgage loans issued on the primary and secondary markets in Russia, for the full year from 2010 to 2022 and from January to May 2023

Note. Bank of Russia.

¹¹ Housing affordability and the coronavirus crisis in the major Russian metropolitan areas. The Institute for Urban Economics, 2020. URL: https://www.urbaneconomics.ru/sites/default/files/korona-krizis_otchet.pdf (date of application: 20.06.2023)

An additional contribution to the reduction in nominal mortgage rates, and the increase in housing prices and the full nominal amount of all mortgage loan payments during its repayment period, were preferential mortgage programs from developers, in which a reduction in the rate level is directly related to an increase in the price of the apartment¹². The negative impact of preferential programs of developers on the dynamics of housing prices, as well as other parameters of the borrower's financial situation, as noted by the Bank of Russia, resulted in the need to tighten the requirements in 2023, for the formation of bank reserves designed to reduce incentives for the implementation of such partnership programs of developers and banks¹³.

The housing affordability index (HAI) reflects the correlation between the average household income and the income needed to buy a standard 54 sq. m apartment using a standard-term mortgage (the weighted average interest rate, loan maturity and down payment share - 30%). The interpretation of the values of this indicator is as follows: with an HAI equal to 100%, such a mortgage loan is available to households with average incomes and above; an increase in the value of this indicator indicates an increase in the affordability of housing with the help of a mortgage loan, and a decrease indicates a decrease in such affordability.

In 2016, such a mortgage loan for the first time became available to households with average incomes and during the following years up to 2020, the indicator values increased, with a slight decrease being seen starting from 2021 (Figure 4). If the affordability of purchasing housing in accordance with the PH indicator decreased slightly in 2021 and then increased slightly in 2022, then in accordance with the HAI indicator, such affordability decreased in both 2021 and 2022. This is due to the peculiarities of the distribution of the population by level of average per capita income: in 2021, compared to 2020, the share of the population with the highest average per capita income (over 60 thousand rubles) increased by

¹² Report for public consultations "Program of "preferential mortgage from the developer". URL: https://cbr.ru/analytics/d_ok/Consultation_Paper_12102022/ (date of application: 20.06.2023)

¹³ The Bank of Russia will limit risky mortgage programs with extremely low rates. URL: <https://cbr.ru/press/event/?id=14694> (date of application: 20.06.2023)

more than 3 percentage points; in 2022 compared to 2021 - by more than 4 percentage points, which affected the dynamics of the PH indicator. At the same time, the income required to purchase a standard 54 sq. m apartment with the help of a mortgage loan, increased by more than the average per capita income, so the value of the HAI decreased.

In the 1st quarter of 2023, there was a significant decrease in the value of the HAI relative to the annual value of the HAI in 2022 (final conclusions about housing affordability in 2023 can be drawn based on the results of the year, thus far).

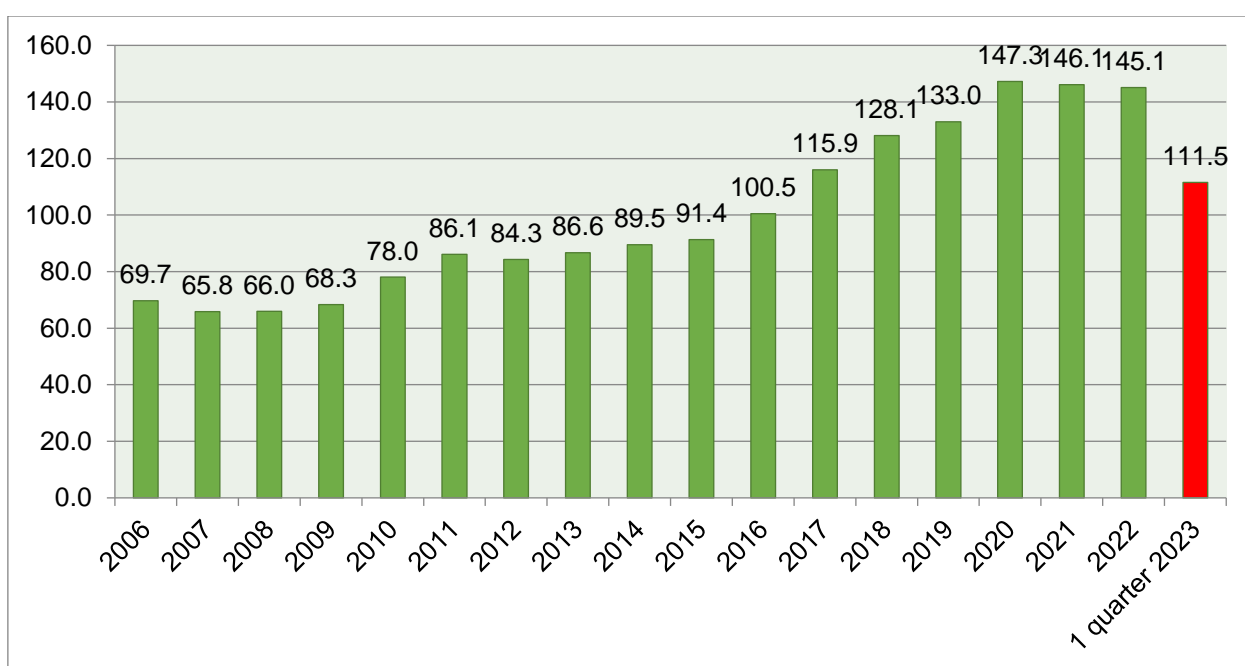


Figure 2. Housing affordability index, across the Russian Federation, from 2006 to the 1st quarter of 2023

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

1.1. Housing affordability in the constituent entities of the Russian Federation

The dynamics of housing affordability vary significantly among the constituent entities of the Russian Federation (Table 3).

Table 3. Indicators of housing affordability in constituent entities of the Russian Federation in 2022, and changes in indicators from 2021 – and for the 1st quarter of 2023 (constituent entities of the Russian Federation are ranked in order of the value of the price to income ratio in the 1st quarter of 2023)*
(Red color – decrease in housing affordability, green color – increase in housing affordability)

Constituent entities of the Russian Federation	HPI			PH		HAI	
	For reference: 1st quarter 2023, units	2022, units	Change in 2022 to 2021, units	2022, %	Change in 2022 to 2021, p.p.	2022, %	Change in 2022 to 2021, p.p.
Yamal-Nenets Autonomous Area	1.0	1.0	-0.11	93.1	0.3	418.1	7.8
Magadan Region	1.5	1.3	-0.12	94.3	0.6	249.8	15.7
Chechen Republic	1.7	1.5	-0.18	87.4	-2.3	239.3	-26.2
Khanty-Mansi Autonomous Area	1.9	2.0	0.08	85.7	0.4	223.3	-1.5
Tyumen Region (including autonomous areas)	2.0	2.0	0.04	80.9	0.8	193.6	0.2
Kamchatka Territory	2.2	1.6	0.04	91.5	0.7	210.6	-10.6
Arkhangelsk Region (including Nenets Autonomous Area)	2.4	2.2	-0.22	83.0	5.0	135.3	8.5
Smolensk Region	2.8	2.3	0.10	83.1	2.1	134.0	-4.3
Kostroma Region	2.8	2.4	-0.08	83.7	1.1	122.3	-3.7
Ivanovo Region	2.8	2.3	-0.03	83.6	2.7	134.1	-2.7
Republic of Sakha (Yakutia)	2.8	2.4	-0.11	83.1	5.8	200.1	28.9
Kursk Region	2.9	2.5	0.04	82.7	4.2	124.2	5.7
Tyumen Region (not including autonomous areas)	2.9	2.6	-0.21	76.1	4.0	128.5	4.2
Sakhalin Region	3.2	2.8	-0.25	74.2	5.7	106.1	5.8
Volgograd Region	3.0	2.5	0.14	81.2	0.7	113.3	-5.9
Pskov region	3.0	2.5	0.23	84.8	1.4	115.8	-3.2
Kurgan Region	3.0	2.7	0.08	76.4	-1.9	120.1	-10.3
Novgorod Region	3.0	2.6	0.01	84.6	4.3	116.7	9.2
Bryansk Region	3.1	2.7	0.35	79.8	-1.6	119.2	-11.5
Orenburg Region	3.1	2.7	0.01	75.2	0.6	116.2	-5.5
Arkhangelsk Region (not including Nenets Autonomous Area)	2.9	2.8	-0.06	76.3	4.8	118.9	8.5
Belgorod Region	3.2	2.7	0.11	77.7	2.0	107.3	-1.4
Lipetsk Region	3.2	2.8	0.41	77.1	-2.6	102.6	-13.4
Komi Republic	3.2	2.6	0.03	73.6	-1.4	111.4	-8.7
Khabarovsk Territory	3.3	2.9	-0.10	82.2	8.8	147.7	16.1
Tambov Region	3.2	2.6	0.12	80.1	0.6	112.0	-1.4

