



Debate section:

## Digital mediated short-term rentals in the (post-)pandemic city

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### ABSTRACT

In this section, we reflect, both empirically and speculatively, on the perspectives for STRs and related digital platforms in the (post-)pandemic city, on the grounds of early signals of change in relation to spatial justice and institutional arrangements. The discussion is opened by Tulumello and Cocola-Gant, who, by investigating the case of Lisbon, Portugal, reflect on the flexible nature of platforms vis-à-vis the (neoliberal) cloud of de- and re-regulation in housing and rental markets, discussing how this intersection allows STRs to adapt and succeed, also during the pandemic. Similarly, Iacovone explores the professionalisation of platform-mediated STRs and their adaptability to increasingly more flexible and malleable requests from the market – dimensions that allow them to successfully outcompete smaller actors. Finally, Pettas and Dagkouli-Kyriakoglou, by focusing on the case of Athens, Greece, discuss the ways STRs could be transformed into housing infrastructure for remote workers in connection to the restructuring of the post-pandemic labour market.

### Introduction

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During the years preceding the COVID-19 pandemic, digital platforms have dramatically changed the way we experience cities, housing, tourism, leisure and many other fields. In this debate, we focus on one field that makes this convergence particularly visible, the short-term rental (STR) sector. Its momentous growth driven by the explosion of digital platforms in the 2010s seemed to constitute an unstoppable wave, praised and supported by governments, and at the same time with dramatic impacts on the urban fabric. While hospitality and tourism were experiencing thriving years, this is partially, if not above all, related to the ways digital platform mediators have revolutionized the entire system, first by building up on the imaginary of the ‘sharing economy’ and afterwards by making STRs and similar activities extremely alluring for global investors. As widely discussed by critical scholarship (Ash et al., 2018; Ferreri & Sanyal, 2018; Balampanidis et al., 2019; Celata, Capineri & Romano, 2020 to name some), platforms facilitating STRs have contributed to reordering socio-spatial hierarchies and inequalities in cities and regions worldwide, affecting multiple fields of everyday life for the resident population. They have been able to do so thanks to their power to negotiate regulations and fiscal frameworks directly with states, cities and provinces (Lapointe, Sarrasin & Benjamin, 2018; Ferreri & Sanyal, 2018).

Digitally mediated STRs have been presented as being part and parcel of the so-called sharing economy (or collaborative consumption).

This is, however, a discursive manoeuvre that has been effective in masking, behind the positive reference to the ‘sharing culture’, what is, in fact, a long-standing, if often informal, form of economic activity in the housing markets (Jefferson-Jones, 2015). In fact, the birth of Airbnb preceded the emergence, placed in 2011, of the discourse about sharing economy (Ferreri & Sanyal, 2018) – that is, the very idea of the ‘sharing economy’ may have appeared as a means to reframe a new version of classic economic activities based on innovative ideas and digital means. The main factors that led to the fast-growing expansion of ideas about sharing economy are technological (e.g. Web 2.0 internet technologies), economic (e.g. financial crisis and unemployment especially for young people), societal (as part of a customized sociable lifestyle and cross-cultural communication) and environmental (aspirations towards a sustainable consumption) (see also Owyang et al., 2013; Wang, 2019). In fact, Crommelin et al. (2018), after breaking down the myth of Airbnb as a booster of sharing economy, shows how the platform concretely allows the touristic sector to penetrate an asset traditionally used to cover the needs of a different market, that is, long-term housing (see also Ferreri & Sanyal, 2018).

The outburst of the COVID-19 pandemic – and the policies adopted as a response to it – have marked important changes in mobility, tourism and hospitality (including STRs), causing, at first, a worldwide ‘pause’ on relevant activities, while the recovery period (still ongoing) is characterised by new actors and dynamics. Though the actual impacts of these changes are yet to be seen, as we are still in the midst of this crisis, we can definitely already observe a ‘before’ and an ‘after’ for STRs. STRs were hit by the crisis less than the hotel industry (Airbnb occupancy in July 2020 was higher than in 2019 in many countries around the world)

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and the reason may be tracked to their flexibility to adopt to the needs of a changing clientele –e.g. they have been used to ease social distancing and provide STR full-service amenities to longer-term stays (Sanford & DuBois, 2020). The pandemic challenged but also may have created some opportunities for STRs after all, providing yet another example of the capacity of capitalism to exploit crises in order to open new paths of speculation (Klein, 2020).

The main point of originality of this debate – discussing digitally mediated STRs in the post-pandemic period – is its main limit too, as we are currently (fall 2021) facing the fourth wave of the pandemic. Though it may be too soon to draw definite conclusions on how the post-pandemic landscape of digital mediated short-term rentals will be shaped, this seems to be an appropriate moment to reflect, if somehow speculatively, on the structural problems in the way the state and local authorities understand priorities and aspirations. Indeed, this crisis may well force us to design a more sustainable, environmental and less disruptive tourism and hospitality sector. At the same time, digitally mediated STRs, with their role in (re)producing patterns of socio-spatial injustice, are facing both challenges and opportunities in the unfolding critical context of the pandemic.

This debate section brings together three commentaries that, from different perspectives and geographical contexts, aim to foster a discussion about the (post-)pandemic future of STRs and explore its socio-spatial implications.

In the first commentary, based on examples from Lisbon and Portugal, Simone Tulumello and Agustin Cocola-Gant present a twofold argument concerning the STR digital platforms by focusing on the idealization of a flexible market as a favourable context for them to thrive and the necessary de-/re-regulation of existing state policies to achieve that. By focusing on this (apparent) antithesis, they argue that regulation is necessary for the digital mediated STRs to survive and grow. Based on this, they then focus on the COVID-19 related crisis that seems to have reshaped STR activity with the crucial intervention of public policies. In relating their findings to broader economic patterns, Tulumello and Cocola-Gant conclude by arguing that the inherent urban nature of capitalism is central to the ambivalent nature of STRs.

