Consul Group

# Analysis of the impact of cadastral value on office property profitability



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## KEY FINDINGS

Our analysis of the 2013–2023 SCV rounds supports the following key findings for office properties:

- over the period, cadastral valuation improved through correct identification of properties and the ability to account for their individual characteristics;
- the peak growth in total cadastral value came in 2016 and was driven by better identification of the properties valued;
- throughout the SCV period, the average unit cadastral value fell steadily (this trend may not match the value dynamics of a specific property, but reflects the overall SCV approach to offices), partly due to the introduction in 2018 of the space-mix coefficient, which reflects the weighted average value of premises in a building based on their functional purposes and shares of total area;
- property tax assessed on cadastral value rose steadily over the period at an average of 3.5% a year, while the total increase in money terms over the whole period was 36% — less than the cumulative increase in the tax rate of 122%;
- property tax payments account on average for 7–11% of total rental revenue of office buildings, assuming efficient operation;
- the switch from taxation on average annual net book value to cadastral value raised the owner's burden by 2.5–3 times on average.

> Thus the belief, widespread among commercial property owners, that cadastral value rises constantly is not borne out; instead, procedures are improving and cadastral valuation is becoming more individualised.

## SCV ANALYSIS 2013–2023

In brief, cadastral valuation consists of the following blocks:

- grouping the properties submitted for valuation by functional purpose and use (offices, retail, industrial and warehouse, residential and other);
- identifying the pricing factors for each valuation group and building valuation models;
- performing the calculations for each group according to the valuation model and the values of the pricing factors.

A distinctive feature of early SCV rounds was that the valuer lacked up-to-date information on the functional purpose of many properties, so these were assigned to the wrong valuation group.

For instance, office buildings were often classed as social infrastructure or as properties with undetermined characteristics, which significantly understated their cadastral value relative to correctly identified properties — the unit value of office property is clearly far higher than that of social facilities.

The study covered buildings classed as offices in the SCV rounds of various years, or which are in fact office buildings, including mixed-use ones.

The selection criteria were:

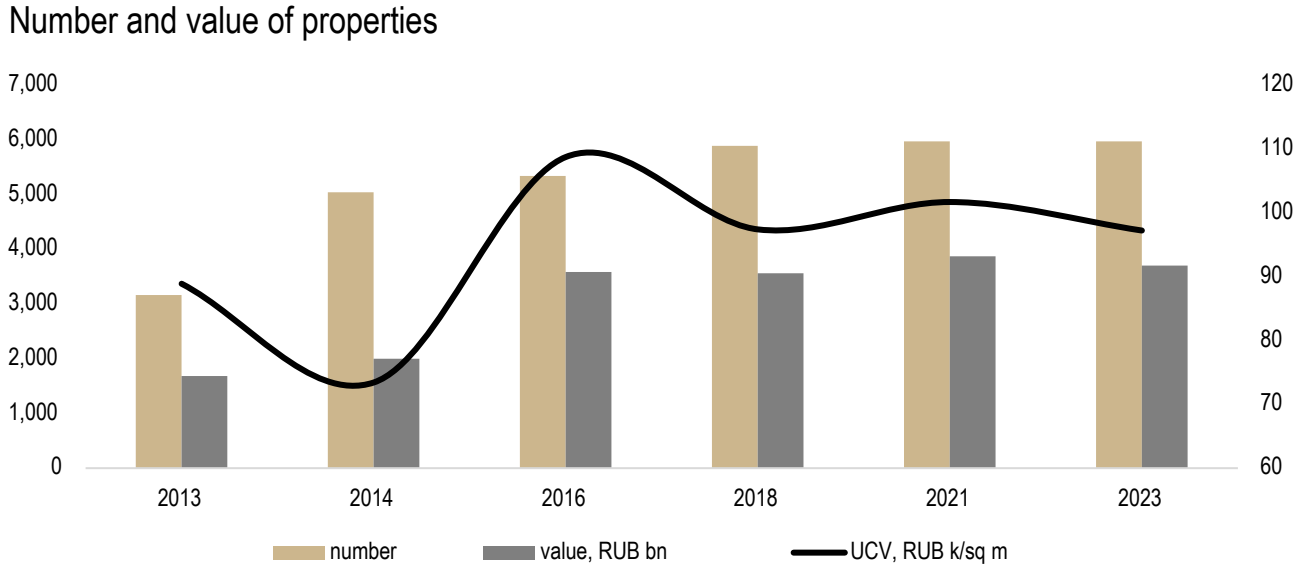
- building tags in 2GIS: “administrative building”, “business centre” and others
- indicating office use; registered rights to the building[1]; total building area over 1,000 sq m; location within “old” Moscow.

