Kamila Czapska

II SS1 International Economic Relations: International Business
Faculty of Economics, University of Gdansk

Oskar Kapela

II SS1 International Economic Relations: International Business
Faculty of Economics, University of Gdansk

HOW DID SHORT-TERM RENTALS INFLUENCE THE HOUSING AND ACCOMMODATION MARKET? COMPARATIVE CASE STUDY OF NEW YORK CITY AND BARCELONA

Introduction

For most individuals, homeownership represents a cornerstone of stability and financial security. Possessing a home is a pivotal element in long-term financial planning, particularly for retirement. The housing market is believed to be changing and becoming less affordable rapidly. For the majority of individuals born in the late 20th century or early 21st century, it will not be as accessible to afford to buy their property or to cover rent-related expenses as it was for the previous generations. In this case, the idea of a sharing economy and disruptors such as Airbnb can help people find attractive and affordable accommodation. However, it also gives rise to further issues. In areas with high demand for short-term rentals, such as New York City, housing prices might rise because of increased competition among potential buyers and investors looking to acquire properties for short-term rentals due to their popularity and profitability. This issue led to new legislation being implemented in certain countries and cities. Authorities try to take appropriate measures to regulate short-term rentals to control housing market dynamics.

The New York City Council decided to emulate Barcelona and introduced legislation called Local Law 18, commonly known as The Registration Law. The intention is to reduce the number of short-term listings to prevent the further uncontrolled price rise of houses and rents. It requires hosts to register their properties. To qualify for registration, the host must be a natural person who permanently resides and is either the owner or lawful tenant of the proposed short-term rental property[1].

In addition, the article's subsequent aim is to delve into short-term rental restrictions imposed in New York City and Barcelona, examining the ground for their creation and structure. The research uses a comprehensive analysis of economic indicators to provide valuable insights into the complex interaction between short-term rentals, housing affordability, and tourism dynamics affecting the locations' local landscape. The article aims to explore and answer the following research questions:

1) *What advantages do the companies, based on the idea of a sharing economy, have over traditional firms?*
2) *How has the share of new house prices in annual income changed over the years?*
3) *What is the relation between the number of short-term listings and real estate prices in New York City?*
4) *What is the structure of regulations restricting short-term rentals in New York City and Barcelona?*

Refinitiv Eikon Database served as a source of numerical evidence required to conduct a horizontal analysis of Airbnb's and its competitors' financial ratios. It also provided us with information about the housing market in the United States. Succedent quantitative data was derived from sources such as Statista, the US Census Bureau, and the Federal Reserve Economic Research, which enabled statistical analysis and examination of trends in the primary housing market.

1. Literature review and methodology

Various researchers have thoroughly studied the concept of a sharing economy from different angles. The scholars concern themselves with multiple underlying layers contributing to the causality and implications. The sharing economy provided hardships due to the matter's complexity and variance in its performance. We base our assumptions regarding this topic on the definition supplied by D. Schlagwein, D. Schoder, and K. Spindeldreher[2]. The scholars have considered the critical factors within the scope of the process they understand as a sharing economy

---

1 K. Barcella, *Local Law 18: The End to Vacation Rentals in NYC or Much Needed Legislation to Combat Illegal Short-Term Rentals and the Housing Crisis,* "Ingram" 2023, https://www.ingramllp.com/the-newsroom/archive/local-law-18-the-end-to-vacation-rentals-in-nyc-or-much-needed-legislation-to-combat-illegal-short-term-rentals-and-the-housing-crisis (access: 4 March 2024).

2 D. Schlagwein, D. Schoder, K. Spindeldreher, *Consolidated, Systemic Conceptualization and Definition of the Sharing Economy,* "Journal of the Association for Information Science and Technology" 2019, Nr 7, Vol. 71.

and, therefore, have created a definition that would apply to different companies operating therein. The interest of scholars extends beyond the core meaning of the sharing economy, focusing on other related branches, with the inclusion of short-term rentals. The research of K. Gyódi gives us a better grasp of Airbnb's market and its participants, proving the presence of the investors in the said market, which goes against the main idea of the platform[3]. It negates the positive implications, suggesting a profit-focused influx of new participants within the accommodation market. To answer our main research questions, findings provided by K. Barron, E. Kung, and D. Proserpio helped us to understand the complex relationship between the number of short-term listings and housing-related expenses, such as monthly rent and house prices[4].

Desk research involved web search engines Google Scholar and EBSCOhost, which provided us with scientific publications on topics covered by the article, such as the sharing economy. Subsequent sources of information include articles published by portals such as CNBC or the Washington Post, blogs, and official websites administered by officials of New York City and Barcelona. Specific legal articles provided by Portal Jurídic de Catalunya (Legal Portal of Catalonia) were also studied to delve into short-term rental restrictions.

The correlation analysis between the median price of new homes and the median household income in the United States over the years and a regression analysis was calculated to explore the relationship between homeownership and mortgage rates. Statista was also the source of information needed to illustrate the situation in New York City and Barcelona regarding tourism intensity and hardships in the housing market. Additionally, web pages dedicated to economics and the official websites of the discussed companies served as a source of specific numerical data, such as the number of short-term rental listings in New York City and Barcelona.

2. Advantages of the companies based on the idea of a sharing economy over traditional firms

Globalization put the world into a new perspective, and new ideas and concepts in the lifestyle domain were bound to emerge. Transforming the fundamentals of people's living paved the way for rapidly developing innovations and encouraged cooperation within various fields. Technology has become

3 K. Gyódi, *Airbnb and Booking.com: Sharing Economy Competing Against Traditional Firms?*, "DELab UW" 2017.

4 K. Barron, E. Kung, D. Proserpio, *The Effect of Home-Sharing on House Prices and Rents: Evidence From Airbnb*, "SSRN"'2020, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3006832 (access: 10 January 2024).

more accessible to the masses, creating a way for individuals to participate in the newly begun processes, with the major example being the invention of the personal computer. Further expansion of said transformation was accelerated by the growth of inter-network, nowadays better known as the Internet, which led to the creation of online platforms that encourage social network users' participation.

The participation of individuals on the market through online space has resulted in the conceptualization of the "sharing economy', the fundamental idea of which is people sharing their assets with others. The complexity of the matter impedes the attempts to set a clear definition of the process. Regardless of that fact, the efforts continue. In this article, we base our assumptions on the definition of the sharing economy as "*an IT-facilitated peer-to-peer model for commercial or non-commercial sharing of underutilized goods and service capacity through an intermediary without a transfer of ownership*'[5].

Due to its flexibility, the sharing economy can be named a concept applicable to various sectors, with the grand example of the automotive and transportation, media and entertainment, retail and consumer goods, and finally, the accommodation sector[6]. Throughout the past years, the model has continuously gained popularity, not without exerting influence on traditional firms[7]. This led to the growth of companies prospering under the assumptions of the peer-to-peer economy, creating new crucial agents on the market, such as Uber Technologies Inc. or Airbnb Inc. (further called Airbnb). In this study, our focus mainly revolves around the latter, as it plays a major role in the situation of New York City, which we will expand on in the further chapters of the article. Airbnb will also pose as an exemplary firm compared to its sector competitors.