In the second commentary, Chiara Iacovone explores the COVID-19 pandemic as a ‘crisis-as-usual’ and its consequences in the field of digitally mediated STRs, using data on Airbnb performance from around the world and Europe in particular. She argues that this critical conjuncture has contributed to consolidate the already ongoing processes of professionalization of the sector, as well as the involvement of global real estate investors, hence progressively cutting off the non-professional sector. During this process, massive investments were made in real estate in favour of a highly profitable rental extractivism that leads to the monopolisation of STRs. In so doing, Iacovone further deconstructs the ‘sharing economy’ imaginary by arguing that the smaller actors are ultimately left outside the utopia that they were originally promised.

In the last commentary, Dimitris Pettas and Myrto Dagkouli-Kyriakoglou focus on the case of Greece by exploring the trends of STRs before and during the first wave and summer of COVID-19 pandemic (2020). In Particular, they speculate on the ways STR hosts may experiment in order to adapt to the new context. Simultaneously, they juxtapose the increasing digitally mediated deterritorialization of labour, driven by pandemic-induced restrictions regarding labour spaces. Pettas and Dagkouli-Kyriakoglou argue, accordingly, that the existing STR infrastructure in urban centres, initially meant to host short-term visitors, has been reshaped by grabbing the opportunity to service remote workers and digital nomads, mostly through medium-term rentals.

## References

- Ash, J., Kitchin, R., & Leszczynski, A. (2018). Digital turn, digital geographies? *Progress in Human Geography*, 42, 25–43.
- Balampanidis, D., Maloutas, T., Papatzani, E., & 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*, 1–20.
- Barron, K., Kung, E., & Proserpio, D. (2018). The sharing economy and housing afford- ability: Evidence from Airbnb, in Proceedings of the 2018 ACM conference on economics and computation, EC 2018, ACM, New York, 5.
- Celata, F., Capineri C., & Romano A. (2020). A room with a (re)view. Short-term rentals, digital reputation and the uneven spatiality of platform-mediated tourism. *Geoforum*, 112, 129–138.
- Ferreri, M., & Sanyal, R. (2018). Platform economies and urban planning: Airbnb and regulated deregulation in London. *Urban Studies*, 55(15), 3353–3368.
- Horn, K., & Merante, M. (2017). “Is home sharing driving up rents? Evidence from Airbnb in Boston”, *Journal of Housing Economics*, 38, 14–24.
- Klein, N. (2020), “Coronavirus capitalism—how to beat it”, available at: <https://theintercept.com/2020/03/16/coronavirus-capitalism/> (accessed 16 March 2020).
- Lapointe, D., Sarrasin, B., & Benjamin, C. (2018). Tourism in the sustained hegemonic neoliberal order. *Revista Latino-Americana de Turismologia*, 4(1), 16–33.
- Lee, D. (2016). “How Airbnb short-term rentals exacerbate Los Angeles’s affordable housing crisis: Analysis and policy recommendations”, *Harvard Law & Policy Review*, 10(1), 229–254.
- Sanford, W., & DuBois, D (2020). COVID-19 impact on hotels and short-term rentals, available at: <https://airdna-website-reports.s3.amazonaws.com/documentation/Hotels+v+Short+Term+Rentals.pdf> (accessed 15 September 2020).
- Sigler, T. & Wachsmuth, D, (2016). Transnational gentrification: Globalisation and neighbourhood change in Panama’s Casco Antiguo. *Urban Studies*, 53(4), 705–722.

## Commentaries:

### A flexible utopia, state designed? Short-term rentals and digital platforms before and during the pandemic

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In this commentary, we make a twofold argument on the STR/digital platform nexus. On the one hand, we argue that their ideal type constitutes a (neoliberal) utopia of a perfectly flexible market; on the other, we emphasise how the latter can only be achieved by means of an actually-existing (neoliberal) arrangement of ad hoc policies of de-/re-regulation, and state incentives. STRs and digital platforms offer landlords and investors the possibility to get rid of responsibility vis-à-vis the ‘tenant’ – this latter herself substituted by ‘floating’ city users (Carvalho et al. 2019; see also Pettas & Dagkouli-Kyriakoglou, this issue); but at the same time, only thanks to state regulations and policies can such a possibility materialise. This has become particularly evident, we will show, amid the COVID-19 pandemic, which has not only accelerated and re-shaped STR-induced transformations – in particular, by pushing toward an environment where STRs are accompanied by several forms

of medium-term rental – but also strengthened the reliance of the market on public policies.

We build our argument by putting in dialogue two complementary perspectives: a thesis on the centrality of deregulation and flexibility for STR platforms, followed by its antithesis, the idea that (re-)regulation is necessary for the thriving of platforms. We then focus on recent pandemic-induced novelties and conclude with a synthesis on the value of de-/re-regulation amid the ambivalent nature of urban capitalism (see Rossi, 2017). We provide exemplifications from Lisbon and Portugal, where STR growth after the 2008 economic crisis has been explosive. More generally, our arguments are grounded on our recent works on STRs (Cocola-Gant, 2020; Cocola-Gant & Gago, 2021; Cocola-Gant et al. 2021) and on the role of the state in (housing) financialization (Tulumello & Allegretti, 2021; Tulumello & Dagkoulis-Kyriakoglou, 2021).

#### *Thesis: STR digital platforms and the neoliberal utopia of deregulation*

Recent analyses of rental markets (Kemp & Kofner, 2010; Kemp, 2020) have stressed that different degrees of security/insecurity of tenure laws impact the extent to which housing is a liquid investment. Liquidity here means control over the asset and the possibility to obtain vacant possession (cf. Gotham, 2006). When tenants have weak security, rental housing is an appealing investment as it gives property owners the potential to increase prices and ‘sell their properties with vacant possession at the optimal time in the house price cycle’ (Kemp, 2020: 146). In contexts where security of tenure has traditionally been strong, investors have seen the housing market as being ‘boring’ (Wijburg & Aalbers, 2017). For this reason, introducing short leases has been a key neoliberal trend to make the rental market more flexible, that is, attractive to investors – at the same time as significantly reducing tenant protections.

