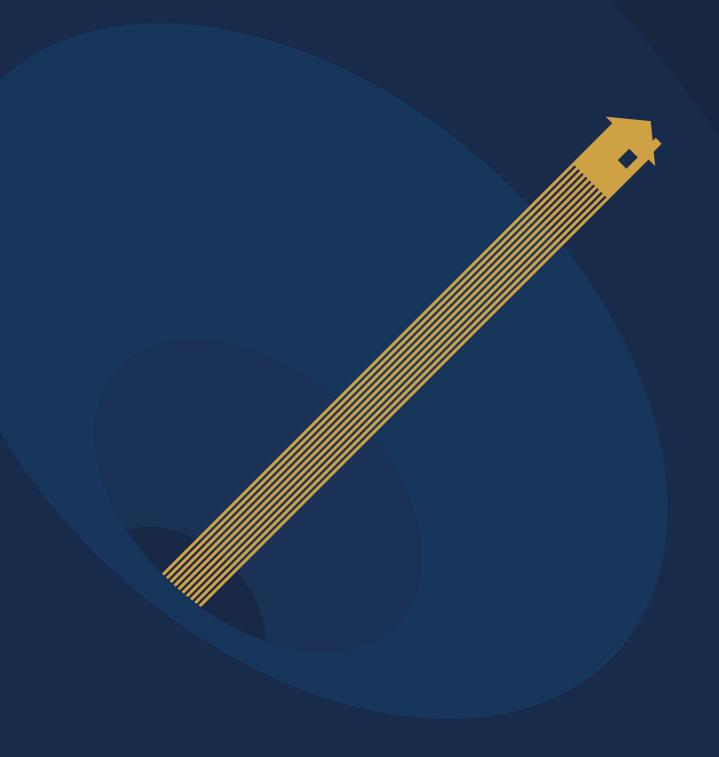
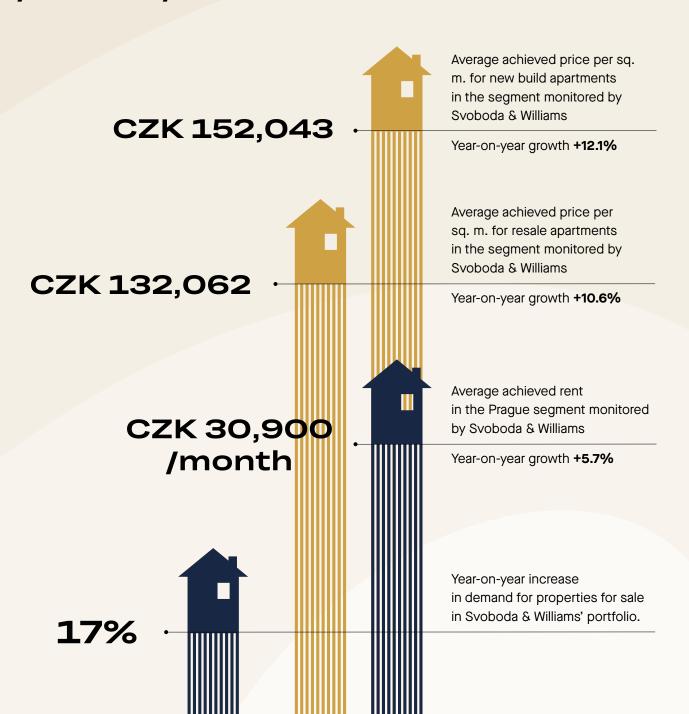
MARKET REPORT H2 2021



SAMPLE OF PROPERTIES MONITORED BY SVOBODA & WILLIAMS BETWEEN 1/2021-12/2021



04

Price Analysis

The Prague Residential Market Through the Lens of Svoboda & Williams

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Rental Price Index

Svoboda & Williams + VŠE

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Buyers and Tenants

Of Svoboda & Williams

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The Rental Price Index by S&W + VŠE is an analytical tool that was created by the Svoboda & Williams real estate agency together with the Faculty of Informatics and Statistics of the University of Economics in Prague.