Airbnb describes itself as a "community built for belonging'; it is a company that connects guests and hosts worldwide through its website and mobile application. Operating in short-term rentals, Airbnb acts as an intermediary between the two parties, becoming a marketplace where the supply meets the demand. Since its founding in 2007, Airbnb has spread to over 220 countries, with more than 7 million active rental listings, according to the data provided by the company's official website. The popularisation of the firm and its constantly increasing brand awareness encourage delving into the financial details, which can give us a better insight into the company's functioning. Publicly

---

5 D. Schlagwein, D. Schoder, K. Spindeldreher, *op. cit.*

6 PricewaterhouseCoopers, https://www.pwc.fi/fi/palvelut/tiedostot/pwc-cis-sharing-economy.pdf (access: 10 January 2024).

7 Q. Wu, X. Tang, R. Li, L. Liu, H. Chen, *An enhanced decision-making framework for predicting future trends of sharing economy*, "Plos One" 2023, Vol. 18, Nr 10.

available financial statements cover the period up to 2020, when the firm went through its initial public offering, marking it a crucial milestone in the brand's activity (Table 1). At the same time, it reached a market capitalization of USD 86.5 billion, exceeding its main competitors, such as Booking Holdings Inc. and Expedia Group Inc[8]. The end of year 2023 data indicates that since then, the value of Airbnb's stocks has grown to over USD 87.25 billion, having undergone an abrupt fall in 2022, from which Airbnb is still recovering.

Table 1. Airbnb market capitalisation at the end of year (2020-2023)

Year	Market capitalization (in billions of USD)	Change (%)
2023	87.25	61.18
2022	54.13	-48.82
2021	105.78	20.62
2020	87.70	-

Source: Companies Market Cap, https://companiesmarketcap.com/#google_vignette (access: 12 January 2024).

What is especially interesting about the fall mentioned prior is its timing. For a company operating within the tourism scope, the decline may seem surprisingly late to the global pandemic of COVID-19 and restrictions levied on travel-related sectors. NASDAQ alleges an explanation provided by N. Rossollilo, who states the cause for the decline was being too expensive to stock, despite the company's negative free cash flows combined with the government's attempts to dampen inflation[9].

Airbnb's cash flow statements, obtained through the LSEG Eikon database (Table 2), support this observation. For 2020, the company's free cash flow was negative at over USD 667 million. Delving deeper into the statement, we see that its structure is characteristic of companies struggling with momentary problems, indicated by harmful operating activities and positive investing and financial activities.

8 L. Feiner, *Airbnb Skyrockets 112% in Public Market Debut, Giving It a Market Cap of $86.5 Billion*, "CNBC Disruptor 50' 2020, https://www.cnbc.com/2020/12/10/airbnb-ipo-abnb-starts-trading-on-the-nasdaq.html (access: 10 January 2024).

9 N. Rossolillo, *Why Airbnb Stock Collapsed Nearly 47% in the First Half of 2020*, *"The Motley Fool"* 2022, https://www.nasdaq.com/articles/why-airbnb-stock-collapsed-nearly-47-in-the-first-half-of-2022 (access: 10 January 2024).

Table 2. Airbnb cash flow (2020-2022)

Year	Operating activities (in thousands USD)	Investing activities (in thousands USD)	Financing activities (in thousands USD)
2020	-629,723	79,590	2,940,814
2021	2,313,000	-1,352,000	1,308,000
2022	3,430,000	-28,000	-689,000

Source: Eikon Database (access: 12 January 2024).

Along with the decline, the firm's structure has been reshaped. Based on the last fully published cash flow statement for the year 2022, it can be supposed that it is reaching the form characteristic of mature companies, with positive operating activities and negative remaining financing and investing activities. According to the Eikon Database, despite the fall in market capitalization, in 2022, Airbnb could pride itself on a maximum earnings quality score of 100 based on the StarMine system, which evaluates a stock based on the sustainability of earnings[10]. Furthermore, since then, the company has continuously received the maximum note after the end of each fiscal period, including the last score, which was given in September 2023.

When analyzing Airbnb's situation, revenue growth should be mentioned year over year. According to the company's income statement, the growth rate throughout Airbnb's presence on the stock exchange has varied (Table 3).

Table 3. Airbnb revenue growth (2020-2022)

Period covered	2022	2021	2020
Revenue growth (%)	40.17	77.37	-29.70

Source: Own elaboration based on data obtained from the Eikon Database (access: 12 January 2024).

In the period between 2019-2022, the growth rate has fluctuated. Yet, the irregularities are most likely caused by the extraordinary circumstances concerning the aforementioned global pandemic, which heavily damaged the sector. Major indicators for the year 2022 remain helpful, mainly when supported by the industry average, specifically for the Hotels and Resorts industry. To present trends in the listed indicators, previous years were included in Table 4.

10 London Stock Exchange Group, https://www.lseg.com/en/data-analytics/financial-data/company-data/starmine-earnings-quality-model (access: 14 January 2024).

Table 4. Airbnb financial ratios (2020-2022)

Ratio	2020	2021	2022	Industry average
Gross margin (%)	41.1	66.6	69.8	48.7
Net margin (%)	-135.7	-5.9	22.5	6.6
EBITDA margin (%)	-98.0	12.2	23.5	16.8
TIE ratio	-20.0	9.2	78.4	2.8
Debt/Equity	0.63	0.42	0.36	0.86
Return on Equity (%)	-172.2	-9.2	36.6	3.2

Source: Eikon Database (access: 12 January 2024).

According to Airbnb's income statement, as of 2022, the company had almost USD 8.4 billion in revenue, with gross profit remaining slightly above USD 5.8 billion. Although the numbers exceed those from previous years, analyzing the listed indicators is crucial for better understanding. It will allow for further comparison between sector competitors. The gross margin for Airbnb as of 2022 was 69.8%, showing a positive trend throughout the period 2020-2022 covered by the reports. The indicator presenting the percentage difference between the company's revenue and costs related to goods sold significantly exceeds the industry average, highlighting Airbnb as a firm capable of generating high returns based on its operating activity. Additionally, even throughout the global pandemic and the lockdown, it hovered around the regular sector outcomes. The net margin ratio in 2022, at 22.5%, constitutes a significant change compared to the preceding years. Both ratios can be treated as a measure of the company's efficiency, indicating improvements.

Further listed Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) margin provides potential investors and analysts with a deeper understanding of Airbnb's core profitability, positioning this indicator at the level of 23.5%, which is again higher than the industry average (16%), and continues to prove the improvements over time. Regardless, since the indicator does not consider the liabilities-related costs, it is also essential to bear in mind other metrics, such as the Times-Interest-Earned (TIE) ratio, which represents the ability of the company to meet its obligations periodically. In this regard, Airbnb continues to outrun the average industry number of 2.8, with a ratio of 78.4. Although it could be perceived as an advantage for the company, it opens the question of whether the firm appropriately manages the excess cash available or hesitates to utilize it beneficially[11].