Our thesis is that STRs and their related ecosystem of digital platforms inherently skip any tenant regulation however flexible it is, giving way to a neoliberal utopia in which property owners have quasi-absolute control over the asset. If rental housing is a secure investment when tenants have weak protection, the STR market overcomes the concept of tenant, reinforcing the neoliberal paradigm and strengthening asymmetries of power between owner and occupier. Digital platforms enable property owners to no longer need tenants in order to obtain revenues unless the latter accept short-term contracts. This hyper-flexible nature is key to understanding the success of STR digital platforms among property owners and investors, which is not only due to increased revenues, but also because of advantages that are inherent to the flexibility of this market: STRs allow landlords to obtain profits from rental income and, at the same time, sell the property, use it, or directly abandon the market when they wish. The question of leaving the market is central in the current COVID-19 pandemic. We will return to this issue further below.

The Portuguese case exemplifies the importance of rental market deregulation for these dynamics to take place. Here, the progressive elimination of controlled rents and the reduction of tenants’ protections were launched in waves since the 1980s (see, e.g., Santos 2019).<sup>1</sup> During the economic bailout, when EU institutions explicitly asked to reform ‘malfunctioning housing and rental markets’ (EC, 2011: 5ff), the final step was given. In 2012, the reforms of the urban lease regime and of the regime for renovation in rented dwellings eased and sped up evictions, reduced the minimum contract duration to one day, and eased the transition from protected contract to liberalised ones<sup>2</sup> – thus opening up to the possibility of terminating rental contracts and move units toward the STR market, especially in urban centres where most protected contracts were located.

#### *Antithesis: the centrality of (re-)regulation for platform capitalism*

Christophers reminds us of an important character of neoliberal policymaking: ‘regulation may be scorned in theory, but it is never eschewed in practice’ (2013: 896). In the ‘actually existing’ institutional world, deregulation is rarely enough to build perfectly flexible, investor-pleasing markets. Once again, the Portuguese one is a case in point since both (re-)regulation and state incentives have been crucial for the explosive growth of STR in pre-pandemic years. The STR market took advantage of the legal regime of *alojamento local* (literally, local lodging) created in 2008 and reformed in 2014, which basically equalised STR with housing units, making it possible to flip the latter with no authorisation whatsoever<sup>3</sup> – meaning that municipalities, responsible for touristic planning, could not introduce restrictive regulations. At the same time, STRs have been stimulated through fiscal leverage: until 2016, the sector had a fiscal framework more favourable than that for long-term rental; and since 2018, the same one<sup>4</sup> – quite obviously, the same fiscal framework *de facto* benefits the more profitable STR regime. Only in 2018, amid strong political pressures – and at a time when the market had probably saturated in central urban areas – did the national government introduce the possibility to put caps in high-pressure zones.<sup>5</sup> And yet, regulations introduced in Lisbon only blocked the granting of new authorisations in areas where more than 20% of housing units were STRs, while in areas with 10 to 20% of STRs, authorisations can be conceded in previously vacant dwellings.<sup>6</sup>

#### *STR amid the COVID-19 pandemic*

The burst of the COVID-19 pandemic, and the policies put in place to counter it, have dramatically reshaped the global context for STRs and digital platforms – by halting and then reshaping the flows of floating city users. In so doing, the interplay between flexibility/de-regulation and state re-regulation/stimulus has become even more visible.

On the one hand, the inherent flexibility provided by renting in digital platforms and a de-regulated environment have been key for the restructuring of the STR market. The change from short- to mid-term rentals is what seems to be happening, in some cases with the intention of renting properties for a few months and eventually returning to the tourist rental market. For instance, Airbnb has introduced new tools that allow property owners to offer discounts for mid-term rentals. However, this is also a reaction to the rise of a new ecosystem of digital platforms that focus on this market. In Lisbon, the pandemic has seen the consolidation of platforms such as Soptahome (minimum 30-day stays), Uniplaces (focused on the international student market) or NomadX (oriented to digital nomads). Inspired by Airbnb, all of them work with payment in advance; without the possibility of visiting the apartment; usually without a tenancy agreement; they are for short- or mid-term stays; and prices are exorbitant for the local population. The pandemic is accelerating the movement of apartments among different platforms: even STR management companies such as Hostmaker are using digital technology to advertise properties on platforms that were in theory for long-term rental (Cocola-Gant et al. 2021). For example, they have moved their Portuguese portfolio to Idealista. The consequence is that the intrinsic flexibility of STRs and the coming of a myriad of digital platforms allow owners to speculate on assets for a few months while waiting for the market to re-emerge – see Pettas and Dagkoulis-Kyriakoglou (this issue) on the role of digitalisation of labour for boosting these processes. In other words, this situation comes to further reinforce the neoliberal utopia where rentals with stable contracts are no

<sup>3</sup> Decree-Law 39/2008 and Decree-Law 128/2014.

<sup>4</sup> Law 104/2018.

<sup>5</sup> Law 62/2018.

<sup>6</sup> Decision of the Municipal Assembly 414/AML/2019. The municipality is evaluating and amending the regulations as we finalise this essay.

<sup>1</sup> Law 46/1985, Decree-Law 321-B/1990 and Law 6/2006.

<sup>2</sup> Law 30/2012 and Law 31/2012.

longer necessary, deepening the vulnerability and insecurity for groups for whom the rental market is the only option to access housing.

On the other hand, however, this transition will probably take some time and be disruptive especially for small players, which lack the liquidity necessary to resist the current, massive drop of overall revenues – see Iacovone (this issue) on the concentration of STR property/management. This has relaunched interactions with state players, in Portugal. The government has included, in the 2021 national budget, a fiscal incentive for landlords that flip units back to the housing market.<sup>7</sup> Using funds made available by the government, the cities of Lisbon and Porto have launched policies to stimulate STR landlords to put their units in the rental markets during some years. Globally praised,<sup>8</sup> these policies have been locally criticised for being temporary and a bailout to the STR market.<sup>9</sup> At the same time, these policies have been not much successful, as only few dozens STR units have so far been flipped: the attitude of STR representatives has been advocating landlords to resist flipping and wait for better times to come.<sup>10</sup>

### Synthesis: de-/re-regulation and the ambivalence of urban capitalism

Amid the COVID-19 pandemic, the (apparent) contradiction between the role of flexibility/de-regulation and state re-regulation/stimulus for the STR/digital platforms nexus has become ever more visible. Apparent, indeed, since we believe this is rather a structural component of the intersection between urbanisation economies and digital technology. In conclusion, we have shown yet another example of the inherent urban nature of capitalism in what Rossi (2017) defines the ‘age of ambivalence’. Ambivalent, as in the way apparent contradictions are resolved by the centrality of these dynamics for economic dynamism in times of late neoliberalism. And yet, it is precisely in this inherently urban nature that possibilities for politicisation and resistance may arise – and the recent growth of housing movements in Lisbon (Mendes, 2020) points precisely in that direction.

