

Artigo submetido a 29 de Maio de 2021; versão final aceite a 9 de Março de 2022  
Paper submitted on May 29, 2021; final version accepted on March 9, 2022

## **Covid-19 and Short-Term Rental in Portugal: Unpredictable Futures**

### **Covid-19 e Alojamento Local em Portugal: Futuros Imprevisíveis**

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#### **Abstract**

This article presents the results of a pioneering online survey of short-term rental (STR) hosts (N=879) in Portugal about the impact of Covid on their activity, with a sample structured into four areas (Lisbon, Porto, Algarve and the rest of the country). Despite the very high losses, especially in the cities, most of the respondents intend to continue operating in the STR sector. A massive migration from STR to long-term rental is not predicted for a number of reasons, including financial, those related to the nature of this type of supply – more temporary – and the high level of distrust of the state, specifically in terms of guaranteeing legislative stability. In the cities, medium-term rental is the alternative most commonly considered, suggesting there may be a possible restructuring of the sector. Survival capacity over the medium term will depend on the degree of losses and type of public support received during the pandemic, which has benefited hosts constituted as companies more than the sole proprietorships.

*Keywords:* Short-term rentals; Covid-19; Impacts; Portugal; Hosts

*JEL Code:* Z39; R31

#### **Resumo**

Este artigo apresenta os resultados de um pioneiro inquérito online aos anfitriões de Alojamento Local (AL) em Portugal (N=879), com uma amostra estruturada territorialmente em quatro áreas (Lisboa, Porto, Algarve e resto do país), sobre os impactos da COVID na sua atividade. Apesar das enormes perdas, sobretudo nas cidades, a maioria dos inquiridos tenciona continuar a operar no sector do AL. Não se prevê uma migração massiva do AL para o arrendamento de longa duração por várias razões: desde as financeiras, às relativas à natureza deste tipo de oferta – mais temporária – ou a elevada desconfiança em relação ao Estado, especificamente em termos de estabilidade legislativa. Nas cidades, o arrendamento de média duração é a alternativa mais considerada, sugerindo a possibilidade de alguma reestruturação do sector. A capacidade de sobrevivência a médio prazo

dependerá do grau das perdas e do tipo de apoio público recebido durante a pandemia o qual beneficiou mais os anfitriões constituídos como empresas do que os empresários em nome individual.

*Palavras-Chave:* Alojamento Local; Covid-19; Impactos; Portugal; Anfitriões

*JEL Code:* Z39; R31

## 1. INTRODUCTION

Covid appears in the context of the emergence of restrictive short-term rentals (STR) regulation policies following the expansion of the phenomenon and the growing perception of its contribution to dynamics of a disruptive nature which were more visible in large cities: from displacement to the unaffordability of housing (Cocola-Gant, 2016; Freytag and Bauder, 2018; Gotham, 2005; Wachsmuth and Weisler, 2018).

Because of its close relationship with tourism, STR was one of the activities most adversely affected by the pandemic, and Portugal, one of the countries highest dependent on tourism, was particularly badly affected. But, unlike with tourism (Almeida and Silva, 2020; Higgins-Desbiolles, 2021; Haywood, 2020; Jafari, 2005; Gouveia, 2021; Marques, Guedes and Bento, 2021; Martinho, 2021; Santos and Moreira, 2021), research and publications exclusively related with the impact of the pandemic on STR are fewer.

This article brings a pioneering analysis to the impact of the pandemic on the STR and the intentions/perceptions of the hosts. It is based on an online survey of STR owners and managers in Portugal (N=879), and is structured territorially into four areas (Lisbon, Porto, Algarve and the rest of the country). It seeks answers to a set of questions concerning the impact of Covid on this activity. What were the impacts during the first phase of the pandemic in terms of invoicing and occupation, and what variables explain the differentiation of these impacts? What are the hosts' expectations in respect of future activity? Does it make sense to think about a restructuring of the sector and, particularly, the eventual significant migration of STRs to traditional rental patterns? Or will it remain the same?

The article begins with a discussion of the literature on the subject, which focuses on two main themes: the short-term impacts of the pandemic on STR supply and an attempt to identify its possible post-Covid 'futures'. This is followed by the methodological details of the survey and the specification of its timings (2020), taking into account the course of the pandemic. Finally, the results are presented and discussed in two parts: one concerning the characterization of the hosts in the country and its various regions, which focuses on the respondents' profile; the other concerning the impact and expectations for the future.

## 2. A LITERATURE REVIEW ON COVID AND STR: IMPACTS AND POSSIBLE FUTURES

The seismic jolt the pandemic meted out to tourism globally, and the importance the sector has in today's economies and societies, justified 'a mushrooming euphoria of Covid-19 tourism-related research' (Sigala, 2020: 313). From this prolific literature the theme of the transformation of tourism post-Covid stands out. And here there has been a multiplication of approaches that understand the crisis as a transformative event: the opportunity for an ethical-political-economic break from the dominant conceptions of pre-Covid tourism (Higgins-Desbiolles, 2021).

The former Covid and STR literature essentially moves in this direction: i.e. looking for the pathways of this reality in the post-pandemic period (Dolnicar and Zare, 2020; Farmaki et al., 2020; Shen and Wilkoff 2020; Zhang et al. 2021; Cocola-Gant, 2020), focusing essentially on supply. This literature is divided into two distinct, yet overlapping, approaches.

On the one hand, approaches originating from the field of urban studies largely focuses on the potential reconversion/rebalancing of the housing sector, which is understood as one of the sectors most negatively impacted by the pre-Covid explosion of STR (Cocola-Gant, 2016; Cocola-Gant, Carvalho and Chamusca, 2021; Deboosere et al., 2019; Yrigoy, 2018; Wachsmuth and Weisler, 2018). These approaches focus on discussions of the migration from STR to standard long-term

rentals: a dynamic that is understood as the way to rebalance the sector that is in the sights of local political power (Mendes, 2020; O’Sullivan, 2020) in Portugal’s two largest cities. The text by Cocola-Gant (2020) illustrates these approaches by presenting a prospective essay that starts with the *modus operandi* and motivational framework of STR agents during the pre-Covid period (in Lisbon): “speculative objectives/profit” accumulation. In this sense, he anticipates the future will reproduce the logics of the past, in the belief that, when compared to long-term rental, it is only the flexibility of short- and medium-term rental facilitated by STR that makes it possible to achieve that motivation (“speculative objectives/profit accumulation”).

On the other hand, the approaches championed by those studying the hospitality and tourism sector have focused on its restructuring: namely, transformations in the structure of supply. Here the essential question is: ‘what kind of hosts will survive and how will this condition the supply in terms of the “sharing economy” versus “speculative/professional activity” dichotomy?’ The relationship with the previous approach is direct, as this second path (“speculative/professional activity”) is the condition for the reproduction of the previous housing market imbalances. Within these approaches we find the pioneering reflection on the topic produced by Dolnicare and Zare (2020), later updated through a comparison of the three moments: before, during and after Covid (2021). Their contribution suggests a future marked by the re-emergence of the original Airbnb ethos of the ‘sharing economy’. The conclusions of the articles by Zhang et al. (2021) and Gerwe (2021) travel in the same direction: the assumption that the impact of the pandemic varies according to the profile of the host defined on the basis of their driving motivation and the conviction that those most penalized by Covid are the “capitalist/speculator” or the “professionals” type, insofar as the opportunity for profit disappeared during this period, leading (part of) them to give up on STR.