11 Corporate Finance Institute, https://corporatefinanceinstitute.com/assets/CFI-Financial-Ratios-Cheat-Sheet-eBook.pdf (access: 12 January 2024).

To close to finding the potential answer to this matter, we have listed one more metric, the Debt-to-Equity ratio, which represents the level of the firm's reliance on debt. As in Table 4, the indicator of Airbnb is smaller than that of the industry — 0.36 compared to 0.86. This suggests that the company's TIE ratio level does not necessarily have to be perceived as a problem but rather as a more traditional business approach. Considering the high levels of equity, it is also worth looking into the Return on Equity (ROE) indicator, which showcases the efficiency in profit generation based on the ownership capital. Regarding ROE, Airbnb rose in the last period to surpass the average greatly. Yet, the negative numbers throughout the preceding years could have signalized changes the company had been undergoing.

3. Companies operating in the Hotel and Resorts industry

Based on all the data provided, it is safe to assume a strong position of Airbnb as a well-established firm on the market. Regardless, the company is one of many representatives of its sector that has utilized technological transformations. One of Airbnb's major competitors is Booking Holdings Inc. (further called Booking Holdings), which has been in the market for over a decade. Initially established in the Netherlands in 1996, under the internet address *Booking.nl, it* resulted from an inspiration derived from *Hilton.com*, where customers of the hotel chains could book their accommodation online. The founder, Geert-Jan Bruinsma, realized the lack of such services in his home country and found a niche to fill. The newly created company has been gaining popularity, transforming into *Booking.com*. It has continuously grown to the point when the Priceline Group acquired it at USD 133 million, which has been on the stock exchange since 1999.

After the acquisition, Booking continued to improve, finally becoming a flag subsidiary of the Priceline Group. This resulted in a crucial change in the group, and the Priceline Group was transformed into Booking Holdings Inc.[12] Nowadays, Booking Holdings' market capitalization is valued at almost USD 124 billion[13].

Table 5. Booking and Airbnb: percentage revenue growth y/y (2020-2022)

Company	2020	2021	2022
Booking	-54.89%	61.24	55.96
Airbnb	-29.70%	77.37	40.17

Source: Own elaboration based on data obtained from the Eikon Database (access 12 January 2024).

12 Booking, https://news.booking.com/our-story/ (access: 12 January 2024).

13 Data as of 12.01.2024.

When analyzing Booking Holdings's financial side, the same patterns can be spotted as in Airbnb's, indicating the impact of the global pandemic described earlier. This is especially noticeable in the category of year-over-year revenue growth (Table 5) when both companies recorded a decline in 2019-2020. Booking Holdings, however, maintains more stable levels.

The same pattern can be noticed regarding StarMine's Earnings Quality (Table 6). Since 2018, Booking Holdings has received notes oscillating above 90, except for 2020, when its score fell greatly, like Airbnb's.

Further comparative analysis of the financials of the two competitors provides us with an observation that highlights the contrast between them. Even throughout the global crisis, the ratios of Booking Holdings (Table 7), despite heavy damages inflicted by the pandemic, have not once dropped to the point of reaching negative numbers, contrary to Airbnb, the problems of which are noticeable in the years 2020-2021.

Table 6. Booking and Airbnb: earnings quality (2018-2022)

Company	2018	2019	2020	2021	2022
Booking	96	97	6	94	99
Airbnb	N/A	N/A	4	88	100

Source: Own elaboration based on data obtained from the Eikon Database (access 12 January 2024).

Table 7. Booking and Airbnb: financial ratios (2020-2022)

	Booking				Airbnb		
Ratio	2020	2021	2022	Industry Average	2020	2021	2022
Net margin (%)	0.8	10.6	17.9	6.6	-135.7	-5.9	22.6
EBITDA Margin (%)	13.4	26.7	31.3	16.0	-98.0	12.2	23.5
TIE ratio	1.3	7.5	12.5	2.8	-20.0	9.2	78.4
Debt/Equity	2.46	1.77	4.51	0.86	0.63	0.42	0.36
Return on Equity (%)	0.9	21.0	68.3	3.2	-172.2	-9.2	36.6

Source: Own elaboration based on data obtained from the Eikon Database (access 12 January 2024).

The complexity of the matter causes many hardships to explain the reasons, yet two of them could be:

a) the companies' structure: Booking Holdings is a parent company to numnerous subsidiaries, such as Kayak or OpenTable, that do not operate directly in the accommodation sector;

b) the spread of its flag branches: Booking.com reports more than 28 million accommodation listings nowadays, while Airbnb's number is much lower—above 7 million[14].

Looking at other ratios, it has to be noted that Booking Holdings is more reliant on liabilities than its competitors and average industry companies, remaining liquid above the mean. That factor affects Booking Holdings' extraordinary returns on equity.

Airbnb and Booking.com represent a modern perspective on travel accommodation through online communication between the consumer and the provider. Despite the rapid popularity growth of the sharing economy that is blooming nowadays, traditional firms remain on the market in different forms, such as individual hostels, hotels, or large hotel chains. Examples of the latter are Hilton Hotels & Resorts (a subsidiary of Hilton Worldwide Holdings Inc.) and Marriott Hotels & Resorts (a subsidiary of Marriott International Inc.). Both chains' stories are long-lasting, beginning in the 20th century. The first Hilton hotel was established in 1925 in Texas, while its competitor's first lodging business took over two decades to be created in 1957. The companies remain among the most recognizable and have the highest brand value in their sector[15].

Table 8. Airbnb, Marriott, Hilton: market capitalization, end of the year (2019-2023)

Year	Airbnb (in billions USD)	Marriott International (in billions USD)	Hilton Worldwide (in billions USD)
2023	87.25	66.23	46.69
2022	54.13	47.12	31.17
2021	105.78	53.81	43.47
2020	87.70	42.78	30.86
2019	N/A	49.50	30.94

Source: Companies Market Cap, https://companiesmarketcap.com/#google_vignette (access: 12 January 2024).

In comparing the two representatives of traditional firms and Airbnb, end-of-year market capitalization shows a vast divergence between their values (Table 8). This leads to the final question: What advantages do companies based on the sharing economy have over traditional firms?

14 Airbnb Newsroom, https://news.airbnb.com/about-us/ (access: 12 January 2024).

15 Brand Finance, https://brandirectory.com/rankings/hotels/ (access: 12 January 2024).

4. Advantages of the sharing economy over traditional firms

Airbnb has grown from a small online platform to one of the leaders in the international market in a short period, exceeding the most famous hotel chains with long-lasting traditions. Three significant factors enabled the company to succeed, differentiating its nature from the competitors and being the key to growth. These factors are low initial costs to conduct business, worldwide spread, and accessibility.

Firstly, the low initial cost is strictly related to Airbnb's business model. Based on the definition of the sharing economy that we referenced in the first part of the chapter, Airbnb allows for the utilization of idle assets, acting as an intermediary between their owners and the consumers.