Constituent entities of the Russian Federation	HPI			PH		HAI	
	For reference: 1st quarter 2023, units	2022, units	Change in 2022 to 2021, units	2022, %	Change in 2022 to 2021, p.p.	2022, %	Change in 2022 to 2021, p.p.
Republic of Karelia	3.2	2.7	-0.05	76.0	-1.0	110.0	-9.3
Penza Region	3.3	3.1	0.04	76.4	4.5	102.9	5.2
Kabardino-Balkarian Republic	3.3	2.7	0.19	77.3	-5.6	159.9	-11.7
Astrakhan Region	3.3	2.8	0.16	78.3	0.6	136.4	-7.0
Stavropol Territory	3.3	3.2	0.41	74.7	0.3	122.0	-7.9
Republic of Udmurtia	3.2	2.9	-0.02	77.3	4.6	140.1	7.4
Orel Region	3.3	3.0	0.16	72.5	0.6	103.7	-2.1
Republic of Kalmykia	3.4	2.5	0.06	88.4	4.9	154.0	6.1
Yaroslavl Region	3.4	2.7	0.19	78.1	-1.4	117.1	-8.0
Republic of Ingushetia	3.4	2.9	-0.26	71.6	3.9	184.3	3.8
Ulyanovsk Region	3.4	3.0	0.22	74.1	-0.4	101.3	-5.6
Krasnoyarsk Territory	3.5	2.8	0.05	70.6	1.4	123.7	-0.3
Republic of Khakassia	3.5	3.3	0.32	72.4	0.9	107.8	-4.5
Voronezh Region	3.5	3.1	0.36	67.8	-3.3	94.8	-12.9
Republic of Dagestan	3.6	2.5	0.19	79.3	-0.8	178.0	-18.1
Samara Region	3.6	3.1	0.15	66.2	-1.9	100.4	-6.2
Sverdlovsk Region	3.6	3.2	0.15	63.1	-1.7	103.4	-5.8
Kirov Region	3.7	3.1	0.18	73.5	-1.4	105.9	-6.2
Kaluga Region	3.7	3.4	0.80	73.0	-3.8	93.7	-20.1
Perm Territory	3.8	3.2	0.22	65.4	-1.2	108.8	-10.0
Vladimir Region	3.9	3.3	0.38	72.2	-1.9	93.3	-8.3
Chelyabinsk Region	3.9	3.0	0.56	70.2	-9.3	104.9	-22.4
Omsk Region	4.0	3.2	0.26	64.5	-4.6	106.6	-10.5
Moscow Region	4.0	3.7	0.70	68.2	2.1	86.4	-2.6
Rostov Region	4.0	3.2	0.38	67.6	-1.1	114.3	-8.5
Novosibirsk Region	4.0	2.8	0.09	73.5	0.9	122.5	-3.1
Republic of Tatarstan	4.0	3.3	0.38	67.8	0.2	106.9	-5.1
Tomsk Region	4.0	3.5	0.17	64.3	0.2	102.0	-2.8
Republic of Mari El	4.1	3.4	0.40	67.1	-2.1	95.8	-10.6
Tula Region	4.1	3.4	0.16	72.0	4.6	95.0	0.2
Primorye Territory	4.2	3.8	-0.03	65.0	3.6	114.4	3.6
Karachayevo-Circassian Republic	4.2	3.2	0.22	67.8	-8.0	117.9	-29.6
Republic of Adygea	4.2	3.4	0.83	69.9	-1.2	125.2	-9.6
Republic of Mordovia	4.3	3.6	0.43	70.3	0.0	100.9	-3.6
Volgograd Region	4.3	3.3	0.28	71.5	1.0	117.6	-2.1
Republic of Bashkortostan	4.3	3.7	0.54	59.3	-3.2	91.1	-12.1
Tver Region	4.4	3.6	0.45	65.5	-3.7	76.8	-8.1
Saratov Region	4.4	3.6	0.74	62.4	-8.3	85.0	-17.7
Irkutsk Region	4.4	4.4	0.11	44.8	-1.0	76.7	-3.4
Nizhny Novgorod Region	4.5	4.0	0.37	51.0	-4.8	79.5	-9.2
Kemerovo Region — Kuzbass	4.6	3.8	0.83	56.7	-13.3	90.0	-25.2
Republic of Altai	4.6	3.5	0.50	59.0	-7.8	108.2	-26.8

Constituent entities of the Russian Federation	HPI			PH		HAI	
	For reference: 1st quarter 2023, units	2022, units	Change in 2022 to 2021, units	2022, %	Change in 2022 to 2021, p.p.	2022, %	Change in 2022 to 2021, p.p.
Leningrad Region	4.6	3.9	0.81	71.4	1.2	99.0	-1.7
Krasnodar Territory	4.6	3.4	0.13	69.0	7.4	112.6	12.4
Kaliningrad Region	4.8	4.5	0.72	48.6	-9.4	64.7	-14.1
Altai Territory	4.9	4.0	0.19	49.3	-4.6	82.6	-9.2
Ryazan Region	4.9	4.0	0.65	60.5	-4.3	72.7	-7.9
Chuvash Republic	4.9	3.7	0.48	66.9	-2.9	92.5	-9.7
City of St Petersburg	5.3	4.7	0.41	52.9	5.3	88.2	7.5
Amur Region	5.5	4.4	0.12	53.9	2.8	91.6	2.5
Moscow	5.8	5.3	0.41	41.8	4.0	91.7	5.3

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

* Housing affordability indicators are given only for 77 constituent entities of the Russian Federation, since for the remaining constituent entities of the Russian Federation there were no necessary initial data for assessing the indicators.

The price to income ratio in 2022 compared to 2021 increased in sixty-two constituent entities of the Russian Federation (that is, housing affordability decreased), and decreased in fifteen constituent entities of the Russian Federation (that is, housing affordability increased). The maximum increase in the value of price to income ratio was observed in the Republic of Adygea, Kemerovo Region, Leningrad Region, Kaluga Region, Saratov Region and Kaliningrad Region - more than 0.7. The maximum decrease in the value of price to income ratio was observed in the Republic of Ingushetia, Arkhangelsk and Sakhalin Regions - more than 0.2. According to preliminary estimates, during the 1st quarter of 2023, there was an increase in the price to income ratio relative to the value of 2022 in almost all constituent entities of the Russian Federation (final conclusions about housing affordability based on the price to income ratio in 2023 can be drawn based on the results of the year, thus far).

The value of the PH indicator increased in forty-two constituent entities of the Russian Federation by an average of 2.7 percentage points; in 2021, approximately the same dynamics were observed. A decrease in PH was observed in thirty-five constituent entities of the Russian Federation by an average of 3.5 percentage points.

The largest increase in PH during 2022 was observed in the Republic of Udmurtia, with an increase of more than 8 percentage points, and the largest decrease was seen in the Kemerovo Region with a reduction of more than 13 percentage points.