Still, within this approach Farmaki et al. (2020) question the possible continuity of hosts on P2P accommodation platforms, which is not exactly the same as discussing the future of STR. In a qualitative study of several southern European countries (Cyprus, Greece, Croatia and Spain), the authors identify a continuum composed of six types of perception regarding future intentions to remain in or exit the platforms. These range from optimists (who will remain and invest in new strategies) to pessimists (who intend to abandon the platforms and STR). This approach contains a less Manichaean perspective, which suggests the future will be one of greater multiplicity and complexity.

The most recent literature, mainly published along 2021, focused on the short-term impacts of Covid in STR. Here, a distinction should be made between works on the direct impacts on STR activity and hosts (Dolnicare, 2021; Gyódi, 2021; Guglielminetti, Loberto and Mistretta, 2021; Liang et al., 2021) and a “collateral” literature related with indirect impacts, namely in the housing sector (Batalha, 2021; Duca, Hoesli and Montezuma, 2021; Trojaneck, et al. 2021). As to the later, several studies show that rents have fallen in the most touristic areas, i.e. the (urban) areas with the highest concentration of STR (Batalha, 2021; Trojaneck, et al. 2021). But, any conclusions on the structural character of this trend seem premature.

Regarding the direct study of impacts, approaches focus on the quantification and distribution of losses in territorial (different regions) and/or agency (different actors) terms. Chen et al. (2021) discuss the sharp losses of hosts in Sydney, namely in comparison with the platforms (Airbnb), re-launching the debate of the informality and lack of equity of the Gig Economy employment, and consequently of the urgent need to regularise the sector: the authors point out that the losses of hosts were further accentuated by the lack of public support, which results from the (still) informality of these jobs. In territorial terms, most studies focus on cities (Gyódi, 2021; Guglielminetti, Loberto and Mistretta, 2021; Liang et al., 2021). Nevertheless, there are clear factors that determine the degree and dynamics of loss: i. the timing of the pandemic; ii. the measures implemented by governments; iii. and the specificities of the territories and, in this regard, the extreme dependence on tourism (more evident in southern European cities) and population density (reflected in a greater vulnerability of the most populated territories such as urban centres compared to suburbs and of course rural areas) were determinant.

In fact, the literature on the impacts of the pandemic on tourism activity on the Portuguese territory (Gouveia, 2021; Martinho, 2021; Santos and Moreira, 2021) is in line with the previous comment, revealing the uneven distribution of the losses: despite the “sharp fall in all indicators of tourism activity” (Santos and Moreira, 2021: 15), the more affected areas were the most dependent on mass tourism and the densely populated i.e. major cities, the Algarve and Madeira. Following the discussions within international literature (Higgins-Desbiolles, 2021; Sharma, Thomas and Paul

2021) Santos and Moreira (2021) demonstrate that the Portuguese case requires rethinking the activity from a sustainability perspective, starting by rethinking the viability of "overtouristic" contexts.

### 3. METHODOLOGY AND THE TIMING OF THE RESEARCH

The methodology developed was an online survey of those holding and managing STR licences (henceforth ‘hosts’), and exclusively aimed at the flats and houses section, which combined, according to National Register of Local Accommodation/STR (RNAL – Registo Nacional de Alojamento Local), represent 92% of STRs in Portugal. Unsurprisingly, in the cities there is an overwhelming predominance of flats, unlike in the rest of the country, where detached houses dominate.

The Portuguese Association of Local Accommodation (ALEP) distributed the survey by e-mail and across its social networks to around 30,000 hosts (approximately 75% of all hosts according to the association), distributed proportionally geographically and according to business type (companies and sole proprietorship). The survey received 1,109 responses, of which 879 (N) were considered valid.

In table 1 we present a comparative analysis of the distribution of our sample – a non-random sample – in relation to the estimated universe. As it is not possible to accurately estimate the size of the STR sector in Portugal, we consider the National Register of Local Accommodation (RNAL), which is a mandatory platform for the registration and licensing of STR, to a possible source for a relatively accurate estimate. However, the RNAL’s reference unit is not the ‘host’, but rather the STR licence, which, in the case of the present survey, corresponds to a total of 3,828.

**Table 1: Distribution per area and comparison between the sample and the RNAL data (number of flat and house STRs as at 31 August 2020).**

National Registration of Local Accommodation/STR (RNAL)			Sample - Covid and STR Survey		
Region	n	%	n	%	Difference between RNAL and the sample
Lisbon	18 515	21.3	1 659	43.3	+22
Lisbon Metropolitan Area	7 448	8.6	248	6.5	-2.1
Porto	7 426	8.6	585	15.3	+ 6.7
Porto Metropolitan Area	2 166	2.5	61	1.6	- 0.9
Algarve	34 781	40.1	748	19.5	-20.6
Other municipalities	16 478	19.0	527	13.8	- 5.2
National	<b>86 814</b>	<b>100.0</b>	<b>3 828</b>	<b>100</b>	-

We did not consider the metropolitan areas separately from other municipalities in this survey due to the low number of responses received from the metropolitan area.

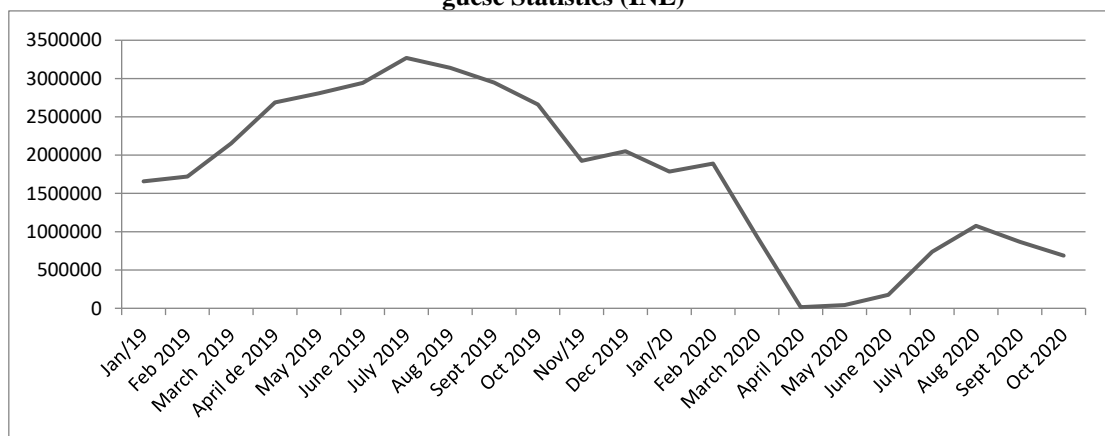
We assume our sample includes an over-representation of Lisbon (and to a lesser extent of Porto) and an under-representation of the Algarve. One probable reason for this is that the involvement and interest in actions in the sector tends to be lower in areas such as the Algarve, where the activity is distinguished by its seasonal nature.