On the contrary, traditional hotels require high capital inputs at every level when setting up a new firm. Almost zero marginal cost structure highlights the advantage of Airbnb's model over that of its competitors[16]. Secondly, referring to the worldwide spread, the operations of traditional hotel chains are limited to the location of their affiliates. Unless a hotel has opened its branch in a particular destination, it cannot conduct its primary business scope. This does not apply to Airbnb, which, being an intermediary between the parties, can spread further, in a shorter time, independently of its headquarters and offices. Thirdly, regarding accessibility, hotel chains need to consider various factors before investing in a specific location. Often, it is not profitable for them to build their affiliates, restricting their profits from the concerned regions. The structure of Airbnb allows it to remain indifferent to those matters and to be present even in places that are hardly popular with tourists.

The popularity of Airbnb can also be tackled from the perspective of consumers. A study made by M.J. Sanchez-Franco and M.E. Aramendia-Muenta, researching the reasons why people choose Airbnb over traditional hotels, provides us with the following examples:

a) relatively low costs compared to traditional hotels, which is especially beneficial for those planning longer stays;
b) authenticity — an attribute of individual hosts over standardized hotel facilities and professional staff;
c) unique experiences within local communities make one feel like they were a part of these[17].

16 A. Strømmen-Bakhtiar, E. Vinogradov, *The Effects of Airbnb on Hotels in Norway*, "Society and Economy" 2019, Nr 41, Vol. 1.

17 M.J. Sanchez-Franco, M.E. Aramendia-Muenta, *Why do Guests Stay at Airbnb Versus Hotels? An Empirical Analysis of Necessary and Sufficient Conditions,* "Journal of Innovation & Knowledge" 2023, Nr 8 Vol. 3.

5. The changing affordability of the housing market and accessibility of new homes

To prove the decreasing affordability of the housing market, the share of the median price of new homes in the United States in median household income has been computed and analyzed. Data used to conduct the analysis were provided by the United States Census Bureau (Table 9).

Table 9. Share of the median price homes in annual household income in the United States (1990-2022)

Year	The median price of new homes (USD)	Median annual household income (USD)	Share of median price of new homes in median household income (%)
1990	122,900	30,636	401
1995	133,900	37,005	362
2000	169,000	42,409	399
2005	240,900	50,233	480
2010	221,800	51,017	435
2011	227,200	51,939	437
2012	245,200	53,585	458
2013	268,900	53,657	501
2014	288,500	56,516	510
2015	294,200	59,039	498
2016	307,800	61,372	502
2017	323,100	61,136	528
2018	326,400	63,179	517
2019	321,500	68,703	468
2020	336,000	68,010	494
2021	397,100	76,330	520
2022	457,800	74,580	614

Source: United States Census Bureau, https://www.census.gov/construction/nrs/data/series.html (access: 20 January 2024); Statista, https://www.statista.com/statistics/200838/median-household-income-in-the-united-states/ (access: 20 January 2024).

Throughout 33 years, between 1990 and 2022, the median price of new homes increased by USD 334,900. Furthermore, what needs to be noted is the USD 60,700 growth from two years ago – between 2021 and 2022. This is the most significant year-to-year new home value increase since 1990. Even higher than during the days of subprime lending in early 2000, which contributed to the global crisis and severe economic recession. This growth is suggested to be a result of the Covid-19 global pandemic. Millions of people working from home have wanted more space and have been trying to buy homes.

Record low supply and strong demand have pushed prices up quickly and dramatically[18]. During the same period, the median household income decreased by USD 1,750. These changes led to a record-high share of new home prices in median income, reaching 614%. Over the past 20 years, buying a new home has become over 1.7 times less accessible to most of society.

Figure 1 illustrates the upward trend of the share of the median price of new homes in the median income. This trend implies a damaging prospect for individuals seeking to acquire new properties shortly. The property owners may experience a notable rise in home equity value. For the housing market to start easing, the inventories of new homes for sale would have to turn considerably higher. An increased supply of new homes on the primary market would reduce the upward pressure on home prices or help them settle back from peak levels. However, economists are not so optimistic—a slight decrease in home prices could create a surge of demand that wipes away any inventory gains, causing home prices to rebound[19].

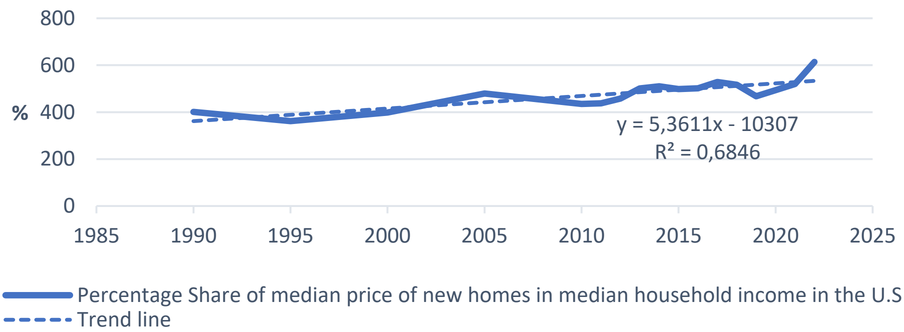

Figure 1. Share of the median price of new homes in median household income in the United States

Source: As in table 9.

18 C. Arnold, *Home Prices Rose Faster Than Ever in 2021. The Typical Home Gained $50,000 in Value*, "NPR", 2022, https://www.npr.org/2022/01/20/1074377076/home-prices-rose-faster-than-ever-in-2021-the-typical-home-gained-50-000-in-valu (access: 20 January 2024).

19 R. Rothstein, C. Basile, *Housing Market Predictions for 2024: When Will Home Prices Be Affordable Again?*, "Forbes Advisor", https://www.forbes.com/advisor/mortgages/real-estate/housing-market-predictions/ 2024 (access: 20 January 2024).

Many governments are also introducing promotional loans. The Polish government's First Home Program includes a 2% safe mortgage. Such loans offer favorable fixed interest rates for people who previously owned a flat or house. These loans stimulate demand and eliminate any accrued inventory gains, leading to the further escalation of home prices.

6. Factors influencing homeownership rate

A correlation analysis was conducted based on data provided by the United States Census Bureau to study the association between median household income and homeownership rate in the United States. Table 10 depicts that since early 2000, we could observe a 1.6% decline in the homeownership rate. This decline affected millions of Americans, even if this might not seem significant in terms of percentage.