The HPI indicator increased in twenty-one constituent entities of the Russian Federation and decreased in fifty-six. The highest growth of the HPI was noted in the Republic of Sakha (Yakutia) (more than 28 percentage points), the Republic of Udmurtia (more than 16 percentage points), Magadan Region (more than 15 percentage points), and the biggest decrease was noted in the Karachayevo-Circassian Republic with a reduction of 29.6 percentage points.

In summary, we can therefore conclude that there has been a decrease in fundamental housing affordability in 2022 in most constituent entities of the Russian Federation in terms of price to income ratio. At the same time, the indicators of PH and HPI, which, unlike the price to income ratio, take into account the level of mortgage availability, show different dynamics in the constituent entities of the Russian Federation, in which the fundamental housing affordability has both increased and decreased.

1.2. Additional housing affordability assessments

In 2022, for the first time, in addition to assessing standard indicators of housing affordability, the Institute for Urban Economics also conducted additional calculations with changes in a number of the initial conditions.

1. HPI, HAI and PH were reassessed based on the indicator of average housing provision (total average area of residential floor space per capita). That is, instead of the total area of a standard apartment (54 sq. m), the calculation used the average value of the total area of residential floor space per capita, multiplied by three people.

2. HPI and HAI were re-estimated based on the median per capita income of the population. That is, in the calculation formulas, instead of average per capita income, median per capita income according to Rosstat data was used.

The periods for which additional estimates are provided may vary depending on the availability of Rosstat data.

Assessment of the housing affordability of an apartment for a three-person household based on the average housing provision in the corresponding year

Figure 5 shows that if we use the average housing provision according to Rosstat data to calculate the price to income ratio (in this case, the size of the apartment in 2006 was 63.9 sq. m and then increased to 84.6 sq. m in 2022), and not the conventional size of 54 sq. m, then the value of the indicator will be significantly higher (that is, housing affordability is lower). Moreover, this gap is steadily increasing, by a multiple of 1.18 in 2006 to a multiple of 1.56 in 2022, due to the constant growth of average housing provision. Thus, the calculation of the price to income ratio based on the average housing provision per three-person household shows that the housing market in Russia during 2022, according to the international classification, can be classified as “severely unaffordable”, and not as “moderately unaffordable” in case of using an 54 sq. m apartment area.

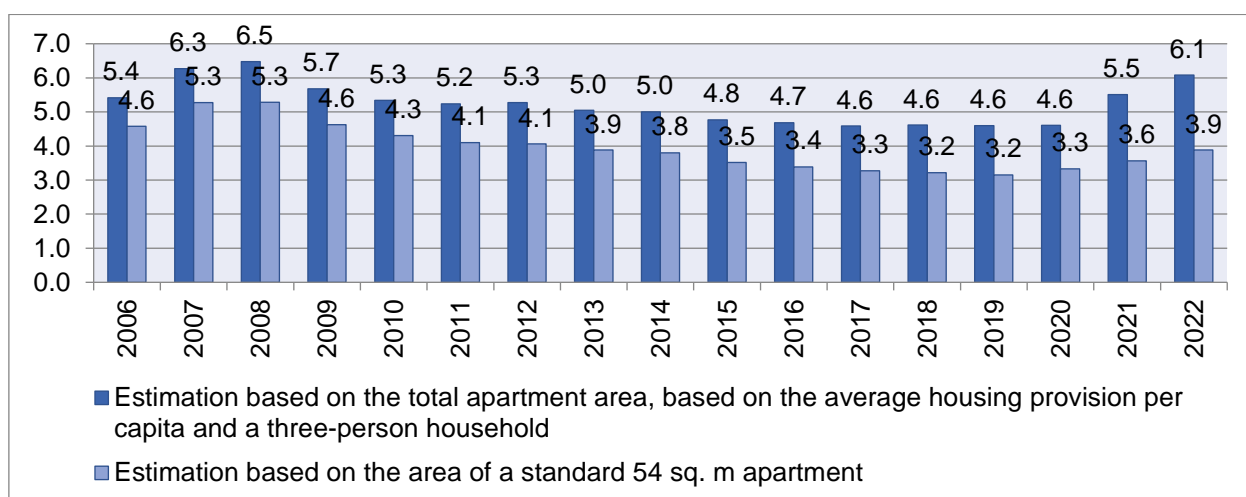


Figure 5. Price to income ratio across the Russian Federation from 2006 – 2022 (based on the area of a standard 54 sq. m apartment and on the total area of the apartment, based on the average housing provision per capita in the corresponding year and a three-person household)

Note. Authors’ calculations based on data from Rosstat.

The value of the PH indicator also significantly worsens (decreases) when using the average housing provision in calculations, rather than the area of a standard of 54 sq. m apartment (Figure 6). Thus, in 2022, the value of the PH indicator, calculated based on the average housing provision, is 1.7 times lower than based on the area of a standard 54 sq. m apartment (32.4% instead of 56.3%). Moreover, in accordance with this alternative estimate, in 2022 there is a slight decrease in PH, and not an increase, as in the main calculation. That is, with an increase in the average housing provision in 2022 compared to 2021, the current mortgage conditions no longer ensured an increase in the share of households, which could afford to purchase an apartment with a mortgage.

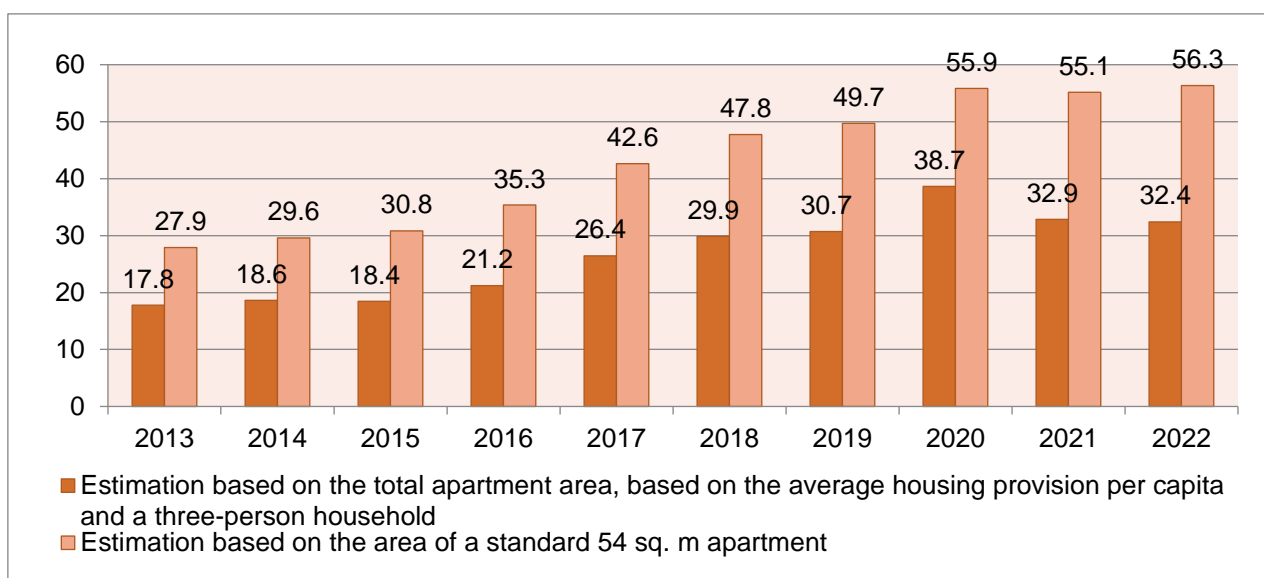


Figure 6. The percentage of households that can afford to buy an apartment using savings and a mortgage loan across the Russian Federation from 2013 – 2022, as a percentage (based on the area of a standard 54 sq. m apartment and on the total area of the apartment, based on average housing provision per capita in the corresponding year and a three-person household)

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

The value of the HAI indicator when the calculation is based on the average housing provision per three-person household is also significantly reduced in comparison to the calculation based on the area of a standard 54 sq. m apartment: in

2022 it was 92.6% instead of 145%. Note that the value of this indicator is less than 100% which means that a three-person household with average per capita income is not able to purchase an apartment with a given area and other average conditions on a mortgage (Figure 7).