The survey was conducted during the summer of 2020 (23 July to 2 October) and had the three main aims: i) a (unprecedented) sociodemographic and economic characterization of the STR hosts; ii) the study of the impacts during the first months of the pandemic/first wave (March to June) in terms of occupation and invoicing, changes in use (practised and equated) and policy measures (practised and evaluated); iii) explore the expectations for the future.

The first two cases of Covid in Portugal were detected in the north of the country on 2 March. Even before the president announced the introduction of a state of emergency on 18 March, the country entered a voluntary lockdown: this was in place until the beginning of May, following which the country cautiously began to reopen. Alongside, and following the global trend of enhancing international travel restrictions (Seyfi, Hall and Shabani, 2020), Portugal closed its doors to visitors by sea, air or land.

Tourism was always an important economic sector in Portugal. But it benefited from a particular boost during the Troika’s financial adjustment programme. In fact, the sector grew substantially from 2012 onwards (Santos and Moreira, 2021), a growth that has also brought great economic dependence: in 2018, at 8.3%, Portugal was the European member state (EU-27) with the fifth-highest share of tourism as a proportion of GDP (Eurostat 2020). In general, the pandemic – and the first lockdown in particular – had a profound effect on tourism.

**Figure 1: Passenger arrivals at Portuguese airports (January 2019–October 2020). Source: Portuguese Statistics (INE)**



January and February, traditionally the weakest months for national tourism, recorded higher values in 2020 of passengers arrivals at Portuguese airports (Figure 1) compared to the same months in 2019. This normality continued during the first week of March, while the rapid implementation of forced immobility following the pandemic emergency experienced during the second and third weeks of the month, transformed it into a transition month with a 56% decrease in passenger arrivals compared to March 2019. Yet the figures for March were incomparably higher than those for the following three months.

In sum, our study of the impacts refers to the most difficult moment of the pandemic - not so much because of the intensity of infections and deaths, but essentially due the surprise and the strength of the confinement and restriction measures. Nevertheless, the moment of the survey (the summer of 2020) was marked by some recovery and an intense (but not definitive) opening that gave the sensation of some normality.

#### 4. SHORT-TERM RENTAL SUPPLY IN PORTUGAL: A BRIEF PORTRAIT OF THE HOSTS

This survey was one of the first in Portugal to include a relatively exhaustive sociodemographic characterization of the hosts<sup>1</sup>. Besides some qualitative studies (Semi and Tonetta, 2020), the general characterization of studies of this sector, both in Portugal (Fernandes et al. 2019) and internationally (Wu, Ma and Xie, 2017), are generally based on an analysis of data from platforms, such as Airbnb listings retrieved through AirDna (and fewer from InsideAirbnb). However, these characterizations are fragile, particularly with regard to ‘professionalization’, which in such analyses is based essentially on two criteria: the type of listing (whole house) and the number of listings per host. In respect

<sup>1</sup> For an analysis of all the survey’s responses see the report (in Portuguese) [https://4151a5c8-348c-441f-9545-a7bec6c67a9e.usrfiles.com/ugd/4151a5\\_17c60a8ac3154228a654582f4098f226.pdf](https://4151a5c8-348c-441f-9545-a7bec6c67a9e.usrfiles.com/ugd/4151a5_17c60a8ac3154228a654582f4098f226.pdf)

to the former, a whole house can have different uses at different times of year; on the other hand, the latter presents multiple situations in which the host is not the homeowner, but rather, for example, a ‘local intermediary’ (Adamiak, 2019) or (business) manager. Besides, AirDna methodology has been criticized as being biased upwards in respect of occupancy (Argawal et al., 2019).

The fundamental issue, however, is the oversimplification of the dualistic distinction between *professional* and *non-professional* (Adamiak, 2019) that demonizes the former and raises the latter to a position of moral superiority. The ‘professional’ exercise of this activity cannot be disconnected from the economic and labour context: in countries with fragile labour markets (with precariousness and low wages that also affect the most highly-qualified parts of the population) and high tourism potential, becoming a ‘professional’ in the field of STRs can be one of the few ways to obtain a minimally decent income (Balampanidis et al., 2019; Heo and Blengini, 2019; Pereira, 2020a). The typologies discussed in Section 2 differ insofar as they are based on host motivation; however, they make a punitive assumption of financial motivation, regardless of the hosts’ income. Another critical aspect of these typologies is that they give force to purist or rigid views of the hosts’ motivation, omitting the dynamism that characterizes their activities and motives over time.

To avoid this simplistic approach, we created a typology that combines two variables: the hosts’ economic dependence on STR income (its proportion of total household income) and the way in which the activity is carried out - that is, whether it is exclusive or complementary. As can be seen in Table 2, there are quite marked geographical variations resulting from the specificities of the respective territories at several levels, namely: (i) housing market; (ii) occupation duration (either continuous or seasonal); (iii) tourism profile (urban, seaside, other); (iv) status in global tourism and real estate circuits; and (v) employment/economic structure.

**Table 2: Type of host according to how they exercise the activity and level of dependence. Source: Covid and STR Survey (%)**

	Lisbon	Porto	Algarve	Other municipalities	Portugal
1. Exclusive dedication with extreme dependency	38.1	29.6	22.8	13.1	25.7
2. Exclusive dedication with partial dependency	10.8	7	8.7	8	8.9
3. Independent with exclusive dedication	0	0	2.2	7.3	2.7
4. Non-exclusive with extreme dependency	10.1	11.3	5.4	5.1	7.7
5. Non-exclusive with partial dependency	20.9	32.4	38	38.7	31.9
6. Non-exclusive independents	5.8	5.6	12	14.6	9.8
7. Other situations	14.4	14.1	10.9	13,1	13.2
Total	100	100	100	100	100

Note: i) extreme dependency, when the income from the STR is more than 50% of total household income; ii) partial dependence, when the income from the STR is between 10% and 50% of total household income. In both, we had two ranges - 11% to 25% and 26% to 50%; 51% to 75% and over 75% - and in both the most frequent responses fell in the upper range.

Lisbon and Porto share the same vocation (urban tourism) and STR occupation potential throughout the year. Their hosts also share a very similar demographic profile: high average age (50 and 51 in Porto and Lisbon, respectively, but the lowest compared to the total, which was 53); and a very high proportion of hosts with a university education (around 90 per cent), if compared with the population (according to the 2021 Census Lisbon has 41% of graduates and Porto 35%).

However, the structure of the sector shows that we are facing two different realities. While in all the territories there are two dominant types of host (non-exclusive with partial economic dependence and exclusive with high economic dependence – the latter close to ‘professional’), Lisbon stands out as the more ‘professional’ and dependent market, with a double ‘statutory superiority’, both on the

global tourism circuit, and in the rankings of global cities. Lisbon is, therefore, the territory with the greatest proportion of hosts who are dedicated exclusively to and therefore most dependent on STR (38%) and with the lowest proportion of hosts with a single property on STR (28%).

Lisbon is also the most unequal and diverse case, with the lowest proportion of individual holders (28%) and the highest of medium and large exclusively holders and holders/managers (11%) as shown by table 3. For this reason, it is also the most entrepreneurial: it has the higher share of companies (46%) and the lower of sole proprietorships (54%), even so these are dominant.