Table 10. Mortgage rate and homeownership rate in the United States (1972-2023)

Year	Mortgage rate (%)	Homeownership rate (%)	Year	Mortgage rate (%)	Homeownership rate (%)
1972	7.35	64.50	1998	7.05	65.70
1973	7.45	64.40	1999	6.88	66.40
1974	8.46	64.40	2000	8.26	66.90
1975	9.17	64.40	2001	7.01	67.50
1976	8.87	64.50	2002	6.97	68.00
1977	8.69	64.80	2003	5.84	68.30
1978	9.13	64.90	2004	5.60	68.60
1979	10.41	65.40	2005	5.77	69,20
1980	13.68	65.80	2006	6.25	69.00
1981	15.13	65.50	2007	621	68.90
1982	17.41	65.20	2008	5.87	67.80
1983	13.03	64.50	2009	5.06	67.50
1984	13.33	64.40	2010	5.00	67.20
1985	13.06	64.10	2011	4.85	66.50
1986	10.58	63.50	2012	3.92	66.00
1987	9.11	63.90	2013	3.50	65.40
1988	10.07	64.10	2014	4.36	65.20
1989	10.82	63.80	2015	3.72	64.00

1990	10.13	63.80	2016	3.74	63.80
1991	9.50	64.10	2017	4.17	63.70
1992	8.69	64.20	2018	4.28	64.20
1993	7.72	64.40	2019	4.37	64.80
1994	7.30	64.60	2020	3.52	65.10
1995	8.79	64.20	2021	2.88	65.80
1996	7.27	65.10	2022	3.82	65.50
1997	7.79	65.40	2023	6.37	65.90

Source: LSEG Eikon (access: 24 January 2024); Economic Research Federal Reserve Bank, https://fred.stlouisfed.org/series/MORTGAGE30US#0 (access: 23 January 2024).

Figure 2 shows that income has little to no influence on the homeownership rate in the United States—the Pearson correlation coefficient is equal to – 0.105. However, it is noteworthy that acquiring a new property is a lengthy decision, and annual income change may not immediately manifest in the homeownership rate.

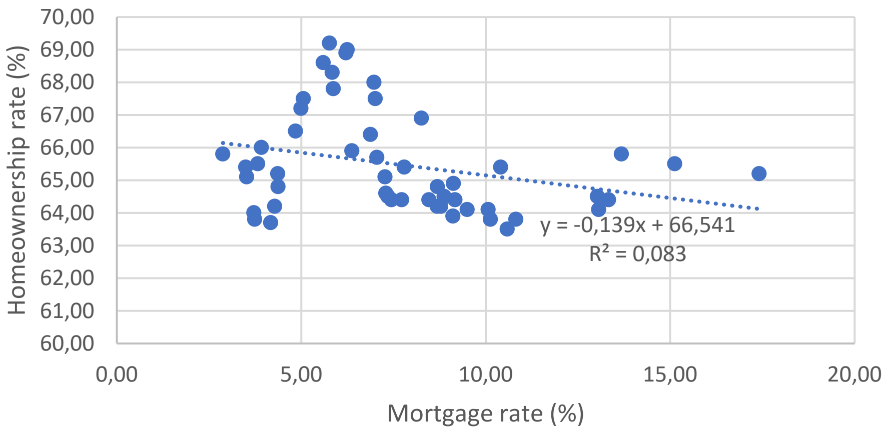

Figure 2. Regression analysis of mortgage rate and homeownership rate

Source: As in Table 8.

The regression analysis also shows little to no impact of the mortgage rate on the homeownership rate. A 1% decline in the mortgage rate causes a 0.14% increase in the homeownership rate. indicates that only 8.3% of total homeownership rate changes are caused by mortgage rate changes. Therefore, 91.7% of all changes are unexplained or caused by different factors. This fact emphasizes the conclusion from the correlation analysis — multiple factors influence homeownership rates, not only income and mortgage rates.

7. The popularity of short-term rentals in New York City and Barcelona

Thriving cities are characterized by high demand for short-term rentals for various reasons, including tourism. In such cases, the presence of investors looking to acquire properties for said rentals can be observed due to their popularity and profitability. The study of Airbnb listings in Warsaw, Poland, revealed a strong presence of investors. The share of listings hosts offer with a single listing is only 47%. The remaining 53% of all listings are multi-listings and can be assumed to be in the possession of investors. Moreover, the study shows that over 25% of all the listings belong to hosts with more or equal to 5 properties[20]. The presence of investors can drive house prices up quickly and contribute to the ongoing housing crisis. According to InsideAirbnb.com, this share is even higher in both of the discussed cities. While in New York City, the percentage of multi-listings is similar (49.9%), the share is much more significant in Barcelona, oscillating around 73.2%.

The unique cultural characteristics of New York City and Barcelona, which attract tourists worldwide, continue to be significant factors in the cities' structures. In the past two years alone, approximately 300 million visitors have visited these cities (Table 11), underscoring the increasing interest in short-term rentals and the potential for investment in this area. Both towns have been popular tourist destinations for years, except for COVID-19. At that time, traveling restrictions were imposed worldwide, and consequently, considerable declines in visits were recorded.

Table 11. Number of visitors in New York City and Barcelona (2019-2023)

Year	New York City (in millions)	Barcelona (in millions)
2019	66.6	13.95
2020	22.3	3.23
2021	32.9	4.78
2022	56.7	9.88
2023	63.2	N/A

Source: Statista, https://www.statista.com/statistics/1447123/total-visitors-nyc-us/#:~:text=After%20being%20hit%20hard%20by,as%2068%20million%20by%202024 (access: 1 February 2024); Statista, https://www.statista.com/statistics/772271/tourists-in-barcelona-spa (access: 1 February 2024).

20 K. Gyódi, *op. cit.*

Table 12. Average price per square meter of an apartment in Spain (2022)

City	Average price per square meter of an apartment (EUR)
Madrid	4,120.00
Barcelona	3,990.00
Malaga	2,320.00
Seville	2,090.00

Source: Statista, https://www.statista.com/statistics/899288/cost-of-apartments-in-spain/ (access 1 February 2024).

House prices in New York City and Barcelona are considerably higher than in other cities in the United States and Spain. On average, one square meter of an apartment in Barcelona is almost twice as expensive as in Seville (Tables 12 and 13). In New York City, the situation is even more concerning. On average, residents of the Big Apple must spend USD 1.81 million on apartments, while the median price of new homes in the United States oscillates around USD 400,000 (Tables 9 and 13).

Table 13. Median Price of Homes in New York City by Neighborhood (2021)

Neighbourhood	Borough	Price (millions USD)	Neighbourhood	Borough	Price (millions USD)
Hudson Yards	Manhattan	4.75	DUMBO	Brooklyn	1.41
TriBeCa	Manhattan	3.50	Carroll Gardens	Brooklyn	1.41
SoHo	Manhattan	2.68	Brooklyn Heights	Brooklyn	1.39
Little Italy	Manhattan	2.37	Cobble Hill	Brooklyn	1.38
Hudson Square	Manhattan	2.09	Greenwich Village	Manhattan	1.30
Flatiron District	Manhattan	1.85	Boerum Hill	Brooklyn	1.23
Vinegar Hill	Brooklyn	1.54	Neponsit	Queens	1.23
Theatre District	Manhattan	1.52	Columbia Street Waterfront	Brooklyn	1.20

West Village	Manhattan	1.50	Manhattan Beach	Bro-oklyn	1.20
Chelsea	Manhattan	1.42	Greenpoint	Bro-oklyn	1.20

Source: Statista, https://www.statista.com/statistics/892117/most-expensive-nyc-neighborhoods-home-prices/ (access 1 February 2024).

