

June 1, 2021

Ilya Tsyarkin
Senior Analyst, Sub-sovereign
Ratings Group
+7 (495) 139-0345
ilya.tsyarkin@acra-ratings.ru

Elena Anisimova
Senior Director, Head of Sub-
sovereign Ratings Group
+7 (495) 139-0486
elena.anisimova@acra-ratings.ru

Media contact:

Alexey Churilov
Manager for External
Communications
+7 (495) 139-0480, ext. 169
alexey.churilov@acra-ratings.ru

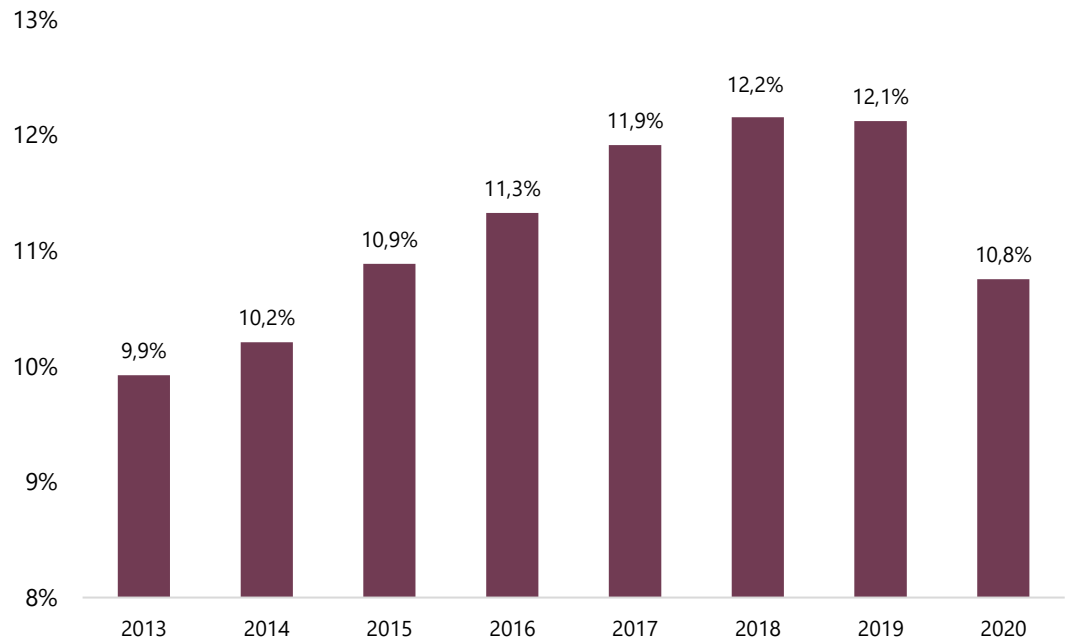
Moving house is postponed for a year

The impact of the pandemic on Russians' ability to save up for an apartment

The coronavirus pandemic, which had a negative impact on the incomes of residents of Russia, coupled with growth in house prices accompanied by the preferential mortgage program, has negatively impacted the ability of citizens to buy their own home.

From 2017 to 2019, a hypothetical resident of Russia earning the per capita income (PCI) could (taking into account the assumptions listed below) save up for a hypothetical apartment in eight years. In 2020, the share of their savings would have fallen by 11.3 p.p. compared to 2019, and it would have taken almost a year longer to save up for the same apartment. Furthermore, the share of savings in general for Russia in 2020 would have amounted to 10.8% compared to 12.1% a year earlier.

Figure 1. In 2020, a hypothetical resident of Russia would have put aside less money than in 2015 (in percentage of the price of an apartment for the specified year)



Sources: Rosstat, ACRA

In particular, the Kabardino-Balkarian Republic, the Chuvash Republic, the Altai Republic, the Leningrad Region, and the Stavropol Krai were most affected by the combination of these factors as the saving period for the hypothetical apartment rose by three years or more (in the Karachay-Cherkess Republic it increased by almost 10 years).

There were cases where the opposite happened, however they were rare. For example, in the Kaluga Region, the considered period for 2020 decreased by almost a year, and in Kalmykia — by more than five years. The saving period for the hypothetical apartment fell slightly in five other regions.

ACRA has put together a ranking¹ of regions that shows where residents can save up for the hypothetical apartment faster.

We made a number of **assumptions** to compile the ranking: (1) the resident of a region receives the per capita income in their home region, (2) prices and income are recorded for every moment of the assessment. In addition, we went by the assumption that residents of the regions consume only a fixed set of goods and services calculated in value terms for each region of the Russian Federation, and all unused funds from the PCI go toward accumulating the amount necessary to buy an apartment. In terms of the property to be acquired, we took an apartment in the secondary market with a hypothetical area of 33 sq. m, since this is more affordable than buying a home in a new building (according to data from the Unified Interdepartmental Information and Statistical System (UIISS), average prices in the primary housing market have consistently exceeded prices in the secondary market since 2017). We proceeded from the assumption that price growth in the primary housing market is reflected in the secondary market over time. The UIISS was used to gather data on secondary market prices (average price of one square meter of the total area of apartments in the housing market).

In addition, we did not take into account the wide range of support measures offered by the state to various categories of the population when buying housing, which can considerably reduce the time required to accumulate the necessary amount.

For illustrative purposes, we give both the hypothetical terms in which it is possible to save up for an apartment in a particular region, as well as the share of the price of an apartment which can be accumulated in a given year.

As previously mentioned, the ability of residents of Russian regions to save up for the equivalent of the price of an apartment under the given conditions decreased significantly last year.

The decrease in the hypothetical purchasing power of PCI relative to the price of an apartment in 2020 is due to the coronavirus pandemic and an increase in the cost of housing. Last year, PCI in Russia grew by only 0.3% compared to the 2019 indicator. For comparison, in 2019 growth amounted 6.2%, in 2018 it was 4.0%, and in 2017 it was 3.3%. This is largely due to the fact that in Q2 and Q3 2020, the size of PCI was lower than in the same periods in the previous year due to the partial shutdown of the economy and mandatory self-isolation of the population. At the same time, it should be noted that the state provided significant support to the population during the pandemic, including in the form of various kinds of payments and benefits, due to which the level of PCI actually increased slightly. Growth of wages, including in the public sector, contributed to the growth of PCI to a certain extent.

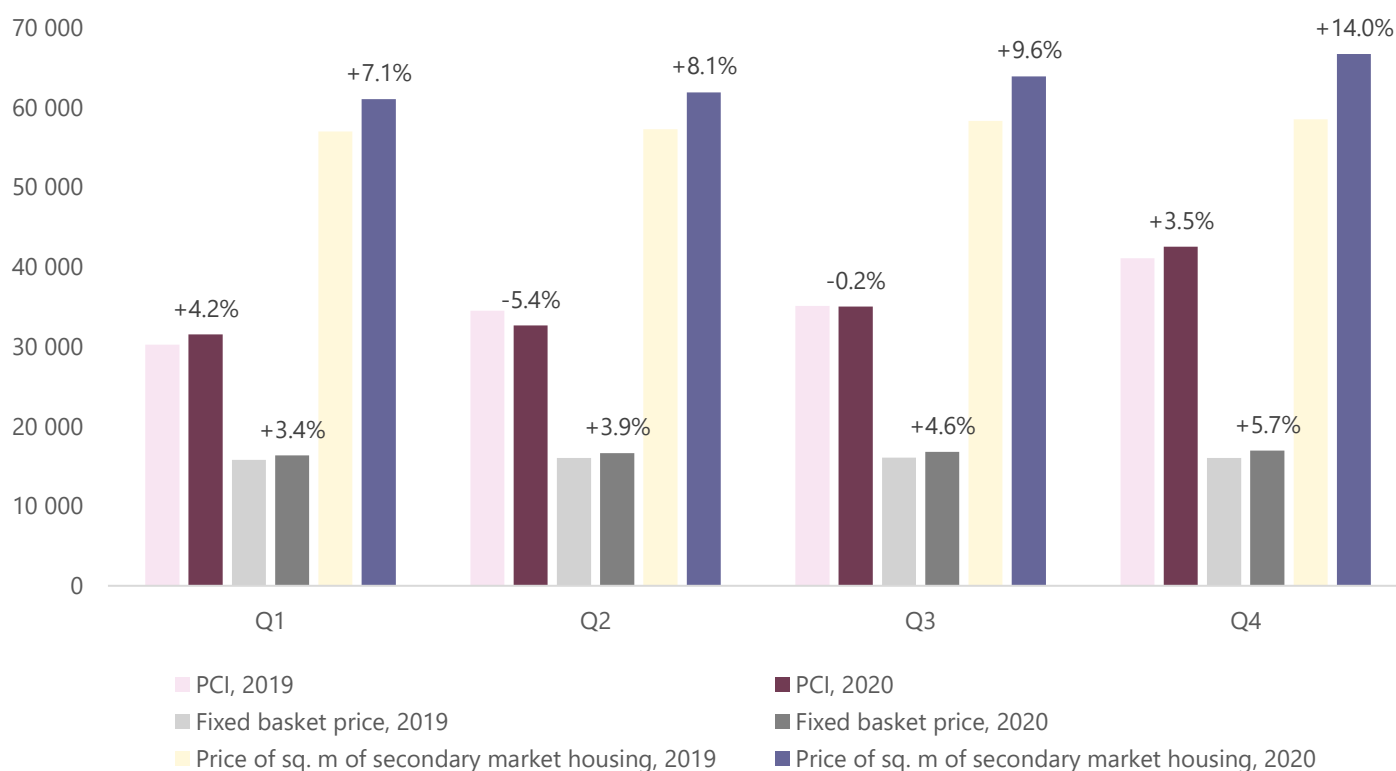
The average price of the fixed set of goods and services (which for the purposes of our ranking is deducted from income) in Russia as a whole increased by 4.4% in 2020 compared to 2019, while growth in the price of the set in comparison with the previous year was recorded every quarter. A year earlier the price of the fixed set increased by 5.5%. It is likely that the decline in economic activity during the

¹ This ranking reflects the position of the regions of the Russian Federation relative to each other in terms of the studied indicators, and not the actual period in which it is possible to save up for the hypothetical apartment.

pandemic held inflation back, which partly contributed to a slowdown in the growth rate of the price of the components in the fixed set of goods and services.