**Table 3: Type of host according to the number of STR and operating form (holders of STR licence or/and managers of STR); Source: Covid and STR Survey (%)**

	Lisbon	Porto	Algarve	Other Municipalities	Portugal
Individual Holders (1 STR)	28.3	39.3	54.5	67.1	49
Micro Holders (2-3 STR)	27.9	28.1	21.5	13.5	21.7
Small Holders (4-10 STR)	11.5	17	5.5	7.6	9.7
Medium and large Holders (+ 10 STR)	2	3.7	2	0.7	1.8
Micro and small Holders/Managers (2-10 STR)	17.2	5.9	8.5	4.8	9.3
Individual, micro and small Managers (1-10 STR)	4.1	1.5	3.5	3.1	3.2
Medium and large Holders/Managers (+10 STR)	9	4.4	4.5	3.1	5.3
Total	100	100	100	100	100

Porto occupies an intermediate position between Lisbon and the Algarve: it has a very close distribution between the “exclusive dedication with extreme dependency” type (30%) and the “non-exclusive with partial dependency” one (32%). At the same time, they are less concentrated, with 8% of medium and large holders and holders/managers, while 39% are individual holders (11% more than in Lisbon). It is in these two cities that we find the highest percentage of hosts who are extremely dependent economically on STRs, irrespective of the form in which the activity is carried out (exclusive or complementary). This can be explained both by the high property prices in these cities – particularly in Lisbon – and the aforementioned durability of the activity (potentially all year round).

In turn, the great demographic similarity of the host profiles in the two cities – the high level of educational qualification and the existence of many individuals with professions with some kind of relationship with the activity (architects, engineers or estate agents) – demonstrates how investment in STR properties has also presented itself as a professional opportunity: either as a means of overcoming the crisis of 2011-14, which was particularly hard on professionals in the construction sector, or as a way to overcome the constraints of low-paid and precarious professional occupations in Portugal, such as architecture and civil engineering (Mateus, 2017; MTA, 2020).

The Algarve is Portugal’s beach holiday destination *par excellence* where, unlike in other parts of the country, STR is a largely seasonal business: here, there is twice as many secondary housing as there is anywhere else in the country (39% according to the 2021 Census, compared to 19% for the country as a whole and 9% in the Lisbon region), which justifies the peculiarity of the structure of the STR sector in this part of the country. In the Algarve, in addition to being engaged in other activities, of those involved in STR, 38% are only partially dependent on STR income and 12% are not dependent at all on it, while 55% are individual holders. Therefore, the share of companies (21%) is less than half of that recorded in Lisbon. The Algarve is also where the hosts have the highest average age (58) and the lowest level of education – although it is still quite high. Finally, the remaining parts of the country, which are very diverse, have the lowest dependencies and degrees of exclusivity, the overwhelming majority being individual holders (67%).

## 5. IMPACTS AND FUTURE PROSPECTS

As already said the survey accounted for losses incurred during the first four months of the pandemic: from March to June. The data is not surprising either in terms of: 1. the size of the loss – which is extremely high, especially during the second quarter, as March was a transition month (as noted above, voluntary lockdown began in mid-March); 2. the variables explaining it – 2.1 the degree of economic dependence is an important variable and the losses were more acute among those most dependent, whether or not they were dedicated exclusively to STR (Table 4); 2.2 the second is related to the first and concerns the size, the STR number that each host has - the more STR, the greater the loss (Table 5); 2.3 finally, and in line with the conclusions of Martinho (2021) Santos and Moreira (2021), geography is decisive (Figure 2 and Figure 3) with the densest (urban) and most touristic areas suffering the greatest impacts.

Detailing now the analysis, it is clear that all the hosts, independently of their characteristics, had remarkable losses. It is worth noting that the losses in invoicing across all territories preceded and were more severe than those in occupation, which suggests there may have been a temporary reduction in prices as a means of compensating for the losses. But, it was the medium and the large (+ 10 STR) that lost the most, especially in invoicing, and, at the opposite pole, are the smaller: from April to June all medium and large holders had (year-on-year) losses of more than 50 per cent and a quite similar situation occurs among the medium and large holders/Managers (Table 5).

**Table 4: Percentage of those who lost more than 50% of occupancy and invoicing during (March, April, May, June 2020), in relation to the same months of 2019, by type of host according to how they exercise the activity and level of dependence; Source: Covid and STR Survey**

	March 2020		April 2020		May 2020		June 2020	
	Occup	Invoic	Occup	Invoic	Occup	Invoic	Occup	Invoic
Exclusive dedication with extreme dependency	42.3	71.3	84.7	94.6	89.2	98.1	87.6	95.4
Exclusive dedication with partial dependency	26.3	60.5	61.5	89.5	61.5	86.8	53.8	81.6
Independent with exclusive dedication	8.3	40.0	8,3	50	25	50	25	50
Non-exclusive with extreme dependency	41.2	68.8	85.3	97	82.4	93.9	73.5	93.8
Non-exclusive with partial dependency	27.3	59.7	64.1	83.2	66.7	83.5	73.5	85.8
Non-exclusive independents	14	50	37.2	69.2	39.5	70.3	65.1	76.3
Other situations	37.5	73.1	64.3	86.5	78.6	95.9	73.2	94
Total	31.7	63.9	66.7	86.2	71	88.3	73.2	87.9

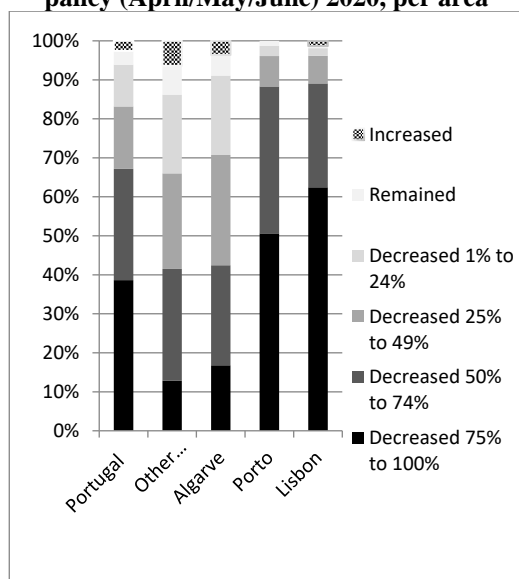


**Table 5: Percentage of those who lost more than 50% of occupancy and turnover in relation to the same months of the previous year (March, April, May, June), by Type of host according to the number of STR and operating form (holders of STR licence or/and managers of STR); Source: Covid and STR Survey**

	March 2020		April 2020		May 2020		June 2020	
	Occup	Invoice	Occup	Invoice	Occup	Invoice	Occup	Invoice
Individual Holders (1 STR)	28	56.9	52.9	76.9	58.9	79	68.4	80.3
Micro Holders (2-3 STR)	34	69.4	68.9	84.8	75	88.5	75.2	85.9
Small Holders (4-10 STR)	28	60	80	93.5	82	95.7	75.5	95.7
Medium and large Holders (+ 10 STR)	25	62.5	87.5	100	87.5	100	75	100
Micro and small Holders/Managers (2-10 STR)	37	70.6	69.8	88	77.4	90	79.6	95.9
Individual, micro and small Managers (1-10 STR)	47.1	88.2	76.5	100	88.2	94.1	76.5	94.1
Medium and large Holders/Managers(+10 STR)	13.3	60	60	100	60	100	66.7	96.7
Total	30	63	62.8	84.3	68.3	86.4	72.1	86.8