### References

- Carvalho, L., Chamusca, P., Fernandes, J., & Pinto, G. (2019). Gentrification in Porto: Floating city users and internationally-driven urban change. *Urban Geography*, 40(4), 565–572. Doi: <https://doi.org/10.1080/02723638.2019.1585139>.
- Christophers, B. (2013). A monstrous hybrid: The political economy of housing in early twenty-first century Sweden. *New Political Economy*, 18(6), 885–911. Doi: <https://doi.org/10.1080/13563467.2012.753521>.
- Cocola-Gant, A. (2020). Short-term rentals, COVID-19 and platform capitalism. *Alba Sud*, 25 May.
- Cocola-Gant, A., & Gago, A. (2021). Airbnb, buy-to-let investment and tourism-driven displacement. A case study in Lisbon. *Environment and Planning A: Economy and Space*, 53(7), 1671–1688. DOI: <https://doi.org/10.1177/0308518X19869012>.
- 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*, 40, 100879, DOI: <https://doi.org/10.1016/j.tmp.2021.100879>
- EC (European Commission) (2011). The economic adjustment

<sup>7</sup> Eco, 13/10/2020. <https://eco.sapo.pt/2020/10/13/casas-retiradas-do-alojamento-local-deixam-de-estar-sujeitas-a-imposto-sobre-mais-valias/>.

<sup>8</sup> The Guardian, 1/12/2020. [www.theguardian.com/world/2020/dec/01/covid-created-an-opportunity-lisbon-turns-20000-tourist-flats-into-homes](http://www.theguardian.com/world/2020/dec/01/covid-created-an-opportunity-lisbon-turns-20000-tourist-flats-into-homes).

<sup>9</sup> Habita, 1/12/2020. <https://habita.info/caro-the-guardian-nem-tudo-o-que-brilha-e-ouro/>.

<sup>10</sup> See a collection of news on the website of ALEP, the Portuguese STR association: [www.alep.pt/?p=638](http://www.alep.pt/?p=638).

programme for Portugal. *Occasional Papers* 79. Retrieved from [http://ec.europa.eu/economy\\_finance/publications/occasional\\_paper/2011/pdf/ocp79\\_en.pdf](http://ec.europa.eu/economy_finance/publications/occasional_paper/2011/pdf/ocp79_en.pdf).

Gotham, K.F. (2006). The secondary circuit of capital reconsidered: Globalization and the U.S. real estate sector. *American Journal of Sociology*, 112(1), 231–275. Doi: <https://doi.org/10.1086/502695>.

Kemp, P.A. (2020). Commentary on multiple property ownership. *International Journal of Housing Policy*, 20(1), 144–155. Doi: <https://doi.org/10.1080/19491247.2019.1697522>.

Kemp, P.A., and Kofner, S. (2010). Contrasting varieties of private renting: England and Germany. *International Journal of Housing Policy*, 10(4), 379–398. Doi: <https://doi.org/10.1080/14616718.2010.526401>.

Mendes, L. (2020). How can we quarantine without a home? Responses of activism and urban social movements in times of COVID-19 pandemic crisis in Lisbon. *Tijdschrift voor Economische en Sociale Geografie*, 111(3), 318–332. Doi: <https://doi.org/10.1111/tesg.12450>.

Rossi, U. (2017). *Cities in global capitalism*. Cambridge: Polity.

Santos, A.C. (2019). Habitação em tempos financeiros em Portugal. In: Santos A.C. (ed.) *A Nova Questão da Habitação em Portugal. Uma Abordagem de Economia Política*. Coimbra: Almedina, 15–52.

Tulumello, S., & Allegretti, G. (2021). Articulating urban change in Southern Europe. Gentrification, touristification and financialisation in Mouraria, Lisbon. *European Urban and Regional Studies*, 28(2), 111–132. Doi: <https://doi.org/10.1177/0969776420963381>.

Tulumello, S., & Dagkouli-Kyriakoglou, M. (2021). Financialization of housing in Southern Europe: Policy analysis and recommendations. Final report – final version – submitted 28/01/2021. Retrieved from <http://repositorio.ul.pt/handle/10451/46368>.

Wijburg, G., & Aalbers, M.B. (2017). The alternative financialization of the German housing market. *Housing Studies*, 32(7), 968–989. Doi: <https://doi.org/10.1080/02673037.2017.1291917>.

### The crisis-as-usual and the monopolisation of short-term rentals

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Crises, as political economic scholars have taught us, are cyclical, as they represent an expression of intrinsic contradictions of capitalist accumulation and are a necessary step to keep the capital flows in motion. Thus, though not permanent, crises are an inevitable, and recurrent, constant (Aalbers 2013; Brenner and Theodore 2002; Harvey 1982; 2012; Peck, Theodore, and Brenner 2010). In this short commentary I will explore how the consequences of the pandemic are prefiguring a neoliberal ‘crisis-as-usual’ in the field of digital hospitality, in which the current conjuncture consolidates an already ongoing process of market monopolisation.

Though the pandemic-driven economic crisis has been multi-sectoral in nature, it has impacted the hospitality and tourism sector with special intensity. Among other fields, the hospitality and tourism sectors are now dealing with a severe downturn due to the simple fact that global mobility has been radically reduced. Since March 2020, cities have been under on-and-off lockdown regimes, borders have been closed or have remained open with strict entrance procedures, and transportation options have been drastically reduced.