At the same time, prices for a square meter of housing in the secondary market in the regions grew significantly. Growth averaged 9.7% for Russia in 2020 compared to 2019 prices; a year before this indicator amounted to 7.2%, while in 2018 it was 2.5%. The most growth (14%) was recorded in Q4 2020 compared to the same period in 2019. The launch of the preferential mortgage program for housing in new buildings as a stimulus measure for the construction sector resulted in increased demand for primary market housing, which in turn impacted the price of housing in the secondary market.

Figure 2. Growth of the price of a square meter exceeded growth of income considerably in 2020 (Q y-o-y; RUB)



Sources: Rosstat, ACRA

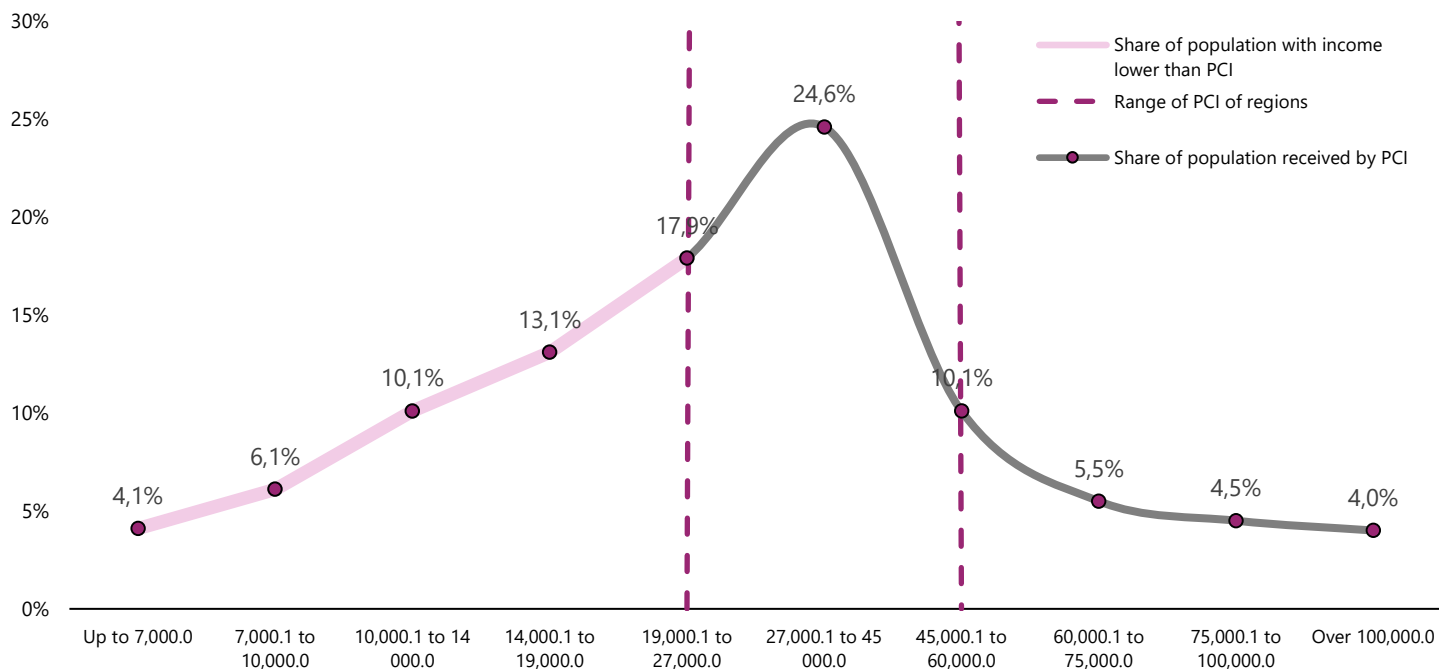
However, not all of the country's residents are able to save up for an apartment within the framework of our assumptions because their income may be lower than the PCI in their home region. Per capita income of the population of Russia's regions (excluding the five regions with the largest PCI and the five with the smallest PCI) in 2019² varied from 19,000 to 60,000 rubles per month.

This means that, according to ACRA's calculations, it is likely that at least 33.4% (around 49 mln people as of 2019) of the country's population, whose monthly income does not exceed RUB 19,000, could not afford to put money aside for an apartment within the framework of this ranking methodology without resorting to borrowed funds or support from the state or their relatives. Therefore, Russia's least well-off citizens, whose saving period for a hypothetical apartment without additional outside support may be much longer than the national average, are excluded from the ranking. We assume that in 2020, amid the pandemic which led

² Latest available data.

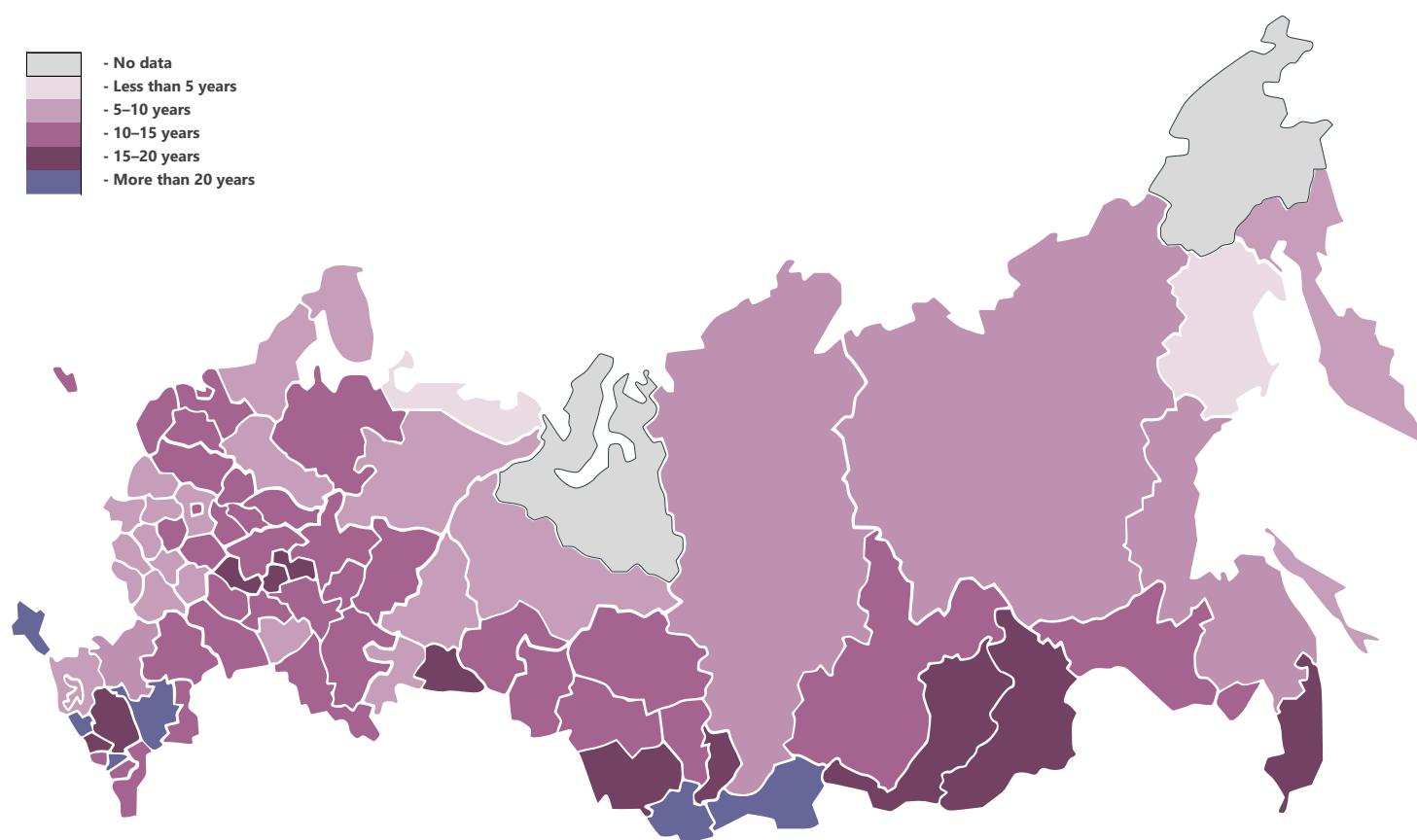
to growth in unemployment and a slowdown in economic growth, the share of the population receiving incomes lower than the PCI in the regions most likely did not decline.

Figure 3. Around a third of the population of Russia (data for 2019) were unable to put money aside within the framework of the assumptions of the ranking



Sources: Rosstat, ACRA

Differentiation of purchasing power of average per capita income by federal district



Sources: Rosstat, ACRA

The shortest period required to save up for housing in Russia as a whole is observed in regions with a low cost per square meter for secondary housing and high per capita incomes. These regions are mostly located north of the Arctic Circle, which makes them less appealing for permanent residence.