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PRICE ANALYSIS

The Prague Residential Market Through the Lens of Svoboda & Williams **Monitored Period:** January 2021-December 2021

METHODOLOGY OF DATA PROCESSING

The following analysis is based on data obtained from the database of properties that Svoboda & Williams had in its portfolio in the course of the monitored period. The data concerning sales transactions is further supplemented by data about the sale of properties that correspond in terms of their parameters to the portfolio of Svoboda & Williams: in this case the prices are acquired from the Land Registry. The monitored sample contains nearly 500 sold and 1,400 rented real estate units for a period of 12 months. Therefore, it is fair to say that the data of Svoboda & Williams covers a significant part of the premium segment of the Prague residential market.

The monitored real estate includes apartments in Prague 1-10. Svoboda & Williams has a minimum representation of apartments in other municipal districts. In each municipal part, premium areas where higher prices are achieved are represented, e.g. Prague 6 is mainly represented by Bubeneč, Dejvice, Střešovice, and Břevnov, Prague 4 is represented by Pankrác, Vyšehrad, and Podolí, Prague 8 is represented by Karlín and partly Libeň, Prague 5 mainly by Smíchov, etc. The monitored prices of real estate and the level of rents are actually achieved transaction values; we do not monitor advertised prices. For the calculation of the price per sq. m. we take into account the price for parking spaces, which we deduce from the achieved selling price. The floor space of an apartment (according to the Civil Code) includes a portion of the exterior (terrace, balconies, loggias and gardens). We apply a specially developed algorithm to the conversion of the space of the exterior which reduces this area progressively and it also takes into account the ratio of the exterior space to the interior space. Average prices are calculated from the transactions carried out over

the last 12 months (1/2021-12/2021), percentage changes are year-on-year (1/2021-12/2021 vs. 1/2020-12/2020). For sales we also differentiate between the achieved price per sq. m. for new apartments in residential projects and for resale homes. In order to be able to compare all project prices, it was necessary to unify the stage of construction progress for several units using an average assumption of CZK 50,000/sq. m. for the stage before reconstruction (shell & core) and CZK 20,000/sq. m. for the stage before completion of surfaces (white walls). We do not follow the price per sq. m. for rentals. While the price per sq. m. is relevant for sales, for rentals the price is determined mainly by layout (in addition to the location). For example, an apartment with two bedrooms and a kitchenette (2+kk) with an area of 50 sq. m. is normally leased for nearly the same price as an apartment with an area of 60 sq. m., whereas the purchase price of the larger apartment can be up to 15 to 20% higher. Therefore, in our analysis of residential rentals, we work with the total rent, and not with the price per sq. m. For a better picture we also state the achieved price for the most frequent layouts within sales and rentals arranged by Svoboda & Williams, which are 2+kk apartments (one bedroom + kitchenette) and 3+kk apartments (two bedrooms and kitchenette).

For the development of rental prices, we biannually compile The Rental Price Index by S&W + VŠE, an analytical tool developed by Svoboda & Williams in cooperation with the Faculty of Informatics and Statistics of the University of Economics in Prague. It works just like the Consumer Price Index compiled by the Czech Statistical Office. More information about The Rental Price Index by Svoboda & Williams + VŠE is at the end of the Analysis chapter.

DATA ANALYSIS

METHODOLOGY OF SVOBODA & WILLIAMS



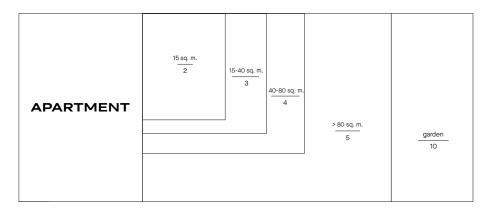
Price per sq. m =

Achieved sales price - price of parking

Apartment area + proportional part of

the exterior (b/t/g)

ALGORITHM FOR CONVERSION OF THE EXTERIOR



The area of a terrace that exceeds 30% of the interior is divided by two.