The analysis identified 6,000 properties with a total area of 38.1 mn sq m as of 2023 meeting these criteria. In different SCV rounds a property may have been valued or omitted, because it was built after the SCV year or for other reasons.

Aggregated data from the initial analysis are shown below:

**Initial sample analysis**

| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Number of properties | 3,166 | 5,047 | 5,344 | 5,890 | 5,975 | 5,975 |
| Total area, mn sq m | 19.0 | 27.2 | 33.0 | 36.6 | 38.1 | 38.1 |
| Total cadastral value, RUB bn | 1,687 | 1,998 | 3,586 | 3,563 | 3,875 | 3,705 |
| Average unit cadastral value (UCV), RUB k/sq m | 89 | 73 | 109 | 97 | 102 | 97 |




The initial analysis reveals the following main trends and their causes:

- A sharp rise in 2014 in the number of properties that are in fact office buildings, without a significant increase in the total cadastral value of the sample. This is explained

[1] A large share of Moscow office buildings consist of premises with registered rights, often held by different owners. For the integrity of the study, premises were excluded from the analysis

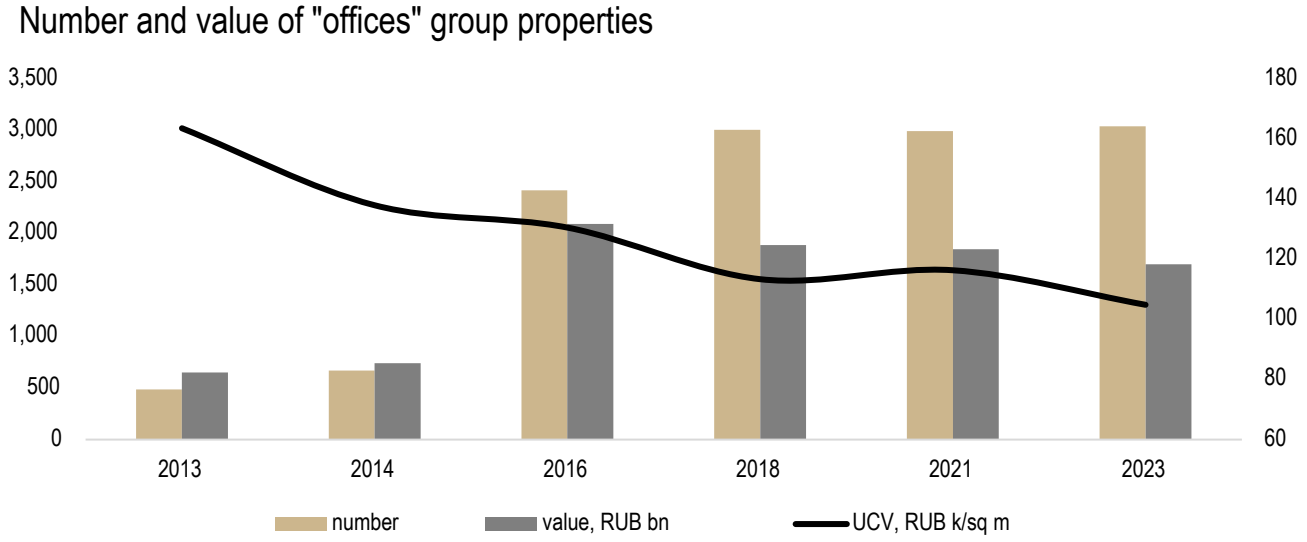
by the inclusion in the SCV list of new properties not identified as offices because the SCV contractor lacked the information.