The longest period, on the other hand, is found in regions with low per capita incomes and where subsistence farming plays a significant role in residents' lives.

Table 1. Leaders and outsiders of the ranking of regions by ability to save up for a hypothetical apartment in 2020

| Region | Saving period for secondary housing under given conditions (in years) |
|----------------------------|---|
| Nenets Autonomous Okrug | 3 |
| Magadan Region | 3 |
| KMAO — Ugra | 5 |
| Murmansk Region | 6 |
| Kamchatka Krai | 7 |
| Belgorod Region | 7 |
| Lipetsk Region | 7 |
| Republic of Kalmykia | 24 |
| Republic of Crimea | 26 |
| Republic of Ingushetia | 27 |
| Republic of Altai | 32 |
| Karachay-Cherkess Republic | 38 |
| Tyva Republic | 67 |

Taking into account the specified assumptions, the average period required by a hypothetical resident of the CFD to save up for secondary housing with an area of 33 sq. m would be nine years (at 2020 prices and incomes). For the Lipetsk Region, for example, the period is significantly smaller at about seven years. For the Vladimir Region, on the contrary, it is higher — about 12.5 years. For Muscovites, the saving period would be 10 years.

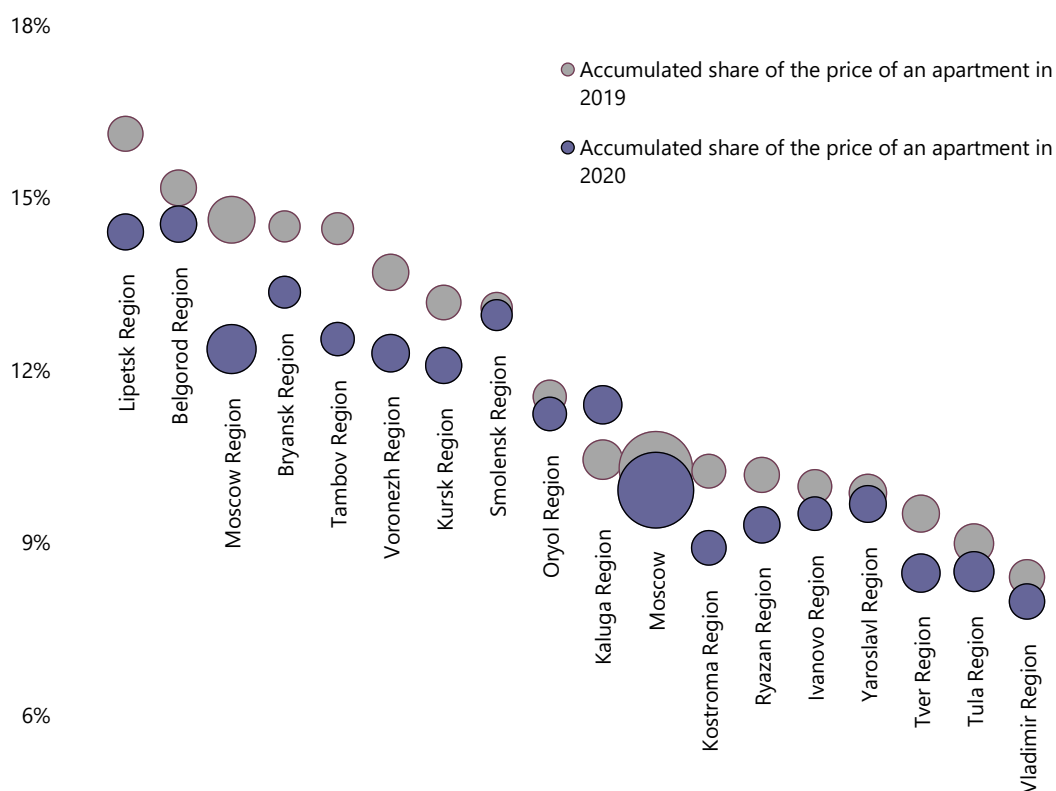
CFD: in 2020 residents in almost half of the regions of the district could only save up 8–10% of the price of an apartment

The ability of residents of the Central Federal District (CFD) to save up for housing in 2020 declined less than the national average: over the past year they were able to save up just 0.8% less of the price of an apartment in 2020 (11.1% vs. 11.9% a year earlier). Therefore, with 2020 income it would have taken half a year longer to save up for the hypothetical apartment than with 2019 income (on average for Russia the amount of time added on to the saving period equaled around a year). Residents of the Belgorod Region would have accumulated the most over the year (14.5% compared to 15.2% a year earlier), while residents of the Vladimir Region would have saved up the least (8.0% vs. 8.4% a year earlier). The ability to save was limited to 8–10% of the price of an apartment in eight out of 18 regions.

The highest estimated price of an apartment in the secondary market with an area of 33 sq. m in the Central Federal District and in Russia as a whole was recorded in Moscow (the average price in 2020 was about RUB 6.3 mln). Therefore, despite Moscow having the highest PCI in the CFD, residents of the capital could have only saved up 9.9% (10.3% a year earlier) of the price of an apartment by the end of the year.

In general, for the regions of the CFD, with the exception of Moscow and the Moscow Region, there is a slight variation in the price per square meter of secondary housing. In 16 out of 18 regions, the price of 33 sq. m of living space in the secondary market varies from RUB 1.1 mln to RUB 1.8 mln. At the same time, the value of the PCI in these regions is also similar.

Figure 4. Among CFD regions the accumulated share changed the most in the Moscow Region*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

The most noticeable decrease in the share of savings in the price of an apartment occurred in the Moscow Region, which led to an increase in the saving period from seven years in 2019 to eight years in 2020. At the same time, PCI in the region decreased from RUB 47,200 in 2019 to RUB 46,200 by the end of 2020, while the average estimated price of an apartment in the secondary market increased by 9.9%. A significant decline in the accumulated share was also recorded in the Tambov Region due to PCI falling by 1.8% over the year and the average price of a square meter in the secondary market growing by 9.3%. Taken together, this led to the saving period increasing by one year to eight years. The only CFD region that recorded a positive result in 2020 was the Kaluga Region, where the saving period for a hypothetical resident receiving the per capita income declined by approximately a year to 8.5 years. This is due to the price of a square meter falling by 5.8% and PCI growing by 2.4% in 2020.

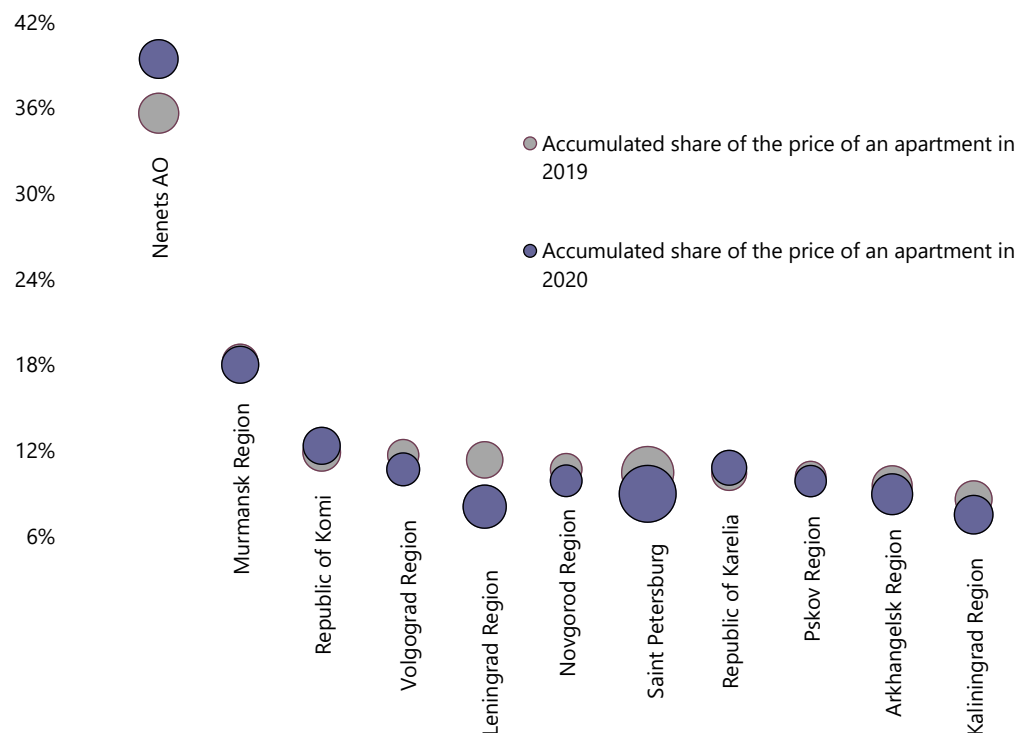
It would take an average of 10 years (at 2020 prices and incomes) for a hypothetical resident of the Northwestern Federal District (excluding the NAO) to save up for an apartment. The period for NAO residents is much shorter at only 2.5 years. The saving period in the Murmansk Region would have amounted to around 5.5 years. Residents of Saint Petersburg could save up for an apartment in 11 years. The longest saving period was recorded in the Kaliningrad Region — 13 years.