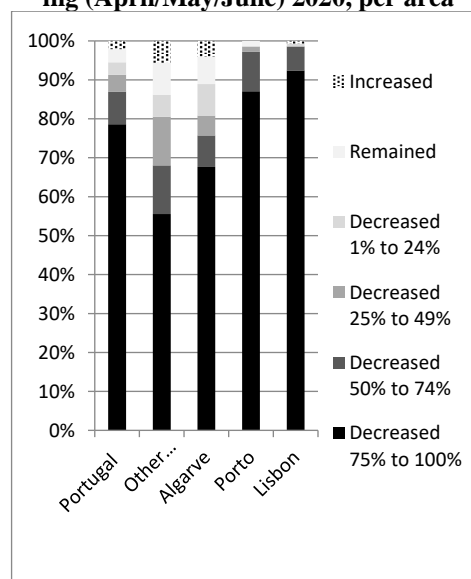
As to the third variable, geography, there is a clear hierarchy of losses as can be seen in Figures 2 and 3: first, Porto and, above all, Lisbon are more densely populated territories and, therefore, were the areas most affected by the pandemic; second, the Algarve, where the losses suffered, while quite high, did not reach the levels of Lisbon; and third, the remaining territories, which lost the least, with some remaining stable or even gaining – in fact, the desire to flee the cities, whether out of fear of contagion or simply to spend lockdown in a less densely populated space closer to nature, was a feature of the pandemic that was visible during the first lockdown (Pereira and Matos, 2020).

**Figure 2: Annual rate of change (%) in occupancy (April/May/June) 2020, per area**



Source: Covid and STR Survey

**Figure 3: Annual rate of change (%) in invoicing (April/May/June) 2020, per area**



Source: Covid and STR Survey

One of the key findings in the literature on the impact of the pandemic on the STR and tourist activity is corroborated by our survey: the uneven distribution of the impacts, pointing out a greater fragility of the more "entrepreneurial" hosts, i.e. those which concentrate a greater number of STRs and economically more dependent on the activity. But there is another factor, related to the public support to deal with these impacts (Chen et al., 2021), which introduces greater complexity to the analysis, removing credibility from the hypothesis of greater survivability/sustainability of small and less professional hosts. In fact, at the time of the survey, public support was almost exclusively aimed at those more "entrepreneurial" hosts, the companies, which represent a minority of the respondents (31%) - the majority was sole proprietorship (69%). The dominant support for companies was the layoff, although the support most used by both (companies and sole proprietorships) was the debt moratorium, a general measure for anyone with a housing credit. This explains that respondents had a negative assessment of the support measures provided by the government, either because they were excluded or because they considered them as short-term measures inducing over-indebtedness.

Even so, expectations for a normalization of the situation are the product of a remarkable optimism: 43% of respondents were optimistic that the sector would normalize in 2021; 28% remain cautious (believing normalization will not happen until at least 2022); 12% were pessimistic (believing the sector will never be the same again); while 14% did not know what the future will hold. Although the losses affected Lisbon and Porto particularly hard, the expectations of the two dominant groups in the cities are quite different. In Lisbon we see what would be expected when taking into account the hypotheses raised by Dolnicare and Zare (2020) – the most "professional" (exclusive dedication with extreme economic dependency) are slightly less optimistic (38%) than the whole, while also being more cautious (38%). However, in Porto, like the Algarve, the views expressed were the opposite (Table 6).

**Table 6: Expectations towards the normalization of the situation of the two dominant types of host in Lisbon, Porto and the Algarve**

		Exclusive dedication with extreme (economic) dependency	Non-exclusive with partial dependency
Lisbon	Very Optimistic	1.9	3.4
	Optimistic	37.7	51.7
	Cautious	37.7	31
	Pessimistic	11.3	3.4
	Don't know	11.3	10.3
	Total	100	100
Porto	Very Optimistic	0	0
	Optimistic	52.4	47.8
	Cautious	28.6	34.8
	Pessimistic	9.5	8.7
	Don't know	9.5	8.7
	Total	100	100
Algarve	Very Optimistic	4.8	2.9
	Optimistic	47.6	28.6
	Cautious	19	40
	Pessimistic	19	2.9
	Don't know	9.5	25.7
	Total	100	100

Source: Covid and STR Survey

This optimism was not independent of the moment of the survey: the summer of 2020, when there was a slight recovery and a certain feeling of normality after a harsh confinement, which was an unprecedented experience in the life history of all respondents.

Nevertheless, the respondents' intentions regarding the uses to be given to STR in the short term seem to be much more revealing of the possible futures of the sector and related sectors, particularly the Private Rented Sector. The overwhelming majority of hosts, including the more dependent on

this activity, stated their intention to continue operating in the STR market. Medium-term renting – for up to one year, without risking the loss of their STR licence – appears as the second option, albeit one that is more evident among those who are exclusively dedicated and who are extremely economically dependent on STR and those in the cities. Not by accident, the Flatio platform, which offers medium and short-term rentals, bought NomadX (a rental platform for digital nomads) in late 2020 in order to expand this segment in the Portuguese market.

**Table 7. Use intentions for the STR in the short-term by type of host (question of multiple answer; the question referred to intentions until the end of 2020); Source: Covid and STR Survey**

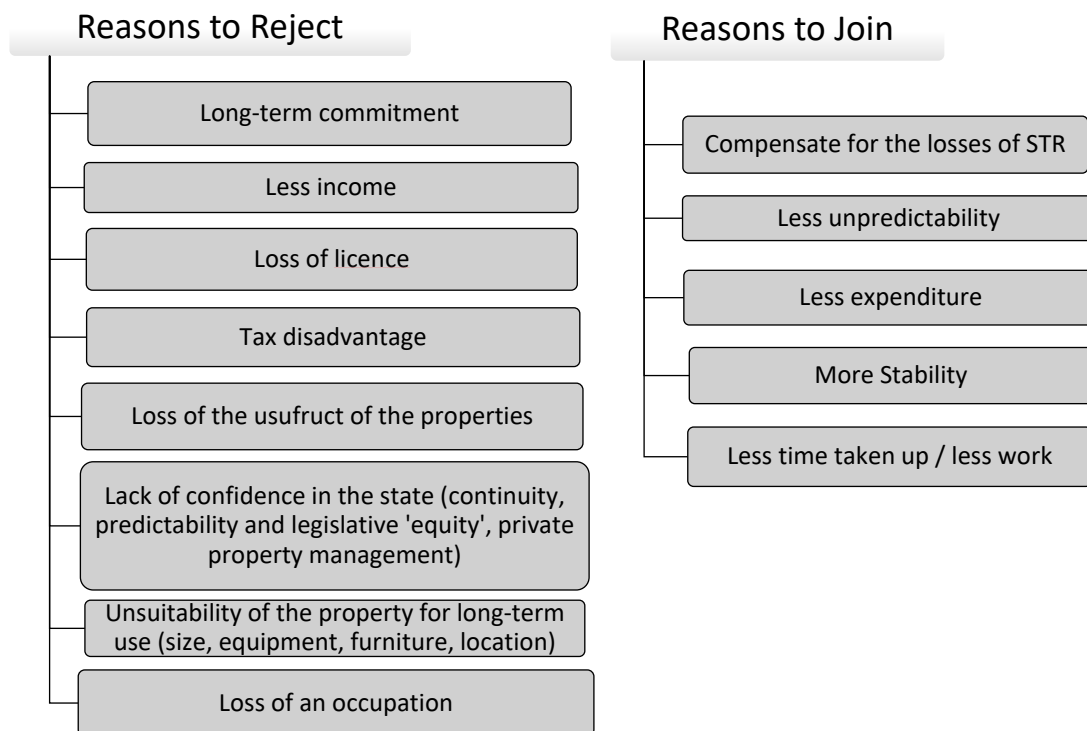
	Exclusive dedication with extreme (economic) dependency	Exclusive dedication with partial dependency	Independent with exclusive dedication	Non-exclusive with extreme dependency	Non-exclusive with partial dependency	Non-exclusive independents
STR	82.9	71.4	50	79.4	73.1	70
Mid-Term Rental	70	62.2	14.3	59.3	46.7	39.4
Long duration rental/private	20.2	11.8	12.5	11.5	17.5	21.9
Long duration rental/public	5,7	0	0	0	1.7	6.7
Sell	21.8	14.7	12.5	18.5	12.4	10