- A sharp rise in total cadastral value in 2016. Linked to updated information on the properties valued and their identification as offices.
- Mixed dynamics of unit value over the period. Cannot be explained without further analysis.

At the next stage, the sample was limited to properties unambiguously identified in the SCV as office buildings from the earliest round:

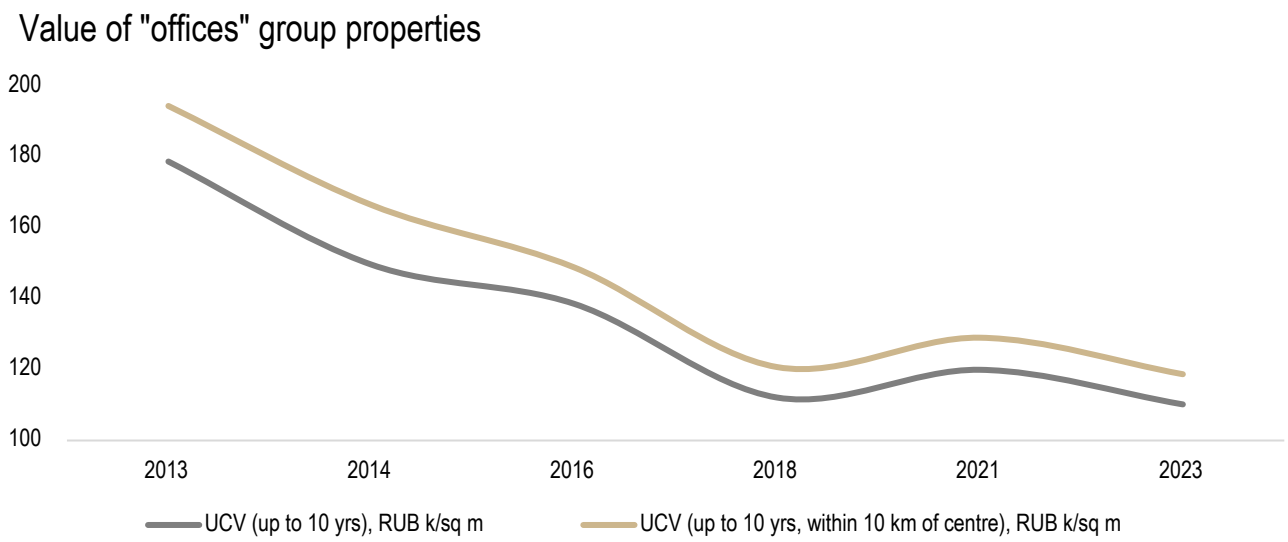
**Office sample analysis**

| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Properties in the “offices” group | 487 | 669 | 2,418 | 3,004 | 2,992 | 3,039 |
| Total area, mn sq m | 4.0 | 5.4 | 16.0 | 16.6 | 15.9 | 16.2 |
| Total cadastral value, RUB bn | 651 | 741 | 2,091 | 1,886 | 1,847 | 1,699 |
| Average unit cadastral value (UCV), RUB k/sq m | 164 | 138 | 131 | 113 | 116 | 105 |




Narrowing the sample to identified office properties confirms the sharp rise in total value in 2016 and explains the lack of significant growth in 2014 — the number of identified office properties did not increase materially in that round.

Meanwhile, the average unit cadastral value of the sample shows unexpected dynamics — a steady fall since 2013. To confirm the trend, we ran a further analysis excluding the effect of major pricing factors — year of construction (each SCV round analysed for buildings up to 10 years old) and location (a “within 10 km of the centre” filter added to the “up to 10 years” filter):




Thus the fall in the average unit cadastral value of offices across all SCV rounds is confirmed.

The mixed dynamics of average unit value from 2013 to 2023 found at the initial stage are explained as follows.

As noted above, the main factor affecting cadastral value is the valuation group to which a building is assigned. The difference in value can be twofold or more.

In early SCV rounds the valuer may have lacked information on a property's actual use, and so assigned it to a valuation group inconsistent with that use.