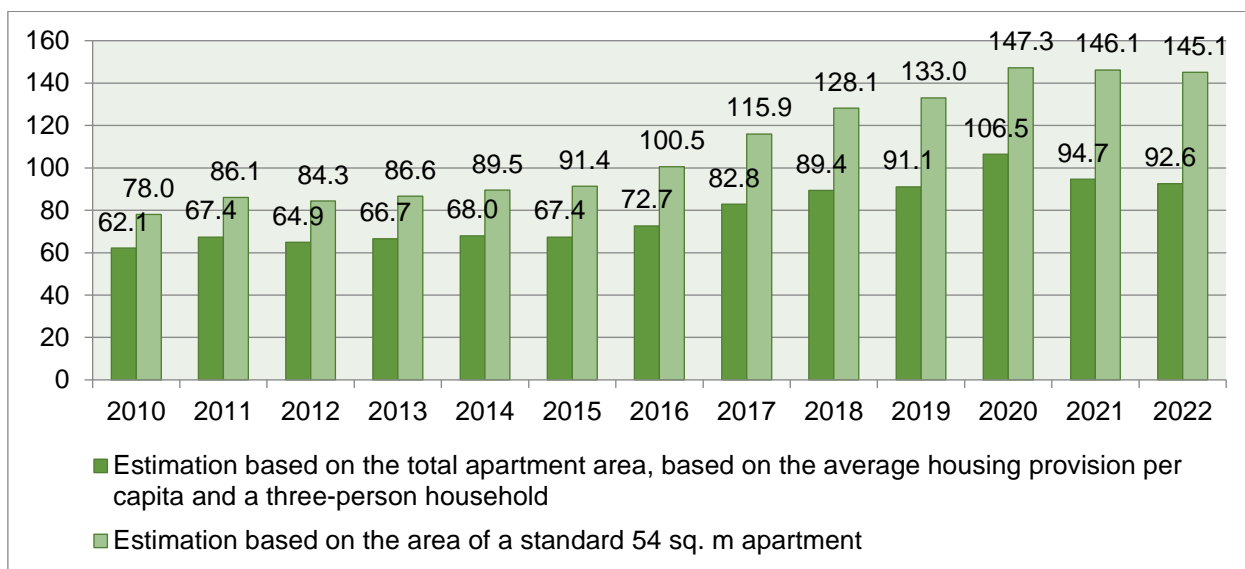


Figure 7. Housing affordability index across the Russian Federation from 2010 – 2022, as a percentage (based on the area of a standard 54 sq. m apartment and on the area of the apartment, based on the average housing provision per capita in the corresponding year and a three-person household)

Note. Authors’ calculations based on data from Rosstat and Bank of Russia data.

Assessment of housing affordability of a standard 54 sq. m apartment for a three-person household based on the median per capita income of the population (HPI and HAI)

While maintaining the calculation of a standard 54 sq. m apartment and using the median per capita income according to Rosstat data, rather than the average per capita income to calculate the price to income ratio, then the value of the indicator is again higher (Figure 8), although the relative dynamics of this indicator in the period 2013 – 2022 remains. With this method of calculation, the housing market in Russia can be classified according to the international classification (Table 1) as “seriously unaffordable”, and not as “moderately unaffordable”.

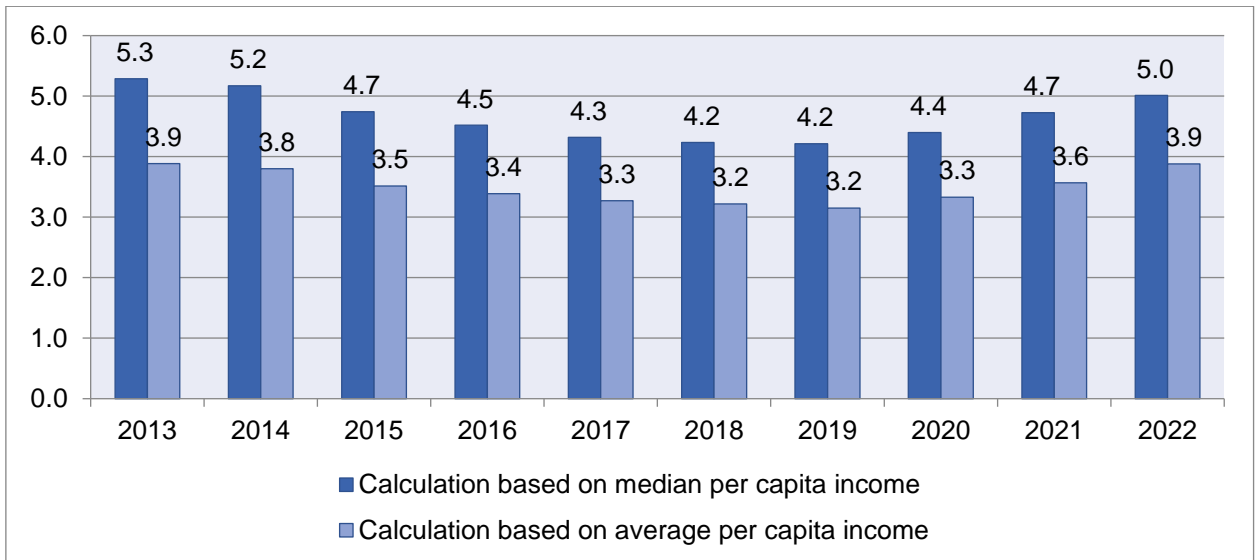


Figure 8. Price to income ratio across the Russian Federation from 2013 – 2022 (based on average and median per capita income)

Note. Authors' calculations based on data from Rosstat.

The values of the HAI indicator (for a standard 54 sq. m apartment) calculated using median per capita income are also significantly reduced when compared to the values calculated using average per capita income (Figure 9). Moreover, in 2022, despite the change in methodology, the value of the indicator remains above 100%, meaning that a three-person household with median per capita income has the required amount of income to purchase a standard apartment with a mortgage under the given average conditions. It is also interesting to note that when calculated using the average per capita income, the value of the HAI in 2022 decreased compared to 2021, and when calculated using median per capita income, it increased, which is associated with the accelerated dynamics of median per capita income compared to the average per capita income in 2022

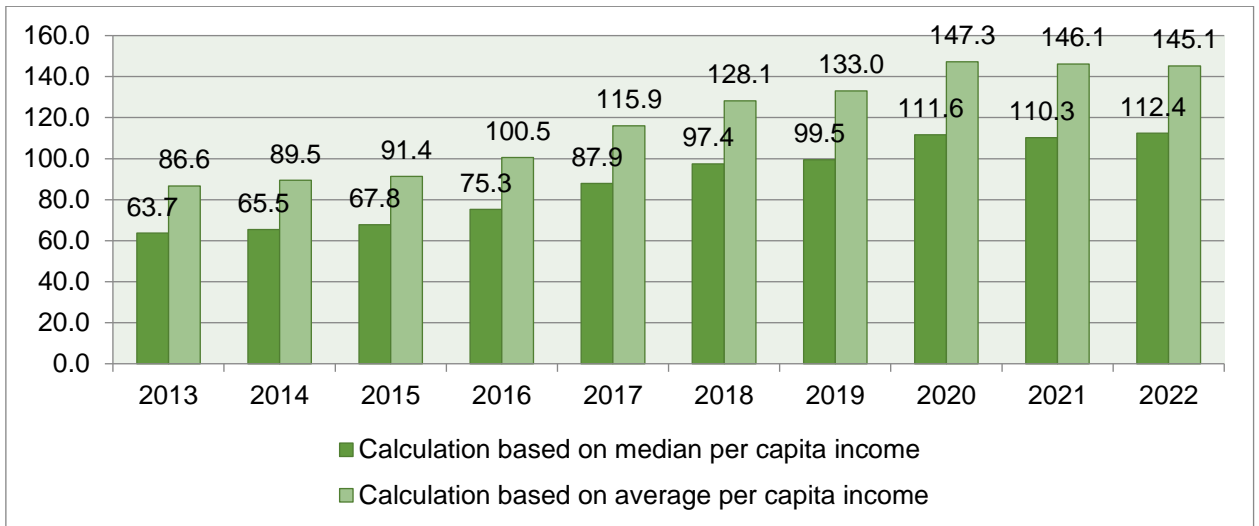


Figure 9. Housing affordability index across the Russian Federation from 2013 – 2022, as a percentage (based on average and median per capita income)

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

Assessing the housing affordability for a three-person household based on the average housing provision in the corresponding year and the median per capita income of the population (HPI and HAI)

The calculation of the price to income ratio (Figure 10) and the HAI (Figure 11) was accomplished based on the average housing provision in the corresponding year and the median per capita income of the population. For both indicators, this calculation reduces housing affordability by half.