Even considering that the intention to sell is more important among the most dependent, whether or not they exercise the activity exclusively, the eventual massive migration of STR properties to the long-term rental sector is not very likely. In fact, long-term renting is the option of a minority, one that lags far behind medium-term renting, which is an option that is clearly more evident in the cities. Public and private long-term rentals are also more visible in the cities, albeit to a much lesser extent than medium-term rentals. As far as long-term rentals are concerned, it is worth making the distinction between private rentals, which a reasonable proportion of STR hosts believe to be a viable option, and public rentals (resulting from public programmes aimed at attracting the STR hosts to the long-term rental market), with this latter option selected by only 3% of respondents. Understanding the lack of motivation for traditional renting (given the strong resistance) and the motivations guiding the minority, is crucial if we are to know the possible private rented market dynamics (Figure 4).

The financial issue (lower income and tax disadvantage) and rigidity resulting from long-term time commitments are not the only reasons hosts opt for STR over long-term rental. The loss of a personal occupation and the possibility of using the property (revealing the non-exclusiveness of these short-term properties) are also mentioned. However, there are two categories of reason deserving special mention. The first relates to the property’s unsuitability for long-term occupation, a reason that includes a number of very different situations: from cases where the property was specifically designed for STR, indicating a logic of building rehabilitation that is geared strongly towards tourism, to those of territories of seasonal ‘usufruct’ occupation. The second reason is the most relevant, and concerns the public’s negative view of the state – of a mistrust of institutions – that is particularly prevalent in Portugal (Torcal, 2014), which emerges as a factor preventing people from entering the private rental market, especially given the perception of permanent legislative discontinuity and distrust regarding the landlord’s protection mechanisms.

The reasons referred by those who opted for private long-term rental indicate a curious situation: if the immediate/initial motivation seems to have been the need to compensate for losses following the pandemic, the other reasons (less unpredictability, more stability, less expenditure and less time taken/less work) point to a change in the perception of this type of rental after some experimentation. As such, the perceptions are neither true nor false; however, they may result from a concrete lack of knowledge of the reality, of a lack of experience and/or from the narratives dominating the social and professional spaces in which the individual moves, and which tend to be assumed to be irreversible convictions.

**Figure 4. Reasons for rejecting and accepting long-term rental; Source: Covid and STR Survey**



## 6. CONCLUSION

This article is a novel contribution to the literature and public policy on the impact of Covid on STR in a southern European country, an area that is particularly dependent on tourism. Distinguishing itself from initial approach to this topic, which was marked by the proliferation of more or less prophetic narratives about a post-Covid response to the human need to endure uncertainty, this article focuses on an analysis of the on-going dynamics, practices, perceptions and intentions of the supply agents: that is, the owners and managers of STR licences. This analysis identifies: (i) trends with some solidity, which differentiates them from more ephemeral dynamics that are marked by the social, health and emotional moments of the pandemic during which the analysis and enquiries develop; (ii) effective risks resulting from those trends or from other dynamics that are in progress; and (iii) factors that may condition different paths.

The trend that seems more solid at present is the (limited) migration towards private long-term rental and a relatively significant migration to medium-term rental. This latter response, as well as offering the hosts more flexibility by allowing a mixed system that could be exploited in association with STR, may become more popular in the wake of changes resulting from Covid (essentially, but not exclusively in cities): the increase of life-style migrations (Hayes, 2018) – digital nomads, investors, retired, highly qualified staff, etc. – in countries, such as Portugal, where geo-arbitrage – “taking advantage of international price differences in costs of living for personal or business purposes” (Penney and Dramowicz, 2016:1) – is promising (Pereira, 2022). Additionally, and especially in cities, the majority of STRs – whether due to their location (in historic centres with specific urban morphologies, equipment and experiences) or due to their housing typologies (minimalist housing in terms of size, comfort and facilities) – are much more suited to ‘transitory experiences’ than they are for long-term appropriation as experienced in traditional rentals.

Accordingly, the hypothesis that there will essentially be a reproduction of the sector in the post-Covid period (Cocola-Gant, 2020) does not seem completely plausible. Even less plausible is the suggestion that this sector will completely transform in some kind of ethical purification and that there will be a return to the original ethos of the sharing economy with the “disappearing” of the most professional (Dolnicar and Zare, 2020; Zhang et al., 2021). In fact, the size of the loss (which according to these authors penalizes the “professionals and speculators” more) is not the only factor, and perhaps not even the main one, in determining the future of STR. The type of public support

received during the pandemic is a key factor in determining survivability during this period. As happened in other countries (Chen et al., 2021), in Portugal, in all sectors – and STR in particular – the support offered by the state was more advantageous to companies (who could furlough staff) than it was for sole proprietorships, for whom the most significant support was the moratorium on debt (which essentially amounted to housing credit). This brings the discussion of one important risk the less fragile hosts can face in the short- and medium-term: the consequences of the end of this measure.

Still, there may be a (hypothetical) reconfiguration of the STR sector tending to its "functional dualization": on the one hand, the larger and more professional ones (essentially concentrated in cities), which have developed in a logic of mimicking hotel industry practices (Cocola-Gant, et al., 2021), may remain in the tourism activity and in the short-term renting; on the other hand, with the growth of the demand for more or less affordable housing by digital nomads or international students, the smaller ones (whose accommodations have a domestic rather than hotel identity) will be able to progressively specialize in this segment and in the medium-term renting.

If this hypothesis is confirmed, it has obvious risks: on the one side, the pressure on the housing market will tend to grow in line with the growth in demand fuelled by these lifestyle migrants; on the other side, the growing specialisation of "corporate hosts" in tourism and their "quasi-hotel identity" reinforces the unfair competition with the hotel industry, which has always been one of the main arguments of this sector to claim for tougher regulation of the STR (Cocola-Gant, et al, 2021; Pereira, 2020a).