NFD: Leningrad Region residents would have to save for 3.5 more years due to price growth

For the regions of the Northwestern Federal District (NFD), the hypothetical average savings for 2020 also decreased by 0.8% — from 11.3% of the estimated price of an apartment to 10.5% (excluding the Nenets Autonomous Okrug, hereinafter, the NAO). In terms of accumulation time, the difference would be slightly less than one year, which is comparable to the changes in Russia as a whole. The share of savings in 2020 amounted to about 39.4% for residents of the NAO (35.6% a year earlier) due to the low price of secondary housing and high per capita incomes. In second place in terms of saving opportunities is the Murmansk Region (18.0% vs. 18.2% a year earlier). High per capita incomes in this region by the standards of this federal district are a determining factor in the formation of a high share of savings.

The accumulated share of the price of an apartment would be 9.0% (10.5% a year earlier) for Saint Petersburg, since the price per square meter of housing is incomparably higher than in other regions of the NFD, which offsets the size of the PCI (on average a 33 sq. m apartment in the secondary market have would cost a resident of the city twice as much as the average for the NFD in 2020, while the PCI was only 20% higher). Residents of the Kaliningrad Region could afford the smallest share of the price of an apartment at about 7.5%.

Figure 5. Positive trends were observed in three regions: NAO, Komi and Karelia*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

The largest decrease in the accumulated share of the price of secondary housing in 2020 occurred in the Leningrad Region (8.1% compared to 11.4% a year earlier). At the same time, the saving period increased by 3.5 years. In terms of 2020 prices and income, only after 12.5 years would it have been possible to buy the housing. A significant increase in prices for secondary housing in the region (on average by 39.3% according to the UISS) negatively affected the calculated indicator. A 33 sq. m apartment would have cost a resident of the region RUB 2.4 mln (RUB 1.7 mln a year earlier). The 1.9% increase in PCI in 2020 could not offset the rise in housing prices.

A considerable but not as significant decline in the share of savings (by 1.5%) was recorded in Saint Petersburg. The saving period in this region increased by one-and-a-half years to 11 years in 2020. Higher housing prices (+18.6%) was one of the factors which influenced the weakening of residents' ability to save. The estimated average price of an apartment in Saint Petersburg was RUB 4.1 mln. In the NAO, the saving period for housing decreased by a quarter of a year in 2020 to 2.5 years, since secondary housing prices decreased by 6.2% and the PCI increased by 4.0% during this period.

SFD: it takes more than 20 years to save up for an apartment in Kalmykia and Crimea

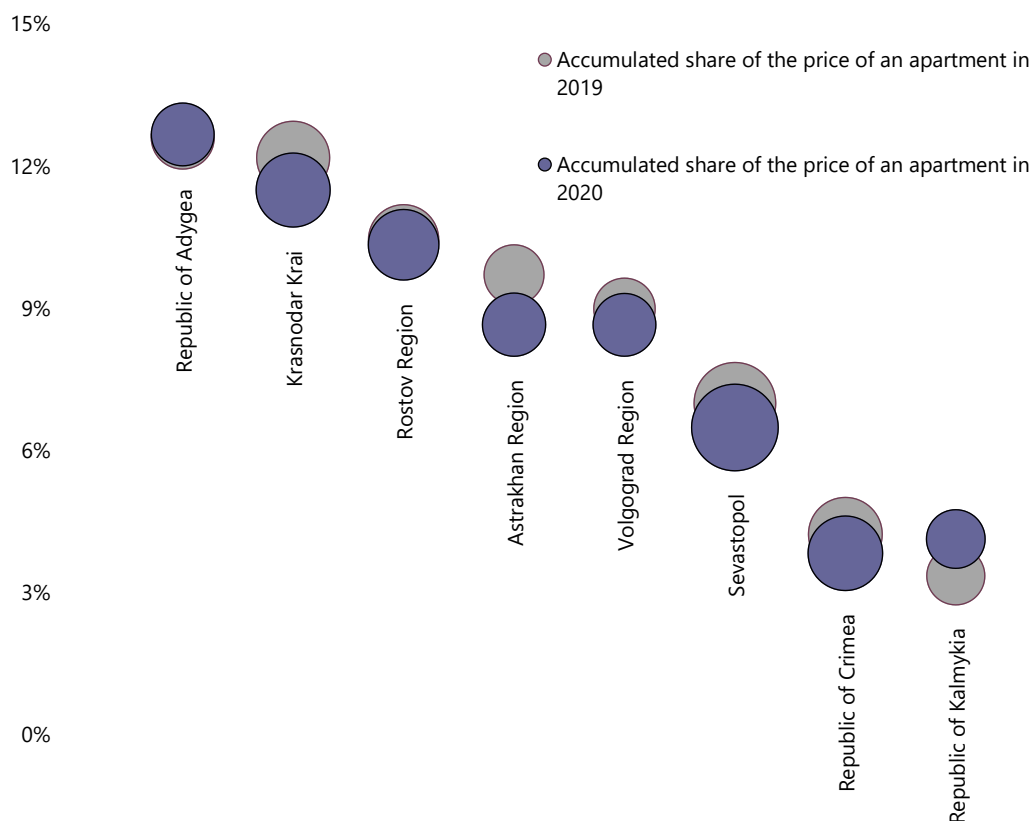
In the regions of the Southern Federal District (SFD; excluding the Republic of Kalmykia and the Republic of Crimea where the share of savings is significantly lower than in other regions of the SFD) on average residents could have saved 9.7% of the price of an apartment in 2020 compared to 10.2% a year earlier. The saving period only increased by six months, which is six months less than the average for Russia.

The largest share could have been accumulated by residents of the Republic of Adygea (12.7% compared to 12.6% a year earlier), the smallest — in Sevastopol (6.5% compared to 7.0% a year earlier), where the highest estimated price of a secondary market apartment in the SFD was recorded (about RUB 2.7 mln at 2020 prices). Furthermore, the average cost of a 33 sq. m apartment in the SFD is RUB 1.7 mln (at 2020 prices).

The Republic of Crimea and the Republic of Kalmykia were analyzed separately in view of the specifics of these regions. The accumulated share in 2020 would have amounted to 3.8% and 4.1% respectively (4.2% and 3.4% a year earlier). The PCI in both regions are the lowest in the SFD, and the cost of housing in the Republic of Crimea is very high (14% higher than the average for the SFD) due to demand from residents of other Russian regions.

On average, residents of the SFD (excluding the Republic of Kalmykia and the Republic of Crimea) could save up enough to purchase a 33 sq. m apartment in the secondary market in 11 years (at 2020 prices and incomes). The minimum saving period would be in the Republic of Adygea (eight years), while the longest periods would be in the Republic of Kalmykia and the Republic of Crimea (26 years and 24 years, respectively). Residents of the Krasnodar Krai would need to spend approximately 8.5 years saving to be able to afford the hypothetical apartment.

Figure 6. It became easier to save up for an apartment in Kalmykia and Adygea*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

Despite the fact that the accumulated share of the price of secondary housing in the Republic of Kalmykia is one of the lowest in the SFD, in 2020 this region experienced the most significant positive changes compared to other regions in the district. The saving period for secondary housing declined by 5.5 years, yet it continues to be one of the longest in Russia. PCI in the republic increased by 8.3% in 2020 compared to 2019, while the price of a square meter of housing only grew by 2.2%. A minor positive change was also observed in the Republic of Adygea, where the share of savings increased by 0.1% in 2020.

PCI declined by 1.1% in the Republic of Crimea in 2020, while the price of secondary housing grew by 2.0%, which would have led to the saving period (in 2020 income and prices) increasing by 2.5 years to 26 years. A significant decline in the accumulated share (-0.7%) was recorded in the Krasnodar Krai, however, the overall period required to gather the necessary amount in this region would have been one of the smallest in terms of the SFD at just over 8.5 years (eight years a year before).

The average saving period for the estimated price of an apartment by a hypothetical resident of the NCFD (excluding the Republic of Ingushetia and the Karachay-Cherkess Republic) would be about 15 years (at 2020 prices and incomes). As of the end of 2020, the shortest saving period, about 11 years, was recorded in the Republic of Dagestan, and the longest — in the KCR (38 years). Residents of the Republic of Ingushetia would have to spend 27 years to save the amount high enough to buy an apartment in the secondary market.

NCFD: the most significant increase in the saving period for an apartment in Russia was in Karachay-Cherkess Republic

Residents of the North Caucasian Federal District (NCFD) could have saved 1.1% less of the price of an apartment in 2020 (5.9% versus 7.0% a year earlier). It would have taken 3.5 years longer to save up for a hypothetical apartment in this federal district out with 2020 income than with 2019 income. This period is significantly longer than the average for Russia. Residents of the Republic of Dagestan would have saved the most in 2020 (9.4% versus 10.3% in 2019), while residents of the Karachay-Cherkess Republic (KCR) would have saved the least (2.6% versus 3.6% a year earlier). In the NCFD, the highest estimated price of a 33 sq. m apartment was recorded in Dagestan (the average price in 2020 was about RUB 1.7 mln). On the other hand, the per capita income (PCI) in this republic is also the highest among the NCFD regions.