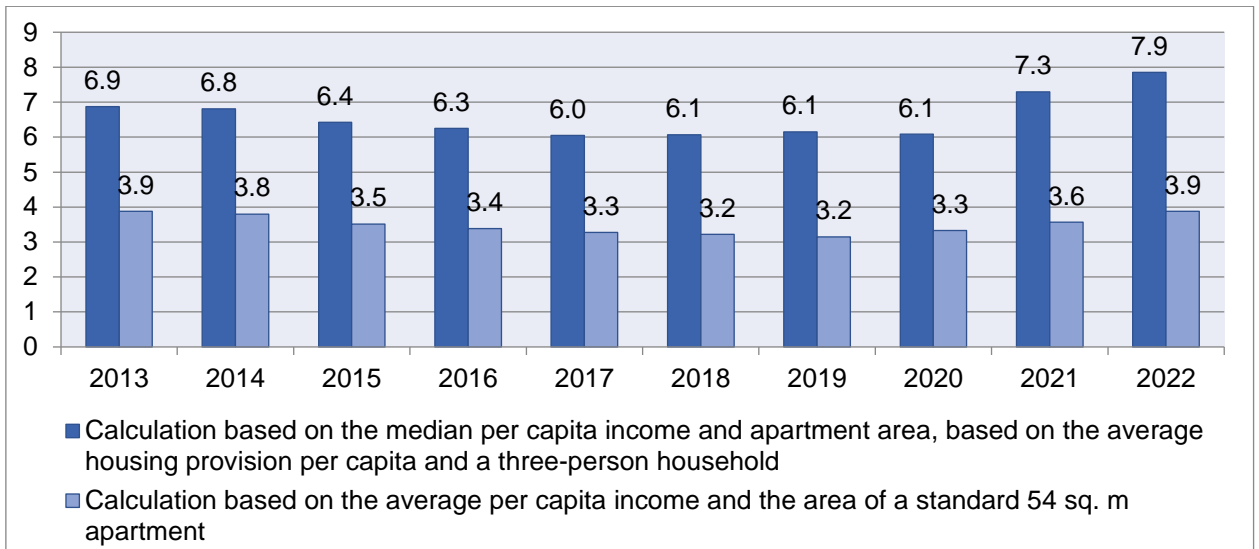


Figure 10. The price to income ratio across the Russian Federation from 2013 – 2022 (based on the average per capita income and the area of a standard 54 sq. m apartment and on the median per capita income and apartment area, based on the average housing provision per capita and a three-person household)

Note. Authors' calculations based on data from Rosstat.

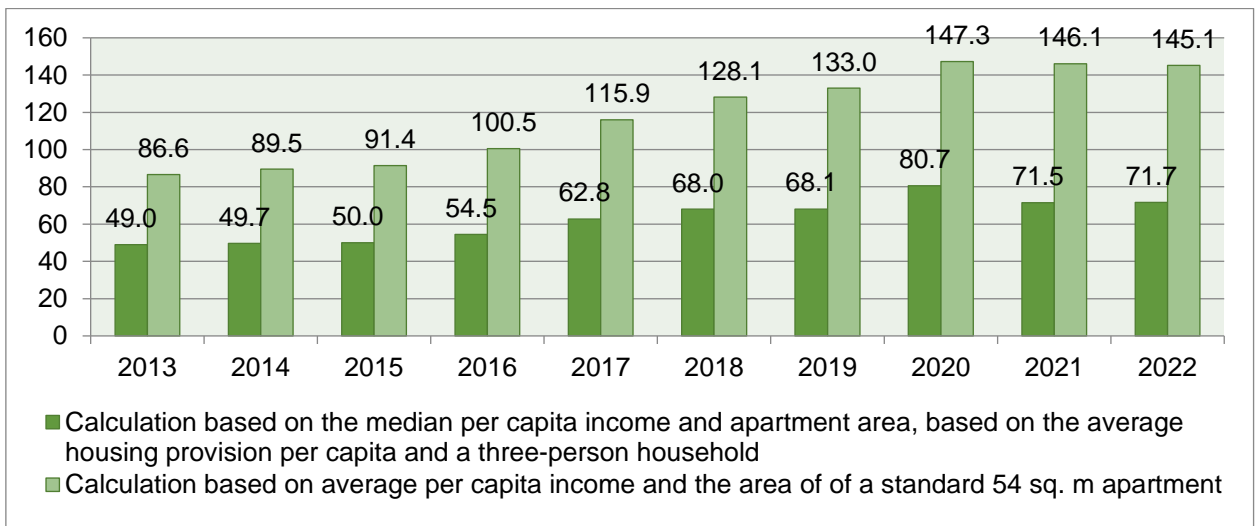


Figure 11. The housing affordability index across the Russian Federation from 2013 – 2022, as a percentage (based on the average per capita income and the area of a standard 54 sq. m apartment and on the median per capita income and apartment area, based on the average housing provision per capita and a three-person household)

Note. Authors' calculations based on data from Rosstat and Bank of Russia data.

Modified versions of the assessments of housing affordability indicators showed, firstly, a significant dependence of the absolute values of such estimates on the initial conditions, and secondly, and perhaps more importantly, fairly stable relative dynamics of such indicators in the period from 2013 – 2022 (with some minor deviations).

The considered additional indicators of housing affordability were also calculated for the constituent entities of the Russian Federation. The calculation results are available with the [link](#).

If we consider foreign countries, then in fourteen developed economies (average of Australia, Belgium, Canada, Denmark, Finland, France, Germany, Japan, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States) real house prices have experienced a sustained and significant increase over the past century, with particularly strong growth since the mid-1990s (Figure 12). Especially high increases in real prices were observed between the end of 2019 and 2021.

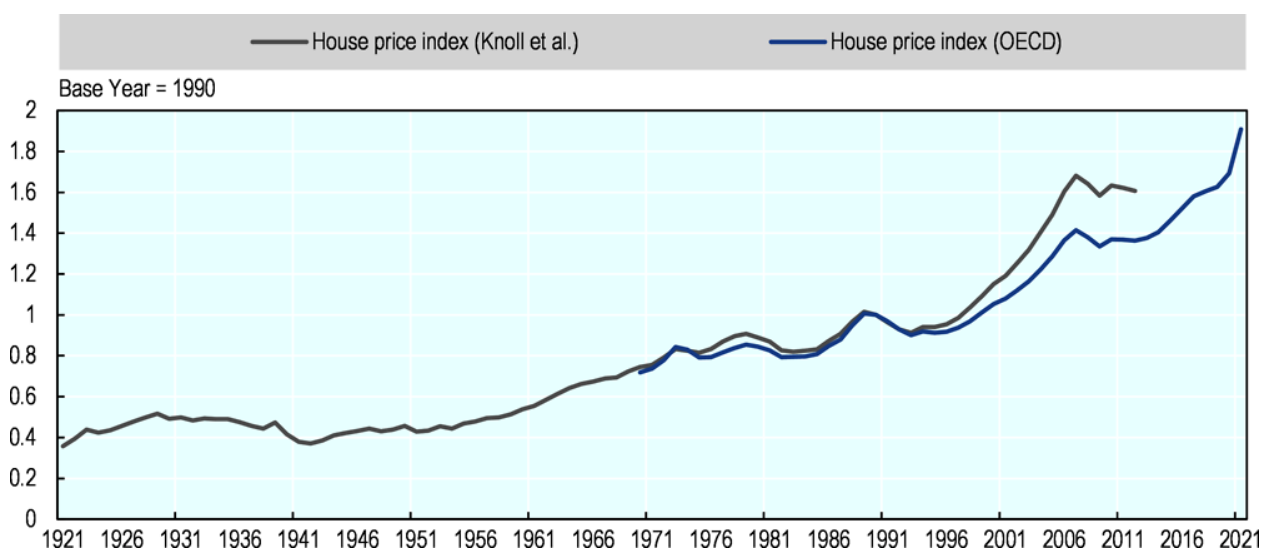


Figure 12. The average real house price index (house prices are CPI-adjusted), from fourteen countries from 1921-2021