Finally, and in addition to the factors that will condition the recovery of the economies and tourism in most European countries – such as the duration of the pandemic and vaccinations in Europe, the late implementation of recovery and resilience plans (Leali, 2021) or the rising inflation and increasing interest rates that may limit citizens' financial availability – there are other factors that may condition the evolution of the sector. These include urban policies for the functional reconfiguration of the areas most affected by Covid following their extreme dependence on tourism before the pandemic, and realistic policies to encourage long-term rental: policies that take into account the motivations and perceptions of the actors involved. However, in cases such Portugal - where, especially in the cities, STR represented an opportunity for some to improve their income or to escape unemployment - it is essential to ensure economic restructuring and the development of job creation strategies that are capable of reducing the dependency on tourism.

The approach developed is based on the awareness that, in a context marked by the non-linear nature (of the pandemic), its unpredictability and the emotional reaction to it, this analyses – while being necessarily inconclusive – is potentially ephemeral. This is one of the limitations of the research, the exclusive focus on an early stage of the pandemic. Another limitation was the selection of the sample from The Portuguese Association of Local Accommodation (ALEP): having allowed a high response rate, it excluded agents and even regions less represented by that association. The recognition of these limitations recommends the development of future research capable of following the development of the sector (in the short, medium and long term) in all its diversity, regarding multiple agents and geographies.

## REFERENCES

Adamiak, C. (2019). Current state and development of Airbnb accommodation offer in 167 countries. *Current Issues in Tourism*, 1–19, doi:10.1080/13683500.2019.1696758.

Almeida, F. & Silva, O. (2020). The impact of Covid-19 on tourism sustainability: evidence from Portugal. *Advances in Hospitality and Tourism Research*, Vol.8 (2), 440-446, DOI: 10.30519/ahtr.775340

Argawal, V., Koch, J. V. & McNab, R. M. (2019). Differing views of lodging Reality: AirDna, STR and Airbnb. *Cornell Hospitality Quarterly* 60 (3), 193–9, doi.org/10.1177/1938965518777218.

Balampanidis, D., Maloutas, T., Papatzani, E. and Pettas, D. (2019). Informal urban regeneration as a way out of the crisis? Airbnb in Athens and its effects on space and society. *Urban Research & Practice*, Epub ahead of print 5 April, doi: 10.1080/17535069.2019.1600009

Batalha, M. (2021). *Lessons from the pandemic: are short-term rentals driving real-estate prices in Lisbon?* Project carried out on the Master in Economics Program, Nova School of Business and Economics; [https://run.unl.pt/bitstream/10362/121942/1/2020-21\\_fall\\_29312\\_mafalda-batalha.pdf](https://run.unl.pt/bitstream/10362/121942/1/2020-21_fall_29312_mafalda-batalha.pdf)

Chen, G., Cheng, M. Edwards, D. & Xu, L. (2021). COVID-19 pandemic exposes the vulnerability of the sharing economy: a novel accounting framework. *Journal of Sustainable Tourism* doi: 10.1080/09669582.2020.1868484

Cocola-Gant, A. (2016). Holiday rentals: The new gentrification battlefield. *Sociological Research Online*, 21 (3), 1-9 doi: 10.1080/09669582.2020.1868484.

Cocola-Gant, A. (2020). Apartamentos turísticos, Covid-19 e capitalismo de plataformas. *Finis-terra LV* (115), 211–16, doi: 10.18055/Finis20187.

Cocola-Gant, A. Jover, J. , Carvalho, L. & Chamusca, P. (2021). Corporate hosts: The rise of professional management in the short-term rental industry. *Tourism Management Perspectives*. <https://doi.org/10.1016/j.tmp.2021.100879>

Deboosere, R., Kerrigan, D. J., Wachsmuth, D. & El-Geneidy, A. (2019). Location, location and professionalization: A multilevel hedonic analysis of Airbnb listing prices and revenue. *Regional Studies*, 6 (1), 143–56 doi: 10.1080/21681376.2019.1592699

Dolnicar, S. & Zare, S. (2020). Covid-19 and Airbnb: Disrupting the disruptor. *Annals of Tourism Research*, doi.org/10.1016/j.annals.2020.102961.

Dolnicar, S. (Ed.). (2021). *Airbnb before, during and after COVID-19*. University of Queensland, DOI: 10.14264/ab59afd

Duca, J., Hoesli, M. & Montezuma, J. (2021) The resilience and realignment of house prices in the era of Covid-19, *Journal of European Real Estate Research*, Vol. 14 No. 3, 2021 . 421-431, DOI 10.1108/JERER-11-2020-0055

Farmaki, A., Miguel, C., Drotarova, M. H., Aleksic, A., Casni, A. C. & Efthymiadou, F. (2020). Impacts of Covid-19 on peer-to-peer accommodation platforms: Host perception and responses. *International Journal of Hospitality Management*, doi.org/10.1016/j.ijhm.2020.102663.

Fernandes, J. R., Carvalho, L., Chamusca, G. & Mendes, T. (2019), *Lisboa e a Airbnb*, Porto: Book Cover.

Freytag, T. & Bauder, M. (2018). Bottom-up touristification and urban transformations in Paris. *Tourism Geographies*, 20 (3), Epub ahead of print 4 April, doi: 10.1080/14616688.2018.1454504.

Gerwe, O. (2021). The Covid-19 pandemic and the accommodation sharing sector: Effects and prospects for recovery. *Technological Forecasting & Social Change*. <https://doi.org/10.1016/j.techfore.2021.120733>

Gouveia, C. (2021). *Impactos da pandemia Covid-19 nas viagens e no turismo: o caso da região centro de Portugal*, Dissertação de Mestrado em Turismo, Patrimónios e Território, Faculdade de Letras da Universidade de Coimbra - [https://eg.uc.pt/bitstream/10316/97008/1/CatarinaGouveia\\_-versaofinal.pdf](https://eg.uc.pt/bitstream/10316/97008/1/CatarinaGouveia_-versaofinal.pdf)

Gotham, K. F. (2005). Tourism gentrification: The case of New Orleans' Vieux Carre (French Quarter). *Urban Studies* 42 (7), 1099–121 <https://doi.org/10.1080/00420980500120881>.

Guglielminetti, E. Loberto, M. & Mistretta, A. (2021). *The impact of Covid-19 on the European short-term rental market*, Banca D'Italia Eurosistema, Covid-19 Note, 3 Feb. 2021 [https://www.bancaditalia.it/pubblicazioni/temi-discussione/2022/2022-1379/en\\_tema\\_1379.pdf?language\\_id=1](https://www.bancaditalia.it/pubblicazioni/temi-discussione/2022/2022-1379/en_tema_1379.pdf?language_id=1)

Gyódi, K. (2021). Airbnb and hotels during Covid-19: different strategies to survive, *International Journal of Culture, Tourism and Hospitality Research*, <https://doi.org/10.1108/IJCTHR-09-2020-0221>

Hayes, M. (2018). *Gringolandia Lifestyle Migration under Late Capitalism*. Minneapolis: University Minnesota Press

Haywood, M. K. (2020). A post-Covid-19 future: Tourism re-imagined and re-enabled. *Tourism Geographies* 22 (3), pp.599–609, doi: 10.1080/14616688.2020.1762120.