The year 2020 was therefore a shock for the tourism sector, taken aback from a flourishing time of global mobility (Bouchon and Rauscher 2019; Dunne, Flanagan, and Buckley 2010; Trew and Cockerell 2002; Urry and Larsen 2011). The World Tourism Organization (UNWTO) published the ‘January 2020 Tourism Barometer’ (UNWTO 2020) in which they reported an annual growth of 3.8% in 2019 of international tourist arrivals, and foresaw an increase of 3%–6% for 2020, an encouraging rate for the industry.

The touristic sector was facing a thriving momentum also thanks to the explosion of digital platform mediators that had revolutionised the

entire holiday-planning and accommodation system. Online Travel Agencies (OTAs) and accommodation platforms of the so-called sharing economy (Acquier, Daudigeos, and Pinkse 2017; Frenken and Schor 2017; Schor 2016) radically changed the face of the sector, as the elimination of intermediaries allowed millions of personal asset holders to join the market as hosts.

While the myth of the sharing economy was vanishing (Murillo, Buckland, and Val 2017), massive investments were made in real estate sector worldwide to take advantage of the global success of STRs. After private citizens, global investors become extremely interested in this field. As a result, accommodation platforms such as Airbnb, Booking, Vrbo/HomeAway and others are nowadays for the most part dominated by professional actors, including: property management companies (firms or associations that manage private property of a third party collecting a percentage on the revenue), real estate firms, construction enterprises and even financial companies (Dogru et al. 2020; Gil and Sequera 2020). Although a part of the market is still composed by non-professional individuals, the increasing engagement of professional actors is the manifestation of how the real estate fever has flowed into a highly profitable (short-term) rental extractivism (Kemp 2020; Wijburg, Aalbers, and Heeg 2018).

In the wake of the pandemic, this landscape seemed to wreck. The UNWTO updated trend expectations with the real numbers of the first half of 2020: in September, a worldwide decrease of 65% in tourist arrivals was recorded, with Europe being the second most hit region with a – 66%.

However, platforms such as Airbnb rapidly reorganised their offer thanks to their highly flexible nature (see for the case of Lisbon, Tulumello and Cocola-Gant, this issue; and for the case of Athens, Pettas and Dagkoulis-Kyriakoglou, this issue). Airbnb started to promote its portfolio as alternative locations to spend quarantine periods or to settle down for remote working. They encouraged hosts to move from the short- to the mid- and long-term offer, rapidly adding the option of ‘long stay’ in the website interface. Airbnb also promoted a change in destination options, moving its main focus away from city centres and toward rural and suburban areas. The homepage started to suggest destinations at driving distance (from 2 to 5 h drive from the location of the guest). According to the Wall Street Journal, by August 2020 more than a half of the bookings made in the USA were located under 300 miles away from guests’ locations and, due to that, the third quarter of 2020 was unexpectedly profitable.<sup>11</sup>

The European picture appears far more dramatic. Looking at European data of Airbnb’s 2020 performances,<sup>12</sup> listing activities saw a drastic decrease in their performances. Comparing 2019 and 2020, Spain lost 59% of reservation days, Italy 58%, France and Germany ‘only’ 33% and 39% each. Regarding annual revenues, Greece faced 58% drop and Portugal 53%. In Denmark, 31% of the properties were removed from the platform and, similarly, the United Kingdom lost 29% of the listing capacity.

Among capital cities, London lost 81% of reservation days compared to 2019, Lisbon faced a 76% drop of annual revenues, while Moscow lost 47% of the property capacity. Cities like Rome and Madrid saw revenue decreases of 74% and 70% each in the fourth quarter of 2020 compared to 2019, and a decrease in the occupancy rate<sup>13</sup> of 57% in Rome and 61% in Madrid in the same quarter.

Such changes, however, are unevenly distributed depending on the

‘type’ of host. Hosts that manage one or two properties act differently from those that manage a dozen or more: this was true before the pandemic (Deboosere et al. 2019; Li, Moreno, and Zhang 2016) and has been confirmed by 2020 performances. Using again Rome and Madrid as examples, the revenues of hosts with one property decreased by 65% and 59% each, while, in Rome, hosts managing between 10 and 20 properties saw a decrease of 46%, and, in Madrid, hosts with more than 50 properties faced a decrease of 18% only. On average, properties managed by hosts with more than fifty listings made 2.8 times more revenue per property than those managed by hosts with one property in Rome, and 4.4 times more in Madrid. With regard to rates of reservation, those who performed better in Rome were again those that manage between 10 and 20 properties (with a decrease of 43% against the 62% of single-property hosts), and on average they had roughly twice bookings per property when compared to single-property hosts. In Madrid as well, those with the smallest decrease on reservation days were the hosts managing more than fifty properties with a decrease of 16% (against the 54% of single-property hosts), and the booking performance was 2.4 times higher than that of single-property hosts.

These basic analyses confirm a situation that was already ongoing before the burst of the pandemic: the progressive economic predominance, in the STR market, of professionals at the expense of non-professionals. The shock of the pandemic is damaging above all the smaller hosts that struggle to compete with professional hosts and large property owners that can more easily adapt to demand fluctuations in the market. In other words, the crisis in the tourism sector is cutting off the non-professional sector, the one that Airbnb, ‘poster-child of the sharing economy’ (Baum 2017, 40), declared to be in service of, thereby creating room for an oligopoly of real estate investors.

While crises are often thought of in relation to radical change, the unfolding economic crisis is once again nothing more than a process of consolidation of corporate power (Harvey 2009). The economic crisis generated by the pandemic comes out to be a ‘crisis-as-usual’, where the remodelling of the market creates advantage for already-advantaged, bigger players and excludes the smaller ones. At the same time, the downturn of smaller actors is opening yet new economic spatialities in which bigger players may further increase and restart processes of real estate accumulation.

In other words, the pandemic crisis reveals an unequal global real estate market dominated by few investors, attracted by the ease to enter the STR market with its high profitability potential. The monopolisation of the market has contributed to transform ‘platform economy’ from local peer-to-peer activities to a global network of international investments. As a matter of fact, behind many of the multi-property hosts there are international real estate corporations that own hundreds, and sometimes thousands, of properties listed on Airbnb’s platform, and absorb most of the capital flow of the platform, restricting the capacity of single-property users to compete for a slice of these revenues (Iacovone 2021).