Note. OECD (2022), Housing Taxation in OECD Countries, OECD Tax Policy Studies, No. 29, OECD Publishing, Paris. URL: https://www.oecd-ilibrary.org/sites/03dfe007-en/1/3/1/index.html?itemId=/content/publication/03dfe007-en&csp_3316df67ab5b227a54fb37b0263b1f94&itemIGO=oecd&itemContentType=book#section-d1e1452

OECD noted that the number of years of disposable income that is equivalent to the price of a 100 sq. m dwelling increased almost everywhere in the OECD, and almost doubled in some countries between 2000 and 2020 due to rising property values (Figure 13)¹⁴. This indicator in comparison with the data from Figure 10, shows very similar results. Thus, the price to income ratio across the Russian Federation based on the average housing provision per capita and a three-person household (85 sq. m) in 2022 (7.9) was higher than in the United States and comparable to the level of Lithuania, Finland, Japan and Norway. However, the calculation for 100 sq. m will show that price to income ratio across Russia was 9.3 in 2022, which is comparable to the level of housing affordability for a large number of OECD countries.

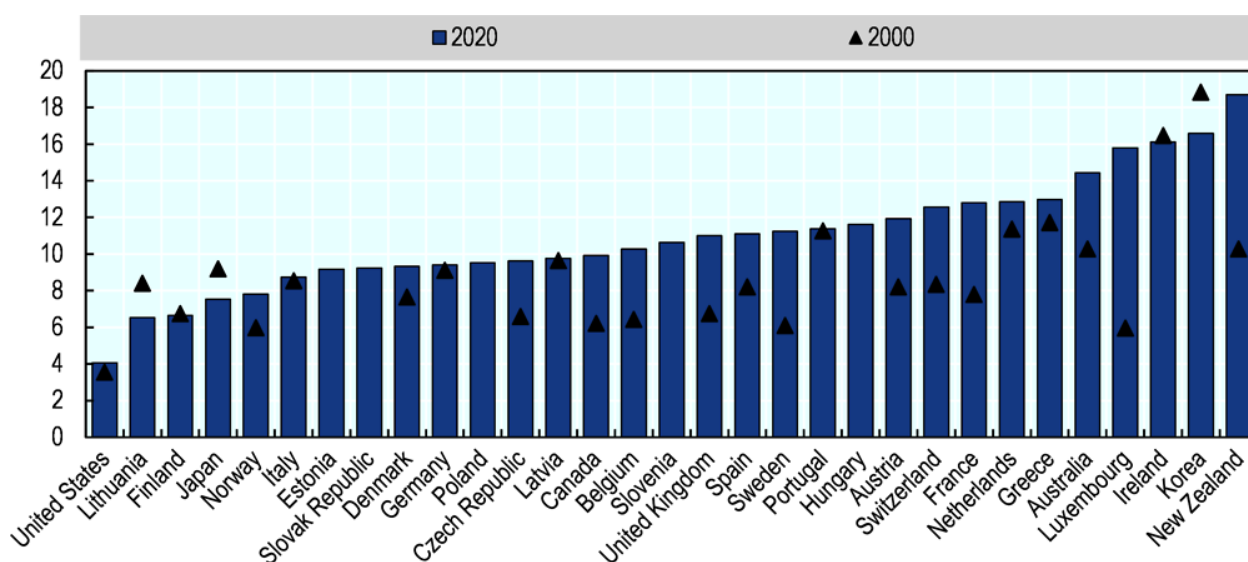


Figure 13. The number of years over which cumulated average household disposable income equals the average price of a 100 sq. m dwelling in OECD countries, between 2000 and 2020

Note. OECD (2022), Housing Taxation in OECD Countries, OECD Tax Policy Studies, No. 29, OECD Publishing, Paris. URL: https://www.oecd-ilibrary.org/sites/03dfe007-en/1/3/1/index.html?itemId=/content/publication/03dfe007-en&_csp_=3316df67ab5b227a54fb37b0263b1f94&itemIGO=oecd&itemContentType=book#section-d1e1452

¹⁴ OECD (2022), Housing Taxation in OECD Countries, OECD Tax Policy Studies, No. 29, OECD Publishing, Paris. URL: https://www.oecd-ilibrary.org/sites/03dfe007-en/1/3/1/index.html?itemId=/content/publication/03dfe007-en&_csp_=3316df67ab5b227a54fb37b0263b1f94&itemIGO=oecd&itemContentType=book#section-d1e1452

2. Housing affordability in the major Russian metropolitan areas from 2010 – to the 1st quarter of 2023

Since 2018, the Institute for Urban Economics has been conducting quarterly operational monitoring of changes in the level of housing affordability in the seventeen major (population over one million) Russian metropolitan areas based on data from open sources¹⁵. Since official statistics do not provide data on the housing prices in municipal level, the study uses open data on residential real estate advertisements. To interpret the Median Multiple in metropolitan areas, the international classification of housing markets according to the affordability criteria from Table 1 is also used.

Table 4 presents updated estimates of the Median Multiple for the retrospective period from 2018–2021, as well as estimates for 2022¹⁶ and for the 1st quarter of 2023. Updated estimates for the retrospective period are based on the most current Rosstat data and may slightly differ from estimates published previously for several reasons. Firstly, in some cases the boundaries of metropolitan areas (composition of municipalities)¹⁷ were adjusted. Secondly, current Rosstat data may differ from previously published Rosstat data, or when performing operational calculations earlier, Rosstat data was not available and there were some additional assessments of the indicators.

¹⁵ Housing affordability in the major Russian metropolitan areas in the 1st and 2nd quarters of 2022. The Institute for Urban Economics, 2022. URL: https://www.urbaneconomics.ru/sites/default/files/dostupnost_zhilya_v_krupneishih_gorodskih_aglomeracijah_rossii_v_i_i_kv._2022_g.pdf (date of application: 20.06.2023)

¹⁶ In most of the major metropolitan areas, the average housing price is lower than the given estimates of the average housing price for Russia, since the median price of an apartment is used, the area of which is significantly less than 54 sq. m, and is about 49 sq. m.

¹⁷ The boundaries were adjusted for the following metropolitan areas: Krasnodar, Nizhny Novgorod, Krasnoyarsk, Kazan, Voronezh, St. Petersburg, Novosibirsk, Chelyabinsk and Vladivostok, as changes were made to the strategic and/or territorial planning documents of the constituent entities of the Russian Federation on the territory of which the corresponding metropolitan areas are located. However, the value of the Median Multiple indicator in 2019-2021 according to previously obtained and updated estimates, they are comparable, since the adjustment of boundaries does not lead to a significant deviation in the indicators that are used to calculate the Median Multiple (possible deviations of the Median Multiple: Krasnodar, Krasnoyarsk, Kazan, St. Petersburg, Novosibirsk - up to 0.05, Voronezh - up to 0,1, Nizhny Novgorod - up to 0.2, Vladivostok - up to 0.3). Municipalities were added in the Samara-Togliatti and Chelyabinsk metropolitan areas. An assessment of the number of real estate offerings according to open data in the added municipalities showed that the median price also changes slightly, since the number of real estate offerings in the added municipalities is less than 1.5% of all real estate offerings in the metropolitan areas.

