RENTAL PRICE INDEX

SVOBODA & WILLIAMS + VŠE

ACHIEVED RENTS FOR PREMIUM APARTMENTS IN PRAGUE (JULY–DECEMBER 2020)

CZK 29,400/month

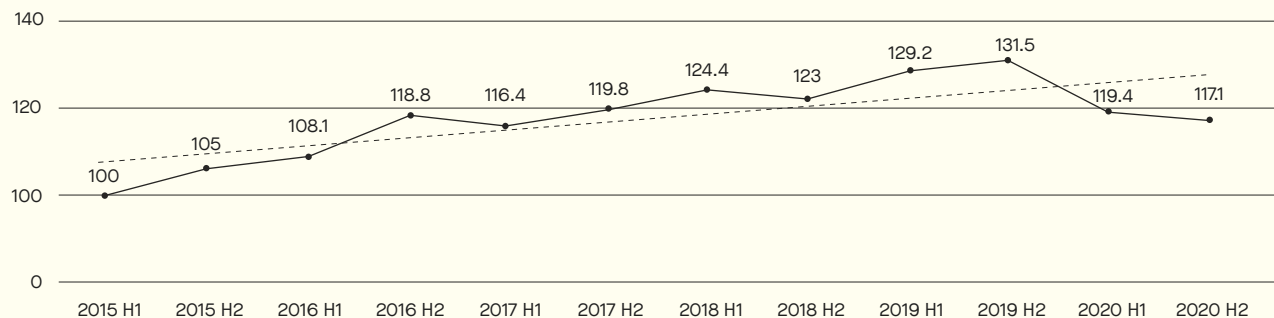average achieved rent
in the 2nd half of 2020

−11%

year-on-year
change

	Center		Wider center		Rest of Prague	
Studio to 1bdrm	CZK 21,200	-20.8%	CZK 19,400	-12.5%	CZK 18,700	+1.6%
2bdrm	CZK 35,800	-11%	CZK 30,900	-0.3%	CZK 24,500	-14.2%
3bdrm and larger	CZK 41,400	-6.4%	CZK 47,500	-21%	CZK 41,400	-4.7%
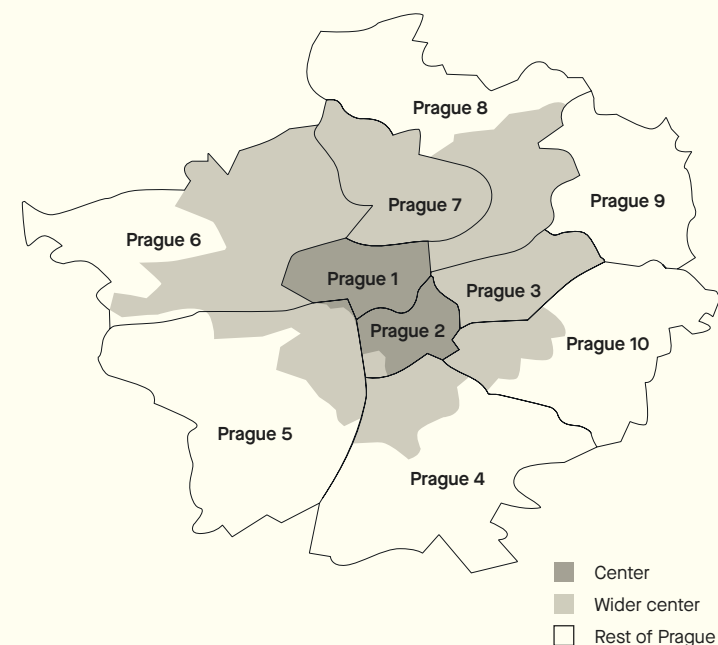
The development of achieved rental prices in Prague's premium segment (2015 H1 = 100)

Map of Prague districts:
Prague 8, Prague 7, Prague 9, Prague 6, Prague 1, Prague 3, Prague 2, Prague 10, Prague 5, Prague 4

Legend:
- Center
- Wider center
- Rest of Prague

The Rental Price Index by S&W+VŠE monitors the changes in the average achieved rental price for an apartment in Prague from the portfolio of Svoboda & Williams compared to the same period in the previous year (July–December 2019). The compiled price index calculates the weighted average rental prices for each apartment category.