Awareness of such a situation is a call for action (Graham 2020) addressed to scholars and local governments to activate regulatory frameworks that could rebalance an economic sector that is deeply rooted in our daily life.

## References

- Aalbers, M. (2013). Debate on neoliberalism in and after the neoliberal crisis. *International Journal of Urban and Regional Research*, 37 (3), 1053–1057.
- Acquier, A., Daudigeos, T., & Pinkse, J. (2017). Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting and Social Change*, 125, 1–10.
- Baum, A. (2017). *Proptech 3.0: The future of real Estate*. Said Business School, University of Oxford.
- Bouchon, F., & Rauscher, M. (2019). Cities and tourism, a love and hate story; towards a conceptual framework for urban overtourism

<sup>11</sup> <https://www.wsj.com/articles/how-airbnb-pulled-back-from-the-brink-11602520846> [02/02/2021]

<sup>12</sup> The database of reference is the one provided by the private data scraper firm AirDNA. The database is update at 1/02/2021

<sup>13</sup> The occupancy rate is an index that indicates the occupancy performancesOccR = Count of Reservation Days/ (Count of Reservation Days + Count of Available Days)

management. *International Journal of Tourism Cities*.

Brenner, N., & Theodore, N. (2002). Cities and the geographies of “actually existing neoliberalism”. *Antipode*, 34(3), 349–379.

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, Regional Science*, 6(1), 143–156.

Dogru, T., Mody, M., Suess, C., Line, N., & Bonn, M. (2020). Airbnb 2.0: Is it a sharing economy platform or a lodging corporation?. *Tourism Management*, 78, 104049.

Dunne, G., Flanagan, S., & Buckley, J. (2010). Towards an understanding of international city break travel. *International Journal of Tourism Research*, 12(5), 409–417.

Frenken, K., & Schor, J. (2019). Putting the sharing economy into perspective. In *A research agenda for sustainable consumption governance*. Edward Elgar Publishing.

Gil, J., Sequera, J. (2020). The professionalization of Airbnb in Madrid: Far from a collaborative economy. *Current Issues in Tourism*, 1–20.

Graham, M. (2020). Regulate, replicate, and resist—the conjunctural geographies of platform urbanism. *Urban geography*, 41(3), 453–457.

Harvey, D. (1982). *The limits to capital*. Verso books.

Harvey, D. (2009). Is this really the end of neoliberalism. *Counter Punch*, 13.

Harvey, D. (2012). *Rebel cities: From the right to the city to the urban revolution*. Verso books.

Iacovone, C. (2021). *Airbnb in the real estate financial chain. Housing and policies in Southern European post-crisis territories*. [Unpublished doctoral dissertation]. Politecnico di Torino.

Kemp, P. A. (2020). Commentary on multiple property ownership. *International Journal of Housing Policy*, 20(1), 144–155.

Li, J., Moreno, A., & Zhang, D. (2016). Pros vs joes: Agent pricing behavior in the sharing economy. *Ross School of Business Paper*, (1298).

Murillo, D., Buckland, H., Val, E. (2017). When the sharing economy becomes neoliberalism on steroids: Unravelling the controversies. *Technological Forecasting and Social Change*, 125, 66–76.

Peck, J., Theodore, N., & Brenner, N. (2010). Postneoliberalism and its malcontents. *Antipode*, 41, 94–116.

Schor, J. (2016). Debating the sharing economy. *Journal of Self-Governance and Management Economics*, 4(3), 7–22.

Trew, J., and Cockerell, N., (2002). The European market for UK city breaks. *Insights*, 14(58), 85–111.

United Nations World Tourism Organization (UNWTO). (2020). *World tourism barometer*, 18(4).

Urry, J., & Larsen, J., (2011). *The tourist Gaze 3.0*. Los Angeles: Sage.

Wijburg, G., Aalbers, M. B., & Heeg, S. (2018). The financialisation of rental housing 2.0: Releasing housing into the privatised mainstream of capital accumulation. *Antipode*, 50(4), 1098–1119.

### Tracing the post-pandemic landscape of short-term rentals: shifts in visitors' preferences and the role of the digitalization of labour

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The COVID-19 pandemic outbreak, followed by restrictive measures concerning international travels, as well as recreational, commercial and cultural activities, caused a global ‘pause’ on tourism and a wide range of related activities, including digitally mediated short-term rentals (STRs). Shifts in visitors’ preferences during the – temporary and partial – withdrawal of restrictions in the summer of 2020 can provide valuable insights on the future of STRs in the post-pandemic touristic landscape, indicating a series of qualitative shifts. At the

same time, remote labour, initially employed as a temporary solution to avoid overcrowding in work environments, is gradually becoming a new normality. The digitalization of labour is growing at unprecedented rates, extending the pool of professionals that are provided with the possibility (or are forced) to work remotely, beyond professional categories that were accustomed to do so. This commentary, referring to the case of Greece, discusses how the aforementioned trends could be crystallized in the post-pandemic context and have a substantial impact upon the landscape of STRs.

### Pandemic-induced shifts in visitors' preferences

The pandemic outbreak came as a major shock for the STR market, as indicated by the 80% reduction in Airbnb bookings in Europe during the first weeks of March 2020 (Bloomberg CityLab, 2020). However, this initial shock was followed by a gradual recovery as, already in May, bookings worldwide were skyrocketing, with a 127% increase in just 6 weeks (DuBois, 2020). Due to the withdrawal of travelling restrictions in the following months, this trend continued throughout the summer and, in mid-July, more than 1 million overnight stays were booked.<sup>14</sup> Interestingly, about half of the new bookings concerned locations within a short distance from visitors’ residences, while hosts in rural areas (as opposed to those in urban areas) saw their profits increase by 25% compared to the same period in 2019.<sup>15</sup> These trends were reflected in the STR landscape in Greece, despite the drop of the average occupancy rates. According to AirDNA, new destinations, that could be hardly qualified as ‘popular’ (at least when compared to ‘traditional’ tourist destinations such as Crete, Santorini or Mykonos), experienced an impressive increase in Airbnb bookings, with domestic tourism accounting for most of the increase. Against this background, approximately 3000 units were withdrawn from the STR market in Athens. It should be noted that, in Athens, the substantial growth in listings from 2012 to 2018 started to reverse already before the pandemic (in 2019), as ‘small’ actors were being forced out of the market, as a result of the growing professionalization and their inability to compete against owners and managers of multiple properties, large companies and funds that relied upon economies of scale in order to reduce costs (Balampandis et al., 2021; Iacovone, this issue). However, whether properties no longer listed on Airbnb have re-entered the conventional market with affordable prices (or they will do so in the future) is highly questionable (Pettas, 2020; see also Bosma, 2020).<sup>16</sup> Currently, Airbnb hosts are either offering their properties for mid-term rentals with prices higher than the market average, or are waiting for the recovery. In both cases, the chances are that former STR actors will experiment with any possible alternative, for instance by accelerating the movement of listings among multiple platforms, rather than returning to the conventional market (Tulumello & Cocola-Gant, this issue).