Heo, C. Y. & Blengini, I. (2018). A macroeconomic perspective on Airbnb's global presence. *International Journal of Hospitality Management* 78, pp. 47–9, doi:10.1016/j.ijhm.2018.11.013.

Higgins-Desbiolles, F. (2021). The “war over tourism”: Challenges to sustainable tourism in the tourism academy after Covid-19. *Journal of Sustainable Tourism*, <https://doi.org/10.1080/09669582.2020.1803334>.

Jafari, J. (2005). El turismo como disciplina científica. *Política y Sociedad* 42 (1), pp.39–56 <https://revistas.ucm.es/index.php/POSO/article/view/POSO0505130039A/22996>.

Leali, G. (2021). France’s Le Maire says EU recovery plan “not on the right track”. *Politico*, 7 April, [www.politico.eu/article/frances-le-maire-slams-delay-in-eu-recovery-plan/](http://www.politico.eu/article/frances-le-maire-slams-delay-in-eu-recovery-plan/).

Liang, S., Leng, H., Yuan, Q. & Yuan, C. (2021) Impact of the COVID-19 pandemic: Insights from vacation rentals in twelve mega cities. *Sustainable Cities and Society*, <https://doi.org/10.1016/j.scs.2021.103121>

Marques, C. P., Guedes, A. & Bento, R. (2021), “Rural tourism recovery between two Covid-19 waves: the case of Portugal”, *Current Issues in Tourism*, DOI: 10.1080/13683500.2021.1910216

Martinho, V. (2021) *Economics of tourism in Portugal: impacts of the Covid-19 pandemic*, Springer: Cham

Mateus, C. (2017). O regresso dos engenheiros civis. *Expresso*, 10 December, [expresso.pt/economia/2017-12-10-O-regresso-dos-engenheiros-civis](http://expresso.pt/economia/2017-12-10-O-regresso-dos-engenheiros-civis).

Mendes, L. (2020). Covid-19 e as novas oportunidades para o arrendamento em Lisboa. *Público*, 27 March, [www.publico.pt/2020/03/27/opiniao/noticia/covid19-novas-oportunidades-arrendamento-lisboa-1909700](http://www.publico.pt/2020/03/27/opiniao/noticia/covid19-novas-oportunidades-arrendamento-lisboa-1909700).

MTA (2020). *Relatório do inquérito aos trabalhadores em arquitectura*. [www.movimento-mta.pt/documentos/20210209-MTA\\_relatorio\\_do\\_inquerito.pdf](http://www.movimento-mta.pt/documentos/20210209-MTA_relatorio_do_inquerito.pdf).

O’Sullivan, F. (2020). Can Airbnb survive coronavirus? *Bloomberg CityLab*, 3 April, [www.bloomberg.com/news/articles/2020-04-03/can-airbnb-survive-coronavirus](http://www.bloomberg.com/news/articles/2020-04-03/can-airbnb-survive-coronavirus).

Penney, J. & Dramowicz, K. (2016). Geographical aspects of geo-arbitrage: work in Canada and live in countries with low cost of living. *9th Symposium of the International Society for Digital Earth. IOP Conf. Series: Earth and Environmental Science* 34. doi:10.1088/1755-1315/34/1/012025

Pereira, S. M. (2020a). ‘Regulation of short-term rentals in Lisbon: Strike a balance between tourism dependence and urban life. *Urban Research & Practice*, doi: 10.1080/17535069.2020.1842901.

Pereira, S. M. (2020b). Lisboa, alojamento local e renda acessível: Do *wishful thinking* à realidade. *Público*, 3 December, [www.publico.pt/2020/12/03/opiniao/noticia/lisboa-alojamento-local-renda-acessivel-wishful-thinking-realidade-1941447](http://www.publico.pt/2020/12/03/opiniao/noticia/lisboa-alojamento-local-renda-acessivel-wishful-thinking-realidade-1941447).

Pereira, S. M. (2022). Lisboa 2022: da gentrificação à geoarbitragem. *Público*, 14 January, <https://www.publico.pt/2022/01/14/opiniao/opiniao/lisboa-2022-gentrificacao-geoarbitragem-1991724>

Pereira, S. M. & Matos, M. (2020). Relatório habitação e Covid-19’, *DINÂMIA’CET-Iscte-Iul*, 4151a5c8-348c-441f-9545-a7bec6c67a9e.usrfiles.com/ugd/4151a5\_f084f419db2140d1a8493016a37e5e46.pdf.

Santos, N. & Moreira, C. (2021) Uncertainty and expectations in Portugal’s tourism activities. Impacts of COVID-19, *Research in Globalization*, doi.org/10.1016/j.resglo.2021.100071

Semi, G. & Tonetta, M. (2020). Marginal hosts: Short-term rental suppliers in Turin. *Environment and Planning A: Economy and Space*, doi.org/10.1177%2F0308518X21988940.

Seyfi, S., Hall, M. C. & Shabani, B. (2020). Covid-19 and international travel restrictions: The geopolitics of health and tourism. *Tourism Geographies*, doi: 10.1080/14616688.2020.1833972.

Sharma, G., Thomas, A. & Paul, J. (2021). Reviving tourism industry post-COVID-19: A resilience-based framework, *Tourism Management Perspectives*. <https://doi.org/10.1016/j.tmp.2020.100786>

Shen, L. and Wilkoff, S. (2020). Cleanliness is next to income: The impact of Covid-19 on short-term rentals. 27 November, [dx.doi.org/10.2139/ssrn.3740321](https://dx.doi.org/10.2139/ssrn.3740321).

Sigala, M. (2020). Tourism and Covid-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research* 117, 312–21, doi.org/10.1016/j.jbusres.2020.06.015.

Torcal, M. (2014). The decline of political trust in Spain and Portugal: Economic performance or political responsiveness? *American Behavioral Scientist* 58 (12), 1542–67, doi: 10.1177/0002764214534662.

Trojanek, R., Gluszak, M., Hebdzynski, M. & Tanas, J. (2021). The COVID-19 Pandemic, Airbnb and Housing Market Dynamics in Warsaw. *Critical Housing Analysis*, 8 -1, 72-84 DOI 10.13060/23362839.2021.8.1.524 <https://doi.org/10.1177/0308518X18778038>

Wachsmuth, D. & Weisler, A. (2018). Airbnb and the rent gap: Gentrification through the sharing economy. *Environment and Planning A: Economy and Space* 50 (6), 1147–70.

Wu, J., Ma, P. & Xie, K. L. (2017). In sharing economy we trust: The effects of host attributes on short-term rental purchases. *International Journal of Contemporary Hospitality Management* 29 (11), pp. 2962–76, doi.org/10.1108/IJCHM-08-2016-0480.

Yrigoy, I. (2018). Rent gap reloaded: Airbnb and the shift from residential to touristic rental housing in the Palma Old Quarter in Mallorca, Spain. *Urban Studies*, doi.org/10.1177%2F0042098018803261

Zhang, M., Geng, R., Yuan Huang, Y. & Ren, S. (2021). Terminator or accelerator? Lessons from the peer-to-peer accommodation hosts in China in responses to Covid-19. *International Journal of Hospitality Management* 92, 102760, doi.org/10.1016/j.ijhm.2020.102760.