We also present the average achieved monthly rents in the monitored period (July–December 2020) in Prague and for each apartment category (incl. year-on-year changes).

WHAT IS THE RENTAL PRICE INDEX BY SVOBODA & WILLIAMS + VŠE?

The Rental Price Index by S&W + VŠE is an analytical tool monitoring the growth of rental prices in the premium segment in Prague developed by the Svoboda & Williams real estate agency in cooperation with the Faculty of Informatics and Statistics of the University of Economics in Prague. The data is sourced from actually achieved rents of the apartments that were listed by Svoboda & Williams. Annually it amounts to about 1,200 properties in the territory of Prague 1 to Prague 10 with studio to 5-bedroom layouts. Since properties exhibit a high level of heterogeneity, we apply a general price index to the development of their prices. It works just like the Consumer Price Index, which is compiled by the Czech Statistical Office to measure inflation.

WHY SIMPLY COMPARING THE AVERAGE PRICE DEVELOPMENT IS NOT ENOUGH

The development of average rents doesn't correctly reflect the change in prices. This is because the average rent is influenced not only by changes in prices, but also be a changed product structure. Let's give an example. In two monitored periods a sample of apartments including luxury apartments in the center of Prague and cheaper apartments in the broader center have been rented. Prices of both the cheaper and the luxury apartments in the second period remain equal, but more units of the more expensive real estate are sold. This will raise average rents, whereas the price index will remain the same. The general price index is based on the assumption of the fixed presence of rental segments in the portfolio and it expresses a change in price, which is "cleaned" of the change in the rental structure. The index is calculated as the weighted average of segments where their representation in the portfolio (structure) in the selected fixed period is weighted.

CONSTRUCTION OF THE RENTAL PRICE INDEX BY SVOBODA & WILLIAMS + VŠE

Selection of segments
The segmentation made sure that the apartments in the same group were as similar as possible and, on the other hand, that the groups were as different as possible. At the same time, each group must contain a sufficient amount of data. Within the statistical analysis the impact of many factors on the level of rents was examined. These parameters included the specific layout of an apartment, its location, floor, the existence of a terrace, balcony or loggia, or the option to lease a parking space. The analysis proved that the level of rents was most affected by the location and the layout of the apartment and therefore we performed the segmentation based on these two factors.

Based on our expertise and the data analysis of the level of rents, Prague was divided into three locations—the center, the wider center, and the rest of Prague (see map above).

Apartment layouts were chosen as the second factor.
Based on the location and the layout we defined **9 segments in total:**

Segment	Relative representation in the portfolio		
	Center	Wider center	Rest of Prague
studio to 1bdrm	12.7%	18%	4.3%
2bdrm	15.4%	14.2%	4.2%
3bdrm and larger	16.8%	10.8%	3.7%

Apartments with 5-bedroom layouts and larger are represented too sparsely and they are not included in the analysis.

Selection of weights

We assigned weights to the segments on the basis of the structure of the apartments rented during the whole calendar year of 2016. The weight of the segment in the price index is calculated as a proportion of the total rent of the relevant segment to the total rent for all segments brokered in 2016.

In order for the index to be compiled on the basis of a sufficient number of observations,it is compiled on a biannual basis. In practice, biannual indexes are not as common as monthly or quarterly indexes, but they are by no means exceptional. They are, for example, used by the United States Department of Labor for the construction of the consumer price index.

We calculate two kinds of indexes:

A year-on-year index – monitors the rental price changes between the current half-year period and the corresponding half-year period in the previous year (e.g. H1 2019 vs. H1 2018)

A base index – monitors the rental price changes between the current period and the so-called base period. A stable period considered a long-term default should be selected as the base period, in our case it is H1 2015.

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