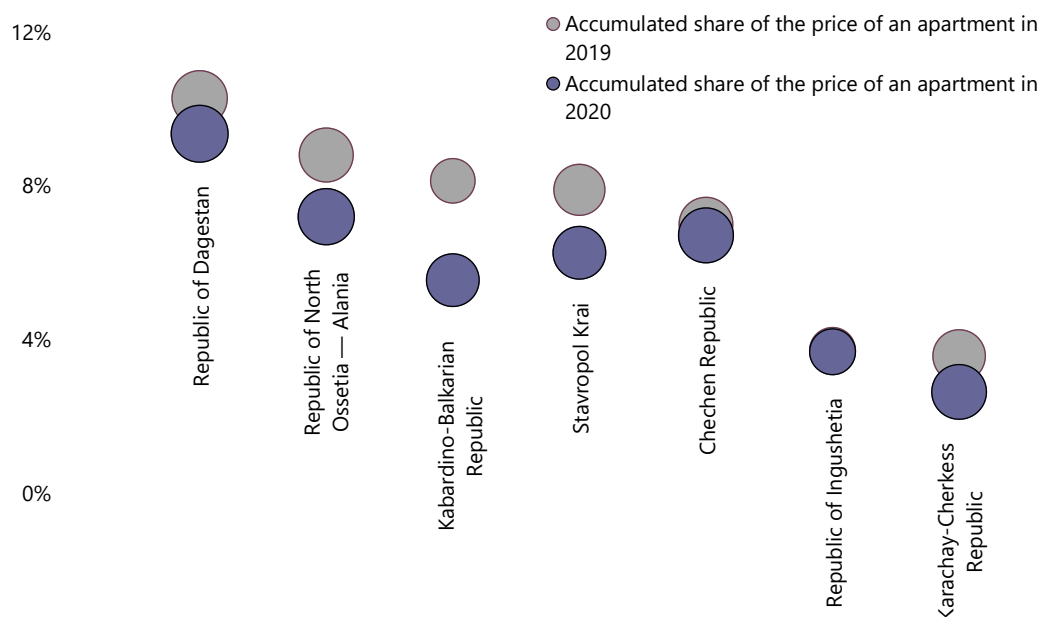
In general, there is a slight difference in the prices per square meter in the secondary housing market in the NCFD regions (the estimated price of an apartment varies from RUB 1.1 mln in Ingushetia to RUB 1.7 mln in Dagestan). At the same time, the PCIs in these republics differ significantly, which explains the difference in the accumulated share of the price of an apartment.

The most significant change in the accumulated share (-2.6%) in 2020 occurred in the Kabardino-Balkarian Republic, while the average saving period increased from 12.5 to 18 years. The PCI in the republic increased by 1.4% in 2020, however, the growth in the price per square meter in the secondary housing market was much greater (+39.0%).

The most noticeable change in the saving period was recorded in the KCR, where, due to a decline (-2.7%) in the PCI, which is one of the lowest PCIs in the NCFD, and an increase in the secondary housing prices (+8.6%), the saving period for a 33 sq. m apartment grew by almost 10 years. At the same time, according to our calculations, in this republic, the consumption of the fixed set of goods and services occupies a significant share of PCI, which is typical for most NCFD regions (the average annual consumption of the fixed set of goods and services amounts to 69% of the annual PCI). In this regard, and based on our assumptions, very little can be saved, which significantly reduces the estimated indicator used in the ranking.

The situation has changed least in the Republic of Ingushetia, where the accumulated share (3.7%) of the price of an apartment almost did not change in 2020, similar to the average saving period for a hypothetical resident of the republic, which increased by only a quarter of a year.

Figure 7. The most noticeable decline in the accumulated share occurred in the Kabardino-Balkarian Republic, while the saving period grew the most in the Karachay-Cherkess Republic*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

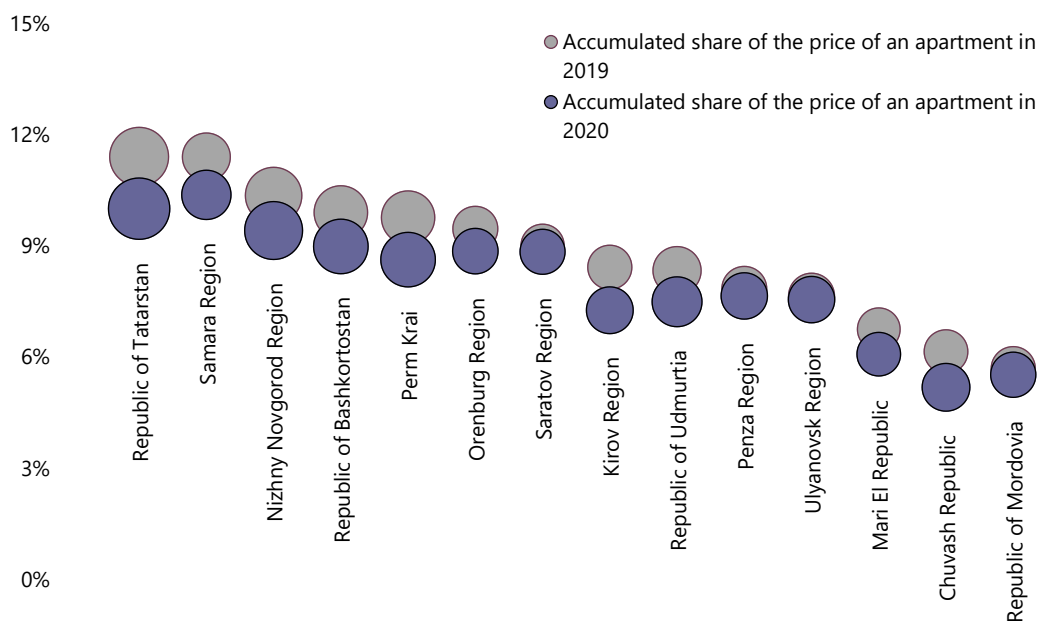
The average saving period for the estimated price of an apartment by a hypothetical resident of the VFD would be a little more than 13 years (at 2020 prices and incomes). The shortest saving periods in this federal district are demonstrated by the Samara Region and the Republic of Tatarstan (a little less than 10 years). The longest period was recorded in the Chuvash Republic — a little over 19 years. Residents of the Republic of Mordovia would take about 18 years to save the sufficient amount.

VFD: the highest secondary market prices are in Tatarstan, and the longest saving period is in Chuvashia

In the Volga Federal District (VFD), the accumulated share of the price of an apartment in 2020 decreased by an average of 0.7%, which led to an increase in the average saving period by a little more than a year (like the national average). The largest share of savings as of the end of the year was in the Samara Region: 10.4% (11.4% in 2019). A comparable share of savings (10%) was recorded in the Republic of Tatarstan. The residents of the Chuvash Republic had the smallest amount of savings (5.2% compared to 6.2% a year earlier). The situation in the Republic of Mordovia is slightly better, where, on average, a resident could have accumulated about 5.5% of the price of an apartment in the secondary housing market.

There are five leading regions in the VFD with highly developed economies (the Republic of Bashkortostan, the Republic of Tatarstan, the Perm Krai, the Nizhny Novgorod Region, and the Samara Region), where the PCI significantly exceeds the average for the district. At the same time, the price of the fixed set of goods and services in these regions is not much higher than the average for the VFD. In this regard, despite more expensive housing, residents of these subjects can accumulate a larger amount to buy an apartment than residents of other subjects in this federal district.

Figure 8. In 2020, the most significant changes occurred in the Republic of Tatarstan, the Kirov Region, and the Chuvash Republic*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

The most significant changes in the accumulated share in 2020 took place in the Republic of Tatarstan (-1.4%), which is associated with a slight drop in the PCI (-0.3% versus 2019). At the same time, prices in the secondary market increased by 8.3%. Taken together, these led to an increase in the average saving period in the republic by about one year. A significant decrease in the accumulated share was also recorded in the Kirov Region (-1.2%) and the Republic of Chuvashia (-1.0%), which is due to an increase in secondary market prices in 2020 (+12.3% and 18.8%, respectively). The average saving period in the Chuvash Republic increased by three years and amounted to more than 19 years, and in the Kirov Region — by two years (to almost 14 years). The largest PCI decrease (-2.1% compared to 2019) in the VFD was in the Perm Krai, while the saving period in this region increased by about a year and a half.

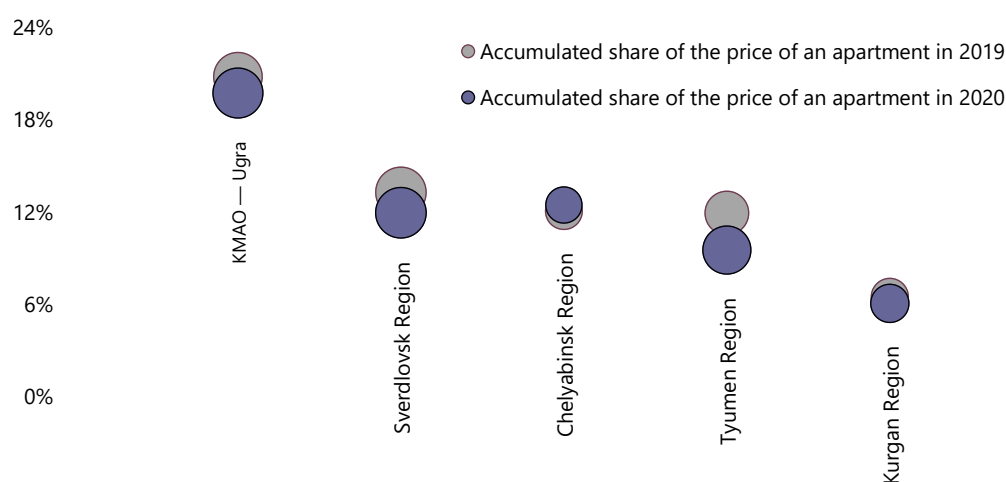
The average saving period for the price of an apartment by a hypothetical resident of the UFD (excluding the NAO) would amount to a little over 9.5 years (at 2020 prices and incomes). The shortest saving period is in the KMAO (little less than five years), and the longest one is in the Kurgan Region (16.5 years). Residents of the Tyumen Region (excluding the AO) would have spent about 10.5 years accumulating the amount enough to buy a hypothetical apartment.