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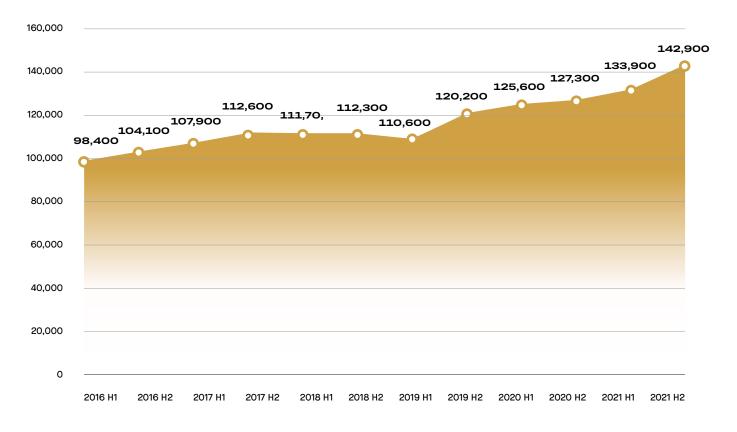
PRAGUE

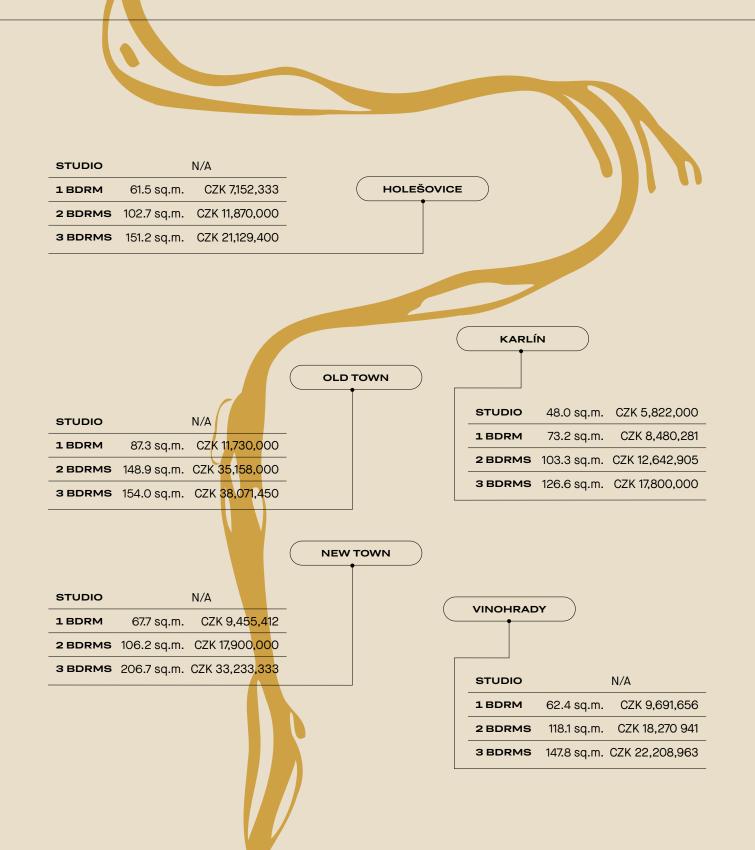
AVERAGE APARTMENT PRICES AND LAYOUTS IN PRAGUE'S POPULAR RESIDENTIAL LOCATIONS BASED ON THE SAMPLE MONITORED BY SVOBODA & WILLIAM

Average values during the monitored period (January 2021–December 2021) and their year-on-year change.

	Chart arises Chart size	Ø Price	Ø Price per sq. m.		Ø Apt. price		
	Ø Apt. price	Apt. price Ø Apt. size	per sq.m.	New apt.	Resale apt.	1bdrm	2bdrm
Color	CZK 15,556,972	106 sq.m.	CZK 139,100	CZK 152,043	CZK 132,062	CZK 9,186,579	CZK 14,595,768
Sales	24.2%	12.9%	8.9%	12.1%	10.6%	22.2%	18.7%
Domatel	CZK 31,738	96.5 sq.m.	N/A		CZK 21,828	CZK 32,101	
Rental	4.5%	4.4%			-0,4%	1.5%	

DEVELOPMENT OF THE AVERAGE ACHIEVED PRICE PER SQ. M. IN THE PRAGUE SEGMENT MONITORED BY SVOBODA & WILLIAMS





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DATA SUMMARY

OVERALL SUMMARY OF AVERAGE ACHIEVED RENTAL PRICES IN MUNICIPAL DISTRICTS (JANUARY 2021-DECEMBER 2021)