Short-term rentals have significantly contributed to this situation[21]. Therefore, tourism is an essential feature of the housing market of these two cities. Additionally, according to the data gathered by the City Hall of Barcelona, in 2019, over 15% of Barcelona's residents considered tourism the city's main problem[22].

8. Impact of short-term rentals on the housing market

Demand is being studied from different angles in every field of life as a force of influence. This also applies to the housing market and the consequences of the boost in the popularity and supply of short-term rentals. Using the data set of all the Airbnb listings in the United States, categorized by zip codes, researchers concluded that a 1% increase in the number of Airbnb listings contributed to a significant rise in house prices and monthly rent. The numbers have varied depending on the owner-occupancy rates – the lower the homeownership rate, the stronger the impact. In areas with median owner-occupancy rates, a 1% increase in Airbnb listings contributed to a 0.018% increase in monthly rents and a 0.026% increase in house prices. As insignificant as it may seem, these results translate to an annual increase of USD 9 monthly rent and USD 1,800 in house prices[23]. New York City has the lowest homeownership rate in the United States, at 55.4%. It is more than 10% lower than the national homeownership rate[24]. According to these data, the impact of Airbnb on New York City is significantly more substantial than in areas with median owner-occupancy rates.

For that reason, the executives want to manage short-term rentals more strictly. They aim to control the housing market's dynamic changes, preventing further price escalation in the long run.

---

21 K. Barron, E. Kung, D. Proserpio, *op. cit*.

22 Ajuntament de Barcelona, https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/132002/4/Informe%20general.pdf (access: 12 February 2024).

23 K. Barron, E. Kung, D. Prosperpio, *op. cit*.

24 New York State Comptroller, https://www.osc.ny.gov/reports/homeownership-rates-new-york# (access: 12 February 2024).

9. Socioeconomic impact of over-tourism

Aiming to analyze the restrictions imposed on short-term rentals in-depth, it is worth examining the roots of the problem, which eventually contributed to the creation of the earlier described legislation. The example of Barcelona provides us with a pattern of a place that can pride itself on being one of the most traveled cities in the world. The reasons for said travels vary. According to the report of Barcelona's Observatory of Tourism, leisure predominates (in 2022, it constituted 63.7% of all travel[25]). Spain's climate, culture, and a wide range of activities offered to the visitors certainly appeal to people seeking relaxation. Although the revenues generated by the sector may be a positive indicator of profitability, the topic of over-tourism has been present in Barcelona for more than a decade, becoming a part of its landscape.

The impact of the excessive number of visitors traveling to certain cities (especially throughout the season) can be considered on many layers, such as environmental (e.g., pollution) and socioeconomic (e.g., increased costs of living). However, the main concern for many is the housing market becoming less accessible, which is the subject of the study. In 2017, it described issues that contributed to anti-tourism marches in European countries that are popular with tourists, such as Venice and Barcelona. The participants of protests have agitated against the residents being driven out of their neighborhood with the utilization of many slogans. The slogans have spread further in the media, highlighting the nature of the issue, with the prime example of *"This isn't tourism, it's an invasion'*, and even more concerning *", Why call it tourist season if we can't shoot them?'*.

Aside from the demonstrations, there were multiple attacks on businesses operating within the tourism scope. The social tensions contributed to an even more significant focus on the issue and new ideas on the ways of dealing with it — such as the increase of tourism tax (developed throughout the years, now with a premise of another increase as of April 2024[26]), and finally, further regulations of short-term rentals described in the following chapter. The actions undertaken by the authorities were aimed at easing the situation. Yet, it is still

25 Observatori del Turisme a Barcelona, https://www.observatoriturisme.barcelona/sites/default/files/Informe%20Regi%C3%B3%20Barcelona%202022.pdf (access: 22 February 2024).

26 R.A. Hughes, *Barcelona, Venice, Bali: How hotspot destinations are spending millions in tourist tax revenue*, "Euro News" 2024, https://www.euronews.com/travel/2024/02/21/barcelona-venice-bali-how-hotspot-destinations-are-spending-millions-in-tourist-tax-revenu (access: 22 February 2024).

too early to determine the actual outcomes in Barcelona and New York City as the regulatory framework remains fresh.

10. Restrictions towards short-term rentals

Due to the high popularity of short-term rentals in Barcelona and New York City, where there are over 18,000 and 40,000 active listings,[27] respectively, and because of their impact on the housing market, executives of both cities implemented legislation restricting short-term rentals. These regulations were applied not only to ease the tight housing market but also to end illegal short-term rentals and protect the safety of travelers.

The idea behind the legislation implemented in New York City, more commonly known as Local Law 18 or the Registration Law, is to free up apartments used for short-term rentals to the city's permanent residents. Landlords would be forced to choose to put their property for long-term rental, which is less profitable than the revenues from short-term rental. This would increase the inventories of the properties available to rent for the city's permanent residents and reduce the rent price.

Many countries and cities worldwide, including Amsterdam, Berlin, San Francisco, Honolulu, and more, decided to apply such regulations. However, in this chapter, we will focus only on Barcelona and New York City to gain a better grasp of these restrictions. Local Law 18 in New York City was passed in January 2022, and the registration process for hosts began in March of the following year. The city initially postponed the enforcement of the legislation for several reasons, including a lawsuit filed by Airbnb[28]. Short-term rentals (lasting fewer than 30 consecutive days) to be registered legally need to meet the following criteria[29]:

a) the host lives in the same unit or apartment as the guests;
b) no more than two guests are staying with the host;
c) an entire apartment or home cannot be used for short-term rentals;
d) the host must be present during the duration of the rental.

These criteria should disqualify investors whose presence has been proven from participating in the STR[30] market, ease the housing market, and contribute

27 Inside Airbnb, www.indisdeairbnb.com (access: 19 February 2024).

28 A. Sachs, *What New York City's New Airbnb Rules Mean for Travelers,* 'The Washington Post", 2023, https://www.washingtonpost.com/travel/2023/09/01/nyc-airbnb-rules-local-law-18/#, (access: 20 February 2024).

29 NYC Office of Special Enforcement, https://www.nyc.gov/site/specialenforcement/registration-law/registration.page (access: 20 February 2024).

30 Short-term rental.

to reducing house prices and long-term rent. However, many wonder whether such regulations can help the tight housing market and whether they are an optimal solution. S. Calder-Wang, C. Farronato, and A. Fradkin indicate a different solution: limits on when and where housing units can be rented out to travelers[31]. For instance, executives of London, instead of banning STR, limited it to 90 days per year. Such a solution balances all the costs and benefits of STR for all parties, including hosts, travelers, and housing market participants. Travelers can benefit from cheaper accommodation during peak demand, and hosts can make extra earnings during these months while not contributing to shortages of properties available on the market.

On the other hand, since August 2021, if Catalans want to rent their property for less than 31 days, they must obtain a license as a tourist accommodation provider. The requirements for applying for a tourist license in Barcelona may be more relaxed than in New York City since they mainly aim to improve the safety of hosts, travelers, and local communities. However, they successfully reduced the number of listings in the city.