UFD: saving up for an apartment in the Chelyabinsk Region became a bit easier

In the regions of the Ural Federal District (UFD), the decrease in the share of savings for an apartment offered in the secondary market averaged about 1.0% (excluding the Yamalo-Nenets Autonomous Okrug). The saving period for this federal district increased by about a year, which is comparable with the average figure for Russia. The smallest share of savings (6.1% vs. 6.5% in 2019) could be afforded by residents of the Kurgan Region, and the largest share (19.8%) — by residents of the Khanty-Mansi Autonomous Okrug (KMAO). At the same time, in the KMAO, the accumulated share of the price of an apartment decreased by 1.0%, since the price increase in the secondary market (+5.7%) exceeded the increase in the PCI (+2.0%) in 2020.

For the YNAO, the accumulated share was not calculated due to the lack of a complete set of statistical data³; however, according to ACRA's estimates, this indicator could have exceeded the values for the KMAO. The average per capita income in the YNAO is the highest in the UFD (the average for 2020 is about RUB 89,000, which is more than twice the average values for the UFD and one and a half times higher than in the KMAO), while the price per square meter in the secondary market, most likely, would be comparable to that in the neighboring KMAO and the Tyumen Region. Over the past year, residents of the Chelyabinsk Region and the Sverdlovsk Region could have accumulated 12.5% and 12.0% of the price of an apartment, respectively. In the Sverdlovsk Region, the share of savings decreased by 1.3% compared to 2019 due to a 5.1% decrease in the average monthly income, while the cost per square meter in the secondary market remained almost unchanged; in the Chelyabinsk Region, on the contrary, it increased by 0.4% due to a 3.3% decrease in the price per square meter in the secondary market (the PCI in the region increased by 1.4%).

Figure 9. In the Chelyabinsk Region, the share of savings for apartments grew in 2020*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

Residents of the SiFD (excluding the Altai Republic and the Tyva Republic) would have accumulated the sum needed for an apartment in about 12.5 years (at 2020 prices and incomes). The shortest saving period was recorded in the Krasnoyarsk Krai (a bit less than 9.5 years), and the longest period was in the Tyva Republic (67 years). In the Irkutsk, Kemerovo, Novosibirsk, Omsk, and Tomsk Regions, the period would amount to about 11–12 years.

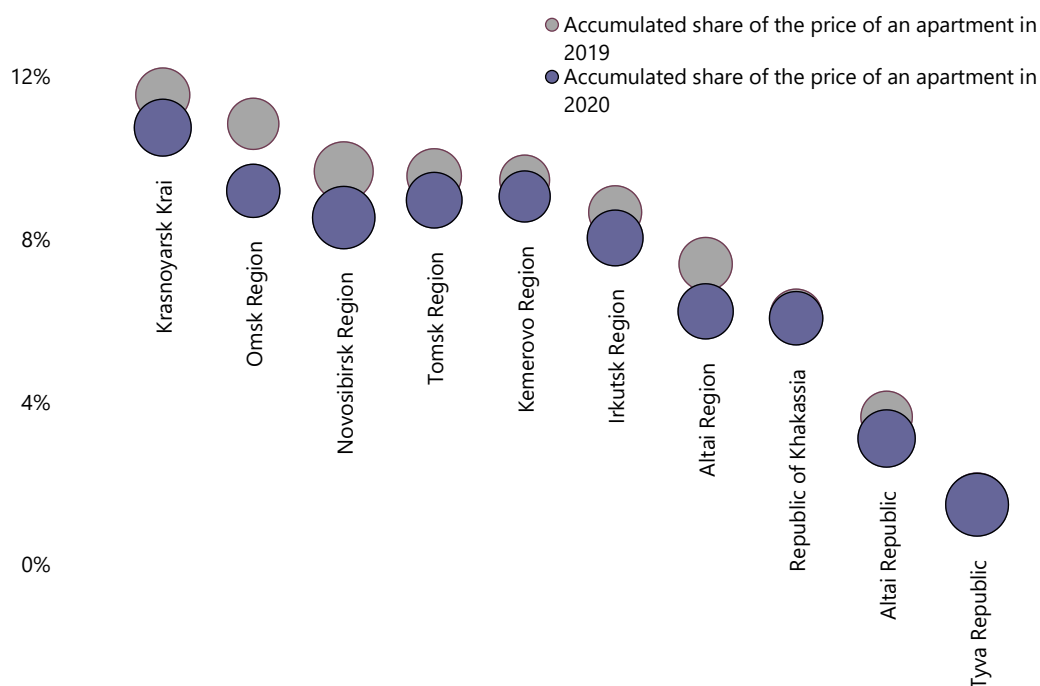
SiFD: under the current assumptions, it is not possible to accumulate the amount sufficient to buy an apartment in the Tyva Republic

The average share of savings in the price of an apartment in the secondary market in the Siberian Federal District (SiFD) amounted to 8.4% as of the end of 2020 compared to 9.2% a year earlier (excluding the Altai Republic and the Tyva Republic, since their PCIs are significantly lower than the average for this federal district). The average saving period in the SiFD (excluding the abovementioned regions) increased by little more than a year, same as the average for Russia. The largest share could be afforded by residents of the Krasnoyarsk Krai (10.7%), and the smallest share — by residents of the Republic of Khakassia (6.1%). The share accumulated by the residents of the Altai Republic and the Tyva Republic is significantly less and amounted to about 3.1% and 1.5%, respectively, since the PCI

³ Data on the price per square meter in the secondary housing market is not published in order to ensure the confidentiality of primary statistical data received from organizations in accordance with Federal Law No. 282-FZ dated November 29, 2007 "On official statistical accounting and the system of state statistics in the Russian Federation".

in these two republics is below the average value for the SiFD by 16% and 32%, respectively. For 2020, the share accumulated by residents of the Irkutsk, Kemerovo, Novosibirsk, Omsk, and Tomsk Regions varied in the range of 8–9%.

Figure 10. In 2020, the smallest decrease in the accumulated share occurred in the Tyva Republic and the Republic of Khakassia — regions with one of the smallest possible share of savings in the SiFD*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

In the SiFD, the average share of savings decreased by 0.7% in 2020. At the same time, the estimated share did not increase in any of the regions. The largest decrease in the share (-1.7%) occurred in the Omsk Region: in 2020, the share of savings amounted to 9.2% compared to 10.9% in 2019. The smallest decrease in the accumulated share was recorded in the Tyva Republic and the Republic of Khakassia: less than 0.1% compared to the previous year.

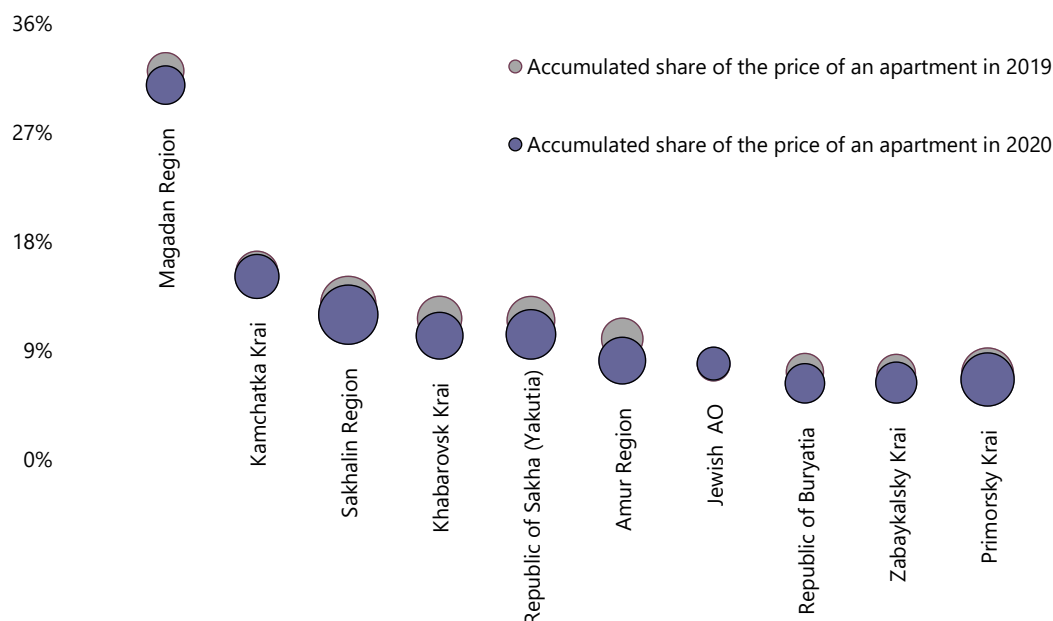
FEFD: half of the regions are among the top ten leaders in terms of the price of a hypothetical apartment

In the Far Eastern Federal District (FEFD; excluding the Magadan Region and the Chukotka Autonomous Okrug), the average accumulated share of the price of an apartment in the secondary market was 9.2% in 2020 (10.1% at the end of 2019). At the same time, the average saving period grew by a little more than a year, as did the average for Russia. The largest share of savings (about 31.0%) was recorded in the Magadan Region, since the PCI in this region is very high by the standards of the FEFD (50% above the average), and housing prices are quite low (about 70% of the average for the district). The share of savings in the Chukotka Autonomous Okrug could be even higher, since the average per capita income there is still about 30% higher than in the Magadan Region, but no data is published on the prices in secondary housing market in this region.