Municipal	6 Manuallaha manual	Ø Apt. floor	Ø Monthly rent		
district	Ø Monthly rent	space	1bdrm	2bdrm	
Prague 1	CZK 37,474	112.0 sq. m.	CZK 24,007	CZK 37,874	
Prague 2	CZK 32,519	91.9 sq. m.	CZK 22,139	CZK 31,901	
Prague 3	CZK 31,811	86.6 sq. m.	CZK 22,810	CZK 35,311	
Prague 4	CZK 27,983	100.9 sq. m. CZK 18,355		CZK 29,628	
Prague 5	CZK 30,461	94.4 sq. m.	CZK 21,572	CZK 29,662	
Prague 6	CZK 36,338	115.5 sq. m.	CZK 21,069	CZK 29,131	
Prague 7	CZK 33,285	85.7 sq. m.	CZK 21,161	CZK 28,997	
Prague 8	CZK 27,545	79.6 sq. m.	CZK 23,824	CZK 32,213	
Prague 9	CZK 19,681	70.1 sq. m.	CZK 17,023	CZK 26,571	
Prague 10	CZK 28,474	99.7 sq. m.	CZK 19,253	CZK 30,309	

Source: data of Svoboda & Williams

AVERAGE ACHIEVED RENTS VS. SALES PRICES FOR SPECIFIC LAYOUTS IN PRAGUE 1-10 (JANUARY 2021-DECEMBER 2021)

Layout	Layout Ø Monthly rent		Ø Selling price	Sales Ø apt. floor space	
studio	CZK 14,547	38.5 sq. m.	CZK 5,805,000	39.5 sq. m.	
1bdrm	CZK 21,828	64.9 sq. m. CZK 9,186,580		63.2 sq. m.	
2bdrm	CZK 32,101	100.1 sq. m.	CZK 14,595,769	103.9 sq. m.	
3bdrm	CZK 49,465	149.5 sq. m.	CZK 20,319,581	146 sq. m.	
4bdrm	CZK 61,017	204.3 sq. m.	CZK 34,043,819	212.5 sq. m.	

Source: data of Svoboda & Williams

DATA SUMMARY

OVERALL SUMMARY OF AVERAGE ACHIEVED SALES PRICES IN MUNICIPAL DISTRICTS (JANUARY 2021-DECEMBER 2021)

Municipal	Ø Apt. price	Ø Price per sq. m.	Ø Apt. floor space	Ø Price per sq. m.		Ø Apt. price	
district	WAPL PIICE			New apt.	Resale apt.	1bdrm	2bdrm
Prague 1	CZK 23,609,790	CZK 188,951	119.7 sq. m.	CZK 213,463	CZK 181,408	CZK 11,641,551	CZK 24,840,833
Prague 2	CZK 13,803,479	CZK 151,160	90.6 sq. m.	CZK 155,942	CZK 143,052	CZK 9,717,948	CZK 15,990,000
Prague 3	CZK 13,084,363	CZK 136,395	93.7 sq. m.	CZK 150,409	CZK 125,184	CZK 7,735,455	CZK 13,092,889
Prague 4	CZK 18,785,432	CZK 122,778	113.1 sq. m.	CZK 145,921	CZK 112,455	CZK 7,050,000	CZK 9,584,363
Prague 5	CZK 15,674,699	CZK 128,715	117.6 sq. m.	CZK 134,381	CZK 127,015	CZK 9,669,857	CZK 12,628,038
Prague 6	CZK 14,926,866	CZK 121,256	123.0 sq. m.	CZK 129,671	CZK 118,155	CZK 8,550,000	CZK 12,357,241
Prague 7	CZK 17,813,368	CZK 123,435	133.5 sq. m.	CZK 159,573	CZK 113,798	CZK 9,014,250	CZK 12,735,714
Prague 8	CZK 11,664,819	CZK 123,031	92.1 sq. m.	CZK 127,777	CZK 119,076	CZK 8,240,241	CZK 12,642,905
Prague 9	CZK 12,461,407	CZK 118,549	99.3 sq. m.	CZK 124,713	CZK 115,980	CZK 7,466,333	CZK 11,732,671
Prague 10	CZK 12,125,474	CZK 134,200	82.7 sq. m.	CZK 139,940	CZK 132,765	CZK 7,061,667	CZK 19,123,333