As evidenced by its initial response, the STR market proved to be resilient to the shock imposed by the pandemic.<sup>17</sup> However, the following, up to date partial, recovery was accompanied by a series of qualitative shifts that may assume a persistent character in the future: decentralization from urban to rural areas, increased demand for domestic destinations and limited demand for ‘traditional’ touristic ones.<sup>18</sup>

<sup>14</sup> All quantitative data present in the commentary are derived from AirDNA data and blogposts: <https://www.airdna.co/covid-19-data-center>; <https://www.airdna.co/resources/blog>.

<sup>15</sup> <https://news.airbnb.com/for-the-first-time-since-march-guests-book-1-million-nights-in-one-day/>

<sup>16</sup> <https://tvxs.gr/news/ellada/airbnb-yboxorei-ta-enoikia-paramenoyn-sta-yp-si>

<sup>17</sup> <https://www.globaltimes.cn/page/202011/1207344.shtml>; <https://www.tourism-review.com/airbnb-seems-to-be-resilient-to-the-crisis-news11771>

<sup>18</sup> <https://news.airbnb.com/for-the-first-time-since-march-guests-book-1-million-nights-in-one-day/>

Moreover, the STR market seems to have the capacity and flexibility (as opposed to conventional modes of hospitality) to accommodate newly-emerged demands and preferences on the visitors' end.<sup>19</sup> First, people are expected to travel more within their own countries and to limit international travel. Second, as far as both domestic and international visitors are concerned, popular and, thus, overcrowded destinations are expected to lose visitors in favour of new destinations that can meet the need for limited physical interaction. Moreover, other parameters – such as the length of stays, the activities visitors will choose to undertake and the degree of interaction with local communities – are also expected to shift significantly. Building on the above, a major issue of interest concerning the future of STRs is related to the use of properties located in large metropolitan areas, given the hesitation of hosts to return to the conventional rental market and their experimentation with possible alternatives.

### *The digitalization of labour*

While STR hosts in metropolitan areas, such as Athens, are experiencing the harsh impact of the pandemic, alternatives for capitalizing on their property, and on the skills acquired through their prior engagement with STR activities, could be highlighted by the pandemic and, specifically, its impact upon labour. During the last year, labour has been marked by a growing reliability on teleworking arrangements based on remote access to systems, procedures and data. Early estimates from Eurofound (2020) suggest that around 40% of employees in Europe began to telework fulltime, while the percentage of dependent employees in teleworking was just above 11% in 2019, up from 7.5% in 2009. Teleworking was particularly common – even before the pandemic – for knowledge and ICT-intensive workers, who enjoy high degrees of autonomy and high salaries (JRC, 2020). There exists also a large education gradient in teleworking, with individuals with tertiary education being much more likely to work remotely (von Gaudecker et al., 2020). Because of the generally positive response of employees and employers, it is expected that remote working will constitute a widespread normality, even after the pandemic (Eurofound, 2020; Bernstein et al., 2020). Additionally, hybrid models that may channel the workforce into cohorts to alternate between office and remote are also likely to be further established, as indicated by the re-allocation of companies' budgets to equip employees for remote working (Phillips, 2020).

Digital nomads materialize a hybrid mode of mobility, operating as both work migrants and tourists (Choe and Lugosi, 2021). Often framed as 'lifestyle immigrants', they tend to reside in countries with lower living costs compared to their country of origin or professional engagement (Elgan, 2017). In the EU context, Greece constitutes a relevant case. Remote workers and digital nomads choosing Athens to reside are not a new phenomenon (see also Gourzis, 2021 for Kera-meikos, Athens). Discussions about transforming Athens into the 'new Berlin'<sup>20</sup> were ongoing some years before, capturing a tendency – or maybe expressing a wishful thinking – about rebranding the city in order to indulge lifestyle migrants (King, 2020). These people are usually employed in labour markets of other countries – more often northern European ones – in which they are enjoying high salaries and mobility (Lilius & Balampanidis, 2020; see also Gourzis et al., 2021), but also include students from all around Europe encouraged to collect experiences in other settings (Calvo, 2018 see also McElroy, 2020, on digital

nomads in Romania). As Alexandri and Janoschka (2021, 3207) have highlighted, 'flexible labour and remote working policies are tuned to middle-class aspirations of freedom that nurture spatial inquiries for consumption,' leading in turn to geographically uneven development. The urban footprint of this trend was apparent before the outburst of the pandemic also in the growing number of co-working hubs/offices in Athens (King, 2019). Given its establishment as a city-break destination (Pettas et al., 2021) and the comparatively low cost of living, one could reasonably expect that Athens will emerge as a popular destination for remote workers (Alexandri and Janoschka, 2021; Gourzis et al., 2021). Such a development, embodying established income inequalities and global divisions of labour, will subsequently have a major impact upon the city's housing landscape as these trends have been shown to foster transnational gentrification (Hayes and Zaban, 2020). Within this frame, mid-term rentals addressed to high-earning remote workers can become an appealing alternative for former, or current, STR hosts. Indeed, a blend of transnational mobile populations including both digital nomads and tourists has been seen to produce housing distress through transnational gentrification in cities like Barcelona (Cocola-Gant and Lopez-Gay, 2020). Given the fact that the infrastructure, in the form of fully-equipped dwellings, hosts' skills and experience, is already in place, such a transition could be smooth and feasible, opening up to new questions around how disruptions in the labour market will be translated in housing conditions.