Residents of the FEFD (excluding the Magadan Region and the Chukotka Autonomous Okrug) could have saved up for an apartment in about 12 years (at 2020 prices and incomes). The shortest saving period was noted in the Magadan Region (a bit less than 3.5 years), and the longest period was in the Republic of Buryatia (a bit more than 16 years). Residents of Yakutia and the Khabarovsk Region would have spent about 10 years and residents of the Sakhalin Region — 8.5 years. No price statistics are published for the Chukotka Autonomous Okrug.

As of the end of the year, the smallest accumulated share (6.3%) was recorded in the Republic of Buryatia. A similar situation was observed among residents of the Zabaykalsky Krai (6.4%) and the Primorsky Krai (6.6%). In the case of the latter, a significant role is played by the high price per square meter in the secondary market, which is 35% higher than the average for the FEFD. The highest price in the secondary housing market in the FEFD was observed in the Sakhalin Region (66% higher than the average for the district), while residents of this region could accumulate 12% of the price of an apartment in 2020 (12.9% a year earlier).

Figure 11. The most notable decline in the accumulated share in 2020 (excluding the Chukotka Autonomous Okrug) occurred in the Amur Region and the Khabarovsk Krai*



* Diameter is proportional to the estimated RUB price for a 33 sq. m apartment.

Sources: Rosstat, ACRA

The most significant decrease in the accumulated share of the price of an apartment in the secondary market occurred in the Amur Region (-1.8%, while the saving period would have increased by slightly more than two years), where the average prices per square meter in the secondary housing market increased by 26.3% in 2020 compared to 2019. At the same time, the PCI in the region increased only by 4.7%. In 2020, a noticeable decrease in the share of savings (-1.4%, with an increase in the saving period by more than a year) was also observed in the Khabarovsk Krai, where prices in the secondary housing market did not grow as much as in the Amur Region (+10.9%), however, the PCI remained at the level of 2019.

Appendix 1. Ranking of Russia's regions

| Rank among regions in the same federal district | Rank among all Russian regions | Region | Saving period for a 33 sq. m apartment (secondary housing market), years | Variation in the saving period in 2020, years | Share of the price of an apartment accumulated in 2020 | Estimated average price of a 33 sq. m apartment for a year (RUB mln); 2020 | Change in the PCI in 2020 | Change in the average price of a square meter in the secondary housing market in 2020 | Change in the price of the fixed set of goods and services in 2020 |
|---|--------------------------------|------------------|--|---|--|--|---------------------------|---|--|
| Central Federal District | | | | | | | | | |
| 1 | 6 | Belgorod Region | 7 | 0.3 | 14.5% | 1.50 | 0.8% | 2.6% | 4.2% |
| 2 | 7 | Lipetsk Region | 7 | 0.7 | 14.4% | 1.48 | -1.6% | 5.6% | 3.9% |
| 3 | 8 | Bryansk Region | 7 | 0.6 | 13.4% | 1.17 | -0.3% | 4.8% | 3.4% |
| 4 | 9 | Smolensk Region | 8 | 0.1 | 13.0% | 1.11 | 0.0% | -1.5% | 2.8% |
| 5 | 11 | Tambov Region | 8 | 1.1 | 12.6% | 1.27 | -1.8% | 9.3% | 3.7% |
| 6 | 13 | Moscow Region | 8 | 1.2 | 12.4% | 2.70 | -2.1% | 9.9% | 3.6% |
| 7 | 15 | Voronezh Region | 8 | 0.8 | 12.3% | 1.60 | -1.6% | 6.9% | 1.3% |
| 8 | 16 | Kursk Region | 8 | 0.7 | 12.1% | 1.49 | 1.3% | 9.0% | 3.4% |
| 9 | 20 | Kaluga Region | 9 | -0.8 | 11.4% | 1.67 | 2.4% | -5.8% | 3.4% |
| 10 | 21 | Oryol Region | 9 | 0.2 | 11.2% | 1.29 | 1.0% | 2.5% | 3.3% |
| 11 | 30 | Moscow | 10 | 0.4 | 9.9% | 6.32 | 2.0% | 6.3% | 2.7% |
| 12 | 33 | Yaroslavl Region | 10 | 0.2 | 9.7% | 1.54 | -0.6% | -2.9% | 3.6% |
| 13 | 35 | Ivanovo Region | 11 | 0.5 | 9.5% | 1.29 | -0.8% | -0.7% | 2.9% |
| 14 | 38 | Ryazan Region | 11 | 0.9 | 9.3% | 1.50 | 0.6% | 6.3% | 3.9% |
| 15 | 45 | Kostroma Region | 11 | 1.5 | 8.9% | 1.37 | -0.2% | 4.6% | 9.0% |
| 16 | 52 | Tula Region | 12 | 0.6 | 8.5% | 1.81 | 1.5% | 2.9% | 5.2% |
| 17 | 53 | Tver Region | 12 | 1.3 | 8.5% | 1.67 | -0.7% | 6.7% | 3.9% |
| 18 | 57 | Vladimir Region | 13 | 0.6 | 8.0% | 1.43 | -0.1% | 0.9% | 3.3% |
| Northwestern Federal District | | | | | | | | | |
| 1 | 1 | Nenets AO | 3 | -0.3 | 39.4% | 1.93 | 4.0% | -6.2% | 3.5% |
| 2 | 4 | Murmansk Region | 6 | 0.1 | 18.0% | 1.77 | 4.6% | 7.8% | 3.7% |
| 3 | 14 | Komi Republic | 8 | -0.3 | 12.3% | 1.77 | 2.2% | -3.2% | 5.2% |

| | | | | | | | | | |
|---|----|------------------------------------|----|------|-------|------|-------|-------|------|
| 4 | 22 | Republic of Karelia | 9 | -0.3 | 10.8% | 1.58 | 3.5% | 0.2% | 3.9% |
| 5 | 24 | Vologda Region | 9 | 0.8 | 10.7% | 1.41 | 3.1% | 10.6% | 5.5% |
| 6 | 31 | Novgorod Region | 10 | 0.8 | 9.9% | 1.31 | -2.1% | 0.7% | 3.2% |
| 7 | 32 | Pskov Region | 10 | 0.3 | 9.9% | 1.29 | 2.0% | 4.9% | 3.0% |
| 8 | 42 | Saint Petersburg | 11 | 1.6 | 9.0% | 4.08 | 2.6% | 18.6% | 4.0% |
| 9 | 44 | Arkhangelsk Region | 11 | 0.7 | 8.9% | 2.15 | 1.9% | 4.5% | 4.6% |
| 10 | 55 | Leningrad Region | 12 | 3.6 | 8.1% | 2.38 | 1.9% | 39.3% | 3.4% |
| 11 | 61 | Kaliningrad Region | 13 | 1.7 | 7.5% | 1.92 | 1.0% | 9.6% | 3.9% |
| Southern Federal District | | | | | | | | | |
| 1 | 10 | Republic of Adygea | 8 | 0.0 | 12.7% | 1.42 | 2.4% | -0.7% | 3.5% |
| 2 | 19 | Krasnodar Krai | 9 | 0.5 | 11.5% | 1.96 | -0.3% | 2.7% | 3.5% |
| 3 | 27 | Rostov Region | 10 | 0.1 | 10.3% | 1.78 | 1.5% | 0.7% | 3.9% |
| 4 | 48 | Astrakhan Region | 12 | 1.3 | 8.7% | 1.44 | 0.1% | 11.1% | 2.0% |
| 5 | 49 | Volgograd Region | 12 | 0.4 | 8.7% | 1.42 | 1.7% | 4.4% | 3.4% |
| 6 | 67 | Sevastopol | 15 | 1.1 | 6.5% | 2.67 | 5.3% | 12.2% | 3.8% |
| 7 | 78 | Republic of Kalmykia | 24 | -5.6 | 4.1% | 1.24 | 8.3% | 2.2% | 3.6% |
| 8 | 79 | Republic of Crimea | 26 | 2.5 | 3.8% | 1.99 | -1.1% | 2.0% | 1.7% |
| North Caucasian Federal District | | | | | | | | | |
| 1 | 37 | Republic of Dagestan | 11 | 1.0 | 9.4% | 1.65 | 0.7% | 5.7% | 4.6% |
| 2 | 64 | Republic of North Ossetia — Alania | 14 | 2.5 | 7.2% | 1.61 | -3.8% | 8.2% | 4.0% |
| 3 | 65 | Chechen Republic | 15 | 0.6 | 6.7% | 1.54 | 2.4% | 4.4% | 2.5% |
| 4 | 70 | Stavropol Krai | 16 | 3.3 | 6.3% | 1.42 | -2.3% | 6.2% | 5.1% |
| 5 | 75 | Kabardino-Balkarian Republic | 18 | 5.7 | 5.6% | 1.42 | 1.4% | 39.0% | 3.8% |
| 6 | 80 | Republic of Ingushetia | 27 | 0.3 | 3.7% | 1.08 | 3.3% | -0.1% | 3.2% |
| 7 | 82 | Karachay-Cherkess Republic | 38 | 9.9 | 2.6% | 1.53 | -2.7% | 8.6% | 1.1% |
| Volga Federal District | | | | | | | | | |