The requirements for obtaining the license depend strictly on the type of accommodation. The law in Catalonia distinguishes two categories concerning home-sharing: houses in which owners live with tourists and houses that the tourists fully inhabit. Based on that, legislators give a set of rules for operating the rental.

For shared houses, the most important rules include such conditions[32]:

a) the house shall be fully equipped;
b) spacing allows up to 4 guests (while giving the permit, the bureau will determine the number of guests being allowed in the particular place; yet the legislation states that regardless of the size of the property, 4 is the maximum number of persons);
c) the owner living in the same property must be present throughout the whole visit, i.e., they cannot live in any other place throughout hosting the guests;
d) a house is the principal place of residence for the owner.

For exclusive houses, the most important rules include such conditions[33]:

a) the house shall be fully equipped;

---

31 S. Calder-Wang, C. Farronato, A. Fradkin, *What Does Banning Short-Term Rentals Really Accomplish?*, "Harvard Business Review" 2024, https://www.hbs.edu/faculty/Pages/item.aspx?num=65546 (access: 25 February 2024).

32 Article 241-1, Decree 75/2020, of August 4, on tourism in Catalonia (access: 24 February 2024).

33 *Ibidem*.

b) spacing allows up to 15 guests (while giving the permit, the bureau will determine the number of guests being allowed in the particular place; yet the legislation states that regardless of the size of the property, 15 is the maximum number of persons);
c) non-dividable — guests must rent the house exclusively and cannot share it with other unknown tourists.

Barcelona's legislation is primarily concerned with the well-being of travelers and hosts. Still, it also takes into consideration the environment[34], bounding the visitors to follow the rules of the local community and obliging the owner to ensure the resolution of any disputes that may occur between the tourists and the neighbors, which is a result of social tensions in Barcelona, described in the previous chapter. It is noteworthy that each year, the number of licenses approved decreases. That is also a result of yet another legislation dividing Barcelona into three zones based on tourist activity[35]. Zone 1 has the highest tourist density, with 50% of Barcelona's hotel beds located in this part of the city. There is *restricted licensing in the area*. Zone 2 is the area surrounding Zone 1— new licenses are given only in case of liquidating a specific accommodation, meaning the number of active licenses in the area is constant. Barcelona's remaining location is Zone 3, where it is *easier to obtain a license* as long as the number of permits does not exceed the maximum occupation limit.

Barcelona and New York City are prime examples of large cities combating the issue of short-term rentals by taking a more systematic approach to licensing. As pioneers in this regard, they can provide other cities with a showcase of the consequences of legislation and give us insight into the actual impact, which is to determine whether such regulatory frameworks can make a positive change.

Discussion and conclusion

Our first research question was to delve into the advantages the firms operating within the scope of the sharing economy have over traditional firms. Airbnb can operate at lower initial costs based on this assumption's scope. Therefore, it also offers more attractive pricing than traditional hotel chains. Additionally, conventional hotel chains must consider various factors before investing in a specific location. Often, it is not profitable for them to build their affiliates, restricting their profits from the concerned regions. The structure of

34 *Ibidem*.

35 Dream Property, https://www.dreamproperty.es/blog/185/legal-regulations-for-renting-property-in-the-most-popular-regions-of-spain-in-2023, (access: 20 February 2024).

Airbnb allows it to remain indifferent to those matters and to be present even in places that are hardly popular with tourists.

The second research question aimed to explore how the share of new house prices in annual income has changed over the years. The results presented in this paper indicate negative prospects for people looking to acquire new properties shortly. Since 1990, the share has increased by 213 percentage points. Furthermore, over the past 20 years, buying a new house has become over 1.7 times less affordable for the masses. Various governments' initiatives aiming to improve the accessibility of those properties are highly doubtful of delivering successful results. Moreover, they are even believed to contribute to the ongoing crisis. Due to the complexity of the housing market, mortgage rates and changes in annual income do not significantly impact it. Our research shows that only 8% of total changes in the homeownership rate are caused by the changes in the mortgage rates. Other factors influence the remaining 92% of changes, including the increasing popularity of short-term rentals. In popular tourist destinations, including New York City and Barcelona, Airbnb's short-term rental market is dominated by investors – which goes against the principles of the sharing economy. Investors reduce the tight surplus of homes for sale, leading to further price escalation.

The third research question explored the relationship between the number of short-term listings and real estate prices in New York City. On average, a 1% increase in the number of short-term Airbnb listings contributes to a 0.018% increase in monthly rents and a 0.026% increase in house prices, and the lower the homeownership rate, the higher the influence[36].

Our last question concerned the structure of regulations restricting short-term rentals in New York City and Barcelona. For that reason, the article also considers the solutions offered by the legislators, who aim to mitigate the effects of short-term rentals in the housing and accommodation market and the tourism sector, which seasonally struggles with overcrowding. The ideas introduced in New York City and Barcelona limit the owners' capabilities throughout the guests' stay, impose responsibilities upon the hosts, and restrict the number of visitors allowed per property. Additionally, to become a host, one must be registered as such (NYC) or obtain a license (Barcelona). The law, however, is relatively new and gradually changes. Therefore, it is difficult to determine the consequences it brings.

36 K. Gyódi, *op. cit.*

Acknowledgments

The research was conducted within the London Stock Exchange Group "Research Grant Competition" financed by Refinitiv under the supervision and mentoring of Magdalena Markiewicz, PhD.

References

Airbnb Newsroom, https://news.airbnb.com/about-us/.

Ajuntament de Barcelona, https://bcnroc.ajuntament.barcelona.cat/jspui/bitstream/11703/132002/4/Informe%20general.pdf.

Arnold C., *Home Prices Rose Faster Than Ever in 2021. The Typical Home Gained $50,000 in Value*, "NPR", 2022, https://www.npr.org/2022/01/20/1074377076/home-prices-rose-faster-than-ever-in-2021-the-typical-home-gained-50-000-in-valu.

Article 221-2, Decree 75/2020, of August 4, on tourism in Catalonia.

Barcella K., *Local Law 18: The End to Vacation Rentals in NYC or Much Needed Legislation to Combat Illegal Short-Term Rentals and the Housing Crisis*, "Ingram" 2023, https://www.ingramllp.com/the-newsroom/archive/local-law-18-the-end-to-vacation-rentals-in-nyc-or-much-needed-legislation-to-combat-illegal-short-term-rentals-and-the-housing-crisis.

Barron K., Kung E., Proserpio D., *The Effect of Home-Sharing on House Prices and Rents: Evidence From Airbnb*, "SSRN" 2020, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3006832.

Booking, https://news.booking.com/our-story/.

Brand Finance, https://brandirectory.com/rankings/hotels/.

Burgen S., *Tourists go home, refugees welcome: why Barcelona chose migrants over visitors*, "The Guardian" 2018, https://www.theguardian.com/cities/2018/jun/25/tourists-go-home-refugees-welcome-why-barcelona-chose-migrants-over-visitors.