In the 2013 SCV, a large share of such properties were assigned to the "Social-purpose facilities" group — 596 properties in the sample. By 2016, only 204 properties remained in that group and 309 had been reclassified as offices, i.e. almost half the properties became significantly more expensive by 2016.

This sample clearly illustrates why the unit cadastral value of the initial sample rose between 2014 and 2016:

**Value dynamics with correct identification of properties**

| **SCV YEAR** | **2013** | **2014** | **2016** |
|---|---|---|---|
| Number of social facilities | 596 | 562 | 204 |
| Number of office properties | | 11 | 309 |
| Area of social facilities, mn sq m | 2.4 | 2.2 | 0.6 |
| Area of office properties, mn sq m | | 0.1 | 1.5 |
| **Total value of the sample (596 properties), RUB bn** | **132** | **140** | **219** |
| Total value of social facilities, RUB bn | 132 | 122 | 34 |
| Total value of office properties, RUB bn | | 8 | 155 |
| **Average UCV of the sample, RUB k/sq m** | **55** | **58** | **91** |
| Average UCV of social facilities, RUB k/sq m 55 | 55 | 55 | 55 |
| Average UCV of office properties, RUB k/sq m | | 149 | 107 |

With the average unit value of social facilities unchanged (RUB 55,000 per sq m) and the average unit value of offices falling (from RUB 149,000 to 107,000 per sq m), by 2016 the total value of the sample rose from RUB 140 bn to 219 bn and its unit value from RUB 55,000 to 91,000 per sq m, due to the sharp rise in the number of office properties between 2014 and 2016.

This explains the growth in total cadastral value through assignment of the properties valued to the correct valuation group.

The same applies to other valuation groups: industrial properties were reclassified as office and retail, and properties with undetermined characteristics were identified in the course of the SCV and assigned to the appropriate group.

In 2018, the SCV also introduced a new tool to account for the individual characteristics of buildings — the “space-mix coefficient” pricing factor.

This factor reflects the composition of a property’s area by functional purpose, e.g. the presence of underground parking. In the SCV, parking is a separate valuation group and is far cheaper than office and retail premises, which gives a space-mix coefficient of 0.8–0.9 on average and reduces the cadastral value accordingly.

Thus in the 2023 SCV, 1,356 properties in the office sample were valued taking into account the different functional purposes of premises and their shares of total area, against 490 such properties in the 2021 SCV and 242 in the 2018 SCV.

## TAXES

Using the data obtained on average office cadastral value in 2014–2024, the tax rates on cadastral value, and data on average rents and vacancy rates, we analysed the share of property tax in rental revenue:

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Office UCV, RUB k/sq m | 194 | 166 | 166 | 149 | 149 | 121 | 121 | 121 | 129 | 129 | 119 |
| tax rate | 0.9% | 1.2% | 1.3% | 1.4% | 1.5% | 1.6% | 1.7% | 1.8% | 1.9% | 2.0% | 2.0% |
| Tax, RUB k/sq m | 1.75 | 2.00 | 2.16 | 2.08 | 2.23 | 1.93 | 2.05 | 2.17 | 2.45 | 2.58 | 2.37 |
| Class B office rent, RUB k/sq m | 28.3 | 24.6 | 22.7 | 23.0 | 24.2 | 25.4 | 27.5 | 28.2 | 28.7 | 30.1 | 30.5 |
| class B office vacancy | 13% | 14% | 15% | 11% | 8% | 8% | 9% | 6% | 6% | 5% | 5% |
| Class B revenue, RUB k/sq m | 25 | 21 | 19 | 20 | 22 | 23 | 25 | 26 | 27 | 29 | 29 |
| **Tax share of revenue** | **7.1%** | **9.5%** | **11.2%** | **10.2%** | **10.1%** | **8.2%** | **8.1%** | **8.2%** | **9.1%** | **9.0%** | **8.2%** |

The effect of changing the property tax base (from average annual to cadastral value) on tax liabilities can be seen on a specific property. The building was included in the List of properties taxed at cadastral value in 2021:

### Property tax dynamics

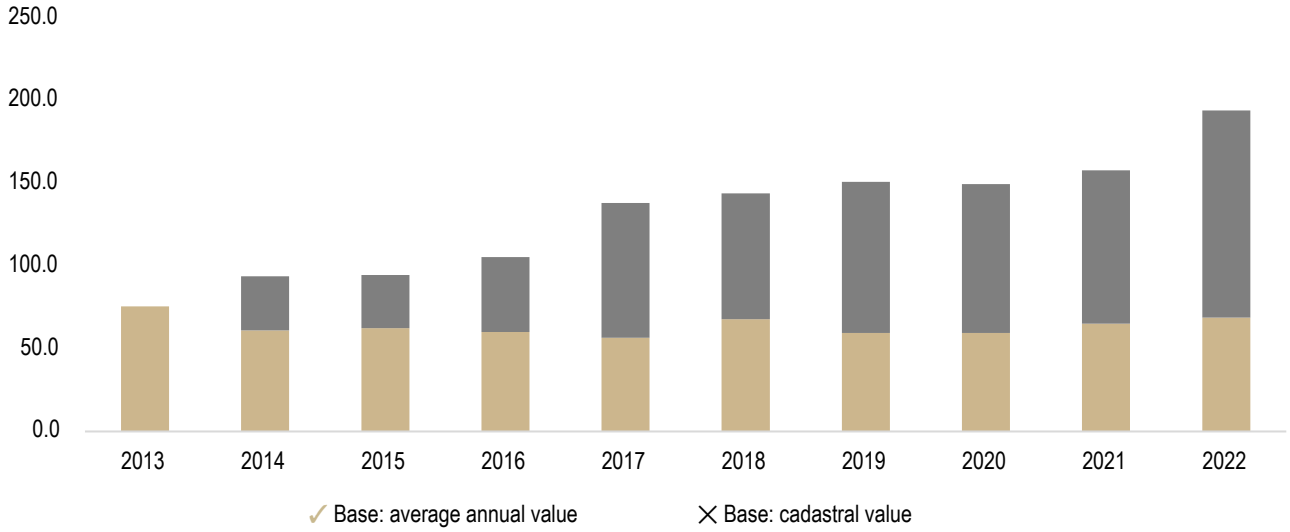
| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Average annual value, RUB | 535,222,000 | 517,476,000 | 500,548,000 | 488,877,000 | 471,332,000 |
| Cadastral value, RUB | 1,924,117,159 | 2,171,621,626 | 2,171,621,626 | 2,171,621,626 | 1,436,061,798 |
| Tax rate on average annual value | 2.2% | 2.2% | 2.2% | | |
| Tax rate on cadastral value | | | | 1.8% | 1.9% |
| **Tax, RUB** | **11,774,884** | **11,384,472** | **11,012,056** | **39,089,189** | **27,285,174** |

Switching this property from average annual to cadastral value raised its tax 3.5-fold.

This example illustrates the rise in tax collections brought about by the reform. In 2014, the first and largest well-known Moscow commercial properties entered the List of properties taxed at cadastral value (the List then covered commercial properties of 5,000 sq m and over). For many properties, average annual value before inclusion in the List was 6 times below cadastral value, which, given the different rates (2.2% on average annual value and 0.9% on cadastral value in 2014), tripled property tax on average.

From 2015, as the “threshold” for including commercial properties in the List was gradually lowered from 5,000 sq m to zero, ever more commercial properties were identified and moved from taxation on average annual value to cadastral value. Analysing the correlation of tax lost on the average annual basis and the effect of cadastral value challenges, it is striking that properties entering the List had on average a 7–8-fold gap between average annual and cadastral value, which, even with the gradual rise in the property tax rate (from 1.2% in 2015 to 2% in 2023), raised assessed tax by 2.5–3 times on average.

Property tax receipts, Moscow, RUB bn




What can be concluded from this:

The analysis shows that for taxpayers owning real estate in Moscow, once their property is included in the List of properties taxed at cadastral value, the tax rises on average 2.5–3 times compared with the year in which tax was paid on average annual value.