| | | | | | | | | | |
|--|----|---------------------------|----|------|-------|------|-------|-------|------|
| 1 | 25 | Samara Region | 10 | 0.9 | 10.4% | 1.63 | 0.3% | 5.7% | 5.1% |
| 2 | 29 | Republic of Tatarstan | 10 | 1.2 | 10.0% | 2.49 | -0.3% | 8.3% | 4.1% |
| 3 | 36 | Nizhny Novgorod Region | 11 | 1.0 | 9.4% | 2.23 | -1.4% | 5.2% | 3.4% |
| 4 | 41 | Republic of Bashkortostan | 11 | 1.0 | 9.0% | 1.98 | -1.6% | 3.9% | 3.8% |
| 5 | 46 | Orenburg Region | 11 | 0.7 | 8.9% | 1.39 | -0.3% | 2.4% | 3.1% |
| 6 | 47 | Saratov Region | 11 | 0.2 | 8.8% | 1.36 | 4.4% | 8.2% | 4.3% |
| 7 | 50 | Perm Krai | 12 | 1.3 | 8.6% | 1.98 | -2.1% | 4.5% | 4.2% |
| 8 | 59 | Penza Region | 13 | 0.3 | 7.7% | 1.44 | 3.3% | 6.4% | 4.3% |
| 9 | 60 | Ulyanovsk Region | 13 | 0.2 | 7.6% | 1.45 | 2.2% | 1.6% | 4.0% |
| 10 | 62 | Udmurt Republic | 13 | 1.3 | 7.5% | 1.66 | 0.5% | 7.2% | 4.7% |
| 11 | 63 | Kirov Region | 14 | 1.9 | 7.3% | 1.47 | 0.7% | 12.3% | 3.9% |
| 12 | 73 | Mari El Republic | 16 | 1.6 | 6.1% | 1.28 | 0.5% | 4.0% | 4.3% |
| 13 | 76 | Republic of Mordovia | 18 | 0.5 | 5.5% | 1.37 | 2.3% | 4.7% | 2.8% |
| 14 | 77 | Chuvash Republic | 19 | 3.0 | 5.2% | 1.53 | 2.4% | 18.8% | 3.6% |
| Ural Federal District* (excluding YNAO) | | | | | | | | | |
| 1 | 3 | KMAO — Ugra | 5 | 0.3 | 19.8% | 2.10 | 2.0% | 5.7% | 2.9% |
| 2 | 12 | Chelyabinsk Region | 8 | -0.3 | 12.5% | 1.12 | 1.4% | -3.3% | 3.7% |
| 3 | 18 | Sverdlovsk Region | 8 | 0.8 | 12.0% | 2.15 | -5.1% | 0.6% | 2.4% |
| 4 | 34 | Tyumen Region | 10 | 2.1 | 9.5% | 1.95 | 0.2% | 20.7% | 3.4% |
| 5 | 72 | Kurgan Region | 16 | 1.1 | 6.1% | 1.25 | 1.5% | 5.8% | 2.7% |
| Siberian Federal District | | | | | | | | | |
| 1 | 23 | Krasnoyarsk Krai | 9 | 0.6 | 10.7% | 1.75 | 3.4% | 10.4% | 3.5% |
| 2 | 39 | Omsk Region | 11 | 1.7 | 9.2% | 1.53 | -1.3% | 7.7% | 4.7% |
| 3 | 40 | Kemerovo Region — Kuzbass | 11 | 0.5 | 9.1% | 1.42 | 1.9% | 5.0% | 3.4% |
| 4 | 43 | Tomsk Region | 11 | 0.7 | 9.0% | 1.67 | 0.9% | 4.2% | 3.6% |
| 5 | 51 | Novosibirsk Region | 12 | 1.4 | 8.5% | 2.09 | 2.0% | 11.9% | 5.0% |
| 6 | 56 | Irkutsk Region | 12 | 0.9 | 8.0% | 1.68 | 3.9% | 10.3% | 4.1% |
| 7 | 71 | Altai Krai | 16 | 2.5 | 6.2% | 1.65 | -1.0% | 7.1% | 5.0% |

| | | | | | | | | | |
|--|----|-----------------------------|----|------|-------|------|------|-------|------|
| 8 | 74 | Republic of Khakassia | 16 | 0.2 | 6.1% | 1.54 | 4.0% | 6.5% | 3.8% |
| 9 | 81 | Altai Republic | 32 | 4.7 | 3.1% | 1.77 | 4.5% | 23.2% | 4.3% |
| 10 | 83 | Tyva Republic | 67 | 1.6 | 1.5% | 2.12 | 7.1% | 7.8% | 5.0% |
| Far Eastern Federal District* (excluding Chukotka AO) | | | | | | | | | |
| 1 | 2 | Magadan Region | 3 | 0.1 | 31.0% | 1.75 | 4.9% | 10.4% | 4.6% |
| 2 | 5 | Kamchatka Krai | 7 | 0.1 | 15.1% | 2.28 | 3.3% | 9.5% | 1.5% |
| 3 | 17 | Sakhalin Region | 8 | 0.6 | 12.0% | 4.07 | 5.4% | 14.7% | 5.5% |
| 4 | 26 | Republic of Sakha (Yakutia) | 10 | 1.0 | 10.3% | 2.86 | 0.4% | 7.7% | 4.6% |
| 5 | 28 | Khabarovsk Krai | 10 | 1.2 | 10.2% | 2.56 | 0.0% | 10.9% | 3.6% |
| 6 | 54 | Amur Region | 12 | 2.2 | 8.2% | 2.56 | 4.7% | 26.3% | 7.0% |
| 7 | 58 | Jewish Autonomous Region | 13 | -0.2 | 7.9% | 1.29 | 4.2% | 2.9% | 4.8% |
| 8 | 66 | Primorsky Krai | 15 | 1.0 | 6.6% | 3.29 | 0.5% | 4.5% | 3.6% |
| 9 | 68 | Zabaykalsky Krai | 16 | 1.6 | 6.4% | 1.98 | 3.5% | 13.1% | 4.8% |
| 10 | 69 | Republic of Buryatia | 16 | 2.0 | 6.3% | 1.84 | 1.5% | 11.4% | 4.4% |

(C) 2021

Analytical Credit Rating Agency (Joint-Stock Company), ACRA (JSC)

75, Sadovnicheskaya embankment, Moscow, Russia

www.acra-ratings.com

The Analytical Credit Rating Agency (ACRA) was founded in 2015, with its 27 shareholders representing major Russian corporate and financial institutions and its authorized capital exceeding RUB 3 bln. ACRA's main objective is to provide the Russian financial market with high-quality rating products. Methodologies and internal documents of ACRA are developed in compliance with Russian legislation and with regard to global rating industry best practices.

The provided information, including, without limitation, credit and non-credit ratings, rating assessment factors, detailed credit analysis results, methodologies, models, forecasts, analytical reviews and materials, as well as other information placed on the ACRA website (further referred to as Information), coupled with the ACRA website software and other applications, are intended for information purposes only. Information must not be modified, reproduced or distributed by any means, in any way or form, either in whole, or in part, in marketing materials, as part of public relations events, in news bulletins, in commercial materials or reports without prior written consent from, and reference to, ACRA. Any use of Information in violation of these requirements or the law is prohibited.

ACRA credit ratings reflect ACRA's opinion about the ability of a rated entity to meet its financial obligations or about the credit risk of individual financial obligations and instruments of a rated entity at the time of publication of the relevant Information.

Non-credit ratings reflect ACRA's opinion about certain non-credit risks assumed by interested parties interacting with a rated entity.

The assigned credit and non-credit ratings reflect all material information pertaining to a rated entity and known by ACRA (including the information received from third parties), the quality and reliability of which ACRA considers appropriate. ACRA shall not be responsible for the accuracy of information provided by clients or relevant third parties. ACRA does not audit or otherwise verify the provided data and shall not be held responsible for their accuracy and completeness. ACRA conducts rating analysis of information provided by customers using its own methodologies, with the texts thereof available on ACRA's website – www.acra-ratings.com/criteria.

The only source that reflects the latest Information, including the one about credit and non-credit ratings assigned by ACRA, is ACRA's official website – www.acra-ratings.com. Information is provided on an "as is" basis.

Information shall be considered by users exclusively as ACRA's statement of opinion and must not be regarded as advice, recommendation or suggestion to buy, hold or sell securities or other financial instruments of any kind, nor shall it be viewed as an offer or advertisement.

Neither ACRA, nor its employees and persons affiliated with ACRA (further referred to as the ACRA Parties) provide any direct or implied guarantee expressed in any form or by any means regarding the accuracy, timeliness, completeness or applicability of Information for making investment and other decisions. ACRA does not act as a fiduciary, auditor, investment or financial advisor. Information must be regarded solely as one of the factors affecting an investment decision or any other business decision made by any person who uses ACRA's information. It is essential that each of such persons conduct their own research and evaluation of a financial market participant, as well as an issuer and its debt obligations that may be regarded as an object of purchase, sale or possession. Users of Information shall make decisions on their own, involving their own independent advisors, if they deem it necessary.

ACRA Parties shall not be responsible for any action taken by users based on Information provided by ACRA. ACRA Parties shall under no circumstances be responsible for any direct, indirect or consequential damages or losses resulting from interpretations, conclusions, recommendations and other actions taken by third parties and directly or indirectly connected with such information.

Information provided by ACRA is valid only as of the date of preparation and publication of materials and may be amended by ACRA in the future. ACRA shall not be obliged to update, modify or supplement Information or inform anyone about such actions, unless the latter was recorded separately in a written agreement or is required by legislation of the Russian Federation.

ACRA does not provide advisory services. ACRA may provide additional services, if this does not create a conflict of interest with rating activities.

ACRA and its employees take all reasonable measures to protect all confidential and/or material non-public information in their possession from fraud, theft, unlawful use or inadvertent disclosure. ACRA provides protection of confidential information obtained in the course of its business activities as required by legislation of the Russian Federation.