Source: data of Svoboda & Williams

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RENTAL PRICE INDEX

Svoboda & Williams + VŠE



CZK 30,900/month +5.7% average achieved rent

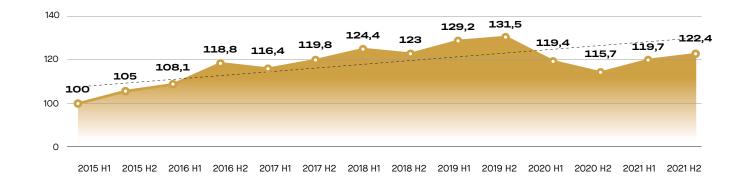
in the 2nd half of 2021

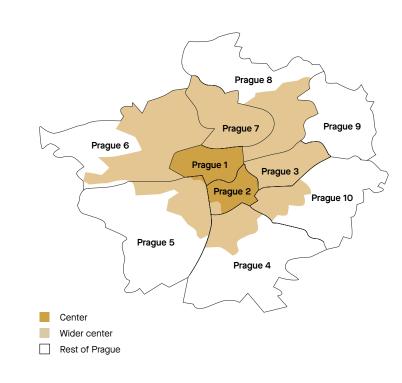
	Center		Wider center		Rest of Prague	
Studio to 1bdrm	CZK 22,279	+5.1%	CZK 21 108	+8,9%	CZK 17 878	-4.5%
2bdrm	CZK 34,851	-2.7%	CZK 30 907	-0.04%	CZK 28 756	+17.2%
3bdrm and larger	CZK 66,620	+5.6%	CZK 52 464	+10.4%	CZK 40 348	+18.1%

year-on-year

change

THE DEVELOPMENT OF ACHIEVED RENTAL PRICES IN THE SEGMENT MONITORED BY SVOBODA & WILLIAMS (2015 H1 = 100)





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 2020). The compiled price index calculates the weighted average rental prices for each apartment cate-

We also present the average achieved monthly rents in the monitored period (July-December 2021) in Prague and for each apartment category (incl. year-on-year changes.

MARKET REPORT H2 2021 RENTAL PRICE INDEX H2 2021 MARKET REPORT 15

WHAT IS THE RENTAL PRICE INDEX BY SVOBO-DA & 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 1,400 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 by 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:

	Relative representation in the portfolio				
Segment	Center	Center Wider center			
Studio to 1bdrm	12.4%	15.1%	4.9%		
2bdrm	15.6%	15.5%	3.5%		
3bdrm and larger	11.7%	16.1%	5.3%		

Note. 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)

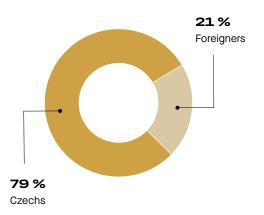
A base index – monitors the rental price changes between the current period and the so-called base period. A stable period considered a long-term default should be selected as the base period, in our case it is H1 2015.

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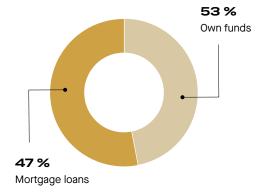
BUYERS AND TENANTS OF SVOBODA & WILLIAMS

SALES

RATIO OF CZECH AND FOREIGN BUYERS

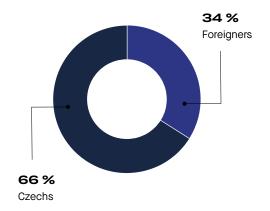


FINANCING THE PURCHASE OF PROPERTY

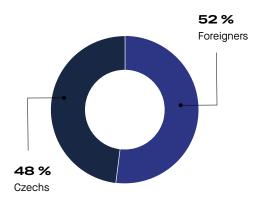


RENT

RATIO OF CZECH AND FOREIGN CLIENTS INQUIRING ABOUT A PROPERTY



RATIO OF CLIENTS WHO RENTED A PROPERTY



OVERVIEW OF RENTAL PRICE SEGMENTS—RENTAL INQUIRIES VS. REALIZED RENTAL TRANSACTIONS

	Inqu	iries	Realized rental transactions		
Price segments	Czechs	Foreigners	Czechs	Foreigners	
CZK <25 thous.	65%	35%	52%	48%	
CZK 25-55 thous.	68%	32%	49%	51%	
CZK >55 thous.	59%	41%	41%	59%	
Total	66%	34%	48%	52%	



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