### *Concluding remarks*

In this commentary, we attempted to bring together and examine in parallel two, seemingly unrelated, sets of pandemic-driven developments, namely the qualitative shifts in the landscape of STRs and the digitally mediated deterritorialization of labour. More specifically, we argue that the existing infrastructure (involving dwellings, skills, knowledge, experiences) in large urban centres, initially developed towards facilitating the needs of short-term visitors, could, through minor adaptations, produce a housing alternative for the increasing numbers of remote workers and digital nomads, signifying a substantial reallocation of dwellings from short-term to mid-term rentals. During this process, it becomes evident that the 'lucrative behaviour of the middle classes' (Alexandri and Janoschka, 2021, 3208) can be exercised only by way of exploiting housing in the destined locations. As such shifts are more likely to occur in already popular destinations, including Athens and other southern or eastern European cities, a series of new questions opens up: could the aforementioned trends pave the way for the further unfolding of processes of transnational gentrification, especially in cities that are already struggling with issues of housing deprivation? How will the high levels of mobility among skilled workers affect established income inequalities across Europe, but also at the global level? How can cities respond to these new challenges, while at the same time dealing with the multilevel consequences of the pandemic?

### **References**

- Alexandri, G. and Janoschka, M. (2020). 'Post pandemic' transnational gentrifications: A critical outlook. *Urban Studies*, 57(15), 3202–3214.
- Bloomberg CityLab (2020). Can Airbnb survive coronavirus? Retrieved from <https://www.bloomberg.com/news/articles/2020-04-03/can-airbnb-survive-coronavirus>. (Accessed 20 September 2020).
- Balampanidis, D., Papatzani, E., & Pettas, D. (2021). *Airbnb in the city. An opportunity or a threat?* Athens: Polis Publications (In Greek).
- Bernstein E, Blunden H, Brodsky A, et al. (2020). The implications of working without an office. *Harvard Business Review*, 15 July. Retrieved from <https://hbr.org/2020/07/the-implications-of-working-without-a-n-office/> (Accessed 2 August 2020).
- Bosma, J. (2020). *Airbnb and COVID-19: Capturing the value of the crisis*. Platform Labour. Retrieved from <https://platformlabor.net/>

<sup>19</sup> "We believe that the boundaries between travel and living somewhere are becoming blurred and that the pandemic has accelerated opportunities to live anywhere [...] Our platform has demonstrated its ability to adapt to these new forms of travel. It remains to be seen what will happen in the long term to the activities, which are less promoted than in the past." (source: <https://www.tourism-review.com/airbnb-seems-to-be-resilient-to-the-crisis-news11771>)

<sup>20</sup> <https://www.theguardian.com/commentisfree/2018/jun/07/athens-feels-rife-for-the-forces-of-gentrification-just-dont-mention-berlin>

- blog/airbnb-and-covid-19-capturing-the-value-of-the-crisis?fbclid=IwAR0sHd-9y7xyULpuXwHhjZnoc1CHpmCSCwhEY9L6jXUmDwOrLwpmXYQUles (Accessed 21 May 2020).
- Choe J., & Lugosi P. (2021). Migration, tourism and social sustainability. *Tourism Geographies*. DOI: <https://doi.org/10.1080/14616688.2021.1965203>
- Cocola-Gant, A., & Lopez-Gay, A. (2020). Transnational gentrification, tourism and the formation of 'foreign only' enclaves in Barcelona. *Urban Studies*, 57(15), 3025–3043.
- DuBois, D. (2020). Global vacation rental bookings skyrocket by 127% after surge in domestic tourism. *AirDNA*. Retrieved from <https://www.airdna.co/blog/global-vacation-rental-bookings-skyrocket-by-127-after-surge-in-domestic-tourism> (Accessed 2 June 2020).
- Elgan, M. (2017). The digital nomad's guide to working from anywhere on earth. Retrieved from <https://www.fastcompany.com/3068312/the-digital-nomads-guide-to-working-from-anywhere-on-e>
- Eurofound (2020). Living, working and COVID-19. COVID-19 series. Publications Office of the European Union, Luxembourg.
- Gaudecker, H. M. V., Holler, R., Janys, L., Siflinger, B. M., & Zimpelmann, C. (2020). Labour supply in the early stages of the CoViD-19 Pandemic: Empirical evidence on hours, home office, and expectations (No. 13158). Institute of Labor Economics (IZA).
- Gourzis, K., Herod, A., Chorianopoulos, I., & Gialis, S. (2021). On the recursive relationship between gentrification and labour market precarisation: Evidence from two neighbourhoods in Athens, Greece. *Urban Studies*. DOI: <https://doi.org/10.1177/00420980211031775>
- King, A. (2019). Athens as a destination for digital nomads and startupper. Greece Is. Retrieved from <https://www.greece-is.com/athens-as-a-destination-for-digital-nomads-and-startupper>

#### ns-as-a-destination-for-digital-nomads-and-startupper

- King, A. (2020). Where to take your laptop for coffee in Athens. This is Athens. Retrieved from <https://www.thisisathens.org/activities/urban-culture/internet-cafes-digital-nomads>
- McElroy, E. (2020). Digital nomads in siliconizing Cluj: Material and allegorical double dispossession. *Urban Studies*, 57(15), 3078–3094.
- Pettas, Dimitris (May 16, 2020). COVID 19 and short-term rentals. The press project. Retrieved from: <https://thepressproject.gr/covid-19-ke-vrachychronies-misthosis/> (in Greek).
- Pettas, D., Avdikos V., Iliopoulou E., & Karavasili I. (2021). "Insurrection is not a spectacle": Experiencing and contesting touristification in Exarcheia, Athens. *Urban Geography*. DOI: <https://doi.org/10.1080/02723638.2021.1888521>
- Phillips S. (2020). Working through the pandemic: Accelerating the transition to remote working. *Business Information Review*. 37(3), 129–134. doi:<https://doi.org/10.1177/0266382120953087>

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