Calder-Wang A., Farronato C., Fradkin A., *What Does Banning Short-Term Rentals Accomplish?*, "Harvard Business Review" 2024, https://www.hbs.edu/faculty/Pages/item.aspx?num=65546.

Companies Market Cap, https://companiesmarketcap.com/#google_vignette.

Corporate Finance Institute, https://corporatefinanceinstitute.com/assets/CFI-Financial-Ratios-Cheat-Sheet-eBook.pdf.

Dream Property, https://www.dreamproperty.es/blog/185/legal-regulations-for-renting-property-in-the-most-popular-regions-of-spain-in-2023.

Economic Research Federal Reserve Bank, https://fred.stlouisfed.org/series/MORTGAGE30US#0.

Eikon Database.

Feiner L., *Airbnb Skyrockets 112% in Public Market Debut, Giving It a Market Cap of $86.5 Billion*, "CNBC Disruptor 50" 2020, https://www.cnbc.com/2020/12/10/airbnb-ipo-abnb-starts-trading-on-the-nasdaq.html.

Gyódi K., *Airbnb, and Booking.com: Sharing Economy Competing Against Traditional Firms?*, "DELab UW" 2017.

Hughes R.A., *Barcelona, Venice, Bali: How hotspot destinations are spending millions in tourist tax revenue*, "Euro News" 2024, https://www.euronews.com/travel/2024/02/21/barcelona-venice-bali-how-hotspot-destinations-are-spending-millions-in-tourist-tax-revenu.

Inside Airbnb, www.indisdeairbnb.com.

London Stock Exchange Group, https://www.lseg.com/en/data-analytics/financial-data/company-data/starmine-earningsquality-model.

New York State Comptroller, https://www.osc.ny.gov/reports/homeownership-rates-new-york#.

NYC Office of Special Enforcement, https://www.nyc.gov/site/specialenforcement/registration-law/registration.page.

Observatori del Turisme a Barcelona, https://www.observatoriturisme.barcelona/sites/default/files/Informe%20Regi%C3%B3%20Barcelona%202022.pdf.

PricewaterhouseCoopers, https://www.pwc.fi/fi/palvelut/tiedostot/pwc-cis-sharing-economy.pdf.

Rossolillo N., *Why Airbnb Stock Collapsed Nearly 47% in the First Half of 2020*, "The Motley Fool" 2022, https://www.nasdaq.com/articles/why-airbnb-stock-collapsed--nearly-47-in-the-first-half-of-2022.

Rothstein R., Basile C., *Housing Market Predictions for 2024: When Will Home Prices Be Affordable Again?*, "Forbes Advisor", https://www.forbes.com/advisor/mortgages/real-estate/housing-market-predictions/ 2024.

Sachs A., *What New York City's New Airbnb Rules Mean for Travelers*, "The Washington Post", 2023, https://www.washingtonpost.com/travel/2023/09/01/nyc-airbnb-rules-local-law-18/#.

Sanchez-Franco M.J., Aramendia-Muenta M.E., *Why do Guests Stay at Airbnb Versus Hotels? An Empirical Analysis of Necessary and Sufficient Conditions*, "Journal of Innovation & Knowledge" 2023, Nr 8, Vol. 3.

Schlagwein D., Schoder D., Spindeldreher K., *Consolidated, Systemic Conceptualization and Definition of the Sharing Economy*, "Journal of the Association for Information Science and Technology" 2019, Nr 7 Vol. 71

Statista.

Strømmen-Bakhtiar A., Vinogradov E., *The Effects of Airbnb on Hotels in Norway*, "Society and Economy" 2019, Nr 41, Vol. 1.

United States Census Bureau, https://www.census.gov/construction/nrs/data/series.html.

Wu Q., Tang W., Li R., Liu L., Chen H., *An enhanced decision-making framework for predicting future sharing economy trends*, "Plos One" 2023.

Abstract

The housing market in New York City and Barcelona is highly dynamic and subject to various agents and disruptors. The market landscape continues to change, presumably in a negative direction, while also becoming a heavy burden on the future of the youngest generations.

In this paper, we had two aims. The first one was to prove the decreasing affordability of the housing market and study the influence of short-term rentals on housing prices along with other factors, such as Airbnb and other platforms offering short-term rentals. Our second aim was to examine the restrictions imposed on short-term rentals and the grounds leading to them. We explored the concept of a sharing economy, researched trends and changes in the housing market, and studied the restrictions imposed on short-term rentals by legislators. We analyzed statistical data based on the quantitative data obtained through i.a. Refinitiv Eikon.
Our findings contribute to the discussion on decreasing housing affordability. We state that purchasing a new home has become over 1.7 less accessible over the past 20 years. Further analysis reveals that the homeownership rate is influenced by multiple factors, with only a small portion being directly linked to factors like mortgage rates or changes in annual income.

Keywords: sharing economy, Airbnb, housing market, short-term rentals, New York, Barcelona

JAK WYNAJEM KRÓTKOTERMINOWY WPŁYNĄŁ NA RYNEK MIESZKAŃ I ZAKWATEROWANIA? PORÓWNAWCZE STUDIUM PRZYPADKU NOWEGO JORKU I BARCELONY

Streszczenie

Rynek nieruchomości w Nowym Jorku i Barcelonie jest bardzo dynamiczny i podlega różnym zakłóceniom. Krajobraz rynkowy ciągle się zmienia, prawdopodobnie w negatywnym kierunku, stając się jednocześnie dużym obciążeniem dla przyszłości najmłodszych pokoleń.
W artykule założyliśmy dwa cele. Pierwszym z nich było wykazanie malejącej dostępności cenowej rynku nieruchomości i zbadanie wpływu krótkoterminowego wynajmu na ceny nieruchomości wraz z innymi czynnikami na przykładzie platform takich jak Airbnb oraz inne platformy oferujące krótkoterminowy wynajem. Drugim celem było zbadanie ograniczeń nałożonych na wynajem krótkoterminowy i przyczyn, które do nich doprowadziły. Zbadaliśmy koncepcję gospodarki współdzielenia, zbadaliśmy trendy i zmiany na rynku nieruchomości oraz przeanalizowaliśmy ograniczenia nałożone na wynajem krótkoterminowy przez ustawodawców. Przeanalizowaliśmy dane statystyczne w oparciu o dane ilościowe uzyskane m.in. za pośrednictwem LSEG Eikon. Nasze ustalenia przyczyniają się do dyskusji na temat malejącej

dostępności cenowej mieszkań. Zakup nowego domu stał się o ponad 1,7 mniej dostępny w ciągu ostatnich 20 lat. Dalsza analiza ujawniła, że na wskaźnik posiadania domu wpływa wiele czynników, przy czym tylko niewielka część jest bezpośrednio powiązana z takimi czynnikami jak oprocentowanie kredytów hipotecznych lub zmiany rocznych dochodów.

Słowa kluczowe: gospodarka współdzielenia, Airbnb, rynek nieruchomości, wynajem krótkoterminowy, Nowy Jork, Barcelona