For a prospective buyer of commercial property, it is important to analyse the tax base of the property to be acquired. If the property is commercial but not in the List, the financial model may be distorted from the moment it is included. And given that the average increase found is 2.5–3 times, in some cases (if the property is far from new) the tax may rise tenfold or more.

## EXAMPLES ILLUSTRATING CADASTRAL VALUATION TRENDS

The trends listed are examined on specific properties:

**• steady decline in cadastral value**

Paveletskaya Plaza business centre (77:01:0006013:1026), total area 20,600 sq m



| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Valuation group | office | office | office | office | office | office |
| Cadastral value, RUB | 4,606,795,550 | 3,313,277,757 | 3,450,402,242 | 2,906,886,701 | 3,063,353,911 | 2,908,860,545 |
| **Unit cadastral value, RUB** | **223,636** | **160,843** | **167,499** | **141,114** | **148,710** | **141,210** |

**• transfer from “social facilities” to “offices” group**

Business centre at 3 Profsoyuznaya St. (77:06:0004001:1080), total area 16,389 sq m




| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Valuation group | social facilities | social facilities | office | office | office | office |

| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Cadastral value, RUB | 605,574,516 | 717,222,761 | 2,508,062,998 | 2,272,857,900 | 2,219,553,015 | 2,099,309,724 |
| **Unit cadastral value, RUB** | **36,949** | **43,761** | **153,030** | **138,679** | **135,426** | **128,089** |

**• space-mix coefficient**

Business centre at 125 Profsoyuznaya St., block 1 (77:06:0008009:1057), total area 16,135 sq m



| SCV YEAR | 2013 | 2014 | 2016 | 2018 | 2021 | 2023 |
|---|---|---|---|---|---|---|
| Valuation group | office | office | office | office | office | office |
| Cadastral value, RUB | 695,611,710 | 688,114,376 | 674,459,857 | 561,134,314 | 472,471,925 | 465,251,244 |
| Unit cadastral value, RUB | 100,349 | 99,268 | 97,298 | 80,950 | 68,159 | 67,117 |
| **space-mix coefficient** | **1** | **1** | **1** | **1** | **0.80** | **0.79** |

## DETERMINATION OF ACTUAL USE

In Moscow, the actual use of buildings (structures, facilities) and non-residential premises for tax purposes is determined by the Moscow State Real Estate Inspectorate (GIN). Each inspection results in a Property Inspection Report, which is then used for:

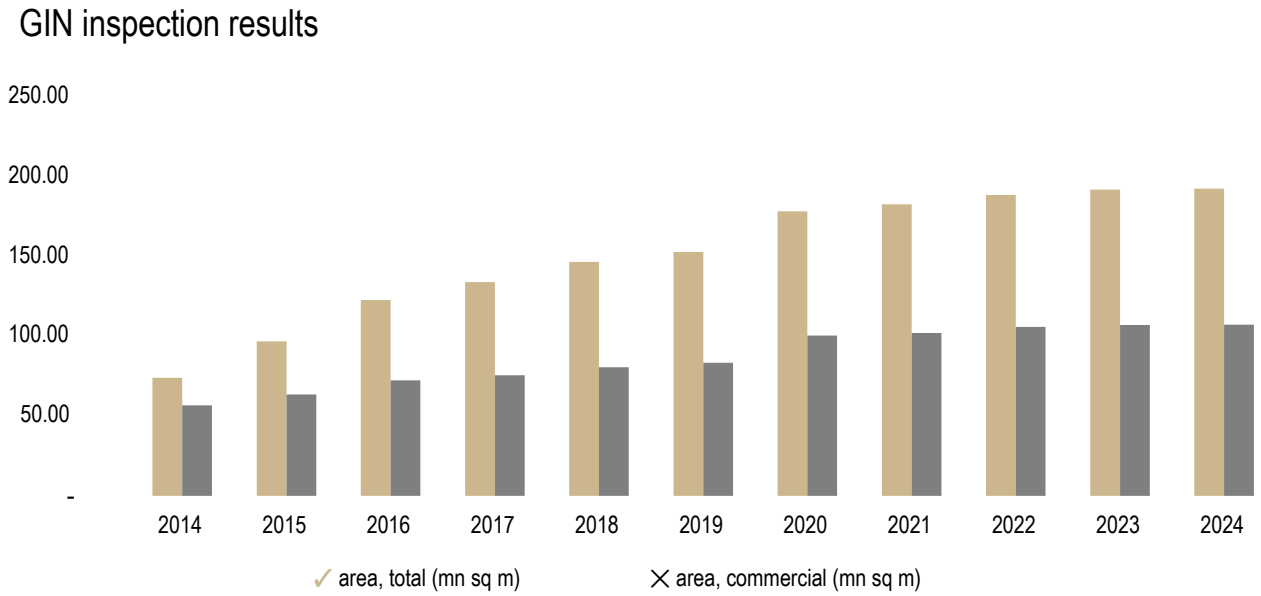
1. The decision of the Moscow Department of Economic Policy and Development to include the property in the List of properties taxed at cadastral value, or to remove it from the List.