Table 4. Housing price to income ratio in the seventeen major Russian metropolitan areas (metropolitan areas are ranked in order of housing affordability decrease according to data for the 1st quarter of 2023)

Rank	Metropolitan Market	2018	2019	2020	2021	2022	1 quarter of 2023	Housing affordability in 1 quarter of 2023
1	Yekaterinburg	2.0	2.1	2.3	2.7	2.8	3.2	Moderately unaffordable
2	Samara (Togliatti)	2.4	2.5	2.4	2.5	2.7	3.5	Moderately unaffordable
3	Nizhny Novgorod	2.1	2.1	2.3	2.8	3.0	3.6	Moderately unaffordable
4	Voronezh	2.1	2.1	2.3	2.9	3.1	3.6	Moderately unaffordable
5	Rostov-on-Don	2.4	2.4	2.4	2.7	3.0	3.7	Moderately unaffordable
6	Ufa	2.7	2.8	2.9	3.3	3.3	3.8	Moderately unaffordable
7	Chelyabinsk	2.3	2.3	2.1	2.4	2.7	3.8	Moderately unaffordable
8	Krasnodar	1.9	2.0	2.1	3.0	3.0	3.9	Moderately unaffordable
9	Vladivostok	2.6	3.2	3.6	3.8	3.5	4.0	Moderately unaffordable
10	Perm	2.3	2.6	2.7	3.2	3.3	4.0	Moderately unaffordable
11	Saratov	2.3	2.4	2.4	2.8	3.4	4.1	Seriously unaffordable
12	Novosibirsk	2.4	2.7	2.9	3.2	3.3	4.1	Seriously unaffordable
13	Volgograd	2.7	2.7	2.7	3.0	3.1	4.4	Seriously unaffordable
14	Krasnoyarsk	2.6	2.8	3.0	3.5	3.5	4.4	Seriously unaffordable
15	Kazan	2.7	3.0	3.0	3.7	4.1	5.2	Severely unaffordable
16	Moscow	3.4	3.7	4.1	4.8	4.9	5.7	Severely unaffordable
17	Saint Petersburg	3.9	4.1	4.5	4.9	5.0	5.9	Severely unaffordable
Price to income ratio in median metropolitan area		2.4	2.6	2.7	3.0	3.3	4.0	Moderately unaffordable

Note: Authors' calculations based on Rosstat data on household incomes, data of the web-portals on real estate offerings for sale located in municipalities of each metropolitan area published.

For the observation period from 2018 – the 1st quarter of 2023 in the major Russian metropolitan areas there has been a steady downward trend in housing affordability (the price to income ratio has increased). Moreover, if from 2019 – 2020 a decrease in housing affordability was observed in only a number of metropolitan areas, in 2021 housing affordability decreased in all metropolitan areas. During 2022, the general trend of housing affordability decreasing in metropolitan areas remained largely the same, although in a number of metropolitan areas housing affordability increased (for example, in the Vladivostok) or remained at the same level of 2021 (for example, in the Krasnodar, Krasnoyarsk and Ufa). According to preliminary estimates, in the 1st quarter of 2023, in all seventeen metropolitan areas, housing affordability decreased in comparison to 2022 (however, final conclusions about housing affordability in 2023 can only be drawn based on the results of the year, thus far).

If we interpret the obtained estimates in accordance with the accepted classification, then in 2018 the housing markets of fifteen metropolitan areas were characterized as “affordable” and by 2021 this had reduced to just six metropolitan areas. According to preliminary estimates for the 1st quarter of 2023, there are no metropolitan areas where the housing market can be classified as “affordable”.

Table 4 also shows the values of the Median Multiple for the median metropolitan area in each year, which also show the dynamics of the decline in housing affordability (in 2018 the Median Multiple was 2.4, in 2022 – 3.3, and in the 1st quarter of 2023 – 4.0). Therefore, in 2022, for the first time in the observation period, the housing market in the median metropolitan area can be classified as “moderately unaffordable”.

In many foreign metropolitan areas (in Table 5, 8 foreign metropolitan areas of different sizes are selected for comparison), the values of the housing standard are significantly higher (housing affordability is lower) than in the largest metropolitan areas in Russia, which is associated with both a larger housing area and higher housing prices relative to income. It should be noted that after the decrease in affordability from 2020 - 2021 housing affordability began to increase in 2022 in

many of the largest foreign metropolitan areas (among the five foreign metropolitan areas presented in Table 5, the price to income ratio in 2022 decreased compared to 2021 in six out of eight metropolitan areas).

At the same time, if we compare the obtained estimates for Russian metropolitan areas (Table 4) with the latest data on the price to income ratio in the largest foreign metropolitan areas (Table 5), we can conclude that for the majority of urban metropolitan areas in Russia, housing affordability remains higher in comparison with foreign metropolitan areas, despite a significant increase in housing prices and stagnating incomes. The exceptions are Kazan, Moscow and St. Petersburg, where the housing affordability is approximately at the level of Singapore and Dublin.

Table 5. Housing price to income ratio in certain foreign countries (ratio of median housing price to median household income)

Metropolitan area	Price to Income Ratio (Median Multiple)					
	2010	2018	2019	2020	2021	2022
New York	6.1	5.5	5.4	5.9	7.1	7.1
London	7.2	8.3	8.2	8.6	8	8.7
Singapore	-	4.6	4.6	4.7	5.8	5.3
Hong Kong	11.4	20.9	20.8	20.7	23.2	18.8
Toronto	5.1	8.3	8.6	9.9	10.5	9.5
Dublin	4.8	4.8	4.7	5.4	5.7	5.1
Auckland	6.4	9	8.6	10	11.2	10.7
Melbourne	9	9.7	9.5	9.7	12.1	9.9

Note. Cox W. (2021-2023). Demographia international housing affordability; Cox W., Pavletich H. (2019-2020). Demographia international housing affordability; Cox W., Pavletich H., Kotkin J. (2011). Demographia international housing affordability. URL: <http://www.demographia.com/db-dhi-index.htm> (date of application: 20.06.2023)

Based on the assumption that in the period until 2018, median housing prices in metropolitan areas changed at the same rate as the average housing price per 1 sq. m in the primary and secondary markets in the relevant constituent entities of the Russian Federation, it is possible to estimate the Price to Income Ratio for the retrospective period from 2010-2017 in order to consider the longer-term dynamics

of housing affordability in metropolitan areas. The calculation results are presented in Table 6. The analysis shows that despite the decrease in housing affordability from 2019-2022, housing affordability in 2022 in thirteen of the seventeen metropolitan areas under consideration was higher than in 2010.

**Table 4. Housing price to income ratio in the seventeen major Russian metropolitan areas from 2010-2022
(metropolitan areas are ranked in order of housing affordability change in percentages from 2010-2022: from largest decrease to largest increase)**

Rank	Metropolitan Market	Price to income ratio (2010)	Price to income ratio (2022)	Price to income ratio change, units (2010-2022)	Price to income ratio, % change (2010-2022)	Trend in 2010-2022*
1	Perm	2.5	3.3	0.8	31.5	Significant decline in housing affordability
2	Kazan	3.9	4.1	0.2	6.0	Slight decline in housing affordability
3	Moscow	4.7	4.9	0.2	3.5	Slight decline in housing affordability
4	Krasnoyarsk	3.5	3.5	0.0	0.6	Slight decline in housing affordability
5	Saratov	3.4	3.4	0.0	-1.0	Slight increase in housing affordability
6	Ufa	3.3	3.3	-0.1	-1.6	Slight increase in housing affordability
7	Nizhny Novgorod	3.1	3.0	-0.1	-4.1	Slight increase in housing affordability
8	Yekaterinburg	2.9	2.8	-0.1	-4.1	Slight increase in housing affordability
9	Krasnodar	3.1	3.0	-0.2	-5.4	Slight increase in housing affordability
10	Chelyabinsk	3.0	2.7	-0.3	-11.3	Slight increase in housing affordability
11	Voronezh	3.5	3.1	-0.4	-11.5	Slight increase in housing affordability
12	Vladivostok	4.0	3.5	-0.5	-11.5	Slight increase in housing affordability
13	Novosibirsk	3.8	3.3	-0.5	-13.4	Slight increase in housing affordability
14	Saint Petersburg	6.0	5.0	-1.0	-16.3	Significant increase in housing affordability
15	Volgograd	3.8	3.1	-0.7	-18.3	Significant increase in housing affordability
16	Samara (Togliatti)	3.4	2.7	-0.7	-19.6	Significant increase in housing affordability
17	Rostov-on-Don	4.1	3.0	-1.1	-27.0	Significant increase in housing affordability
Price to income ratio in median metropolitan area		3.5	3.3	-0.2	-5.3	Slight increase in housing affordability

* An increase in price to income ratio by 0 - 15% means a slight decrease in housing affordability.
An increase in price to income ratio by more than 15% means a significant decrease in housing affordability.
A decrease in the price to income ratio by 0 - 15% is a slight increase in housing affordability.
A reduction in the price to income ratio by more than 15% is a significant increase in housing affordability.

As for future trends in housing affordability in metropolitan areas, one of the factors may be a shift in demand towards more spacious housing, since housing markets are currently saturated with small-sized apartments. Table 5 presents the average area of one and two-room apartments in condominiums under construction, as well as the share of the area of such apartments from the total area of housing in these condominiums in the constituent entities of the Russian Federation, where the seventeen largest metropolitan areas are located. In the regions under consideration, the average area of one-room apartments is 36 sq. m, and two-room apartments 56 sq. m, while the share of one and two-room apartments from the total area of housing under construction averages 76.6% (including one-room apartments - 39.1%, and two-room apartments - 37.5%).

Table 5. Average area of one and two-room apartments in condominiums under construction and their share of the total area of housing under construction in condominiums, as sq. m and percentage

Rank	Metropolitan Market	Constituent entities of the Russian Federation	Average area of an apartment in condominiums under construction, sq. m		Percentage share of the total area of housing under construction in condominiums		
			one-room	two-room	one-room	two-room	total
1	Vladivostok	Primorye Territory	43.2	57.4	57.8	27.9	85.8
2	Volgograd	Volgograd Region	39.5	56.5	37.2	41.2	78.4
3	Voronezh	Voronezh Region	35.4	60.0	42.8	37.1	79.9
4	Yekaterinburg	Sverdlovsk Region	34.8	57.0	41.3	36.6	77.9
5	Kazan	Republic of Tatarstan	37.3	57.6	35.5	40.7	76.2
6	Krasnodar	Krasnodar Territory	35.3	58.6	50.5	35.6	86.1
		Republic of Adygea	34.8	58.1	52.1	38.1	90.2
7	Krasnoyarsk	Krasnoyarsk Territory	36.9	54.8	22.5	43.8	66.3
8	Moscow	Moscow	34.8	55.5	29.0	37.0	66.0
		Moscow Region	33.3	50.1	33.6	41.1	74.7
9	Nizhny Novgorod	Nizhny Novgorod Region	38.3	59.8	34.9	40.9	75.8
10	Novosibirsk	Novosibirsk Region	37.9	56.0	38.0	34.8	72.9
11	Perm	Perm Territory	33.7	48.2	24.4	35.7	60.1
12	Rostov-on-Don	Rostov Region	36.3	56.6	42.7	33.5	76.3
13	Samara (Togliatti)	Samara Region	39.6	62.1	35.6	40.0	75.6
14	Saint Petersburg	City of St Petersburg	32.0	58.4	50.0	30.8	80.8
		Leningrad Region	32.5	54.7	58.3	29.7	88.0
15	Saratov	Saratov Region	38.6	59.9	33.5	42.3	75.7
16	Ufa	Republic of Bashkortostan	35.4	53.0	36.1	39.2	75.3
17	Chelyabinsk	Chelyabinsk Region	37.4	51.8	26.0	44.2	70.3
Average			36.3	56.3	39.1	37.5	76.6

Note. Calculation based on data on project declarations for condominiums under construction on the unified information system for housing construction. URL: <https://xn--80az8a.xn--d1aqf.xn--p1ai/%D0%B0%D0%BD%D0%B0%D0%BB%D0%B8%D1%82%D0%B8%D0%BA%D0%B0/%D0%BA%D0%B2%D0%B0%D1%80%D1%82%D0%B8%D1%80%D0%BE%D0%B3%D1%80%D0%B0%D1%84%D0%B8%D1%8F/> (date of application: 1.08.2023)

Conclusion

Starting from 2020 across Russia and even earlier in the most active housing markets of the major Russian metropolitan areas, there has been a downward trend in fundamental housing affordability (relative to median and average incomes, housing is becoming more expensive). On the one hand, this leads to a gradual reduction in housing consumption, and also limits the possibilities for improving the living conditions of citizens (the spaciousness of accommodation and the quality of housing, as well as the environment), and on the other hand, it can create incentives for the development of competition in housing construction (after all, the struggle for consumers in such conditions intensifies).

This publication presents for the first time additional assessments of housing affordability, which demonstrate a significantly lower level of housing affordability (both fundamental and those, which take into account mortgage affordability) when moving from assessments of the affordability of purchasing housing for a three-person household relative to the 18 sq. m per person (54 sq. m for a three-person household) to the average housing provision per person (in Russia in 2022 - 28.2 sq. m). This suggests that the availability of purchasing conventional standard housing with an area of 54 sq. m has not only been declining in recent years, but the very parameters of such “affordable standard housing” are increasingly different even from the average parameters of the current housing provision (for example, 18 sq. m per person, or 54 sq. m for a three-person household, more or less available: the price to income ratio is 3.9 across the Russian Federation, but 28.2 sq. m per person, or 84.6 sq. m for a three-person household, is no longer available: the price to income ratio is 6.1 across the Russian Federation).

The implementation of mortgage programs with state support since 2020 so far allows citizens with average and above-average incomes and savings to purchase housing, taking into account the acquisition of additional square meters and the sale of existing housing. However, the opportunities for citizens with below average incomes to get mortgage housing loans are limited, since their absolute income does

not allow them to service mortgage loans without reducing their residual income below two subsistence minimums per person¹⁸.

The second important aspect is the high systemic risks for the housing and mortgage markets in the future, because of government preferential mortgage programs cancellation, which will only be possible with the risk of a surge in prices and a contraction in market demand for housing.

Thus, as noted in earlier publications¹⁹, the largest housing markets in Russia have entered a new cycle, which is characterized by relatively low fundamental housing affordability (rather than high affordability, as was the case during the previous 10 years), despite the still small average size of purchased residential units. Purchasing of more spacious housing, both today and in the future, will be available to groups of citizens with steadily growing incomes that are significantly higher than the average level.

In the medium and long term, the priority of government policy in the field of increasing housing affordability, in our opinion, should be to support the development of alternative forms of housing consumption that are not associated with an active increase in the volume of long-term debt obligations of citizens. Such support should be focused primarily on citizens with incomes below average, including low incomes, and should be aimed at developing institutional rental housing (commercial, non-commercial, with the right to buy, etc.) and housing cooperation in urban and rural areas, and in small towns - for the development of individual housing construction.

¹⁸ Housing need and demand for housing in Russia. The Institute for Urban Economics, 2022. URL: https://www.urbaneconomics.ru/sites/default/files/zhilishchnaya_potrebnost_i_spros_na_zhile_v_rossii_oktyabr_2022.pdf (date of application: 20.06.2023)

¹⁹ Housing affordability in the major Russian metropolitan areas in the 1st and 2nd quarters of 2022. The Institute for Urban Economics, 2022. URL: https://www.urbaneconomics.ru/sites/default/files/dostupnost_zhilya_v_krupneishih_gorodskih_aglomeracijah_rossii_v_i_i_kv._2022_g.pdf (date of application: 20.06.2023)