2. Assignment of the property by the Moscow State Valuation Centre (GBU), which carries out state cadastral valuation in Moscow, to a particular valuation group, which in turn affects the property's cadastral value.

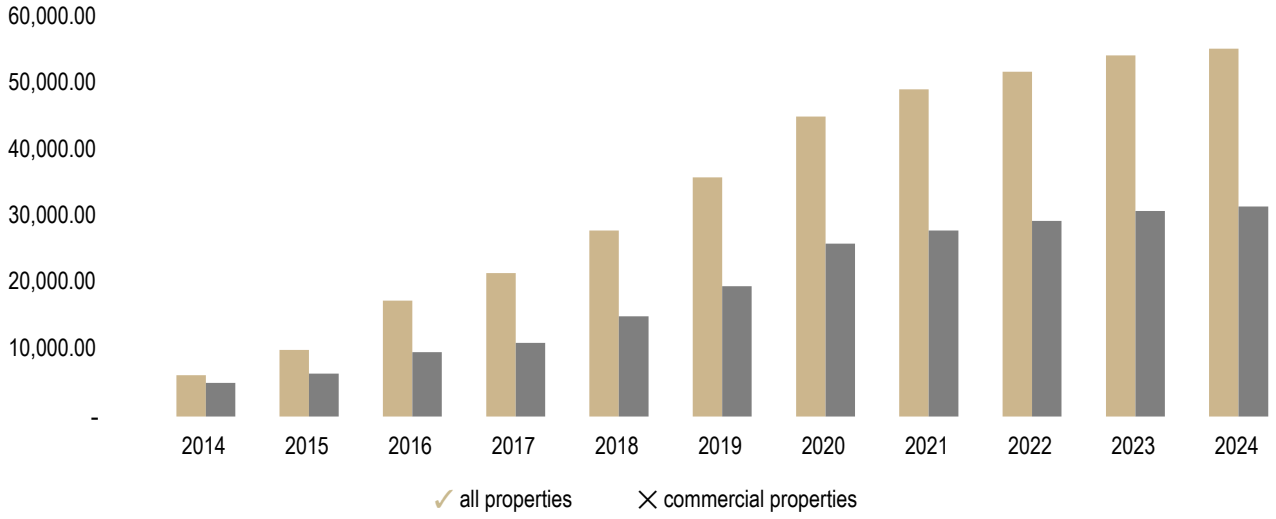
3. Calculation within the SCV of the space-mix coefficient, which reflects the weighted average value of premises in a building based on their functional purposes and shares of total area.

As we see, GIN inspections directly affect the tax liabilities of property owners. Identifying more properties actually used for commercial purposes expands the List of properties taxed at cadastral value, thereby increasing the region's tax revenues and owners' costs.

Our analysis shows that over the last 3 years GIN has inspected on average an additional 3,000 previously uninspected properties a year, totalling 4.5 mn sq m, of which it identifies on average 2 mn sq m as commercial. This is confirmed by the growth in the area added each year to the List of properties taxed at cadastral value (chart "Total area of properties in the List").



## Number of properties inspected




## Total area of properties in the List, sq m

